

OL. XII, No. 1



JAN.-MAR., 1939.

POLICE JOURNAL

*A Quarterly Review for the Police Forces
of the Empire*

ISSUED UNDER OFFICIAL PATRONAGE

NOTICE TO CONTRIBUTORS

THE POLICE JOURNAL is published on the first day of January, April, July, and October.

The Editor will be happy to consider articles suitable for publication in THE POLICE JOURNAL. Contributions should be typewritten (double spacing) and *must* bear the name and address of the sender on the first page. Articles can be signed with a *nom de plume* if desired. All contributions should be addressed to "The Editor of THE POLICE JOURNAL, 19 Cursitor Street, London, E.C.4." A covering letter is desirable.

Unaccepted contributions will be returned if accompanied by an addressed envelope and stamps. All reasonable care is taken of MSS., photographs and other material submitted; but the Editor cannot hold himself responsible for any loss or damage.

SUBSCRIPTION RATES

7/- per annum, (\$2.50 United States only) including postage to any part of the World.

Changes of Address. To facilitate the prompt receipt of each issue, subscribers are requested to notify the publishing office immediately of any changes of address or division.

Publishers and Distributing Agents:

THE POLICE JOURNAL

19 CURSITOR STREET, LONDON, E.C.4

Telegrams and Cables—"NUPOTOG, FLEET, LONDON"
Telephone—HOLBORN 6201 (private branch exchange)

American Agents:

PUBLIC ADMINISTRATION SERVICE

1313 EAST 60th STREET, CHICAGO, ILLINOIS, U.S.A.

xix



3L
7:4:61 m2, N28
N28.12

VOL. XII, No. 1

JAN.-MAR., 1939

The
POLICE JOURNAL



CONTENTS

- RECENT JUDICIAL DECISIONS
CRIMINAL LAW AND PRACTICE IN SCOTLAND
CAMERAS ON PATROL CARS—BY A BEDFORDSHIRE POLICE OFFICER
LOCAL GOVERNMENT IN SCOTLAND—BY GAVIN BELL
A.R.P. A NEW SPHERE OF POLICE DUTY—BY F. T. TARGY
THE CON. MAN.—BY SUPERINTENDENT TOM ASHWORTH
THE IDENTIFICATION OF TOOE MARKS—BY A. E. HARWICK
FORENSIC MEDICINE (*continued*)—BY DR. DOUGLAS KING
THE INVESTIGATION OF ROAD ACCIDENTS—BY STUART S. HAY
THE LAW OF EVIDENCE—BY JOHN CAMERON
LESSONS BY PRACTICE—BY A. L. N. EVANS
REVIEWS

VOL. XII, No. 2

APRIL-JUNE, 1939

THE
POLICE JOURNAL
*A Quarterly Review for the Police Forces
of the Empire*
ISSUED UNDER OFFICIAL PATRONAGE



NOTICE TO CONTRIBUTORS

THE POLICE JOURNAL is published on the first day of January, April, July, and October.

The Editor will be happy to consider articles suitable for publication in THE POLICE JOURNAL. Contributions should be typewritten (double spacing) and *must* bear the name and address of the sender on the first page. Articles can be signed with a *nom de plume* if desired. All contributions should be addressed to "The Editor of THE POLICE JOURNAL, 19 CURSITOR STREET, LONDON, E.C.4." A covering letter is desirable.

Unaccepted contributions will be returned if accompanied by an addressed envelope and stamps. All reasonable care is taken of MSS., photographs and other material submitted; but the Editor cannot hold himself responsible for any loss or damage.

SUBSCRIPTION RATES

7/- per annum, (\$2.50 United States only) including postage to any part of the World.

Changes of Address. To facilitate the prompt receipt of each issue, subscribers are requested to notify the publishing office immediately of any changes of address or division.

Publishers and Distributing Agents:

THE POLICE JOURNAL

19 CURSITOR STREET, LONDON, E.C.4

Telegrams and Cables—"NUPOTOG, FLEET, LONDON"
Telephone—HOLBORN 6201 (private branch exchange)

American Agents:

PUBLIC ADMINISTRATION SERVICE
1313 EAST 60th STREET, CHICAGO, ILLINOIS, U.S.A.

The
POLICE JOURNAL

CONTENTS

	PAGE
THE POLICE AND THE LAW.	129
RECENT JUDICIAL DECISIONS	139
CRIMINAL LAW AND PRACTICE IN SCOTLAND	157
STUDIES IN IDENTIFICATION, No. 2. BY PROFESSOR SYDNEY SMITH	167
CRIME AND CRIMINALS. BY DAVID MURRAY	174
PROCESSING CINE FILM. BY SERGT. FRANK THISTLETHWAITE	179
DETECTIVE ORGANISATION AND PROCEDURE	185
THE COLONIAL POLICE	204
PAINT MARKS AND THEIR IMPORTANCE IN THE DETECTION OF CRIME. BY PROFESSOR H. T. S. BRITTON	205
REPEAL. BY INSPECTOR C. R. HEWITT	210
THE INVESTIGATION OF A MURDER CASE. BY EX-DET.-LT. J. J. DUNCAN	218
WOOD AND ASSOCIATED MATERIALS IN CRIME DETECTION. BY DET. Supt. A. FENTLAND	242
POLICE EDUCATION. BY Supt. GEORGE SCOTT	246
THE EXPERT AND THE FOWL TRIF. BY SERGT. W. E. BRITTON	249
POLICE GOLD MEDAL ESSAY COMPETITION	253

THE
POLICE JOURNAL

*A Quarterly Review for the Police Forces
of the Empire*

ISSUED UNDER OFFICIAL PATRONAGE

NOTICE TO CONTRIBUTORS

THE POLICE JOURNAL is published on the first day of January, April, July, and October.

The Editor will be happy to consider articles suitable for publication in THE POLICE JOURNAL. Contributions should be typewritten (double spacing) and must bear the name and address of the sender on the first page. Articles can be signed with a *nom de plume* if desired. All contributions should be addressed to "The Editor of THE POLICE JOURNAL, 19 CURSITOR STREET, LONDON, E.C.4." A covering letter is desirable.

Unaccepted contributions will be returned if accompanied by an addressed envelope and stamps. All reasonable care is taken of MSS., photographs and other material submitted; but the Editor cannot hold himself responsible for any loss or damage.

SUBSCRIPTION RATES

7/- per annum (£2/6 United States only) including postage to any part of the World.

Changes of Address. To facilitate the prompt receipt of each issue, subscribers are requested to notify the publishing office immediately of any changes of address or division.

Publishers and Distributing Agents:

THE POLICE JOURNAL

19 CURSITOR STREET, LONDON, E.C.4

Telegram and Cable: "NORTON, FRIZZ, LONDON"
Telephone: HUNTERS 6261 (private branch exchange)

American Agents:

PUBLIC ADMINISTRATION SERVICE

1315 EAST 52ND STREET, CHICAGO, ILLINOIS, U.S.A.

THE POLICE JOURNAL

*A Quarterly Review for the Police Forces
of the Empire*

ISSUED UNDER OFFICIAL PATRONAGE

NOTICE TO CONTRIBUTORS

The POLICE JOURNAL is published on the first day of January, April, July, and October.

The Editor will be happy to consider articles suitable for publication in THE POLICE JOURNAL. Contributions should be typewritten (double spacing) and must bear the name and address of the sender on the first page. Articles can be signed with a *nom de plume* if desired. All contributions should be addressed to "The Editor of THE POLICE JOURNAL, 19 CURSITOR STREET, LONDON, E.C.4." A covering letter is desirable.

Unaccepted contributions will be returned if accompanied by an addressed envelope and stamps. All reasonable care is taken of MSS., photographs and other material submitted; but the Editor cannot hold himself responsible for any loss or damage.

SUBSCRIPTION RATES

7/- per annum, (\$2.50 United States only) including postage to any part of the World.

Changes of Address. To facilitate the prompt receipt of each issue, subscribers are requested to notify the publishing office immediately of any changes of address or division.

Publishers and Distributing Agents:

THE POLICE JOURNAL

19 CURSITOR STREET, LONDON, E.C.4

Telegrams and Cables—"NUPOTOG, FLEET, LONDON"

Telephone—HOLBORN 6201 (private branch exchange)

American Agents:

PUBLIC ADMINISTRATION SERVICE

1313 East 60th Street, CHICAGO, ILLINOIS, U.S.A.

The
POLICE JOURNAL

CONTENTS

	PAGE
THE POLICE AND THE LAW	385
CRIMINAL LAW AND PRACTICE IN SCOTLAND	391
PHOTOGRAPHS OF CARTRIDGE CASES AND BULLETS. BY LIEUTENANT G. C. BRITZ	400
STUDIES IN IDENTIFICATION. NO. 4. BY PROFESSOR SYDNEY SMITH	403
THE PROPERTY INDEX OF THE CRIMINAL RECORD OFFICE AT NEW SCOTLAND YARD. BY DETECTIVE-SERGEANT J. A. KENNEDY	409
SOME APPLICATIONS OF THE SPECTROGRAPH TO CRIMINAL INVESTIGATIONS. BY PROFESSOR F. H. NEWMAN	421
DETECTIVE ORGANISATION AND PROCEDURE	425
THE IDENTIFICATION OF FINGERPRINTS IN A BOMB OUTRAGE. BY JOHN M. REID	442
FORENSIC FIREARMS IDENTIFICATION. BY J. EDGAR HOOVER	445
THE SCOTTISH LICENSING LAWS. BY D. G. FRASER	451
JUVENILE CRIME, ITS CAUSES AND TREATMENT (<i>continued</i>). BY POLICEWOMAN JESSIE J. CLAREY	460
A CASE OF DEFINITE PROOF THAT A PARTICULAR KNIFE WAS USED TO COMMIT A MURDER. BY DR. A. I. KAYES AND J. F. WILKINS	479
AUTOMATIC TRAFFIC SIGNALS AND THEIR OPERATION. BY POLICE CONSTABLE G. W. BARLOW	482
ABORTION	490
A MODERN RAFFLES. BY DETECTIVE-LIEUTENANT J. WESTLAND	498
AN INTERESTING SCIENTIFIC CASE. BY SUPERINTENDENT N. W. GOODCHILD	504
THE GUSSEAGE MURDER. BY DETECTIVE-SERGEANT FRANK ELMES	507
THE COLONIAL POLICE	481
POLICE GOLD MEDAL ESSAY COMPETITION	512

THE POLICE JOURNAL

Recent Judicial Decisions

VALIDITY OF THE FIRST MARRIAGE IN BIGAMY

R. v. Morrison

IN this case an appeal against conviction for bigamy on the ground (*inter alia*) that the first marriage was invalid was dismissed. In spite of that fact the case serves as a useful reminder that the validity of the first marriage is an essential factor in cases of bigamy and that it is not sufficient always simply to prove two ceremonies the first of which is assumed to be legal and the second bigamous.

Morrison was convicted at Lewes Assizes of bigamy and pleaded guilty to a charge of false pretences. He was sentenced to 15 months' hard labour.

The facts relating to the bigamy charge were as follows. On March 16th, 1938, Morrison went through a formal marriage with Florence Ide, having five days previously (March 11th) gone through a form of marriage with a Mr. Holman.

In his defence to the charge of bigamously marrying Florence Ide, Morrison alleged that the marriage to Mrs. Holman was not valid by reason of the fact that she had a husband living. On this point Mrs. Holman's evidence had been to the effect that she had married Mr. Holman in June 1919, that she had gone to Canada, and that she had last seen Mr. Holman in Canada in 1928. She added that at the time of her marriage to Morrison she had told the registrar, who performed the ceremony, the above facts and that the registrar had said it was all right as that she could properly describe herself as a widow. No direct evidence was given as to whether Mr. Holman was alive.

dead, and the defence argued that the prosecution must establish that the ceremony entered into by Mrs. Holman and Morrison was a valid one before they could substantiate a charge of bigamy in respect of Morrison's marriage to Florence Ide.

In his direction to the jury the Judge had made use of these words:

"The marriage between the defendant and Mrs. Holman being *prima facie* a lawful marriage, do you entertain any doubt about its lawfulness in consequence of the evidence you have heard? If you think it may have been no marriage at all, then the prosecution will not have proved that this man had two wives at the same time, but only one, Mrs. Ide, because the first woman was not his wife if that is the view you take of the evidence."

On two occasions later in his summing up the Judge referred to the defence set up, telling the jury, in effect, that if, in spite of not actually believing it, they nevertheless considered it credible, they should acquit the defendant and that that should be their verdict even though it might appear clear that the defendant went through the ceremony with Mrs. Ide, believing that he was committing bigamy and only later discovering this possible loophole.

In spite of these directions the jury returned a verdict of guilty, and an appeal to the Court of Criminal Appeal followed.

The grounds of the appeal were twofold, the main ground being that the Judge had misdirected the jury in that he had left them under the impression that, in the circumstances of the present case, it was for the defendant to establish his defence. The other ground was that Mrs. Holman had been cross-examined by the defence on the basis that she had said nothing about her first marriage. She had in fact spoken of it to police in another county, and this fact was elicited only in re-examination, and the statement itself which was referred to could not be produced. It was contended that its non-production affected the minds of the jury.

In giving the judgment of the Court of Criminal Appeal Branson, J., said that in the opinion of the Court the summing up at the trial had adequately directed the jury on the law.

Referring to the passage quoted above he said: "It seems to us that in that passage the Judge told the jury the precise point which they had to consider and that he told them in perfectly clear language that, if they had any doubt about the first marriage, they had to acquit the accused. . . ." On the ground of misdirection, therefore, the appeal failed. It failed also on the other ground which, said Branson, J., was too far-fetched to form any ground for interfering with the verdict.

The appeal was dismissed.

EVIDENCE IN SPEED LIMIT CASES

Three recent cases on this point are worthy of mention, but before dealing with them it may be as well to recite Section 2 (3) (3) of the Road Traffic Act, 1934, which replaces and, in substance, re-enacts Section 10 (3) of the Act of 1930. It runs as follows:

"A person prosecuted for driving a motor vehicle on a road at a speed exceeding a speed limit imposed by or under any enactment shall not be liable to be convicted solely on the evidence of one witness to the effect that in the opinion of the witness the person prosecuted was driving the vehicle at a speed exceeding that limit."

Hitherto there have only been two decisions of any importance on this subsection. These two are *Weatherhogg v. Johns*, 95 J.P. Jo. 364, and *Russell v. Beesley* (1937) 1 All E.R. 527, and both are concerned with the same point, *i.e.* evidence by one police officer relying on a speedometer. The Court had to decide whether a police officer giving evidence as to what he read on his speedometer was speaking as to a fact or as to an opinion. In each case it was decided that such evidence was evidence of fact and was therefore sufficient if accepted to justify a conviction.

One of the three decisions which we now refer to was on the same point and since, being a decision of the Recorder of Norwich, it is in conflict with the above Divisional Court cases some doubt must exist as to its legal significance. It is, however, significant from another point of view.

The case reached Norwich Quarter Sessions by way of appeal from conviction at a petty sessional court. The evidence for the prosecution consisted of that of another motorist (himself a magistrate) who took upon himself to follow a motor omnibus which he considered was travelling too fast. He said that in order to keep up with this omnibus, which was being driven by the defendant, he had to maintain a speed recorded by his speedometer as 40 m.p.h. On this evidence the justices convicted; but, on appeal, the learned Recorder refused to accept the evidence of a witness who "even from the highest motives" broke the law himself unless there was something more than his speedometer to corroborate him. The appeal was therefore allowed.

It cannot be said that a magistrate—or, for that matter, any motorist—is less capable than a police officer of speaking accurately as to the speed recorded by a speedometer, and it is therefore impossible to distinguish this case from the two quoted above which, of course, remain unimpaired.

A more important legal decision on the subsection in question was reached in the case of *Melhuish v. Moons*. This was an appeal by way of case stated to the Divisional Court from a conviction of the Denbigh justices. In this case the appellant's vehicle was a light goods van. It was followed by the respondent and another police officer who were on motor patrol duty, and the speedometer of the police car recorded speeds varying from 38 to 40 m.p.h. The appellant was stopped and told of the alleged speed; to which he made no reply. Such was the evidence of the prosecution. It was contended on behalf of Melhuish that the police, while relying on the speedometer of the police car, had failed to produce evidence that the speedometer had been tested before or after the alleged offence, and that there could therefore be no certainty that it was working accurately when the pacing was carried out. In reply the police argued that the evidence of Moons, corroborated by that of the other officer, sufficed to satisfy Section 2 (3) (3) above. The Justices came to the conclusion that the evidence given by the two officers was evidence to the effect that, in the opinion of more than one witness, a speed limit had been exceeded.

Lord Hewart, C.J., in the course of his judgment in the Divisional Court said that in his opinion the officers by their evidence had shown nothing except the figures exhibited on the speedometer, on the observation and recitation of which the prosecution's case had rested. No attempt had been made by the witnesses to reinforce this evidence by any reference to their experience or any expression of opinion. The respondent's whole case was that the speedometer spoke for itself. It was not sufficient to rest on the mere sight of a speedometer. The error consisted in leaving the evidence of the speedometer unsupported by supplementary evidence of a different kind such as an opinion as to the speed.

Charles, J., concurred in the above, but Macnaghten, J., dissented, saying that he read the Justices' finding as being that, in the police officers' opinion, a speed limit had been exceeded. If this were so the conditions of Section 2 (3) (3) had been complied with. In his opinion the appeal should be dismissed. The appeal was allowed.

This decision may cause some alarm in police circles, since at first sight it appears that the Lord Chief Justice has ruled that in all cases evidence as to the reading of a speedometer, even when it is proved accurate, must be supplemented by evidence of a different kind. It must be remembered, however, that his Lordship was delivering judgment on a case stated by justices and that the justices had stated their case on the basis that there was room for doubt as to the accuracy of the speedometer. The judgment must not be read as applying to facts outside the scope of the case as stated.

The case as a whole may serve as a useful reminder that the prosecution must make out their own case. We do not know, but it may be that evidence as to the accuracy of the police speedometer in this case, though not given, was in fact available and was carefully not elicited in cross-examination.

The third case we have to refer to under this heading is that of *Brighty v. Pearson* (1938 4 All E.R. 127). This also was an appeal by way of case stated to the Divisional Court. The appellant, Brighty, was summoned before the Cambridge Justices for exceeding the speed limit while driving a motor-lorry. The evidence against him consisted of that of two police

officers who had been stationed at different places along the same stretch of road. Each gave evidence that Brighty was in his (the officer's) opinion exceeding the speed limit at the particular place where each was situated. Neither officer relied in any way on a stopwatch or speedometer, and it was contended for the prosecution that the evidence of these two officers was sufficient to satisfy Section 2 (3) (3). For Brighty it was argued that since the opinion of each officer related to a different place on the road at a different time the evidence at each place was merely the opinion of the witness.

The Justices convicted.

In allowing the appeal, Lord Hewart, C.J., said that at no moment was there observation of the same vehicle at the same time by the two police officers, and at no moment was it possible to say that the effect of the evidence of the witness was corroborated by that of the other. The Justices might be right in coming to the conclusion that the officers had the vehicle under observation along the same stretch of road, but nevertheless the observations were not at exactly the same time. Section 2 (3) (3) had not been complied with and the appeal must be allowed.

It is not thought that this case will give rise to much difficulty in practice, since Police will seldom want to base prosecutions for speed on mere evidence of opinion.

AN UNUSUAL CASE OF LARCENY BY FINDING

This case is of no legal significance, but the facts are somewhat out of the ordinary and it may be also that the point on which the case turned is new to some.

A man was charged at Woolwich Police Court with stealing by finding a number of golf balls from a certain golf course. The course was a private one owned by a proprietary club and at one time the defendant had been employed there. Prior to the offence, however, he was told that he no longer had any right on the course and was warned to keep away. The learned magistrate was inclined to take the view that the balls in question, which were "lost" balls found by the

defendant on the course, had been abandoned by their true owners and were therefore not capable of being stolen. For the prosecution certain cases were referred to, the most important being that of *South Staffordshire Water Company v. Shearman* (1896, 2 Q.B. 44), wherein Lord Russell (then Lord Chief Justice) in his judgment said:

"... the general principle seems to me to be that where a person has possession of house or land, with a manifest intention to exercise control over it and the things which may be upon or in it, then, if something is found on that land, whether by an employee of the owner or by a stranger, the presumption is that the possession of that thing is in the owner of the *locus in quo*."

It was argued that in the absence of a better title elsewhere the golf club were the owners of any property found on their course.

After considering this argument the learned magistrate convicted the defendant.

A QUESTION OF AMENDING AN INDICTMENT

R. v. Haywood and Clynes

In this case, which was heard at Leeds Summer Assizes, an important question of procedure arose. The defendant, Kate Haywood, was charged with unlawfully procuring a syringe knowing that the same was intended to be used for the purpose of procuring the miscarriage of a certain woman. The case against her was a strong one—she was arrested when she was about to perform an illegal operation—and she pleaded guilty.

Leah Clynes was charged with aiding and abetting Haywood in the commission of the offence. In the Particulars of Offence it was alleged that she had aided, abetted, counselled and procured the offence.

In the course of the opening of the prosecution's case it became apparent that Clynes was not present at the time when the offence was committed, her part in it having been merely that of intermediary between Haywood and the woman.

The woman was called for the prosecution, and at the

conclusion of her evidence the learned judge, Atkinson, J., directed counsel's attention to the form of the indictment, pointing out that the Statement of Offence alleged that Clynes had aided and abetted, in order to be guilty of which it was necessary to show that she had been present, whereas it appeared that no evidence would be forthcoming to show that she had in fact been present at the commission of the offence.

Counsel for the prosecution replied that the Particulars of Offence also alleged that the accused had counselled and procured. Under these circumstances, he argued, there could be no question of the defence having been taken by surprise and consequently no unfairness would result if the Statement of Offence were amended by the substitution of the word "procuring" for "aiding and abetting." He further pointed out that the accused could quite properly have been indicted as a principal for the substantive offence, in which case there would have been no indication as to whether it was alleged that she was present or not.

For the defence it was argued that on the Statement of Offence as it stood there was clearly no evidence forthcoming to support the charge. By the Accessories Act, 1861, an accessory to any misdemeanour is liable to be tried, indicted and punished as a principal offender as the prosecution had pointed out; but nevertheless the distinction between aiding and abetting and counselling and procuring remains. The Particulars of Offence, by reason of the fact that they included both alternatives, in other words alleging both that the accused was present and that she was not present, were bad for duplicity. So far as an amendment was concerned the Indictments Act provided that an amendment should only be allowed to be made where it could be made without injustice to the accused. Here the effect of the amendment sought to be made would be to change the charge completely, which was clearly unfair.

Atkinson, J., agreed that an amendment could not be made without injustice, and declined to make an order for the amendment. The result was that the prosecution were unable to offer any evidence against Clynes in respect of the offence charged, and the jury were directed to return a verdict of not guilty.

QUITTING A CAR WITHOUT SETTING THE BRAKE

This is a class of case which is a frequent source of trouble to Police. The full offence is set out in Regulation 82 (3) of the Motor Vehicles (Construction and Use) Regulations, 1937, as follows:

"No person in charge of a motor vehicle shall quit the same without having stopped the engine and, where the vehicle is fitted with a brake capable of being set, having set the brake so as effectually to prevent two at least or in the case of a vehicle with only three wheels one of the wheels from revolving."

It is of course a summary offence and we can find no record of a decision in the Regulation in any but the Courts of Summary Jurisdiction. In those courts the summonses are frequently dismissed without comment from the bench, and Police are left in doubt as to the reason for the dismissal. Some weeks ago, however, a good judgment was delivered by Mr. Fry at Bow Street Police Court.

The defendant was summoned under the above Regulation and the facts proved against her were that her car was seen by a police constable after it had knocked down a pedestrian in Waterloo Place. It had apparently been left unattended in a neighbouring car park, from which it had run a distance of some 18 yards and then mounted a footway. The engine was not running when the officer arrived and the handbrake was off, though on being tested it appeared to be in good order.

When the defendant came up later and the facts were related to her she said, "Sorry. I thought I'd made it safe. . . . I couldn't have had the lever quite in the ratchet."

In evidence the defendant said that before leaving her car she had turned off the engine and ignition and applied the handbrake. The car was a touring model and at the time the hood was up.

It was submitted on her behalf that in law the summons against the defendant was bad in that it alleged what counsel submitted were two distinct offences, *viz.* quitting the car without stopping the engine; and quitting the car without

applying the brake. Counsel added that, anyhow, in his submission the prosecution had failed to establish the case on the facts.

So far as the legal point was concerned Mr. Fry ruled against the defendant, giving it as his opinion that the Regulation imposed a dual duty on persons quitting their cars and that failure to take either of the prescribed precautions constituted an offence. On the facts, however, he found for the defence. Some time, he said, had elapsed between the leaving of the car and the knocking down of the pedestrian, and no evidence had been tendered by the prosecution as to what had happened to the car during that period. There was no direct evidence regarding the state of the brake when the defendant left the car, and he was not entitled to draw an inference in favour of the prosecution that she must have left it unset. It was not impossible that someone had tampered with the car during the defendant's absence. The summons was therefore dismissed and, it may be salutary to add, the magistrate awarded £2 2s. costs against the police.

The lesson to be learned from this decision is clear. It is not that a conviction under this part of Regulation 83 is impossible but merely that the prosecution must be prepared to produce such evidence as will dispel the possibility of any supervening act between the quitting of the car by the driver and the time when it commences to run away. This can be done in at least two ways. Firstly, by the evidence of someone who had the car under constant observation during that period; which might be only a moment, because cases have been known in which the car has commenced to move immediately the driver had left it. Or secondly, by evidence that the car doors were found to be locked when the car came to rest after running away. In each case it would be necessary to show that at the first opportunity the handbrake was tested and found to be efficient but not properly applied. It must of course be remembered that in neither of the above examples is there direct proof of the offence alleged; but in both the evidence raises a strong presumption against the defendant, which is the most that can be hoped for in such circumstances.

Another small point in connection with the offence of

failing to set the brake, which may perhaps on occasions escape notice, is that to substantiate the charge there must always be evidence that the vehicle is "fitted with a brake capable of being set."

WELSHING—FALSE PRETENCES OR LARCENY TRICK

R. v. Woodall and Birchill

A "welshing" bookmaker is more often prosecuted for larceny by a trick than for obtaining by false pretences, the reason being that, as was held in *R. v. Buckmaster* (1887, 20 Q.B.D. 182), the punter whose money he takes does not part with the property in that money unless the horse he backs fails to win; whereas the bookmaker at the time of taking that money does not intend to pay it back in any event, and such a state of facts constitutes larceny on the part of the bookmaker.

In the present case, which was heard at North Riding Quarter Sessions during the summer, and in which Woodall and Birchill were charged with obtaining money by false pretences, a different state of affairs existed. At a certain point-to-point race meeting the two defendants held themselves out as *bona fide* bookmakers. In the third race on the card they offered three, four and five to one against the horse, which, according to the genuine bookmakers, started an even-money favourite. The defendants accepted some forty bets in respect of this horse, and it was alleged by the prosecution that they had refused to lay odds against any other: this last fact, however, was denied by the defendants, who stated that nobody had wanted to back any other horse except one person who in fact did so.

At the time of accepting these bets the defendants had no assets. The horse they had laid so heavily won, and their liabilities came to about £13. They remained at their pitch, however, and returned the stake money to the successful punters, making promises to pay the winnings but taking no names or addresses. They did in fact succeed in borrowing

some £5 from other bookmakers, but by this time the punters had gone away.

The prosecution's argument was that this was no case of a bookmaker merely finding himself unable to meet his liabilities, which, it was admitted, might not always constitute fraud. The defendants had embarked upon their dealings on this particular race knowing that they would be unable to meet their liabilities in the event of a certain horse winning, and yet offering unwarrantably high odds in respect of that horse. It was quite clear they had purposely set out to attract as much money as possible in the hope of the horse, which they offered as a bait, failing to win. In that event they would net a substantial profit, and if it lost they would be no worse off than they were before, because they could do no more than refund the stake money.

The whole circumstances showed that the scheme was fraudulent; yet there was no evidence to support a charge of larceny, because no attempt was made to clear off with the stake money; but, although they had in fact subsequently returned the stake money, they had in the first place obtained it on the false pretence that they were accepting it in respect of a *bona fide* betting transaction which, in fact, was never contemplated.

Both defendants were convicted.

CORROBORATION IN SEXUAL OFFENCES

Ogg v. H.M. Advocate

This was an appeal against conviction to the High Court of Justiciary of Scotland. The appellant, who had been charged with ten offences of a perverted sexual character—three of which were subsequently withdrawn—was convicted on four counts. Those counts related to offences committed, as to the first and second, in September 1934, and as to the third and fourth, in November 1935 and June 1937 respectively. The offences were either sodomy or gross indecency in every case, and in every case they were committed with a complete

stranger. In respect of the first three charges there was only the victim to give evidence, but in the fourth there was ample corroboration of the victim's story.

The main ground of appeal was that, in respect of the first three counts on which the appellant had been convicted, the jury had been allowed to accept in corroboration of the sole witness—the victim—the evidence relating to the other counts. That is to say that, in order to corroborate the story of the victim on the first count, they had taken into account the evidence given in respect of the second, third and fourth counts.

It was argued for the appellant that the incidents giving rise to each count were isolated incidents and could not, in view of the length of time between them, be regarded as corroboration of each other and that, without them being so regarded, there was no corroboration in respect of the first three counts.

This ground of appeal was upheld, and the convictions on the first three counts on which convictions had been recorded were quashed.

In delivering judgment Lord Aitchison (Lord Justice-Clerk) reviewed the law relating to the admissibility of evidence in respect of kindred offences. The chief Scottish case on this point is that of *Moorov v. H.M. Advocate* (1930, J.C. 68, and referred to at page 414 of our October issue). In this case the general proposition laid down was that in sexual crimes—and possibly in others—similar crimes, each deposed to by a single credible witness, might afford mutual corroboration provided always that they are so interrelated by character, circumstances and time—though the presence of all features was not essential—as to justify an inference that they were instances of the same course of criminal conduct systematically pursued by the accused. In applying that doctrine His Lordship said that there must not only be a series of separate similar offences, but that there must be a reasonable and practical certainty that the similar offences are instances of one course of criminal conduct pursued by the accused and that that certainty must not be based on conjecture or suspicion. Moreover, he said, in deciding this question the relation of the offences from the

point of view of time was a most important consideration. Applying this consideration to the case before him he came to the conclusion that the conviction of the appellant on those three charges which relied for corroboration on each other and on the last charge could not be supported, as there was not sufficient basis for the application of the rule in Moorov's case.

Lord Mackay and Lord Wright concurred, the latter adding that not only, as the case came before them with only four offences proved out of the ten originally alleged, were the intervals between the offences too great for the rule in Moorov's case to apply, but also in his view the three instances which they were considering in particular did not bear a sufficiently close similarity of circumstance: with the result that by finding for the accused in the majority of the charges the jury had not left sufficient material to allow the application of the doctrine in "Moorov."

STATEMENTS BY AN ACCUSED

Stark and Smith v. H.M. Advocate

Two very important points were dealt with in this appeal to the High Court of Justiciary of Scotland. The appellants had been convicted of larceny at the Sheriff Court of Edinburgh. There were several grounds of appeal, but we only propose to deal with two of these; both were concerned with a statement by Smith.

The appellants were originally charged with stealing 62 bunches of sausage skins; after their committal on this charge certain documents came into the hands of the police which suggested that a much larger number of skins had been stolen. The result was that, three days after his committal for trial, they went to Smith in his cell, confronted him with these documents, and invited him to explain them. By these means they obtained from him what was tantamount to an admission that he had stolen 800 bunches of skins. They then confronted Stark with Smith and repeated to him the latter's confession; but Stark, having had advice on the subject, said nothing.

At their trial on a charge of stealing the whole 800 bunches the statement thus extracted was, in spite of objection being taken, admitted as evidence against both appellants. In his charge to the jury the Sheriff had these words to say on the subject:

"Of course in general a statement made by one accused outwith (not in) the presence of the other is only evidence against that accused and not against the other. But then there is the peculiarity in this case that a good deal of the statements was put in the presence of both Smith and Stark by the constables, and therefore I think it is a case where it is legitimate to consider the statements I have admitted."

Both accused were found guilty.

The main ground of appeal relied upon by both was that the statement referred to had been wrongfully admitted and that the jury had been misdirected on the subject. For Smith it was argued that the Police had no right to question him after he was charged and committed, and that any statement that might result from such interrogation was inadmissible. Stark's case was that, in any event, the statement was not evidence against him.

For the Crown it was said that the question was not one of competency but of fairness so far as Smith was concerned, and that there had been no unfairness. It was also pointed out that the charge which the police were investigating when they interrogated Smith was a far larger one than that on which he had been committed. With regard to Stark, all that could be said was that his silence when confronted by Smith's statement could be interpreted as agreement with the contents of that statement.

The appeal was allowed and the main judgment of the Court was delivered by the Lord Justice-General (Normand). In dealing with the question of Smith's statement he said that he thought it had been most improperly obtained by the Police and ought to have been excluded at the trial. He expressed the view that Police should always observe the rule that when a person had been committed for further enquiry he should not be approached by Police on any question touching

the crime with which he had been charged. It made no difference that in this case the questions which were put related to a much enlarged charge; it was not a different crime. His Lordship further pointed out that upon committal an accused person comes under the protection of the Court, and it was the Court's duty to see that nothing was done to prejudice his trial.

So far as Stark was concerned, His Lordship said that even if the statement had been obtained from Smith in an unexceptionable manner the use of it against Stark was grossly improper. The idea of confronting the prisoner with another and using the statements already made by one prisoner against another and repeating them in this fashion was wholly alien to the administration of criminal law in this country. It was to be hoped, he added, that such conduct would never be repeated. It followed that the Sheriff's charge to the jury on this point was wholly erroneous in law.

Lord Wright and Lord Moncrieff delivered short judgments concurring in that of the Lord Justice-General, and in them they too condemned the methods of the Police in this case.

It is thought that this case furnishes a somewhat extreme example of improper interrogation by police officers; but the lesson to be learnt is quite clear.

A SCOTTISH CASE ON THE QUESTION OF HIRING IN RELATION TO A MOTOR VEHICLE

This case was heard by the Lord Ordinary of Scotland (Lord Keith) which, for the benefit of English readers, we may explain implies that it was a civil case.

The question to be decided was the liability of an insurance company under a policy of insurance which covered, *inter alia*, an indemnity against third party risks. It will be appreciated that the case has, in consequence, a criminal significance, because, of course, it follows as a rule that if the insurance company concerned is able to repudiate civil liability

in respect of a motorist's third party policy, that policy is not sufficient to meet the requirements of the Road Traffic Acts.

The facts of the case were that the assured had arranged with some friends to travel from Aberdeen to Perth in the assured's car. On the return journey, while the assured was driving, an accident occurred whereby one of the passengers was seriously injured. It was agreed that the assured was primarily liable to that passenger. The insurance policy, however, which should have indemnified the assured, contained the not unusual limitations as to user of the car and provided *inter alia* that the company were not liable if the car was used for "hiring." The company sought to shield themselves behind this proviso on the grounds that during the return journey an arrangement had been arrived at between the assured and his passengers under which it was agreed that the expenses of the day's outing should be pooled, though in fact the assured paid a slightly larger share than the others.

The company argued, relying chiefly on the English case of *Wyatt v. Guildhall Insurance Co.* (1937, 1 K.B. 653), that this arrangement constituted a hiring agreement between the assured and his passengers.

Lord Keith found against the company, and in the course of his judgment distinguished the case of *Wyatt* above referred to. He pointed out that in that case there had been an agreement for a pre-arranged sum that the owner would take passengers on a journey which he himself was making in any event. Here there was no such arrangement made in advance, and, moreover, such an arrangement as had been made was of a different nature. In this case the assured and his passengers were going together to see a football match, and a considerable portion of the total expenditure had nothing to do with the running or garaging of the car: it was that total expenditure which was being pooled—a very different thing from paying for the use of the car. Further, there was nothing to show that the assured had not been quite willing to take his friends for nothing and would have done so if somebody had not towards the end of the outing suggested this plan.

Clearly there was no such hiring as was contemplated by the proviso in the insurance policy, and in fact no hiring at all.

BOTTLE PARTIES OUTLAWED

Customs and Excise v. Ship Wine Company, Pope and Day
Customs and Excise v. Hoey, Morgan and Fields

For many years now bottle parties, when properly run, have been considered a perfectly safe way of evading the licensing laws. A bottle party is essentially a proprietary concern run on unlicensed premises for the purpose of providing, at considerable profit to the proprietor, alcoholic refreshment to persons who are unable to consume sufficient during the hours permitted to licensed houses.

The theory on which it is run is that a patron visits the premises and fills in an order for a quantity of wines, spirits and beer: on that occasion, if he happens to arrive at the premises after the permitted hours for the sale of alcohol in that district, he is unable to obtain a drink. The next day, however, during permitted hours, his order is delivered to the wine company, which invariably works in conjunction with the bottle party, and there the wines, etc., ordered are "appropriated," by setting aside and labelling, to the patron of the bottle party. That gentleman, when he next visits the bottle party, will simply ask for one of his bottles of liquor; this will be fetched from the wine company's store, and he will pay something like double the usual price for it.

The point of this very complicated procedure is that, in ordinary circumstances, no offence is committed by the supply of liquor out of permitted hours so long as that liquor has been clearly appropriated during permitted hours to the order and use of the person to whom it is subsequently supplied.

So much for the theory. In practice, of course, such a system led to much abuse, and the frequent prosecutions of bottle party proprietors were the result of police having discovered that in some form or other the system had been departed from. It might be that a man who had never given any order to the wine company was supplied with liquor, or that someone whose order had run out was still supplied without being required to renew his order. Similarly, the wine

company proprietors got into trouble when it was discovered that they had been careless about their appropriations and were supplying bottles out of their general stock. But, for a long time, it was thought that so long as the theory was adhered to no offence was being committed.

The two cases quoted above, which were heard recently by the Chief Magistrate at Bow Street Police Court, have brought about a change; for, although in both cases faulty appropriations of liquor by the wine companies was discovered, and licensing offences were alleged and proved at the bottle parties, the main significance of them is that bottle parties for the first time were tackled from a new angle. It is not proposed to deal at all with the facts of the cases other than in a general way, since it is the legal aspect which we wish to emphasise.

Action was taken against the bottle party proprietors under Section 17 of the Revenue Act, 1867, which enacts:

"If any person shall solicit, take or receive any order for spirits, wine (or other excisable article) without having in force a proper Excise Licence authorising him so to do he shall forfeit the penalty imposed by law upon a person dealing in retailing or selling such article without having an Excise Licence in force . . . provided always that nothing herein contained shall be deemed . . . to impose a penalty upon a *bona fide* traveller taking orders for goods which his employer is duly licensed to deal in or sell."

The effect of this section is to impose a penalty on anyone who solicits orders for excisable liquor on premises not licensed for the purpose.

In the cases with which we are dealing the prosecution argued that in effect the wine company proprietors were, through the agency of the bottle party waiters, soliciting orders for liquor on unlicensed premises. In this connection the case of *Elias v. Dunlop* (1906, 1 K.B. 266) was quoted, in which a grocer who, having two premises, one licensed for the sale of alcohol and the other not so licensed, took an order for beer at the unlicensed premises which was executed at the licensed shop. It was held that he had been rightly convicted of an offence under the above section.

On the question of the agency between the bottle party

and the wine store the prosecution drew attention to the facts that the wine store supplied the order forms used at the bottle party and made arrangements for the collection of those orders which customers at the bottle party were asked by the waiters to complete, and that the wine store installed a private telephone line between the two premises and arranged for delivery of liquor when required. In other words the bottle party was simply another department of the wine store.

The learned magistrate accepted the argument of the prosecution and found that offences had been committed under Section 17 (above) by the wine store proprietors and that they had been aided and abetted in these offences by the proprietors of the bottle parties.

The only loophole left now for those who wish to run a proprietary bottle party legally is the very narrow one offered by the proviso in Section 17 which we have quoted. It is thought that some difficulty might be experienced in persuading a court that the person who took the orders for liquor at a bottle party was the *bona fide* traveller of the wine company.

Criminal Law and Practice in Scotland

LOITERING FOR PROSTITUTION

IT is provided by Section 381 (22) of the Burgh Police (Scotland) Act, 1892 (and by corresponding local enactments, e.g. Section 116(3) of the Edinburgh Corporation Order, 1933), that every person who, in any street, being a common prostitute or street walker, loiters about or importunes passengers for the purpose of prostitution is to be subject to penalties. The enforcement of this provision is among the most responsible and exacting of the duties assigned to plain clothes officers in our City forces.

It is perhaps not always sufficiently realised that proof of the offence of "loitering" has two distinct and independent elements. A court is never justified in holding such a charge proved unless it is satisfied (1) that the general character of the woman has been adequately established by evidence showing that she is in fact a prostitute, and (2) that, on the particular occasion libelled in the complaint now before the court, (a) she either loitered about or importuned (or both—and the practice is to express the charge cumulatively—"you did loiter about *and* importune passengers") and (b) the purpose was prostitution. The point to seize upon is that unless and until the court has made up its mind that the woman's general character as a prostitute is proved, it has neither a right nor a duty to enquire further, no matter how strong may be the evidence of accosting on the date libelled, and that it cannot convict.

Why, then, should this be? On the face of it, it seems improper to allow—and still more to demand—proof of the general "bad character" of an accused as a condition precedent to conviction. Indeed, one frequently encounters, among persons interested in social work, a fierce resentment against this procedure of "labelling" prostitutes. Yet, on a

proper view, this insistence on proof of general character is not unfair; it is, on the contrary, a safeguard devised in the interests of suspects and intended to prevent the pouncing by the police upon some woman who (though not generally plying the trade of street walker) commits, on some particular evening, an isolated indiscretion, or series of indiscretions, pointing to immorality.

How, then, is the character of a woman as a prostitute to be proved? In the case of a woman not previously found guilty of "loitering," the present writer insists, as a bare minimum, upon evidence of the administering to the suspect of two official cautions (given by plain clothes officers on the street in circumstances which convince them that the woman is plying her trade as a prostitute) and a final caution (by the officer in charge of a police station after arrest on a completed observation). If, as often happens, this evidence can be supplemented by proof of the suspect being found in a brothel or of an act of indecency with a male in a public place, or of some other fact pointing to "loose character," so much the better. In the case of a woman who has previously been found guilty of "loitering," proof of character is, of course, simple; it is then competent to prove her conviction(s) *in causa* and this is sufficient without entering into the detail of previous police observations and cautions.

The further question arises—if, by either of the methods above detailed, the character of a woman as a prostitute has been satisfactorily constituted, does that character adhere to her for the rest of her life—is it a case of "once a prostitute, always a prostitute"? Or is the proper view that, where there has been an interval of time since the police cautions (or since her conviction), the woman's character must be reconstituted by fresh cautioning before she can be brought before the court?

This question came up pointedly for the consideration of the High Court of Justiciary in a recent appeal—*Middlemass v. Mill*—heard on 19th October 1938.

The Appellant had been convicted, in the Burgh Court of Edinburgh, of loitering and importuning for the purpose of prostitution in certain streets of the City on 9th May 1938. Against this finding of the court she appealed on the sole

ground that evidence had not been led proving, beyond all reasonable doubt, her general character as a prostitute. (It was matter of consent that, if her general character had been proved, there was ample evidence before the Magistrate from which he could safely draw an inference of both loitering about and importuning passengers on the particular occasion libelled in the complaint, *i.e.* on 9th May.) The facts upon which the Prosecutor relied to constitute the woman's character are thus set out in the Stated Case—"On 14th September 1934 and 15th November 1934, the Appellant was cautioned by Police Officers in Edinburgh for having loitered in various streets in the City for the purpose of prostitution. On 16th May 1936, the Appellant was arrested on a charge of having loitered on the public streets for the purposes of prostitution and was conveyed to a Police Station, where a final caution was given her by the officer in charge. This procedure was in accordance with police practice in dealing with cases of the type under review. The Appellant by her own admission was 'on the streets' in 1936. On 27th June 1936, the Appellant married R— M—, an Engineer Fitter, and has resided with him since that date. Notwithstanding her marriage, the Appellant has continued to frequent the streets of the City at late hours and to associate with convicted prostitutes."

It is clear that what mainly influenced the minds of the High Court judges in dismissing the appeal (which the Lord Justice-Clerk characterised as "hopeless") and affirming the conviction was (1) the relatively short interval—of two years—since the woman's marriage and (2) the evidence of continued frequenting of the streets at late hours, which went far to negative a suggestion that, being now a decent married woman, she had turned her back on her old ways. The view expressed by the judges was that it was a fair inference from the facts proved either that the Appellant had never abandoned her life "on the streets" or that, having done so for a short period after marriage, she had reverted to her old ways. At the same time, the High Court (particularly Lord Mackay) made it clear that, where there was an interval of, say, six years, since action had been taken against a woman, the police cautions might become "stale," with the result that, before bringing her to

court, it might be necessary, by a fresh caution or series of cautions, to reconstitute her character. In the writer's opinion, this is sound advice and should be acted upon even where the interval is much less than six (say three) years—more particularly where the woman has no convictions for loitering—and where there is no substantial evidence of continued frequenting of the streets at late hours.

EVIDENCE

In the issue of *THE POLICE JOURNAL* for Oct.-Dec. 1938, reference was made to the "rule of two witnesses," which precludes a criminal court in Scotland from convicting on the uncorroborated testimony of a single witness. As was then explained, this does not mean that a Prosecutor must necessarily adduce two direct eye-witnesses of the offence. (Indeed, there may be no eye-witnesses, the offence being substantiated purely by inferential evidence.) It is sufficient if the evidence of the leading witness—let us imagine the only eye-witness—is supported by proof (through the testimony of others) of facts and circumstances pointing to the same conclusion and compensating for the lack of the second direct witness.

These observations are pertinent to the recent decision of the High Court of Justiciary in the case of *Dickson v. Morrison*, 19th October 1938.

The Appellant (*Dickson*), being convicted, in the Sheriff Court at Duns, of reckless driving of a motor lorry, argued that his conviction should be set aside on the ground that the Sheriff had not had before him evidence sufficient in law to justify his finding of guilt. The Prosecution evidence consisted of (1) evidence by the driver of a motor car with which the lorry collided at a crossroads, who alone spoke to the movements of the two vehicles before the collision—speed, distance, sounding of horn and so on; (2) evidence by two "locals" who, being in a smithy near by, heard the smash, rushed out and noted the position of the vehicles, which had by that time come to rest; and (3) evidence by two police officers who arrived an hour later and found the vehicles undisturbed and who could speak to a statement made by the

accused after caution—"I was coming down in third gear and saw nothing more till I got a glance close up"—to measurements made by them at the *locus*; to indications of the point of impact (fragments of glass on the roadway, etc.) and of the track followed by the lorry after impact, extending some 70 feet before it came to rest; and to the general nature of the *locus* (lorry coming down a steep gradient in face of a "Slow, Major Road Ahead" sign; corner partly blind and so on).

On this evidence, the Judges of the High Court had no difficulty in upholding the conviction, largely on the view that a strong duty rests upon the occupant of a side road marked by a road sign to approach a partially blind corner at a major-road junction with his vehicle under such control that he can stop in the event of an emergency arising. The decision, apart from its bearing on the rules of evidence, serves to illustrate how crucial may be the police evidence of the details of the *locus* and of the precise point of impact and position of the vehicles after a collision.

A rather different point was considered in the case of *Cafferty v. Cheyne*, heard on appeal at the same sittings of the High Court.

At the conclusion of the Prosecution evidence in support of a charge of careless driving heard in Stirling Sheriff Court, the accused himself entered the witness-box and deposed, *inter alia*, that his lorry had not (as the Crown witnesses had suggested) come into contact with a motor cycle combination. In support of this contention, James Livingstone, a consulting motor engineer, was adduced as an expert witness and spoke to certain facts inconsistent with impact between the vehicles. Thereafter a second expert, Robert Paterson, also a consulting motor engineer, was tendered as a defence witness. He entered the box, when the Sheriff, having put him on oath, stated that he was to hold this witness as corroborating Mr. Livingstone's evidence. No questions were put to him and he then stepped down, unexamined, from the witness-box. The Sheriff having held the charge proved, accused appealed.

In quashing the conviction, the Judges of the High Court commented in strong terms on the irregularity of the

procedure adopted at the trial and insisted that, in a Scottish criminal trial, it could never be proper simply to treat a witness (whether for prosecution or defence) as formally concurring in the evidence of a previous witness. The evidence of a second expert must always be led in substance, if not in every detail. It could not be taken for granted that if the Sheriff had gone on to hear Mr. Paterson's evidence in full he would necessarily have reached the same conclusion.

A decision of peculiar interest to the Police was reached in an appeal (*McCallum v. Skinner*) heard by the High Court on 21st October, in which the issue was the right of a defence agent to cross-examine a police witness on the details of an incident occurring two days before the alleged offence.

The Complaint embodied charges of breach of the peace (on the street), assaults (after arrest) on various police officers, and malicious mischief (in a police cell). In course of his cross-examination of P.C. Donald MacDonald, who spoke to the circumstances immediately preceding the arrest and who was one of the arresting officers, the defence agent put to the witness questions relative to certain happenings between him and the accused on an evening two days before the incident charged. Faced with these questions, P.C. MacDonald (very properly) enquired of the Judge if he must answer; whereupon the Magistrate (again very properly) enquired of the agent for what purpose he was entering upon these (seemingly irrelevant) matters. The agent having explained that it was part of his defence that the constable now giving evidence had a personal and private grievance against the accused and that the charges had arisen through police persecution, the Magistrate disallowed the line of "cross" sought to be followed by the agent, proceeded to hear further evidence, and convicted. Accused appealed.

Giving the leading judgment on the appeal, Lord Aitchison said that he had no doubt that the cross-examination was improperly stopped. It was legitimate for the defence to seek to establish that the charge had originated from malice and was not a genuine charge and such allegation, when made by a responsible agent, should be fully investigated. The questions

were proper and relevant if for no other purpose than as possibly affecting the credibility of the witness. The conviction of breach of the peace (to which charge alone P.C. MacDonald was a witness) could not stand.

ROAD TRAFFIC

The absolute nature of the liability attaching to the holder of a licence under the Road and Rail Traffic Act, and the difficulty of his evading responsibility for his servant's failure to respect the conditions of the licence, are emphasised by the High Court decision in the recent case of *Robertson v. Henry*, an appeal from the Sheriff Court at Dundee.

The Appellant (as appears in the Stated Case) was owner of two motor lorries and holder of a Public A Carrier's Licence applicable thereto. The lorries were heavy motor cars and were authorised vehicles under the licence. One of the conditions attached to the licence (as to all such licences) was that statutory provisions with respect to limits of speed and weight must be complied with. On the dates with which the court was concerned, the lorries were found in use on the road with laden weights in excess of the statutory maxima. The Appellant had warned his drivers against overloading and issued strict instructions that they were not to put on loads which would cause the laden weights to exceed the permitted amounts. Appellant had no knowledge of the overloading on the crucial dates. On those facts, the Sheriff convicted.

Held, by the High Court on appeal, that the conviction was justified, the Appellant's state of knowledge being irrelevant to the question of his liability in respect of breach of a condition of the licence held by him.

A further point of importance in Road Traffic Law was decided in the case of *Paterson v. Burnet*, in which judgment was given by the High Court on 4th November. The charge (brought in the Sheriff Court at Haddington) was one of contravening Sec. 14 of the Finance Act, 1922, by using a heavy motor lorry, licensed as a vehicle of 4 tons, 14 cwts., unladen

weight, at the duty of £70 per annum, while the lorry was so altered as to increase its unladen weight to 5 tons, 12 cwt., bringing it into a class of vehicle to which a higher rate of duty (£90) was applicable.

The case turned upon the proper construction to be given to Sec. 7 of the Finance Act, 1937, which enacts that "the unladen weight of a goods vehicle shall be taken to include the weight of any receptacle, being an additional body, placed on the vehicle for the purpose of the carriage of goods or burden of any description, if any goods or burden are loaded into, carried in or unloaded from the receptacle without the receptacle being removed from the vehicle," but which goes on to qualify this by the important proviso that the weight of the receptacle need not be included "(b) if the receptacle is constructed or adapted for the purpose of being lifted on or off the vehicle with goods or burden contained therein." Was the lorry in question to be weighed, for duty purposes, with or without its container for carrying sheep or cattle?

It appeared that the lorry was in fact used, on an average, two or three days each week for the carriage of livestock in the container and for the rest of the week as an ordinary platform lorry for carriage of goods without the container. When in use, the container rested on the lorry by its own weight, the bolts and rope cleats provided being seldom used. The container was a large wooden construction, with sides, a back, a front and a roof, all barred, and a floor (with a movable floor which could be inserted half-way up when sheep were carried). When on the lorry, the back of the container could be let down to form a ramp; this was the invariable way of loading cattle. Sheep were loaded by a movable pen-ramp. The container was so heavy (laden or unladen) that it could be placed on the lorry only by crane. A sufficiently strong crane could hoist the container laden with sheep or cattle; but it had never been so hoisted except on two occasions of special urgency, some time before, with sheep in the topmost storey. In the district where the lorry operated, cranes were not to be found either at the farms or at the markets (where most of the loading or unloading was done).

In affirming the conviction on these facts, the Judges of

the High Court stated that they had arrived at the conclusion that the container was a receptacle of the nature of an additional body. They were unable to accept the argument that proviso (b) of the Finance Act, 1937, applied wherever a receptacle was *capable of* being removed from or placed on a vehicle while holding goods. If this argument were sound, Section 7 would be rendered nugatory, being limited to cases where the receptacle was part of the structure of the vehicle itself. It was impossible to say that, in the case under consideration, the *purpose for which* the container was constructed was the purpose of being lifted on or off the vehicle with goods therein. The more reasonable inference on the facts was that it was constructed as an ordinary container which could be fitted to the vehicle for carrying certain kinds of load as occasion required and loaded or unloaded *in situ*.

THE RIGHT TO A FAIR TRIAL

It is a fundamental of Scots criminal practice (and equally of that of England) that every accused is entitled to a fair trial. That the High Court of Justiciary is jealous of this right and will insist upon vindicating it in all circumstances is made abundantly clear by the recent finding of the Court in the case of *Mearns v. Eadie*.

The circumstances were unusual. A young lad of nineteen years, being accused of theft in the Police Court at Cockenzie, pled not guilty and a diet of trial was fixed. On the date fixed for his trial, the accused attended along with certain defence witnesses, who were prepared to give evidence on his behalf. He had previously arranged that an Edinburgh solicitor should conduct his defence; but, when the case was called, the agent (who had been detained through some breakdown in transport facilities) had not arrived. Notwithstanding this, the trial proceeded. At some stage in the proceedings—exactly when, is not quite clear—the accused informed the Magistrate that he had expected to have the services of an agent; but the Magistrate (after granting an adjournment of some fifteen minutes, partly to dispose of certain other cases on the roll and

partly to give the agent an opportunity of putting in an appearance) insisted on hearing the case to a finish and, having heard all available witnesses for prosecution and defence, convicted and imposed a penalty of two pounds.

On appeal, the High Court unanimously quashed the conviction on the ground that the Magistrate had acted "oppressively" and that accused had not had a fair trial. There was no saying what difference it might have made to the outcome of the trial if the accused's case had been properly conducted by a trained lawyer. In that event, the prosecution witnesses would, presumably, have been properly examined and his own defence evidence led to full advantage. To grant only a delay of fifteen minutes—in a case which could easily, if need be, have been adjourned to a later date—was "oppression" as that term is understood in the law of Scotland. A conviction obtained in such circumstances could not stand.

Cameras on Patrol Cars

A PRACTICAL SCHEME FOR THE USE OF ROAD TRAFFIC PATROL CARS

By A BEDFORDSHIRE POLICE OFFICER

SERGEANT L. TOMPKINS, of the Bedfordshire Constabulary, under the directions of the Chief Constable of Bedfordshire, Lieut.-Colonel F. A. D. Stevens, C.B.E., D.L., has developed a method of obtaining evidence in cases of dangerous and careless driving which, for ease, simplicity and certainty, can only be compared with the speedometer as a means of checking excessive speed. The results obtained have been brought before the courts frequently, and the justices have expressed their appreciation of the method as greatly facilitating their task of deciding cases. A full description of the method is here given, and any further information required will gladly be supplied.

The outstanding feature of the scheme is that absolute justice is assured. It must be borne in mind that "Photographs, unless verified upon oath, are not of themselves evidence" (*Hindson v. Ashby*, 1896, 2 Ch., p. 21, per A. L. Smith, L.J.). But if the officer who witnesses an event and takes a photograph of it produces that photograph in court himself, and, being on oath, testifies that it is an "untouched" photograph, the photograph will be admitted by the court as evidence of the event which it depicts. The defendant, if convicted on the evidence of the photograph, cannot labour under a sense of grievance: he cannot accuse the Police of magnifying the case against him: he knows, and indeed often admits, that it is "a fair cop."

Suppose that a reasonable patrol driver has seen what he really believes to be a case of bad driving and has taken a photograph of it. On development it is often clearly seen that

of the developer added to the time of development should come to 80. The best temperature is 65 degrees Fahrenheit: this leaves 15 minutes' developing time. By using developer at the same strength as for dark room use the time can be reduced to half. This is most often done.

The developer is then poured away and the hypo poured in. The lid may be removed in about three minutes. There are of course full instructions with the daylight developing tank. The film must then be washed for at least half an hour in cold water. It will take three or four hours to dry.

Chemicals

For 1s. 6d. a box of powders may be bought which will make half a gallon of concentrated solution developer. This solution is diluted 3 to 1 for use in the tank at 65 degrees, 7½ minutes. The same kind of developer in the same dilution can be used for the subsequent enlarging of the picture.

Hypo

Hypo is very cheap and should be mixed a little stronger than directed, and to prevent early discoloration a little potassium metabisulphide should be added.

The Enlarger

The enlarger is by far the most expensive part of the outfit and will cost about £10. It will produce pictures up to about 18×15. A useful size for courts is 14×10 inches. The negative must be placed *rough side downwards* in the holder—this is vital or the picture will be reversed.

A small piece of bromide paper is used to make tests with according to the density of the negative. A normal negative requires 10 to 15 seconds' exposure. A mask about half an inch wide should be made and placed on the bromide paper in order to secure a white edge to the photograph. The bromide paper should be so exposed that it is in the developer for at least 1½ minutes without becoming too dark. (The developer used is the same as before described, diluted as before to

3 to 1.) The print is then placed in the hypo bath for at least 10 minutes, after which it is washed for half an hour.

Of course the enlarging must be done in a light which will not injure the bromide paper. A good safe light for bromide paper can be made from a coloured bottle with a screw top. A hole is made in the screw top to fit an electric lamp holder where the normal shade fits. The bottle need not be red but can be orange.

The patrol driver who adopts our method will not be able to produce evidence fit for the courts all at once. Practice is necessary and skill must be acquired in order to know the precise instant at which to take the picture. Pictures taken whilst following are most convincing. But with practice excellent results can be obtained. To assist the driver in taking a photograph when a pursuit is being carried on at a high speed, a long cable release is fitted to the camera, and this can terminate at any spot to suit individual requirements. An electric release can easily be fitted on the steering wheel to enable the driver to take the picture while his hands are still on the wheel.

If every police patrol car was so fitted with a camera for obtaining evidence, the moral effect on the public would be great. It would constitute another weapon in the war against motor-car accidents.

Local Government in Scotland

By GAVIN BELL

Depute County Clerk of Midlothian

WHEREVER there is a community of individuals they usually adopt some form of government for their security and comfort. Such government is not peculiar to man alone but is apparent even in lower forms of life. Particularly in some insect colonies their scheme of local government seems to be exceedingly efficient, whereas the schemes evolved by man are often the subject of adverse criticism. But man's order of life is always changing in his constant endeavour to advance civilisation. Consequently his scheme of government is ever being altered to comply with those changes.

Local Government is frequently accused of being slow and cumbrous. It is certainly complex, because it is framed to deal with detail.

The course which Local Government has taken through the centuries is not like that of a speed boat driving straight to an ultimate objective, but rather like that of the old sailing ship which has to turn and tack as the vagaries of the wind compel her.

The long but progressive course of Scottish Local Government is marked by over 350 Acts of Parliament which affect Local Authorities in Scotland. Many of those Acts, especially the more modern, empower Government Departments and Local Authorities to make Regulations and Bye-Laws. Those in turn are numerous. Yet anyone who contravenes an Act, Regulation or Bye-Law is not entitled to plead in defence that he was unaware of the law.

The majority of people take little interest in Local Government work and when they require information on any particular point they immediately consult someone who, they think, should be conversant with the point on which they

desire to be informed. Thus a Police Officer may be confronted with an inquiry, the answer to which would necessitate a knowledge of any of those 350 odd Acts or their numerous progeny of Regulations and Bye-Laws.

The object of this article is not to epitomise the contents of those Acts, etc., but is to attempt to give a general outline of Local Government in Scotland, and by whom and how it is administered today.

Prior to the passing of the Local Government (Scotland) Act 1929 there were different groups of Local Government Authorities which had their own particular functions to perform, e.g. Town Councils, County Councils, District Committees, Standing Joint Committees, Parish Councils, Education Authorities, etc. There were in all 1,340 separate Local Authorities.

The effect of the 1929 Act was to abolish some of those groups and to transfer their functions to the County Councils and Town Councils of Large Burghs and to a new group, namely, District Councils. The number of separate Local Authorities was thereby reduced to 427.

The Local Authorities are now grouped as follows:—County Councils, the Town Councils of the four cities of Edinburgh, Glasgow, Dundee and Aberdeen (which rank as Counties for administrative purposes), Town Councils of large Burghs, i.e. Burghs having populations of over 20,000, Town Councils of small Burghs, and District Councils. District Councils form a new group and operate in Districts which comprise several County landward area Electoral Divisions.

Local Authorities consist of members elected by popular vote. County Council elections take place triennially in the month of December. Any casual vacancy occurring between the triennial elections is filled up by the County Council co-opting a member. District Council elections are held concurrently with County Council elections. In addition to each elected District Councillor, the County Councillor for each Electoral Division in the District is *ex officio* a District Councillor.

Town Councillors also hold office for three years, but one third of the Council retires annually by rotation, and Town

Council elections take place in the month of November in each year. Casual vacancies are filled by the Town Councils co-opting a member *ad interim* until the next annual election.

Now let us consider the nature of the duties carried out by each type of Local Authority.

County Councils (including the Councils of the four Cities) carry out all functions entrusted to Local Authorities. The enumeration of those functions would form a formidable list but they may be classified generally under the following heads: Health, Poor Law, Education, Roads, Police, Registration of Voters, Valuation, Rating and general local administrative services. The Town Councils of large burghs undertake generally all those functions with the exception of Education, for which purpose they are represented on the County Councils. The Town Councils of small burghs do not undertake functions relating to major Public Health services, Poor Law, Education, Classified Roads, Police, Registration of Voters, Valuation and certain of the general local administrative services.

The statutory functions of District Councils are few and relate principally to Rights of Way, Recreation Grounds, Allotments, administration of local Trusts and assistance in establishing local postal and telegraph facilities, but the 1929 Act permits County Councils to entrust District Councils with the management of certain of their Public Health and Poor Law functions. Advantage has generally been taken of this permission and consequently District Councils usually relieve the County Councils of a considerable volume of work where intimate local knowledge can be brought to bear.

To carry out their various functions Local Authorities allot different branches of their work to committees and employ a number of officials and staffs having special qualifications. The chief administrative officer of each Authority is the Clerk and it is a safe practice to refer any inquiry to him.

Now let us review briefly the services afforded under the main functions undertaken by Local Authorities.

Of primary importance is HEALTH and every effort is being made to produce and foster a healthy race of people. No individual need nowadays lack the finest medical and nursing

skill and attention. Maternity Service and Child Welfare Schemes make a proper beginning by giving advice and care firstly to expectant mothers and thereafter to mothers and to infants up to five years of age. The Education Acts provide for the health of school children, while general hospitals, infectious diseases hospitals, and sanatoria are available to all. In addition Local Authorities are entrusted with the care and treatment of lunatics and mental defectives and the welfare of the Blind.

The Diseases of Animals Acts, the Milk and Dairies Acts and the Food and Drugs Adulteration Acts are all designed to ensure that our food is pure and wholesome.

The Public Health Acts deal chiefly with the provision of water supplies and proper sanitation, with the view to eliminating the causes of diseases.

HOUSING of the working classes now occupies an important section of Public Health work. The Great War was the cause of hastening the deterioration of housing conditions and an Act was passed with the view to improving the conditions of working class houses and empowering Local Authorities to erect houses for the working classes. This Act did not solve the problem but was only the beginning of a spate of Housing legislation. The standard of housing has been raised and the cost of bringing old houses up to that standard has proved too much for many private owners. In consequence Local Authorities have since been engaged in erecting new houses. In order that the rents may be within the means of persons of the working classes, contributions are made from the Exchequer and from the Local Rates towards the cost of erecting those houses. The contributions vary under the different Housing Acts.

Under the Housing Rural Workers Acts Local Authorities may make grants towards the cost of improving houses occupied by farm servants or persons of a similar economic standing.

Modern industrial conditions unfortunately make POOR LAW or "Public Assistance" form an important part of the work of Local Authorities.

The basic principle of the Poor Law Acts is to relieve

destitution, and the Local Authorities are responsible for the maintenance of poor persons who are not in receipt of adequate means of livelihood from other sources. Poor Law Institutions are provided for the itinerant poor and the sick poor, but the majority of poor persons are granted an allowance sufficient to enable them to live outside an Institution. In order that allowances may be as uniform as possible in their area most Local Authorities have framed Scales of Alimant for the guidance of the committees administering the Poor Law Acts. The old expression still dies hard and we often hear of a person in receipt of Public Assistance as being "on the Parish." The expression was born prior to 1929 when Parish Councils administered the Poor Law Acts.

EDUCATION is always regarded of great importance in Scotland. It is not possible to include the history of its administration within the compass of this article. The County Councils are now the Education Authorities in Scotland. They are required for Education purposes to appoint committees which consist of County Councillors, representatives from Town Councils, persons experienced in education, and representatives appointed by religious bodies. In order that children may be fit to receive education, medical attention is afforded, food and clothing are provided where these are required to enable children to attend school, and scholars residing at a distance from school are conveyed to and from school.

It is rather singular that until recent years ROADS, which have for so long been the main arteries of communication throughout the country, have been administered and maintained by Local Authorities. The rapid development of modern transport has necessitated heavy expenditure in the maintenance and improvement of the main roads and that cost is partially met from the Road Fund which is derived from the taxation of motor vehicles, etc.

Roads may now be classified as follows:—Trunk Roads, which are the main arterial roads in the country and are maintained entirely at the expense of the Government, Classified Roads, towards the maintenance of which the Government contributes fixed proportions of the expenditure,

and Unclassified Roads. Roads which are not on the "List of Highways" are either private roads or Rights of Way. It is the duty of District Councils to maintain Rights of Way.

It is the duty of the larger Local Authorities to establish and maintain POLICE FORCES. To effect greater inter-mobility in police administration opportunity is taken, whenever possible, to amalgamate the police forces of smaller areas with larger adjoining areas. The main police authorities are the County Councils and the Town Councils of Burghs having a population of 50,000 or more. The Chief Constable is the officer responsible for the efficient execution of the numerous duties now performed by the police. The fundamental duty is "to guard and watch" and it is interesting to reflect that the greater volume of police work does not lie in protecting the public from the criminal, but in protecting the public from their own actions in failing to comply with the rules to be observed in community life. This latter protection is now being more wisely and safely given by police officers advising and assisting the public—another application of the maxim "prevention is better than cure." Many branches of modern police work require the services of specialists and this forms another argument for the abolition of the smaller police forces. The cost of police work is borne by the Exchequer and the Local Rates.

Local Authorities form useful machinery for the local administration and execution of Acts and Regulations which are applicable throughout the country and they are required to undertake many duties in the capacity of agents for the Government Departments.

Who pays the cost of all the services afforded by the Local Authorities? As has already been stated, many of those services are of a national rather than a local character and the Government contributes to most of those services by means of Exchequer Grants to the Local Authorities. The other services are borne locally by the persons deemed most able to pay, and for this purpose owners and occupiers or property are considered to be able to pay in accordance with the value of the property.

The value of property is fixed by the Assessor who

assesses the annual rental. Anyone aggrieved by the Assessor's decision may appeal to the Valuation Committee which is appointed by the County Council or Town Council. Appeal against the decision of the Valuation Committee may be made to the Valuation Appeal Court which consists of three judges of the Court of Session. The Local Authority makes up a Valuation Roll containing the valuations of all the properties in its area. The Roll shows the gross annual values and the rateable values. The latter values are arrived at after allowing for any exemptions from rating granted under the Rating Acts.

Each year Local Authorities make up an estimate of their expenditure for the ensuing year and the Rating Authorities impose a Rate to meet that expenditure. Thus, if the rateable value of an area is £50,000, and the estimated expenditure is £25,000, the rate imposed would require to be equal to one half of the rental, namely 10s. per £. Notices are then sent to ratepayers showing the amounts payable by them and the rates are ingathered by the Collector of Rates. In the landward areas of Counties the rates vary according to the local services afforded. Special Districts, that is areas in which special services, such as water supply, drainage, street lighting, or scavenging, are afforded, are each required to meet the cost thereof.

The control of Local Government is presumed to lie with Local Government Electors. Their names are registered in the Voters Roll which is prepared annually.

A.R.P.—A New Sphere of Police Duty

By F. T. TARRY

Chief Constable of Exeter.

RELUCTANT as the country has been to admit the fact, it is now generally recognised that A.R.P. must have an integral and permanent place in our local and national life: integral, in that every sphere of industry, every section of society, and every department of public service, local and national, has now to superimpose upon its structure the measures by which its functions would need to be discharged under the conditions of a modern war; and permanent, in the recognition of the obvious though brutal truth that, while the bombing aircraft remains the primary weapon of aggressive warfare, so A.R.P. must seek to minify that weapon's effect.

The plain citizen is slowly but surely coming to the realisation that A.R.P. is a measure of insurance, comparable with the measures taken to prevent the scourge of infectious disease. To-day every ratepayer cheerfully makes his contribution to that portion of his district or borough rate which provides for the maintenance of isolation hospitals, to which any who contract infectious disease can be removed for treatment. But citizens generally and individually are no less determined that, while the isolation hospital is available for use, they will take due precautions to avoid the need for their use of its services.

The turn and twist of international events in recent months has emphasised the vital need for Air Raid Precautions, and the importance of protective measures for Passive Defence which, organised now, may show any potential enemy, in no uncertain terms, that air-raids upon any part of this realm would not contribute to the winning of the war on which he may embark.

In the pressure of hasty creation of the A.R.P. machine,

confusion inevitably arose as to the department of the public service upon which the major tasks of the organisation should fall. For reasons of tradition and convenience the direction of Passive Defence naturally fell to the Home Office; and after considerable doubts, difficulties, discussions and delays the task of organising the measures for the protection of the civil population and property in each locality was made a statutory responsibility of the local authorities. The Air Raid Precautions Act, 1937, is a typical product of modern English parliamentary legislation. Most of such enactments work well. In the sphere of education, police, roads, housing, slum clearance and public health, precedents abound for the extension of the system of Exchequer grant, accompanied as it is by guidance, direction and prescription from Whitehall, securing uniformity of administration, a check both on local parsimony and local extravagance, and co-ordination of policy in the different jurisdictions of the local authorities, while at the same time facilitating democratic expression of ideas and giving scope for local enterprise and civic progress.

But these sister services of education, police, public health, etc., with their systems of administrative and financial responsibility shared between local authority and central government departments, have come to maturity by that "process of gradualness" which has been inherent to success in the post-war development of the social and public services in question. Smooth working has been aided by standing and advisory committees, pooling the aims of the legislator with the practical experience of the administrator, breeding mutual respect and confidence in the wisdom and competence of the several branches each to perform its task.

In creating A.R.P., however, the absence of similar processes, perforce omitted in the haste necessary to its preparation, seriously militated against successful maturity. Conceived of doubtful parentage, born in concealment, and developed in haste and indecision, with but limited funds for its education and training, the infant branch of the public service was inevitably weak. Yet progress was made, in spite of difficulties, and by the time at which, but for last-minute events at Munich on September 30th, the need would have arisen for practical

application of Passive Defence, a goodly number of volunteers had been trained for their accepted tasks. In many areas the foundations for an A.R.P. organisation had been well and truly laid, and the framework of Volunteer Services securely built. Such criticism as may appropriately be levelled for incompetence, or incompleteness, should not so much be directed to Whitehall, or Horseferry House, or to local authorities, but primarily to those eligible citizens, very largely in the majority, who failed to appreciate the risk of war, and their individual responsibilities of citizenship. High praise is due to the small minority who, acknowledging the duty of citizenship and realising the risk, had devoted months of preparation and training for their respective tasks.

In September, 1938, history repeated itself. The apathy of the man-in-the-street turned, in a day, into unabated and earnest endeavour to fit into the part of the scheme for national defence, active and passive, in a way in which, in earlier years, 1914, 1921, and 1926, he had demonstrated to the world at large the latent and unobtrusive recognition of his civic duty. But, in 1938, their very latency clogged and overloaded the new machine, as indeed so often had been prophesied by A.R.P. organisers and instructors, using all those artifices of appeal, like those heard in a broadcast for a "week's good cause," to procure enrolments for the air raid wardens and other branches of the A.R.P. Volunteer services.

As the events of September recede into perspective it is possible more clearly to point to defects and deficiencies, and to profit by the hard lessons of experience. The Prime Minister has reiterated the statement of policy of His Majesty's Government that, during peace, it is not intended to embark upon a scheme for compulsory military service, a term which must not, of course, be confused with the prospect of the organisation of a national register, compulsory or voluntary.¹ Service by the Community for the Community is, therefore, so far as the individual is concerned, to continue on a voluntary basis. That being so, all concerned in the organisation and conduct of A.R.P. must bend their energies to the task of

¹ Since this was written the Lord Privy Seal has announced the Government's decision to organise a National Register for Defence which will be based on voluntarism.

producing an organisation, on a voluntary basis, which will demonstrate its efficiency to the country and the world at large.

Who is concerned? This question has been debated interminably since July, 1935, when the Home Secretary, following an announcement in the House of Commons on behalf of the Government in regard to the need for A.R.P., published the first of many A.R.P. circulars to local authorities. The circular directed attention to the needs of passive defence and indicated the broad lines on which the Government desired the organisation to be set up in each locality by the local authority. Local councils throughout the length and breadth of the land were urged to prepare schemes for the organisation and equipment of A.R.P. services. Although the initial circular was implemented by conferences and discussions, ably initiated and led by the present Inspector-General of Air Raid Precautions, the financial bogey made progress and action painfully slow. Harassed by rate burdens which, increasing with steady consistency as social services expand, and by further duties imposed on their already overburdened staffs, the councils on their side emphasised their inability to provide rate-money for the somewhat nebulous, certainly unappreciated problem of A.R.P.

The Home Office, on the other hand, with a wider conception and more intimate knowledge of the vital needs of passive defence, urged that the safeguarding of the civil population and the protection of property in war, equally as in peace, could best be undertaken by the local government authorities.

It is a matter for pride in the Police Service that the right conception of the functions and duties of the police, of all ranks, has been acknowledged practically from the start. Air Raid Precautions are measures for the protection of the lives and property of the civil population, and accordingly come within the general conception of the functions and duties of the police. The initial selection of police personnel for training as anti-gas instructors was wisely made, and as a result a subsequent Home Office circular to local authorities made favourable comment upon the fact that police trainees at the Civilian

Anti-Gas School had qualified 100 per cent. as First Class Instructors.

Owing largely to the peculiar relationship of the English Police to the framework of government—organised, as they are, as local government units but actually with the responsibility and status of officers of the Crown—they have, in the earliest stages of A.R.P., acknowledged generally, if not specifically, their duties and functions in A.R.P. If A.R.P. is a duty which affects the safety and protection of the lives and property of the civil population, then clearly the police must embrace it within the constantly increasing radius of their duties; and establishments must be re-organised and augmented in such a measure as will secure effective performance of the duties involved. The last requirement is of the utmost importance; to the failure in many quarters adequately to recognise it must be attributed much of the insufficient preparation before September, 1938.

The force of these observations becomes clear when the attempt is made to envisage the degree to which, in the conditions of an air-raid in any locality, the public would rely upon the police for guidance, protection and help. If, under such conditions, the police organisation failed to fulfil its purpose, a condition of martial law and military control of civil affairs would need to be substituted for the normal machinery of government, either in the locality or for the country as a whole. But, since Cromwell, such a prospect has always been so foreign to the Englishman's conception of law and order, even under the stress of war conditions, that it is beyond the imagination of the average citizen. And if a form of military government became necessary as an expedient for the restoration of law and order in a community which had temporarily lost its morale, it would follow that the diversion of troops from their primary purpose in the scheme for national defence would weaken the military arm.

Hence we return to the vital need for the maintenance of "police services," organised and trained, which are ready to appreciate the risks of air-raids, and the conditions which apply in modern warfare, and for the various units and establishments to be adequate, in numbers, equipment and efficiency.

to protect the lives and property of the civil population. In this connection "police service" must be given its wider, historical meaning, embracing the employment of the citizen himself in carrying out the primary function of English citizenship, the preservation of the King's peace. That task throughout the centuries has, in law, been one shared by every citizen, the policeman as he has been known for just over a century being but a "citizen, paid to perform the citizen's duty." Thus we come to the consideration of the volunteer organisations formed amongst the citizens themselves, in the historic office of special constable, and more recently, the several branches of A.R.P. volunteers for the various phases of the scheme for Passive Defence.

Although new in terminology, the A.R.P. Volunteer has a status as old as his citizenship. Alfred the Great, William I, Henry I, Henry II, and Edward I all furnish the precedents; each in the different circumstances of his age found the need to mobilise eligible citizens for the safety of the realm and the maintenance of law and order. In recent times the citizen volunteer has held a significance in the public mind which implies the antithesis of dictatorship, and those who urge the retention of the voluntary, as opposed to the compulsory, system of service can point to great traditions and greater achievements. The spirit of voluntaryism served well in the war in 1914-18; indeed, as the war recedes into history the fact emerges more clearly that voluntaryism was inadequate largely because of a misguided use of man-power in the offensives of 1915, 1916 and 1917. The changing conditions of warfare make it doubtful whether a future war would again resolve itself into a campaign in which a similar wastage could again be attempted or tolerated.

Modern war, on the other hand, involving as it does all sections and areas of the community, needs distribution of man-power equally in the active and passive phases of national defence. Active defence, with its modern armaments and mobility must inevitably demand and devour the major share of the money available in the public purse, and passive defence must traditionally continue to subsist either on unpaid voluntary effort, or part-time and part-paid regimented

personnel. So far, in A.R.P., the attempt has been made to subsist on unpaid voluntaryism.

Can it succeed? Obviously not alone on tradition, or on the good intentions of volunteers, valuable though these are to the scheme. Organisation is the essential ingredient, coupled with a kind of police, as distinct from soldierly, discipline, based on loyalty and respect for authority rather than on obedience and obligation. The efficient recruitment of volunteer workers for the performance of a specific task, like that of a business, or a military formation, or a social enterprise, is possible only by the employment of an organising staff, capable and endowed with a specialised knowledge of the work in hand, and possessing qualities of leadership and character; in short, the qualities generally possessed, as a result of training, experience and public contact, by the average police officer of sergeant's and inspector's rank. And when the task is large, the detail organisation and training of the unit requires all the time and energy of the officers concerned to its performance.

Each branch of the Air Raid Precautions Volunteer services, therefore, requires an establishment for each unit, in each locality, which is as skilfully organised, under the direction and control of the chief officer of police or appropriate executive officer of the local authority, as the other branches of police and local government services. The organisation of the Territorial Army provides the nearest parallel to what is required. Units of the Territorial Army carry an establishment of officers and other ranks who are civilians, who on receiving the King's commission or on attestation enter into obligations in respect of training, duties and service which makes it possible for a Regular Army to be maintained in numbers much below the mobilisation requirements of the military arm. The efficiency of each Territorial Army unit, and its readiness for embodiment, is maintained by the provision of drill halls and headquarters accommodation, staffed by a regimental officer in the position of adjutant, with a warrant officer, non-commissioned officers, instructors and storekeepers sufficient to form the cadre of the unit. The result is that in various branches of this arm of the Defence services

rapid mobilisation for war duties is possible and practicable, without undue cost to the public purse.

The importance of the Territorial Army in the scheme for Active Defence is known. The Air Raid Precautions services, in their sphere of Passive Defence, must aim to reach an equivalent plane of proficiency in organisation. The A.R.P. Volunteer is in a different age-group from his contemporary in the Territorial Army, his task requires a police instead of a military direction and organisation, and while in times of peace he will follow his normal vocation, receiving instruction and undertaking his A.R.P. duties, e.g. respirator census, in the locality of his work or residence, in his leisure hours, in war the work may demand full-time attendance at his post. If modern war demands the use of the bombing aircraft as a weapon of aggression, and air-raids demand shelters and protection for the civil population, then full-time employment at their posts will almost certainly be necessary, in many areas, for large numbers of air-raid wardens, first-aid parties, decontamination and rescue parties, repair gangs and auxiliary firemen.

Experience teaches that while the unpaid citizen volunteer, e.g. the special constable, is keen and willing to work when there is a task of national importance to be done it is difficult to retain his interest in normal times. In the case of A.R.P. this factor needs review. Unless he is trained and organised in time of peace, the A.R.P. Volunteer will be useless in time of war, and if, as already shown, enrolment coincides with crisis, his lack of training will merely foul the organisation. There is the further point, as was aptly made in a recent parliamentary question, that the unpaid volunteer has so far no security of tenure, and those who accept his enrolment no assurance of service.

These factors lend emphasis to the need for skilled staff direction not only from Whitehall and Horseferry House, but in every unit of volunteer effort. With unpaid volunteer personnel, measures will be unlikely to be effective unless the peace establishment of every unit of administration has its permanent cadre of organising and instructional police personnel, ready rapidly to change from peace to war conditions

and duties. The police service has already shown its ability to provide the personnel for instructional duties, subject to augmentation of force establishments to replace men seconded for A.R.P. duties. It is a tribute to the versatility of police, and certainly to their training, that so many officers have been able to transfer their duties from the beat to the lecture room, from patrol to desk and recruiting agency, where their experience and training as guardians of the public safety has made them readily adaptable to instructional duties and the creation of the A.R.P. machine. It is pertinent here to observe that the quality of instruction given to volunteers, and the tact with which they are handled in initial stages, largely determines the success of measures to promote enrolment in the several branches of A.R.P. volunteers. If from experience the instruction and duties prove topical and interesting the trainees in turn become the best recruiting agents for their respective branches of service.

The primary responsibility for the organisation of technical work in connection with certain parts of the general precautions schemes are necessarily assigned to the appropriate branches of the local government service. Thus the organisation for the treatment of casualties falls naturally to the Ministry of Health and to the departments of local medical officers of health; and the technical work in connection with rescue parties, decontamination of property and the repair of damage to roads and utility services needs to be assigned to municipal and county engineers and surveyors. But in all these branches a close supervision by and liaison with police services is necessary throughout. Trenches prepared for communal use, and public shelters adapted and designated for their varying purposes will demand wisely directed policing, planned and rehearsed in times of peace, if they are not to become the scene and source of panic and disorder in the brief interval between the warning of impending air attack and the visit of the enemy.

The prospect of large-scale evacuation never before contemplated in this country presents special problems of policing. Sir John Anderson's Committee wisely indicated that the police should not be required to undertake specific duties in the machinery and organisation for the evacuation of civilians

from vulnerable areas and their billeting in rural districts, and this task has accordingly been entrusted to local authorities and their clerks. But it will be necessary to provide for the special problems, both of traffic and crime, which evacuation and billeting will present to the police. Having regard to the measures for penal reform now receiving the consideration of Parliament and the possibility of further leniency by the courts for persons found guilty of offences of theft from lock-up premises, it may be desirable in advance to provide the courts with powers to impose (and the criminal fraternity to be aware of) special penalties for breaking into and stealing or damaging property in dwellings or other premises evacuated for purposes of passive defence.

Air Raid Precautions seem naturally to fall into three phases. Peace; crisis; war. The first involves organisation, training and preparatory work, including the constant census and inspection of civilian respirators and mobilisation equipment, the instruction of the general body of citizens in the purposes and aims of A.R.P. services, and the selection and adaptation of premises for their respective purposes as depots, posts and stations. Secondly, it is necessary to envisage the needs of, and to prepare for, the situation which will arise when, in a state of national stress and public alarm, the Government should decide that precautionary measures be introduced and Defence services, active and passive, embodied and mobilised. Finally, it is essential that all concerned, police, special constables, A.R.P. volunteers and the general public should know, by training and rehearsal in their respective stations, what steps they are called upon to take when air attack is imminent.

Peace; crisis; war. The transitory stages may be rapid. The future is uncertain, but A.R.P., skilfully directed and adequate in numbers, equipment and efficiency, may yet prove to be the most practical and effective contribution to the maintenance of peace in Europe.

Steadily and surely, nationally and locally, A.R.P. is taking shape; and, arduous as is its task, the Police Service recognises that A.R.P. is a branch of modern police duty which must be shouldered and made effective

The Con Man

A DIFFERENT ANGLE OF APPROACH

By SUPERINTENDENT TOM ASHWORTH

Deputy Chief Constable, City of Bath

THE confidence trickster when arrested has in the past usually been charged with such offences as larceny by trick, false pretences and loitering with intent. These offences are all triable summarily, subject to certain conditions, and the con man is perfectly familiar with this aspect of the law. He is, by the nature of his profession, a psychologist of the first class and believes that when he is caught the line of least resistance is the best attitude to adopt. In consequence, when he appears before the Court, unless he is certain he has a good defence, he is anxious to plead guilty to a summary offence and ask for it to be dealt with at once, and is glad to take a sentence of three to six months as a matter of course. The high stakes for which he gambles, and so often wins, make it worth his while to be philosophic under these circumstances and always courteous to the Court, police and prison officers, thus ensuring reciprocation as far as is consistent with official regulations. Such sentences are grossly out of all proportion to the magnitude of the offence and do nothing even to check the activities of the con man, let alone seriously impede him.

The police are always labouring under great difficulties in fighting this class of crime. The con man, although known to the police, is far too clever and subtle to lay himself open to arrest on sight, and this, combined with the reluctance of the dupe to advertise his foolishness, has too often left an investigating officer helpless when he knows that a crime has been committed under his nose.

In practically all the tricks used by tricksters an

essential feature of the proceedings is the production of documents of one sort or another so as, firstly, to gain the confidence of the victim to be, and secondly, to induce him to part with his money. Such documents have been found in the possession of con men on their arrest and, in fact, have been seen to be used by them, by detectives. The value of these documents as evidence has not been rated very highly; they have merely been used to support one or other of the comparatively minor charges mentioned above. As a result the fraternity of confidence tricksters has never cared very much if the police should find a document of this sort in the possession of one of them when arrested, although they are usually careful not to have too many on them at one time.

It has apparently escaped their notice, and that of the police too, that such documents are forgeries and that it is a criminal offence to utter them, let alone forge them. This seemingly extraordinary state of affairs is explainable by the popular misconception of what is forgery. Many people think that forgery can only be the signing of some person's name on a document with intent to steal that person's money; for example, to imitate somebody's name on a cheque and then cash it. A study of the Forgery Act, 1913, section 1, will show how much wider the true definition is.

Had it not been for this misconception the elaborate forms and other printed matter used by con men in their 'professional' capacity would most certainly have figured in charges of forgery and similar offences against con men. In actual fact, however, it was not until the case of *Rex v. Barker and Gray* was heard at the Bristol Assizes before Mr. Justice Finlay in July 1938 that convictions under the Forgery Act, 1913, were obtained for this type of crime.

These men were arrested while operating upon a victim whose suspicions had been aroused and who had complained to the police, and at the time of the arrest was acting on their instructions. They were charged originally with attempted larceny, but the evidence to substantiate the charge was not very strong, although the prisoners were prepared to plead guilty and take a sentence of six months. In their possession,

however, was found a considerable number of documents, some of which the victim later identified as the ones which the prisoners had used during the operations.

As the result of close co-operation between the Bath City Police and Mr. E. B. Parkes, M.Sc., F.I.C., in charge of the Bristol City Police Department of Forensic Science, Barker and Gray were committed for trial on fourteen charges, *viz.* 1 of conspiracy to defraud, 1 of forging a bank-note, 1 of forging a valuable security, 5 of forging documents, 5 of uttering forged documents and 1 of being in criminal possession of a forged bank-note. At the trial they pleaded guilty to most of the charges and for obvious reasons the prosecution accepted the pleas. The sentences were three years' penal servitude for Barker and four years' penal servitude for Gray.

The value of this conviction to the Police in their fight against the confidence trickster should be self-evident, but a study of the case itself and of the exhibits reproduced here will emphasize how much this case should strengthen the position of the investigating officer and at last put a serious obstacle in the way of the con man. The work of Mr. Parkes is also most interesting as it illustrates the practical value of his and similar departments.

On Friday, 6th May 1938, a Mr. MacKenzie, a retired gentleman, came to Bath and put up at one of the leading hotels. The cause of his visit was to take the waters, as he did periodically. That day Barker also registered at the same hotel, his second visit within six months. Mr. MacKenzie in the course of the next day or two became acquainted with him, due to the latter's discreet advances. They took the waters together and did the sights of the city, Barker, of course, comporting himself perfectly as an American business man. He mentioned in ordinary conversation that he was representing a firm in Montreal and buying machinery in big quantities, further, that he had in his possession a letter of credit for a large sum of money.

Mr. MacKenzie had no reason to believe that Barker was other than he said, except that the mention of the letter

of credit seemed unnecessary. Sometime during the afternoon of Tuesday, 10th May, Barker told a curious story. He said that last autumn he was staying with his godfather, Judge Baker, in Florida, and that while at dinner one night the Judge was called from the room on important business. Later the Judge, Barker and another man were driven to the railway station. The third man was not introduced to Barker, but he learned later that this man dealt in huge sums of money in the currency market. Barker had never seen him since, although he had seen his photograph in a newspaper in connection with an article about financial matters, until that very day, 10th May 1938, when he saw him in the Bath Post Office. What did Mr. MacKenzie advise? Ought he to have spoken to him on such slight acquaintance? Mr. MacKenzie naturally could see no reason why he should not. There the matter dropped.

The next morning Mr. MacKenzie and Barker took the waters and strolled about the city. With an exclamation of surprise Barker stopped. He told Mr. MacKenzie that approaching was the man he had spoken about the previous night. Again he wanted to know should he speak to him. He was assured there could be no harm, so hesitatingly and diffidently he addressed himself to the man, who subsequently gave his name as Anderson. This man was Gray, but as he was known to Mr. MacKenzie up to the time of the arrest as Anderson that name will be used.

Anderson professed not to have the slightest knowledge of Barker until he was reminded of the incident in Florida. Even then he was reluctant to renew the acquaintance, if it was an acquaintance. The reason for this reluctance appeared to be that he should not be mixing with newspaper men. He was told that neither Mr. MacKenzie nor Barker had the slightest connection with the Press. Apologetically he pointed out that he had to be very careful of the Press. In proof of this he produced a cutting from a newspaper (Fig. 1) which included a photograph of himself and an account of how Mr. James J. Anderson had made 250,000 dollars in one afternoon's trading. This he said had done him a lot of harm with his employers, a

syndicate in New York which operated in currency deals. He was their agent in this country and whenever he received instructions from them by cable he had to buy French francs, wait for a favourable change in the market, which was already known in advance by the syndicate, and then sell at immense profits. None of these deals was supposed to become public knowledge, and in any case his name must not appear, otherwise operators in rival concerns might anticipate him and spoil the market for his syndicate. To support this story he showed them a letter (Fig. 2) which purported to come from his firm in New York, and which said that his half-year's salary of seventeen thousand five hundred dollars was enclosed, and that because of the undesirable Press publicity he would be suspended at the end of ninety days.

This confidential disclosure of his private affairs to strangers was justified by Anderson because Barker's godfather had assisted him in some very big business deals in America. He said that he must return to his hotel for business reasons but invited Mr. MacKenzie and Barker round after lunch. Barker during the conversation had expressed a wish to visit the Exchange where these huge transactions were carried out, and Anderson had promised to arrange it for both of them that afternoon.

After lunch the three met as arranged. Anderson was sorry he could not arrange for both to visit the Exchange as his pass would admit only one. Further, since he had seen them, instructions from his syndicate had arrived by cable and he had put through some very profitable business. Indeed so profitable was it he wanted to put through a deal for himself as the market was moving rapidly. Unfortunately he was unable to use his own name. If Mr. MacKenzie and Barker would permit him to use their names he would allow them 20% of the profit between them, and they stood to lose nothing. To this they agreed and he explained what he intended to do. He would send an order for £4,000 worth of francs, together with the cash, to the Bath Brokers' Exchange. By selling at the right time the profit made that afternoon should be about £1,600. An easy way of making

money, yet the impressive manner of Anderson gave a ring of plausibility.

As Barker had expressed the wish to see the Exchange it was decided that he should be the one to negotiate the deal, on Anderson's instructions of course. He was given a form, which Mr. MacKenzie did not see, and a wallet containing £4,000 in notes. Mr. MacKenzie saw the wallet and the contents looked like Bank of England notes. It was most important that Barker should have authority to enter the Exchange, therefore he was given Anderson's pass (Fig. 3). This was a neat leather wallet, suitably engraved and containing a membership card and a medallion bearing the name 'James J. Anderson,' in addition to other impressive-looking matter. Barker accordingly left the hotel, taking with him the pass, the notes and the form.

During his absence Anderson explained in detail some of the intricacies of deals in currency and the difficulty he had in making deals for his own profit. He mentioned that it was while making similar deals that he had met Barker's godfather in America, in fact the Judge had allowed him to use his name to their mutual advantage. Because of these transactions he felt safe in trusting the Judge's godson, but, despite this excellent testimonial as to his integrity, he, Anderson, was a careful man. So much so that he had cabled the Judge, who he knew was in Montreal at the present time, and had already received his reply. He showed Mr. MacKenzie a Western Union cablegram (Fig. 4) ostensibly handed in at Montreal, which said, 'Jimmie Barker is a splendid fellow most trustworthy he is my godson best wishes to you both. Judge Baker.' There was, therefore, no doubt at all about Barker's bona fides.

Time passed and Barker came back to the hotel, left and returned again. It eventually appeared that the deal had been successfully negotiated and all that remained was to collect the money. Once more he went away armed with Anderson's pass. Unfortunately he was too late to draw the ready cash, for just as he went to the pay desk the shutters were put up and he was told that nothing more would be paid out that day, and that payment would be made

at the Bristol branch the next day. That was his story. After a short discussion it was agreed that the three of them would meet at the Grand Hotel, Bristol, the next day after lunch.

Mr. MacKenzie and Barker left together and after tea separated. Mr. MacKenzie naturally thought a lot about this opportunity to make money easily. He had retired from business but was far from having lost his common sense, shrewdness, and business acumen. Something about the matter did not ring true, and during the evening he went to the Police Station at Bath, where, after telling his story, he was shown a number of photographs. Among them was one, or rather two—front and side face—of Mr. Anderson, but the name was different. There could be no doubt about the identity of the dealer in huge sums of money, so from then on Mr. MacKenzie and the Police decided to work in close co-operation.

At half-past two on the afternoon of Thursday, 12th May 1938, Mr. MacKenzie and Barker met Anderson in Bristol as arranged. It had been the intention that all of them should visit the International Brokers' Exchange, but again Anderson had to apologise for his inability to allow more than one to go there at one time, as his pass would only admit one and he had been unable to secure the necessary permission to allow three to use it at once. Also he had that morning, on instructions from New York, put through another huge deal. This time it was a wonderful opportunity to make a most satisfactory profit for themselves, and it would be an easy thing to do if he could again use their names. He had really anticipated their permission being given and had gone so far as to re-invest the money they were to have drawn that day, £4,000, and to it he wished to add £50,000. No objection was offered so he filled in a form instructing the Exchange to buy that amount of French francs in the name of Barker and MacKenzie, endorsing the form on the back 'James Anderson' (Fig. 5, front and back).

Barker was again sent with the pass to place the order. Anderson gave him very detailed instructions, even telling

him to which counter to go. During his absence Anderson went into still more details of the intricacies of the currency market, also included some reminiscences of America, Hollywood in particular. This was very interesting to Mr. MacKenzie because he had spent a considerable time in Hollywood.

Barker came back saying that the deal had been accepted and produced a document (Fig. 6) which purported to be an acknowledgment from the International Exchange indicating that they had bought to the order of Messrs. Barker and MacKenzie fifty-four thousand pounds' worth of French francs. Anderson was very jubilant. He took his pass and left them saying that all there was to do was to make sure the deal was completed properly. In due course he returned very, very pleased with himself and flourishing a Customer's Draft on the International Brokers' Exchange for £58,000 (Fig. 7). He gave it to Barker with the pass and explicit orders as to where to collect. A profit of £58,000 was not bad going in ninety minutes.

An appreciable time passed before Barker came back to them. When he did he was most despondent. He told them he had carried out his instructions to the letter, but when he had the money in his actual possession he suddenly thought he ought to have something in the form of a receipt. He asked the cashier about it. The latter had another look at the Draft and immediately took back the money, saying that the Draft was in the name of Barker and MacKenzie, to whom the money must be paid, not to one individual. Barker was desolated and felt an awful fool, but what could he do? Anderson resignedly took charge of affairs and departed to straighten out things, as, of course, a man of his experience could.

He was away a long time. In the meantime Barker and MacKenzie moved to another room, thus making it awkward for the watching detectives who had had very little luck. They had heard but a word or two of the conversations, although they had seen documents passed from hand to hand. The last move left them high and dry. They saw Anderson return but were unable to get within ear-shot.

A most impressive story was the one told by Anderson to Barker and MacKenzie. He had seen the manager of the Exchange and the matter had been left in this way. The manager did not know the standing of either Barker or MacKenzie; as far as he knew they might have been unable to meet their obligations if they had lost the deal instead of winning. If within three days they could satisfy him separately or jointly that they had £50,000 available in a Bristol bank the money would be paid. Anderson appeared to be satisfied with this arrangement and informed the others that he would easily put the matter in order. He would cable his agent in Hollywood and instruct him to forward £25,000 to the account of each of them. He displayed a statement (Fig. 8) of the International Brokers' Exchange which outlined the position as he had explained it. The cable ought to bring a reply not later than the next day, so they would part now and meet in Bath tomorrow. A cordial handshake all round and Barker and MacKenzie left the hotel, Anderson staying behind because he thought it desirable not to be seen outside with them.

The detectives were in a dilemma. They had an arrangement with MacKenzie, but the lay-out of the hotel had made it impossible to keep in touch with him. There was only one thing for it and that was to arrest both Barker and Anderson and hope for the best. This was done and the whole party went to the Police Station. Anderson all the afternoon had carried a leather wallet of the kind used by business men to hold papers. The detectives had a very lively curiosity about this, and when it was seized it yielded a rich harvest.

The prisoners were charged with attempting to steal and taken before the magistrates in Bath the next day; then remanded in custody for one week.

At this stage it is proper to put forward the theory of the prosecution in regard to what would probably have happened had no arrest been made. Among the papers in Anderson's wallet was a cablegram (Fig. 10). It seemed to have been handed in at Hollywood and the context was the reply to the cable Anderson said he was going to send to

his agent asking for fifty thousand pounds. It apparently came from Anderson's wife and she told him that the agent had left for a cruise and would be away for six weeks; however, there was a sum of forty thousand dollars in their joint account. At the meeting of the three men the next day Anderson would, no doubt, explain how very unfortunate it was that his agent should have chosen that particular date for a holiday. He had, however, cabled for the forty thousand dollars and that, with what he could raise in this country, was available. Unhappily the total sum he could raise was considerably short of the sum required; if either or both of them had the cash at hand they could produce it to the manager of the Exchange, satisfy him as to their integrity, and draw the £58,000. Barker would unhesitatingly have produced a useful contribution to the fund. Both Barker and Anderson would use bundles of Bank of England notes, the tops and bottoms made up of genuine notes, which were actually found in their possession, and the middles of paper cut to size. MacKenzie would be told that a small matter of a few thousand pounds was still necessary to complete the total sum. Could he produce it?

Before the operations began in Bath it is almost certain that Barker and Gray had made up their minds as to just how much they thought Mr. MacKenzie was good for. Whether they were right or wrong does not matter for the purpose of this article. If MacKenzie had been willing to join in making up the fifty thousand pounds his contribution, in notes of course, would have been added to the rest, and Barker would most likely have been sent by Anderson to show the money to the Exchange manager. The story would be that it was not worth while opening an account with a Bank, but the production of the ready money would be equally satisfactory. Needless to say that would have been the last MacKenzie would see of his money. Barker possibly would have returned with the tale that when he got the money he saw that great excitement reigned and that it appeared easy for him to add to their profit. He had bought, and if they waited a while still more profit would accrue. Anderson would be furious and rush to the telephone

to stop the transaction, but only to find he was too late and all their money was gone. A great fuss would ensue until at last he saw a way out. They would all meet at one of the continental capitals, say Paris, and because of his inside information their losses could be more than recouped. The victim could do no other than agree and all would part, never to meet again. The victim's trip to Paris would convince him that he had been duped, but as several days had elapsed the notes he had parted with would no longer be in the possession of the con men, even if they were identified and arrested.

To return to the actual facts. The charge of attempting to steal from MacKenzie was the obvious one, but there had never been the slightest resemblance of a request to him for money. If the prosecution had been content to leave the charge as it was they would have had to rely on MacKenzie's story, as recounted here, and produce the documents found in the prisoner's possession to prove the *modus operandi*. No man of common sense would believe that the prisoners had any other intention than to steal, but in the hands of counsel the case for the prosecution could quite possibly have been made to appear very thin. In any event it was not a case that could properly have been sent for trial, so that Barker and Gray at the most would have received a sentence of six months' imprisonment, which would not have inconvenienced them very seriously, and with which they would have been pleased to get away.

After the proceedings of the first appearance at Court were over time was found to make a thorough examination of the many documents taken from the prisoners. Of those reproduced here, numbered 1 to 19, all except Nos. 9, 9a and 12 were found in the possession of one or other of them. Those numbered 1 to 8 were the ones used during the conversations with MacKenzie, and are numbered in accordance with the order in which they were produced, or, in the language of the Forgery Act, uttered. The remainder had uses which will be mentioned later.

About the first point to strike the eye was the rubber stamp impression of the signature 'J. Hill.' It was noticed

that this appeared on Nos. 7, 14, 15 and 18. No. 15 purports to be a letter of credit and bears the signature, 'G. J. Hill.' Under a magnifying glass it could be seen that this had been written over the rubber stamp impression which appears on Nos. 7, 14, and 18. The fact that J. Hill permitted his name to be used on (a) a cheque for £58,000 which was ostensibly written in Bristol on 12th May 1938; (b) a duplicate certificate of a bond covering James J. Anderson for 250,000 dollars and issued in New York; (c) a letter from the Horse Owners' & Breeders' Ass'n, Newmarket, dated 13th May 1937; and (d) a letter of credit of the National Bank of New York City for five thousand dollars, indicated that the ramifications of his business activities were either ubiquitous or non-existent.

Tucked away in the folder found in the possession of Anderson was an insignificant piece of blotting paper (Fig. 11). As is usual, it was held to a mirror and an effort made to decipher the handwriting on it in the hope of finding something useful for evidence. This was negative, but two impressions of the signature, 'J. Hill,' were clearly visible. They were not in reverse as would be the case if a signature had been blotted in the usual way, and the conclusion, a very obvious one, was that the man who had the blotting paper had the rubber stamp. Most people who have used a rubber stamp have first made an impression on blotting paper so as to be sure it was the right way up before making proper use of it. It was clear, therefore, that Anderson had prepared the documents, although the rubber stamp itself was never found by the police.

The newspaper cutting (Fig. 1) aroused a great deal of curiosity. Detective Inspector Coles of Bath visited the master printer of the *Bath & Wilts Chronicle & Herald*. This gentleman was able to say that the paper itself was genuine newsprint, that all the matter except that under the heading 'Huge Currency Transaction' was typical newspaper printing, but that the article and the photograph had been done by a hand press. Further, the paper was similar to that used by one of the London or Manchester evening newspapers.

The D.I. set out to find the newspaper. This might appear to be an insuperable task, but in police work nothing must be regarded as impossible until an attempt has been made. Enquiries lasted for several hours until in the library of the *Daily Mail* the actual paper was traced. It proved to be the lunch edition of the London *Evening News* of the 23rd April 1938. It is due to the *Daily Mail* to acknowledge the efficiency of its library. A copy of the *Evening News* for the day mentioned was obtained. The stop press column was blank below the gold quotation. The gold quotation, the speedway news and advertisement, and the ends of the words in the column next to the stop press column, were identical. The master printer of the *Evening News* identified the newsprint, the linotype and part picture as that of his paper. The article and photograph under the heading 'Huge Currency Transaction' had not been printed by his machines, but by a hand press. He mentioned numerous reasons for coming to this conclusion, among them was the fact that the width of the column was two ems greater than the one used by the *Evening News*; the type face was different; and in forty years experience he had only once known a photograph to be used in a stop press column, and that was at the specific request of Scotland Yard.

He was also asked if he could say anything about two newspaper cuttings (one shown at Fig. 19). These were printed on a greenish paper and appeared to be taken from an American paper and on one of them the photograph of J. J. Anderson appeared. It was actually a very good picture of Gray. The master printer said that the paper did not appear to be newsprint, although the matter which appeared on one side of each cutting seemed identical and looked like genuine copy. He came to the conclusion that this copy had been photographed from a genuine newspaper and lithographed on to the paper produced. He pointed out that several defects occurred in each copy in exactly the same way, which would not be the case if each of the cuttings had come through a printing press. The two articles, 'Crowe's European Holiday' (Fig. 19) and 'Britain's Bloodstock Industry' had been printed on a hand press. That he

was right was proved when one of the prisoners told the writer that this is exactly what happened.

All this was very satisfactory, particularly when one considers the apparently hopeless task which faced the Police in the beginning.

The two cablegrams, Figs. 4 and 10, were taken to the Western Union Cablegram Company in London. It was learned there that the forms were of the type used in America only, the preamble, *i.e.* the supposed office of origin and other marks, was bogus and the cablegrams had never been through the office of that company.

It will be remembered that Barker told MacKenzie he had met Gray only once before the Bath adventure, and that was in America. He told this on 10th May 1938. In his possession when he was arrested was a telegram (Fig. 9) dated 6th May, which said that Frank was arriving on Sunday. The original had been handed in at Piccadilly, London, and was obtained through the usual official channels. On the back of it the sender had written the name and address, 'F. Brice, Lawn Road, N.W.3' (Fig. 9a). Frank Gray is also known as F. Brice and lives at Lawn Road. Another useful link in the chain of evidence had been forged, but when reference is made to the comparisons of handwriting the further value of the document will be appreciated, because in addition to proving they were in communication with each other on the 6th, when they claimed not to have met each other until the 10th, and then not for a considerable time, the handwriting helped to strengthen the claim that Anderson had written many of the documents.

The next step was to prove whether the various business houses existed or not. It was proved by an official of a local bank that the International Brokers' Exchange, the International Exchange, the Continental Exchange and the International Stock Exchange were unknown in Bath and Bristol. These supposed institutions are mentioned in Figs. 3, 5, 6, 7, 8, and 17. An official of an American Bank with offices in London gave evidence that the institutions were unknown in the banking world as far as he could say,

and he said that if they were in a position to do business to the extent of £58,000 in one deal he would be certain to know of them. He also said that the National Bank of New York City, mentioned in Figs. 13, 15 and 16, was similarly unknown, although there were American Banks with names containing the same words in a different order. The forms used for the letters of credit (Figs. 15 and 16) were passably good imitations of genuine forms as issued by American Banks. American Banks, however, are very reluctant to issue letters of credit except to customers of the highest repute, because such letters are often used merely as letters of introduction, sometimes with unhappy results. A useful piece of information as Barker had talked about a letter of credit in his early conversations with MacKenzie.

The form used for the Bill of Exchange (Fig. 13) was in proper order but he had never seen the wording 'Eight thousand pounds sterling *paid to* National Bank of New York City.' The words italicised were those which were unusual. He was asked if the letters of credit and the Bill of Exchange would be likely to deceive any person who did not examine them too closely. He said that they would most certainly deceive under those circumstances, but no one could hope to obtain money on them from any Bank. As the documents were only used by Barker and Anderson to gain the confidence of intended victims, by inducing them to believe they had large sums of money at their disposal, this evidence was excellent.

The same gentleman also spoke about the letter (Fig. 2) from Morton and Company. He had no knowledge of the firm, there was no record of such a firm at either of the addresses shown on the letter heading, the cable address belonged to a firm in another part of America—humorously enough it was that of a firm called The Moore Drop FORGING Company, Cincinnati—and the telephone number was not a New York telephone number. An interesting point is that all New York telephone numbers have an index number in addition to the name of the exchange; for instance, the number quoted is Hanover 8040. If this had been genuine it should have read Hanover 7-8040.

The Secretary of the American Chamber of Commerce in London, Inc., was called to speak about the certificate of the Metropolitan Bonding & Security Company. There was no such company to his knowledge, he could find no record of it in any register, and the whole document was bogus, although it was very impressive to look at, and anyone not familiar with such documents might be deceived into believing it was authentic.

About the newspaper cuttings (one shown at Fig. 19) there was much to be said. The two sides which contained identical matter had very likely been copied from a genuine American newspaper. The article about Crowe's European holiday was very cleverly done. The context had an air of truth about it, but the transactions referred to were imaginary. The names of some of the so-called business men mentioned were not known in the business world, but had a close resemblance to names of men who were. Unless an individual had a good knowledge of financial affairs in America he could very easily be deceived into believing it was genuine. He was also certain that the article about Britain's Bloodstock Industry was bogus, because he knew from the official published figures relating to international trade that the business in horseflesh between this country and the U.S.A. had not the slightest resemblance to those quoted in the article.

Other documents in addition to those reproduced were found in the possession of the prisoners and several witnesses were called to speak as to their falsity, as all of them were bogus.

By the time all this evidence had been collected it seemed that a very strong case could be presented against the prisoners, but there was still the Department of Forensic Science at Bristol to be tried. All the documents were taken to Mr. Parkes and he was told the part they had each played, or were thought to have played, in the operations. He was told also that it would be almost certainly proved that all of them were bogus. He was asked if he could help us in any way, perhaps by comparison of the handwriting and typescript. He promised to do his best but pointed out that he

never professed to be a handwriting expert, yet he might do something with the typescript. He did his best and a very good best it proved to be.

Altogether more than one hundred photographs were taken by Mr. Parkes and his staff, and more than 600 prints made, many of them enlargements. In the end he was able to prove that most of the handwriting was that of the same man and that the man was Anderson. This he did in spite of his assertion that he was not a handwriting expert. Mr. Parkes, however, adopted what appears to be a much more reliable attitude, reliable that is to say from its value as evidence. He did not talk about mysterious marks in the upstrokes and downstrokes and other super-scientific deductions. He was content to show enlarged reproductions of certain characteristics which were repeated in different documents, and to ask the bench to make up their minds upon the similarity and decide whether this evidence justified them in coming to the conclusion that the same hand had written them all. His evidence was that he had carefully examined the handwriting on the various documents, he had been struck by the similarity of certain characteristics, he had caused enlargements to be made of these, and if the bench would study the pictures, there was in his opinion only one conclusion to which they could arrive. There was no attempt to 'blind them with science,' which could be torn to pieces by the counsel for the defence. It may not always be possible to rely on such simple evidence where handwriting is concerned, but in this case it carried enough weight to gain the point.

Mr. Parkes compared the typescript and found many striking facts. He submitted three groups of photographs, (a) enlargements of the signature, 'J. Hill,' (b) enlargements of handwriting, and (c) enlargements of typescript.

Although it appears obvious that the signatures 'J. Hill' on Figs. 7, 11, 14, 15 and 18 are identical it is never safe in preparing a case for the prosecution to rely on the obvious and leave it at that. Counsel for the defence can always find something to prove, so that the only thing to do is to go into every detail and prove your case to the limit.

The enlargements of Figs. 7, 11, 14 and 18 prove without doubt that the signatures were made by the same rubber stamp, making allowance for the difference in the amount of ink used. The signature in Fig. 15 is not at first sight so easy to prove as being identical with the others. In the enlargement a number of dots can be seen at the base of the 'J,' along the upper part of the strokes of the 'H' and 'l,' and at the left-hand end on the underscoring. Measurement of the height and width of the strokes in No. 15 do not agree with the measurements of the others, but when the dots are taken into account the discrepancy is made up. The explanation of this signature being handwritten over a rubber stamp was obviously because the stamp had been used with too little ink and the writer did not wish to waste the form.

The group of enlargements of handwriting discloses many interesting facts. In Fig. 21 the numbers which appear are those of the documents from which the enlargements were taken. As has already been pointed out the similarities are obvious, in particular the 'H' in 8, 13 and 17; the 'y' in 5, 12 and 13; the 'thousand pounds' in 5, 11 and 13; the loop of the 'M' or 'N' in 2, 5, 9a and 13. It has not been mentioned before that Fig. 12 is a photograph of part of the charge sheet containing several signatures of Anderson—Gray—in respect of his property, and this was put in to prove handwriting. Objection was made at the Police Court hearing by his Counsel, but it was argued by the prosecution that it was admissible as the signatures were obtained in the normal routine of police work and that no threats, promises or subterfuges were used to obtain them. The magistrates accepted the prosecution's submission, but, of course, no ruling was given at the Assizes because of the plea of guilty. It is as well to leave the handwriting comparisons for the reader to study for himself and come to his own conclusions, just as the jury would have been invited to do.

No enlargements were prepared of certain words in Figs. 2, 3, 5 and 13. These are 'Jas,' 'James J. Anderson,' 'James Anderson' and 'James' respectively. Here again

the principle was to ask the magistrates to make the comparison and judge for themselves.

The typescript was illuminating. In 12 out of the 13 documents reproduced which bear typescript an outstanding peculiarity was seen. That was that the numeral 'one' was represented by the capital 'I,' which is most unusual. There are not more than two or three typewriters on the market which specially provide a numeral 'one' on the keyboard. Users of other typewriters are universally taught to use the small '1.' Only a self-taught typist would use the capital 'I,' and even then it is more than likely he would soon find out his mistake. The fact that this peculiarity occurred so often indicated that the same typist was responsible.

The same documents showed other characteristics common to each of them. Six separate characteristics were referred to, but many others could have been used. The six were, (1) the type was Gothic; (2) the '3' was out of alignment; (3) the '/' was out of alignment; (4, 5 and 6) the 'D,' 'A' and 'E' each had defects. The first three are visible without the need for enlargement. Enlargements were prepared of 4, 5, and 6 and mounted. The numbers which appear on Fig. 22 are those of the documents from which the photographs were taken. It will be seen that the 'D' is out of alignment and inclined to the left, the 'A' is heavy on its feet, and the 'E' is heavy at the bottom right-hand corner. All these characteristics proved, in the submission of the prosecution, that the same typewriter had been used to type all the documents, even though some purported to have originated in the U.S.A., and others in this country.

The result of all these comparisons led the prosecution to put forward that the handwriting, the rubber stamp impressions and the typescript justified the belief that one man was responsible for the production of the varied collection of documents purporting to originate in either hemisphere, and that the man responsible was Anderson, who was charged under the name of Gray.

There are two features about the exhibits which must

strike the observer. One is the elaborate printing and the other the comparatively clumsy manner in which the forms were filled in. Figure 8 provides a good illustration of the clumsiness. It looks like a Statement of Account showing a credit balance of £58,000; examination, however, shows that the figures mean absolutely nothing. It may be asked then how the con man succeeds in fleecing his dupes if he is so careless. His own answer would be that it is not necessary for him to let the dupe see anything too closely, in fact it is almost possible to get away with blank paper, so eager do people become who wish to make money easily and so readily do they believe all that is told them by a skilful con man. Another lesson in psychology.

Anderson at his trial pleaded guilty to forging several documents, to uttering and to conspiring with Barker to cheat and defraud. He was sentenced to four years' penal servitude. Barker pleaded guilty to uttering the forged documents and to conspiracy and was sentenced to three years' penal servitude.

It may be that the severity of the sentences will do much to discourage the con man and that the complaints made to the police by fleeced dupes will be lessened. In any event the policeman should now be in a stronger position than he was before this different angle of approach was tried.

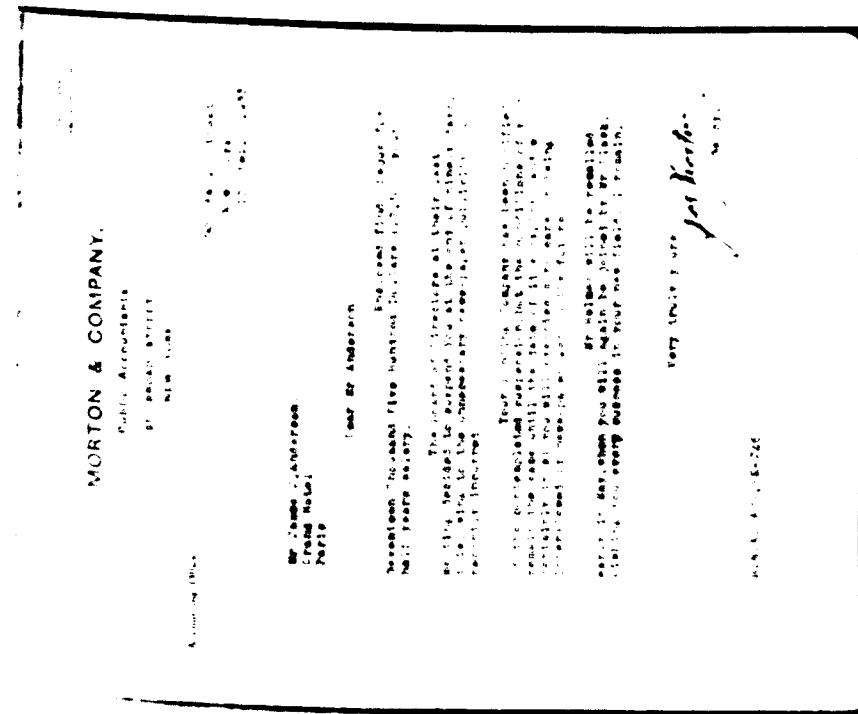


Fig. 2



Fig. 3

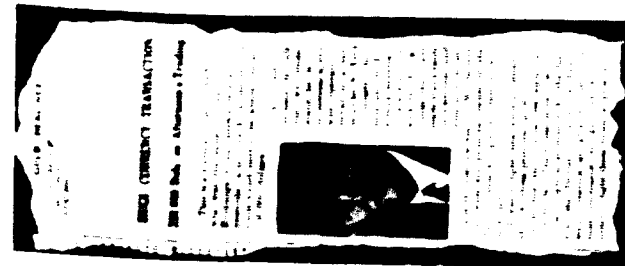


Fig. 1

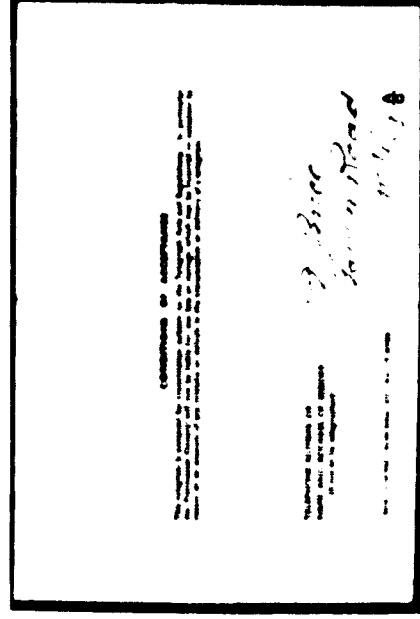
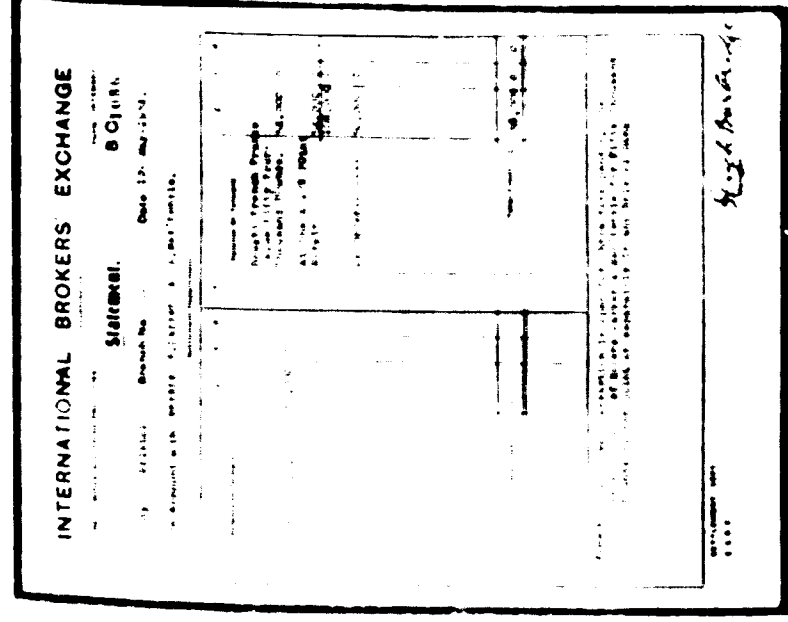
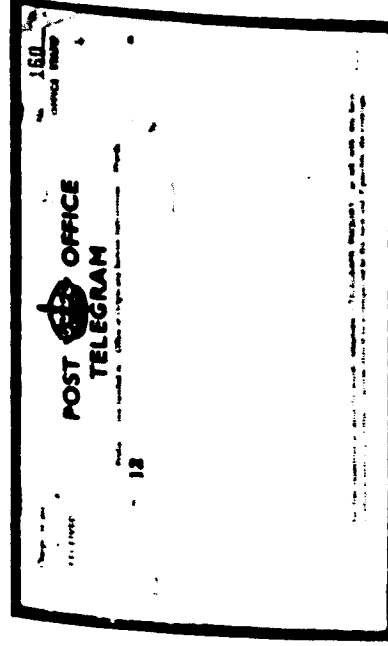
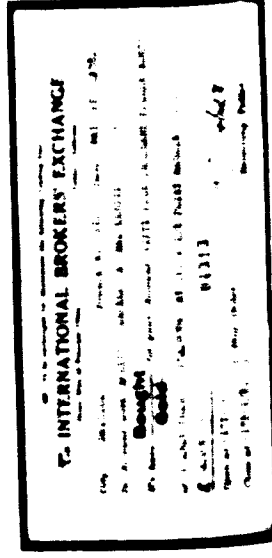
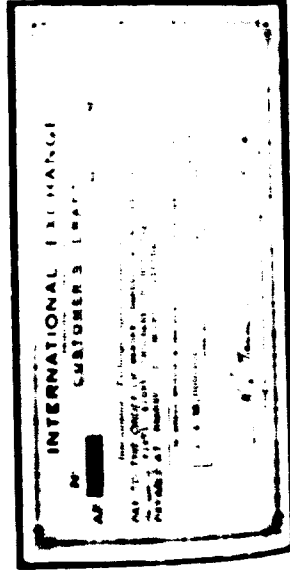
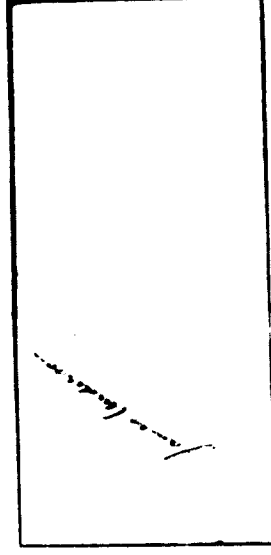
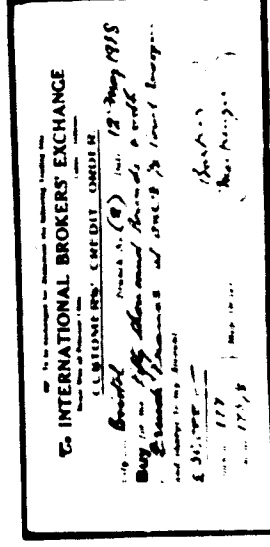
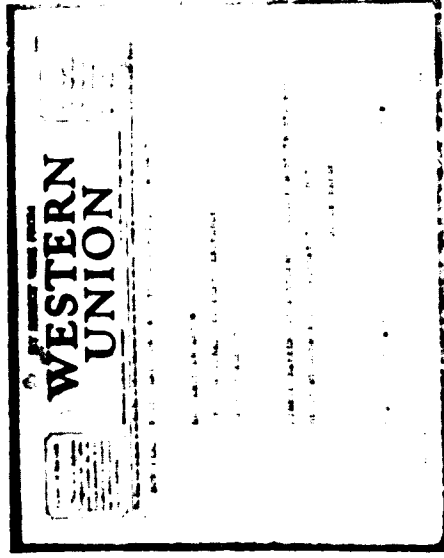
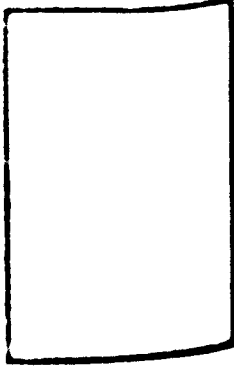


Fig. 9a

INTERNATIONAL OVERSIGHT BOARD 1000 15th Street, N.W. Washington, D.C. 20004 (202) 462-6000	STATEMENT Before the Subcommittees on the Constitution and the Judiciary of the United States House of Representatives 100-100000-0000	[Empty area for statement content]
---	---	------------------------------------

五、



• • • • •

CROWES EUROPEAN HOLIDAY
For every Dream and Day of Discovery

Fig. 10

THE HORSE OWNERS AND BREEDERS ASSN.

Five 14

S. T. Hall

11.44.216

Mae Chen and Ben
Paid 177 George
Lilly 178 1/8 May
Shorter T.T. Gray
T.T. Gray
Lilly & Gray
George Hc &
City 4 x 6 Sunday
New Paid New
Shorter Ben

1

172

File 21

FIGURE 2B

ANDERSON
EDWARD THOUSAND POUNDS
THOUSAND POUNDS
JAMES J. ANDERSON
DWARD
furnish and
it exceeding
E THOUSAND
JAMES ANDERSON
THOUSAND POUNDS
THOUSAND POUNDS

FIGURE 11

1122

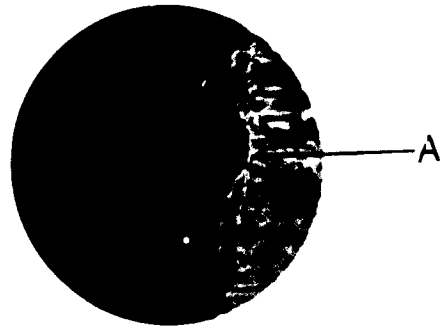


Fig. I. PHOTOMICROGRAPH OF A SECTION OF THE STEERING ARM SHOWING "A," THE CHISEL MARK.

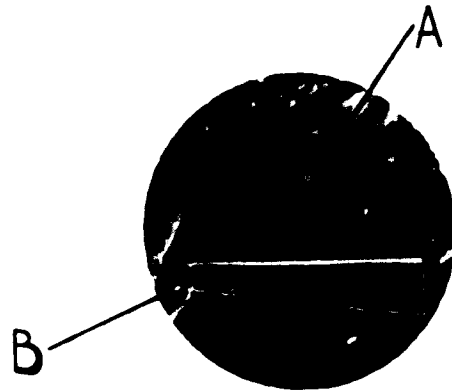


Fig. II. PHOTOMICROGRAPH OF THE CHISEL MARK "A" ON THE STEERING ARM WITH A SUPERIMPOSED SECTION OF A PHOTOMICROGRAPH "B" OF THE LEAD TEST PLATE SHOWING COINCIDENCE OF STRIATIONS.

NOTE: There is a difference in "register" of the striations due to the fact that the surface of the chisel mark was curved, whereas the surface of the plate was in one plane. This is particularly noticeable at the two ends of the strip "B," where the curvature would, of course, be greater.

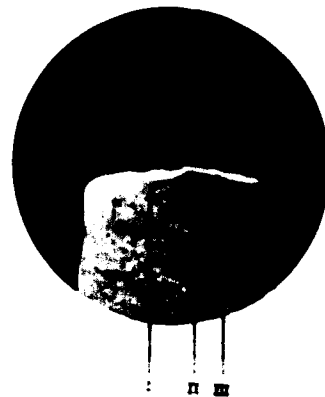


Fig. III. PHOTOMICROGRAPH OF CHISEL TIP SHOWING PROMINENT FAULTS DUE TO WEAR AND TEAR.

The Identification of Tool Marks

WITH PARTICULAR REFERENCE TO A RECENT CASE OF MOTOR MANSLAUGHTER

By A. E. HARWICH, F.R.M.S.

Assistant Superintendent of Police, Uganda

IN the issue for October, 1937, of THE POLICE JOURNAL (*The Use of a Graph in Relation to a Recent Motor Accident Case*, p. 455) was described one of the many accidents which invariably accompany the marketing of the cotton crop in Uganda. Another more serious case is related below and is particularly interesting as being the first occasion in the history of the country on which laboratory work helped to prove as reckless an example of bad driving as can be imagined.

One day during the 1937 cotton season in the Masaka district, a lorry driven by a native, one Muhammadu, left the garage for a tour of nearby villages where cotton might be found. The lorry, a very old British Bedford, was of the platform type, that is, there were no side-boards to prevent the load from sliding or rolling off. At the time of the accident there were eight persons on board, three in the driver's cab and the others, together with about a ton and a half of raw cotton, were somewhat precariously perched at the back.

It appears that shortly before reaching a bend Muhammadu saw ahead of him in the distance another lorry which he recognised as belonging to a rival firm. Clapping on all speed and blowing his horn furiously he managed to overtake and pass the other lorry, the driver of which had halted and waved him on. By that time, however, Muhammadu had attained such a speed that he was unable to slow down sufficiently to take the corner on his correct side nor, having negotiated the corner, could he straighten out; instead his lorry left the road on the wrong side and travelled with both offside wheels in the high

elephant grass for a distance of four hundred and fifty three feet. In its course the vehicle crossed two three-foot drains and an anthill two and a half feet high and jumped a culvert four feet wide and four feet deep, finally re-entering the road and crossing it diagonally for a distance of one hundred feet before coming to a standstill in the grass on the left hand side.

The five passengers on the back and all the cotton had been thrown off by the force of the impact when the lorry touched ground again after jumping the culvert; four were seriously injured and the fifth died on the way to hospital.

Muhammadu explained that the accident had been caused by the steering arm coming adrift just as he pulled out to pass the lorry in front. Consequently his own vehicle was completely out of control and left the road. To account for the distance it travelled between the moment of losing control and finally pulling up he said that on striking the anthill the force of the impact had broken his dashboard so that it had fallen behind the brake pedal and rendered it useless and had at the same time depressed and jammed the accelerator so that he was unable to bring the vehicle to a standstill. An ingenious story but one which received scant sympathy from the investigating officer.

An inspection of the vehicle disclosed that the steering arm was in fact detached from the outside front brake-drum, but it appeared to the police that it had been deliberately disconnected after the accident so that it should seem to be the result of an unavoidable mechanical fault and not the natural outcome of criminally excessive speed.

This conclusion was reached when it was found that although the holding nuts were missing, the thread on the bolts projecting from the drum were perfect; portions of the split pins were still in the holes showing that the nuts must have been forced off by hand by someone who was in too great a hurry to remove the pins. One of the missing nuts and a spanner which fitted it were later found under a board in the floor of the driver's cab. There was a peculiar smear of blood on the outer surface of the off-front spring which could only be explained by blood from a cut hand working in the cramped space above the front axle. This theory was later supported

by a dusky lady who remembered seeing the driver's boy hammering in that area after the accident. She had noticed that he had a bad cut on the back of his hand and asked him whether he would not hurt himself still more if he continued using it. She also described the tools he had been using, *i.e.* a hammer and chisel, which were in fact found in the toolbox. It is significant that the toolbox which formed a portion of the driver's seat was so damaged that nothing could have remained in it whilst the vehicle was in motion—all the other tools were found nearly two hundred and fifty feet behind the lorry where they had fallen when the toolbox was broken which implied that the hammer, chisel and spanner must have been subsequently replaced.

On the steering arm itself some bright fresh marks were found which at first sight appeared to corroborate the driver's story about it coming loose and dragging on the ground, but a closer inspection revealed that the marks had been caused by a chisel. As both the driver and his boy denied having in any way tampered with the steering arm these marks were examined very carefully.

When a hard object such as a chisel comes into violent contact with the surface of a relatively softer metal it makes an impression on the latter which varies according to the nature of the instrument, the angle at which it is held and the force with which it is applied.

No matter how hard the edge of a cutting tool may have been rendered by tempering it is bound in the course of time to be damaged by wear and tear. This is a gradual process, the appearance of the cutting edge altering but very slightly from stroke to stroke. Sharpening the tool would, of course, completely remove evidence of previous use but would, however, leave minute irregularities in the edge which would persist until they were in their turn worn away. It is generally possible to find traces of these irregularities in the form of striations or indentations on the surface which has been struck. Sometimes these are sufficiently distinct to be seen by the naked eye but more often it is necessary to use a microscope.

By drawing the edge of the tool fairly firmly over a specially prepared lead plate one obtains a series of striations

which can be photographed with a micro-camera and the resulting photograph compared with one of the striations on the article submitted for examination. It is inadvisable, and in fact, dangerous, to use a magnification greater than 12X. The reason for this is that the greater the magnification the more lines will be visible in any given area and the chances of coincidence will be disproportionately increased so that coincidence is practically certain even when it is known that the marks could not have been caused by that particular tool.

The following extracts from the investigating officer's report speak for themselves:

"On the straight portion of the steering arm at the wheel end were discovered a number of bright fresh marks. The whole of the exhibit was otherwise covered with rust, oil and dust.

"On closer examination the marks were found to be below the surface of the metal and to contain numerous striations running parallel to the arm from right to left (being deeper at the left). This indicated that a chisel and hammer had been used.

"One of these chisel marks in particular (Figure I) invited attention. It is deeper and wider than the others and shows very marked striations. A wax cast was taken from this impression giving the shape of the tool that made it.

"Another cast was taken from the same impression and sections were cut across its width. These sections give a negative profile of the impression and a positive profile of the tool which made it.

"The cast and the sections showed that the tool which made the impression was old, and worn, the edge was no longer square but round, and possessed a fault which caused the peculiar outline and striations of the impression.

"An examination of the chisel (Figure III) reveals that the cutting edge is turned over to one side by wear (under side) and forms a curve instead of a right angle to the plane of the long sides. This curve is not regular but is broken and really consists of a number of smaller curves. It is noticeable that this irregularity is all on the under edge of the chisel—the upper edge being bevelled.

"Casts were taken of the under edge and tip of the chisel giving negative impressions.

"The chisel was drawn five times at different angles across a specially prepared lead plate. Each draw created striations caused by the microscopical irregularities on the under edge. A comparison of these striations, (Figure II) particularly those of Draw No. V, shows a marked similarity with striations of the impression on the steering arm of which a cast had been taken. Draws Nos. III and IV also show this similarity.

"The sections of the wax cast are identical in profile with that part of the chisel which caused the striations on the lead plate.

CONCLUSION. The bright marks on the steering arm were made by blows with a chisel and hammer and could not have been caused by scraping along the ground. The chisel used to make the impression on the steering arm can be none other than the chisel submitted for examination. It is not possible to say whether or no the hammer was used together with the chisel."

Apart from the above, evidence was given by an inspector of vehicles and an Indian garage proprietor that had the steering become accidentally disconnected the lorry would not have followed a straight course as it did but that the collision of the offside wheel with the anthill would have locked the front wheels over to the left and probably have caused the vehicle to overturn; that the brakes were completely ineffective and that the dash could not possibly have jammed the brake and accelerator pedals as explained by the driver.

In addition it was found that Muhammadu was not licensed to drive that particular type of vehicle. In this respect his evidence in cross-examination very clearly demonstrated his attitude as a driver to other users of the road. When asked why he drove a vehicle of a type for which he was not qualified he replied, "I did not think I would have an accident!"

It is gratifying to record that apart from the lengthy penalty of imprisonment the accused was disqualified for life from driving any type of motor vehicle.

Forensic Medicine*

By DR. DOUGLAS KERR, M.D., D.P.H., F.R.C.P.

Casualty Police Surgeon and Medical Referee to the Corporation of the City of Edinburgh, and Lecturer on Forensic Medicine in the School of Medicine of the Royal Colleges, Edinburgh.

III. SUICIDE

WHEN I was a resident Medical Officer in an Asylum, it was a week or ten days before I realised that the housemaid who looked after my room was one of the certified inmates of the Institution. It was only after I had been in the Institution a little while, and become accustomed to viewing mental disease from a different aspect from formerly, that I began to appreciate the importance and significance of many small points which up till then I had failed to observe or had passed over as of no importance. I tell you this to illustrate how necessary it is that you should approach any investigation from the right angle, and that you should be able to appreciate the possibilities of the situation. You must get thoroughly into the proper atmosphere so that you are able to grasp the significance of various points which you might otherwise pass over. Especially is this the case when considering the differentiation between accident, suicide or murder. Sometimes the very points which would seem to contra-indicate suicide to a lay mind, are those which a study of suicide shows are strongly suggestive of self-destruction. To attune your minds to the proper atmosphere, I propose to give you a short résumé of some outstanding facts regarding suicides, some of which are purely of interest, while others will be of practical help to you.

Although the fashion in methods used changes considerably with the passage of time, the suicide rate in all

civilised communities is steadily increasing. In 1922 there were 2,817 suicides of males in England and Wales, as compared with 4,054 in 1932. The frequency of suicide is even more emphasised when it is realised that in 1932 approximately 1 in every 50 deaths in males above 20 years of age was due to suicide. The number of male suicides is about two and a half to three times as great as that of females, no doubt due to the greater strain of life to which most men are subjected.

Age in Relation to Suicide.—The strain and responsibilities of life increase as an individual grows older, and the suicide rate also increases with successive age groups; the maximum total for any age group being reached between 55 to 60 years. After the age of 60 the gross total begins to fall, but this is only due to the fewer numbers living at the higher ages; the relative proportion of suicides to other deaths still continues to increase. Below the age of 20 suicide is uncommon in this country, and below 17 it is rare. Great caution should be used before ascribing any death under this age to suicide.

Period of the Year.—The greatest number of suicides do not, as might be expected, occur during the dreary, cold months, but during the Spring, usually about May and June; though there is also a small rise in the numbers about Christmas and New Year.

Why these periods should show the greatest numbers is a little difficult to say, but it may be that with the brighter and more cheerful weather and at the festive season, the spirits of the community are better and form a greater contrast to the mental depression which frequently causes a man to take his life, and so concentrate his depression.

Influence of Occupation.—An individual's occupation tends to influence the likelihood of suicide. Occupations involving strain, responsibility, or overwork, or rendering the individual accustomed to violence; or providing a ready means of suicide at hand; and those which may involve alcoholism, provide the greatest numbers of suicides. Chemists, doctors, solicitors, publicans, butchers and soldiers are high up on the list, whilst gardeners, fishermen, clergymen, and civil servants are at the foot.

* An abridged report of four lectures on Forensic Medicine given to the Advanced Course for Senior Scottish Police Officers at Edinburgh. Here printed by permission of H.M. Secretary of State for Scotland and of W. B. R. Morren, Esq., Chief Constable of Edinburgh. (Continued from p. 473 of vol. XI.)

Chief Methods of Suicide.—The methods adopted vary with the district and the local means available. In seaports, for instance, drowning is a frequent method, and in towns gas poisoning is more frequent than in country districts. At the end of last century, by far the greatest number of suicides took place by poisoning with laudanum. Now, owing to the Dangerous Drugs Acts, this method is comparatively infrequent, and has been superseded by coal gas.

METHODS OF SUICIDES (ENGLAND AND WALES, 1932)

METHOD	MALES	FEMALES
Coal gas	1,168	639
Poison	428	349
Hanging	727	135
Drowning	670	329
Cutting instruments ...	534	77
Firearms	249	10
Crushing	172	30
Precipitation	98	74
Other means	88	46

The four chief methods are poisoning, hanging, drowning and cut throat; and of these poisoning is by far the most frequent.

The sex of the individual tends to influence the method chosen. Women make use of the less violent and cleaner forms of death, such as poisoning and drowning, and usually avoid cutting instruments, crushing, precipitation and shooting.

Suggestion is also a strong factor in determining the method employed. The publication of some peculiar method will almost invariably be followed by other suicides in a similar manner.

Cause and Motive.—It is always interesting to consider reasons which impel individual conduct, and a knowledge of the causes of suicide is also of help in determining the question of accident, suicide or murder. An investigation into 350 consecutive suicides in Edinburgh showed the following causal factors, which are approximately the same as those for the rest of the country:

Mental conditions	68.0 per cent.
Drink	12.0 "
Financial worry	2.4 "
Love	1.5 "
Pregnancy	0.9 "
Marriage	0.3 "
Domestic troubles	0.3 "
Venereal disease	0.3 "
Failed in examinations ...	0.3 "
No obvious cause	12.5 "

These causes should be kept in mind and special enquiries made regarding them when investigating a case of death from violence.

It will be seen that 80 per cent. of the cases were due to mental causes or drink, or a combination of both. The other motives on the list, which includes all the usual causes, explain themselves, with perhaps the exception of love and marriage. Love as a cause of suicide can be readily understood in the case of a rejected lover, but it is interesting to note that even where the feeling is reciprocated, love may be the causal factor; the man perhaps feeling that he is unworthy and that his fiancée's best interests are served by his doing away with himself. Sometimes, however, a person who is depressed and has decided that the best thing to do is to commit suicide, feels that he should not leave his loved ones to face the disgrace of his suicide or to continue in this dreadful world any longer, and before committing suicide he considers that it is in their best interests that they should die, and, though deeply attached to them, he murders them.

Marriage also is a definite cause of suicide, the suicide taking place either shortly before or shortly after marriage; no doubt again due to a feeling of unworthiness, a fear of the responsibilities, or possibly the realisation that a mistake has been made. This is an important point, as frequently the relatives come forward, when the question of suicide is suggested, saying it is quite impossible, that he was the last person to commit suicide; and giving as their reason that he had everything to live for, and was to be married at the end of the week.

In considering the possibility of suicide one should not be misled by the previous normal behaviour of the individual, or the statement by relatives that they are quite satisfied that he would never have made any attempt on his life. The most unlikely people sometimes take their own lives, and their behaviour immediately before the act frequently gives no indication of their intentions. A man discussed all the arrangements for a summer holiday with his family, indicating the places they were to go to and the times of their departure. Next morning he was found dead from gas poisoning, the flexible tube from the gas burner being one which he had brought home from his office the previous day for the sole purpose of committing suicide; yet his behaviour appeared perfectly normal the night before, despite the fact that he had already made up his mind to commit suicide. One of the characteristics of suicide is the extreme determination with which it is carried out, and cases are by no means infrequent where the suicide has arranged several alternative methods for ensuring his death.

Some cases of suicide are what might be termed accidental suicides. Such cases are hysterical individuals who jump into the sea to attract attention to themselves; if no one attempts to rescue them they find their own way out of the water, but sometimes, from one cause or another, they are unable to do so and are drowned. Again, it may be a wife or daughter in a fit of temper at not being able to get her own way, or because she thinks she has been neglected, who makes a pseudo-attempt at suicide with the intention of alarming her relatives, and, for some reason or other, the attempt proves fatal. The police wards of any large hospital show a considerable proportion of cases of attempted suicide in which the wounds are of a trivial character; the skin in many cases of attempted cut-throat being hardly divided.

In all cases where a body is found, death having been due to violence, the question of accident, suicide or murder has to be decided, and it is determined by consideration of (a) the cause of death, that is, the actual violence, its nature and extent, and the situation and direction of any wounds; and (b) the circumstances of the death. This latter evidence is in

most cases just as important as the actual violence found on the body. Under this heading must be included the position of the body, the position and kind of weapon, blood and its distribution, signs of a struggle, foreign matter in the wound, and other circumstances such as motives, farewell letters, and the actions of the deceased prior to his death.

(a) Cause of Death

There is no part of the body which is accessible to a suicide which is not also accessible to a murderer. This in the main indicates that any suicidal wound may also be produced by homicide, but this is not the case. Some suicidal wounds from their very nature could not be produced by a second party, unless the victim was unconscious at the time, and even then there would be difficulty. Wounds from accidents can also occur in any part of the body, but the mechanism of the accident will frequently exclude the possibility of certain parts being injured in this manner.

Whilst no part of the body is exempt from attack by a second party, there are certain situations which a suicide is particularly prone to choose. These, in the case of cutting wounds, are in the front of the body in positions where the suicide considers there is some important blood vessel or organ. The throat, the left wrist, the femoral artery on the inner side of the thigh, and the left chest are favourite sites; and in the case of firearms the wounds are usually found in the right temple, the mouth, the centre of the forehead, over the heart, and sometimes in the centre of the back of the head. Whilst these are the most common situations for suicidal wounds, the situation of the wound must be considered with caution, as suicides may choose some unusual position, and accidents may happen to nearly all areas of the body. There are some situations, however, which rule out suicide, as for instance, stab wounds in the back, which are clearly indicative of murder. Incised wounds on the palms of the hands and on the outer sides of the forearms are also strongly indicative of attempts to ward off an assailant, and therefore of murder.

Nature and Extent of Wounds.—The possibility of suicide

must not be ruled out on account of the extent of the wounds. Some of the most extensive wounds of the throat which I have seen have been due to suicide. Indeed, in the case of cut-throats, the more extensive the wound the more likely is it to be due to suicide. The actual nature of the wounds may clearly indicate suicide. A multiplicity of superficial wounds all over the body is suggestive of mental derangement and so of suicide. Mutilation, especially of the private parts, is again indicative of insanity; but such mutilation may also take place from motives of revenge, and so indicate murder. In other cases, such as the explosion of dynamite in the mouth, the mode of violence may clearly indicate the suicidal nature of the death. A variety of different methods in a single case is also indicative of suicide. A frequent combination is the cutting of the throat and of the left wrist.

The Direction of the Wounds.—This is particularly valuable in the case of firearms, as the direction from which the bullet is fired may render it impossible for it to have been self-inflicted. The direction of the wounds may be equally important in the case of incised wounds. A series of parallel incised wounds on the left side of the head and neck, especially if without regard to the anatomical structures, is strong presumptive evidence of homicide, being caused by the assailant making a series of slashes until he cuts some vital structure.

The value of a careful consideration of the wounds is well demonstrated in cases of cut-throat, which is one of the chief methods of committing suicide and is also at the same time a common form of homicidal assault. These cases are so frequent that it is of interest to consider for a moment the way in which suicidal and homicidal wounds on the neck are produced.

When a person cuts his throat he starts by making a cut high up on the left side of the neck and he brings the knife downwards and forwards across the front of the neck, the cut getting deeper as it progresses. When he comes to the mid-line he may continue to draw his arm backwards and the wound will gradually become more and more superficial until only the skin is cut through. If, however, when he reaches the mid-line, instead of drawing his arm further backwards,

which is an awkward movement, he rotates his elbow and wrist, keeping his shoulder fixed, then the point of the knife will sweep in a semi-circle through the deeper tissues of the neck and gradually get nearer and nearer the surface until finally the skin is the only structure uncut, and, in some cases, actually projects over the end of the wound. When we find a wound such as this, we are able to say which was the commencement and which was the end of the wound.

In the case of a homicide the same action takes place. It is not slicing of the neck parallel to the skin, but a sweeping round of the point of the knife in a semi-circle, and so you may find evidence of the wound being caused from below, upwards, or in such other directions as the case may be.

Before commencing the fatal cut a suicide often hesitates for a moment, and, as it were, "addresses the ball," and we find evidence of this in a few scratches or superficial cuts either over the centre of the neck or close to or parallel to the beginning of the main wound. Such tentative cuts are very characteristic of suicide. In addition to these superficial tentative cuts we also sometimes find a series of deep cuts at the beginning of the wound, close and parallel to each other. These are due to the fact that a suicide is very determined, and, not being content with one deep cut, he goes on cutting as long as his strength continues, his arm moving backwards and forwards in the same plane, causing a series of deep cuts. Whilst these all run into one main big wound it is not possible for them to coincide accurately, and so at the commencement of the wound we find that there are these deep wounds close and parallel to each other. Where, however, we find deep wounds roughly parallel to each other but at some distance apart this indicates homicide, being due to the murderer slashing away always in the same direction until he strikes some fatal spot; the distance apart of the wounds being due to the fact that his victim will not remain still whilst he inflicts the wounds.

This description indicates how an examination of the wound may often help us in determining whether it is a suicidal or homicidal wound; but there are many cut-throats where it is quite impossible to decide between suicide and homicide

from a consideration of the wound alone. In such cases the diagnosis will depend on circumstantial evidence, that is, on police reports, but it should be clearly realised that even in cases where the wounds are practically conclusive of suicide or of homicide it is still imperative that such a diagnosis should be confirmed by a detailed and accurate police investigation.

(b) *Circumstantial Evidence*

This is, in most cases, of very considerable value. Note will have to be taken of the position of the body and of the lividity to see whether the body has been moved after death. In cases of incised wounds it is important to note whether the clothes have also been cut in the neighbourhood of the wound, as this is against suicide, and with suicidal gunshot wounds of the body it is often found that the deceased has placed the muzzle under his clothes before shooting. A characteristic position for a suicide to be found in is on the floor in front of a mirror; the suicide appears to wish to see what he is going to do to be quite sure of a fatal effect, and in the case of cut-throat the spurt of blood from the severed arteries frequently causes a series of characteristic streams on the surface of the mirror. An examination of splashes of blood on walls or furniture may indicate the position of the deceased when the wounds were inflicted. Splashes from a spurting artery make a mark like an exclamation mark, the dot being furthest from the origin of the spurt. Again the distribution of blood on the body may indicate whether the deceased was standing up or lying down at the time of the wounding, though in cases of shooting there may be an appreciable interval before blood oozes from the wound, and by that time the deceased may have fallen to the ground.

The *locus* where the body is found frequently gives an indication as to the nature of the death. A body found in a locked room, provided the key is on the inside, tends to indicate suicide. Again, where a body is found on waste land or behind some bushes in a public park, especially if distant from the deceased's home, it can be taken as almost certain that death is not due to natural causes; if there is evidence of violence

this may be homicidal or suicidal, but when no obvious evidence of violence is found the vast majority of cases will be found to be due to suicide by lysol poisoning, though occasionally the poison may be potassium cyanide, and the ground in the vicinity should be searched for evidence of the bottle which has contained the poison. Where the body is found with the hands or feet tied together, the likelihood is that the case is one of homicide, although it is quite frequent for people who drown themselves to tie their hands or feet, or both, before jumping into the water; it is quite possible for a man to tie his hands quite firmly behind his back.

Another point about drowning which must be kept in mind is that the post-mortem appearances are the same whether the deceased fell, jumped, or was pushed into the water, and the diagnosis will depend entirely on circumstantial evidence. It is not necessary for a person to be found lying in water for death to have been caused by drowning. A puddle in a pot-hole on the roadway is sufficient to cause drowning should an epileptic or very drunken person happen to fall with his face in the puddle.

Other forms of asphyxia in which the differentiation between accident, suicide and murder will have to be made, are strangulation and hanging, and you should bear in mind that a person is able to tie a ligature so tightly round his neck as to strangle himself. In hanging, unconsciousness frequently supervenes so rapidly that a young adolescent experimenting in the sensations of hanging, or young children caught in window blinds, are unconscious before they have time to extricate themselves, and any death from hanging in a child or young adolescent, under such circumstances, is most probably accidental. In the case of adults it should not be assumed that because a person is found hanging that it is a case of suicide, and careful examination should be made of the rope, the place to which it was attached, and any surface which may have been subjected to the pressure of the rope, with the object of determining whether the pull of the rope was towards or away from the body; the latter is strongly suggestive of homicide.

The position of the weapon may afford some evidence,

especially if instantaneous rigor has taken place and the weapon is tightly and firmly gripped in the hand. Such a state of affairs is strong presumptive evidence of suicide. The absence of the weapon which has caused the death is suggestive of homicide, but the weapon may have attracted the eye of some passer-by who wished to avoid being mixed up in the case but saw no reason why a good knife or revolver should be wasted, and removed it.

Again, a suicide, after inflicting fatal injuries on himself, is frequently able to perform voluntary acts for some little time after their infliction, and to throw away a knife out of a window, or even to clean a razor and replace it in a drawer.

The kind of weapon also supplies evidence on which to found a diagnosis. A murderer is unlikely to trust to a rusty, obsolete pistol or a safety-razor blade, which are weapons not despised by the suicide.

The weapon which has been used will usually be blood-stained, but sometimes, even in the case of suicidal cut-throats where there is a great deal of blood, the razor which has been used may be almost clean. Again, there is no need for the hand which has used the knife or revolver to be covered with blood or even blood-stained. Other circumstances to be taken into account are evidence of a struggle, finding of hairs or foreign matter in the wounds, and the intimation of an intention either to murder or to commit suicide.

The suicide frequently leaves a farewell letter intimating his intentions, and such letters are usually assumed to be genuine. It is important, however, to verify this fact, and to see that the note is recognised as being in the deceased's handwriting. You will recall the case of Furness, who murdered his friend Walter Spatchett and then set fire to the wooden shed in which the body lay. A farewell note was found in an adjoining part of the building signed by Furness and stating that he was taking his own life. This was at first thought to be genuine and the body presumed to be that of Furness, who had disappeared. Further investigation, however, showed it to be that of Walter Spatchett, and then the farewell suicidal note assumed other significance. Furness was eventually arrested and charged with murder.

The actions of the deceased immediately prior to death may indicate clearly the suicidal nature of the act, such as where a canary has been removed from its accustomed place in a room containing a gas stove and placed in one of the upper rooms of the house before a man gassed himself, or where arrangements and apparatus have been rigged up for the purpose of causing death, and as already indicated, the mental condition of the accused may strongly suggest the probability of suicide.

A good example of how a knowledge of wounds, the circumstances of suicide, and the influence of mental conditions on suicide and murder may solve the problem, recently occurred in Edinburgh. A man and woman were found dead in a three-roomed house with incised wounds of their throats. Suspicion fell on their grown-up son who discovered the bodies and who stated that he had been sleeping in the house for the few hours before he discovered the tragedy. From the time the deceased were last seen alive it was obvious that he was in the house at the time the tragedy took place. The woman was found to have typical homicidal wounds on the neck and also across the palm of her left hand. It was obvious that she had been murdered. The man had typical suicidal wounds on his throat, with tentative cuts and numerous parallel incisions as described above, and he was found lying face downwards in a corner of a room in front of a mirror which was covered with streams of blood. It was evident that he had murdered his wife and then committed suicide. He was known to be deeply attached to his wife, which at first glance would appear to rule out murder, but we realise that a suicide before taking his own life frequently attacks those dearest to him. This only further confirmed the diagnosis of murder followed by suicide, and so verified the son's story.

IV. ABORTION, INFANTICIDE AND SEXUAL OFFENCES

(1) ABORTION

The greater part of this subject, as it concerns a doctor, is so highly medical that the details are of little interest to police officers. There are, however, certain details which it is

of advantage for you to know, as they will indicate the lines along which police enquiries should be directed.

Abortion is the expulsion of the contents of the pregnant womb at any period short of full time, and in law no distinction is made between such terms as abortion, miscarriage and premature labour. Natural abortion is very frequent, being about one in seven of all cases of pregnancy, and is caused by a large variety of medical conditions as well as by a predisposition which some women have to abort from trivial causes. Great care should therefore be taken before attributing a case of abortion to a criminal act.

The law in regard to abortion is very wide, and 24 and 25 Vict., c. 100, secs. 58 and 59, state:

" 58. Every woman, being with child, who with intent to procure her own miscarriage, shall unlawfully administer to herself any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever, with like intent, and whosoever, with intent to procure the miscarriage of any woman, whether she be or be not with child, shall unlawfully administer to her, or cause to be taken by her, any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever, with the like intent, shall be guilty of felony. . . ."

" 59. Whosoever shall unlawfully supply or procure any poison or other noxious thing, or any instrument or thing whatsoever, knowing that the same is intended to be unlawfully used, or employed, with intent to procure the miscarriage of any woman, whether she be with child or not, shall be guilty of a misdemeanour. . . ."

It will be seen that in England it is an offence whether the woman is with or without child, but in Scotland the woman must be pregnant, and the fact of pregnancy will have to be proved at the trial.

You will also see that it is not necessary that any method or drugs used should be even likely to cause abortion, and indeed abortion need not result, the mere fact that there was the intent is sufficient.

There is a considerable amount of sympathy for the family doctor who, in a misguided moment, is tempted to procure abortion. Perhaps he has brought the girl into the world, treated her all her life; she gets into trouble, comes to him, and he may be tempted to pass an instrument. But whatever views we may hold on birth control we can have no sympathy for the so-called abortion-monger. Only a few months ago I had to make two post-mortems in the same week on women who had been killed by the same abortion-monger. In another case in the country to which I was called, a medical man had arranged for a servant girl to pay by instalments a fee of £50 before he would procure a miscarriage. No one can have sympathy with such people.

The skill of abortionists varies very considerably. Some of them are trained medical men who, for one reason or another, usually drink or drugs, have found their practices falling away or have been struck off the Medical Register, and have augmented their incomes in this manner. As we descend the scale we come to the man or the woman who has practically no medical or anatomical knowledge whatever. The dangers naturally vary with the degree of skill, but in all cases the dangers are very high compared with a properly conducted operation in a hospital, for justifiable cases.

So that you may know how to proceed with your investigation, it is as well for you to understand the procedure which is adopted to procure abortion.

General Violence.—The first method used is usually that of general violence. This takes place during the first month and takes the form of violent exercise, games, riding, cycling, jumping from heights and other forms of violence. In certain cases, especially in a woman predisposed to abort, this method may be successful, but in most cases it fails, even after extreme violence has been used.

Administration of Drugs.—There is no such thing as a certain abortifacient, although the public has great belief in such drugs. This is the method employed after general violence has failed, and advertisements of such drugs appear in many daily papers under the heading of "female pills" or pills for obstruction or regulation. In a woman so predisposed,

these may cause abortion. In general, it is only by producing profound poisoning of the woman that abortion takes place, and sometimes the woman dies without having aborted. The drugs commonly used are the purgatives, aloes, jalap and colocynth, and others such as tartar emetic, squills, tansy, yew, pennyroyal, sarsaparilla, iron, ergot, savine, quinine, lead and phosphorus.

The multiplicity of the drugs employed indicates that there is no certain drug, and it is quite unnecessary for you to attempt to remember the drugs which are frequently used. In any case which you are called to investigate you should take possession of every chemical or bottle which has the appearance of containing drugs of any description. These can then be looked over by a medical man.

Local Violence.—Following the failure of drugs, resort may be had to local violence which may take the form of violent blows on the abdomen. Usually the violence is by the injection of hot or cold fluids into the genital passages. These injections may consist of plain water or contain some antiseptic or other substance such as corrosive sublimate, carbolic acid or alum, and have the advantage that should a charge be brought, the defence can be put forward that such a procedure was merely a hygienic measure. If death takes place there may be no local evidence found at the post mortem, but if the fluid used has been too strong there may be evidence of inflammation and corrosion. With such irrigations death sometimes takes place from shock.

Instrumental Abortion.—This is the only certain method, and usually takes place about the end of the third month of pregnancy, other methods by this time having been tried and failed. The object is to pass some instrument through the narrow neck of the womb and puncture the membranes in which the child is lying. In an attempt to do this scratches and lacerations of the parts may take place, with resulting blood poisoning and death of the woman. No particular instrument is required, and such articles as catheters, sticks, knitting needles and even feathers have been used.

When investigating a suspected case of abortion you

should, therefore, take possession of any drugs and anything which may have been used as an instrument. If the abortion has taken place and the discharges from the womb are still available, these should be carefully preserved for examination by a doctor. An examination of the woman should also be arranged for if she is willing for this to take place; and care will have to be taken that she thoroughly understands the purpose for which the examination is to be made, and that she is not bound to undergo such an examination except of her own free will. If she consents to be examined the earlier this is done the better, as the signs of abortion rapidly disappear.

A question I have been asked several times in cross-examination is whether it is possible for a woman to pass an instrument on herself, and so procure her own abortion. The successful passing of an instrument would present some difficulties under such circumstances, but there is no reason why the woman should not accomplish this unaided.

Lastly, you must bear in mind that in many cases of criminal abortion the women are instructed by the abortion-monger to call on their own doctor and tell him they are pregnant and think that something has happened, as they are having pains in the lower abdomen. The women then come under skilled medical observation from the very beginning, and when the alleged threatened abortion actually takes place the woman is taken care of, and the abortion may be considered as being due to natural causes.

(2) INFANTICIDE.

Infanticide is the murder of a newly-born child. It differs from ordinary murder, however, in that it is necessary to prove that the deceased child had lived, and also that in the circumstances under which it occurs the mother may not be wholly responsible. There is no legal definition of what constitutes a newly-born child, but recent opinions are to the effect that it should be considered to be a child under four weeks old. There is considerable sympathy with a woman who kills a child under these circumstances, and the law is lenient and

assumes that the child is born dead, unless it can be proved to have lived. The onus of proof is on the Crown, and there will, therefore, always have to be a post mortem examination to ascertain whether the child was born alive or not. In England the alternative charge to infanticide is concealment of birth. In Scotland, it is concealment of pregnancy: To prove this the pregnancy must have been concealed throughout its whole time.

In considering the possibility of infanticide, it must not be forgotten that still births are very frequent, being about one in every seventeen of all births.

Investigation.—*As regards the child*, there must, as already indicated, be a post mortem examination to determine whether the child was born alive or not.

Anything which is wrapped round the child when it is discovered, such as old newspapers, pieces of sheet or a torn dress, must be carefully preserved, and the attention of the doctors should be drawn to the necessity of retaining these objects, as, even if they bear no marks which would identify them, it may be that at a later date, when someone is suspected or arrested, the sheet or other article from which the wrapping has been torn will be found in the accused's possession, and a comparison of the torn edges may show them to have been originally part of the same article.

Should there be any ligatures around the child's neck it is important that these should be left in position, even if they appear to be comparatively loose, as the doctors will have to speak to the effects of such ligatures. These ligatures will again have to be obtained from the medical men making the post mortem examination, and their attention should be drawn to the advisability of leaving any knots in the ligature intact. Should there be marks on the neck suggestive of manual strangulation, it is a good plan to have a photograph taken of the marks before the post mortem is commenced.

The rest of the examination as regards the child, the question of its maturity, whether it was born alive, whether it was difficult labour, and the cause of death, will be matters for medical men to determine at the post mortem, and again,

it is important, if possible, to supply the doctor with the detailed history of the case before he commences his examination.

As regards the mother, it may be that the Police are tempted to exclude a woman as the mother on account of her appearance, age, or action before or after the event. It is very difficult to rule out any woman as being a mother on these grounds, especially when one remembers that they are endeavouring to conceal their condition. In some women their condition is not obvious even at full-time, and in one case I found a woman playing in a hockey match as goal-keeper five days before the birth of a full-time child.

As regards age, the oldest reliable age at which a woman has borne children is 53 years. On the other hand, a girl cannot be ruled out as a possible mother on account of her youth. Many girls of 13½ years of age give birth to children, and the youngest recorded case is of a girl of 8 years and 10 months.

In normal circumstances we are accustomed to look on confinement as a disabling condition requiring confinement to bed or a nursing home; but in infanticide, where the object of the mother is to carry on her daily routine and so conceal the fact that she has given birth to a child, we find they are capable of doing so in very many cases. One girl who lived with her mother was seen to place something in her trunk before going out to work. Her mother, finding indications in her room that something had happened, looked into the trunk and found the body of a newly-born child. She communicated with the Police, and the girl was found carrying out her ordinary duties as a kitchenmaid in a café in the city. I have three mummified foetuses which were found by a landlady who, being doubtful about the ability of her lodger, an unemployed domestic servant, to pay her board and lodgings, investigated the contents of her trunk when she was out in search of work. Investigation showed that all three children had been born whilst the girl was actually in a situation, and in none of the cases had the mistress any suspicion of the girl being pregnant or that anything unusual had happened. These points must, therefore, be kept in mind

when considering the possibility of an individual being the culprit.

It sometimes happens, in a woman who has had children, that the child is born into the lavatory closet and drowned, and the mother states that not only was she not expecting the child but that she was even unaware that she was pregnant. Such a statement appears rather extraordinary, and it may be thought that she had deliberately drowned the child. It is possible, however, for a woman to be pregnant without realising the fact, and I have examined women in such a condition, who had no reason for concealing the fact of their pregnancy, and who had actually come for medical advice regarding their condition.

Where a woman is suspected or accused of infanticide it is of advantage to have her examined by a medical man, and the earlier the examination takes place the better, as the signs of recent confinement rapidly disappear. As in the case of abortion, the woman should fully understand the voluntary nature of the examination.

Adopted or Boarded-out Children.—At one time many cases of infanticide arose out of what was known as "baby farming," where a woman undertook, for financial consideration, to adopt unwanted babies and perhaps to find them suitable homes later. It was in the interests of the baby farmer for the child to die, and the mortality was considerable, either through neglect or under-feeding, if it was not due to actual criminal violence. The matter finally came to a head with the case of two women called Sac and Walters. Sac kept a maternity home and advertised in the papers that a baby could be taken over if required. Any doubts that the mother might have were allayed by Sac guaranteeing to find a good home for the baby for a further small consideration. The baby was then handed over to Walters who disposed of it in one of the various ways; and in the case in which they were charged with causing the death, the baby was killed by the administration of a large dose of chlorodyne. As a result of this case, steps were taken in the Children Act, 1908, to prevent such happenings, and the Act, since amended in 1932, states that:

- (1) Any person undertaking the care of an infant under nine years of age for reward, apart from its parents, must notify the Local Authority within 48 hours;
- (2) If the child dies, or is removed, notification must be given to the Local Authority within 48 hours; and
- (3) Any person keeping a baby to which this Act applies, *i.e.*, for profit, is deemed to have no interest in its life, and it is an offence for such a person to insure or to try to insure the baby's life.

Special enquiry should be made in these cases as to whether the Authorities have been notified that the care of the child has been undertaken for reward.

Unintentional Violence.—The main case of this is what is known as "overlying," by which is meant that a young child is suffocated in bed by its mother or other person turning over on top of it whilst asleep. Such an accident is naturally not a criminal act, but so many of these cases occur in the lower classes of the population when the mother has gone to bed under the influence of drink, that the Children Act makes it an offence if any person over the age of sixteen goes to bed with a child under the age of three, and at the time of going to bed that person was under the influence of drink, and the child dies as a result of overlying. In such cases enquiry should be made as to whether the person was under the influence of drink the previous night.

Other Deaths in Children.—During the winter months many young children are found dead in bed from various causes, and the possibility of overlying must always be kept in mind.

Apart from these, however, many children, usually a few years old, are taken suddenly ill and die in a few hours. The usual history is that whilst playing with their companions they became sick, came home perspiring and breathing rapidly, and were dead in three or four hours. The parents notify the Police, saying the child was knocked down and hurt its head; or bring bags of sweets or pieces of cake, saying that the child has been poisoned by these articles. This is, of course, not so,

for in practically every case it is found at the post mortem examination that the child has caught a chill and died in the early stages of pneumonia. In fact such a history is so typical that the cause of death can almost be diagnosed from the history alone.

In all cases of investigation into sudden death of young children the object of the enquiry must be kept in mind, because it is not only the possibility of foul play which has to be considered. The law safeguards every individual, including small children. Adults who are offended against can complain to the law, but little children are unable, or do not know how to do so, and the law protects them, even against their parents.

One of the main objects of an enquiry into the death of a young child is to see that it has been properly cared for, clothed, fed, and had adequate medical attention. It may be that the parents are in very poor circumstances and state that they are unable to afford to feed and clothe the child properly. The Children Act, 1908, makes it an offence for anyone over 16 years of age, who has the custody of a child, to wilfully assault, ill-treat, neglect, abandon or expose such child in a manner likely to cause it unnecessary suffering or injury to its health, and any parent or other person legally liable to maintain a child shall be deemed to have neglected him in a manner likely to cause injury to his health, if he fails to provide adequate food, clothing, medical aid or lodging for the child, or if, being unable to do so, he fails to take steps to procure the same to be provided under the Acts relating to the relief of the poor.

It may be that the parents are quite well-to-do but state they are Christian Scientists or belong to some other sect which does not believe in medical science, and although the child was ill they refused to call a doctor, believing that prayer was all that was necessary. Under such circumstances, the parents will be deemed to have neglected the child, and numerous cases of convictions are recorded for such neglect.

(3) SEXUAL OFFENCES

Rape and Allied Offences.—Rape may be defined as the carnal knowledge of a woman by force and against her will,

or of a girl under thirteen years of age, whether with or without her consent.

To constitute the offence the act must be against the woman's will: even in the case of a known prostitute it is necessary for the woman to consent. Consent must be voluntary and conscious. It will be rape if the consent is obtained by fraud, such as when a man impersonates a woman's husband. Again consent must be free; if given under threats of physical injury, or by mental fear such as threats to harm her child, or by blackmail, it will still be rape. The only exception to this rule is that a husband cannot rape his wife; but he can assist others to do so, and in that case is guilty of rape. In the same way, if a woman assists a man to have sexual intercourse with another woman against her will, that woman will be guilty of rape.

False charges of rape or attempted rape are frequent. Often the victim's story gives a strong indication of the falsity of the charge. The girl who is attacked and remembers a cloth smelling of chloroform being placed over her mouth, after which she immediately became unconscious, and on recovering her senses found her clothes in disorder, and that she had been interfered with, is almost certain to be an epileptic or hysterical girl rather than the victim of an assault. Sometimes the girl is a consenting party, and it is only after the act that she becomes frightened and brings a charge to save her reputation, sometimes against promiscuous acquaintances, at other times against a fiancé. These victims usually admit the true facts when they are told what may result from their accusations.

In young girls it is often the fear of what their parents will say that induces a false charge. One girl who had had connection with her fiancé became alarmed at some blood on her garments, so alleged that after he had left her she was attacked, and remembered no more till she recovered consciousness to find her underclothes bloodstained. As her fiancé had left her in the passage outside her house where they had been talking from 1 a.m. till 2 a.m. it seemed unreasonable to visualise a third party; suspicion was strengthened by her vigorous and repeated statement that her fiancé would never do such a thing and she could trust him anywhere. She finally

admitted her relationship with him, and then asked what she was to tell her mother.

Age in regard to Rape.—The Criminal Law Amendment Acts lay down certain ages in relation to offences against females. These may be summarised as follows:

- (1) Carnal knowledge of a female of any age without her consent is rape—a felony.
- (2) Carnal knowledge of a girl under thirteen years of age is rape whether she consents or not. The attempt is a misdemeanour.
- (3) Carnal knowledge or the attempt to have carnal knowledge of a girl over thirteen but under sixteen years of age is a misdemeanour if she is a consenting party. If she does not consent it is rape.
- (4) Carnal knowledge or the attempt to have carnal knowledge of any female idiot or lunatic, or imbecile woman or girl, under circumstances which do not amount to rape (*i.e.* where consent is given or through instinct the act is permitted), but which prove that the offender knew at the time of the commission of the offence that the woman or girl was an idiot, imbecile or lunatic is a misdemeanour.

These clauses show that a girl under sixteen years cannot give valid consent; even if she gives consent, though not rape, it is still an offence. It is by no means infrequent to find prostitutes on the streets under the age of sixteen. Carnal connection with such a girl, even though she solicits and makes advances, is still an offence. Idiots, imbeciles, and lunatics, are in a similar position to girls under sixteen years. They cannot give valid consent. If they acquiesce it is still an offence, and if they refuse consent or are under thirteen years old, then, as in the case of any female, it is rape.

Some girls under sixteen years old are big and well-developed for their age, and might be supposed older. It is no defence to state that the accused thought that she was over sixteen years of age; but in the case of a man of twenty-three

years of age or under, it is a valid defence to show that he had reasonable cause to believe the girl was of or above sixteen years of age. This is only a good defence on the first occasion on which he is charged with such an offence.

The attention of the medical man to whom the girl is taken should be drawn to this fact as he may be asked in Court whether, from the girl's general physical appearance, it would be reasonable to consider that she was over sixteen years of age.

Though the girl's physical appearance will go a long way in support of such a defence, her appearance alone is not necessarily sufficient, nor is the girl's own statement that she is over sixteen by itself "reasonable cause to believe" that she was over sixteen years of age. The clause is to protect young girls even against themselves, and in many cases they are only too anxious to be thought over sixteen. 69312

Medical Evidence of Rape.—To constitute the crime of rape it is not necessary for full penetration to take place; the slightest degree of penetration is sufficient. There is no need for the hymen to be ruptured, or even reached. It has been held that the Court will not discuss where the vagina begins, but will accept any penetration, however slight, as constituting carnal knowledge. The slightest touch inside the private parts is thus sufficient penetration. The emission of semen is likewise not necessary to constitute the crime. It is evident that rape may be committed and that no evidence of injury to the private parts or of seminal stains may be found.

Before a charge can be proved it must be shown that the act was against the woman's will, and it will be necessary, unless there are special circumstances, that the woman should have done all in her power to prevent the act taking place. It is not sufficient if she struggles and yields at the last moment; she must struggle to her uttermost, and use all other means, such as shouting, in an attempt to prevent the commission of the act.

The case is quoted of a girl, the victim of an alleged rape, who was asked if she struggled to her uttermost; she said that she did. She was asked if she shouted out, but said she did not; asked why not, she stated that she was afraid of waking her

mother, who slept in the next room. This, of course, brought the trial to an end.

When investigating a charge of sexual assault, apart from taking the statements from the various witnesses, it is important to arrange for an examination of the assaulted woman with the least possible delay. Her excitement, the appearances of disordered clothes, the signs of a struggle, local injuries and stains on the person all disappear rapidly with the lapse of time, and the earlier she is seen by a medical man the better. It is also as well that the accused should be medically examined, if he is willing.

In addition to arranging for the medical examination, any articles, such as clothing and bedding, which may show stains should be retained as productions, and it is advisable at the outset to take possession of everything of this nature. Those articles not required can always be returned after examination. It cannot be too strongly emphasised that because there are no obvious stains observed by a police officer or a local doctor, they will not be found to be present on experienced examination. The clothing of the accused should also be retained as a production.

Indecent Assaults on Children.—Such assaults are very frequent, and whilst there may be some slight scratches or stains on the child's person or clothes, in most cases the children are uninjured. Despite this, they should be examined by a medical man at the earliest opportunity, and any articles of clothing should be retained as productions, as mentioned above.

Many of the culprits are suffering from either senile mental conditions or mental defect, and it is as well that their mental condition should be enquired into.

In this brief outline of some common medico-legal points it has not been possible to go into great detail, and indeed it is not useful or desirable to do so. The object of these remarks will have been achieved if they have taken you into the atmosphere of medico-legal work and helped to orient your thoughts so that you will approach a medico-legal case from the right angle and with increased interest.

NOTE.—The Author wishes to state that much of the subject-matter of this Lecture originally appeared in his *Forensic Medicine*, published by Messrs. A. & C. Black.

The Investigation of Road Accidents

BY SERGEANT S. HAYS

Royal Ulster Constabulary

THIS is a matter which takes up a good deal of the normal working time of police forces in busy traffic areas, and it is of the utmost importance that the duty be carried out in the most efficient manner; for the investigating officer is the person who has to decide, from the results of the accident and the actual scene as it presents itself to him, upon whom rests the blame for the accident. It is hoped that the following suggestions may be helpful to young officers who have not yet had the doubtful pleasure of dealing with such accidents.

It is our task to assign the blame for the accident—not from the point of view that someone must be punished, but to ensure that the person who caused the accident will be shown just what he did wrong, and to prevent him from committing the same error again.

It may be asked: "But what is a culpable accident, and what is not?" A culpable accident can be defined as one which could have been avoided by the exercise of ordinary care and judgment on the part of one or both parties to it.

An accident may be said to be inevitable and not to involve liability when it could not have been avoided by any ordinary care, caution, or skill on the part of both parties.

Returns published periodically by the Government show the number of accidents for given periods and also the causes of the accidents. These returns are furnished to the Government by the Authorities, who in their turn compile the figures from reports submitted by the officers who actually investigate the accidents. It is therefore vitally important that officers who have to carry out this investigation should do so efficiently and impartially, in order that the true state of the causes of accidents may be given.

It is seldom if ever that any road accident is witnessed by a police officer, except he be a participant or in mufti. The sight of the "man in blue" is sufficient to cause road users to exercise that little bit of caution which prevents accidents. We will therefore deal with cases of reported accidents, and will assume that an accident has been reported to a police officer who is on beat or patrol duty.

It is his duty to go at once to the scene, as persons may be seriously injured, or the roads may be blocked by the vehicles concerned, either because they are heavily damaged and cannot be moved or because either of the drivers persists in refusing to allow his car to be moved until the police arrive.

Officers on ordinary beat or patrol duty should carry three articles with them which are very necessary in investigating accidents—it is not always possible to get in touch with the station and have tape measures sent to you. These articles are: a small tape measure about five feet long (can be bought in any chain store for a few pence); a piece of white chalk; and a good note-book, sufficiently large to allow statements to be written in it without the whole book being used up on one statement.

On arrival at the scene, if persons have been injured and they are still there, get their names and addresses and have them removed to hospital at once, if necessary. Send for an ambulance or put the injured into any cars which may be passing. If the injured are lying on the road, take your chalk and put small marks at the actual place on the road where the head and feet are before the person is moved; this only takes a second and no one need see you do it if you are quick. In the same way if dead bodies are lying on the road, put your small marks down before they are removed.

It is very important that the accurate positions of the injured or dead persons be shown, since resultant action may depend entirely on this matter.

If the injuries are slight, it may be possible to have them treated on the spot or at a convenient doctor's or chemist's.

The next important thing is to clear the road if it is blocked. Before they are moved the positions of the vehicles should be marked with the chalk; small dots showing front

and rear wheel positions are sufficient. If the vehicles are of the heavy type, it may be necessary for you to summon another officer to direct or divert traffic. Where it is not possible to get in touch with the station or with another officer it may be possible to get some intelligent member of the public standing around to assist in this matter.

The next thing is to inquire amongst the onlookers—if any—for witnesses of the accident. These witnesses, if forthcoming, will be of the greatest assistance to you, since their account of the occurrence should be impartial and clear, having regard to their intelligence of course. It sometimes happens that onlookers are reluctant to give statements regarding accidents, and you will not on such occasions get any response to your inquiry. Ask the driver or drivers of the vehicles concerned if they can see anyone amongst the crowd—if any—standing around whom they think could give any account of the accident. The drivers may remember seeing some of the persons at the place before the accident took place. If such witnesses come forward and they reside locally, it will not be necessary for you to take their statements down then and there; they can be got later when you have more time. Take their names and addresses.

The drivers of the vehicles should next be interviewed. Where two drivers are there and the accident has resulted from the collision of both their vehicles, a good idea is to bring both the drivers together and ask them to fix the point of impact. It will be found that the drivers do not always agree on this point. You can fix this point by observing the marks on the road.

In this respect it may be well to mention that the one thing which is nearly always present when vehicles collide, or when any moving vehicle comes into contact with some other object with force, is a patch of mud, usually dried, that has fallen from beneath the mudguards of the vehicle.

Any statements made by either driver in your and each other's presence may be used by you as evidence, even if you have not cautioned the driver who made the statement. The drivers should be invited to tell you their version of what happened. You should tell them that they are not obliged

to tell you anything if they do not wish to, but that you would like to hear what happened, and to take it down in writing and have it signed. Any statement made by either driver after such a caution can be legally produced in Court.

When statements are being taken from drivers it is well to keep the drivers apart; otherwise it may be nearly impossible for you to get anything down, for the drivers may begin to argue, and they often do!

Licences and Insurance Certificates should now be examined, particulars taken, and where not produced the five days' clause should be explained.

Passengers who may have been in the vehicles at the time of the accident should be asked to make statements as to what they saw. It is not necessary to caution these people when statements are being taken from them, since they are not likely to be defendants.

The vehicles should now be examined for damage, Road Fund Licence, type of vehicle, etc.

In noting damage to vehicles it is well to use the terms "Near-side" and "Off-side" rather than "Right" and "Left," as these terms are clear and eliminate the possibility of mistake. Damage should be carefully noted as it usually indicates the cause of the accident in addition to providing one with some idea of the approximate speed at which the damaged vehicles were travelling just prior to the occurrence.

Technical knowledge is not essential for recording damage to motor vehicles. In this age of motoring practically everyone is conversant with the components of motor-cars. An important point to note here is, that if any suggestion is made by either driver that the cause of the accident was some defect in the other vehicle, or if the investigating officer himself is of this opinion, then it is well—if the officer himself is not an expert—to obtain the services of some officer, if at all possible, who is an expert and whose evidence will be accepted as such.

The next thing to deal with is the road. The surface should be examined carefully for the wheel tracks of the vehicles concerned. They are usually to be found leading from the direction in which the vehicles came up to the point of impact. These tracks are made by the rubber of the tyres,

owing to the action of a driver in applying the brakes, which are generally applied very fiercely in an attempt to avoid the accident. It is strange that these marks are always alluded to by police and others as "Brake marks." Brakes cannot make marks since they are not in contact with the road; the tyres make the marks, and the marks should be described as "Tyre marks," with the usual description, heavy or light as the case may be.

The driving surface of the road or roads should be accurately measured, to show the amount of road surface at the disposal of the drivers. Footpaths should be measured where they exist, or grass verges if any. It is necessary to include in all reports of accidents such things as the position of traffic signs, "Major Road Ahead," etc., also the natural features of the scene such as high hedges, cross-roads, trees, houses. The state of the weather should also be noted as wet, dry, foggy, etc.

It is very important to note carefully the range of vision that the driver or drivers had of the scene just previous to the accident, since it is obvious that a driver who had a clear view of another vehicle emerging from a side road one hundred yards away should have had ample time to slow down to avoid colliding with that vehicle. I have found in practice that the most efficient way to record all the essential data regarding the scene of an accident is to draw a rough sketch in the note-book of the actual place, inserting all the features named, then adding the measurements. This is as useful to you as a photograph, and is a permanent record available for reference at any time. The position of bodies, injured, and vehicles should also be inserted.

This completes the investigation of the accident at the scene, but, as every police officer knows, the work of the investigating officer is then by no means finished.

On his return to the station the officer should make out his report, and also draw a sketch of the actual scene; this should be attached to the report.

Statements should be accurately copied and submitted with the file. It is well to remember that the greatest care should be taken to ensure that copies of the statements are

exact in every particular and tally in all respects with the originals, since the person who made the statement may be called upon in Court to give evidence and will be examined from his statement to the investigating officer, that is from the copy attached to the file. Should he deny having said some particular thing which appears in the copy of the statement, the original will be called for and comparison made. The situation would be difficult if the disputed matter were not in the original.

The investigating officer will be called to give his evidence regarding the matter, and he may consult the note-book and sketch made in it to refresh his memory. It is possible that the note-book will be demanded by the defence; but this need not cause the officer any worry, since what appears in it with relation to the accident is a correct picture of the scene as it presented itself to him at the time of his investigation.

In conclusion I would say this. When at the scene of the accident do not make any remark attaching blame for the accident to one or other of the persons concerned. Do not allow yourself to be interviewed by representatives of the parties. Keep your own counsel. At the scene do not allow yourself to be flurried by anybody. Work quietly and methodically. If you want advice on your return to the station ask for it from some member of the force who has greater experience.

Should you yourself be involved in any road accident do not attempt to carry out the investigation. Do not allow the fact that you are a police officer to outweigh your responsibility. Have the matter reported at once, wait until an officer comes along to investigate, and place yourself at his disposal in the same manner that you would expect any civilian to do to you.

Young officers reading this article may come to the conclusion that the investigation of accidents is a dangerous business, to be avoided if possible. That would be a wrong conclusion. It is merely the application of common sense to an everyday job. Our job.

The Law of Evidence*

By JOHN CAMERON, Esq., K.C.

Formerly Advocate Depute, Crown Office, Edinburgh

IT is obviously impossible within the compass of a short lecture to deal fully with the mass of rules which make up the Law of Evidence in its relation to the Criminal Law, and what I propose to do is to state to you, in a condensed form, the fundamental principles which govern that law in Scotland and then to attempt to show you how these principles fall to be applied in the course of criminal investigation. In so doing, I wish to concentrate upon the practical rather than the theoretical, because so long as you have before you the general principles of the Law of Evidence in making your investigation, you will not go very far wrong in the preparation of any cases committed to your care.

The first question then that arises is "What is evidence?" You are familiar enough with the old phrase that "what the soldier said is not evidence," and into that phrase is condensed a great deal of the principles which govern the matter. Evidence, in the legal sense, consists of those facts upon which a Court of Law will proceed to a legal determination. The Law of Evidence relates to the proof of those facts which bear upon the issue which the Court is called upon to try. There are certain rules which govern what lawyers call the admissibility of evidence and the effect of evidence, and these make up the Law of Evidence.

The fundamental principle is fair play. That is the true basis of the Law of Evidence and from that springs the primary requirement of our law—that only the best available evidence will be admitted in proof, and that the evidence

* A lecture delivered at an Advanced Course for senior police officers in Scotland. Here printed by permission of H.M. Secretary of State for Scotland and by courtesy of W. B. R. McLaren, Esq., Chief Constable of the City of Edinburgh.

which is admitted must have a relevant bearing upon the issue which the Court is called upon to decide. From that principle arises also the general rule that evidence must be direct and not indirect, and that in general "hearsay," *i.e.* what someone else said to the witness or what the witness learned at second-hand, will not be listened to. For example, in order to prove a man's guilt of a particular crime, it is in general incompetent to prove that by showing that on other occasions, which are not charged against him, he acted in a similar manner, nor will a witness be permitted to state as a fact something which has been told or described to him by a third party.

The reason for this rule, which prevents the admission, except in certain circumstances, of hearsay evidence is not far to seek, because it is quite obvious that, if a witness is allowed to report what somebody else said to him as being proof of the fact alleged to be spoken to by the third party, it becomes clear that an unscrupulous or inaccurate witness will be able to influence the mind of the tribunal in a manner which cannot be adequately checked by cross-examination. Therefore, the rule is that a witness can only speak of things of which he has personal knowledge, or to things observed by himself, and that what he speaks to must have a relevant bearing on the particular matters under investigation.

This rule against the admission of hearsay has certain exceptions, because, in the case of a dead person, it may be permissible to repeat in Court what the dead person had said before death. It is also, of course, permissible for a police officer to state what the accused person said to him, unless the accused's statements were obtained by methods which are not recognised as admissible. It is also an exception to this rule that statements made in the course of what is called the *res gestæ*, that is, the transaction itself into which the enquiry is taking place, will be admitted. Thus, to take the simplest instance, in a case of mobbing and rioting, the exclamations of members of the mob may be proved in evidence as being part of the *res gestæ*.

There is a further exception which must be mentioned, and that arises in cases of rape or indecent assaults upon women and children. In such cases it is permissible for

evidence to be led of what the victim of the alleged assault said to the first person she meets and to whom she makes her first complaint, if that complaint is made *de recenti*, that is, hot upon the event.

There is also an important exception, which must be noted, to this rule which prevents the admission of hearsay evidence, and that is that expert witnesses are entitled to give their opinion upon assumed facts, and, to that extent, of course, their evidence is really hearsay. For example, medical experts of experience may refer, in the course of their evidence, to what they have learned in their medical training or in their professional experience, as fortifying an opinion formed by them.

The next general principle of importance is that the Law of Scotland, apart from one or two trivial exceptions in connection with certain statutory offences, requires that there should be corroboration before a charge is to be held proved against any person. The evidence of one witness alone will not be sufficient. There must be independent support for that witness's evidence, either in the testimony of other witnesses, or from surrounding facts and circumstances which can be established by witnesses, and this rule relates to all the essential facts which have to be proved before the charge can be brought home. For example, the identification of an accused person must never be left upon the evidence of one witness alone. There must be something to corroborate the statement of that witness identifying the person accused of the charge which is brought against him. It may be from another eye-witness; it may be from evidence of facts which connect the accused directly or even indirectly with the crime. Identification is just one of the vital facts in the proof of a criminal charge, and, as such, there must be corroboration of the fact of the accused's identity.

Perhaps I can give you an illustration of what is really meant by corroboration. If a vessel at sea or an aeroplane in the air wishes to establish its position, it is not sufficient to take one bearing of one object. What you want is a cross bearing which provides you with your fix. In the same way, in establishing an essential fact in evidence, you want to fix your fact,

and when it is said that corroboration is required all that is really meant is that you must get a cross bearing.

These, then, are the general principles, that evidence should be direct and not hearsay, that it should have a relevant bearing on the question at issue, and that in all essential particulars there should be corroboration. Underlying all these is the fundamental rule that there should be fair play for the accused, in whose favour the law prescribes that there shall always be a presumption of innocence.

With these elementary principles in view, I should like you to consider with me for a short time the practical side of the collection and preparation of evidence. I want to deal, first of all, with the observations to be made on the scene of a suspected crime, then with the recovery of articles to be used in evidence, and then with the method of obtaining information from the persons who may be either witnesses or accused. In dealing with these matters, I am not attempting to suggest the methods in which the practical work of investigation is to be carried out, but only to offer my observations from the point of view of the person who may have, in the first place, to determine whether any action is to follow upon the investigation, and, if so, of what character, and of the person who may be called upon to present the results of your investigation in a Court of Criminal Law.

In the first place, when you are called upon to examine the place at which a crime is suspected to have occurred, the essential thing to bear in mind is that your observation should be complete and accurate, and that it is unwise to rely too much upon your memory as a means of recording what you see or find. Memory can play very strange tricks, and inaccuracy or inconsistency of recollection may vitiate to a greater or less degree the value of the evidence which you may have later to tender on oath in Court. I have myself had experience of police officers giving, in a very important case, wholly inconsistent accounts of what they found in one small room, and other illustrations could, if one had time, be easily found. There was, of course, no suggestion of deliberate inaccuracy; the inconsistency was due to an entirely innocent mistake owing to want of accuracy in observation. Therefore, I would advise you to

take a full note of things as you find them, before anything is touched or altered.

If possible, it is very useful that your recollection and your record should be reinforced by photographs taken at the time by a person who can be brought as a witness to prove the fact that he took the photographs in question. Where measurements have to be taken, record them as accurately as possible, and, in taking them, let me suggest that you should carefully think why they are taken. They are to assist in reconstructing the whole facts as found, not to present a partial view. It is better to have too many than too few; you cannot go back and add to your records when things have been moved, or for example, the damaged cars have been taken away.

Then, as to articles which may be used in evidence or as productions. These articles may form what lawyers call the real evidence in a case, that is to say, the evidence of material things as opposed to the oral statements of witnesses, and it is frequently said that real evidence cannot lie, in the sense that it speaks incontestable fact, and there can be no mistake as to its meaning. This, of course, is a generalisation, and, like most generalisations, contains less than the whole truth; but there is no doubt that real evidence may be, and often is, of the most vital importance in proving the guilt or innocence of a person on a criminal charge. For example, in a recent case of alleged murder in Glasgow, the evidence of a door on which certain marks were found provided one of the strongest supports for the Crown case against a certain man charged with murder. The markings on the door, as was obvious upon examination, were inconsistent with the possibility of suicide by the victim and consistent only with a homicidal attack. It is, therefore, important, as you can see, that articles which are to be used, and may be of such vital value, should, in the first place, be properly identified. Therefore, when you take possession of articles, see to it that you are able to record exactly where and how they were found, and that, if necessary, if the articles have passed from hand to hand, the persons who formed that chain will be available, each to say what his share in the matter was.

In this connection may I just add that in making an investigation it is impossible at the early stages to be certain

what articles will or will not be of importance, and therefore nothing should be neglected, however small or apparently irrelevant it may seem at the time.

For example, in a very recent case of murder, very great assistance was obtained from pieces of newspaper in which certain human remains were wrapped. These pieces were some of them very minute and it might easily have been thought that they were so small as to be of no value. As it turned out, these pieces of paper provided one of the most important pointers towards the person who was ultimately charged with and convicted of the crime. Nothing, therefore, is too small or insignificant. It is only when the picture is complete that you can afford to discard elements or articles as immaterial. In the early stages of investigation nothing can be neglected as immaterial or irrelevant, and therefore everything should be noted with equal accuracy and care.

The illustration I have just given you shows how important it is that nothing in the way of real evidence should be overlooked, and also how equally important it is that witnesses should be available who can accurately describe the circumstances in which the production came into their hands.

In dealing with inquiries which may relate to books or papers, it is of vital importance to obtain the whole of them. In cases where the evidence of accountants or the examination of books may be required, it is not sufficient that the results of their examinations should be available as productions; the original documents examined by them must be produced to vouch the evidence of the examiner or the witness who prepares his report upon the books. Putting it another way, it is not enough to produce the completed account; the vouchers for the entries in the account must—if available—be there also. The reason, of course, is simple. If the vouchers are not there, how can the accuracy of the entries in the account or report be checked? In the same way, since the contents of documents, other than those having statutory validity, do not prove themselves, you must be able to produce, as a witness, the person who made and was responsible for the entries in the books or accounts. This is all just another illustration of the "best evidence" rule that I mentioned at the outset. You must work

back to the original and have available the whole of the links in your chain of proof. Therefore, when dealing with books, accounts or documents, make sure, so far as you can, that you have the whole of the records, and also that you can prove them by the appropriate witnesses.

As you are of course aware, productions for use in Court are labelled and signed by the witnesses who identified them. In labelling the productions themselves, care should always be taken to limit the description to that of the article itself and where it was found, and that nothing should be added to the description which is not necessary for its identification. In recent years, the use of finger-prints in the identification of accused persons has become more general, and, in view of the very great weight which is now attached to that form of evidence, where finger-prints are found it is essential that you should be able, with the fullest accuracy, to explain the exact place in which they were found in relation to the charge against the accused person. I might add that it is essential, when finger-print evidence is given, that there should be available such enlargements of the finger-prints photographed that the tribunal which is to try the case can, with their own eyes, under guidance of course, from the expert who produces them, see by what particulars the identity of the accused's finger-print and that found by the investigator is established.

In general, the right of police officers to take possession of productions is co-extensive with their right of apprehension. In circumstances in which arrest without warrant will be justified, simultaneous recovery of productions is permitted. Thus, in a recent Perth murder case, it was held that the detention of the accused, M'Guigan, being justified without warrant, recovery of articles from his tent, also without warrant, was equally legal. In any event it is recognised that, even if productions have been recovered without warrant where a warrant should have been got, that defect does not prevent their being admitted and used in evidence.

Before leaving the question of productions, let me remind you that a production, once found, should be kept in the condition in which it was found and no attempt made in any way to alter or improve its appearance. Any interference

with a production immediately lessens or even destroys its value as evidence and none should be made. The only exception is that steps may be taken to preserve a production from natural disintegration or decay.

One of the most difficult tasks in the collection of evidence is the taking of statements from witnesses. This is sometimes extremely well done, but I think it might assist you if I attempted to relate the principles of the Law of Evidence to the practical task of obtaining the oral testimony of persons who may be called upon to give evidence in the witness box.

I think the golden rule is: let the witness tell his own story and let him tell it to you in his own words. If you have occasion to record his statement in writing, remember that if the record is in your note-book, these note-books may have to be scrutinised in Court and therefore it is not advisable, when noting what the witness says, always to clothe it in precise official language. It is important to preserve, so far as possible, the actual language used by the witness whose statement is being noted. It is fairer to the witness, it is more helpful to the investigator, and it does not lay the officer open to the attack which is so often made in cross-examination that he has paraphrased inaccurately what the witness or accused really said.

I said just now that it is a golden rule to let the witness tell his own story, and by this I mean that it is not, in my view, desirable merely to take from a witness those facts which you think at the time may be of assistance to the case or the view of the case which you have formed. Nothing in the preparation of evidence is so dangerous as theory. The whole facts, once ascertained, and so far as they can be ascertained, will provide the basis for a theory, but the adoption of a theory on incomplete or insufficient knowledge may be fatal to the real purpose of the investigation—the ascertainment of the truth.

After the witness has told his own story, then of course clear up if you like any obscurities by question, or any points which you wish to ascertain and to which he has not referred, but I think you will find, from the practical point of view, that it is more helpful to adopt the method I have suggested than to place the witness under an examination merely from the

angle of the facts as they are known to you at the time. From another angle, also, it may be wiser to let the witness tell his own story first. You will not put an untruthful witness on his guard by the form and direction of your questions, and he may volunteer something of which you had no previous knowledge and thus widen the basis of your enquiry.

I come now to deal with what is the most difficult task in collecting evidence, and that is obtaining information from a person who may become suspect in the course of the investigation, or may ultimately be charged with the crime itself. In this matter the Law of Evidence does not do more than lay down a broad principle, and indeed, as a moment's reflection will show, it is impossible that it should do more than lay down a principle, because circumstances differ so widely from case to case that it is impossible to define adequately the limits of permissible investigation in a series of rigid rules or regulations.

In Scotland, as in England, the principle is based upon the fundamental idea of fair play, that a man is not to be trapped into an admission which might tell against him when he is placed on trial. The rule as it is applied in our Courts comes to be this, that a police officer is fully entitled to question a person in the course of his investigation up to the point at which that person becomes a suspect of being the author of or participator in the crime which is under investigation. Once that point is reached, and that depends upon the reasonable judgment of the individual officer in the first place, further questioning becomes impossible in the sense that the questions themselves and the replies thereto, if any, are no longer admissible evidence in a Court of Law. When a person becomes in a reasonable and proper sense a suspect, he must not be further questioned, and any statement made by him thereafter, unless he has been properly cautioned and makes such a statement thereafter voluntarily, cannot be admitted as admissible evidence.

The Law, as I said, is very jealous that a person should not be entrapped into admission or confession. This may in certain cases appear to bear hardly upon the criminal investigator; but I think upon reflection it will be realised that the

adoption of this rule, based as it is upon principles of fair play, is wholly in accord with the traditions upon which the administration of the Criminal Law is based in this country, and also that, although in certain cases it may appear to operate harshly against the Police, it is in the end fair to the interests of both parties. Cases may, and very often do, arise in which an accused person is willing to volunteer a statement. If that statement is to be used and be of any substantial value, I think you would do well to see that it is made in the presence of more than one person and that if it is reduced to writing, which should be done in the case of statements, it is signed by the accused, and that his signature is properly identified by more than one witness.

In that connection, let me remind you that where finger-prints are taken from an accused person, it is essential to prove that those finger-prints are those of the accused, and that is just one of the vital facts in the case which requires corroboration. Therefore, when finger-prints are taken on the appropriate form, and that form is signed by the accused, this whole operation should be conducted in the presence of two witnesses.

Finally, there are just one or two minor matters to which I would draw your attention. Should you have in the course of your investigation to make experiments, as, for example, with a gun, make sure that the gun with which your experiments are conducted and the targets at which you have fired are available as productions, because it is not permissible for a person to speak to experiments which cannot be checked, and therefore it would be idle for a witness to go into the witness box, state that he had conducted experiments on certain targets to show the spread of shot at various ranges from a gun, and not to produce the targets themselves. This may seem an obvious point, but it is one which is quite often overlooked, and I have myself, on numerous occasions, come across evidence of useful and intelligent experiments made by various officers which unfortunately could not be made available to the Court, just because they had not kept the articles with which these experiments had been conducted.

Let me also remind you of this, that if you have to make notes or records of what you have observed or found, do not

delay in making these notes or records. Their value in evidence decreases exactly in proportion to the lapse of time between the observation and the record; therefore, if you have to make a note, make it on the spot.

And now, one last word upon the presentation in Court of the evidence which you have collected and prepared in the course of your investigation. Much of the value of evidence depends on the manner in which it is given. Evidence frankly and fairly given is of infinitely more weight than that extracted from a grudging and reluctant witness. Further, as I already mentioned, the purpose of your inquiry is to ascertain the whole truth so far as that can be done, and in the same way in the witness box the same obligation of impartial statement rests upon you, more particularly having regard to the weight which the Court readily gives to the sworn testimony of experienced police officers.

In these few observations I have tried to indicate to you what is the practical application of the principles I endeavoured to formulate at the outset, and I would again remind you of the two essential rules of the Law of Evidence in Scotland: firstly, that evidence should be direct and not hearsay; secondly, that evidence without corroboration on essential particulars is without any real value. Finally, I would remind you that in dealing with an accused or suspected person, it is better always to err upon the side of fairness than to press an investigation beyond the limit of what is reasonable fair play.

Lessons by Practice

By A. T. N. EVANS

Chief Constable of Pembrokeshire

ABOUT 10.30 on the morning of the 2nd April, 1937, a constable stationed in a small town received a complaint by a man to the effect that two out of five bags of Kerr's Pink seed potatoes had been stolen from a shed. This shed was in a ploughed field situated some 2 miles away from the police station, and the theft had been committed between 1 p.m. on the 31st March and 9 a.m. on the 2nd April, 1937.

The complainant said he saw the five bags of potatoes in the shed at 3 o'clock on the afternoon of the 30th March, at which time he left the shed, after having securely locked it, and that on going to the shed at about 9 o'clock on the morning of the 2nd April he had found that someone had entered it and stolen two bags of Kerr's Pink seed potatoes.

With the view to tracing the thief, the constable at once went to the shed and made a thorough examination of it and the surrounding area. He found that in addition to the locked door it had also a window which was protected on the outside by a wooden cover, and on the inside of this cover there was a wire netting protection of $\frac{1}{2}$ in. mesh.

He found that the thief had taken out two of the boards in the window and had inserted his hand through the aperture, with intent to unscrew a nut on a bolt which passed through the door to the outside and on which was fastened a lock. Having failed in this attempt, the thief cut a bigger piece of the wire netting in order to allow him bodily access into the shed.

The construction of the shed suggested that more than one person had been engaged in the theft. The window measured 3 ft. by 4 ft., and its base was at least 5 ft. from the ground level. There was also evidence that two sacks had rested outside on the ground immediately below the window.

LESSONS BY PRACTICE

121

A thorough inspection failed to disclose any footprints or finger-prints, but on a small sill on the inside of the window was found a small brown bone button, similar to those which are fitted on tradesmen's overall jackets and which are generally fastened with a ring, whilst on the floor immediately below the window inside was found another similar button. Neither of these buttons had the usual ring attachment.

It was ascertained that the complainant's son had one of these particular tradesman's overall jackets, but it was established that he, the son, had not been near the shed during the period in question.

The course of investigation led the police to the house of a man living half a mile away who had been in the complainant's employ from time to time. This individual was not at home when the police called, but in answer to inquiries his wife said that she had some potatoes in the house, which she showed to the constable, who, however, was perfectly satisfied that they were not the stolen potatoes.

Later on, the same day, it was found that a respectable tradesman living in the locality had, some months previously, given to a man "A," also living in the locality, a brown tradesman's overall jacket which had on it two brown buttons similar to the two found inside the shed.

At 4 o'clock on the afternoon of the 2nd April, the husband of the woman at whose house the constable had previously called the same day approached the constable in a very annoyed state and said, "I don't know more about that transaction than the man in the moon." About five minutes after he left the constable, and unknown to him, his son was found, by whom the constable was told that he had been given a brown tradesman's overall jacket by a local tradesman some months previously.

He nervously agreed to hand the jacket over to the constable for inspection, and it was found that although it did not contain any buttons it was plain that it had recently had on it two top buttons. When asked what had happened to the two missing top buttons the man said that he had lost them whilst unloading a vehicle on the quayside. On being further questioned, he said they were black buttons.

The constable then accompanied this man to his home—the jacket being still in the constable's possession—and asked him to account for his movements during the period of the theft. He was most emphatic in his assertion that he had not been near the place. When asked if he possessed tools of any kind, he said "No."

When leaving the house the constable noticed a pair of pliers on a shelf in the kitchen, and in answer to a question put to the man, who had by now become a strong suspect, he said "Oh! that's my father's."

The suspect's mother was asked if she would let the constable have the pliers for inspection, and she readily agreed.

Having got possession of the pliers the constable picked up the aggrieved party and went back to the shed and took possession of the wire netting which was on the inside of the window.

The receipt of an anonymous letter, together with the overhearing of a remark made by a person in the street some two nights later, led the constable to make inquiries about another man "B" living in the locality. A search warrant was obtained, and at his home were found two sacks, each containing about 1 cwt. of Kerr's Pink potatoes. When asked to account for their possession, the man said he had grown them in a field about a mile away, as was his annual custom.

At a later stage these potatoes were shown to the loser, who could only say that they resembled the Kerr's Pink potatoes which had been stolen from his shed.

At this stage the assistance of Dr. Wilson Harrison, the Home Office Director of the South Wales and Monmouthshire Scientific Laboratory, Cardiff, was sought and the following exhibits taken to him:

1. Soil taken from the field on which the shed stood.
2. Soil taken from the floor of the shed in which the stolen potatoes had been.
3. Soil taken from the field in which "B" said he had grown the potatoes.

4. The sack in which "B" said he had carried the potatoes from the field.
5. Sack from loser which contained potatoes similar to those stolen.
6. Tradesman's overall jacket owned by "A" on which there were marks of some soil and which were said by suspect "A" to have been caused by a sack used for the purpose of carrying potatoes from his garden to his house.
7. Potatoes taken from a heap in the shed from which the potatoes had been stolen.
8. The pair of pliers.
9. Piece of wire netting taken from the window in the shed.

Dr. Harrison was able to say that an analysis showed that the potatoes in No. 4 had not been grown in the field referred to in No. 3.

A photomicrograph of the striations found on the wire netting (No. 9) was taken, and it was established that the pliers (No. 8) had cut the wire netting. Dr. Harrison attended the petty sessions and gave evidence to this effect. In the result, "A" was given the benefit of the doubt and "B" was bound over in the sum of £10 for 2 years. Both were proceeded against for simple larceny.

I think this minor case brings out the following points:

(i) *Observation and Control*

While observation will always prove of value, good results cannot be achieved unless the observer has implicit trust in his self-control.

Prolonged observation admittedly carries with it grave risks of the object aimed at being defeated. It is therefore most essential that in order to avoid consequences of this nature, the observer should know definitely at what precise moment he should call off his observation, because sudden cessation of observation gives the person under observation an increased sense of security, resulting in him being less cautious.

Between two intervals of such phases, it must be recognised that coincidental events may happen, and if the erring observer forfeits his opportunity of following them up, the position from his point of view becomes serious. He must therefore be guided in his actions by the circumstances pertaining to the particular case of which he has charge.

(ii) *Visual Training*

By sound visual training, or general observation only, it is possible for success to be attained in tracing any required person; for indications that a crime has been committed are often very minute indeed. It is at such times that the visual training of the investigator should be at its highest point of efficiency and perfection.

(iii) *Anonymous Evidence*

Although no policeman of experience has escaped receiving anonymous letters purporting to be evidence in some particular case, he cannot afford to consign such letters to the waste-paper basket. To what extent importance can be attached to such documents depends largely on the locality and quarter from which they come. Perhaps, here and there, a signature is appended which, upon inquiry, is found to be fictitious.

Exhaustive enquiries should be made with a view to discovering their authorship; for sometimes they are a link in a chain which connects a widespread criminal movement. Even if the enquiries do not establish the identity of the sender, very important data may, nevertheless, be obtained which will determine to what extent the document should be relied upon in connection with the matter to which it refers, and what degree of value should be attributed to it.

Sometimes it is necessary to seek expert opinion in connection with anonymous letters. This aid should not be lost sight of.

In examining anonymous letters there are several points which should be borne in mind. A few of the most important ones are: composition, expressions, spelling, postmark, kind of paper, thick or thin, ball pen or fine pen, the motive, finger marks, spots, etc., etc.

REVIEWS

ROAD TRAFFIC AND ITS CONTROL. By H. ALKER TRIPP, C.B.E., Assistant Commissioner of Police, Scotland Yard. (Edward Arnold & Co., London.) 26s. net.

THIS volume is one of a series on road traffic problems and road engineering, appearing as "The Roadmakers' Library." The companion volumes deal with technical and engineering problems of road construction and maintenance, and with the law on the subject. Mr. Tripp's contribution to the series is of particular interest to the police administrator, on whose bookshelf we predict for it an indispensable position, while the mass of information and interest it provides for the general reader should make a wide appeal.

In *Road Traffic and its Control* Mr. Tripp expresses in masterly and well-ordered fashion the point of view which is held by the police on a problem towards the solution of which practically every road user holds that he has his own remedy—a factor which makes all the more difficult the task of the police in seeing that the law on the subject is observed, administered and enforced. For the first time the "police point of view" on traffic problems is stated, outside a Blue book, in terms about which there can be no mistake.

As a contribution to constructive thought in the formation of national policy towards the road and road users, the author presents an unanswerable case. The work not being an official publication, the reader is warned that the views expressed are Mr. Tripp's own; but police readers of his book will fairly unanimously subscribe to the opinions which are put forward. Mr. Tripp, in his official position at Scotland Yard, with the task of organising traffic control, the enforcement of traffic laws, and the promotion of the road using public in the Metropolitan Police District, has given great weight to the opinions expressed by Mr. Tripp.

Mr. Tripp has long been known to police readers and to the London public as an expert who has made a special study of traffic problems, and of the contribution which the police can make to their solution. These qualifications, however, should be considered together with the author's own claim to examine his subject not so much from the heights of an Assistant Commissioner's room at Scotland Yard, but from the several angles of the road user, motorist, cyclist and pedestrian.

For the general reader perhaps the most fascinating passage in the book is that relating to traffic arrangements made for the Coronation in 1937. Its presentation furnishes a valuable picture which from an historical aspect alone merited preservation; and from an instructional angle will prove invaluable to future commissioners of police (it is hoped many years ahead) when similar arrangements again have to be organised. The plan of the Coronation route is a valuable document.

The author introduces new terminology to the subject. He distinguishes

"restrictive" measures, the aim of which is public safety, from "constructive" work, the "ultimate aim of which is to make vehicle tracks as well adapted . . . as the railways . . ." He draws the parallel which history provides between the development of railways a century ago, with their "restrictive" laws which hindered growth but promoted safety, and the development of motor traffic on the roads, where "high speeds have been developed first, and only now is the provision of safeguarding tracks beginning to be developed—and in a very gradual fashion. The effect of the inversion of orderly development has been inevitable and automatic, death and injury. That inversion is the root of the whole trouble. It must be rectified. These are the fundamental facts." Police officers will agree.

The reference to traffic control as a science is aptly made. The author puts traffic science into two categories, (a) "Dynamic," or the study of the movement and habits of traffic; and (b) "Static," or the study of lay-out and road construction. The correlation of the two is of high importance: "The balance and interplay are continual, but throughout the whole science two points seem to be axiomatic: first, road lay-out should not be designed save in the fullest light of experience of the actual handling of traffic; secondly, resort should never be had to 'restriction' by law if a solution by means of 'construction' is practicable." The reviewer feels an impulse to ask Mr. Tripp the number of times he must have experienced an inversion of this sound axiom. It is clear that until highway authorities and the Ministry of Transport can be educated to apply it much public money will continue to be spent without adequate assurance that public safety and inconvenience on the roads will be improved.

The treatment of the problem of the waiting vehicle merits the close attention of highway authorities and all concerned in schemes for street improvements and the provision of parking places in congested areas. Few people in authority, e.g. magistrates, recognise that there is a distinction between "waiting" and "parking." The author defines the former as a vehicle "temporarily out of circulation during a very short call of some sort," while "parked car" is "one 'laid by' for some time." Separate provision for each class is needed. The author's wide administrative outlook is indicated by his observations on the effect of parking problems upon amenities, which are often overlooked: "By gradual stages we have become habituated to great public sacrifices in that regard. Vistas and wide-open spaces are provided in order to add to the dignity and amenity of the central districts of capital and other cities. The clustering and banal effect of a multiplicity of parked cars destroys both the repose and the perspective of a picture. Equally, in old country towns continuous lines of parked cars along the kerbs are entirely out of keeping." The book abounds with maxims which merit circulation over a wide field: "Running space must not be sterilised." "Roads are intended for passage." "Towns should not be regarded merely as isolated and self-contained units." "Sound statistics are a presentation of ascertained facts."

One would have wished to refer to the chapters on the making of traffic law; enforcement; development of traffic policy; planning; and to the diagrams and graphs with which the pages abound; but space forbids. The citation of statutes and judicial authorities to be found in a hundred textbooks dealing with highway and traffic law, and which would have been a cumbersome addition to the present work, have been wisely omitted, but in

Chapter VI the author has managed to compress into eleven pages a summary of the offences which road users can commit. The two following chapters convey to the general reader a statement of police practice in regard to the enforcement of traffic laws, together with a comparison with procedure on the Continent and in America, which from time to time is advocated for adoption in this country. The index and a comprehensive table of contents adequately complete the purpose of the book as a work of reference.

MODERN CRIMINAL INVESTIGATION. By DR. HARRY SODERMAN AND JOHN J. O'CONNELL. (G. Bell & Sons, Ltd.) 12s. 6d. net.

THE authors have obviously taken a great deal of trouble in producing this book and a number of useful hints are to be picked up from it. It can be argued that it is exceedingly doubtful whether a book of this character ought to be on sale to the general public as it can be said with great force that many of the matters disclosed and discussed are likely to be of great value to criminally minded persons. The chapters on the investigations of burglary, larceny, robbery and arson are glaring examples.

The general questions raised have been discussed over and over again, and it cannot be pretended that the book adds anything to the theories examined at length by others, and particularly by Hans Gross, the father of criminal investigation.

A good deal of the detailed information seems to be overdone, for instance, it is of doubtful value to give ten pages of illustrations of types of motor tyres, most of which, if not already obsolete, will be obsolete within quite a short time. A detective who wishes to compare the treads of various tyres must consult other sources of information which are up to date at the time of his investigation. The idea of putting questions at the end of each chapter is useful and helpful.

In the chapter on the police laboratory the authors commit themselves to the statement that experience shows that a detective with the necessary experience is the ideal person to head a police laboratory. In their view:

"The detective heading the police laboratory should work hand-in-hand with a scientific advisor, a medical man or a chemist having the basic scientific education necessary to conduct with ability and authority the work of the laboratory and to testify before the courts. This man must be carefully chosen. Much depends on him.

"The personnel of the laboratory should be composed of detectives. Young men with some years of practical detective work and animated by an intense and lasting interest should be chosen. This is imperative because of the necessity of carrying out the work at the scene of the crime."

There is force behind this contention, but the authors seem to assume that the police laboratory will be prepared to tackle any scientific problems and say nothing on the interesting question of whether, in large towns, where specialised expert assistance is readily available, it would be preferable to employ the individual with the greatest reputation and experience in dealing with particular problems rather than confine the police to the experience of their own organisation.

They take it for granted that there must be a police laboratory attached to every large force, but no reasons are given to prove the necessity and apparently no consideration to the argument that large forces mean large towns and large towns mean that specialised experts on practically every scientific subject can be found by those who will take the trouble to look for them.

It is easy to understand that a police laboratory is a necessity in a territory where other aid is not available but difficult to combat the arguments of those who feel that where his services are available, the employment of the best specialised expert on any particular subject from time to time is preferable to and cheaper than the employment of a small permanent staff of jacks of all trades all the time.

One leaves the book driven to the conclusion that whilst great use can be made of it by those charged with the task of educating detectives, indiscriminate distribution to members of the public is likely to do more harm than good.

PRACTICAL PATHOLOGY, INCLUDING MORBID ANATOMY AND POST-MORTEM TECHNIQUE. By JAMES MILLER, M.D., and JAMES DAVIDSON, M.B. Third edition. (A. & C. Black Ltd.) 25s. net.

This well-produced book of 518 pages was first published in 1914, and the present edition has been considerably improved and enlarged. There is much new material; the illustrations have been modernised and a number added, and there are seven coloured plates. (These plates are excellent; special mention may be made of the one facing page 416, which shows the extensive necrosis of mucous membrane of the stomach due to lyso poisoning.) There is a useful appendix (with formulae) on mounting, fixing and staining specimens, bacteriological methods of investigation, etc.

In producing the work originally the authors had in mind a handbook which would give students the information required for their work in practical pathology. This new edition is something more than that: it is a compendium of practical work and study in museum and laboratory no less than in the class-room; and, while the authors modestly claimed for their first edition that the book "in no way attempts to supplant the larger text-books and is not intended for the advanced student," that claim can hardly be made now. For the volume before us covers the working ground so thoroughly that it may well become a useful adjunct to the equipment of the practitioner.

To those of our readers who are medical men we cordially recommend it.

THE POLICE JOURNAL

VOL. XII, No. 2

APRIL-JUNE, 1939

The Police and the Law

AMUSEMENT SALOONS

THE popularity of Pin Tables and other mechanical games appears to be steadily on the increase. That this is so in London is within the writer's knowledge, and no doubt it is equally true in the provinces.

In London entire premises are given over to Crane Machines, Pin Tables, and similar devices. Such places are usually called 'Amusement Saloons,' and in many of them flagrant breaches of the Gaming and Betting Laws are from time to time brought to light. The enthusiasm for such a form of amusement on the part of a certain section of the community is evidenced by the fact that at certain times of the day these saloons are full to capacity, and would-be players often have to await their turn at the game of their choice. Moreover, players will frequently be seen to spend several shillings in an endeavour to win some prize which is almost certainly worth less than half the amount spent in the efforts to obtain it. The very popularity of these games constitutes their evil, for it seems that their appeal is to a section of the public which for the most part can ill afford to waste its money in this way.

That this aspect of the matter was recognised as early as the sixteenth century is made apparent by certain words contained in an Act passed in the thirty-third year of the reign of Henry VIII. This Act was expressly passed to encourage archery and to discourage "the poore people of this realm" from spending their time and money on "tennys playe, bowles, cloyshes and other unlawful games," from the indulgence in which the Act says 'Great ympoverishment hath ensued.'

It will be seen that the pastimes in those days to be discouraged were of a very much more innocuous nature than those we are now considering, in connection with which Lord Hewart, C.J., has said: "The law is perfectly clear. It depends on the vigilance and diligence of the police to put an end to what can only be regarded as a pest, and a most mischievous pest, because it operates on the minds of young persons and corrupts them in their youth."

Let us then consider the law which the police can invoke in their aid when dealing with this pest.

'Gaming' is playing at any game for money or money's worth, and it must be borne in mind that this article only refers to those games in which the player pays to play and a prize is offered.

At Common Law no game was of itself unlawful, with the possible exception of cock-fighting; but games became unlawful by reason of their being played in a "common" gaming house. Such a house was, and still is, indictable as a nuisance at Common Law. In Hawkins' *Pleas of the Crown* one reads that "all common gaming houses are nuisances in the eye of the law, not only because they are great temptations to idleness but also because they are apt to draw together great numbers of disorderly people, which cannot but be very inconvenient to the neighbourhood."

It is not, however, necessary to prove that a public nuisance such as is suggested by the above quotation exists, and in *R. v. Rogier and Another* (2 D. & R. 431) Best, J., said: "Any practice which has a tendency to injure public morals is a common-law offence."

It will be asked: "What is a Common Gaming House?" The simplest answer is provided by Hawkins, J., in his judgment in *Jenks v. Turpin* (13 Q.B. 505), where he says: "[A common gaming house] is a house in which a large number of persons are invited habitually to congregate for the purpose of gaming." What better description could be found for some of the amusement saloons?

So much, then, for the Common Law.

Reference has already been made to one statute dealing with gaming, namely that passed in 33 Henry VIII. By

Section 8 of that Act it is enacted that "no person shall keep any common house, alley or places of bowling, coyting, cloysh-cayles, half bowl, tennis, dicing-table or carding, or any game prohibited by any statute heretofore made or any unlawful new game then invented or thereafter to be invented upon pain of [certain penalties]." And by another section it was made an offence to haunt or use such places for playing.

Here again it will be seen that it is not the game itself which is made unlawful but the playing of that game in a house or place kept for the purpose. However, subsequent Acts were passed from time to time which did make specific games unlawful in themselves, they being games which were "fraudulent and deceitful" and all of them games of chance. By the Gaming Act, 1845, Section 1, it seems to have been made clear that what the legislature had set itself against was these games of chance, for it was there enacted that "so much of 33 Henry VIII c. 9 (the Act to which we first referred) whereby any game of mere skill . . . is declared an unlawful game or which enacts any penalty for playing at any such game of skill as aforesaid, shall be repealed: and also so much of the said Act as makes it lawful for every master to license his servants . . . to play at cards, dice, or tables or any unlawful game shall be repealed; and no such license shall avail any person to exempt him from the danger or penalty of playing at any unlawful game or in any common gaming house."

The position at that time, then, was that apart from the games specifically made unlawful by statute, all gaming (whether at lawful or unlawful games) in a common gaming house was unlawful and, by the combined effect of the Act of 33 Henry VIII and the Gaming Act, 1845, any game not being a game of mere skill was also unlawful if played in a place kept for the purpose.

Hawkins, J., in *Jenks v. Turpin* (*supra*), after reviewing the law up to that date, summarised the position in these words: "The unlawful games, then, now are—ace of hearts, pharaoh, basset hazard, passage, roulette, every game of dice except backgammon (these are the games specifically outlawed) and every game of cards which is not a game of mere skill: and, I incline to add, any other game of mere chance."

It is somewhat difficult to understand the distinction he draws between games of cards and any other game, for no such distinction appears to have been contemplated by either the Act of 33 Henry VIII or the Gaming Act, 1845. A reading of the parts quoted of those Acts appears to indicate that, if played in a place kept for the purpose, any game not being a game of mere skill is unlawful; whereas, according to Hawkins, J., a game, other than those named or any card game, is only unlawful if it is a game of mere chance—in other words if there exists no scope for skill.

However, there have been decisions subsequent to the case of *Jenks v. Turpin* which have modified that definition and which have direct bearing upon the games and machines which are to be found in the Amusement Saloons.

In *Fielding v. Turner* (1903, 1 K.B. 867) the game in question was played as follows: A penny was placed in a slot and a spring depressed; when the spring was released the penny was projected round the machine and might fall into one of a number of compartments, with varying results. It was argued that this game gave scope for skill in that by constant practice a player might get accustomed to the strength of the spring and know how far to depress it in order to achieve a certain result. The Court held that the degree of skill was not sufficient to take the game out of the category of unlawful gaming. It was also decided in the same case that where a game is an unlawful game it is immaterial that a prize offered is of very small value.

The matter was carried even farther by the case of *R. v. Kirby, Parker and Patrick* (20 C.A.R. 12). Here, after placing a penny in the slot, a ball was projected. This ball fell through an irregular row of pins and could then be caught by the player in a receptacle if he manipulated a certain handle successfully. This game certainly allowed of the exercise of some skill, but nevertheless a conviction for unlawful gaming was upheld by the Court of Criminal Appeal.

In deciding the unlawfulness of certain games the Courts have also had recourse to Section 1 of the Gaming Act, 1845, by which it is laid down that in default of other evidence a place may be proved to be a common gaming house by showing

that it is kept for play at any unlawful game at which a bank is kept by one or more players exclusively of the others, or that the chances of any game played therein are not alike favourable to all the players, including amongst the players the banker. In the case of an automatic machine the banker is the owner of the machine. The question of unequal chances was considered in the case of *Fielding v. Turner* (*supra*) and it was decided that in the particular game then under consideration the chances were very much in favour of the owner of the machine, and that playing upon the machine therefore amounted to unlawful gaming. In connection with a similar machine, Jelf, J., in the case of *Thompson v. Mason* (68 J.P. 270) said that "it was a game in which the chances were not alike for all the players, including the owner of the machine. The owner gets an enormous advantage without doing anything for it, and it is clear the game was within the mischief aimed at."

Apart from assisting in defining an unlawful game the section of the Gaming Act quoted above may be said to create a statutory common gaming house, the effect of it being to make any place kept for any unlawful game a common gaming house where all gaming—even at lawful games—is unlawful.

It would seem that it is necessary to prove that the place in which they are played is "kept" for that purpose. In other words, there must be some evidence of habitual use (*R. v. Davies*, 1897, 2 Q.B. 199), though it is not necessary that the place should be kept for that purpose alone (*Jenks v. Turpin*, *supra*).

With regard then to games not specifically outlawed by statute, the present position (according to the cases on the subject) is thought to be that where the success of the player depends chiefly on chance they are unlawful when played in a place kept for the purpose. We are not of course concerned in this article with card games where, according to the decision in *Jenks v. Turpin* which was recently followed by the Divisional Court in *Dalton v. The Adelphi Club Ltd.* (J.C.L., Jan. 1939, p. 69), the slightest element of chance is sufficient to make the game unlawful.

The question which the Court has to consider, moreover,

is not whether there was scope for the exercise of skill but whether, according to the evidence before it, an attempt was being made to exercise that skill for which scope was provided (*R. v. Brennard*, 22 C.A.R. 95).

Chance may manifest itself in other forms than the mere uncertainty of the course of a ball projected by a spring or the mechanisation of a device operated by the insertion of a penny. A game called "Bingo" has recently become a popular feature of the Amusement Saloons and has given rise to a number of prosecutions. At this game several persons play at the same time. It is not proposed to go into details of the game but simply to say that the method of play is such that, although a player may have scope for and exercise considerable skill, his efforts may have the effect of making another person the winner. The exercise of skill does not affect his chances of success. This has been held to be unlawful gaming, and some Courts have gone so far as to find it to be a lottery, *i.e.* a distribution of prizes by lot or chance, and have registered convictions under Section 22 of the Betting and Lotteries Act, 1934.

Such then are the "unlawful new games thereafter to be invented" provided for, but surely not contemplated by, the legislators of the sixteenth century.

Proceedings, where a place is kept for play at such games, may be taken under Section 4 of the Gaming Houses Act, 1854.

There are yet, however, to be considered the games which escape the category of unlawful games but constitute an offence under the Betting Act, 1853. Under this heading come games played for money or money's worth which are admittedly games of skill, but at which persons play not for the purpose of testing or exercising their skill but in order to win a prize. A person keeping or using premises for the purpose of such games being played therein may be proceeded against under the second part of Section 1 of the Betting Act, 1853.

The important thing is the purpose for which a player pays his money. If the payment is in the nature of an entrance fee to take part in a game of skill no offence is committed (*Peers v. Caldwell*, 80 J.P. 181). The question is one of fact, which may be decided from the manner in which a person

uses the particular machine. Where a man puts a dozen or more pennies into a Crane Machine and is obviously directing his attention towards one particular object displayed in the machine, the inference would be that he paid his money in order to get that object, and the offence would be proved. Unlike unlawful gaming, the value of the prize may be material in proceedings under the Betting Act, since it is less easy to prove that a person has paid his money merely for a chance of winning a prize where the value of that prize is trivial.

To summarise, then, the Amusement Saloons which are the subject of this article, if they offend at all may do so either as

1. Nuisances indictable at Common Law;
2. Places kept for the purpose of unlawful gaming contrary to the Gaming Houses Act, 1854, and the Gaming Act, 1845; or
3. Places used in contravention of Sections 1 and 3 of the Betting Act, 1853.

This article must not be construed as implying that all amusement saloons are conducted contrary to law. No doubt there may exist some to which what has here been written does not apply. But there may still be much truth in the words with which Hawkins, J., concluded his judgment in *Jenks v. Turpin* (*supra*): "We do but administer the law as we believe it to be and to have existed for many a long year, though it has been so often broken and disregarded with impunity that at last its existence seems to have been forgotten; and quoting the language of Blackstone . . . I say 'Our laws against gaming are not so deficient as ourselves and our magistrates in putting those laws into execution.'"

THE SUPPRESSION OF DISORDER BY FORCE

Justification for the use of force when dealing with crowds has of late been based on the Prevention of Crime Act, 1871 (as amended in 1885), and, more recently, on the Public Order Act, 1936. This may have tended to obscure the

practical significance of the common law rules relating to unlawful assembly, but *Lynch v. Fitzgerald* [1938] I.R. 382 demonstrates the continuing importance of those rules, since it raises the whole question of the extent to which force may be used by the police when faced by a combative crowd. Although it is an Irish case and deals with the use of firearms, it is of general application since it was decided according to common law rules and applies equally to all kinds of force.

Owing to threats against prospective bidders at auctions held for the compulsory sale of cattle for non-payment of land annuities, members of an armed branch of the Civic Guards (the 'S' Specials) were detailed to protect such bidders. At an auction in Cork, a crowd of about 1,500 collected outside the sales yard and several broke the police cordon, in a lorry. The members of the 'S' Specials, believing the lives of the bidders to be in danger, fired on the lorry and those entering the yard, killing a boy. In a civil action, the boy's father was awarded £300 and the judge sent the papers to the Attorney-General for criminal proceedings to be taken.

Hanna, J., after an exhaustive review of the authorities, stated the relevant rule of law (at p. 405) in the following terms: "armed forces can fire upon an unlawful or riotous assembly only where such a course is necessary as a last resort to preserve life." This would appear to ascribe to the police powers narrower than those usually conceded to them. Thus, Bowen, L.J., in the Report of the Select Committee on the Featherstone Riot (Cmd. 7234, 1893-4) stated the rule as follows: "The taking of life can only be justified by the necessity for protecting *persons or property* against various forms of violent crime." And it must be remembered that the primary threat made by the crowd in the Featherstone Riot was a threat to property, *viz.* to set the colliery on fire. The test adopted was: "Was what they did necessary, and no more than necessary, to put a stop to or prevent felonious crime?" That justification for the use of such force is not limited to the suppression of felonious crime is shown by the Report of the Special Commission on the Bachelor's Walk Shooting (1914, C.D. 7631) where the expression used is "serious and violent crime."

But, although the decision in *Lynch v. Fitzgerald* and the

general dicta of Hanna, J., will no doubt be used by the advisers of those who wish to make claims against the police, it is submitted that the decision went on very narrow grounds. Although the defendants pleaded that their acts were "necessary to protect life, property and public order," Sullivan, C.J., points out (at p. 419) that the only ground of justification put forward *at the trial* "was that their sole duty on the day in question was to protect the O'Neills [the bidders] and that they fired when they did because the lives of the O'Neills were in danger." On the facts, as found by Hanna, J., the Court could not have held otherwise than that this belief was unjustifiable and unreasonable. It is submitted, therefore, that the general rule enunciated by Hanna, J. (*supra*), must be read in the light of the fact that he had to decide only this question: "Was such the force necessary to protect the *lives* of the bidders?" The suggested rule, therefore, is merely a "particular proposition referable to this case."

It is to be noted that the police, when claiming justification for the use of force on the ground that it was reasonably necessary, have a double burden of proof: the reasonableness of the necessity must be both objective and subjective.¹ The more difficult task will be to convince the "armchair strategist" (a description of the Court used by counsel in *Lynch v. Fitzgerald*) that the force used was reasonable, in view of the state of facts; but it must not be forgotten that there is the further burden of proving to the Court the genuineness of their own belief, *at the time*, that such force was necessary.² And the state of mind of the person using force is further important in that his actions are judged against a background not of the existing circumstances but of the circumstances as he knew them or ought to have known them.³

¹ See *Law Quarterly Review*, Vol. LII, 470, 473, n. 3.

² *e.g.* per O'Brien, C.J., in *Coyne v. Tweedy* [1898] 2 I.R. 167 at p. 172: "The measure then of the defendant's duty is doing what was, and what he believed to be, reasonably necessary for the preservation of the peace."

³ *e.g.* per Gibson, J., in *Coyne v. Tweedy* (*supra* at p. 186): "The duty of the officer in securing the public peace must depend on what is immediately before his bodily senses and mind and cannot rest on his arriving at a correct judgment upon the actual rights of the respective opposing parties." *cf.* Meredith, J., in *Lynch v. Fitzgerald* [1938] I.R. 383, 422: "If an

In conclusion, it may be said that this case is a further illustration of the statement contained in Abrahams' *Law Affecting the Police and Public* (p. 103) that, "the law relating to crowds and processions . . . has involved a consideration of the very small powers which the police enjoy of acting in anticipation of crime."

unlawful assembly is endeavouring by violence to overpower the forces of the State in apparent pursuit of an object that must be frustrated at all costs, then, if they bring about an emergency that, with the excitement caused by the imminent danger, makes the exercise of calm judgment difficult, allowances must be made in passing judgment on a decision on the part of those entrusted with the protection of life and property as to the precise moment at which the development of the situation makes recourse to the use of firearms necessary. The probable outcome of a development, which has taken place in the situation, is a matter of opinion and of opinion which has to be the sufficient ground for immediate action. If the opinion that led to action was occasioned by an actual development in the situation, if it was reasonable under all the circumstances and afforded a sufficient ground, then the action was justified as a practical necessity even though a court of law . . . might feel bound to hold that objectively the use of firearms was unnecessary and premature, as, for instance, if it were proved in this case that, when the firing to kill began, control had been gained outside the gate, though this was not known to those inside."

Recent Judicial Decisions

A MISLEADING DIRECTION TO THE JURY

R. v. Tennet

THIS was an appeal against a conviction recorded at Liverpool Assizes. Two men were charged with stealing a number of bicycles, and the appellant, Tennet, was charged with receiving within a period of three and a half months nine of the bicycles well knowing them to have been stolen. The facts may be summarised as follows:

For about nine years the appellant had been a radio dealer, and in January 1938 he began to deal in second-hand bicycles, for which purpose he had to take out a broker's licence. He received from the police periodical notices containing particulars of stolen bicycles and other stolen property; but it appeared that his main business being that of a radio dealer he paid little or no attention to these notices. During the six months following January 1938 he bought 220 second-hand bicycles. The purchases of these were recorded in his books, but other particulars required by the bye-laws had not been entered. The evidence showed clearly that he had received bicycles which had been stolen, and the main point was as to the existence or otherwise of guilty knowledge on his part.

In what was later referred to by Lord Hewart, C.J., as an admirable and complete summing up, the Judge at Assizes included these words:

"The offence of receiving means that the prosecution have got to prove that the goods in question were in fact stolen. Then they have got to prove that the goods in question were received by the defendant. It is quite obvious what that means. Then they have got to prove the more important thing—that, at the time he

received them or had them in his possession, he knew they were stolen."

It was the words in italics which were relied upon as the ground of appeal, the appellant's case being that those words constituted a misdirection in law which was of such a nature as to go to the very root of the conviction, since they were capable of conveying to the jury the impression that it was sufficient to show either that at the time of receipt or that at some time when he had them in his possession, the appellant knew the bicycles were stolen.

Lord Hewart, C.J., delivering the judgment of the Court of Criminal Appeal, said that the case was a grave one and that it was unfortunate that there was no passage in the summing up which contradicted the view apparently expressed by the above quoted words which, his Lordship later said, were obviously nothing more than an accidental slip. It is, of course, necessary to prove that a defendant, charged with receiving, knew that the property was stolen or unlawfully obtained at the time when he received it.

For the Crown it was suggested that this might be a case for the application of the proviso contained in Section 4 (1) of the Criminal Appeal Act, 1907, which enacts that

"the Court may, notwithstanding that they are of opinion that the point raised in the appeal might be decided in favour of the appellant, dismiss the appeal if they consider that no substantial miscarriage of justice has actually occurred."

But Lord Hewart said that the Court reluctantly took the view that it could not accept that proposition. The precise and pointed statement of law might go to the whole root of the matter and might have led the jury to believe that they were entitled to convict, and ought to convict, if they found that at any time the appellant had in his possession goods which he knew had been stolen. This was, of course, contrary to law. The real question was the effect of the statement of law upon the mind of the jury, and the Court could not assume what that might have been.

The appeal was allowed.

HABITUAL CRIMINALS

R. v. Jones

Jones was found guilty at Middlesex Sessions on a charge of being an habitual criminal, having previously pleaded guilty to a charge of housebreaking and larceny. For the offence of being an habitual criminal he was sentenced to six years' preventive detention in addition to a sentence of penal servitude for the substantive offence.

He appealed to the Court of Criminal Appeal, and the appeal is of interest and importance so far as the charge of being an habitual criminal is concerned.

He was successful in his appeal against conviction on this charge for the following reason. It appeared from the evidence of the appellant's character given at his trial that he had nine previous convictions and had been released from his last sentence a few weeks before committing the substantive offence to which he had pleaded guilty. But it was also revealed that he had given Police information as to where he had tried to get work since his release and that Police had checked his story and found it correct.

The jury were not specifically directed on the question of "onus of proof," and Singleton, J., giving the judgment of the Court of Criminal Appeal, said that the necessity for proof of a charge of being an habitual criminal ought to be insisted on just as much as in any other class of case. A man charged in such circumstances ought to have his case put clearly to the jury.

It will be seen from this decision that it is by no means sufficient for the prosecution to prove certain previous convictions, though such are a necessary ingredient of the case. There are already many cases on this point, of which *R. v. Norman* (131 L.T. 39) is one. Once the minimum has been proved by the prosecution it becomes a question of fact for the jury as to whether a man is an habitual criminal or not, and this case shows that it is very necessary that they be properly directed on the subject and not merely left to assume

that because a man has been recently and frequently convicted he must of necessity be an habitual criminal.

R. v. Andrews

Much the same point was the grounds on which a successful appeal to the Court of Criminal Appeal was made in this case. The appellant, after pleading guilty to a substantive offence, was charged with and found guilty of being an habitual criminal at the Central Criminal Court. He appealed on the ground that he had not been asked whether he wished to call any witnesses when in fact he did so wish, and further that he had not been given the opportunity of being represented by counsel.

Lord Hewart, C.J., in his judgment allowing the appeal, said: "... We are told that he did desire to call a witness. Whether . . . it would have had the effect of preventing the jury from arriving at the conclusion at which they did arrive it is difficult to say, but we do think that it is desirable not only that the utmost care should be taken to inform a prisoner that he might call a witness but also that (on this charge) a prisoner should have the advantage of being represented by counsel. . ."

DRIVING AT A SPEED DANGEROUS TO THE PUBLIC

Durnell v. Scott

With the present-day steady increase of traffic on the roads and the correspondingly steady increase of cases under Sections 11 and 12 of the Road Traffic Act, 1930, in the Courts, the above case is of some importance. Moreover it will be of the greatest assistance both to police and to justices in their efforts to preserve the safety of the roads.

The decision is one of the Divisional Court presided over by Lord Hewart, C.J. The case reached that Court by way of Case Stated from a dismissal by certain justices of the County of Cheshire.

The respondent had appeared before the justices on two summonses, one for exceeding the speed limit with a goods

vehicle, and the other for driving at a speed dangerous to the public—the latter being one of the offences created by Section 11 of the Road Traffic Act, 1930. The facts proved or admitted were that he had driven a 50 cwt. furniture van laden with furniture along a main trunk road at speeds varying between thirty-five and fifty miles per hour. In the stretch of road over which he was followed by police at these speeds there were ten bends, five converging roads, and one crossroads. The day was a Sunday and there was an amount of traffic on the road at the time.

On these facts the respondent was convicted of exceeding the speed limit, but the summons under Section 11 was dismissed. The justices in their case to the Divisional Court said that they had decided that although the van was being driven at a speed in excess of the maximum limit permitted by law for that class of vehicle, in view of the type of road and the situation of the test the speed was "not a speed which was in fact dangerous to the public which was on the road or to the public which might reasonably have been expected on the road. . . ."

Lord Hewart, C.J., in his judgment in the Divisional Court, referred to the case of *Kingman v. Seager* (157 L.T. 535) and quoted, amongst others, this passage from his own judgment in that case:

"I find it impossible to reconcile the decision of the justices with the facts which they found. The road was a Class A wide road carrying a heavy volume of traffic from Lancashire to the Potteries and London. There was a cross-road and a bend in it and another road converging to it; and the cross-road and the converging road had warning signs where they joined the main road. On those facts I do not think it was open to the justices to find in the circumstances of this case that there was no danger to traffic which might reasonably be expected to be on the road."

He said that the justices in the present case had found facts from which reasonable persons could only come to one conclusion, namely that the respondent had been guilty of driving recklessly. He came therefore to the conclusion that the justices did not correctly apprehend the law.

Charles and Singleton, JJ., delivered judgments concurring with that of Lord Hewart, and the appeal was allowed, the case being sent back to the justices with a direction that they should find the offence proved.

A significant aspect of the case which will not have escaped our readers is that on the face of it the Police appear to have appealed against a finding of fact by the justices, whereas of course it is only open to the prosecution to appeal from the decisions of justices on points of law.

Certain passages in the judgments of both Charles, J., and Singleton, J., throw some light on this point.

Charles, J., in his judgment, after first briefly reviewing the facts, quoted those words in the Case Stated by the justices in which they said that they did not think there was in fact danger either to the public on the road or to those members of the public who might reasonably have been expected on the road. "The very use of the words '*in fact*,'" he said, "combined with the rest of the sentence '*might reasonably have been expected on the road*' seems to me that the justices have completely misapprehended the law. The phrases '*in fact*' and '*reasonable expectation*' are confused and dealt with as one."

And Singleton, J., dealt with the same point. From his judgment it appears that counsel for the respondent had raised the point, not unnaturally, be it said, that the justices had found *in fact* that the speed was not dangerous within the meaning of the Road Traffic Act, 1930, S. 11 (1). The learned judge agreed that the Court should be slow to differ from the justices on the facts, but that, if the facts point one way and one way only—facts as found—and if it appears, on those facts as found, that the justices were wrong in law, it is the Court's duty to say that they were wrong.

The case, then, is doubly useful. It reinforces *Kingman v. Seager*, in showing what, in the opinion of the Divisional Court, is sufficient evidence to justify a conviction under Section 11—and, may it be said, considerably stronger evidence is frequently considered insufficient by justices. In addition it makes perfectly clear, perhaps for the first time, that once the facts as to the manner of driving are found it is a question of a

law as to whether those facts do or do not constitute an offence under Section 11 of the Road Traffic Act, 1930.

FALSE STATEMENT IN INSURANCE PROPOSAL FORM

Jones v. Meatyard

The facts in this case were that the respondent, Meatyard, having purchased and taken delivery of a small car, proceeded to register and license it in the name of "R. Jones." He then telephoned an insurance agent, saying that a friend of his, a Mr. R. Jones, of Cranwell, required insurance in order to license a car he was buying, giving the horse-power and number of the car. By this means he obtained a cover note in the name of R. Jones, purporting to cover the car which he himself had bought. During the currency of the cover note he was stopped by police while driving his car and spoken to in connection with his Revenue Licence; he was required to produce his insurance and the next day attended a police station where he produced the cover note in question; this he afterwards returned to the insurance underwriters saying that R. Jones had obtained cover elsewhere.

As a result of further enquiries he was later interviewed by a police officer, and in answer to the questions put to him he said: "On March 26th I sent the money for the revenue licence in the name of Jones, who is a workmate of mine. . . . I do not know his address. The address I gave is that of my brother. . . . I did it because I want to keep on the cheap rate of insurance."

He was summoned for making a false statement for the purpose of obtaining the issue of a certificate of insurance under Section 112 (2) of the Road Traffic Act, 1930.

Before the magistrate he admitted that there was no such person as R. Jones. The magistrate, however, dismissed the summons without even calling upon the defence, and the prosecution applied for a case to be stated for the opinion of the Divisional Court.

The magistrate stated a case and after setting out the facts, said: "I found that the respondent had obtained a valid

insurance policy in the name of R. Jones, using the said name . . . as his own and that no gain or advantage had accrued to him thereby. I therefore dismissed the said information."

Lord Hewart, C.J., giving judgment in the Divisional Court, quoted the above words of the magistrate and said that he found it a little difficult in the circumstances to understand the use of the word "therefore." The subsection, he pointed out, included no proviso making a false statement permissible where no advantage accrued to the defendant. He found it impossible to understand the decision. The offence, he said, was manifestly committed and the appeal must be allowed.

A POINT DECIDED *PER INCURIAM*

Homolka v. Osmond

This case was finally decided in the Divisional Court before Lord Hewart, C.J., and Charles and Singleton, JJ. It reached that Court by way of Special Case stated from the County of London Sessions.

Very briefly the facts were these: A man, "G.," who had been disqualified from holding or obtaining a licence to drive a motor car, was stopped by Police while driving Miss Homolka's car, she herself being with him in the car at the time. When questioned by Police, G. gave a false name and address in Miss Homolka's hearing. Both G. and Miss Homolka were summoned for a number of offences, and amongst others he was summoned for driving while disqualified under the Road Traffic Act, 1930, S. 7 (4), and she for aiding and abetting him in that offence.

As, owing to the manner in which Police were hampered in their enquiries, the true facts did not come to light until more than six months after the offence had been committed, proceedings were not instituted until some time after that period had expired. It is, however, enacted by Section 7 (5) of the Road Traffic Act, 1930, that

"Notwithstanding any enactment prescribing the time within which proceedings may be brought before a Court of summary jurisdiction

proceedings for an offence under Subsection (4) of this Section may be brought . . . (b) within a period which exceeds neither three months from the date on which it came to the knowledge of the prosecutor that the offence had been committed nor one year from the date of the commission of the offence. . . ."

Proceedings in this case were brought within the limit there specified, and both defendants were duly convicted at the Police Court.

Miss Homolka, however, appealed to Quarter Sessions on the grounds, *inter alia*, that the charge of aiding and abetting, being an offence only under the Summary Jurisdiction Act, 1848, S. 5, was out of time by reason of Section 11 of the same Act, which imposes a general limit of six months after the date of the offence for the laying of information. On her behalf it was argued that the above-quoted subsection of the Road Traffic Act only applied to principal offences and did not apply to aiding and abetting.

At Quarter Sessions her appeal was allowed, and the prosecution thereupon took the matter up to the Divisional Court, where Lord Hewart commenced his judgment with these words:

"The case is really too clear for argument and apparently the point was decided *per incuriam* in the absence of the relevant authorities."

He went on to point out that it was quite incorrect to hold, as Quarter Sessions had held, that Sect. 7 (5) of the 1930 Act had application only to the principal offences set out in Sect. 7 (4), and not to the offence of aiding and abetting that offence. Such a proposition was completely at variance with the law clearly laid down by Lord Reading, C.J., in *Gould & Co. v. Houghton* (1921, 1 K.B. 509), where he said: "From these authorities (the authorities cited by him) it is, in my judgment, conclusively established that an accessory before the fact to the commission of a misdemeanour is to be regarded in law for the purpose of conviction as a principal offender."

Lord Hewart further pointed out that in fact Sect. 5 of the Summary Jurisdiction Act, 1848, did not create an offence at all, but merely regulated procedure and punishment. Clearly the appeal must be allowed.

A SCOTS CASE ON OBSTRUCTION OF POLICE

Curlett v. McKechnie

This case, which was finally decided in the High Court of Justiciary of Scotland, may well be considered as a useful guide in English Courts, especially as English cases were discussed and distinguished in the proceedings. The case arose in this way:

An accident occurred in which two motor vehicles were concerned. One of these was being driven by Hugh Curlett, a provisional licence holder, who had with him at the time his father, James Hull Curlett, who was not the holder of any kind of driving licence and was consequently not a supervisor within the meaning of the Motor Vehicles (Driving Licences) Regulations, 1937. There was no other person in the vehicle. The driver of the other vehicle concerned, who knew the Curletts well, reported the accident, giving the names of the two Curletts as driver and passenger in their vehicle.

In the course of his duty enquiring into the accident a police constable later called upon the Curletts, when Hugh admitted being the driver but said the person with him was his brother James, a licensed driver, and not his father James Hull Curlett. The latter was present when this was said, and when asked denied being in the vehicle at the time in question. Later, James Curlett was seen, and he bore out the story told by his brother and father to the effect that he was the passenger in the vehicle.

Police being satisfied that the facts originally given to them by the other driver were correct returned later, and finally, after further prevarication, the Curletts, father and sons, admitted that they had endeavoured to get out of a difficulty by lying. All were then charged with wilfully obstructing a constable in the execution of his duty contrary to Section 12 of the Prevention of Crimes Act, 1871, as extended by Section 2 of the Prevention of Crimes Amendment Act, 1885.

An objection was made by the defendants to the complaint on the ground that the facts alleged in it, which were substantially the same as those set out above, did not amount to a

contravention of the statute, since that connoted only something of the nature of physical assault. This was over-ruled by the Sheriff-Substitute, and the defendants were duly convicted. The Sheriff-Substitute, however, consented to state a case to the High Court of Justiciary.

The point to be decided by that Court was whether the two sections under which the charges were framed were intended to cover, and did cover, an obstruction of police which merely consisted of untrue statements which hampered them in their investigations. The relevant sections are worded as follows:

The Prevention of Crimes Act, 1871, Section 12:

"Where any person is convicted of an assault on any constable when in the execution of his duty such person shall be guilty of an offence against this Act. . . ."

The Prevention of Crimes Amendment Act, 1885, Section 2:

"The provisions of the twelfth Section of the said recited Act (the Prevention of Crimes Act) shall apply to all cases of resisting or wilfully obstructing any constable or peace officer when in the execution of his duty."

It was argued for the appellants that the word "obstructing" was *ejusdem generis** with "assaulting" and "resisting," and could not be made to apply to a mere denial of a charge of breach of a regulation which the constable was about to prefer against two of the appellants.

In answer it was argued for the respondent that there must be a difference between the three words. "Assault" meant active physical interference; "Resistance" meant passive physical prevention; and the last must accordingly include non-physical prevention. The English cases of *Betts v. Stevens* (1910, 1 K.B. 1) and *Bastable v. Little* (1907, 1 K.B. 59) were referred to.

The Court, consisting of the Lord Justice-General, Lords Fleming and Moncrieff, found for the appellants. Their Lordships made it clear that in their view the words "wilfully obstructing" implied by association with the other words in

* "Of the same nature."

the relevant sections, something in the nature of physical obstruction, and that it would be straining the language of the statutory provisions unduly to seek to apply them to the facts of the present case. The case of *Betts v. Stevens*, which was a case in which an Automobile Association patrol had been found guilty of obstructing police by warning drivers, could be easily distinguished, since the act of obstruction was of an entirely different nature.

THE LEGALITY OF A GAME IS A QUESTION FOR THE JUDGE

R. v. Salisbury

In this case the appellant was convicted at the County of London Sessions for permitting certain premises to be used for unlawful gaming, and for purposes connected with a lottery. It was proved by police officers that the defendant was manager of certain premises in the Haymarket, to which the public were admitted for the purpose of playing at a number of games. Two of these games, called respectively "Film Star" and "Fascination," were the subject of the charges, the first being charged as a lottery, the second as an unlawful game. The players paid to play at these games, and prizes were given to those successful.

The officers gave detailed evidence as to the manner in which each game was played, and from their evidence it appeared quite clear that both were games of chance.

At the conclusion of the evidence for the prosecution the learned Chairman said that he would not determine the question of the legality of the games until he had had such assistance as to the manner of play as the defence were able to give him. The defence did not call any witness and the Chairman was therefore left with the uncontradicted evidence of the prosecution, upon which he proceeded to find that both games were unlawful—that "Film Stars" was a lottery and that "Fascination" was an unlawful game.

The defendant appealed to the Divisional Court on the ground, *inter alia*, that the question as to whether the games

were lawful or unlawful should have been left to the jury, the law on the matter having been explained to them by the Judge, instead of the Judge having decided the question as one of law. In support of this the appellant cited the case of *R. v. Hendrick* (1921, 15 *Cr.App.R.* 149).

Delivering the judgment of the Court of Criminal Appeal, Charles, J., said that the case of *Hendrick* could be disposed of in view of the more recent decision of the Court of Criminal Appeal in *R. v. Kirby* (1927, 20 *Cr.App.R.* 12), where it was held that it was for the Judge to decide as a question of law whether a particular game was lawful or unlawful. This decision has been constantly supported by later cases. In the present case Mr. Justice Charles found that the Chairman at Sessions had had abundant evidence before him that the games in question were unlawful and that evidence had not been contradicted by the appellant or any witness on his behalf. The appeal was dismissed.

BIGAMY

R. v. Treanor

This case does nothing more than decide that the proviso contained in Section 57 of the Offences Against the Person Act, 1861, means precisely what it says; but, as the learned Judge at Assizes considered that the question raised was of sufficient importance to justify an appeal to the Court of Criminal Appeal, no doubt the case is worthy of notice.

The proviso referred to enacts that "nothing in this section (Section 59) shall extend to any second marriage contracted elsewhere than in England and Ireland by any other than a subject of Her Majesty, or to any person marrying a second time whose husband or wife shall have been continually absent from such person for the space of seven years then last past, and shall not have been known by such person to be living within that time, or shall extend to any person who, at the time of such second marriage shall have been divorced. . . ."

The facts of the case were that the appellant was lawfully married to a woman, A, in 1916. He deserted her in 1918, and in 1930 went through a form of marriage with B, whom he

deserted in 1937. In 1938 he went through a form of marriage with C. At Sussex Assizes he stood charged with bigamously marrying both B and C. There were also other charges of a different nature preferred against him which have no bearing upon the point on which this case is reported.

With regard to the first "bigamous" marriage, the prosecution were unable to prove that since 1918 he knew that A was alive, so no evidence was offered in respect of that charge. On the charge of bigamously marrying C it was argued that the defence contemplated by the proviso applied and that it was necessary for the prosecution to show that Treanor knew within the specified seven years calculated from the date of his "marriage" to C that A was alive.

The Judge, Atkinson, J., held that the proviso did not apply to the last ceremony and that the mere fact that the first bigamous marriage was believed to be legal did not make it in fact legal. If the defendant believed it was legal and yet married a third time he should not be in a position to say, "By merciful providence that last marriage of mine turned out to be a bad one," and so escape the consequences. He found in law that the second bigamous marriage was a crime, and on that Treanor altered his plea to one of guilty. The Judge, however, gave him leave to take the point up to the Court of Criminal Appeal.

In that Court Lord Hewart, C.J., delivered judgment supporting the view that the proviso referred, as its words specifically said, to a "*second marriage*", and that if, as the appellant's counsel sought to argue, it had been intended to apply to a *second or subsequent marriage* it would have been so framed."

The appeal was dismissed.

STATEMENT BY A CO-DEFENDANT

R. v. Oram

Here the Court of Criminal Appeal allowed an appeal against conviction at Nottingham Assizes. The facts were as follows:

Two men, Oram and Salter, were charged with an attempt

to procure an act of gross indecency. There were three counts: in the first they were charged together, in the second Oram was charged as instigator of the crime, and in the third Salter was charged as instigator. At the trial the jury were told to disregard the first count, and an application was then made on behalf of Oram for the two remaining counts to be tried separately on the grounds that Salter on his arrest had made a statement which would considerably prejudice Oram if it was given in evidence before the jury trying him. This application was refused, and the trials of the second and third counts proceeded concurrently.

The evidence against both men consisted of that of police officers who, on hearing sounds within one cubicle of a public lavatory, had broken into that cubicle and there found the two defendants together with their trousers unfastened. They were taken to a police station and there made statements, Salter's statement clearly charging Oram with having invited him to commit the crime of buggery.

When this statement was duly given in evidence Salter disputed its accuracy and in his own evidence gave testimony denying the charge and confirming the evidence given by Oram. The judge, in his summing up, directed the jury that the statement in question was evidence only against Salter and that they must ignore it entirely when considering the question of Oram's guilt.

The jury returned a verdict of guilty against Oram and not guilty against Salter.

The former appealed successfully to the Court of Criminal Appeal. In giving the judgment of this Court, Branson, J., after reviewing the facts as set out above, said that it was apparent to the Court that the only way in which the jury could have arrived at these verdicts was by failing to be satisfied with the evidence of the police officers, in which case both prisoners should have had the benefit. In looking for an explanation for their verdict against Oram the only conclusion that could be arrived at was that, notwithstanding the proper warning given by the judge, they found it not humanly possible to disregard the statement given by Salter. Under these circumstances the conviction could not stand.

A QUESTION OF INTERPRETATION

R. v. Braybrook and Wicks

The defendants in this case were the driver and owner respectively of a lorry which had been stopped by police on account of an apparent defect in the steering gear. It was found that the steering gear was in fact defective, and the defendants were summoned under Regulation 68 of the Motor Vehicles (Construction and Use) Regulations, 1937, Braybrook for using and Wicks for permitting the use of the vehicle on a road with defective steering.

The case was heard by Mr. Ronald Powell, the magistrate, at Westminster Police Court. At the first hearing both defendants pleaded guilty, but were advised by the learned magistrate to withdraw that plea, since in his view the summonses were misconceived. He then adjourned the case in order that the police might be legally represented and the point of law argued.

The point he raised concerned the wording of the Regulation, which runs as follows:

"Every part of every braking system and the means of operation thereof, all steering gear and every windscreen wiper required by these Regulations to be fitted to a motor vehicle or trailer shall . . . be maintained in good and efficient working order. . . ."

The learned magistrate pointed out that, having regard to the wording and sense of the Regulation, it was impossible to dissociate "steering gear" from the words "required by these regulations to be fitted," and that, since the Regulations nowhere required the fitting of any steering gear to any vehicle, that particular Regulation must be regarded as abortive so far as its reference to steering gear was concerned.

At the adjourned hearing the solicitor representing the police put forward the following argument. There was ample authority for saying that, where the language of an enactment in its ordinary meaning and grammatical construction led to an obvious absurdity or to the defeating of the apparent

intention of the legislature, it was open to the Courts to go to the length of substituting, omitting or introducing words in order to give the intended effect to the enactment. The cases of *Re Wainwright* (1 Phil. 258): *Attorney-General v. Lockwood* (9 M. and W. 398): *Jubb v. Hull Dock Co.* (1846, 9 Q.B. 443): and *Curtis v. Stovin* (22 Q.B.D. 513) were quoted in support of this proposition. It was admitted that all those cases referred to the interpretation of Statutes and that no authority could be found relating to that of Regulations: but it was submitted that such Regulations as those under consideration had the effect of Statutory provisions and should be governed by the same rules as to interpretation.

The only question remaining, therefore, was, What had been the intention of the Minister of Transport when he included steering gear in this Regulation? The answer, it was suggested, could be found by referring to Section 30 (g) of the Road Traffic Act, 1930. Here the Minister was given specific power to make such Regulations as he thought fit as to the maintenance of steering gear. It was with the intention of giving effect to this express power that steering gear was dealt with by this Regulation. There could be no other reason for its inclusion and, on the other hand, that inclusion could not have been entirely purposeless since it was a deliberate addition to the similar Regulation (No. 63) contained in the old Construction and Use Regulations of 1931. The learned magistrate was asked to follow the authorities and so reconstruct the Regulation that it would give effect to the Minister's intention.

After very careful consideration of the points raised and the cases cited, the learned magistrate said that he could not, in the cases put before him, find any authority for entirely redrafting an enactment in the manner that would here be necessary if he were to comply with the suggestion of the prosecution. The difficulty, as he had previously pointed out, was the association of "steering gear" with the qualifying words "required by these regulations to be fitted. . . ." The prosecution asked him to dissociate the two expressions and that, in his opinion, would require a complete reshuffling of the Regulation.

However, even had he been satisfied that the authorities allowed him to go as far as that, he would nevertheless find it impossible to record convictions in this case, because he did not agree with the prosecution as to the Minister's intention. The other two appliances governed by the Regulation had been amply dealt with elsewhere in the Regulations, and this fact drove him to the conclusion that it was not by a mistake on the part of the draftsman that everything in the Regulation was embraced by the qualifying words.

The apparent defect was due to the fact that some intended Regulation dealing with steering gears had been omitted entirely. He thought that Regulation 68 was drafted exactly as intended. Now, it was not for him to supply a missing Regulation, and therefore it was impossible for him to give any effect to Regulation 68 in so far as it applied to steering gear. For these reasons the summons must be dismissed.

It is believed that steps are being taken to rectify what was clearly a mistake in the Regulations and it will be interesting to see what form the correction takes. In the meantime steering can only be safely dealt with under Regulation 67.

Criminal Law and Practice in Scotland

"TRESPASSERS WILL BE PROSECUTED"

WITH the coming of the summer months, it is to be anticipated that police officers in Scotland will again be confronted with complaints of trespass or of malicious mischief incidental to trespass. In accepting and dealing with such complaints, they should "gang warily," keeping it well in mind that by no means every invasion of private property will justify the invoking of the criminal law against the intruder, and that in many cases (even where the owner, or occupier, of land has a real grievance) the only remedy open to a complainant is to take action against the trespasser in the civil courts.

It is, of course, well established that the owner of land has, generally speaking, a right to the exclusive enjoyment of his property. This right he may assert (1) by raising an action of interdict, where there is reason to apprehend trespass by a particular individual—a cumbrous and expensive remedy; (2) by raising an action of damages for any injury suffered as the result of trespass—but (in Scotland, as distinct from England, where any infringement of the owner's right to exclusive use of his land is regarded as an injury to the land) he must prove actual damage, *e.g.* to fencing or crops; and (3) by taking matters into his own hands and dealing with the intruder on the spot.

But, if the last of these alternatives be preferred, how far may he go? The law is not so clear as it might be, but it would appear to be settled that (a) in dealing with an innocent stroller or hiker, the proprietor of the land may order him off, but, if the order be ignored, is powerless to take further immediate action, and the laying of hands on such an intruder would amount to assault; (b) if the trespasser, however innocent his purpose, is caught in the act of entering upon the land

(say, climbing a wall or fence) he may be excluded by force; (c) a person caught poaching may be forcibly removed from the land by the shooting tenant; (d) any intruder using, or threatening, violence may be similarly dealt with by the owner or occupier of the land; (e) any intruder into a private house may be ejected forcibly by the occupier. It goes without saying that where resort is had to force it must not extend beyond the minimum which will effect the purpose and that a right to use force, where it exists, may be exercised by the owner (or occupier) personally or through his servants. It should further be borne in mind that in certain cases entry upon lands without consent of the owner or occupier may be justified (*e.g.* by some pressing emergency) and that many Acts of Parliament expressly authorise the police or other persons in authority to intrude even into private premises under particular circumstances.

Yet (although a notice that "Trespassers will be prosecuted" is usually pure bluff—but not always—see below as to railways and aerodromes) it must not be thought that trespass is never a matter for the police nor that the rights of the owner or occupier of lands or heritages can in no circumstances be vindicated in a criminal court. In the following cases, prosecution may be resorted to:

(1) Where the trespass is on property to which, by Act of Parliament, special protection is afforded. Thus trespassers upon railway property who have been warned or who refuse to quit may be prosecuted under the Railways Regulation Act, 1840, the Regulation of Railways Act, 1868, or such private Acts as the Caledonian Railway Act, 1898, and the L.N.E. Railway Order of 1936 (and under these private Acts the warning may be given "constructively" by notices at the nearest level crossings); persons who enter a "prohibited place" for a purpose prejudicial to the safety or interests of the state fall within the scope of the Official Secrets Acts; persons who, during army manœuvres, without authority enter or remain in any camp, are subjected to penalties by the Military Manœuvres Acts of 1897 and 1911; persons who intrude upon explosives factories or land immediately adjoining

CRIMINAL LAW AND PRACTICE IN SCOTLAND 159

may be dealt with under Sections 77 and 97 of the Explosives Act, 1875; and trespassers on land forming part of a licensed aerodrome are penalised by Section 13 of the Air Navigation Act, 1936, if notices have been posted as required by the Act.

(2) Where the trespass involves contravention of the Night Poaching Acts or the Day Trespass Act, which should be consulted for their terms and read along with the drastic powers of challenge given to the police by the Poaching Prevention Act, 1862; or where there is contravention of the Salmon Fisheries (Scotland) Acts, 1828, 1844 and 1862, or of the Trout (Scotland) Act, 1845—trespassing with intent to fish with a net.

(3) Where the trespass involves lodging in "premises" or occupying or encamping on land, being private property, without consent of the owner or legal occupier, when the offender is liable to prosecution under the Trespass (Scotland) Act, 1865. This Act also penalises encamping or lighting a fire on or near any private road, or enclosed or cultivated land, or in or near any plantation without consent of the owner or legal occupier of such road, land or plantation, as also encamping or lighting a fire on or near any turnpike or Statute Labour Road or other highway. There is power to arrest without warrant and to convict on the evidence of a single witness. But the definition of "premises" must be carefully noted—"house, barn, stable, shed, loft, granary, outhouse, garden, stackyard, court, close or inclosed place."

(4) Where the trespass involves, or is accompanied by, substantial damage to private property and where such damage is maliciously done—for then the offender is guilty of the crime of malicious mischief. But in accepting such a charge police officers are advised to act with the utmost caution and to make sure that all the necessary elements are present. The damage must be substantial. It is instructive, in this connection, to compare the case of *Marshall v. Brown* in 1913 with that of *Finlay and Others* in 1922 (both unreported). In the former case, where a golfer, having driven balls out of bounds on to private property, crossed the dividing wall and, walking on rough grass, used a rake to search for the balls among the

clover grass and did damage "to a small extent," the High Court of Justiciary, on appeal, quashed a conviction for malicious mischief. In the latter case, on the other hand, the conviction was sustained on appeal, for there the accused, at the end of May, walked across a field of growing hay. They walked four abreast, failing to keep to the narrow pathway, and they did in fact trample down four hundred yards of growing hay. Moreover, the damage must be "malicious"—not necessarily done out of spite, but done with "a total disregard of other people's rights and a knowledge that what you are doing is not within your own rights" (*Forbes v. Ross*, 1898, 25 R.(J.) 60). In the most recent decision on the matter, the High Court upset a conviction of malicious mischief where all that was proved was that three persons had taken a short-cut home (walking in normal fashion) over the "Cricket Green" at Hamilton, a permanent grass park in which sheep were grazing. "The mere fact," said one of the High Court judges, "that a man walks across a grass field and in fact does some damage to the grass is not sufficient to warrant a conviction for malicious mischief." (*Ward v. Robertson*, 1938, S.L.T. 165.)

One final word. Police officers should, in the opinion of the present writer, be specially reluctant to intervene where trespass or damage is done in purported assertion of a right—e.g. where the "offender" claims a right of way. The courts will then convict only where property is destroyed "in circumstances of tumult and disorder and of contempt and indignity to the owner." (*Black v. Laing*, 4 Couper 276.) Where it seems that there may be a substantial question of civil right involved, the only safe course is to refer the complainant to his civil remedies.

THEFT BY PAWNING

If the experience of the present writer may be taken as representative, cases of "theft by pawning" would appear to be on the increase. They are "tricky" cases, in which the application of the law of theft to a particular set of circumstances may present real difficulties. Wherever possible, arrest without warrant should be avoided and a report (for

warrant or summons as may be appropriate) submitted to the Fiscal, who may then apply his mind at leisure to the facts before taking a definitive step. The reason for caution is that in each case it is a question whether the facts proveable will warrant an inference of dishonest appropriation of the goods pawned.

Theft is "the felonious taking and appropriation of property without the consent of the owner or custodian" (Macdonald, 4th edn., p. 21). The sting of this definition lies in the words "felonious taking and appropriation." The taking is not felonious if carried out in good faith—if the person taking the property honestly believes that what he is taking is his own or that he has the owner's permission—but his belief must be reasonable and he must prove it. Moreover—and this is the point which is perhaps insufficiently realised and which in practice gives trouble—the taking must be "with intent to appropriate *and to deprive the owner of his property*" (Macdonald, p. 26). In the opinion of the present writer, the case of *Mackenzie*, 7 Adam. 189—where opinions were expressed that to take a book in order to copy part of its contents for an illegitimate purpose was theft, although there was no intention to retain the book—was very special in its circumstances and does not displace the general rule that intention to deprive the owner (permanently) of his property is an essential ingredient of the crime of theft. "Theft of use" is not a crime known to the law of Scotland (but see below as to clandestinely removing).

Obviously, then, not every case of pawning goods behind the owner's back will justify a charge of theft. A court, before it can convict of theft, must have proved to it facts which raise a conclusive inference of intention permanently to deprive the owner of his property—not merely to take a loan of the goods and pledge them to raise funds and to redeem them, and return them to the owner, once the occasion of financial stringency has passed. It is suggested that the sort of evidence best calculated to affect the mind of a judge towards conviction of theft is (1) evidence that the relationship between the complainant and "thief" is not one from which consent to the pawning may be presumed—e.g. that it is the merely

contractual relationship of landlord and tenant of a furnished room, as distinct from such a close relationship as that of husband and wife; (2) evidence that the "thief" was, and still is, in financial difficulties; more especially if it can be shown that he must have realised, at the time when he pawned the goods, that he could not hope to be in a position to redeem them within a reasonable time—and in this connection it is well to bear in mind that the important thing is not the value of the goods pawned (although that might have a bearing on the question of consent) but the amount raised on them and repayable by the pledger; (3) evidence that the goods have in fact been allowed to remain in pawn for a prolonged period, possibly although the pledger has since been in a position to redeem them, if so minded; (4) evidence of the deliberate destruction or sale of the pawnticket, or, failing that, of the offender's inability to produce it, or account for it, when challenged; (5) evidence of stealth in the taking or in the pawning, as where the offender removes the goods under cover of darkness or goes to a distant pawn-office and not to one nearby, where he might be recognised, or uses a false name; and (6) evidence of lies told, on challenge by the owner or the police, to account for the absence of the articles. It is, of course, hardly to be expected that all the elements just indicated will be found to coincide in any one case, and it must always be a "jury question" for the court whether the facts of the particular case warrant the inference of theft.

In view of the difficulties presented by a charge of theft by pawning, it is a wise precaution invariably to couple with such a charge an alternative charge of clandestinely taking possession of goods, the property of A. B., in the knowledge that permission had not been given, and would not have been given by A. B., and of using said goods by pawning them. Should the charge of theft fail, it will then be open to the court to convict of the alternative charge, which is a crime punishable by the law of Scotland (*Strathern v. Seaforth*. 1926. J.C. 100).

PEDESTRIAN CROSSINGS

The question of the precise nature of the duty of a motorist who is approaching a pedestrian crossing was raised sharply

CRIMINAL LAW AND PRACTICE IN SCOTLAND 163

in a recent prosecution in the Central Police Court, Glasgow, in which judgment was given by the Stipendiary Magistrate on February 6th. The motorist, a lady, was charged with failing to allow free and uninterrupted passage to a foot passenger who was on the carriageway at the crossing. She had pled not guilty and evidence had been led. The effect of the evidence may thus be summarised—The accused was, at the material time, driving her car along Great Western Road in an easterly direction. She was on her proper side (*i.e.* the north side) of the roadway, driving between the east-going tramrails and the pavement. While she was approaching (and was still some distance west of) the pedestrian crossing near Napiershall Street, a pedestrian stepped off the pavement on the south side of Great Western Road and proceeded to cross the road on the crossing. Accused did not stop her car, but proceeded on her way over the crossing. She was followed by the Police, intercepted and formally charged.

In finding the charge not proven, Stipendiary Smith indicated that he was influenced in his decision by the fact, proved to him in evidence, that Great Western Road was, at the material point, a very wide street; that if accused had drawn up she might (there being vehicles immediately following her) have caused a considerable block in the traffic; and that she had time to pass the crossing several times before the pedestrian could come into the path of her car. The Magistrate further made it clear that had the motorist, in the same circumstances, been travelling west, it would have been her bounden duty to give way to the pedestrian (who would then, of course, have stepped off the pavement immediately "in front of her bows"). In the opinion of the present writer, this decision is sound in law and, by an unusual coincidence, is also good sense!

THE FUNCTION OF PUNISHMENT

Great public interest was evinced in the sitting of the "Whole Court" of eleven Judges of Justiciary to hear the appeal of James Kirkwood against a sentence of penal servitude for life recently imposed on him by the Lord Justice-Clerk.

It will be recalled that Kirkwood was, following on the discovery of a woman's body in the garden of a former Lord Provost of Edinburgh, arrested and charged with murder. At his trial, after the leading of certain medical evidence pointing to a mental state of "diminished responsibility," Kirkwood's counsel tendered a plea of guilty to culpable homicide, which plea the Crown accepted. Having commented upon the atrocious nature of the crime and the need to protect the community against a recurrence, the presiding judge (Lord Aitchison) imposed the heaviest sentence competent to him—penal servitude for life. Against this sentence Kirkwood appealed and, in view of the important question of principle raised, the case was sent for full argument before the Whole Court.

In support of the appeal, Counsel tabled, and pressed with ingenuity and force, a three-fold argument—that the court was bound, in dealing with a case of impaired responsibility, to "assess" the degree of guilt (*i.e.* to apply its mind expressly to the question of how far the maximum sentence exigible should be modified in view of the panel's mental disability) and that the judge had failed in this duty; that the protection of the public was not a relevant consideration in the mind of a criminal court (the function of punishment being to reform the criminal and to deter others); and that it was oppressive to pass an indeterminate sentence on a man suffering from mental impairment, as such a sentence might prejudice any prospect of recovery.

In rejecting this argument and intimating (on February 10th) the refusal of the appeal, in which the court was unanimous, the Lord Justice-General (Lord Normand) remarked that the defence of impaired responsibility was somewhat inconsistent with the basic doctrine of Scots criminal law that a man, if sane, is responsible for his acts and, if not sane, is not responsible. It was a modern variation of the doctrine, justified by medical testimony directed to the special facts of some particular case. Mental weakness (short of insanity) was regarded by our law as an extenuating circumstance, having the effect of modifying the character of the crime or justifying a modification of sentence or both. Where the jury had, under the presiding judge's direction, given effect to this extenuating

circumstance by reducing the crime from murder to culpable homicide, the judge still had to consider whether it should have further weight when he was imposing sentence. But it might be impossible to assess the degree of responsibility. Moreover, the diminished responsibility of the accused was not the only relevant circumstance. The court could not assent to the contention that the protection of the public was to be disregarded. The interests of society included the reformation of the criminal, the prevention of the repetition of the crime by him or by others and the protection of other members of the community. When a panel was convicted of a crime committed under an impulse which he was less able to resist than the normal person, and when the crime had been one of atrocious severity, the protection of the public against its repetition was specially relevant. The effect of an indeterminate sentence on Kirkwood's future was a factor which common humanity forbade them to leave out of account. But enquiry had satisfied him that Kirkwood's mental and physical condition would be carefully considered; that, if necessary, ameliorative treatment would be given to him; and that his condition would be reviewed from time to time by the authorities, who had power to control his treatment and to order his eventual release. There was nothing which would justify the court in interfering with the sentence and the appeal must be dismissed.

CULPABLE HOMICIDE—NO BODIES

Evidence was led, on February 15th and 16th, before Lord Aitchison and a jury, in an unusual charge of culpable homicide. Frederick Thomsett, a trawler skipper, was charged that, on October 4th, when five young men rowed out from the shore in a small open boat to get fish from the steam trawler of which he was in charge, and when they had been allowed on board, he ordered them to re-enter the boat and insisted upon their doing so against their protests at a time when, owing to the heavy sea which had arisen and the worsening of the weather conditions, it was manifestly dangerous to their lives for them to be in the boat, and thereafter proceeded with the trawler culpably and recklessly to tow the boat against

the wind and sea towards the shore until the boat filled with water and overturned, whereby four of the men were drowned and the life of the fifth was endangered. Thomsett was found guilty and sentenced to eight months' imprisonment.

Two legal points of interest emerged. (1) The judge gave a clear direction to the jury that it was immaterial that no bodies were found, provided that they were satisfied that the men had in fact been drowned. It was for the Crown to prove death, the charge being one of culpable homicide. But there was ample evidence to justify a conclusion that the men had lost their lives—evidence that the boat overturned; that the men were flung into the sea; that the survivor (who clung to the keel) heard a cry—and the rest was silence; evidence that grappling operations had been carried out; evidence that the shore had been searched and that no trace was found. (2) The judge also directed the jury that it did not matter in the least whether the men were intruders or trespassers. Even so, no man had a right to put them in peril of their lives.

Studies in Identification. No. 2

By SYDNEY SMITH, M.D.

Department of Forensic Medicine, University of Edinburgh

THE WINCHBURGH MURDER

ON Sunday, 8th June, 1913, two ploughmen walking beside a water-filled quarry saw floating in the water an object sufficiently unusual to attract their attention. Having pulled it to the bank by means of a long branch, they found that it consisted of two bodies, tied together by cord, much altered by post mortem changes and immersion in the water, but unmistakably human. The Police and Procurator Fiscal were notified and the bodies removed to the mortuary to await examination.

Both bodies were the seat of extensive adipocere formation, a post mortem phenomenon occurring only in damp or frankly watery media. This had preserved their shape unusually well, but beyond the facts that the bodies were those of young or small persons and that they had been a long time in the water, little was apparent to the casual or inexperienced eye, and as a matter of fact an opinion had been given that decomposition had advanced so far that a post mortem examination would be valueless. No children of the neighbourhood had been reported missing, and there was no direct evidence as to the identity of these two unfortunate victims of undoubted foul play.

This case had a special interest for me because it was the first important case I had to investigate with Professor Littlejohn not long after I started as his assistant; but it has a considerable general interest as well, especially in the extent to which the post mortem examination helped to establish the identity of the bodies.

Identification is the first and most important point in such cases, for until it is known who the person is the subsequent

steps in investigating the cause of death (whether by accident, suicide or murder), the manner in which the injuries were caused, when they were caused, when death took place, and where death took place, are greatly hindered. Until information on the above matters is obtained, the investigation cannot be properly directed.

For identification an attempt must first be made to get as accurate information as possible about the sex, age, stature and general condition of the body, after which information concerning the social status, trade, occupation, mode of life and any special features peculiar to the individual should, if possible, be obtained. The time of death is always important, for if we can get any indication when a person disappeared it gives a starting point.

The fact that the bodies were tied together indicated foul play. They were both clothed, and though the garments were practically rotten from long immersion, they were, as they always should be whatever their condition, examined with meticulous care. The clothing was the same on both bodies and consisted of stockings with garters under the knees, boots, and shirts. On the shirt there was a stamp which was identified as that of a poor law institution in Fife. The general condition of the clothing and its origin gave a good indication of the social status and history of the victims.

On taking off the clothing it was seen that both bodies were wholly transformed into adipocere with the exception of the feet, which had been covered by the boots and which, while in an adipoceros condition, were yet not so advanced as other portions of the body (Fig. 1).

This condition is of great interest, for adipocere formation is a slow process, and few such complete transformations are recorded. From the extent of adipoceros formation there was a strong probability that both bodies had been dead and immersed in water for a period of about two years.

The external appearances of the bodies gave little or no indication of sex, though one of the bodies had an appearance suggestive of the external parts of a female. Post mortem examination proved the absence of any of the female sex organs, but the adipocere had caused the contours of the bodies

FIG. 1



Winchburgh Murder—Patrick Higgins
Two bodies, almost completely transformed into Adipocere, found in a disused mine shaft

to be well maintained, and, in addition, glandular structures were found embedded in adipocere and sufficiently well preserved thereby to be recognisably testicular in nature. The bodies were therefore both of the male sex, and as will have been noted the clothing was such as is worn by boys.

The taller of the two was $43\frac{1}{2}$ inches in length, the average height for a boy of about six to seven years of age. The contours of the body were those of a well-nourished boy of good general conformation and development. The first permanent molars and the central incisors were fully cut, and the lateral incisors were in process of cutting. All the other teeth in the jaws were milk teeth. The first molars are the first of the permanent teeth to erupt, and this occurs at the age of six years with very few exceptions. The incisor teeth are somewhat less constant in time of appearance, but in general the central incisors erupt at about seven years and the lateral incisors about a year later. The state of dentition in this body, therefore, would indicate that it was that of a child over six, and probably seven years old.

There was a well-developed centre of ossification in the lower end of the ulna and a moderately well developed node in the upper end of the radius. These are first seen round about the sixth year, and the size of the ulnar epiphysis suggested an age of about seven years. All the bones in the wrist were ossified with the exception of the pisiform, which indicated an age of at least seven and under ten years. (Fig. 2. X-ray of forearm and hand.)

There was no hair in the axilla nor on the pubis.

In this body the scalp was largely denuded of hair. At the nape of the neck, however, and on the back of the head, there were tufts of hair remaining. These hairs were from $\frac{3}{4}$ of an inch to $1\frac{1}{4}$ inches in length, and many of them had been cut by a sharp instrument shortly before death. In the absence of more direct evidence, this fact might have been a useful indication of sex, but in the present instance the value lay more in the colour of the hair, which was brown.

There was a small injury in the scalp, which is well seen in Figure 1, and which suggests a blow on the head, but there was no evidence of fracture or other injury below it, and it

FIG. 2

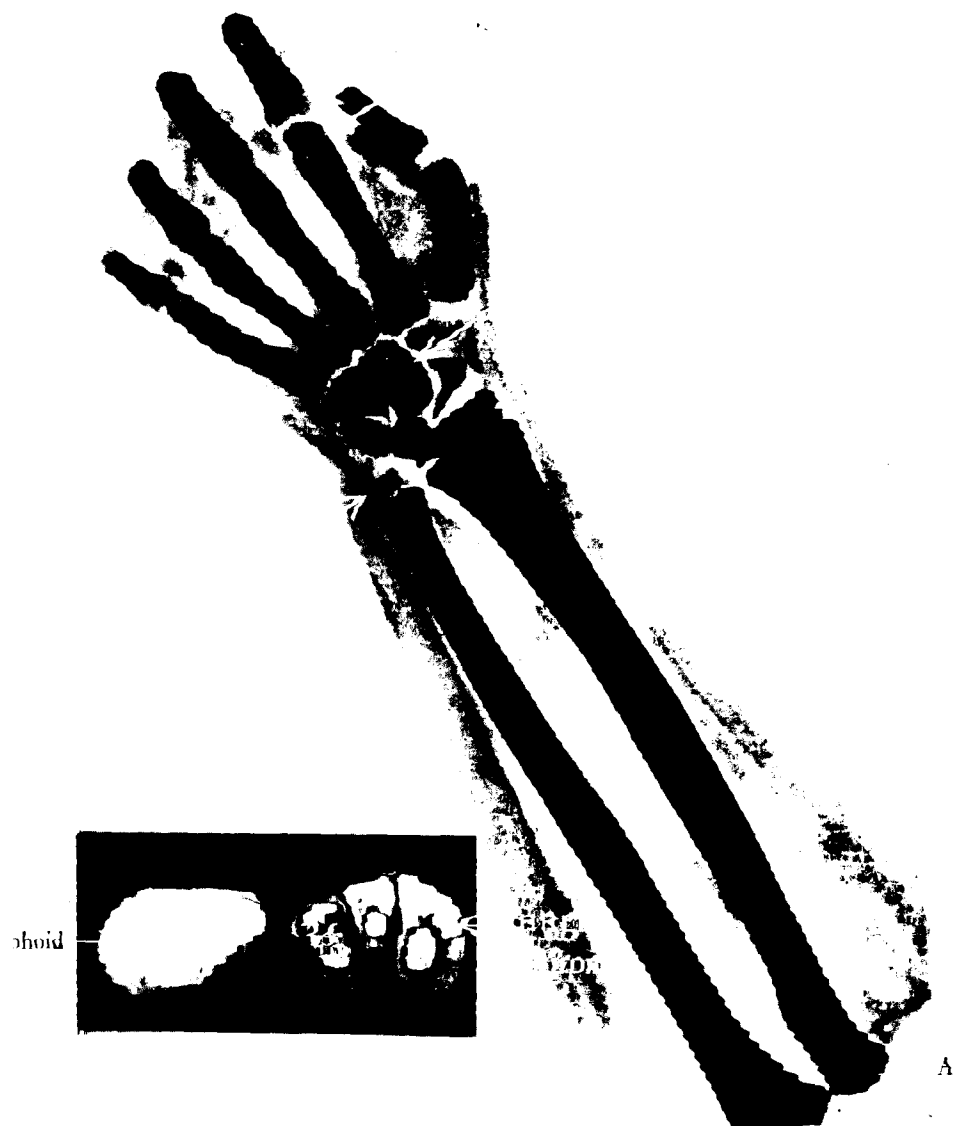


FIG. 2. X-ray photograph of the forearm, wrist and hand of the older boy, showing centres of ossification in the upper end of the radius A, in the lower ends of radius B, and ulna C, wrist D and hand E, F.

FIG. 3. A photograph of a section through the bones of the foot of the younger boy, showing centres of ossification in all three cuneiform bones and absence of an ossified centre in the scaphoid.

could not be decided whether it was produced before or after death.

The internal organs, lungs, heart, liver and kidneys, as well as the intestinal canal, were remarkably well preserved, and showed no indication of disease. The presence of a considerable quantity of mesenteric fat and the general appearance of the organs supported the external conditions of satisfactory nutrition.

The stomach was intact and contained six ounces of thick grumous material, containing much undigested and easily recognisable vegetable matter, including whole green peas, which were still green, barley, potato, turnip, and leek—a combination such as is found in Scotch broth. The extensive adipocere formation was responsible for preserving this valuable evidence over such a phenomenally long period.

The second body measured 38 inches in length, which is the average height of a boy of four years of age. The appearances, both external and internal, were indicative of satisfactory general nutrition without evidence of injury or disease.

In both jaws all the milk teeth were erupted, but none of the permanent teeth. This places the age between two and six years. The first permanent molars, however, were approaching the surface prior to being cut, which indicated that the actual age was well over two years.

There was an epiphysis at the lower end of the radius but none in the other bones of the forearm. This suggested an age of something over three years. In the foot the three cuneiform bones were ossified but the scaphoid was not, suggesting an age of about four years (Fig. 3).

From these observations it could be estimated with certainty that the body was that of a child of about four years of age. The scalp in this case was covered with short, brownish-coloured hairs which examination showed had been cut shortly before the time of death. The condition and contents of the stomach were identical with those of the older boy.

The time of death could be estimated within reasonable limits. The extensive formation of adipocere precluded the possibility of the murders having occurred within a year or eighteen months, and suggested about eighteen months to two

years. The material in the stomach, assuming that the vegetables were fresh, suggested that it had been eaten in the late summer; therefore the time of the murder was tentatively placed round about July-September 1911.

The examination of such of the clothing as had remained indicated that the boys were in fairly poor circumstances and had been inmates of a charitable institution. This was confirmed by the matron of the poorhouse to whom the clothes were submitted, and she not only identified the clothing but also the stamp on one of the shirts as the stamp used by that Institution.

From the facts elicited, therefore, it was now possible to say a good deal with reasonable certainty about the unfortunate victims. The bodies were those of two well-nourished boys. One was aged about seven and a half years and was rather over three and a half feet in height. The other was about four years of age and about three feet two inches in height. Both boys had brown hair which had been cut shortly before death. One hour or so before death, both boys had partaken of a fairly substantial meal consisting largely or wholly of mixed vegetables, possibly thick broth. This in itself suggested that they were local boys, or at least that they had not been brought from a great distance to be disposed of. Indeed, as the quarry in which the bodies were found was awkwardly situated for anyone carrying a burden, it seemed probable that the two boys had walked there with their killer. In this connection it should be remembered also that the motor-car was by no means so ubiquitous in 1911 as at the present day. Finally, it could be inferred from the clothing that the two boys had been in a certain poor law institution for a period not long before death.

The cause of the death could not be given with any approach to accuracy, but it was certain that it was the result of foul play. The injury to the head of the older boy suggested that he may have first been stunned, or it is possible that they may both have been strangled before being tied together and thrown into the water.

Suspicion fell on a certain Patrick Higgins who was at that time employed at the local brickworks. His wife had died some

years previously, since when he had led an irregular, intemperate life, showing scant care for the welfare of his family, which consisted of two young boys. In June 1911 he was sentenced to two months' imprisonment for neglecting to provide for their maintenance, and for a time they were in a poor law institution. In October 1911 they were boarded for a short time with a woman in the neighbouring town of Broxburn. They departed from her in the charge of their father, and it would seem that they disappeared shortly thereafter. This passed quite unnoticed at the time, however; a fact which is not surprising in view of their previous irregular movements.

During the Police enquiries following the discovery of the bodies, it was elicited that Higgins, in October or November of 1911, had in fact furnished several explanations as to his children's whereabouts. These were mostly given in casual conversation whilst under the influence of drink, and little attention was paid to them at the time. However, the facts elicited at the post mortem examination of the bodies were found to correspond in a remarkable degree with the description of the children of the suspected man. Patrick Higgins' children were both boys. William, the elder, was born in December 1904; John, the younger, in August 1907. Higgins could give no satisfactory account of his children's whereabouts since October or November 1911, nor could anyone be found who had seen them since about that time, though any number of people could speak to having seen them in the Winchburgh district about October 1911. At the time of their disappearance, therefore, William would have been about a month short of seven years of age, and John just over four years of age. Both boys had been brown-haired, and both, from all accounts, had been healthy, well-nourished youngsters, in spite of their father's known unwillingness to pay the people who maintained and fed them. It was also established that both William and John had been lodged in Dysart Combination Poorhouse from January 1911 till August 1911. They had been brought to the poorhouse by a woman, but had departed in the charge of a man resembling their father. The Police were even successful in finding a woman who

remembered having given Higgins' children an evening meal of Scotch broth at or about the time of their disappearance.

The correspondence of the details is so obvious as to require no stressing. Patrick Higgins was charged with the murder of his two children. Neither the accused nor the agents for the defence made any attempt to question the identity of the two bodies. The defence strove rather to discredit the evidence that accused was responsible for the killing, or alternatively, and possibly with more justification, to argue that he was of unsound mind at the time of the occurrence. Neither line of defence was successful, however, and Patrick Higgins was duly convicted, sentenced, and executed at Edinburgh, in spite of a recommendation to mercy by the Jury. The recommendation was made, apparently, because of the long time elapsing between the actual crime and the arrest of Higgins, and because of some uncertainty regarding his mental condition at the time of the crime. Perhaps at the present day the recommendation might have met with a more compassionate response, but in view of the evidence and the shocking circumstances of the crime, the grounds were considered insufficient.

From a medical point of view the case is noteworthy because of the unusual extent of the adipocere formation, and because of the detailed nature of the identification possible after such prolonged immersion in water. The case created much local interest at the time, an interest which was apparently shared by Professor Harvey Littlejohn's students, for in a University magazine of the period appears the following contribution:

"Two bodies found in lonely mere,
Converted into adipocere.
Harvey, when called in to see 'em,
Said, 'Just what I need for my museum'."

The specimens taken are, in fact, lodged in the Forensic Medicine Museum at Edinburgh University, and so complete is the preservation due to the adipocere that most of the detail described above is still clearly to be seen.

Crime and Criminals

By DAVID MURRAY

Head Constable, Royal Ulster Constabulary

FOR present purposes all law may be divided into two classes, (1) Civil Law and (2) Criminal Law. The former may, of course, be again divided into various classes according to the subject dealt with, such as the Law of Contract, Company Law and Mercantile Law. The instances coming within the Civil Law with which we are best acquainted are cases of trespass, disputed wills and applications for maintenance by deserted wives or for illegitimate children.

The Law of Evidence is a set of rules which must be adhered to in the conduct of cases in court coming within either the Civil or Criminal Law.

It is, however, with the second class—Criminal Law—that the Police are, as such, most concerned. Their duty lies in the preservation of the public peace, the protection of life and property, and the prevention of crime, or failing such prevention, the detection and prosecution of the perpetrators. The enforcement of private rights is—broadly speaking—not their business.

The word crime is used to mean all offences of a criminal nature and for which punishment, as distinct from damages, may be awarded, and includes felonies, misdemeanours and summary offences. Generally speaking, any member of the community may take proceedings against anyone who has violated the Criminal Law, not for the recovery of damages or for any personal gain, but rather that the offender should be punished for a crime against the community of which the prosecutor is a member. There are, however, certain statutes which limit this general power in particular cases. In such instances the power of taking proceedings is limited to such persons or public functionaries as the Attorney-General, Chief Officer of Police, or Excise Officers.

Although this general authority to take proceedings against a wrongdoer exists it is very seldom exercised. The community maintain a police force to preserve the peace, to protect life and property and to bring to justice persons who violate the Criminal Law. It is, therefore, only reasonable that private persons should expect to be excused the duty of detecting crimes and of arresting offenders and rely on the officers whom they, through some responsible person or body, have appointed and whom they pay to perform that duty. Therefore, in the vast majority of crimes it is left to the Police to find the culprit and collect the necessary evidence to satisfy the court or jury of his guilt.

In crimes or offences of a minor character usually very little difficulty will be experienced in bringing offenders to justice. They are either detected by the Police themselves or seen by persons who are easily persuaded to come forward to give evidence against the offender. The more serious crimes, however, present a much more difficult problem, and the more serious the crime the greater will be the difficulty of a successful investigation and presentation of the case. A man who commits murder, or burglary or arson, usually takes good care to perpetrate that crime at a time or place which will eliminate as far as possible the presence of eye-witnesses.

It sometimes happens that a person with quite good intentions gives information to the Police of the commission of what appears to him to be some crime and which on investigation turns out to be no wrong whatever. For instance, it might appear to him that a burglary is being committed in a house which he knows to be temporarily vacated, whereas it may be merely a case of a servant having returned on the instructions of his master. Again it may be merely a wrong of a civil nature such as trespass, in which case no action on the part of the Police is called for. Where, however, it is ascertained that a crime has been committed and the Police deem it their duty to intervene, at least three important questions immediately present themselves, *viz.* (1) What crime has been committed, (2) By whom has it been committed, and (3) What evidence is available or discoverable so as to convince the court or jury of that person's guilt?

Looking at the first of these three questions we find that the answer is not so easy as might at first glance be imagined. When a dead body has been found it must not be assumed that a murder has been committed, even though there are signs of violence. It may be a case of suicide or of manslaughter. What appears to be burglary may turn out to be housebreaking, larceny from a dwelling-house, or perhaps some less serious crime. Again, what has been reported as a larceny may on investigation disclose a case of blackmail, robbery, fraudulent conversion or any one of a number of other crimes. *It must be shown that every ingredient of the particular crime is present.* In a case of burglary, for instance, there must be (1) a breaking, (2) an entry, (3) of a dwelling-house, (4) in the night time, and (5) the commission of a felony in the house or at least an intent to commit some felony at the time of the breaking. If any of these ingredients are absent then the crime is not burglary, though some other crime may very well have been committed.

Actual proof of all these ingredients need not necessarily be given. From the circumstances of the case one or more of them may be assumed. If a person surreptitiously takes the property of another it may reasonably be assumed that he had no "claim of right" or that he intended to "deprive the owner permanently" of his goods.

Passing to the question as to who the criminal might be, if that fact is not already known, the motive for the crime should at once, if possible, be ascertained. Usually the motive will be for purposes of gain, but where this is not obvious there are a variety of others which should not be overlooked—lust, revenge, bigotry or political fanaticism may well supply a sufficient motive. When the motive has been established, in cases other than those where gain is obvious such as larceny or robbery, usually the victim or his friends will be of great assistance. A shady person with whom the injured party was acquainted, a person with whom he quarrelled, a dismissed employee or some other person will be found upon whom the crime can be saddled. In many cases the *modus operandi* will narrow down the scope of the enquiry and very often lead direct to some particular individual. It may be the peculiar

manner of breaking into premises, for instance, by the use of false keys or breaking the glass and removing the snib in a window; the particular premises attacked—for instance, dwelling houses, offices or churches; or the particular kind of property stolen—for instance, money only, articles of silver-ware or articles of clothing.

Suspicion, even strong suspicion as to the person by whom the crime was committed, will be of little use unless there is evidence to justify a charge being preferred against the person suspected. That evidence should be of such cogency and given by such credible witnesses as to convince the court or jury with reasonable satisfaction of the guilt of the person accused. The person who reported the crime in the first instance should be closely interrogated, as it is probable that he may be able to throw considerable light on the matter. He may be the injured person or be in close touch with him; at least he will have had early information of the occurrence. Persons living near the scene of the crime, and others who may have been there or passing at or about the crucial time, may be able to give useful information. These should all be traced and interviewed as soon as possible. Suspects, that is persons likely to commit that particular kind of crime, living near or within reach of the scene, should be interviewed by an experienced officer at the earliest possible moment. They should be asked to account for their movements for some time before, at the time of and for some time after the occurrence, and this information should be carefully checked. Their demeanour when questioned and the state of their clothing and footwear should be carefully noted. A minute examination of and along the route to and from the scene should be made for clues. If an instrument of any kind has been used it is likely that this will have been discarded in the vicinity. Fingerprints, footprints, bloodstains and anything which, upon examination, may yield useful information and lead to the identification of the criminal should be taken possession of and carefully preserved.

In all these cases where evidence is purely circumstantial it is of the greatest importance that every link in the chain of circumstances should be complete before being placed before

the court. The chain of circumstances must be such that an inference can be drawn that the person charged committed the particular crime at a particular time and place. The prisoner is entitled to remain silent if he so desires, so that, with the exception of a few instances in which the onus of disproving guilt is thrown on him, his silence does not even corroborate any of the facts proved. Every person is presumed to be innocent until the contrary is proved. On the other hand, if a strong case is made out against him and he fails to go into the witness-box to deny the charge, which he is fully entitled to do, and undergo cross-examination, this will weigh heavily against him; for though the prosecuting counsel is not permitted to comment on this failure there is no such prohibition on the part of the judge, and present-day juries are quick to notice this failure without any comment.

The investigating officer should designate the crime before putting forward the case for the information of and consideration by the Attorney-General or other authority. He should see to it that the witnesses' statements contain only matter which is relevant to the issue. As the age and intelligence of witnesses may affect the order in which they are called to give evidence, and the confidence placed in their testimony, it is essential that the age and occupation of each witness be included in some part of his statement or at least in a covering report.

The Police officer who investigated the crime and who is in charge of the case will have the best knowledge of all the facts, including the history of the prisoner and the attitude of the witnesses. He should, therefore, be ready to supply any further information which may be required by the prosecuting counsel when the case at last comes before the court. It is his duty to have the witnesses ready at the proper time and in the proper order to take their place in the witness-box, so that the proceedings of the court will not be delayed. Finally, he should treat his prisoner with kindness, being ready to assist and advise him consistent with the proper performance of his own duty. He should at all times treat his witnesses with consideration and respect.

Processing Cine Film

By SERGEANT FRANK THISTLETHWAITE

Photographic Department, City of Bradford Police

THE cine camera has already been successfully used in a variety of police cases in the courts, and it is probable that it will find increasing favour owing to its obvious advantages. An obvious disadvantage, however, lies in the necessity in most instances of sending the film to one of the recognised houses for processing, with a consequent delay of three or four days, and as rapid production may be a vital factor it is desirable to overcome this delay by doing one's own processing if at all possible. The necessity of calling a further witness is also eliminated if this procedure is adopted.

The cine camera has been used by the Bradford Police since the beginning of 1933 when a Cine Nizo 9.5 mm. camera and a Pathé Lux projector were purchased, and, to keep pace with the times, a Cine Kodak Special camera and a Bolex G.916 projector were subsequently acquired. Since March 1935, the processing of all the cine film used in Bradford has been carried out in the Police studio, and the method described is the result of considerable experiment, yielding definite results comparable with any professionally processed film. The film can be finished and dry in the short space of two hours.

There are several kinds of 16 mm. reversal film which can be purchased free of processing rights—Gevaert, Baucht, Mimosa, etc. Gevaert film has been exclusively used in Bradford, although there is no reason why others should not be tried. Whichever make of film may be selected at first, however, the best results are to be obtained by persevering with it and getting to know it thoroughly. This is strongly advocated, as different films require different development times, and good results cannot be expected unless constant times can be established.

The process described is, of course, the REVERSAL process, which is most likely to be used. The negative-positive system may be chosen, the processing following the usual "develop and print" technique.

The apparatus required is:

The Drum

This may be purchased ready made or, if he so desires, the user may make his own. Figure 1 shows the "Tripoflo," which has been on the market for more than three years, and when new was priced at £9 to take 50 feet of 16 mm. film. A perforated tube causes a number of small jets of water to rotate the drum during washing.

A reliable and reasonably priced drum (£4 5s. to take 50 feet of 16 mm. film and £5 15s. to take 100 feet) with raised spacers as in the Tripoflo is made by a local firm. Figure 2 shows a new design by the same manufacturers. This drum can be loaded in the dark as the film automatically follows the track, and overlapping due to film stretch is impossible. The price is £4 15s. for the 50-foot and £6 15s. for the 100-foot model. It will be observed that the shape of the tank is such that there is no splash from the revolving drum. A watering-can "rose" attached to the water tap will rotate the drum during washing. Both drums are of stainless steel.

Some method of drying must also be arranged. For personal use I have a drying cupboard through which a flow of air is set up by a fan, but a satisfactory method used at Headquarters is to drape the film in zig-zag fashion across the dark room about 7 feet from the floor, using cup hooks as supports. A fan blowing across the film will dry it in 15 to 20 minutes.

The procedure for reversal processing is as follows:

- (1) Develop the film as a negative.
- (2) Dissolve away the developed image. (This is in direct contrast to ordinary work where the undeveloped image is dissolved with hypo.) An unexposed emulsion in the form of a positive image remains.

PROCESSING CINE FILM

- (3) The image is then exposed to white light and re-developed fully, giving a black and white positive.

The chemicals required are:

First Developer

Metol	...	...	...	20 grains.
Hydrokinone	...	...	...	100 grains.
Sodium Sulphite, anhydrous	...	...	...	2 ounces.
Sodium Carbonate, anhydrous	...	...	...	$\frac{3}{4}$ ounce.
Potassium Bromide	...	...	...	100 grains.
Potassium Sulphocyanide	...	...	...	20 grains.
Potassium Hydrate	...	...	...	120 grains.
Water to	...	...	...	30 ounces.

Reversal

Potassium Permanganate	...	...	15 grains.
Potassium Bichromate	...	...	30 grains.
Sulphuric Acid	...	...	80 minims.
Water to	...	...	30 ounces.

The reversal bath should be mixed as two solutions:

- (1) Permanganate and 15 ounces of water,
 - (2) Bichromate and Acid to 15 ounces of water,
- which should be added together at the time of use.

Bleach

Sodium Bisulphite, liquid	...	...	2 drams.
Water to	...	...	30 ounces.

Blackening

Save the original first developer and add thereto a solution of:

Amidol	...	...	...	40 grains.
Water	...	...	...	4 ounces.

Clearing

(1) Potassium Permanganate	...	...	5 grains.
Water	...	...	30 ounces.
(2) Sodium Bisulphite, liquid	...	...	2 drams.
Water	...	...	30 ounces.
Sulphuric Acid	...	...	10 minims.

Note.—Do not add Sulphuric Acid to undiluted Sodium Bisulphite.

(3) Hypo crystals	...	...	...	5 ounces.
Sodium Sulphite, anhydrous	...	...	...	90 grains.
Glacial Acetic Acid	...	...	...	3 drams.
Potash Alum	...	...	...	90 grains.

Small quantities of solution are often claimed as being sufficient with the drum method of development, some using as little as 10 ounces. In my opinion this is false economy, as uneven development in the first stage, appearing as dark flashing on the edge of the picture during projection, is often the result.

Procedure

Wind the film on the drum, using an appropriate safelight and taking care that none of the turns overlaps. Take the drum out of the tank and pour in the first developer. Replace and turn the drum in the developer at a speed of about two turns per second for about 10 minutes at a temperature of 65° Fahr. in the case of Gevaert film. Times will probably vary for other makes.

The film should be developed until the image can be clearly seen on the back of the film (an examination cannot be made with Gevaert stock owing to its black backing which does not come away until the film is in the reversal bath). The highlights should be developed as far as possible right through the film, as these must be almost clear emulsion after reversal. Strong contrast is required if the finished film is to be suitable for projection.

When development is complete, wash for 5 minutes.

Pour the reversal solution into the tank and rotate the drum as before for 6 minutes. The remainder of the process may now be carried out in ordinary white light.

Wash the film while preparing the next bath for bleaching out the stain caused by the reversal. Bleach the film for 5 minutes, at the same time exposing it to a 100-watt pearl lamp placed about 18 inches from the drum. An open drum allows the light to get at both sides of the film and so ensures a complete exposure.

Wash the film again while preparing the blackening solution, then blacken for 5 minutes. This process must be carried out until the film is blackened right through. The solution at this stage has the appearance of ink, but has no dyeing effect on the film.

Wash for 5 minutes.

It is almost impracticable to develop the highlights right through the film in the first development with a correctly exposed negative, so that after blackening the whites may appear slightly veiled. The object of the next bath is to clear this veiling from the highlights.

Rotate the drum in the clearing bath No. 1 for 30 seconds and rinse quickly in water.

Place in clearing bath No. 2, which will nullify the action of the permanganate in about 2 minutes. Rinse in water, and finally clear in bath No. 3 for 5 minutes. This bath also hardens the film emulsion.

Wash for 20 minutes, or longer if time permits.

Panchromatic Gevaert film, normal and super, has a brown cast in the emulsion, and this is always present whatever process is used. If it should be considered necessary to neutralise this tint, the following method has been used with success:

Stock Solution

Acid Black (Geigy Dye Co.)	...	...	65 grains.
Acetone	...	...	4 drams.
Glacial Acetic Acid	...	...	4 drams.
Eosin (Y) water soluble	...	...	5 grains.
Water to	...	...	20 ounces.

The mixture of Acid Black and Eosin is first boiled in about 20 ounces of water; when cool, add the acids and make up to 20 ounces. Take 2 drams of this solution to 30 ounces of water and bathe the film for 5 minutes after the final wash. A rinse in water is all that is necessary before hanging it up to dry. When the film is hung up to dry, run it through two pieces of viscose sponge to take off the surplus moisture.

This completes the process.

As regards exposure of cine film reversal stock I might

mention—for the benefit of those who are not conversant with this material—that the law of exposure is somewhat reversed. The reader is probably aware of the rule “expose for the shadows, and the highlights will look after themselves.” For reversal stock the rule is, on the other hand, “expose for the highlights, and the shadows will look after themselves.” The reason for this will be understood by reference to the first development, where a contrasty developer is used and development rather prolonged in order to develop the highlights. If the film were exposed as for a negative—*i.e.* for the shadows—these shadows would be developed a considerable way through the emulsion, with the result that the positive would be flat and lacking in life.

The highlight principle of exposing cine film has been well tested and is fully discussed by Mr. Smethurst in his book, *Exposing Cine Film*, a study of which more than repays its modest cost of half a crown. I would add one other observation on the highlight system of exposure. The principle, as will be seen from Mr. Smethurst's book, is to expose the film so that any white object just develops through the emulsion. On a dull day when the lighting is very flat, the ratio of contrast between light and shadow is so low that the projected film appears dull and over-exposed. Although the exposure may have been a correct one for ordinary negative purposes, a crisp image is usually preferable, and it will be found advantageous to give one stop less than highlight meter reading in dull light. In negative work one would develop for stronger contrast in such cases, but variation of development in reversal film is undesirable. A shorter exposure is, therefore, suggested to obtain greater density in the shadows.

Detective Organisation and Procedure

THE REPORT OF THE DEPARTMENTAL COMMITTEE *

IN May 1933 the Home Secretary appointed a committee, under the chairmanship of Mr. A. L. Dixon, C.B., C.B.E., Assistant Under-Secretary of State, “to inquire and report upon the organisation and procedure of the police forces of England and Wales for the purpose of detection of crime.” In addition to Mr. F. C. Johnson and Mr. S. J. Baker, of the Home Office, the latter acting as secretary to the committee, and His Majesty's Inspectors of Constabulary (Major-General Sir Llewellyn Atcherley, C.M.G., C.V.O., and Lieutenant-Colonel W. D. Allan, O.B.E.), the personnel of the committee was drawn from chief officers of police. These were Mr. R. M. Howe, M.C., deputy assistant commissioner, representing the Commissioner of Police of the Metropolis; Lieutenant-Colonel Sir Hugh Turnbull, K.C.V.O., K.B.E., Commissioner of Police for the City of London; Mr. W. Trubshaw, C.B.E. (who retired from the service and was succeeded on the committee in October 1935 by his successor in the office of chief constable of Lancashire, Captain A. F. Hordern, A.F.C.); Mr. J. Maxwell, C.B.E., chief constable of Manchester; Mr.

* *The Report of the Departmental Committee on Detective Work and Procedure.* Five volumes. (His Majesty's Stationery Office.)

Vol. 1 (1s. 3d.).	Chapter I.	General description of the police system of England and Wales.
	Chapter II.	The state of crime.
	Chapter III.	Review of the detective work of the police.
Vol. 2 (9d.).	Chapter IV.	The selection and training of detectives.
Vol. 3 (2s. 6d.).	Chapter V.	Crime records.
Vol. 4 (1s. 6d.).	Chapter VI.	Communications.
Vol. 5 (1s. 3d.).	Chapter VII.	The application of science to the detection of crime.
	Chapter VIII.	Miscellaneous questions.
		Summary of conclusions and recommendations.
		Index.

Volumes 2, 3 and 4 are not on sale to the general public; these volumes may be purchased by police officers on the authority of chief officers of police, and otherwise under the authority of the Home Office.
The price mentioned for each volume is net, postage extra.

A. K. Mayall, O.B.E., chief constable of Oldham; Mr. A. K. Wilson, C.B.E., chief constable of Liverpool; Sir George Morley, C.B.E., chief constable of Durham; Mr. F. J. Crawley, chief constable of Newcastle-upon-Tyne; Major F. R. Anley, C.B.E., chief constable of Derbyshire; Lieutenant-Colonel F. Brook, D.S.O., M.C., chief constable of the West Riding of Yorkshire (later appointed His Majesty's Inspector of Constabulary); Mr. Thomas Rawson, chief constable of Bradford; Mr. J. Clayton, O.B.E., chief constable of Doncaster; Major J. Becke, O.B.E., chief constable of Cheshire; Mr. C. C. H. Moriarty, C.B.E., LL.D., chief constable of Birmingham; Lieutenant-Colonel Sir F. A. D. Stevens, C.B.E., D.L., chief constable of Bedfordshire; Mr. C. R. Fox, chief constable of Oxford; Major H. E. Chapman, C.B.E., chief constable of Kent; Mr. C. Griffin, chief constable of Brighton, who on retiring from the service was succeeded on the committee in July 1933 by Mr. W. H. Smith, chief constable of Eastbourne; Major F. L. Stanley Clarke, O.B.E., chief constable of Gloucestershire, who retired from the service before completion of the committee's work; Mr. F. T. Tarry, O.B.E., chief constable of Exeter; Mr. R. Yarnell Davies, O.B.E., chief constable of Flintshire; and Mr. J. A. Wilson, O.B.E., chief constable of Cardiff.

The chief constables on the committee were representative of the eight districts into which the police forces of England and Wales are divided for purposes of co-ordination and conference. The Terms of Reference empowered the committee also to appoint sub-committees, to include persons who were not themselves members of the committee, to make subordinate inquiries and to report the result of such inquiries to the committee.

The report of the committee, presented to the Home Secretary last year, shows that a number of chief constables, senior detective officers, medical and scientific experts joined with members of the main committee in staffing five sub-committees. These were constituted as follows:

SUB-COMMITTEE A: SELECTION AND TRAINING OF DETECTIVES

Mr. J. Maxwell, C.B.E., Chief Constable of Manchester (Chairman).

DETECTIVE ORGANISATION AND PROCEDURE 187

Sir George Morley, C.B.E., Chief Constable of Durham.
Lieutenant-Colonel (now Sir) F. A. D. Stevens, C.B.E., D.L., Chief Constable of Bedfordshire.
Mr. R. Yarnell Davies, O.B.E., Chief Constable of Flintshire.
Mr. J. A. Wilson, O.B.E., Chief Constable of Cardiff.
Mr. C. C. H. Moriarty, C.B.E., LL.D., Chief Constable of Birmingham.
Mr. W. Blacker, Assistant Chief Constable, West Riding Constabulary.
Superintendent A. W. Askew, Metropolitan Police.

SUB-COMMITTEE B: RECORDS

Lieutenant-Colonel F. Brook, D.S.O., M.C. (Chairman), H.M. Inspector of Constabulary.
Mr. R. Yarnell Davies, O.B.E., Chief Constable of Flintshire.
Major G. Nicholson, M.C., Chief Constable of Surrey.
Mr. J. Clayton, O.B.E., Chief Constable of Doncaster.
Mr. C. R. Fox, Chief Constable of Oxford.
Mr. A. K. Mayall, O.B.E., Chief Constable of Oldham.
Mr. A. K. Wilson, C.B.E., Chief Constable of Liverpool.
Superintendent H. Battley, Metropolitan Police.
Superintendent W. May, M.B.E., Birmingham City Police.
Chief Inspector G. Blackburn, West Riding Constabulary.

SUB-COMMITTEE C: COMMUNICATIONS

Lieutenant-Colonel Sir Hugh Turnbull, K.C.V.O., K.B.E. (Chairman).
Captain A. F. Hordern, A.F.C., Chief Constable of Lancashire.
Mr. G. C. Vaughan, Chief Constable of West Riding.
Mr. F. T. Tarry, O.B.E., Chief Constable of Exeter.
Mr. J. Bell, Chief Constable of Hastings.
Superintendent H. Battley, Metropolitan Police.
Superintendent F. R. Parry, Lancashire County Police.

SUB-COMMITTEE D: SCIENTIFIC AIDS TO THE INVESTIGATION OF CRIME

Mr. R. M. Howe, M.C. (Chairman), Deputy Assistant Commissioner, Metropolitan Police.
Major F. R. Anley, C.B.E., Chief Constable of Derbyshire.
Major J. Becke, O.B.E., Chief Constable of Cheshire.
Major F. L. Stanley Clarke, O.B.E., Chief Constable of Gloucestershire (later retired).

Mr. H. Winstanley, O.B.E., Assistant Chief Constable, Liverpool City Police.

Mr. J. M. Webster, F.R.C.S., now Director, West Midland Forensic Science Laboratory.

Professor F. G. Tryhorn, D.Sc., A.I.C., Hull University College.

Detective-Superintendent F. Bristow, Sheffield City Police.

Superintendent W. M. Else, Derbyshire Constabulary.

SUB-COMMITTEE E: LEGAL QUESTIONS

Sir Oscar Dowson, C.B.E. (Chairman), Legal Adviser, Home Office.

Mr. R. M. Howe, M.C., Deputy Assistant Commissioner, Metropolitan Police.

Major J. Becke, O.B.E., Chief Constable of Cheshire.

Sir George Morley, C.B.E., Chief Constable of Durham.

Mr. F. J. Crawley, Chief Constable of Newcastle-on-Tyne.

Mr. C. C. H. Moriarty, C.B.E., LL.D., Chief Constable of Birmingham.

Mr. J. A. Wilson, O.B.E., Chief Constable of Cardiff.

In the earlier stages of the committee's investigation three of the five sub-committees (dealing respectively with training, records and communications) made visits to all the larger police headquarters in the country, including Edinburgh and Glasgow, to examine and discuss with senior detective officers of the forces in the districts the various aspects of the problems with which they were faced. The number of witnesses called before the several sub-committees is not indicated, but in addition to the completion of questionnaires, and memoranda furnished at the committee's request by all chief officers of police, a great number of forces were represented by senior detective officers before the sub-committees; and the oral evidence, in most cases supplemented by memoranda, thus provided a comprehensive picture of the organisation, or lack of it, and practice in criminal investigation as things stood in 1934-5-6.

Three members of the committee, Mr. J. Maxwell Lieutenant-Colonel F. Brook, and Mr. R. M. Howe, who were chairmen respectively of the sub-committees dealing with the subjects of training, records, and scientific aids, visited a number of important centres in the United States of America

DETECTIVE ORGANISATION AND PROCEDURE 189

and Canada. Mr. Howe also visited Vienna and one or two other centres on the Continent where scientific work had been developed as an aid to the detection of crime.

The committee presented its report to Sir Samuel Hoare, Home Secretary, on July 21st, 1938, unanimous with the exception of a minor reservation by Major F. R. Anley, C.B.E., on the subject of regional clearing houses. The report may, therefore, be held to represent the considered views of a very large representative and responsible section of police opinion, and to have been framed on the long and varied experience of those who have been intimately and actively engaged in the detective work of the one hundred and eighty-one police forces of England and Wales.

To have achieved unanimity in such a large committee, and following such widespread inquiries, was noteworthy: "Naturally, in considering so wide a range of subjects, we found that some of them were approached from different points of view by different members, and in endeavouring to find solutions for so many practical problems of police administration and technique we found that in some cases different solutions were favoured in the first instance. Where differences of opinion have arisen we have endeavoured, for the most part successfully, to resolve them by fully exploring the various possibilities and, where necessary, by putting the matters at issue to the test of actual experiment."

The committee was fortunate in its chairman. Mr. Dixon's long and unrivalled experience at the Home Office, in the field of police administration, is reflected in the pages of each of the five volumes of the report, while, as the committee acknowledge in their appreciation of the services he rendered, Mr. Baker's administrative skill is seen in the mass of statistical material made available for the committee and reproduced in the report, and in the arrangements made, during the progress of the committee's investigation, for many kinds of experimental work and other measures initiated to bring about improvements in organisation and co-ordinated police effort, pending final conclusions and recommendations for future developments.

In a circular to police authorities dated September

22nd, 1938, Sir Samuel Hoare invited attention to the conclusions and recommendations of the committee, and urged the importance of giving facilities for study of the report by police officers of all ranks. Our present purpose is to focus attention on the report in such a way as we hope will stimulate interest in the conclusions reached by the committee, and the discussion of ways and means to implement its recommendations.

Two facts emerge from a perusal of the report which, curiously enough, are not stated in so many words in its pages. The first is that the cost to the public purse of acting upon its recommendations will not, by comparison, necessarily be large. The second is that, if the wishes of the committee can be fulfilled within a reasonable time, the status and prestige of the detective officer, in each of the ranks known in the C.I.D., are likely to improve. Both these statements need amplification. The provision of detective training schools and forensic science laboratories, of modern equipment for records and means for rapid communications, together with the consequential augmentation of personnel to secure performance of the work, will cost money; but (as has been demonstrated so vividly in America by Mr. J. Edgar Hoover) the economies of detective and crime preventive organisations are not to be judged exclusively by reference to staff salaries and departmental costs.

As to personal status, the claim has been well made that in no department of police activity are zeal, integrity and devotion to duty higher than in the C.I.D. The decision taken to create a criminal investigation department on the establishment of those forces which, prior to 1933, had no officers designated as detectives, combined with inter-force contacts and detectives' conferences, has produced many changes for the general good; and the wise process of selection of detectives from the general body of constables, followed by intensive courses at the training centres set up on the lines initiated by the Detective Committee, is steadily raising the status, prestige and personal qualities of the detective police officer. The cogency of these observations will be seen as we examine the report.

THE STRUCTURE OF DETECTIVE ORGANISATION

Students of police administration will find in Volume I an authoritative outline of the police system of England and Wales, its problems in relation to crime, and the organisation of the detective work of the police. Previous occasions on which the English police system has been similarly reviewed arose in 1919, by the Committee on the Police Service of England, Wales and Scotland, presided over by Lord Desborough, and of which Mr. Dixon, chairman of the Detective Committee, acted as secretary; and in 1932, by the Select Committee of the House of Commons on Police Forces (Amalgamation). Much has happened in world affairs, and in police administration, since the Desborough report initiated reforms for the police service which, in the event, proved of incalculable benefit to the state and the English police service. The Select Committee's report of 1932, on the other hand, has proved to be a dead letter. Although the present committee devote a paragraph to the difficulty and complication in detective organisation which the existence of forty-one separate police forces with establishments below fifty, and down to eleven men of all ranks, give rise, there seems no prospect of the legislation required to amalgamate the small forces with those of the counties in which they are situated. But this fact need not seriously militate against the efficiency of detective organisation, nor delay the adoption of the recommendations of the Detective Committee, provided that all concerned, particularly the police authorities involved, will see the wisdom of amalgamating police effort in those spheres of detective work in which joint measures, and joint use of equipment and "aids," are necessary to success and economy in administration.

In framing their recommendations the committee paid due regard to the existing framework of police organisation. "The Police Service of England and Wales is essentially local in organisation, though subject to a measure of central supervision and control." With the exception of the Metropolitan Police, all the 58 county and 121 city and borough forces are maintained by a local authority. "Their members are

locally appointed and they perform their duties under local direction and control: discipline also is locally administered. But every constable makes on appointment a declaration of service to the Crown: certain of the conditions of appointment, the main conditions of service and many matters relating to the administration of discipline are prescribed for all forces by statute or by regulations made by the Secretary of State under the authority of the Police Act, 1919." Further, "the responsibility for preventing and detecting crime rests not upon the local police authorities, nor upon the Secretary of State, but upon the police themselves by virtue of their holding the office of constable."

Later, in Chapter III, the possible revision of this framework is discussed, and, recognising the difficulties inherent in changes so complex as these would involve, as well as the fact that complete discussion would be outside the terms of reference, rejected. "Efficient detection (of crime) still depends, and must always depend, mainly upon the capacity of the police to obtain, sift and draw deductions from information coming from all sorts of sources and all sorts and conditions of people in all walks of life. For this purpose a state of mutual understanding between police and public is essential; and the importance of this consideration is enhanced by the high proportion of the total number of crimes which are essentially local, that is to say which are committed by local residents and in which all or most of the information that exists with regard to the offender's movements and associations is within the reach of local police inquiries." On the other hand, many of the more serious crimes call for measures by which the energies of the police over a wide area, and possibly over the country as a whole, can be bent upon the problem of finding the wanted person, or the missing property, as the case may be. This calls for specific machinery for co-operation, to meet "purposes of many kinds in the matter of inquiries, records, communications, etc., and indeed in every branch of detective work."

After quoting the Desborough committee's report on the subject, the committee confine their observations to the question whether, "from the point of view of the detection of crime in

particular, the requirements of the present situation do or do not call for the institution of a single detective force, organised on a national basis. We have already referred, in general terms, to our unanimous conclusion that, in spite of all that has been done in recent years to improve the organisation of the police, there is still a real and urgent need for further improvements in various directions, in order that the police forces of the country may be in a position to work together much more nearly as one in dealing with problems which are of more than merely local concern. But this does not, in our opinion, necessarily require that the detective forces should be unified under any single or centralised control. Our conclusion is that, subject to certain conditions, it should be possible to secure the main advantages of unified control without any such radical departure from the present general system of police—provided, that is to say, that the necessary improvements are made in matters such as the training of detectives and the provision of adequate detective strength and all necessary equipment; that the local forces unite effectively for common action in matters which are of common interest, and that the supervision exercised through the system of inspection and the conditions attaching to the payment of the Exchequer contribution are found sufficient to ensure that the necessary standards are maintained in all respects throughout the Service.

"In this connection it must also be borne in mind that a local system of police presents some definite advantages. There is no doubt that the identification of the individual police units with the areas they serve has contributed much to the maintenance of good working relations between the police and the public, and that the disappearance of the territorial tradition would be a definite loss from the point of view of the availability of local information bearing on the detection of crime. Further, the existence of at any rate a reasonable number of independent units of administration is bound to give scope for individual enterprise and to stimulate a healthy spirit of rivalry. This applies particularly in the sphere of pioneer work, where it is often of distinct advantage to have specific problems attacked from different angles by different workers, as has

been proved in recent police experience, for example, in the enterprise shown by several of the county and borough forces in the development of police wireless and the applications of science as an aid to detective work. Finally, the existing system avoids much dissipation of time and energy on detail, and other disabilities which are inherent in the elaborate departmentalism of any large administrative machine operating on a country-wide scale. Our recommendations are accordingly framed on the basis that the police will remain essentially a local service."

There may be some who point to other fields of public service, such as the Unemployment Assistance Boards, or the Post Office, or the Army, in which central governmental control is exclusive and in which complete absence of local, democratic, control is one important factor to successful administration. On the other hand there are services, like public health and similar fields, in which the work is better administered by the local government body than it might be by the central department concerned. But the Police Service really has no analogous department either in local or central government activities. It cannot be compared with the military machine controlled by the War department, or with the public health services, in its relationship with the community. The status of the constable, though difficult for the stranger to English customs to appreciate, has been created largely on tradition, but in the process has been built up solidly and well. The reader who has made a careful study of the subject, and who possesses an intimate knowledge of the relationship necessary between police and public in the day-to-day work of the C.I.D., will agree that the Detective Committee reached a wise conclusion.

THE STATE OF CRIME

The chapter which the committee devote to a review of crime in England and Wales is a valuable addition to the available data on this subject. The introductions to the annual volumes of criminal statistics are informative, but of necessity they are prepared *pro forma*, related to the tables compiled

DETECTIVE ORGANISATION AND PROCEDURE 195

from the returns of crime made annually by chief officers of police. The student of criminology and of penal conditions in England and Wales may also turn to the annual reports of the Prison Commissioners, and the periodical reports presented to the Secretary of State by the Children's Branch of the Home Office. But with the help of new statistical material furnished by chief constables for examination by the Detective Committee, the report presents the result of an examination and analysis made from an angle not hitherto attempted, but very essential to a true appreciation of the problems of detective organisation.

The total volume of indictable crime known to the police and recorded in the police statistics is made up of the following main classes:

		<i>Approximate proportions</i>	
		per cent.	per cent.
<i>Offences against the Person</i>			
Crimes of violence against the person		1	
Sexual offences		1.5	
		—	2.5
<i>Offences against property with violence</i>			
Burglary and Housebreaking		9	
Shopbreaking		8.5	
Other offences		2	
		—	19.5
<i>Offences against property without violence</i>			
Simple larceny and minor larcenies ...		59	
Fraud, false pretences, etc.		8	
Other offences		8	
		—	75
<i>Forgery and Currency Offences</i>			1
<i>Other Indictable Offences</i>			2
			—
			100

Compared with the pre-War period, indictable crimes have increased by about 130 per cent., and while some explanation is to be found in changed methods of recording and reporting in some forces, there has been a large increase in the crimes against property with violence, notably burglary, house-breaking and shopbreaking, as shown by the following table:

Year	Metropolitan Police District	Rest of England and Wales	Total
1913	3,132	9,159	12,291
1921	3,972	12,436	16,408
1928	3,654	18,518	22,172
1929	4,736	18,161	22,897
1930	5,911	20,337	26,248
1931	8,230	23,441	31,671
1932	* 14,294	26,215	* 40,509
1933	* 14,013	23,401	* 37,414
1934	* 13,141	23,853	* 36,994
1935	* 11,591	22,884	* 34,475

* Some allowance, probably to the extent of 5,000 crimes, must be made for the change in the Metropolitan Police system of recording which was introduced in 1932 and to which reference is made elsewhere in the report.

The importance of the bearing on any statistical examination of the local system of recording reports of crimes is emphasised by the committee. After an exhaustive review of this aspect of the problem the committee finds that some, but not all, the present arrangements for ascertaining the ratio between "crimes committed" and "crimes detected" are unreliable.

"It is often suggested that the proportion of crimes 'cleared up' by the police in any force affords a useful basis for comparison of the efficiency of the respective detective departments; but that is far from being the case, for reasons which are partly inherent and partly due to defects in the statistical material at present available.

"In the first place it must be borne in mind that the success of the police in the detection of crime turns in nearly all cases upon the possibility of their obtaining information from one or more of a number of different sources, such as witnesses of the crime or witnesses of circumstances bearing on it, or from 'traces' of various kinds which may have been left at the scene of the crime or elsewhere and are observed by the police themselves. But in certain instances there may be little or no possibility of obtaining any information under any of these heads. There may have been no witness of the crime

or the criminal's approach to and escape from the scene of the crime, or witnesses who could give information may deliberately conceal what they know. As to traces left by the criminal, although it may be true that no crime can be committed without some traces of the criminal's presence being left behind, such traces may have become obliterated before the police are aware of the occurrence of the crime or may be too obscure or insignificant to serve to connect any particular person with its commission. In fact, though the "perfect" crime may never yet have been committed, there are many crimes in which the chances are very much against the most efficient police force being able to obtain any reliable information as to the identity of the offender. Further, even where the offender is known with a fair measure of certainty, it may not be possible for the police to institute proceedings. An instance would be where the police are satisfied in their own minds by some characteristics of the crime itself that it was the work of a particular individual, and (though their conclusion may be correct) they have not sufficient evidence which they can produce in court to *prove* the guilt of this particular person. There are thus a number of reasons why it would be wrong to suppose that failure to bring an offender to justice necessarily implies any shortcomings on the part of the police in the investigation of the crime, for they may have done all that was humanly possible. Moreover, the detection of a high proportion of the crimes committed is not the only or the primary basis on which to judge police efficiency: prevention comes first, and it is impossible to assess in any statistics how many crimes are prevented or how many which occur ought to have been prevented.

"As regards the possibility of drawing comparisons between forces on the basis of the proportion of crimes which are detected, it is clear that the chances the police may have of obtaining information to connect a particular individual with the commission of a crime must vary within very wide limits, not only between different crimes, but also between one district and another; and this is one of a number of reasons why figures representing the number of crimes 'cleared up' must be used with great caution and cannot, in the nature of

things, afford any real guide to the relative efficiency of the detective work in the forces concerned. Such figures, however, if they represent the true state of the case, may certainly be significant in two respects, (a) as indicating *in a general way* the extent to which the police approach the state of efficiency in which every offender is caught red-handed or, if not so caught, is discovered subsequently and prosecuted for his crime, and (b) as a rough indication of the relative effectiveness of police methods over a period *in a given police area*."

The committee obtained from all forces returns of the crimes recorded as known to the police in 1932, and those which were recorded as "cleared up." "Such figures, if recorded correctly and on the same basis in all forces, would give a more direct basis of comparison than those given in the Criminal Statistics, but the result of our examination of the returns and the evidence we have taken is to confirm the conclusion quoted in the Introductions to the Criminal Statistics that any attempt to arrive at a true comparison between forces by reference to the proportions of crimes which are detected fails by reason of the differences in the systems of recording. These differences arise in at least two ways."

The differences of practice in the recording of crimes in which the offender is *not* detected are more serious. This observation relates particularly to offences of larceny, and since simple larceny amounts to 59 per cent. of the total crime, the disparity is the more noticeable. "Some forces regularly record as crimes losses reported to them where there is any reason to think that a crime may have been committed, while in other forces such cases are recorded as crimes only if the circumstances are found after investigation to point definitely to a theft or all other possibilities can be almost certainly excluded. These divergencies of practice are naturally greatest in, if not confined to, cases in which the property involved is of comparatively trifling value.

"These differences of practice will not materially affect the statistics of what may be regarded as 'serious' crime, but may affect, very materially indeed, the total number of crimes recorded as reported to the police and cause the proportion of undetected crime to appear, on balance, much larger in forces

where the reported crimes are fully recorded than in those where the recording is incomplete. . . . There can be no manner of doubt that these wide variations reflect, in the main, differences of practice rather than differences in the incidence of crime or the effectiveness of the forces in clearing up the crimes which are committed, in that some forces record as crime all occurrences which suggest that a crime has been committed, while other forces exclude many occurrences where the circumstances suggest but do not establish that there has been a crime."

It is clear that until suitable action has been taken on this recommendation, too much reliance cannot be put on the crime needs in different police districts and their bearing on police establishments. But police establishments cannot be fixed solely on the basis of population and area, nor beats on acreage and density of property and mileage of main roads. The vulnerability of the district to crime, and to crimes of varying classifications, committed by residents and visitors, by youths and juveniles and persistent offenders, is a factor which should have a close bearing on the size and length of the beat, the strength of the detective staff, and the establishment of the force.

The first step, therefore, is to unify the system of the recording of crime so that this shall be done by all forces alike. With this aim, among others, in view, the committee has prepared a chapter in which separate sections are devoted to records of crime, records of criminals, and records of property. When the recommendations on this score are acted upon it will be possible to apply to the whole volume of crime in a police district the conclusions drawn by the committee on those classes of "breaking offences" which are not affected by the criticisms referred to above.

The volume of undetected "breaking" offences is a serious problem. "The average proportion of undetected crime of this class in the forces as a whole is as high as 70 per cent., and the average for both county forces and city and borough forces is a little over 60 per cent. . . . These figures are specially noteworthy, and, coupled with the figures quoted earlier in our report as showing a striking increase in these

offences, point very definitely to the existence of a problem on which the energies of the police throughout the country should be bent. Explanations of the present high proportion of such crimes remaining undetected are not difficult to find. The whole trend of modern conditions tends both to facilitate the commission of this class of crime and to make its detection more difficult. There has been a rapid and extensive development in building on the outskirts of the large towns, resulting in the growth of many new residential areas, which consist in the main of particularly vulnerable property and are situated within easy reach of the haunts of criminals. They, moreover, are greatly assisted by the improved means of locomotion, by the carelessness of householders and the frequency with which they leave their property unattended and insecure. All these things have contributed to the increase in this class of crime and at the same time have increased the difficulties of detection.

"In addition to all this, it has to be borne in mind that police strengths, which were reduced some years ago for reasons of economy, have in some forces remained at the reduced levels and in few, if any, forces have they been increased in proportion to the increase in population. Police expenditure under all heads, including technical equipment and other aids to the investigation of crime, has in most forces been restricted by reason of the heavy and increasing charges falling on local funds for other services and, meanwhile, large and increasing demands on the time and energies of the police have been made by other tasks, mainly those in connection with traffic problems of one kind or another, which, however necessary and helpful to the public, cannot be met without a substantial increase of police strength or a substantial reduction in the general standard of police protection. We have no means of assessing the extent to which the success of the police may have been affected by these recent developments, but, whatever the contributory causes may be, the figures point, in our opinion, to the urgent need for a fresh and concerted effort throughout the Police Service to overcome the special difficulties of the problem and secure a higher standard of both prevention and detection in the class of offences comprising burglary, housebreaking and shopbreaking."

DETECTIVE ORGANISATION AND PROCEDURE 201

The examination into the proportions of offenders who are residents of the locality of their crimes, or who reside outside the district or are recorded as "travellers" is of great value, particularly in planning for improved inter-force relationship and co-ordinated effort in detective work. So also is the data furnished in respect of persistent offenders who succeed in committing a long series of offences over a wide area before their arrest is effected.

The percentage of crime which is committed by children and young persons is examined from an angle not often approached by writers on the subject. The facts revealed merit close examination in those quarters in which the tendency in recent years has been to hinder the efforts of the police to effect rapid detection of children and young persons suspected of criminal tendencies, by resisting interviews except in the presence of the parents, refusing finger-prints and deprecating the appearance of a policeman's uniform within the portals of the school.

SERVICE CO-OPERATION IN DETECTIVE WORK

In a number of passages in their report the committee emphasise the fact that detective and crime-preventive work are conjoined functions, shared equally by the whole of the force. Detective work is not exclusively the duty of the C.I.D. The detective may be exclusively employed as specialist in criminal investigation, or even in one of the specialised and technical branches of that department; but his task is mainly, by his specialised knowledge and skill as an investigator, to implement the functions discharged by the constable on the beat. The latter must always remain the general practitioner of police duties, inevitably making first contact, in the majority of crimes, with the injured person or the scene of the criminal act. Behind him are the detective, the fingerprint expert, the photographer, and the resources of science and medicine now being introduced with the provision of forensic science laboratories in various areas.

"The retention of a local system of police implies that each force will be primarily responsible for the investigation

of crime in its police district, and must maintain the personnel and equipment necessary to carry out its responsibilities, not only for investigating the crimes committed within its own district, but for dealing with inquiries which relate to crimes committed elsewhere and which originate with other forces."

Modern conditions, however, make it possible for technical services and equipment to be mutually shared. Indeed, as the committee point out, it is impossible for any one force to be self-contained; even as regards their ordinary routine inquiries the separate forces are necessarily interdependent, and there are services which it would be impossible, extravagant, or for other reasons inexpedient, to provide except by common action between a group of forces or for the service as a whole. "Co-operative" schemes, if they are to be fully effective, must be of general application within the area which they purport to cover and the purposes which they purport to serve. There must be no gaps. "A scheme of co-operation . . . needs to be applied irrespectively of force boundaries, and the co-operation or absention of one particular police force or another is not a matter which can be determined merely on grounds of supposedly local interest or on any basis of mere local option."

The committee commend the practice of periodical district detective conferences, as a means of fostering the spirit of co-operation. "Every opportunity should be taken for establishing personal contact between detectives and their colleagues in other forces, and this is one of the objects of the arrangements which have been made from time to time for holding conferences of detectives, generally on the basis of the districts into which the country is divided for the purpose of the Chief Constables' District Conferences. . . . The arrangements for the conferences should be under the general oversight of the District Conferences of Chief Constables, through their secretaries, details being left to detective officers nominated by the detective conferences themselves. They should, as a rule, last for a day; the opportunity should be taken to display photographs of active criminals, and time should be allocated for the discussion of their methods and of current crime in the district. A lecture or lectures on

matters of technical interest, followed by discussion, should also be included. The lecturers should be chosen from senior detective officers, specialists on technical subjects such as finger-prints, crime records, etc., and consultants such as lawyers and scientific experts. We further suggest that, where possible, the conferences should be attended by representatives of any regional centre which may be established in the district for work on the records of criminals or the circulation of crime information. Reports of the proceedings of the conferences should be circulated to all forces in the district, and arrangements should be made to bring them to the notice of members of the uniform branch. It is also desirable that the detective conferences should be attended from time to time by selected uniform officers.

"Other opportunities for the meeting of detectives from different forces can be found on occasions such as race meetings, where the presence of detectives from different forces is not only expedient for the protection of the public, but affords opportunities for the officers themselves to make contact with one another as well as to extend their knowledge of thieves and tricksters. Still other opportunities are afforded by the lecture courses for detectives which are now arranged from time to time in different parts of the country, and to which we shall have occasion to refer in the course of our observations on the training of detectives for their special work."

Personal contacts are invaluable to all who have frequently to correspond with or to telephone to each other; if contacts ripen into comradeship mutual help is assured. That need is recognised by the committee in the observation that "force boundaries ought to be no more a hindrance to close and effective co-operation between detectives in their common purpose than they are to the flight of a criminal from the scene of his crime, and our recommendation is that, in every force, care should be taken to see that the closest co-operation is built up. This is partly a matter for deliberate effort on the part of chief officers of police and senior detective officers working under their directions."

Another useful field for detective co-operation in the measures for dealing with crime "epidemics" or the handling

of the inquiries in a serious crime, where a line of investigation is not immediately apparent or the inquiries may have to be extended over a wide area, lies in bringing senior detective officers from the surrounding forces into personal consultation, if possible at the scene of the crime. Collaboration of this kind, with organised intelligence conferences and communications, is likely to beget public confidence and a ready response to appeals for help. The existing practice of obtaining experienced officers of the Metropolitan Police in cases of murder and other particularly serious crimes is commended for use whenever the services of such officers are needed for the successful detection of serious crime.

(To be continued)

The Colonial Police

The following appointments are announced by the Colonial Office:

BILLYEALD, S. (District Superintendent of Police)	County Superintendent of Police, British Guiana.
BROWNING, L. P. R. (Sub-Inspector of Police)	Third Class Inspector of Police, Jamaica.
HARVEY CLARK, J. H. (Third Class Inspector of Police)	Second Class Inspector of Police, Jamaica.
HUNTER, E. A. (Sergeant of Police, Palestine)	Assistant Inspector of Police, Tanganyika Territory.
MATTHEWS, Capt. L. G. (Senior Assistant Superintendent of Police)	Superintendent of Police, Nigeria.
MILES, F. N. (Second Class Inspector of Police)	First Class Inspector of Police, Jamaica.
MURPHY, J. (Third Class Inspector of Police)	Second Class Inspector of Police, Jamaica.
ORRETT, E. G. (Second Class Inspector of Police)	First Class Inspector of Police, Jamaica.
SYER, W. G. (Sub-Inspector of Police)	Third Class Inspector of Police, Jamaica.
TURNBULL, P. E. (Sergeant of Police, Palestine)	Assistant Superintendent of Police, Sierra Leone.
WHITE, R. V. D. (Senior Assistant Superintendent of Police)	Superintendent of Police, Nigeria.

Paint Marks and Their Importance in the Detection of Crime

By HUBERT T. S. BRITTON, D.Sc. (LOND. AND BRIS.),
D.I.C., F.I.C.

Professor of Chemistry, Washington Singer Laboratories, University College, Exeter.
Consultant to Exeter City Police

PAINT and distemper marks may often furnish valuable clues in the detection and investigation of crime. Thus in the author's experience paint marks have supplied evidence of collisions between motor cars and vehicles and cyclists, the breaking open of a church offertory box, breaking and entering, climbing lamp standards, and distemper marks on clothing have shown that a suspect had actually been inside premises where a robbery had been committed. It may be an advantage to refer to these cases in some detail.

MOTORING OFFENCES

1. In one case a motorist collided with a stationary bicycle which was being held by a boy cyclist on the side of the road. The rear of the bicycle was hit by the front bumper of the motor car, so much so that some of the white cellulose paint on the rear mudguard was removed and subsequently found on the front bumper of the suspect's car. The lad was killed, and in view of this evidence the motorist confessed to having been in collision.

2. This case refers to a motorist who was accused of "driving under the influence of drink." He first collided with a stationary governess car and subsequently with a boy cyclist. He denied both allegations, but when samples of a maroon paint which had been deposited on both the trap and the cycle were exhibited in court he pleaded guilty. The pigment used in the car paint was a "lake," namely a white mineral base impregnated with a dyestuff, and it was possible to extract this dye

from the paint marks deposited on the trap and cycle and to transfer the stain to filter papers. These stains were compared with the stain produced from a similar amount of paint removed from the accused's car and exhibited in court. This, in addition to purely chemical analysis, showed the identity of the paints.

3. In the early hours of morning a car collided with a Belisha beacon, mounted the pavement and struck a shop front. There were no witnesses, but it was eventually proved that the paint left on the shop front was cellulose car paint which was identical with that with which the suspect's car was covered.

BREAKING OPEN A CHURCH OFFERTORY BOX

This was a black box covered with a bitumen paint. On this box were the marks of the teeth of pliers. A suspect was found with a pair of pliers in his possession, the size of the teeth of which was the same as of the teeth marks on the box, and, moreover, bitumen paint was found in between the teeth of the pliers.

STEALING ELECTRIC BULBS FROM LAMP STANDARDS

In this case green paint marks were found on the uppers and edges of the soles of the suspect's shoes, which was similar to that used on the lamp standards.

BREAKING AND ENTERING

In order to enter a factory premises a man carved a hole through a door just above the lock and thereby gained entrance. Wooden fibres to which was attached green paint with an under-coating of pale brown were found among the dust in the right turn-ups of the suspect's trousers. This paint was identical with the paint with which the door had been painted.

It is hoped that the following outline of the nature of paint may be of some interest to the policeman as giving something of the composition and characteristic properties of the various types of paints in use, and at the same time to indicate what

assistance a chemist is likely to offer as the result of the microscopic examination and chemical analysis of paint marks which may play an important role in the detection of crime.

* * *

Paints consist of three main components, *viz.* (i) pigments, (ii) vehicle and driers, (iii) thinners. The pigments supply to the dried paint film opacity and also impart to it some desired colour. The vehicle is the medium which is introduced to bind the pigment particles together in a coherent film. In ordinary paints this consists chiefly of boiled linseed oil, although in enamels and the enamel paints a proportion of gum, such as copal or a synthetic product, is introduced. This enhances the binding property of the linseed oil and at the same time imparts to the dried painted surface a smoother appearance.

If a little linseed oil be poured on to glass plate it will be seen that in time the surface will become coated with a skin. This surface has been formed not through an ordinary drying action but by the oxygen of the air entering into chemical combination with the oil. In consequence, the air is cut off from the oil underneath, and the formation of a hard skin there is impeded. In paint and varnish manufacture this difficulty is overcome by including with the linseed oil a small amount of chemicals, usually compounds of lead, cobalt or manganese, which are known as "driers," for their function is to accelerate the skin formation or drying process. Too great a quantity of driers leads to a brittle film, and, when this contains pigments, as in a dried coat of paint, will tend not only to strip off from the wood, but will not be strong enough to hold the pigments themselves within the oil film, and so the pigments will become loosened and will therefore rub off on to the clothing of persons.

It should be mentioned here that the permanence of a dried linseed oil-pigment film is also governed by (i) the extent of boiling to which the oil was subjected, (ii) the chemical nature of the pigments, and (iii) the degree of fineness of the pigments—*i.e.* the extent to which they were ground. Thus a white paint, in which the pigment is zinc oxide, will tend to crack and to peel off from the wooden surface in the form of

flakes in which the oil-pigment remains intact, whereas when a white lead paint is used the film shows better adherence, but the lead pigment tends to become loose and to be easily rubbed off.

This raises another point. The linseed oil in paint does not stand up well to the weather, particularly rain and sunshine, and the film soon becomes impaired. It is for this reason that tung oil, sometimes known as Chinese wool oil, is gradually replacing linseed oil in paints for outdoor use. If paint were made only of pigments and linseed oil, it would be too thick to apply by means of a brush, and consequently it is necessary to thin the paint mixture to a suitable consistency. This is done by adding desired amounts of some volatile spirit, such as turpentine, white spirit or some other readily volatile liquid. Needless to say, these thinners evaporate from the applied paint.

As regards distempers, they consist chiefly of pigments, glue and sometimes casein (obtained from dried milk) and water. Here the aqueous solution of glue serves as the vehicle to carry the pigments.

Cellulose paints or enamels have as a vehicle nitro-cellulose (sometimes known as pyroxylin, and guncotton) together with a certain amount of gum. The thinners consist of organic liquids, some of which serve as a solvent for the nitro-cellulose and the gum and some are added merely to give the enamel the required consistency. They are the diluents. Both the solvents and diluents readily evaporate when exposed to the air and leave behind a nitro-cellulose film which carries the pigment mixture. Nitro-cellulose films do not adhere well to smooth surfaces, but adherence is rendered possible by the incorporation of gum. Furthermore, on prolonged drying the nitro-cellulose film becomes decidedly brittle and eventually peels off. To prevent this possibility from developing, "softeners" and "plasticisers" are added to the enamel in comparatively small proportions. On drying they remain in the film and keep it soft and elastic. They are substances therefore which do not readily evaporate and usually can be detected in the dried film. Examples of substances in common use are castor oil and camphor. In black

japans bitumen or asphalt serves as the vehicle and to a large extent as colouring agent.

It will be seen, therefore, that a dried paint will consist of the pigment mixture and the vehicle. Very often also coatings of differently coloured paints will have been previously applied to a surface, and the sequence and the thickness of these coatings may also supply very valuable information. Then again the degree of grinding of the pigments, which varies considerably with the quality of the paint, is often of importance. Microscopic investigation of the paint surface will usually give information relating to the age of the paint, inasmuch as the vehicle becomes impaired with time and the pigment particles become more poorly held together.

Then in order to obtain more conclusive information chemical analysis of the pigments and the vehicle will be necessary. The analysis of the pigments offers ample scope to the chemist in comparing paint deposits; for it happens that the various coloured pigments contain many distinctive metals. Nitro-cellulose as used in car paints is also very easily detected.

It might be of interest to point out that the manufacturer in producing a paint of a definite colour is somewhat restricted in the choice of his pigments by the type of vehicle which is to be embodied in the paint. Thus nitro-cellulose does not give to the paint much "body," and therefore only light pigments must be chosen. This also refers to linseed oil enamels. The lighter white pigment, zinc oxide, must take the place of the heavy white lead.

Then there are periods of time in which certain pigments are available, and there are also times when pigments fall into disfavour. This fact has proved of considerable assistance in ascertaining whether oil paintings are genuine old masters. Charts have been prepared showing what pigments were in use at any particular period. It is quite possible to take samples of the paint layer from the surface of a painting by means of a micro-borer and to ascertain the pigments present with the aid of micro-chemical tests. There appears to be quite a brisk trade in imitations of old masters by inferior artists.

Repeal

By INSPECTOR C. R. HEWITT

City of London Police

IT is often supposed that social reforms can be effected by changes in government and the passing of new statutes. But a government can confer few benefits upon a people except by destroying its own laws. The history of a nation may be read not so much in the formation as in the repeal of its laws; and the traditions which surround the great names of English history may for the most part be summed up in the word Repeal. The reforms which followed the publication of Adam Smith's *Wealth of Nations*, the campaigns of Daniel O'Connor against the Act of Union between Great Britain and Ireland, and those of Cobden, Bright, and Peel for the removal of the taxes on corn, are illustrations of the principle that when civilisation has reached a certain point the happiness of mankind can, in normal times, be secured only by a policy of scrapping laws, not by adding to them.

The spate of legislation with which we are at present confronted is, in this view, a disturbing commentary on the times; yet, seen against the background of history, it is obvious that much of it is of a transitory importance, in due course to become eligible for destruction. The probability that it will be allowed to remain on the Statute Book and litter the legal library long after its purpose has lapsed, barred from use only by the uncertain common law doctrine as to "implied repeal," it is the purpose of this article to criticise.

"The law is a sort of hocus-pocus science," wrote Charles Macklin in 1730, "that smiles in your face while it picks your pocket; and the glorious uncertainty of it is of more use to the professors than the justice of it." Has it changed much since then? Sir Edward Coke had said a century earlier (in Book I of the *Institutes*) that "reason is the life of the law—

the common law itself is the perfection of reason." Perhaps, if Coke was right, it had changed when Macklin wrote; but it would probably be true to say that what has given rise to the passing of many of the Statutes is that the legislators have thought they saw a lack of reason, not the perfection of reason, in the common law. So far as the criminal law is concerned, common law principles are still vigorously alive, and govern the interpretation of statutes by virtue of a mountain of judicial decisions, each of which is so framed as to present the appearance of being a mere obedience to the unchallengeable wisdom of the past. Judges have repeatedly rejected the idea that, when they decide a hitherto uncertain point of law, they are acting in a legislative capacity. The theory is that the law is there, waiting to be made clear to the uninitiated by expert minds, that the law is just the mechanics of an "absolute morality"; and the more mischievous critics of the law call attention to a convenient legal fiction that when an important decision is given, sometimes as a climax to a year's litigation and £10,000 in costs, all that has happened is that a great principle, having lain buried from the sight of men for many years, has been produced (rather like a rabbit from a hat) from a fund of common law principles constantly lying in wait at the Judges' elbows. The trouble with the common law is not, as is sometimes popularly supposed, that it is unwritten, but that it is written in too many books and by too many hands. Codification of the law should begin with it. The repeal of obsolete statutes would be the next step.

Repeal means "the abrogation or annulling of a law"; and to abrogate means to cancel—in the case of a law, by legislation or by usage. Abrogation, which is the total annullment of a law, is to be distinguished from the term derogation, which is used where a law is only partially abrogated; and it may be either express or implied. Where it is express it leaves no difficulties, for it either pronounces the annullment in general terms, as when in a concluding section it announces that all laws contrary to the new one are repealed, or it actually names the preceding laws which it repeals.

"Implied repeal" is much less satisfactory. It arises when a new law contains provisions which are positively

contrary to the former laws without expressly abrogating those laws. There is no space here to discuss implied repeals. But the confusion to which they give rise (and they fill the text-books which deal with the interpretation of statutes) serves to illustrate, by contrast, the parental austerity of the common law, and the occasional sternness with which it will intervene to control the caperings of the statutes. Moreover, when a statute abrogates a provision of the common law, and the statute itself gets repealed, the common law provision re-emerges and reasserts itself unimpaired. Essentially, therefore, it is the statutes which change, the common law remaining the same.

Apart from special repeals, there are two ways in which wholesale changes are made from time to time in the statutes. One is the annual Expiring Laws Continuance Act, and the other the periodical passing of a Statute Law Revision Act. It is instructive to compare the respective merits of the "special repeal" and these other two methods. By special repeal is meant either the special mention, in the schedule to a new Act, of an Act which it is proposed to annul (as in the case of the Firearms Act, 1920, in the Schedule to the Firearms Act, 1937), or the passing of an Act for the sole purpose of repealing some obsolete law. Schedules of repeals are a familiar feature of every new Act. An example of a statute passed for the sole purpose of effecting a repeal is the Chimney Sweepers Acts (Repeal) Act, 1938, the sole purpose of which was to repeal the Acts in England and Wales which required a chimney sweep to obtain a police certificate if he employed an assistant. This repeal, which puts half a crown a year back into the pockets of the country's chimney sweeps, was the result of a member of the House of Commons discovering that among hundreds of obsolete laws which no one has time to drag out for execution there was one, based on an ancient scandal relating to the employment of children in the sweeping of chimneys, which had long lost its meaning but which nevertheless still imposed on comparatively poor folk the payment of a fee. There are other such Acts. There would be many more but for the Statute Law Revision Acts which, generally at times less hectic than these, Parliament has occasionally found time to

pass. These Acts contain lists (sometimes immensely long) of old statutes and parts of statutes which have been recognised as repealed by implication or spent by passage of time. The Revision Acts are the work of a Parliamentary Statute Law Revision Committee. But their serious limitation is that they cannot effect any change in the law; they can merely give recognition to changes that have taken place and need statutory cognizance, and concern themselves with the fact that (in the words of the preamble to each Act) "it is expedient that divers Acts and parts of Acts which have ceased to be in force otherwise than by express and specific repeal should be expressly and specifically repealed." Even so, the Committee lag far behind their fellow-legislators, and select their matters for repeal at lengthening intervals.

The Expiring Laws Continuance Acts afford the best hope. The system they represent should be extended. Passed annually, these Acts declare that a list of statutes which would otherwise expire under a sort of "death sentence" shall be continued for another year; the system is useful in relation to experimental statutes or those which deal with a state of affairs which may cease at any time. The Wireless Telegraphy Act, 1904, is one of them; it was timed to expire on 31st July, 1906, "unless Parliament otherwise declares." Parliament has "otherwise declared" each year since. More recent examples are the London Traffic Act, 1924 (the surviving portions of which have now been made permanent and no longer appear in the Continuance Acts), and the Special Areas (Development and Improvement) Act, 1934. But what would make an Expiring Laws Continuance Act really useful would be to make it applicable to the whole body of statutory legislation.

A short statute could be passed providing that no law passed before, say, 1850, should continue in force after five years from the date of passing of the Act, "unless Parliament otherwise declares." This important step would need to be followed by an exhaustive examination of pre-1850 legislation—a vast undertaking. No ordinary Statute Law Revision Committee could cope with it. It has often been suggested that the House of Lords, which contains the most eminent

legal personalities in each generation, and is notoriously under-employed as a democratic Second Chamber, could profitably undertake such work. If, therefore, their Lordships commenced work at once upon the listing of all those Acts which it was necessary to retain (not so much those which should be allowed to die), by the time the five-year Act was drawing near to its operative date it should have been possible to sift and assemble what must be retained and be prepared to scrap a mountain of legislative lumber.

There are two possible points of breakdown in such a scheme—or, to give cynicism its answer, three. The first is the likelihood that, in so great a task, some vital statutes of the pre-1850 vintage might get overlooked and perish, with unpredictable results. The second is that Parliament, confronted with two lists, one containing Acts to be continued and another containing Acts to be repealed, might fight shy, under pressure of Parliamentary business, of making up its mind so quickly, decide to cram all or most of the old stuff into the "continuance" Schedule for the time being, and refuse to do any more about it. The third is that the five-year Act itself might, under similar pressure, be forgotten until such a late stage in its operative life as to move the legislators to repeal it in a panic, thus burying a good intention regretted (though not very much) by all.

Meanwhile, one view taken in high judicial circles as to the inspiration of necessary repeals is perhaps best expressed in the words used by Mr. Justice du Parc in dealing with a case in the King's Bench Division in 1936. The Court had declared it to be an offence, under the Road Traffic Act, 1930, to share with another person the fare for a taxi-cab journey. Counsel had told the Court that, in general, the Traffic Commissioners did not prosecute in such cases—they "acted with common sense." "That seems to me," said Mr. Justice du Parc, "to be entirely wrong. The law should be enforced, and if it is absurd its absurdity should be made apparent in that way. The worst possible way of dealing with an absurdity in the law is to leave an authority, or the Court, to exercise

common sense in deciding whether it is to be enforced or not." (*The Times*, 13th May, 1936.)

The words of this learned Judge happened to receive early vindication in the passing of the Road Traffic Act, 1937, which legalised the very conduct which the King's Bench Division had on that occasion to decide was unlawful. It may be permissible, however, without disrespect to the learned Judge, to consider the logical extension of the principle which he then laid down. It would, in these days, amount to a policy, so far as the long-suffering public are concerned, of "squeezing until the pips squeak." Although the Judges have said many times, and will probably have to say again, that the declared intention of Parliament is that which Parliament has actually put into the words of a statute, and not what was said during debates or what reassurances were given to critical members by Ministerial or other promoters of Bills, these latter considerations are bound to weigh to some extent with the Police, who are the most frequent prosecutors. Thus when the Minister of Transport told the House of Commons that section 20(1) of the Road Traffic Act, 1934 (then in its committee stage), prohibiting the carrying of more than one person on a pedal-bicycle, was not intended to prevent the carrying of a child in a basket or on a properly fitted seat, he was using words which invoked "common sense" in the Police. The Sunday Observance Acts, much of the Vagrancy Act, 1824, the Profane Oaths Act, 1745, and innumerable provisions in local Police Acts and by-laws, are ripe for repeal. Yet it would provoke in the public something more than a passive interest in law-reform if the Police abandoned their common sense *laissez faire* and enforced all these laws in order to achieve their destruction by public opinion. Section 1 of the Street Betting Act, 1906, is enforced, generally speaking, as concerning only the street bookmaker and his agents. Yet it penalises "any person frequenting or loitering in streets or public places, on behalf either of himself or of any other person, for the purpose of bookmaking, or betting, or wagering, or agreeing to bet or wager, or paying or receiving or settling bets"; so that it is obvious that the "punter," the ordinary,

not consciously-criminal member of the community who "puts his bit on" in the street, is liable equally with the bookmaker. Yet he is seldom prosecuted, for two reasons which exalt common sense above the urgencies of a repeal to be inspired by persecution. The first is that there are probably millions of punters; the second that public opinion (the silent majority, outside the morality councils and the anti-gambling leagues) would be outraged to such an extent as to imperil the Street Betting Act itself. Thus if the street bookmaker is to be prohibited, the Act which prohibits him must, owing to the scope of its language, be enforced with "common sense."

In considering the chances of law revision, however, we cannot remind ourselves too often of the great constitutional change represented in the new system of law-making by Departmental Ministers. Those who love democracy have long protested that the voice of the people in the making of their own laws is no longer heard. Their elected representatives are not heard, either. They pass "skeleton" statutes containing sufficient words to establish their object and to enable a Minister of the Crown to fill in the gaps to overflowing with innumerable Statutory Rules and Orders.

But it is possible to allow a high regard for the theory of democratic law-making to blind one to certain advantages in this new method. The theory is itself academic. Parliamentary activities do not always, or even perhaps generally, represent the "will of the people" when they are directed to the making of new laws. The recognition that this is so is the chief argument for the retention of a Second Chamber. It is when Parliament addresses itself to the destruction of existing laws that it is, as a rule, obeying the current of public feeling; and when Parliament delegates real law-making to State Ministries it hands over with it the right to rescind or revoke regulations and even, in some cases, to repeal Statutes. The position of the Judges is, moreover, stronger in relation to Ministerial regulations than it is in dealing with a statute, for they are able, as guardians of the common law, to declare that a particular regulation is "repugnant to the law of England" and unreasonable, as they did in the case of *London Passenger Transport Board v. Sumner* (1935), 99 J.P. 387, where a woman

had been convicted under a tramway by-law for failing, through mere forgetfulness, to pay a penny fare which the tram-conductor had neglected to demand.

The advantages of the new method of legislation, though real, are not obvious. The public have never had cause, and now have less than ever, to complain that they do not get enough laws. But if every new law had to be enacted in its entirety by the slow-moving processes of debate and amendment in both Houses, that complaint would soon make itself heard, perhaps for the first time in history. Parliament has little time in these days for minor legislation; it has been said with some truth that it has become a sort of gigantic Foreign Office. It may appear that the making, and the repealing, of the laws of England is passing into the hands of bureaucrats; but the true picture of this phase of legal history is one which shows the statutes and their numberless offspring, the Rules and Orders, as momentary disturbances on the surface of the common law.

Law reformers are would-be repealers. They would, perforce, leave the common law alone. But they would repeal, ruthlessly, whole volumes of the Statute Book which represent legislative panic, political controversy, and worn-out social creeds. It is a paradox that a country which can govern itself, as Great Britain does, without a written constitution, should be too preoccupied to realise that statutes are made to meet transitory conditions, and that they are made to be destroyed.

The Investigation of a Murder Case*

By EX-DET.-LIEUT. JOHN J. DUNCAN

Edinburgh City Police

THE tragedy I am about to describe is unrecorded in the annals of crime. It is purely imaginary, staged in the hope that I may thus be able to illustrate in some measure the practical application of the principles of criminal investigation.

The circumstances I adduce are those that pertain to a city. A country constable, remotely situated, if called to the scene of such a crime, would have to undertake, in the preliminary stages at least, much of the work I have entrusted to the detective officer. The Police Surgeon would be represented by the ordinary country practitioner, who had perhaps forgotten most of his forensic medicine; and scientific aids would not be instantly available as they are in the city. But in my experience the country constable is a shrewd and versatile man, usually well able to play the part of a detective officer with success till the specialists arrive.

The problem that confronts us is this. Two elderly gentlemen have been found dead in their dining-room by one of the maids when she entered the room for her duties in the morning. One has apparently been shot; the cause of the other's death is not apparent.

We send at once for the Police Surgeon, notify the Procurator Fiscal, turn out the photographer and fingerprint man, collect three or four good colleagues, for we must never go on such a mission short-handed, and off we go.

At this point I pause to give our investigator a few hints as to how I think he should comport himself towards the public in this important enquiry, or indeed in any enquiry.

I should like him to cultivate such a demeanour and to

* Adapted from a lecture delivered at an Advanced Course for Senior Police Officers in Edinburgh. The Editor is indebted to the lecturer, to W. B. R. Morren, Esq., Chief Constable of the City of Edinburgh, and to H.M. Secretary of State for Scotland, for permission to print it here.

INVESTIGATION OF A MURDER CASE 219

go about his work in such a way that he will inspire in the minds of those he comes in contact with both respect and confidence, respect for himself personally as a man, and confidence in his ability to handle the matter efficiently, even though not successfully. Efficiency and success are not always synonymous terms. A quiet word or two of sympathy with those who have suffered might be a useful preliminary, and pave the way to further progress.

Then I should like him to maintain a quiet dignity, calm and unruffled, keeping a firm grip upon himself, and in the turmoil with which he will often be surrounded, being himself unperturbed. His voice should be steady, calm and firm, his words few, always courteous, but never obsequious. When engaged in his duties he should be unconscious of social distinctions. He carries in his person the dignity and honour of an honourable profession, and his attitude to all men should be that of one gentleman to another, never more and seldom less. Let him appear confident and purposeful in all he does and says, remembering that nervous and fiddling actions and words convey better than anything else the appearance of uncertainty and indecision that he must avoid. And if he cannot always be wise, at least let him look wise. He loses nothing, and those with whom he comes in contact may be calmed and strengthened.

Now we have arrived at the scene of our enquiry, and first we must satisfy ourselves that the victims are well and truly dead, for if there is any hope of saving life that must be our first concern. In this case there is no doubt on the point. Next we will inform ourselves of the salient facts.

The deceased are brothers, bachelors, living together in a detached villa with two maids, a cook and a housemaid. These comprise the whole household. Last evening the brothers had a visitor, a well-known business man in the city. When the maids retired at 9 o'clock, as they are allowed to do, the visitor was still in the dining-room. The maids' room is at the top of the house. They are sound sleepers and heard nothing. This morning when the housemaid entered the dining-room at 8 o'clock she found both men dead on the floor.

In answer to our questions she tells us that she found

the dining-room door closed, and the front door, which is invariably locked by the younger brother before he retires, unlocked. We find that all other doors and windows are locked and secure. So far so good. Entry and exit, if such there was, must have been by the front door.

In entering the room where the bodies are, please do not let us all hurry in together. Such an entry is bound to be heedless, and someone is sure to disturb something that should not be disturbed.

And here again I should like to make a few observations. We are now on the scene of a major crime, about to undertake what we term the examination of the *locus*, and the first thing I should like to emphasise is this. As circumstances are bound to exist that will call for the scrutiny of experts, and for medical, chemical and microscopic investigation, as well as for a close search for finger-prints, the officer first arriving on the scene should be careful not to disturb or handle anything that these experts are likely to give their attention to, and to see that no one else does so. Subject to that reservation, our survey cannot be too searching, or our notes too complete. For instance, we should be able to say what was the precise position of such articles as the door mat, the fire irons or the window blinds. We should be able to say what lay on the floor, and where, what on the table, what on the mantelpiece. We should be able to say who amongst us handled these things, who first discovered them, where they were finally placed. It is extraordinary how one may sometimes fail in this, and what difficulty a small failure may sometimes cause. A half-burned match on the floor, a clod of earth on the carpet, a picture askew on the wall, these may all have a tale to tell as important, and to a competent observer as eloquent, as a bloodstain or a bullet hole. Indeed, the faculty of rapid and concentrated observation, and accurate deductions from facts observed, is one of the most valuable assets that the investigator of crime can possess. It is more fully possessed by some than by others, but it is latent in all, and can be greatly developed.

Keeping these admonitions in mind, we will proceed. Turning to the bodies we observe that both are fully dressed, and seem to have been dead for some hours.

We find the body of the one brother, the elder, as it proved, seated in a chair by the fire. It shows traces of bruising about the mouth and nose as if from a blow, otherwise it bears no marks of violence. We must note the extent of this bruising, and the presence or absence of blood. It may give rise to questions that are essentially medical, but none the less we must observe the facts.

The body of the other, the younger brother, lies on the floor against a chair in which he may have been sitting. The breast is heavily stained with blood from a wound in the neck; the carpet is deeply stained with blood, and in the plaster of the wall behind the chair there is a small hole, no doubt a bullet hole.

We must note carefully the precise position and attitude of the bodies, the dress and the condition of the clothing, whether disordered or otherwise, the position of the limbs. Note the points of entry and exit of the bullet in the neck. Look for marks of scorching or discoloration from the discharge on the skin and clothing, but move nothing, nor indeed touch, for the doctor when he comes will give particular heed to all these things, and will give evidence thereon; but we must observe and note them too.

We notice that the hands of the body on the floor are clenched, and that the right knuckles are slightly cut and skinned. What does this tell us? It tells, I think, that that hand has struck a hard blow. The left hand holds quite a little tuft of dark brown hair. Incidentally, the hair of both men is thick and dark, but slightly streaked with grey.

The chairs supporting the bodies are at each side of the fire. The other chairs stand back against the wall in normal position. On the table there are a bottle of whisky, partly full, a syphon of soda, also partly full, and two glasses. Both glasses have been drunk from and are empty but for a drain of liquid at the bottom. The glasses face the chairs the brothers seem to have occupied.

Two glasses, you see, within reach of the hand of each of the brothers. Two chairs only near the fire. Appearances suggest, do they not, that at the time of the tragedy the brothers were alone, seated by the fire after their visitor left,

chatting together over a "deoch-an-doris." Now they lie there dead, the younger on the floor shot, the elder seated in his chair showing no outward indications of violence save the bruising on the face. His death may have resulted from natural causes, sudden heart failure or the like, but we will not speculate till we have completed our survey.

On the floor on the elder brother's right lies a revolver, and we find later that one cartridge has been discharged. It is a five-chambered revolver, and four chambers are still fully loaded. In the meantime we do not handle it, for the fingerprint expert must examine it first. Between the two chairs there lies what looks like a small piece of stone and an open book showing illustrations of stone implements. The door of a small cupboard is partly open and on the shelves we see a number of similar articles. We notice that each of these pieces is numbered on a small square of adhesive paper, while the article on the floor is not. What inference may we draw? This, at least: that the piece on the floor is not part of the collection in the cupboard. It is a new arrival.

Now, before we tramp any more over the floor, let us get down on our knees and see what the carpet has to reveal. Here is something inside the door, a mud stain and a bit of soft earth, seemingly trivial, but of great importance. That stain is from a muddy foot, and the question is, "how was it brought in here and when?" We turn our minds to the state of the weather last night. It was dry, and the pavements were dry and clean. So they are this morning. But the maid was inside the door this morning. Yes, but she had not then been outside. Both the deceased have on house slippers, and these are clean. Of course the mud may have been brought in from the garden earlier in the day, but does it not also suggest the presence of an outsider who has been moving about in the garden? We must cover the mudstain in the meantime. Should it be necessary to prove where the earth came from chemical analysis will be necessary.

Our next discovery is that on the carpet in front of the body of the younger man, the man who was shot, and about four feet from where he lies, there are a number of dark spots that look like blood. Their appearance indicates large drops,

no doubt the result of that blow, we think. Cover these marks carefully, too, till the carpet can be lifted. These bloodstains must also be the subject of chemical examination.

Now we turn our attention to the fireplace, and carefully remove the ashes on to a sheet of paper. We must never overlook the possibilities of a fireplace. Something of importance may have been destroyed. Traces may still be left. We never know what we may find, and here we find something of importance. A fragment of linen, part of a handkerchief perhaps, of which portions have been burned, and the burning has been checked by a heavy stain that looks like blood. In its present state, and even with the aid of our magnifying glass—and let me remind you that a magnifying glass is a very necessary part of a detective officer's equipment—we can make nothing of it, but it must pass into the hands of our scientific friends, who may make a great deal of it yet.

Now we must take careful measurements of the precise position of the bodies, of the various articles in the room, and of the position and height from the floor of that bullet hole in the plaster. Our measurements suggest that the deceased must have been on his feet when the fatal shot was fired. No doubt the bullet is embedded there, but don't attempt to extract it till photographs have been taken, for we may break the plaster.

Keep in mind that the Procurator Fiscal may instruct an architect to make a plan of the room and its contents, and it is important that nothing should be moved from its original position till the Fiscal's intentions are known. Of course, he may decide to rely entirely on the photographs we shall presently take, but we must be sure about this.

Now, as we stand there in the room on the conclusion of our survey, I should not be surprised if a theory is not already shaping itself in our minds. To some of us, it has all the appearance of murder and suicide, or perhaps murder and sudden death. The brothers have quarrelled, and this is the result. It may be that you have already learned from the maids that they are hot tempered and quarrelsome men, particularly the younger, the man now shot, who was so violent at times that the elder stood rather in dread of him.

But what have they quarrelled about? Why, there is the cause of the quarrel before us. Obviously they are interested in archæology. The collection of stone implements tells us that. Another article, newly acquired, has been produced. Its origin and classification are discussed. They differ about it. The book of illustrations is brought out. The argument *waxes* hot, as such arguments frequently do amongst venerable enthusiasts. Some sarcastic and provocative remarks are made. The younger brother loses his temper, and, in a moment of passion, strikes the elder. There is evidence of the blow both on the knuckles of the younger and the face of the elder. The latter, now in a passion too, and in dread of further assault, snatches a revolver from the open cupboard, where such a weapon might naturally lie, and shoots, perhaps with no murderous intent, perhaps with no intent even to shoot, but there it is. Then the violent excitement brings on a sudden seizure and he drops back in his chair dead, or perhaps, more probably, he loses his head altogether, and, in terror and remorse, he swallows poison, sits down in his chair and expires. Good! It all sounds very feasible, but please remember that a wise officer will always keep an absolutely open mind, unprejudiced, unbiased, never dragged at the chariot wheels of first impressions, never too ready to assume what seems to be obvious.

Now, the photographer will take photographs of the bodies as they lie, from various angles, and the room from every angle necessary to give a complete picture of it and its contents. The finger-print expert, with our assistance, searches carefully for finger-prints on everything that may have been handled, and wherever finger-prints are found he powders and photographs them. In this connection it will be necessary to take the finger-prints of the deceased and of the two maids, so that if finger-prints are found those of outsiders may be identified from those of the household.

The doctor arrives, and, from a superficial examination, he suggests not natural causes but poison as the cause of death in the one case. In the other it is obviously shooting. Our theory still holds, but it narrows now to suicide. The doctor will make his own careful scrutiny of the bodies, and of the

room. He agrees that the fragment of handkerchief you submit to him is impregnated with blood. A special point of interest here is whether or not the fragment bears trace of a laundry mark or other means of identification. For that it will be submitted to violet ray examination in the laboratory.

Now we may probe the hole in the wall for the bullet and extract it. Note the angle of entry. It will help to show the direction of the shot.

Finally, we set about collecting all necessary productions, letting nothing escape us that has, or may have, a bearing on the crime. A useful axiom is that while we may make a grave mistake by taking too little, we shall never make a mistake by taking too much. Most of the articles we collect will call for chemical and microscopic examination, and will find their way to the laboratory yet, but in the meantime it is our duty to get possession of them and see to their safe custody.

The bodies will be removed to the mortuary, and now we are free to turn our attention to the maids, whom certain of our colleagues have already been interviewing.

First, that revolver. Did either of the brothers possess such a weapon? Not so far as the maids had ever seen. We will ring up the Firearms Department of the Police and ask if either of the deceased holds a Firearms Certificate. The answer is "No." Rather disquieting, so far as our theory of murder and suicide is concerned. Does last night's visitor hold a certificate? Again "No." The revolver appears to be an outsider.

In our interview with the maids we must devote particular attention to the events of the previous day, the movements and doings of the deceased, and the events of the evening. We must enquire closely also as to their family connections, relatives, friends and visitors. The cook is an old retainer, and she is able to give us a great deal of useful family history. She tells us that the deceased have a brother in Paisley, married, with a grown-up family of two sons and a daughter. Each of these people must be discussed separately. We must get the fullest information we can of their characters and conduct, their relationships and contacts with the

deceased, for we must be in a position to assess the possibilities of any of them being concerned.

We are told that one nephew lives with his parents in Paisley, while the other is employed in an office in Glasgow and lodges there. Both are on friendly terms with their uncles, and often visit them. The niece is married and the information we get about her husband is bound to interest us. He is something of a ne'er-do-weel, a clever man gone to the dogs. He has no settled abode. He and his wife live apart. She lives with her parents in Paisley. He also visits occasionally at the house of the deceased when he is in Edinburgh, but usually only when he is hard up. The elder of the deceased brothers occasionally helps him. In fact, he called at the house yesterday forenoon, the day of the murder, and the elder brother saw him in the library. There were angry words between them, though the maid did not hear what was said, and when the elder brother saw the visitor out, the latter shouted angrily from the gate that he would be back again. So far as the maids knew he did not come back. We find that this is not the first time there has been a row when this man called, particularly between him and the younger brother, for both have violent tempers, and the younger brother, on one occasion, actually threw him out of the house.

Now, this at least is something tangible. A man of doubtful character, violent and vindictive, asking help and being refused, threatening to come back again. Let us consider the possibilities here. He may have returned after the maids were in bed. Then he would have been confronted with the younger brother who has assaulted him before and may assault him again. He renews his appeal and is again refused, perhaps threatened with violence. In fury and revenge, but astute enough to avoid uproar, he attempts to drop poison into both men's glasses, and does actually introduce it into the elder man's glass. Before he can dope the other glass the elder drinks and collapses. The younger man attacks the murderer, and the latter, having now to silence him at all costs, draws a pistol and shoots. So we reason. There is much to be explained, no doubt, but such a theory is not out of line with the facts.

Now, we will examine the outside of the house all round as carefully as we examined the interior. Only one thing do we find, but it is important. In the soft ground of a flower bed outside the dining-room window at the front there is the print of a man's left foot. It points towards the window. A person with his foot in that position could rest his hand on the window sill and look in or listen. The footprint is clear cut, and across it, about two inches from the toe, there runs a well defined ridge. That indicates, of course, a patch on the sole, the point at which a toe-piece joins the main sole. We must cover this carefully with an upturned box, and give instructions to have a plaster cast taken at once. But we will also examine at once all the boots and shoes in the house to discover whether or not one of them made the print. We find none. More evidence of the presence of an outsider, and another nail in the coffin of our original theory.

That fragment of handkerchief may be another, so we must press the experts to tell us first of all whether a laundry mark or other means of identification is decipherable. Yes, by the greatest good luck—and I am going to see that in this enquiry we have a run of luck that does not often attend us—part of a laundry mark has been revealed through the blood-stain, the letters CX. No doubt a number accompanied it, but the number is gone. We ask to see the family laundry mark. There is no resemblance. The handkerchief of which this is part is also an intruder. Clearly, we must widen the scope of our enquiry.

We now ask our Firearms Department to search their records for a revolver of the description and number of the weapon we recovered. At the same time we set all our resources at work to visit laundries throughout the city in search of the laundry mark, and to enquire at museums, antique and curio dealers, private collectors and the like for the stone implement we found on the floor. The authorities of the Museum of Antiquities and leading antiquarians generally will be able to offer valuable hints, and perhaps help. We will also broadcast the same information to all other forces, asking that similar enquiry be made within their bounds. Certain of our colleagues will undertake an enquiry in the neighbourhood for any person

seen, any motor-car on the move, or any sound heard that may help us. While awaiting the result, I think we will call on the visitor of last night at his office, and we must remember that, as far as we yet know, this was the last man in the deceaseds' company.

We study the gentleman's demeanour closely when we meet. Does he appear in the least uneasy or nervous? If so we make contact cautiously, as with a possible suspect. But we find him frank and open, knowing already what our visit means, and genuinely distressed. He tells us all he can of his visit. It was merely a friendly call such as he makes every week. Both brothers were present, seemingly on the best of terms, and he left them so. They all had a drink together. Three glasses? Yes, but we remember that there were only two found on the table. Did he leave his own glass on the table when he came away? He certainly did. He left three glasses on the table. Of course, one of the brothers might have put away his glass while retaining their own, but it was not likely. What can be the meaning of this, and of all the other signs we have already noted that suggest the brothers were alone when the tragedy occurred? Have appearances been deliberately camouflaged in the hope of misleading us?

Another point occurs here. Keeping in view the probability of another visitor after this gentleman left, we turn our thoughts to the quantity of liquor left in the bottle. We question him about this, and he tells us it was a fresh bottle, uncorked for the first time. This makes our task easy. Later we make an experiment and find that six glasses altogether have been taken from it, three after this visitor left, one for each of the two brothers—but who had the third?

Bearing in mind that mudstain on the carpet we question him as to the state of the weather and the streets, how he approached the house, and whether he stepped on soft ground. He is confident he did not. When a fact like this emerges, so very ordinary and certain to be forgotten, yet possibly important, it is well that our witness should be brought face to face with it at the earliest possible moment, so that he may set his recollection to work while memory has

a chance, and recall the facts, firmly and finally. Then he will not forget.

Our witness tells us that he left the house at 10.30, the younger brother accompanying him to the door and locking it behind him. Obviously no more visitors were expected. But we remember the maid found the door unlocked this morning, therefore someone must have been admitted after this visitor left. Our thoughts naturally revert to the ne'er-do-weel husband, for he said he would be back.

Now, we must know whether he saw anyone as he left the house, or saw anything at all that might suggest another visitor. Yes, about 200 yards from the house he met a young man walking towards it. As they approached, the man had the light of a street lamp on his face, and our witness looked closely at him, wishing to know if it was someone he knew. He supplies us with a description, taken very carefully and as minutely as possible, but we must not suppose that a first description is final. It is essential, indeed, that an important description should be overhauled more than once. We urge him, therefore, to bring all his powers of recollection to bear on that face and figure while recollection is fresh, and to note down every detail as he recalls them. As he does so his recollection will probably become more vivid. We will see him later and find out what progress he has made, and to stimulate him we remind him that he may be yet called on to identify that man.

Though we seem to have made up our minds that this gentleman is free of suspicion, we will have a look at the soles of his shoes all the same, and will even ask him to accompany us home to show us those he has there. We are on the outlook for toe-pieces on the soles, but find none. While in the house we ask to see the laundry mark. It is quite different from that on the fragment of handkerchief.

Let us hope the old gentleman is not annoyed, but whether he is or not we must go through with it. We are taking nothing for granted. We must never do so.

Now we have reached the point at which we must concentrate on what seems to be the certainty of a second visitor admitted by one or other of the deceased, a visitor who was

kindly received and invited to drink. And who is likely to have been admitted after 10.30 p.m., and so received, but someone they knew well? The ne'er-do-weel husband still fills the rôle, but we must not overlook the possibility of others, so I think we must add all the further information we can to the knowledge we already have of the deceaseds' private affairs, and their relationships and contacts with friends and relatives generally.

It is well to begin an enquiry of this kind by an overhaul of the deceaseds' papers and correspondence, if there are any. Another question that is always of first importance in dealing with the violent death of a person of means, or of one whose death would in any way benefit another, is "who profits by this man's death?" This, too, the papers should reveal, so we will now return to the house and go carefully through all papers. This is a matter of some delicacy, and I think we will go to the deceaseds' solicitor and invoke his help. We shall usually find that a shrewd and trustworthy solicitor will enter into an enquiry of this kind with keenness, and his trained legal mind will make his help invaluable.

He can tell us at once who profits from the brothers' deaths, for he drew up their wills and has them in his possession now. The younger brother leaves his money to charities; the elder to the brother in Paisley, the nephews and the niece. There is no great disparity in the sums left to each, but the solicitor tells us that these sums will be substantial. Nothing is left to the niece's husband, but his wife will benefit materially, and the solicitor agrees that a man of his character may be relied on to see that what benefits his wife benefits him also. Now, all this is important, provided (1) that any of the beneficiaries knew these facts, and (2) were in urgent need of money. On these points the solicitor cannot help us.

With the solicitor we return to the house and start an examination of the papers in the desk. Here we find various letters from both the nephews and the niece to their elder uncle, thanking him for the provision he says he has made for them. Apparently he has notified them all. We must take possession of all these letters. Who knows but that one or other of them may yet prove an important link in our chain of evidence.

INVESTIGATION OF A MURDER CASE 231

Here, too, we find a letter from the ne'er-do-weel husband to the elder uncle, dated a fortnight previously, in which he asks for a little help. He says he has just been to Paisley, but his father-in-law would do nothing for him. However, he got that in Paisley by which he will bring the father-in-law to his senses yet, and he adds—"If I am not better treated by all of you in future I will use it in a way that will stagger you."

This is a most important letter, and we must secure it. It contains a threat, obscure perhaps, but as our enquiry proceeds it may become clearer.

We also find a letter from the nephew in Glasgow, dated a week ago to his elder uncle, in which he says he intends to call on his uncle very soon, for he has a very important matter to discuss with him. We will take possession of this also.

At this point our analytical expert intimates that the poison that caused the elder man's death has been identified. It is morphine. It was contained in his drinking glass. There is no trace of poison anywhere else.

We must immediately institute an intensive search, first in Edinburgh, Glasgow and adjacent towns, but later over a much wider area, with the view to tracing it. It may be a hopeless task, for in all probability it was procured from some private source.

The result of the fingerprint examination is also now available. On the butt of the revolver there are two fingerprints decipherable, and these are not the fingerprints of either of the deceased. We get photographic copies of these. Both the glasses, the bottle and the syphon bear the fingerprints of the elder brother, which merely shows that he was doing the honours.

Our enquiries in Edinburgh as to the revolver and the laundry mark have yielded no results, but now there comes a message from Paisley that the deceaseds' brother who lives there is the registered owner of a revolver of the same make and number. This important news will cause us to go personally to the west. At a conference in Glasgow we review the whole facts so far ascertained, and leave our Glasgow

colleagues to concentrate on the nephew who lives there, while we go down to Paisley. Accompanied by a local officer, we go straight to the house and confront the gentleman in question. The Paisley officer, being a shrewd man, approaches the subject cautiously. He tells the gentleman that he is checking up on all Firearms Certificates, and would he please show his own certificate and the revolver and ammunition to which it refers. Now we are face to face for the first time with an antagonistic witness, and, while our investigator looks him steadily and firmly in the face for a moment or two in complete silence, which will tell him, perhaps more clearly than words, that we have his measure and he had better be careful, I should like to offer again a few words of advice.

When confronted with a hostile witness, reluctant to speak out, ready to prevaricate or to mislead, let us above all things be patient. Show no anger, no irritability, no haste, but at the same time be firm, forceful, relentlessly persistent. A calm, firm voice, a grave aspect, an earnest, steady, searching eye that holds the eye of the witness, quick to notice and interpret every change of expression, all these will help immensely. It is difficult to trifle with such a man, but some men by their uncertainty and hesitancy, their halting speech, their fidgety irritation when they don't get the answer they want or expect, simply invite prevarication in a hostile witness. But do not let us assume that a halting or uncertain witness, or one in whose statement discrepancies appear, is necessarily an untruthful witness. His very anxiety to speak nothing but the truth, hampered by faulty recollection, may be the cause. On the other hand, be on your guard against the glib and plausible witness, one who fawns upon you, apparently keen to help. He will never be at a loss. He will always be ready with an answer or an explanation, but he will be equally ready with a lie. And of course the witness who is always asserting his own truthfulness is also one to be mistrusted. I am sure we must all have heard the vehement protestation, "May God strike me down dead if that's not the truth." We may usually assume with safety that that is a lie.

Space will not allow me to go into all the interesting details of the thrust-and-parry interview we have with the

Paisley gentleman. I must content myself with summarising the results.

The revolver in question belongs to this gentleman. It was kept, along with two boxes of ammunition, in an unlocked drawer in his bedroom, and it and one of the boxes have disappeared. They seem to have been taken away some time within the last three weeks. The house has not been broken into, other drawers have not been turned out, nothing else has been stolen; therefore, we argue, this was not the work of a casual outside thief. We shall look for him first within the family circle, and if we find him we may then and there find the murderer. But let us secure as productions the remaining box of ammunition and the Firearms Certificate.

Well, what of the Paisley people themselves? What were their movements on the night of the murder? They were all at a party at a certain gentleman's house. The Paisley officers soon verify that. In testing a statement of that kind one must be careful to get the information in a way and through channels that will get one behind any possible attempt to stage a false alibi. But here the Paisley people seem to be definitely out of it, for their laundry mark is different, neither are there any toe-pieces to be found on the soles of boots or shoes.

Then the young man in Glasgow and the ne'er-do-weel husband. When did either of them visit here? We find that both of them have been in the house within the period fixed for the disappearance of the weapon, the Glasgow man on several occasions, the ne'er-do-weel husband for about a couple of hours ten days ago.

Our suspicions are bound to turn towards the ne'er-do-weel. We recall the letter we found in Edinburgh, written just after his visit to Paisley, the threat he made, the mysterious reference to something he had got in Paisley by means of which he would stagger them all yet. What should this be but the revolver itself?

This being the most promising line of enquiry at the moment, we must follow it up energetically. It is unwise, however, to concentrate entirely on the object of immediate suspicion, to the complete exclusion of other possible solutions, more remote perhaps, but still possible; so we will inform

our Glasgow colleagues of the latest developments and leave them to pursue their enquiries regarding the young man there, while we set about locating the ne'er-do-weel. When last heard of he was canvassing for a firm of book publishers in Dundee and in lodgings there.

We go to Dundee, get experienced help, and call at his lodgings. He has left there, and the landlady does not know where he is. He left the week-end before the murder, and, as the landlady has not seen him since, there is no use asking her whether he had a bruised face recently, as we would otherwise have done. But it might help to see her laundry mark. It is a different mark.

However, she can tell us the firm he was employed with. We call at the office and get his address. I do not think we will interrogate his employers further at this stage. We have his address, we shall soon know whether there is anything in our suspicions, and until then we need not unnecessarily prejudice the man with his employers. A detective officer should always think of that.

Having found him, we note in the first place that in a general way he answers the description of the man seen in the vicinity of the house on the night of the murder, except perhaps that he seems a little older. Now, we must caution him before we question him. He is definitely an object of suspicion to an extent that would make it improper to question him without caution. We examine his linen for laundry marks, we examine his shoes. Nothing doing. I think we will take him to the Police station, where we can question him more conveniently, and, shall I say, more effectively.

He tells us of his visit to Edinburgh, of his call at the house on the forenoon of the murder, and admits that when leaving he shouted he would be back. But he did not go back, for he had to catch a train that afternoon for Montrose, where he had some calls to make. He stayed the night in Montrose, and he tells us the boarding house he stayed in. Did he book any orders? Yes, three. We must get particulars of these, and communicate the whole information to the Montrose Police for verification. While waiting a reply we will question him about the letter he wrote the deceased, and the meaning of the

threat it contained. He says that what he found in Paisley was a letter in what he considered was compromising terms from another man to his wife. He meant to use this as a lever against her and her father. It was not a weapon he meant. Can he produce this letter? He can, and does.

Next we may ask him if he will consent to have his fingerprints taken. We cannot force this, but when he knows we wish to test it against the fingerprints on the butt of the revolver, of which we have a photographic copy, he has no objections at all. The prints are taken and compared. They are not identical. A reply now comes from Montrose. His statements are correct. He booked an order there at 9.15 and spent the night in the boarding house he named. The landlady knows him.

The ne'er-do-weel husband now passes out of the picture. We ring up the Procurator Fiscal and with his concurrence discharge him. But we are not beaten yet. A good officer never allows himself to be discouraged by the failure of a promising clue. He will turn with just as much energy to the next.

Returning to Edinburgh, we get in touch with our Glasgow friends, and, as we might have expected, they have been making great progress. They have ascertained that the nephew is of extravagant and reckless habits; that he bets a good deal and dabbles a little on the Stock Exchange; that in both respects he has had rather heavy losses of late, and further, that he is already trying to raise a loan from a money-lender on the strength of his expectations under his uncle's will. This is just the sort of information we want. They have also located the laundry with which his landlady deals, and have found that the portion of mark left on the fragment of handkerchief is identical with the similar portion of her laundry mark. Of course, in the absence of figures, it cannot definitely be brought home to her, but it is exceedingly helpful as far as it goes, and, if necessary, we will trace all the people who carry the letters CX and test all of them. A process of elimination such as this is sometimes a laborious business, but it has yielded good results.

Very wisely, the Glasgow officers have not yet attempted

to approach the landlady herself, for if they did so, an indiscreet woman would almost certainly tell him of it, and we are not yet ready for him to know.

We will now place these additional facts before the Procurator Fiscal, and with his concurrence prepare for our next move. It is, that we proceed to Glasgow with the visitor of the evening of the murder, pursue certain enquiries, and, if these justify it, attempt an identification.

Our first call will be on the landlady, making sure we do so when the suspect is at business. We ask to see a handkerchief belonging to the suspect that bears a laundry mark, and we satisfy ourselves that the mark corresponds to the part decipherable on the fragment of handkerchief. We should also procure samples of these handkerchiefs, for we must ask our experts to examine the fibre and texture, and, if possible, prove the fragment identical in texture and make with one of these.

We question the landlady as to her lodger's movements on the evening of the murder. She tells us he was away from home that night. He told her the previous day he would be out with friends. Did she notice any injury on his face when next she saw him? Yes, his mouth and nose were bruised and swollen next day. He said he had been helping to put a drunk man off a car, and the man had struck him. We will ask her if there are any firearms in the house, or if she has ever seen any. Well, she did see a revolver in the lodger's drawer one day about a fortnight ago. We search the drawer and all his other drawers. It is not there now. The landlady cannot say when it disappeared. But in the drawer we find a box, now containing twenty cartridges, five having been taken out. The first thing we must do is to compare them with the box and cartridges we brought from Paisley. Are they identical? They are! Next, the cartridges with which the revolver was loaded. They, too, are the same make and calibre. Of course, we take possession of this box, and also of any letters or papers we think may help us. We must search his room thoroughly for the shoes that made the footprint, but find none; for poison in any shape or form; for letters, invoices, or any other documents that prove or suggest the purchase of such.

Though we find no trace of poison, we find something that is almost as important—a student's text-book on Forensic Medicine, and the corner of the page dealing with morphine poisoning is turned down. What does this tell us? It tells us that he is interested in poisons, that in particular he has been studying morphine poisoning; and it was morphine that killed his elder uncle. We take possession of the book. The scent is getting very warm.

Now, I think the situation is ripe for our next move. As the closing hour of the suspect's office approaches we will post the witness we brought from Edinburgh where he can see and scrutinise everyone who enters or leaves, if possible without being himself seen, and should he see the man he met on the night of the murder or anyone resembling him, he will point him out to us. If we get our man identified under these circumstances it will be an unchallengeable identification, superior to any identification parade.

Let us suppose our witness says to us, "That man coming towards us wearing the light coat and carrying an umbrella is the type of man I saw. The height, build and gait, the way he handles his umbrella, are similar." As he gets close, "That is the type of face I saw in the lamplight. I will not positively swear he is the man, but I feel very strongly that he is." We move out and stop him, and with our eyes riveted on his face to note every change of expression, and incidentally any hostile move, we ask his name. We note the sudden start, the shrinking look, the obvious pulling of himself together. He gives us his name. It is the suspect.

We signal our Glasgow colleague and arrest him. We must tell him at once what we are arresting him in connection with, that we mean to take him to the Police Station, where we will put certain grave questions to him, and caution him right away.

At the Police Station we repeat the caution. We ask him to account for his movements on the evening of the murder, tell him we have evidence he recently had a revolver in his lodgings for which he holds no certificate, that we have found a box of ammunition there, and that we believe he stole both from his father's house. We ask him, too, to account for the bruises on his face on the day following the murder.

No doubt he will be clever enough not to give us anything tangible that we can follow up and disprove. For instance, he will probably say that on the night of the murder he went out intending to meet friends, and had a bottle for their entertainment, but he got drunk on it by himself and wakened up in the morning all alone on a seat in the Park. He then had these bruises. He must have been in a row with someone, but he remembers nothing about it. Certainly he was never out of Glasgow. The different story told to the landlady is easily explained. He did not want her to know he had been outside all night drunk and he had to tell her a feasible tale. He denies he ever had a revolver. The box of ammunition he says he found somewhere, and was going to hand it to the Police. Should he give us any peg on which we could hang an enquiry to disprove these statements, we would of course set about doing it. But he is careful to provide no such peg so we will charge him with the murder of both brothers and ask him if he wishes to say anything. Note his reply in his exact words.

On his feet we find a pair of shoes with toe-pieces on the soles. His handkerchief and collar both bear a laundry mark corresponding to the portion of mark on the fragment of handkerchief. We should make a point of having the handkerchief found in his possession compared in texture and make with the fragment, for if we prove these two identical it is more valuable than proving the fragment identical with one found in his lodgings. We must also endeavour to secure the clothes he wore on the night of the murder, for these must be chemically examined for possible bloodstains.

We must now interview his employers, and here another important piece of evidence awaits us. A week ago a serious defalcation was discovered in his books, and he was given a fortnight in which to make it good or take the consequences. Here is first-class evidence of his desperate need of money. It may not be necessary to prove a motive in a case of murder, but it will help us tremendously if we can, and here we have abundant evidence of motive in his urgent need of money and his knowledge that his uncle's death meant money for him. Curiously enough, we also run the stone implement to earth

in this office. It was used on the cashier's table as a paper-weight, and it disappeared just about the time of the murder. Another wonderful stroke of luck.

We must do our best to get evidence that he went to Edinburgh on the evening of the murder, but I cannot assure you of success. If he returned by the early bus on the following morning we have a much better chance, for there would be few passengers then; but whether we add anything further to our evidence or not, I may tell you now that the fingerprints on the butt of the revolver are identical with the prints of the second and third fingers of his right hand.

Now we will turn to our medical and other experts, for we have quite a series of interesting questions to put to them, which I hope they are in a position to answer.

We will ask them to name the cause of death in each case, and the approximate hour at which death took place. That will not be difficult.

We will ask them to name the poison, and say wherein it was contained and how administered. That they have done already.

Are the dark stains and spots on the carpet and on the fragment of handkerchief bloodstains, and if so, are they human blood? If human blood, can they be said to represent the blood of either or both the deceased, or the blood of another person?

Can it be said that the bloodstains on the carpet and on the fragment of handkerchief represent blood from the same person or from different persons?

Is the tuft of hair in the hand of the deceased human hair, and, if so, can it be proved to be the hair of the prisoner?

Is the fragment of handkerchief identical with the handkerchief found in the prisoner's pocket, or with any of those we found in his drawers?

Now for the replies of our experts.

The drops of blood on the carpet—not the heavy stain from the fatal wound, but the drops—belong to the same group as the bloodstain on the fragment of handkerchief, and may possibly be the blood of the same person. We are warned, however, that it may equally well be the blood of different

persons, for there is no individuality in blood, only group similarity, and different persons may have blood of the same group. It is definitely not the blood of either of the deceased, for theirs is in a different group.

As regards the hair, the expert evidence is that it is human hair torn out by the roots, but the problem is, how to get a sufficient quantity of the prisoner's hair with which to compare it. We cannot compel him to get his hair cut for our benefit, and so perhaps furnish evidence against himself. We must adopt a subterfuge and perhaps I may tell you of a plan that was successfully tried in similar circumstances in a recent case. The prisoner was furnished with a new and absolutely clean hair brush. On the following day it was taken out of the cell, combed and cleaned, and was found to contain quite a lot of hair. Well, we get a good sample of the prisoner's hair, and it is found by all scientific tests to be in every respect similar to the tuft of hair in the hand of the deceased; but I doubt if our experts, being on oath, will go further than to say that it is in all respects similar. They will hardly swear that the two lots are from the same head.

And the same may be said of the fragment of handkerchief. The accused's handkerchief is identical in fibre, texture and make with the fragment. It is of the same manufacture and quality, but, of course, there are thousands of such handkerchiefs in use.

Here, then, are the imaginary facts on which I have based this occurrence.

This young man, desperate for money, came to Edinburgh to try to raise it from his elder uncle, resolved in the last extremity to destroy his uncle if he could not otherwise succeed. He brought with him the stone implement with which to engage his uncle's attention while he introduced into his drink or food, or whatever the available vehicle might be, the poison he also had with him. He carried the revolver stolen from his father's house. He listened at the dining-room window to discover if his uncles were alone. Hence the footprint. The visitor was then in the room, so he hung about till the visitor left, and, as a matter of fact, passed him under the lamp. He was admitted and asked to see the elder uncle

alone, but the younger man, who dominated the situation, insisted on knowing what his business was. He raised the matter of a loan. It was coldly received. As a last resort he told them frankly of his sore need. The younger uncle was furious, and, mainly at his instigation, he was definitely refused, perhaps with a mental reservation to attempt to square the matter with his employers, though he did not know of this. He asked for a drink, and the elder uncle, anxious to restore good fellowship, poured out three glasses. The nephew then brought out the stone implement, which immediately engaged the attention of the two enthusiastic archaeologists. While they discussed it with the aid of their book of illustrations, he managed to slip the poison into the elder man's glass. Before he had a chance to dose the other glass the elder brother raised his, gave "Good Health" and drank. The others had to follow suit. The discussion went on, but presently the elder man began to show symptoms of distress. The younger man, noting the signs and knowing something of poisons, smelt and tasted the glass, and, suspecting the truth, in sudden rage attacked the nephew, seized him by the hair of the head and struck him. The latter drew the revolver and fired. He wiped the blood from his face with his handkerchief and put it into the fire, and then, with some ingenuity, proceeded to stage a possible murder and suicide. He removed his own glass, put back his chair, removed all traces of a third person, but overlooked the mudstain on the carpet and the tuft of hair in the dead man's hand, laid the revolver under the hand of the elder brother who had now collapsed in his chair, struck him a blow on the face to simulate a quarrel, left the stone implement and the book of illustrations on the floor to suggest the cause thereof, and slipped quietly out. He thought he had a fighting chance of getting away with it—but he did not reckon with us.

Wood and Associated Materials in Crime Detection

By DET. SUPT. A. PENTLAND

Forensic Science Laboratory, East Midlands Area

ALTHOUGH much has been written, especially during the last few years, on science and crime detection and other police matters, no attempt appears to have been made to gather together and indicate to the police officer the many and varied occasions in which wood has been, and can be, of major importance.

The present article has been written with the police point of view solely in mind, but the writer is indebted to Dr. H. S. Holden, Director of the East Midlands Forensic Science Laboratory, for his valuable aid on the technical side of the subject, and to Mr. K. Cundy, Laboratory Assistant, for his assistance in the producing of the necessary photographs.

The greater part of the material has been taken from cases actually dealt with in the laboratory, but for the purpose of this article the subject matter only has been used. Although single instances only are given of the different methods of identification, police officers will readily appreciate the extent to which such methods can be adopted. It will also be borne in mind when dealing with all scientific evidence that evidential value will mostly depend upon the variety of material which can be obtained, and its relative distribution (see Home Office booklet 'Scientific Aids to Criminal Investigation').

IDENTIFICATION OF WOOD

Wood is identified by its microscopic structure. This may be determined in one of two ways, *viz.* (a) By thin sections in three contrasting planes (Fig. 1); transverse (Fig. 2), across the grain; radial (Fig. 3) with the grain; and tangential (Fig. 4), with the grain but in a direction at right angles to the radial;

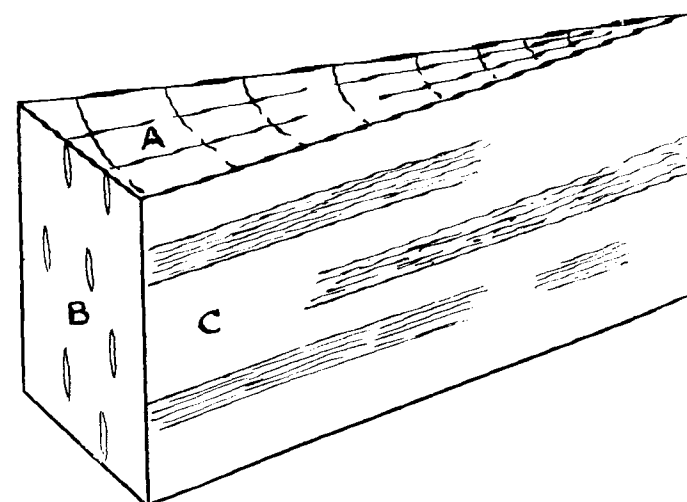


FIG. 1. Sketch of wood wedge showing (a) Transverse, (b) Tangential, and (c) Radial planes of section

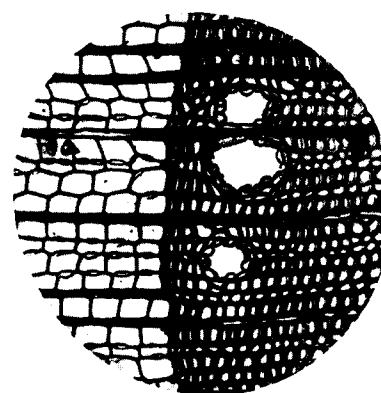


FIG. 2. Photomicrograph of Transverse Section— $\times 130$



FIG. 4. Photomicrograph of Tangential Section— $\times 130$

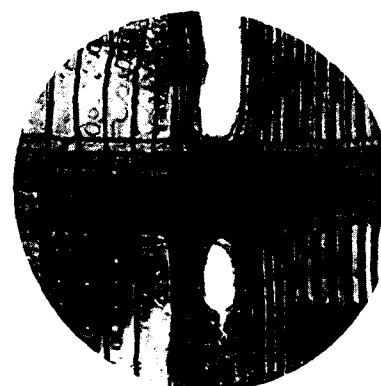


FIG. 3. Photomicrograph of Radial Section— $\times 130$

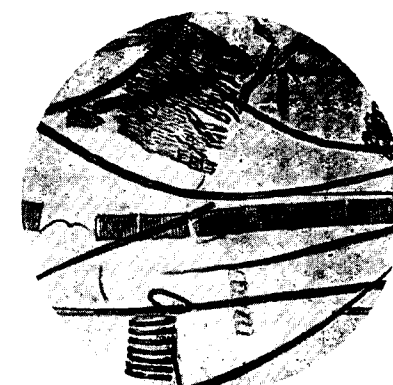


FIG. 5. Photomicrograph of Fibres and other elements resulting from maceration of fragment of Cane— $\times 130$
(face p. 242)



FIG. 6. Continuity of Surface Grain

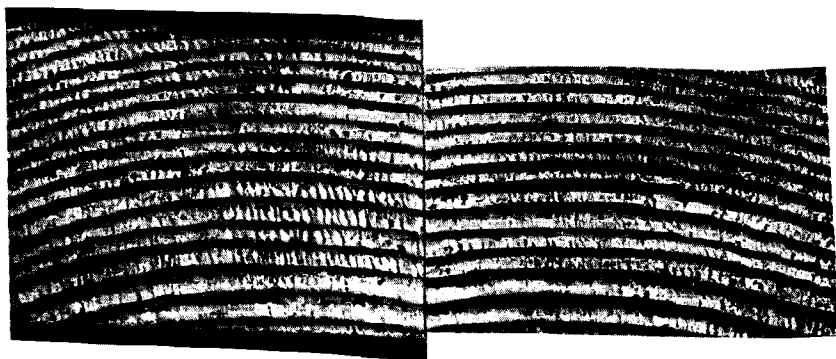


FIG. 7. Matching of Annual Rings

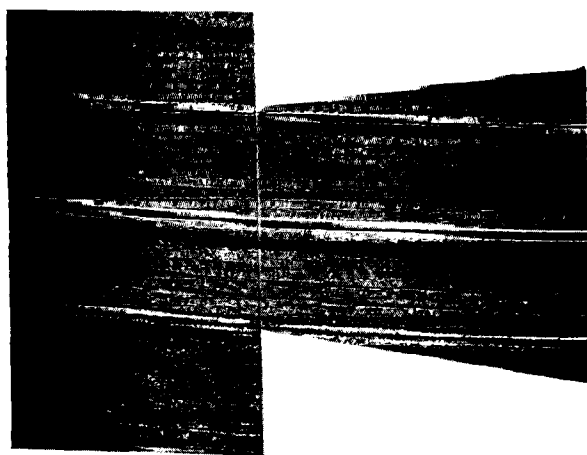


FIG. 8. Matching of Plane Marks



FIG. 9. Photograph of Wood Fragment— $\times 8$

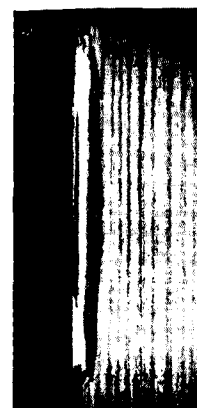


FIG. 10. Photograph of box near lock recess— $\times 8$



FIG. 11. Photograph of Wood Fragment in Position— $\times 8$



FIG. 12. Photographs showing comparison of surface ridges on wood with indentations in cutting edge of chisel— $\times 4$

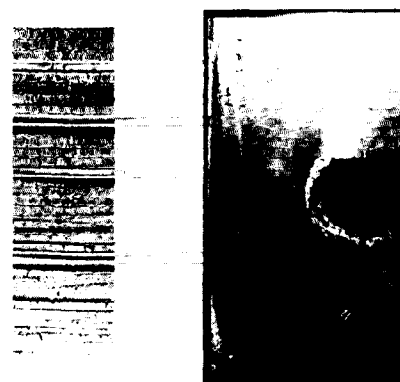


FIG. 13. Photographs showing comparison of surface ridges on wood with indentations in cutting edge of plane



FIG. 14. Photograph of teeth of keyhole saw showing sawdust— $\times 6$



FIG. 15. Photomicrograph of maceration of sawdust from teeth of saw (showing the characteristic medullary ray and pitting of pine)



FIG. 16. Photograph of marks on door and forked end of crowbar



FIG. 17. Photograph of marks on door showing forked end of crowbar superimposed

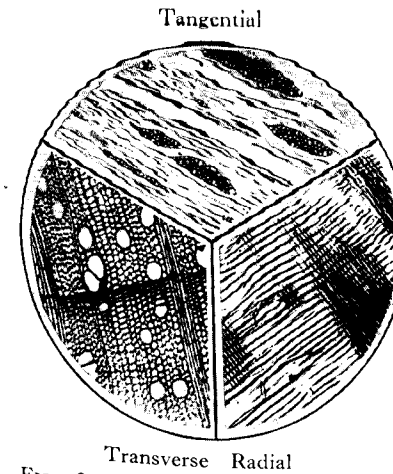


FIG. 18. Sections of Sycamore from Safe Ballast— $\times 130$

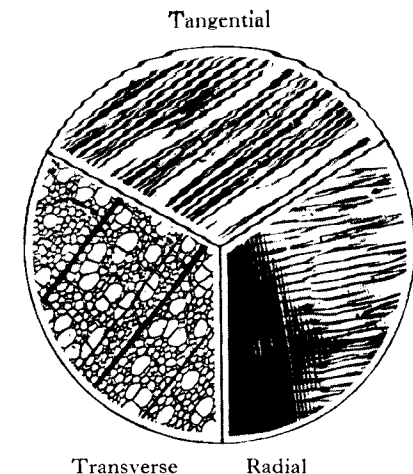


FIG. 19. Sections of Lime from Matches— $\times 130$

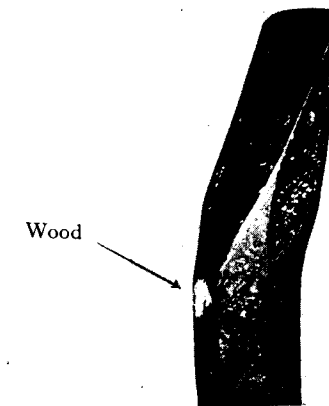


FIG. 20. Jemmy—showing fragment of Wood adhering

and (b) By maceration (Fig. 5), *i.e.* the separation of the wood into its constituent fibres and elements.

METHODS OF MATCHING WOODS ORIGINALLY BELONGING TO ONE AND THE SAME PIECE

'A' is suspected of housebreaking. At scene of crime is found a wooden wedge. In suspect's possession is also found a wooden wedge. The following methods prove that the two wedges originally belonged to one and the same piece of wood:—GRAIN. Continuity of the surface grain (Fig. 6). ANNUAL RINGS. Matching of annual rings at ends of both wedges (Fig. 7) as to relative position, width and prominence. PLANE MARKS. Matching of characteristic ridges on surface of both wedges (Fig. 8) caused by minute indentations in cutting edge of plane iron. (Oblique illumination is absolutely essential to accentuate the minute ridges.) In addition, identification of species of the wood is made.

MATCHING OF WOOD FRAGMENT WITH ORIGINAL PIECE

'B' is suspected of stealing a wooden box and contents. The box has been found in a garden with the lock forced off. B's premises are searched, and on the sitting-room floor are found three fragments of wood. The wood of the box and one fragment (Fig. 9) are identified as Weymouth pine. In addition it was proved that this one fragment of wood originally formed part of the box and had become detached from the front part of the box where the wood was recessed to take the lock (Fig. 10). The enlarged photograph (Fig. 11) shows the wood fragment in position.

IDENTIFICATION OF TOOL BY COMPARISON OF SURFACE RIDGES ON WOOD WITH INDENTATIONS IN CUTTING EDGE

'C' is suspected of housebreaking. Search of the house is made and a mark 1 inch wide is found on the top edge of a mahogany drawer. Microscopic examination of this mark, caused by a 1-inch instrument, reveals minute characteristic ridges. 'C' is later arrested and charged with 'loitering with intent', and in his possession is found a 1-inch joiner's chisel. On microscopic examination characteristic indentations are

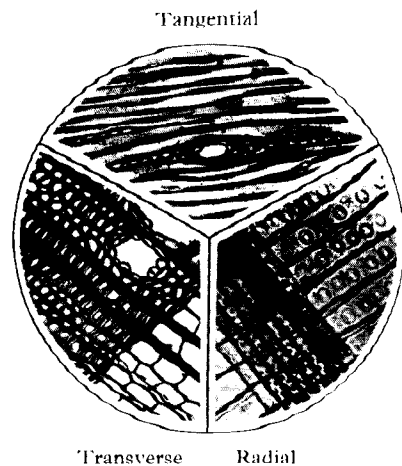


FIG. 21. Sections of Larch from Jemmy—
130

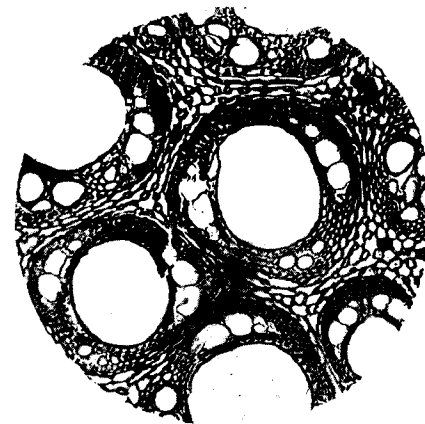


FIG. 23. Transverse Section of Cane Fragment—
130



FIG. 22. Sections of Mahogany from
Clothing—
130

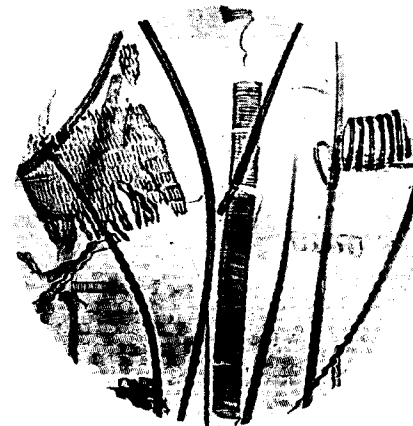


FIG. 24. Photomicrograph of Maceration of
fragment of cane from clothing

found on the cutting edge of the chisel completely agreeing in measurement with the surface ridges on the drawer. (Again oblique illumination is used when photographing the surface of the wood.) See Fig. 12.

Identical methods of identification also apply with regard to indentations on the cutting edge of a plane iron (Fig. 13).

SAWDUST

'D' is detained on suspicion of breaking and entering a dwellinghouse. In his possession is found a keyhole saw. Naked eye examination reveals fragments of wood adhering to the teeth of the saw (Fig. 14). These fragments are identified as pine (Fig. 15), identical with the wood of the door in which a hole had been sawn near the lock.

INSTRUMENT MARKS

'E' is arrested charged with 'loitering with intent'. In his possession is found a crowbar. He is suspected of breaking and entering a building a week previously. The forked end of the crowbar is found to agree in characteristic detail with marks on the door attacked (Figs. 16 and 17). The flat end is also found to agree in detail with other marks on the door.

SAFE BALLAST

'F' is in custody charged with warehousebreaking. A safe has been forced. The safe ballast consists of sycamore sawdust and fragments of sycamore wood, with occasional brass filings and steel turnings. Prisoner's clothing is examined and in the turn-ups of the trouser legs are found fragments of sycamore wood and sawdust, with occasional brass filings and fragments of steel. Fig. 18 shows the characteristic structure of sycamore.

MATCHES

'G' is arrested charged with officebreaking. The offence was committed during the night. Several spent matches were found on the premises, and these were identified as lime (Fig. 19). In prisoner's possession was found a box of matches, also made of lime.

WOOD FOUND ON INSTRUMENT

'H' is in custody charged with 'loitering with intent', and is suspected of having broken into a shop the same night. In his possession is a one-inch jemmy (Fig. 20) and adhering to this is a bruised or crushed fragment of wood identified as larch (Fig. 22). Examination of the premises attacked revealed that the cash till under the counter had been forced with a one-inch instrument. The cash till was also made of larch.

WOOD FOUND ON CLOTHING

'J' breaks into a house and forces open a mahogany bureau drawer with a chisel found on the premises. He is arrested some short distance from the house in possession of the stolen property, but in a statement, although admitting the possession, denies the breaking and entering and stealing. On his clothing are found fragments of mahogany (Fig. 22).

FAILING TO STOP AFTER ACCIDENT

'K', the driver of a motor-cycle combination, knocked down a pedestrian and drove away. The injured man was taken to hospital and his clothing was examined. Adhering to his jacket sleeve was found a fragment of tough fibrous material identified as cane (Figs. 23 and 24). 'K' is later traced and his sidecar is examined. The beading of the sidecar, which had been fractured, is identified as cane.

* * * *

From the foregoing illustrative examples it will be evident that numerous cases occur in which the expert examination of wood may prove of value in completing a case. Doubtless other applications to which reference has not been made will suggest themselves to investigating officers. Among these may be mentioned the significance of fragments of plywood and veneers, the marks of different types of saw on wood surfaces and the nature of the sawdust produced.

In conclusion, although rather apart from the rest of the data in this article, it may be pointed out that the identification of slippery elm bark offers a somewhat parallel instance to the cases already dealt with.

Police Education

By SUPERINTENDENT GEORGE SCOTT

Wigtownshire Police

WHILE the appeal through might is at present rampant in the world's affairs, within our country it is being less and less resorted to with the passage of the years.

At one time there was a definite gap between the police officer and citizen, much the same as that which existed between the school teacher and the pupil. But of recent years both the police officer and the teacher have come to realise that the greatest and best discipline is self-discipline, and not that which is impressed from without. The police officer in the exercise of his duties, just as the teacher in the exercise of his, is now beginning to place greater emphasis on making crime and delinquency impossible rather than perfecting the machinery for their detection. Slowly the "belt" is going out of fashion in teaching circles. And we see evidence as the years go by that the baton is following suit.

Few would disagree with the ideal of fostering a large measure of self-discipline in our communities; but the road to the goal is one which is fraught with many hazards and difficulties. And yet if the Police Service is to reach the heights towards which it is patently moving, an effort must be made to open the way to this very desirable objective. How is this to be done?

There seem to me to be two necessary requirements. First of all, all efforts to raise the prestige of the Service should be encouraged, so that the best type of manhood, both physically and mentally, will be attracted. Self-discipline can only be fostered in the community under the supervision of men who have themselves in hand, and who, within themselves, have a more potent corrective for right living than the "rod of affliction."

In the second place there is the prime necessity of an

enlightened education. A survey of the past made it clear that more and more as the years rolled on was recourse made to educational instruction, and the efficacy of this policy is surely proved by the honourable position the Police hold in the communities of to-day. It is a fair prophecy that in the years to come educational requirement will be much more emphasised. Self-discipline can never take root and flourish among the masses if their supervisors are without some measure of education and culture. The ideal police officer is the one that exemplifies the old adage "*mens sana in corpore sano*"—a healthy mind in a healthy body.

The special type of education to be given to the Police, at the lower stages at any rate, will probably provoke little difference of opinion; but in the future we must visualise an educational process of a prolonged nature reaching up to the highest ranks, and here there will probably be considerably less uniformity of view. A comprehensive course in oral and written English must certainly be included.

A further subject which I think will take a central place in the police curriculum will be Psychology, or the study of human behaviour. If the police officer of the future is to be the guide, philosopher, and friend of the community—which is no impossibility—he must be able to lay himself alongside people of vastly varying types, and study his community with sympathetic understanding. Indeed, self-discipline can only be attained in an individual or a community if the varied psychical reactions are properly appreciated. To the police officer of the future, culture, tact, and a knowledge of the subtle and complex make-up of the human mind will be the trump cards. A study of psychology will show that where delinquent habits are broken something of a socially desirable nature must be supplied to fill the gap, otherwise the criminal tendency will simply break out in a different, and probably more subtle, direction, which will be all the more difficult of detection.

The police officer of the future will look upon crime not as being the outcome of a defective moral sense, but as a mental or emotional defect. To him, the criminal will be a sick man who must be cured. The cure will never be properly effective if all that is done is to remove the opportunity for further crime

or to make the penalties so severe that the potential criminal will prefer the lesser of two evils and decide to go straight. There will be a long period of waiting and watching at the unfortunate's bedside, and thereafter a prolonged period of convalescence.

Take this everyday occurrence. A respectable lady of means steals a comparative trifle from a shop counter. The method of dealing with such a case, even at the present day, is to impose a fine. Surely the canker in such a case is a psychical one, and only a temporary relief is obtained through having the person before a magistrate and imposing a fine. Crime and Delinquency, more clearly day by day, are coming within the ambit of scientific thinking and practice, and this development should be made clear to everyone in the Police Service.

Society is ever growing more complex, and a natural corollary is the increasing difficulty for humans to curb their natural desires and attune them to the requirements of the societies they may find themselves in. Each individual has to make some readjustment and arrive at some suitable compromise between the forces of society on the one hand and his own impulses on the other. Most of us manage to make this readjustment without falling foul of the law, but many people occasionally "kick against the pricks." It might well be that without a true knowledge of the underlying causes more harm than good might be done through ignorant police action.

It is not too much to hope that in future there will be a Chair of Criminology and Delinquency in our Universities. Crime and Delinquency are matters of the most intimate interest to the public, and more and more it is becoming plain that their causes are often not what they seem superficially, but that they have their roots buried deep down in mental and emotional abnormalities. The search after the causes, then, becomes the job of the trained expert. C.I.D. officers and other higher ranks of the Police Service might avail themselves of such a course to their great advantage.

The Expert and the Fowl Thief

By SERGEANT W. E. BRITTON

East Sussex Constabulary

DURING the night of October 7th, 1938, sixteen fowls were stolen from a poultry farm adjoining the Lewes-Brighton Road, Falmer, about four miles from Brighton, in the East Sussex Police District. The theft was discovered by the owner when visiting the farm on the morning of the 8th. About twenty yards from the road he found the carcass of a cross-bred Light Sussex pullet—minus its head, which had been wrenched off. He also found the door of one of the fowl-houses open, and inspection revealed that the birds housed therein had been stolen. Lying within were the heads of six of the birds, each one having been pulled from the body. Blood and feathers were much in evidence, and further examination revealed bloodstained feathers adhering to the barbed-wire fence separating the farm from the road, and on the road itself. The missing birds were, with one exception, cross-bred Light Sussex pullets, the remaining one being an old Rhode Island Red hen. The owner at once reported the facts to the East Sussex Police, who circulated the information, among other places, to Brighton.

At about ten o'clock on the evening of October 7th, a local man left his car in a yard at Brighton, and returned for it during the early hours of the 8th. He at once noticed that the engine of the car was switched on and that the handbrake was off; whereas he had left the former off, and the latter on. Some of his petrol, too, had been used. During the evening of the 8th he noticed, for the first time, feathers and bloodstains in the back of the car. Now perfectly satisfied that some unauthorised use had been made of the car in his absence during the night of the 7th, he reported the matter to the Brighton Police, who took possession of the feathers—some of which were bloodstained, and a sample of the blood itself.

Enquiries were at once commenced by Brighton officers, and these led them, the same evening, to a local public-house, upon entering which they heard someone say, "Does anyone want to buy a chicken?"

Information was obtained that a man named Stapleton had offered to sell the licensee two fowls that day, but that the latter had declined the offer.

Evidence was also forthcoming that a man named Pither had sold two fowls that evening for 4s., and that the purchaser had resold one to a person unknown. The second was seized by the detectives.

Stapleton, who was present, was questioned concerning the fowls he had offered the licensee; but denied having done any such thing. He told the detectives that if they thought he had stolen some fowls they had better prove it. His house was searched and some feathers were discovered on the floor of one of the rooms. An officer took possession of these. When confronted with them, Stapleton suggested that his children may have been playing with a feather pillow. He was arrested on suspicion of being concerned in the fowl theft at Falmer.

Another witness was found who had been informed by Pither that he and Stapleton had been out during the night of the 7th, and had obtained some chickens. They returned to Brighton, he said, soon after midnight.

Later that night, the Brighton officers visited Pither's house and asked him to account for the two fowls he had sold in the public-house that evening. He hedged for a time; but his house was searched and a plucked fowl was found in the larder. This, too, the detectives seized, together with a sample of feathers which they found in the dustbin. Pither then said that he bought three fowls that morning for 2s. from an unknown man at the public-house mentioned. He also was arrested, on suspicion of complicity with Stapleton.

On October 9th the prisoners were handed over to the East Sussex Police, charged with the theft of the fowls at Falmer. Stapleton made no reply to the charge; while Pither adhered to his previous story, adding that he had raffled two of the birds in the public-house for 4s.

Brighton police followed up their good work by making

a further examination of the motor-car mentioned, and on the inside of the front offside window was found a finger-mark. This was photographed, and, later, New Scotland Yard were able to say that this impression was identical with the impression of Stapleton's left middle finger. Stapleton is, by occupation, a lorry driver.

Another witness also was found to whom a fowl had been sold by Stapleton.

On October 10th, the carcase of the fowl found on the farm, and the one recovered by the Brighton Police at the public-house, together with the samples of feathers found at the prisoners' houses and in the motor-car, were handed to experts at Lewes, for examination. To assist in this respect samples of grain and turf were taken from the farm at Falmer.

The examination of the two birds, the grain and the turf, was undertaken by Mr. W. P. Blount, Chief Veterinary Officer of the East Sussex County Council. For purposes of comparison, I will refer to the bird found on the farm as bird No. 1, and that recovered in Brighton as bird No. 2. The examination and comparison of the contents of the crops and gizzards revealed the following interesting facts:

Contents of Crops

BIRD NO. 1	BIRD NO. 2
Several species of moss.	Several pieces of moss.
Three snails.	One small black beetle.
Several fine grass leaves.	Several fine grass leaves.
Some mash.	Some mash.
A few clover leaves.	A piece of wheat haulm.
A mixed sample of wheat, of poor quality, containing both broken and whole grains, mostly whole.	A mixed sample of wheat, containing one or two broken grains only, remainder being whole.
A mixed sample of maize, all of which was split, containing some red and some white, but mostly yellow.	A mixed sample of maize, nearly all split, containing a few red and few white grains, remainder being yellow.

It was thus seen that nine items were common to both crops, *viz.* moss, fine leaves of grass, mash, whole wheat, broken wheat, red maize, white maize, yellow maize and split maize.

Contents of Gizzards

BIRD NO. 1		BIRD NO. 2	
A few fine leaves of grass.		One or two fine leaves of grass.	
Very small quantity of moss.		—	
A few whole grains of wheat.		Whole and cracked grains of wheat.	
13 pieces of split maize and 45 smaller partly digested pieces.		57 split and partially digested pieces of maize.	
Grit:		Grit:	
Black	125 pieces	Black	29 pieces
Sharp flint	99 "	Sharp flint	46 "
Limestone type	21 "	Limestone type	72 "
Berrystone type	4 "	Berrystone type	—
Chocolate type	14 "	Chocolate type	26 "
Round brown quartz	3 "	Round brown quartz	18 "
White quartz	5 "	White quartz	8 "
Limestone flints	2 "	Limestone flints	21 "
White flint	10 "	White flint	16 "
Brown beach	6 "	Brown beach	29 "
Red stone	4 "	Red stone	1 "
Round porous brown type	6 "	Round porous brown type	2 "
Miscellaneous	71 "	Miscellaneous	161 "
	370 "		429 "

Here it is noticed that the following items were common to both, *viz.* fine grasses, whole wheat, split maize, partly digested maize particles, and eleven varieties of grit.

An examination of the sample of grain from the farm disclosed the wheat to be a mixed sample of poor quality, a few odd grains only being cracked. The maize, too, was a mixed sample, mostly split, and contained a few red and white varieties, the major portion being the common yellow type.

The sample of turf taken revealed the pasture to be made up of fine and coarse grasses, a small amount of clover, mosses and weeds.

Summarising the results of his examination the Veterinary Officer agreed that it could be argued that the finding of whole and split wheat and maize, together with grasses, clover, etc., could not alone be considered as satisfactory evidence, in that such articles of diet are natural for the hen and would, or could, be found in any bird having access to pasture and fed in the normal manner. The finding of moss in both crops he considered more unusual, and, as a matter of fact, at a later

date the Curator of the Royal Botanic Gardens at Kew was able to confirm that a fragment of moss taken from the farm and a portion taken from the crop of the bird recovered in Brighton were of an identical species. What he did consider absolutely conclusive was the contents of the crops and gizzards taken as a whole, particularly as regards the gizzards; for while in a normally healthy gizzard three or four varieties of grit would frequently be found, in this case twelve varieties were distinguished, and eleven of these were common to both. In his opinion, therefore, the two birds had been reared together during the preceding months. A further point to support his contention was the presence of red, white and yellow maize in both crops and gizzards and in the sample taken from the farm, especially as white maize is not nowadays commonly fed.

In the meantime, an examination of the various samples of feathers taken possession of by the Brighton Police, and the carcase of the fowl recovered from Pither's house, had been carried out by Mr. O. R. Stevenson, Poultry Adviser to the East Sussex County Council, with the undermentioned results.

Feathers Found in Car at Brighton

Eleven feathers in all, consisting of four reddish coloured ones, probably from a Rhode Island Red; and seven white with small amount of black, probably from Light Sussex birds, pure or crossed.

Feathers Recovered from Stapleton's House

Eighteen feathers in all, three being Rhode Island Red type; five bloodstained white ones, and ten black and white.

Feathers from Pither's Dustbin

Seven long wing feathers, red in colour, four of which were bloodstained; and a number of small black and white feathers of Light Sussex type, several of which were also bloodstained.

Carcase of Fowl Recovered from Pither's House

A female, probably a Rhode Island Red, judging by colour of feather stubs; and believed to be at least eighteen months old, as evidenced by degree of ossification of the breastbone.

Although unable to swear that the black and white feathers were, in fact, those of Light Sussex birds, Mr. Stevenson was able to say they were of the type one would normally find in birds of that breed.

The prisoners appeared at the Lewes Petty Sessions on October 18th, 1938, elected to be dealt with summarily and pleaded "Not guilty." Twelve witnesses were called for the prosecution and convictions were obtained, Stapleton being sentenced to two months' hard labour and Pither being fined £3 or one month's imprisonment. After the disposal of the case one of the men is alleged to have remarked that had he known beforehand of the exact nature of the evidence to be adduced, his plea might have been different!

Reviewing the evidence in this case, it is possible to see that without the assistance of the experts the prosecution could not have proved conclusively that the fowls recovered in Brighton had in fact been stolen from the farm at Falmer; although admittedly there was a very strong presumption of theft from some place or other. The case thus affords a good example of the value of the expert to the police in crime detection, also of the mutual assistance rendered by forces in this connection; while it is pleasant to record that the Brighton police officers received well-deserved commendation by the Justices for the efficient manner in which they assisted in bringing the case to a successful conclusion.

Police Gold Medal Essay Competition

The Council of the Police Gold Medal Essay Competition have the honour to present their report on the Competition which closed on November 1st, 1938. The subject was:

"JUVENILE CRIME—ITS CAUSES AND TREATMENT."

The number of entries was very much higher than usual, no fewer than eighty-three essays being received. This number has only once been exceeded, namely in the first year of the Competition, 1929. The general standard of the essays, moreover, was very high.

Awards were made as follows:

His Majesty's Gold Medal and First Prize of Thirty Guineas:
 Policewoman Jessie J. Clarey, Melbourne, Victoria, Australia.

Second Prize of Twenty Guineas:
 Police Constable Lawrence Dexter, City Police, Nottingham.

It was decided to divide the Third Prize of Ten Guineas between two competitors whose essays were considered of equal merit, namely:

Corporal R. H. Barker, Royal Canadian Mounted Police, Quebec, and
 Sergeant Frederick Henry Banfield, Metropolitan Police.

The following competitors have been "Highly Commended" for their Essays:

R. P. Wilson, Chief Constable, West Sussex Constabulary.
 Police Constable Williamson, Dewsbury Borough Police.
 Policewoman Dora H. Constable, Leicester City Police.
 Police Constable Stanley William Stepney, Bristol City Police.
 British Constable T. Clogger, Palestinian Police Force.
 Detective Evelyn Wynand Tonkin, South African Police, Sea Point, Cape Town.
 Police Constable Vere Rogers Nicholas, Southport County Borough Police.

The Council, in inviting attention to Rule 2 which has been altered, regret that they have been compelled to reduce for the future the amounts of the first and second prizes from thirty and twenty guineas to twenty guineas and fifteen guineas respectively.

A slight alteration has also been made in Rule 4 in order to bring out the vital importance of strict anonymity. The failure of competitors to observe this rule necessitated the disqualification of a number of essays.

RULES FOR 1939 COMPETITION

1. The Competition shall be held annually and shall be open to serving members of regular Police Forces within the Empire or Mandated Territories. Any question as to the eligibility of any competitor shall be determined by the Council.

2. His Majesty's Gold Medal and a cash prize of twenty guineas will be awarded for the essay which is adjudged to be the best, provided it is considered of sufficient merit, and second and third prizes (of fifteen guineas and ten guineas respectively) will be awarded under the same conditions for the essays adjudged to be next in order of merit.

3. (a) Essays must be the original work of the competitor.
 (b) Essays must not be less than 7,000 or more than 11,000 words in length, and must be typewritten and submitted in triplicate.
 (c) Where a reference is made to any published work the title must be quoted in a footnote.

4. Essays must be submitted ANONYMOUSLY. Each essay must be accompanied by a sealed envelope bearing on the outside a *nom de plume* or motto, and containing inside the competitor's name, rank and address.

5. The Council may at their discretion appoint such persons as they think fit to act as Referees or Judges of the Essays under such conditions as they may prescribe.

6. The award of the Council shall be made public in such a manner as the Council shall think fit, and any essays submitted for the competition and adjudged of sufficient merit may be published by the Council in THE POLICE JOURNAL or otherwise.

Subject of the Essay for 1939

"Discuss the Psychological Aspects of Crime and Punishment"

Essays must be submitted on or before November 1st, 1939, to:

THE SECRETARY OF THE COUNCIL OF THE
 POLICE GOLD MEDAL ESSAY COMPETITION,
 HOME OFFICE,
 WHITEHALL,
 LONDON, S.W.1.

THE POLICE JOURNAL

VOL. XII, No. 3

JULY-SEPTEMBER, 1939

Recent Judicial Decisions

IMPROPER CROSS-EXAMINATION

R. v. Hamilton

AT Essex Quarter Sessions the appellant was convicted on three counts of an indictment charging him with obtaining goods by false pretences. In each case the charge related to worthless cheques by means of which goods had been obtained.

At the trial the appellant was cross-examined as to what he said to the police officer at the time when he was charged. In answer to one question put during the course of the cross-examination on this point he said: "I was wanted on a warrant last March and that police officer knew it." Thereupon the appellant was asked whether the warrant he referred to had not been in connection with a sum of £200 which he had obtained from a certain person by fraud. The question referred to the obtaining by the appellant of an overdraft of £200 by certain false pretences.

Objection was taken to this question, which was ruled to be inadmissible. The case, however, was allowed to proceed, and apparently no fresh trial was applied for.

The appellant appealed to the Court of Criminal Appeal on the ground that the jury's minds must have been influenced against the appellant by the question and that they had not even been warned to exclude it from their minds in arriving at their verdict. Reference was made to Section 1 (f) of the Criminal Evidence Act, 1898, which enacts as follows:—

"A person charged and called as a witness in pursuance of this Act shall not be asked, and if asked, shall not be required to answer

any question tending to show that he has committed or been convicted of or been charged with an offence other than that wherewith he is then charged or is of bad character, unless—

- (1) The proof that he has committed or been convicted of such other offence is admissible evidence to show that he is guilty of the offence wherewith he is then charged . . . ”

For the respondent it was argued that where fraud is alleged intent is material, and evidence of similar offences was admissible to prove intent.

Mr. Justice Singleton delivered the judgment of the Court of Criminal Appeal. On the point of law he found for the appellant, expressing the view that the question was inadmissible. He pointed out that the cases on the subject (*R. v. Ellis*, 1910, 2 K.B. 746 and *R. v. Slender*, 26 Cr. App. R. 155) did not carry the point as far as the prosecution sought to carry it in this case. Evidence of other offences was only admissible in cases of fraud where those offences concerned a fraud of a similar nature to that in the case in which the evidence was tendered. The learned Judge held that the fraudulent obtaining of a bank overdraft was not an offence of a similar nature to that of obtaining goods by means of worthless cheques. But though the law was decided in favour of the appellant the appeal was not allowed because the court considered that no substantial miscarriage of justice had occurred, and consequently the power given by Section 4 of the Criminal Appeal Act, 1907, was exercised.

ERROR OF JUDGMENT NOT DANGEROUS DRIVING

R. v. Howell

One day no doubt there will be an authoritative decision as to where the line can be drawn between driving in a manner dangerous and driving without due care and attention. That a distinction was intended by the legislature seems obvious from the fact that both offences were created, though there exist magistrates who hold that any bad driving must of necessity be either actually or potentially dangerous to the public, and

it is very difficult to find an answer to such a proposition. The more general view seems to be that, whereas the offence of careless driving may exist even where in fact the bad driving was only due to incompetence or inexperience (vide *McCrone v. Riding* (102 J.P. 109)), in dangerous driving there must exist an element of wantonness.

The case of *R. v. Howell* lends some support to this view. In this case the appellant, Howell, was indicted at Birmingham for “motor” manslaughter, on which charge if the jury acquit they may return a verdict of guilty of dangerous driving. Mr. Justice Lawrence, who tried the case, directing the jury on the law relating to both offences, said:

“If you think that [he] was guilty of a mere error of judgment then you will find him not guilty.”

The jury returned a verdict of not guilty of manslaughter but “ . . . guilty of dangerous driving owing to an error of judgment.” The learned judge thereupon reminded the jury of his direction on this point and they found the appellant guilty of dangerous driving. Lawrence J. accepted the verdict and imposed a sentence of four months’ imprisonment but gave leave to appeal.

The appeal was, of course, heard in the Court of Criminal Appeal, where Hewart L.C.J. delivered the judgment of the Court allowing the appeal. He said that by their verdict it was clear that the jury had come to the conclusion that the appellant had been guilty of an error of judgment which, in the result, had proved dangerous. An error of judgment was not sufficient to constitute the offence of dangerous driving.

This shows fairly clearly that it is not the result but the manner of driving that must be looked at, and it seems safe to add that in that manner there must be some degree of “mens rea.”

KEEPING A BETTING HOUSE

R. v. Milne and others

Mrs. Milne and the other appellants, Boundford and Leonard, were convicted at the Central Criminal Court of

conspiracy to keep a betting house on the following facts:— Mrs. Milne was the manageress of a club and was assisted in her duties by Boundford. The members of this club were almost without exception persons interested in betting who made bets with a bookmaker named Payne, who was also a member of the club and had an office fifty yards away from the club premises. There were telephones at the club by which members 'phoned their bets to Payne at his office. On the floor above the club was an office of which Payne was tenant and in which he installed a clerk who paid out those members who were successful in their bets as soon as the results of the races had been telephoned to him by Payne. The appellant Leonard was a member of the club.

In his direction to the jury the Commissioner had said that though it was not sufficient in order to establish that the club was a betting house to show that the bookmaker's clerk used the premises as an ordinary member, such a fact would be established if the jury were satisfied that there was an arrangement or understanding with the owner or keeper of the premises in pursuance of which members telephoned bets to the bookmaker.

It was on the grounds that this was not a correct statement of the law that an appeal to the Court of Criminal Appeal followed. At that Court it was argued on behalf of the appellants that in order to constitute the offence of using premises for the purpose of betting with persons resorting thereto, which offence was a necessary ingredient of the offence charged, it must be shown that the person using the premises for such purpose was a person analogous to and of the same genus as the owner, occupier, manager, etc., and he must have some degree of control over the running of the premises. The case of *Samuel v. Adelaide Club Ltd.* (1934, 2 K.B. 69) was referred to. This case was similar in that it was a case where bets were made at a club by telephone with a bookmaker who did not actually come to the premises: but counsel for appellants argued that it could be distinguished from the present case because in that case it was proved that the bookmaker paid a commission to the club for bets introduced by the club, as a result of which Atkinson J. had held

that the bookmaker was a "person procured" not a "person using." There was no similar evidence in the present case nor was there any charge of procurement.

Humphreys J. delivered the judgment of the Court which, besides himself, consisted of Hewart L.C.J. and Charles J. He said that no point was raised as to the evidence, which must therefore be taken to be adequate to support the convictions if the law had been correctly stated. He then referred to the Commissioner's summing up. The allegation was in substance that there was an arrangement between Mrs. Milne that Payne should have special facilities for using the club for betting with the members. The jury had been clearly directed that it was a question of fact for them to decide as to whether or not that allegation had been substantiated, whether in fact Payne was using the premises as though he were the owner or keeper. It was not sufficient if they found that he used them merely as an ordinary member with no especial rights.

This direction, said Humphreys J., was perfectly in accord with the decision in *Powell v. Kempton Park Racecourse Co.* (1899 A.C. 143), which was followed in *Belton v. Busby* (1899 2 Q.B. 380). In the first case it was held that as bookmakers in the ring on the racecourse had no special place allotted to them and were given no special facilities by the proprietors of the course, they were not using the ring in a capacity analogous with the owner or occupier. In the second case it was sought to apply the same rule to entirely different facts. Here a bookmaker regularly and repeatedly visited a public house for the purpose of making bets with the customers. Grantham J., delivering judgment in this case, distinguished it from *Powell v. Kempton Park Racecourse Co.* by saying that in the latter case the bookmakers were on exactly the same footing as the general public who entered the ring, whereas the facts before him showed that the bookmaker enjoyed a special licence to use the bar of the public house for betting. The same argument, said Humphreys J., could properly be applied to the present case.

With regard to the point that had been raised as to the present case being distinguishable from *Belton v. Busby* (*supra*)

by reason of the fact that here the bookmaker did not resort personally to the premises but had the bets telephoned to him, he thought that Atkinson J. had decided correctly in *Samuel v. Adelaide Club Ltd.*, when he held that there was no distinction at law between making bets face to face or by regular telephonic communication which is carried on by permission of the owner of the premises. The oral arrangement for making the bet is exactly the same in each case, and the premises from which the telephoning was done were used for a substantial part of the betting transaction.

The appeal was dismissed, but the appellants have taken the case to the House of Lords. The decision of that house has not yet been given.

AN OFFENCE UNDER THE FIREARMS ACT

A new form of miniature rifle range was recently in use at Fun Fairs. It operated as follows. A captive rifle was fastened by chain and bolts to the range so that only the targets could be aimed at. Anyone wishing to have a shot could obtain two cartridges from the machine by inserting a penny in the slot provided. When no one was in charge of the machine, which was not an unusual state of affairs, there was nothing to prevent anyone from obtaining ammunition and taking it away.

The proprietor of a Fun Fair where one of these machines was installed (there being no one in charge of it) was summoned at Westminster Police Court under s. 7 (1) of the Firearms Act, 1937. The section makes it an offence for any person by way of trade or business (*inter alia*) to sell ammunition to which Part I of the Act applies, unless he is registered as a firearms dealer. He was fined 20s. and ordered to pay £10 10s. costs.

The magistrate (Mr. Ronald Powell) in his judgment said that in his view although the price of 1d. included the right to use the machine it did not exclude the possibility of purchasing the cartridges. There were many games where members of the public only had the right to play, but were given the use of the apparatus—the equipment remaining the property

of the proprietor (*e.g.* billiards). In the case of a rifle range the ammunition was destroyed in the act of using and could not be said to be hired. It could not be returned once it had been used. There was property in the ammunition till it was used and destroyed. In this case anybody could go in, put 1d. in the slot, and get bullets automatically and unconditionally. When anyone acquired the bullets he was free to use the machine or to take the bullets away. On those facts there was nothing to prevent any member of the public walking in and, by payment of money, acquiring such ammunition as he liked and using it as he pleased. In the view of the learned magistrate this constituted a sale.

The defendant, being dissatisfied with the magistrate's decision, applied for a special case to be stated, but has since abandoned his appeal.

Criminal Law and Practice in Scotland

ROAD TRAFFIC

THAT it is possible to secure a conviction in a Scottish criminal court on a charge of reckless (or careless) driving of a motor vehicle, although no evidence of an eye-witness is available, and that such a conviction will, in proper circumstances, stand the test of appeal is clear from the decision of the High Court of Justiciary in the case of *Carrodus v. Paterson*, March 9th, 1939. This important decision supplies a much-needed corrective to the earlier findings of the court in *Alexander v. Adair* (1938 S.L.T. 186), to which further reference is made below.

Carrodus had been convicted, in the Sheriff Court at Dumfries, of a contravention of Section 11 of the Road Traffic Act, 1930—reckless driving of a motor van which, on the Glasgow-Dumfries road, had been involved in a collision with a motor cycle and side-car, the driver of which sustained fatal injuries. No one, other than the two drivers involved, was present at the collision, so that (as the accused elected not to give evidence) no eye-witness account of the occurrence was available for the Sheriff's guidance. Notwithstanding this, the Sheriff convicted. In doing so, he proceeded upon the evidence of the Police and others who arrived at the *locus* shortly after the accident before the vehicles had been moved from the positions which they had assumed as a result of the impact. These witnesses deponed to the dryness of the road surface; the absence of brake marks; the width, etc., of the road; the position of the vehicles (particularly the angle to the grass verge); the damage to the vehicles; the fact that the hand-brake of the van was in the "off" position; and to certain scrape marks on the roadway indicating the track of the vehicles after the impact.

From this evidence, the Sheriff drew the inference that

CRIMINAL LAW AND PRACTICE IN SCOTLAND 265

the van driven by the accused was, immediately before the collision, travelling on its wrong side of the road and the motor cycle on its proper side; that, in a last-minute endeavour to avoid the motor cycle, accused swerved sharply towards his near side and collided with the cycle, which at the same time had swerved to its off side in an effort to avoid collision; that the collision occurred at or near the centre line of the road; and that, at the time of the impact, the van, or a considerable portion of it, was on its off or wrong side of the road. The Sheriff accordingly found proved the charge of reckless driving and imposed a sentence of two months imprisonment with disqualification for two years. Against this finding of guilt, the van driver appealed to the High Court of Justiciary, where the appeal was refused and the conviction affirmed, the Judges holding (unanimously) that the Sheriff had, in the evidence before him, ample material to justify an inference of recklessness.

It is true that this decision does not import into the law of Scotland any new doctrine. Conviction of a crime from purely circumstantial—(a better term is "inferential") evidence, unsupported by the testimony of eye-witnesses to the crime, is no novelty. An offender does not necessarily go "scot free" because no one saw him offend. Were it so, convictions of murder would be few and far between. In the explained absence of direct evidence, from proof of surrounding facts may arise an inference of guilt which is beyond reasonable doubt. The matter still rests as stated in the famous Chantrelle murder trial in 1878—"Circumstantial evidence, when it is complete, is as satisfactory as any evidence can be. A combination of circumstances all pointing, and pointing clearly, to one cause will produce conviction in the minds of men as readily as direct evidence." But none the less the decision in *Carrodus* is important (1) as being the first occasion on which the High Court has sanctioned conviction on such evidence in a road traffic case and (2) because it removes the very real difficulties raised by the earlier case of *Alexander* and clarifies the position.

In *Alexander's* case, a conviction of careless driving was upset on appeal. The prosecution, in this case also, followed upon the collision of two vehicles (at a crossroads). Both

drivers were charged in one complaint and both were (after a trial at which neither driver entered the witness-box) convicted by the Sheriff, who proceeded upon evidence of the general character of the *locus*, the damage done, etc. One of the drivers accepted the Sheriff's finding, but the other (Alexander) appealed successfully.

What, then, is the distinction between the two cases? Why sustain the appeal in the one case and refuse it in the other? In the earlier case, the facts proved were neutral, i.e. consistent with fault on the part of one driver only, and insufficient to pin on to Alexander any element of clear negligence (as being on his wrong side). In *Carrodus'* case, on the other hand, the facts proved (particularly as to the angle of the van after impact and the marks showing its track) clearly pointed to the presence of the van on its wrong side just before the accident.

It need hardly be added that both cases demonstrate the crucial importance of an accurate survey and measurement of the *locus* as soon as may be after a collision. But the opinion may be hazarded that, however full and accurate such a survey may be, it will be only in an occasional case that sufficiently impressive "real" evidence will be gleaned to justify conviction in the absence of the direct evidence of eye-witnesses; and, of course, if such direct evidence is available, it must be led at the trial.

At the same sitting, in the case of *Morrison v. McCowan*, in which judgment was given on March 14th, the High Court of Justiciary set at rest doubts which had been raised of the validity of measurement by rotameter in road traffic cases. The decision is of the greatest assistance to traffic officers in Scotland.

The appeal was taken, in this case, by the Procurator-Fiscal at Falkirk against a finding of not guilty arrived at by the Sheriff after trial. The accused, managing director of a firm of contractors, had been charged with contravening Sections 8 (1) (b) and 9 (1) of the Road and Rail Traffic Act, 1933, in respect that, being the holder of a private "C" Carrier's Licence, of which it was a condition that any pro-

visions contained in any statute or in any statutory rules or orders with respect to limits of speed should be complied with in relation to authorised vehicles, he did, on certain specified dates, fail to comply with said condition and did, on certain specified journeys, permit persons in his employment to drive authorised vehicles at certain specified speeds, being more than 20 m.p.h., the maximum speed permitted to the vehicles.

As in many such cases, the estimates of speed were based upon (1) the starting and finishing places of the journeys and the times taken, as revealed by the log sheets—as to which no dispute arose, and (2) measurements made by a traffic examiner, and independently by a clerk in the employment of the Traffic Commissioners. These measurements were made on the ordnance survey sheets by running a rotameter over the shortest practicable route between the two points which were the termini of each journey. (No evidence was tendered as to the actual routes followed by the vehicles.) The results arrived at by the clerk tallied with those reached by the examiner. The accused himself tendered no evidence. As already indicated, the Sheriff (being, presumably, unimpressed by the method of measurement adopted) found accused not guilty. On appeal, however, the Judges of the High Court unanimously allowed the appeal and remitted back to the Sheriff for conviction and sentence.

In giving the leading judgment of the court, Lord Aitchison emphasised the fact that no suggestion had been made by the accused at the trial that there was any demonstrable inaccuracy in the measurement. He did not suggest that it was possible, by using some other method of measurement, to reach a contradictory result. Accordingly, the only argument open to the accused was that the method of measurement by rotameter was not appropriate to a criminal trial. But the rotameter was a familiar instrument for measuring distances on maps and was sufficiently accurate for practical purposes. What other method could be suggested? It was out of the question that, in cases of this kind, the Crown should be bound to run a car over the road between the two places and so ascertain the distance. Ordnance survey sheets were accurate records and the court was prepared to accept evidence of dis-

tances accurately plotted on such sheets by any recognised method.

This decision will be welcomed by officers who have to deal with road traffic cases involving measurement of distances. At the same time, it is suggested that they should keep in mind that the courts might refuse to convict on measurement by rotameter where there was no real margin for error. In *Morrison's* case, even if the measurements had been "out" to some extent, the speed limit would still have been exceeded.

A TEST OF "UNREASONABLENESS"

When does a respondent in a Statutory Notice "unreasonably fail" to comply with its terms? This question—and it is the sort of question which might emerge for consideration in the enforcement of many Acts of Parliament—was raised in a recent appeal by the "Fiscal" at Peebles (*Buchan v. Dobson*). The case is unusual in its circumstances and of special interest to the County Police.

The respondent in the appeal (Dobson) was a farmer living in Berwickshire but owner-occupier of a pastoral farm of 1,000 acres at Lamancha, Peeblesshire. This farm, which carried a stock of 900 sheep and 60 cattle, was managed, on behalf of the respondent, by a shepherd (aged 65) with the help of his grandson, a lad of 16. The respondent contented himself with paying periodical visits to the farm.

Following upon certain correspondence, starting with a letter dated June 11th, 1938, from the Department of Agriculture to the respondent and an official inspection of the farm on July 8th—at which injurious weeds (thistles and docks) were found to be prevalent on twenty-eight fields, representing 250 acres—the Department on July 18th served upon the respondent a Statutory Notice under the Corn Production Acts (Repeal) Act, 1921, requiring him to cut down, not later than August 18th and to the Department's satisfaction, the weeds referred to. This Notice was handed by the respondent to his shepherd for attention. During the period of one month before the expiry of the Notice, the farm staff (i.e. one man and one boy) were busy with the hay and preparing for the lamb

CRIMINAL LAW AND PRACTICE IN SCOTLAND 269

sales. On a further inspection on August 22nd, the officials of the Department found three of the fields in a satisfactory condition, but thistles were seeding in many of the other fields. Cutting of thistles had been done to an extent of 50 acres. Two hundred acres were still unsatisfactory, some fields being extremely bad.

In this state of affairs, a complaint at the instance of the Procurator-Fiscal was served upon the respondent, charging him with a contravention of Section 1 (c) of the Act of 1921, in respect that he did unreasonably fail to comply with the requirements of the Notice. The case went to trial, and, after hearing evidence, the Sheriff found the charge not proven, "having regard to the large area of weeds to be cut, the smallness of the farm staff and the extent of their ordinary farm duties, the absence of evidence that additional labour was available and the period specified in the Notice." Against this finding of not proven the "Fiscal" appealed to the High Court of Justiciary.

The appeal was allowed, and the case remitted back to the Sheriff for conviction and sentence. The Judges of the High Court rejected the argument by which the Sheriff had apparently reached his verdict of acquittal, viz., that it was a reasonable excuse that the respondent had not an adequate staff to do the work required by the Department within the time allowed by the Notice. The answer to that was that if all the staff he had was one man and one boy, it was his duty to get a staff to deal with the mischief which he had been called upon to remedy. In other words, the respondent should, on receipt of the Notice, have hired extra men for a period and set them on to the job of clearing away the weeds.

BOGUS CAR PARK ATTENDANTS

Complaints have for some time been reaching the Police of at least one Scottish City of the practice of unauthorised persons who hang about the official car parks, hold themselves out to motorists as attendants possessing some official status and induce motorists to pay them. In dealing with such complaints, it is suggested, the greatest caution should be exercised.

Action should be taken by the Police against the "Offender" only where they are fully satisfied that all the elements of fraud are present. In doubtful cases, the proper course is to report the circumstances to the appropriate Public Prosecutor and so give him an opportunity of considering at his leisure the facts proveable before deciding whether or not to raise proceedings. It should especially be kept in mind that there is nothing criminal in the actings of any person, even though he has no official standing whatever, who merely offers to look after a car which is to be left unattended and later receives payment for his services. Such a person has done no more than enter into a civil contract with the motorist, in respect of which he receives payment for his trouble. The matter is, in the opinion of the present writer, no different if the motorist—simply because of the presence of the man at an official parking place—enters into the transaction under the impression that he is dealing with a properly appointed official and even that he is bound to pay. Something more must be provable before a charge of fraud can be confidently preferred—some overt acting on the offender's part (be it no more than the wearing of a uniform or badge) clearly calculated to convey to the motorist an impression of official status.

In the City referred to, officially appointed car parks are, by arrangement, in the hands of attendants appointed by the Soldiers' and Sailors' Help Society. Each attendant is provided with uniform, which includes a cap badge (M.C.A.). He gives a ticket for each car left, which ticket should be produced by the owner on returning to claim his car. The attendants are visited daily by a Superintendent on the Society's staff. There is no compulsitor on motorists to avail themselves of this service—they are free to leave their cars at their own risk without payment to anyone—but a charge of sixpence is made to such motorists as indicate to an attendant that they are placing their cars under his charge and accept from him an official ticket. Many motorists, however, are undoubtedly under the impression that they are bound to employ, and pay, the attendant.

In these circumstances, a visitor from England to the City recently left his car in an official car park. When he did so, no

attendant was in evidence; but when he returned, some time later, to claim his car, he found a man (not in uniform) standing beside it. This man at once approached the visitor with the query: "Was the other man here when you arrived?" to which the motorist replied that he had seen no other man. The motorist then seeing that the man was producing from his pocket a book of tickets—which turned out, on examination, to be numbered cloak-room tickets which had no reference to the car park—asked "Is there a charge?" to receive the reply: "It's sixpence or your pleasure." In return for a ticket handed him, the motorist was in process of handing over a sixpence which he had taken from his pocket, when plain clothes officers (who had witnessed the transaction, having come to the car park on receipt of a complaint by telephone from another motorist) intervened. The man in question had no connection with the Society. He was later prosecuted, and convicted, in the local Police Court, on a charge of attempted fraud.

THE POLICE AND BAIL

To judge from questions which, from time to time, are put to the present writer, some confusion would seem to exist in the minds of police officers in Scotland as to the power of the Police to grant bail and the manner in which the police discretion in this regard should be exercised. Yet (apart from one or two "snags") the legal position is clear and with the exercise of care and the application of common sense to the situation difficulty should seldom arise.

The granting of bail by the Police is almost exclusively regulated by Section 14 of the Summary Jurisdiction (Scotland) Act, 1908, the terms of which should be familiar. This Section begins by restricting drastically the range of offences bailable by the Police, making it clear that bail may in no case be granted to a person charged with an offence which is beyond the jurisdiction of the lesser courts of summary jurisdiction, i.e., the Police and J.P. Courts. Any person charged with a more serious offence, which can be disposed of only by the Sheriff Court or High Court, cannot have bail at this stage;

indeed, he cannot be granted bail until he reaches a court competent to deal with the charge (Section 24). This does not preclude the officer in charge of a police station from liberating such an offender on the instructions of the Procurator-Fiscal, but without bail, as is sometimes done with "drunks in charge." Confusion is often felt by the further provision of Section 14 that bail, where competent, may be granted for the appearance of the accused either before a Police or J.P. Court *or before the Sheriff Court*. Here is an apparent contradiction, as (1) offences triable in the Sheriff Court only are not bailable by the Police, yet (2) the Police may grant bail to an accused for his appearance next day at that court. Properly understood, these provisions are not at all contradictory. They are designed to meet cases where, possibly for some local reason, it is thought advisable to pass on to the Sheriff a case which might be tried by the Magistrate. For instance, a person might be arrested on a charge of breach of the peace at the Council Chambers. Such a charge is triable in the local police court, but would be more properly referred to the Sheriff, who has no connection with the Council. Or, again, consider the case of a person arrested in a county area on a trivial charge. The offence is bailable, yet the only court which can try it is the Sheriff Court; so that the common sense of the situation demands just what Section 14 provides for, viz., release on bail to appear at the Sheriff Court next day.

A further question which causes difficulty is whether it is competent for the officer in charge of a police station to grant bail to a person who has been arrested on warrant. So far as Section 14 is concerned, there would seem to be no objection to liberation on bail in such a case, provided that the charge is one triable in a police court; for the wording of the Section is perfectly general—"upon the apprehension of *any* person charged. . . ." On the other hand, the wording of Section 23 of the Act of 1908 would seem to contemplate the retention in custody of a person arrested on warrant until such time as he can be brought before the court issuing the warrant. On the whole, the safer course is to refuse bail. In special circumstances, the Prosecutor might be consulted.

It remains to be noted that the discretion reposed in the

officer in charge of a police station to grant bail is an absolute discretion which, so far as the accused and his agent are concerned, cannot be called in question—although, of course, the officer is responsible to his chief in a matter of police discipline. Section 14 expressly enacts that "the officer of police may refuse, if he sees cause, to grant bail," and that such refusal is not to subject him to any claim for damages. While this is so, it would, of course, be improper to exercise the discretion in an arbitrary manner, or (apart from some such speciality as is mentioned below) to detain in custody a person charged with a bailable offence unless there is reason to believe that he will not make himself available to the court next day.

What, then, are the considerations which, in normal cases, should influence the mind of the Police against bail? It is suggested that account should be taken of the following elements—whether the accused is sober; if not, he should be detained until the effects of the drink have worn off; whether there is danger (e.g. in a case of wife assault) of an immediate repetition of the offence on liberation; whether there is danger of intimidation of witnesses, especially in a charge under the Immoral Traffic (Scotland) Act; whether the accused will be wanted in person by the investigating officers, e.g. for an identification parade; whether there is danger that, if liberated, he may frustrate the police inquiry, as by putting stolen goods out of the reach of the police; whether there is a possibility of further charges emerging, with the effect of making the offence non-bailable, e.g. because, in a case of theft, more than £10 will be involved; whether it is desirable that the accused should be seen by officers other than the arresting officers, e.g. in a case of indecent exposure, where he may answer the description of a "wanted" man; whether, in a case of assault, especially where the complainer has been detained in the Infirmary, there is a danger that the injury may prove fatal. In general, it is wise that bail should be refused (at this stage) where the police enquiry is incomplete and also where the charge is one carrying an exceptional penalty—e.g. a contravention of Section 7 of the Prevention of Crimes Act, 1871, which may (although triable by a Magistrate) result in one year's imprisonment.

Studies in Identification. No. 3

By SYDNEY SMITH, M.D.

Department of Forensic Medicine, University of Edinburgh

THE IMPORTANCE OF PHYSICAL DEFORMITIES

IT is not generally appreciated how indelibly and in what detail the record of an individual's life may be inscribed in the structure of his skeleton. The sciences of paleontology and anthropology owe their existence to man's ability to interpret form, function and habit of animals, long since dead and vanished, from fragments of their bones. In these sciences the aim has been to reconstruct species rather than individuals. The bones of man, however, may and frequently do bear the impressions of developmental abnormality, deformity, illness or injury in addition to the marks of race, sex and age, and by these peculiarities it is frequently possible to establish the individual identity of a person from an examination of his bones.

The finding of human bones in places other than recognised burial grounds invariably requires that an investigation be undertaken to learn whose bones they were, how the person died and why the body was found in such an unusual place.

One of the first facts to be established in an attempt to identify an individual from an examination of his bones is the length of time that has elapsed since death. The rate at which post-mortem changes occur in bones is subject to great variation and differs according to the climate, the accessibility of the body to animals and insects, and the physical and chemical characteristics of its environment. The organic material, including the cartilage of the skeleton, is in ordinary circumstances slowly destroyed after death by the action of bacteria, insects, and drying. In hot climates, particularly if the body has remained on the surface of the ground, as much destruction of organic material can occur in a month as

would require many months or even years in a temperate or cool climate. A high acidity of the soil, particularly if there is excessive moisture, is likely to result in rapid solution of even the inorganic elements of bone, so that a skeleton in such an environment may be more completely destroyed in a few years than are the skeletons in Egyptian tombs after many thousands of years. Another indication of the amount of time that has elapsed since death may be got from the amount of mineral impregnation of the bones. In moist soils containing iron or copper, bones after many years may become densely impregnated through the salts of those minerals. The net result of these variations is that no sweeping generalisations can be made regarding the post-mortem changes in bone, and it is apparent that before any estimate is made, full account must be taken of all environmental characteristics which might affect the rate of post-mortem change.

The first part of the actual task of identification, particularly in communities comprised of mixed races, is to establish the race of the person whose bones are being examined. The various racial characteristics of human bones constitute a highly specialised field of learning, and space does not permit of more than bare mention of the fact that racial skeletal differences do exist. Europeans, Negroes, Mongolians and Egyptians are among the various members of the human family having distinctive skeletal peculiarities, especially in the conformation and proportions of the skull.

The next step in establishing identity is the estimation of the age. Beginning long before birth and continuing until death, the bones undergo continuous changes in form and structure. During periods of active growth these changes tend to occur in an orderly sequence and with such uniformity as to make an accurate estimation of age possible. After full maturity, or more particularly after the age of 25, the changes are apt to be more variable, and estimates of age based upon them are only approximations.

In the beginning, bone is formed in masses of soft tissue, and the time, the sequence and the sites in which bone is first laid down are reasonably constant phenomena. The sites of primary bone formation are called the "centres of ossifica-

tion," and they continue to appear one after another well into adolescence. A bone does not form from a single centre of ossification but from the union of several different centres. The time and sequence in which these centres unite in the case of various bones provides another remarkably accurate means of estimating age. The final union of centres of ossification goes on until middle life, although in the case of the last few bones to unite there is considerable variation in the age at which union is complete. The eruption of the milk teeth, followed by the permanent teeth, provides additional and fairly reliable means of estimating the age.

The existence of highly characteristic sex differences in the skeletons of mature individuals constitutes another important means of identification. The most striking differences are those present in the pelvic bones, but sex may also be recognised from the skull, the sternum and even from the long bones of the leg and arm. The size of the individual may usually be determined by measurement of the separate long bones.

Having determined the approximate time of death and the race, age, sex and stature, the next step in identification is the recognition of individual peculiarities. In some instances this is possible because of the presence of deformities. Such deformities may represent congenital developmental faults or may have resulted from injury or disease. The acquisition of such information may be valuable not only in establishing positive identification, but also in establishing exclusion. A small fragment of the skeleton may permit recognition of the fact that the individual from which it came was suffering from a particularly prominent bunion, and this alone might well be sufficient to exclude certain individuals from further consideration. The finding of evidence from the bones that an individual had a wry neck, a congenital dislocation of the hip or a club-foot, might be extremely valuable in the establishment of positive identification. Other developmental deformities, including claw-foot, hammer toe, extra fingers or toes, cervical rib, spina bifida, congenital angulation of tibia and so forth, likewise facilitate identification.

Many diseases leave permanent alterations in the form and structure of the skeleton, and identification may be

facilitated by their recognition. Some of these diseases are primary affections of bone, whereas in case of others the change in the bone may be secondary to systemic disease. It might be possible from an examination only of the smallest and most distal bones of the fingers to give an opinion that the deceased had suffered from chronic disease of the lungs or heart over a period of many years. In another instance where only a few of the ribs were available for examination it might be possible to say that the deceased had suffered severely from rickets in childhood. Other diseases likely to leave permanent effects in the form and structure of the skeleton include arthritis, osteomyelitis, tuberculosis, syphilis, tumours, diseases of the ductless glands and paralysis.

Information of the greatest importance regarding the cause and circumstances of death may be available from the examination of the bones. When death has occurred as the result of violence bony structures are frequently injured. Fracture of the hyoid bone is so commonly produced by manual strangulation and results so uncommonly from any other form of violence that its identification is of great importance. In the case of firearm injuries in which the bullet has passed through bone it is possible not only to identify the nature of the injury, but also to approximate the calibre of the gun, and the direction from which the fatal bullet was fired. Metallic traces left by the bullet in the bone may provide additional important information regarding the type of ammunition used. In the case of head injuries from assault by violence the nature of the weapon and the position of the assailant in relation to the victim may be disclosed.

It may be seen then that bones or even fragments of bone entirely devoid of soft tissue may constitute an important potential source of information in the scientific investigation of crime. The following cases give some indication of the value of such minute examination in personal identification of bones.

Case A

A skull was found partially buried in the bank of a canal. There was no scalp or hair, no tissues of the face, and no lower

jaw. A quantity of whitish firm substance, identified as adipocere, was adherent to the base of the skull, and embedded in this substance there were four small pieces of bone. There was no history of anybody missing and no hint as to who the person could be, and the skull was sent for examination to see if any information could be elicited which might aid in the search for the missing person. In this, as in all cases, identification of the remains was of primary importance, for until the deceased person is known there is little chance of successfully investigating the case.

The examination was made on the usual lines, first to ascertain the sex, age, race, etc.; then any particular features which might lead to identification, the cause of death and the length of time since the death took place.

Sex.—The skull presented some difficulty in sexing owing to certain peculiarities which will be described later, but from the sharpness of the orbital margins, the poor development of the supraorbital ridges, the smooth curve at the junction of the nasal bones with the frontal bone of the skull, the shape and size of the palate and upper jaw, from the contours and shape of the forehead and skull generally, it could safely be assumed that it was the skull of a woman.

Age.—The teeth were all fully erupted except the four wisdom teeth, which had not yet made their appearance. The wisdom teeth are usually cut at about eighteen years of age, but this is extremely variable, so much so that whereas the presence of wisdom teeth indicates in general an age of at least seventeen to eighteen years, their absence gives us no definite information about age. The sutures or joints between the individual skull bones were all open, and since a certain degree of obliteration is expected in the period between 30 and 40, we might assume that she was somewhat under that age. The hyoid bone was not ossified in its joints. From the examination of the teeth present, the sutures and articulations of the skull and the hyoid bone, it could be assumed with fair accuracy that she was a woman in the early twenties.

The capacity of the cranium was only 1,260 cubic centimetres, which is much below the average (Microcephalic).



Fig. 1
Front view of skull

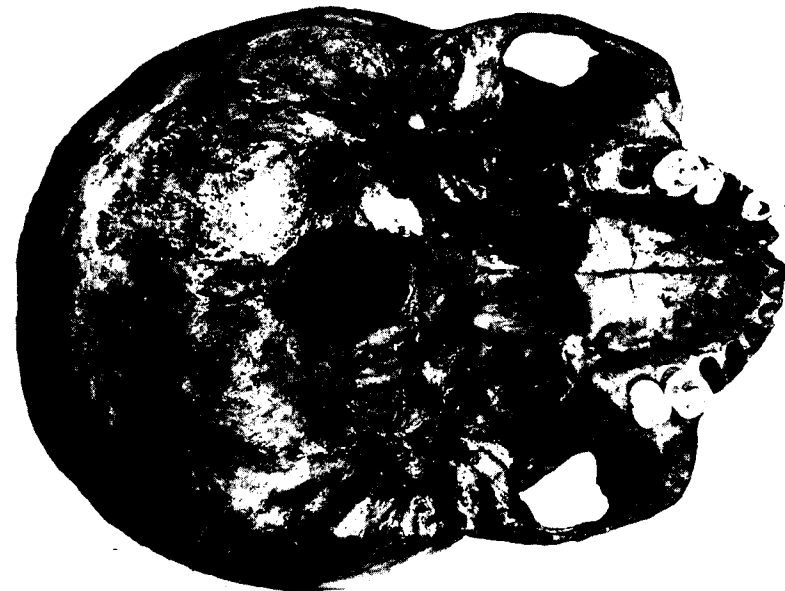


Fig. 2
Base of skull

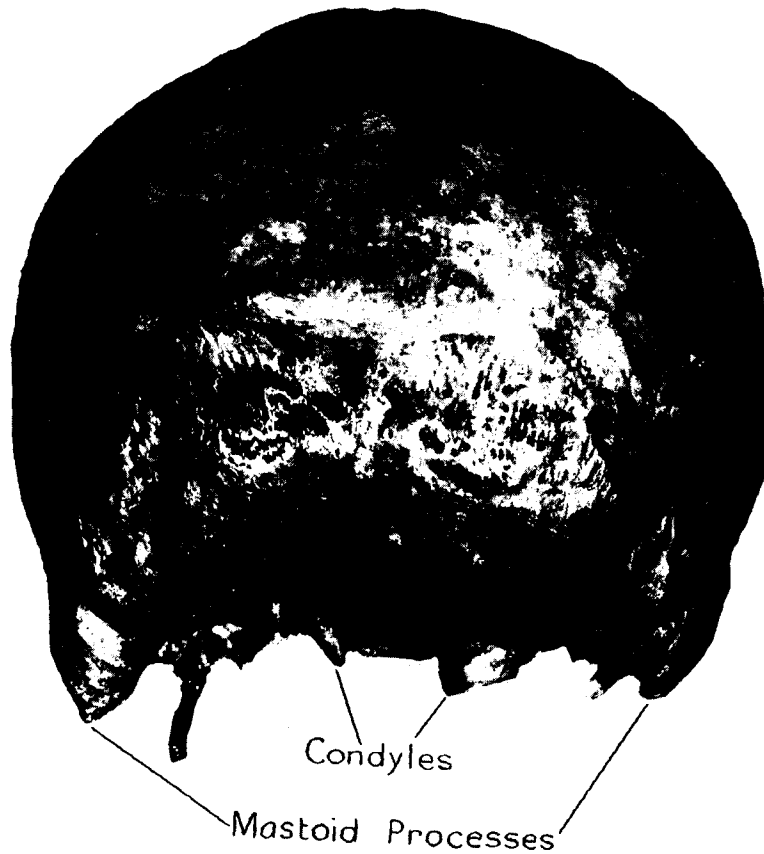


Fig. 3
Skull viewed from behind

Race.—There were certain racial characters present, and though it could readily be affirmed that the skull was not that of a negress, the physical deformities to which I shall allude rendered it difficult to make even a guess at the race. The skull was relatively broad and low, and there was no projection of the jaw such as is found in negroes.

On examining the face (Fig. 1) it was noticed that the two sides were not symmetrical, the right side being bigger than the left. The right forehead was fuller than the left, which was slightly flattened. The orbits were unequal. The upper jaw, or maxilla, was distinctly larger on the right side and showed the normal moulding under the orbit. The left side was shortened and free from moulding. These differences in size of the two sides gave the face a squint-like appearance which was most characteristic.

When the base of the skull was examined (Fig. 2), the lack of symmetry was seen to be more pronounced, and two things at once struck the eye, namely the difference in size of the occipital condyles (the surfaces which form the joint between the neck and skull, and which rest on the spinal column), and the difference in size of the mastoid processes (the cone-like processes to which the main rotating muscles of the neck are attached).

The left occipital condyle was much smaller than the right, depressed below the surface of the skull, and its articular surface tilted outwards. The right condyle was larger, raised above the skull surface, and showed an alignment quite different from the left. The mastoid process on the right was much more massive than normal, whereas the left process was poorly developed. The differences between right and left condyles and mastoids are well illustrated in Fig. 3, which is a photograph taken from behind.

These alterations from the normal can be readily explained and are of importance in identification.

The asymmetry of the skull is due to contraction of the left sternomastoid, the principal rotating muscle on the side of the neck, causing the head to be tilted towards the left shoulder and the chin rotated to the right. This must have occurred from a very early age and probably at or about the

time of birth. As a result of this maldevelopment and faulty position, certain definite changes in growth of the bones of the head and face occurred. These changes were shown in asymmetry of the two sides of the skull, the evidence of pressure on the left condyle, which caused it to be pressed below the level of the base, and over-development of the mastoid process. From this examination it was possible to decide with certainty that the deceased woman had suffered from wry-neck from early infancy.

Cause of death.—The fragments of bone embedded in the adipocere were found on examination to be the body and the two horns of the hyoid bone. The horns had not united with the body and there was a fracture of the right horn. In the fractured ends adipocere had been deposited showing that the fracture was present before the body or head was buried, and from its presence we may assume that strangulation was the cause of death.

Time since death.—From the extent of adipocere formation it was reasonable to assume that death had occurred at least six months before the body was found and that in the meantime it had been buried in damp conditions.

CONCLUSIONS

From the examination of the specimen it could reasonably be assumed (1) that the skull was that of a young woman between twenty and thirty years of age, (2) that she had suffered from birth from a condition of wry-neck causing definite physical peculiarities which must have been well known to all who knew her, (3) that death was due to manual strangulation, and (4) that the body had been buried in damp earth for several months.

As a result of this examination and report, police investigation was properly orientated, and the disappearance of a woman suffering from wry-neck from a neighbouring village was ascertained. The husband of the woman was arrested, charged with murder and convicted.

Case B

A number of bones were found in an uninhabited part of the country. They were sent for examination with a view to identification about which the police had no information. There were no clothes found with the bones. The bones were human and consisted of a skull with lower jaw, the left clavicle, the pelvis including the sacrum, the left humerus, radius and ulna, the left femur, tibia and fibula; that is to say, the head and the left upper and lower limbs with the pelvic girdle. They were in a clean, dry state, and practically free from tissues.

Sex.—As I have remarked above, the sex of isolated bones can be estimated with a reasonable approach to accuracy in most cases. In this instance having the skull and pelvis as well as the long bones made the problem relatively easy.

Skull.—The articulations of the nasal bones with the frontal formed a smooth curve; the supraorbital ridges were poorly developed; the forehead was slightly bulged; the base was by no means massive; the mastoid processes were small; the lower jaw was small. The skull was definitely female in all its characters.

Pelvis.—The shape of the pelvic bones and the entrance to the true pelvis, the width of the pubic arch (somewhat more than a right angle), the square shape of the pubic bone, the pinched appearance of the junction between the pubic bone and its ramus, the widely open sciatic notch, the presence of a preauricular sulcus, the width of the acetabulum (47 mm.), and the shape of the sacrum, were all characteristic of the pelvis of a female.

	Case	Averages	
		Female	Male
<i>Femur</i>			
Vertical diameter of head	40.5 mm.	40.7 mm.	46.7 mm.
Vertical diameter of neck	29.0 mm.	29.5 mm.	34.3 mm.
Bicondylar width ...	67.0 mm.	69.8 mm.	79.4 mm.
Height of external condyle	56.0 mm.	55.1 mm.	61.0 mm.

Tibia

Transverse diameter of head 65.0 mm.

Average division between
Males and Females
71 mm.

Humerus	Case	Averages	
		Female	Male
Transverse diameter of head	37.2 mm.	37.9 mm.	43.6 mm.
Clavicle			
Length	141 mm.	138 mm.	153 mm.

The measurements all showed definite female characters and we could with a considerable degree of certainty decide that the skeleton was that of a female.

Age.—All epiphyses of the long bones were fused with the shafts, indicating an age of over twenty years. The secondary centres around the crest of the pelvic bones were united to the bone, although there was a line present which was somewhat deceptive. The epiphysis of the collar bone was also united, the two latter indicating an age over twenty-four years.

The sutures of the skull were beginning to close, suggesting an age between 30-40.

The dentition was complete, including the four wisdom teeth.

From the above examination we might assume the person to be middle-aged, certainly over thirty and probably not over fifty years.

<i>Stature.</i> —Femur ...	41.7 cm.	Humerus ...	28.5 cm.
Tibia ...	35.0 cm.	Radius ...	23.6 cm.

On calculating the stature from these measurements according to Pearson's formula, the mean of the four estimations was found to be 152.75 cm., or about 5 feet 1 inch. From the fact that the figure for each individual bone varied considerably, the average given must be considered liable to error.

Race.—The skull gave the following measurements:

Length ...	180 mm.	Gnathic Index $\frac{BA}{BN} \times 100 = 97$
Breadth ...	131 mm.	
Height ...	132 mm.	
Basi-Nasal ...	105 mm.	
Basi-Alveolar ...	102 mm.	
Capacity =	1,150 cc.	
Orbit (Right)	Length 35 mm.	Breadth 45.2 mm.
Orbit (Left)	Length 30 mm.	Breadth 43.7 mm.

The nasal bones were not flattened, the nasal orifice was narrow, and there was a well-marked nasal spine. There was no prognathism or jutting forward of the jaw. From the general configuration of the skull, the shape of the nasal bones and palate, and the absence of prognathism we could exclude a Negro origin. Other features, especially the height in its relationship to the breadth, together with the capacity, suggested that it was not of European origin. The gnathic index (97) lay midway between that of Europeans (94.4) and Negroes (104.4). The limb indices were as follows:

Tibio femoral index	$\frac{T}{F} \times 100 = 84$	Europeans ...	below 80
		Negroes ...	over 80
Radio humeral index	$\frac{R}{H} \times 100 = 83$	Europeans ...	below 75
		Negroes ...	over 80

These were peculiar and represented Negroid rather than European characters. There was a squatting facet on the lower end of the tibia suggestive of an Egyptian, Negro, Arab, or similar Eastern origin.

Special features.—The teeth were covered on the right side both top and bottom with a thick layer of deposited salts. This indicated that the right side had not been used for chewing for a considerable time, no doubt on account of a gumboil or other inflammatory condition of the gum or jaw. An examination showed that the woman had a carious second molar and this must have caused toothache and pain for a very considerable period (Fig. 4). The condition of the teeth also indicated a want of attention to cleanliness. The state of the teeth might be expected to prove of some value in identification.

Examination of the skull disclosed a difference in the appearance of the two eye sockets; the left was smaller than the right in both diameters and the floor seemed to bulge more inwards giving a less roomy cavity (Fig. 4). The opening for the optic nerve in the left orbit was extremely small, whereas in the right it was of normal size. A gelatine-zinc cast taken from the orbits brings out this difference with considerable clearness (Fig. 5), showing not only the diminution in the size of the orbital cavity on the left, but also the small size of the optic nerve and lachrymal cavity.

Cause of death.—There was no information to be obtained from which the cause of death could be deduced.

Time since death.—The complete destruction of the soft parts of the body, and the dry state of the bones left the question of time in a state of uncertainty. In hot climates and especially when the body is left in contact with sand, bones may become clean and dry in a few months, and remain in that condition for years. In cold climates such a result could only be obtained after years of burial. When bones in such a condition are found in tropical climates no decision about the time of death can be given except in a general way to indicate that it is likely to have been at least some months before they were found.

From the above examination it could be deduced that the bones were all human and all from one person; that the missing person was a woman who was about 5 feet 1 inch in height, well developed, moderately muscular, and free from any obvious physical disability as far as the limbs were concerned.

She was probably an Egyptian and her social standing was probably that of the peasant class. She probably had had children. She had been blind in the left eye since early childhood. The eye had either been removed or it had been atrophied since that period. Prior to her disappearance she had suffered for a prolonged period from a painful jaw or toothache on the right side which was almost certain to have been known to her friends owing to its severity. Death had occurred probably at least six months before, but no definite opinion could be given on this point or on the cause of death. Since death the body had been exposed in a warm dry place open to the attack of insects.

The presentation of the report led to the discovery that a one-eyed woman had disappeared from a neighbouring village, and her description accurately fitted that of the above.

She was a woman of forty-five years of age, the wife of an agricultural labourer, and was the mother of four children. She had had her left eye removed at the age of four years by a doctor who was still practising in the neighbourhood and knew her well. She had suffered severely with a painful condition



Fig. 4

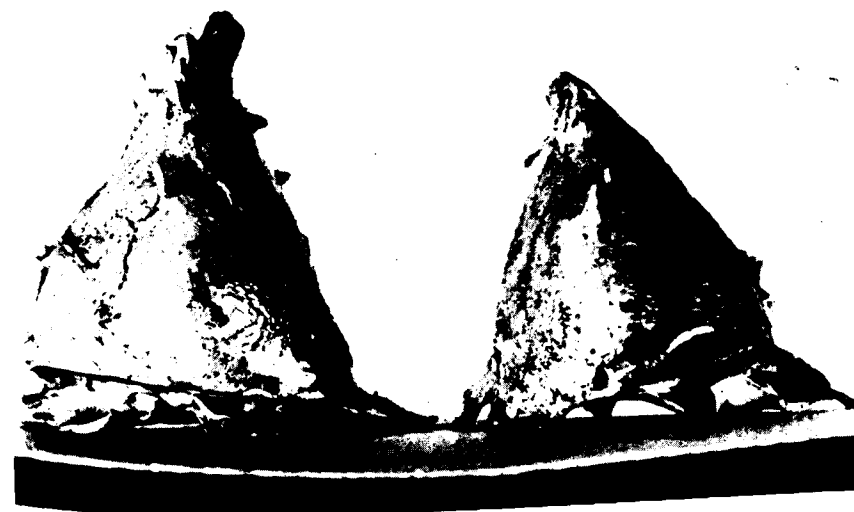


Fig. 5

of the jaw which prevented her from sleeping. She had disappeared from the village about a year before and it was decided at the time that she had committed suicide by drowning although the body had never been recovered.

These two cases indicate the necessity of a careful and minute examination of every particle of material in order to assist identification, and also the likelihood of obtaining evidence of value even after complete destruction of the soft tissues of the body.



THE POLICE JOURNAL CHALLENGE SHIELD

(Designed and made by Messrs. Haddon & Webb)

presented by the Proprietors of *The Police Journal* to the Scottish Police Small Bore Rifle Association for League Competition

Juvenile Crime

ITS CAUSES AND TREATMENT

By Policewoman JESSIE J. CLAREY

Melbourne City Police

[This is the Winning Essay in the King's Gold Medal Essay Competition, 1938]

INTRODUCTION

THE Annual Report on Victorian (Australia) Children's Courts for 1937 shows an appreciable increase in the number of cases dealt with over the last decade, rising from 3,760 in 1928 to 5,180 in 1937.

These may be classified under three main headings:

1. Minor Offences;
2. Neglected Children;
3. Crimes and Serious Offences.

In regard to the third, the Report states:

"Crimes and Serious Offences: Representing about 50 per cent. of the total number of cases dealt with, these are the most serious and important cases the Courts are called upon to deal with. Children committing these offences are those who are classed as delinquent children and, in dealing with them, the Courts are faced with their most difficult problems."

This treatise, therefore, involves a study of the delinquent child, of the psychology of juvenile delinquency, which is the forerunner and the genesis of adult crime.

The Delinquent Child: Who is he? Is he a class by himself, or is he to be found throughout all sections of the community? Is the problem mainly that of the delinquent himself, a problem of his own nature? Or is it a problem arising from his environmental atmosphere—the family life,

JUVENILE CRIME—CAUSES AND TREATMENT 287

parental attitudes, economic stresses and social surroundings? Is he predestined to a career of delinquency by heredity, or does he drift into it by force of external influences? To what extent is he blamable, and to what extent is society the responsible factor? If he himself is not blamable, if the responsibility rests with his environment, why then in one instance does a child develop along anti-social lines, whilst another, with similar environment, develops along socially accepted lines? If the determining factors are outside the child himself, what prospect is there of remedying or overcoming these conditions? In the endeavour to answer these questions we must not lose sight of the fact known to every intelligent social worker and demonstrated by clinical research, viz: that there is vastly more delinquency than that dealt with by the Children's Courts.

Modern psychology has proved that children are not naturally "good" or "bad"; in every normal child there are potentialities which may develop or express themselves in either direction. Children are born with only a few reflexes and a few instincts; from these, by force of the numerous external influences which surround the child—in short, his environment—habits of thought and behaviour are formed which may be either healthy or morbid. When these habits of thought and behaviour run along socially accepted lines, the child's conduct attracts no untoward attention; but when these behaviour trends do not fit into the social order or pattern, the child comes into conflict with society. We think of him as "delinquent"; we forget his potentialities for good and condemn him because of his temporary wrongdoing.

A child is born into this highly developed social order which we call civilisation, with its maze of adult-made laws and its complicated ethical code; without proper guidance why should we expect the child to do otherwise than lose his way? He lacks the knowledge or understanding to set in motion the judicial procedure to right his wrongs; he takes for himself what he feels is being denied him. In other words, the child expresses himself in anti-social or dis-social behaviour, and that is what is meant by delinquency. The boy who plays truant, runs away, or steals, is delinquent.

But why *is* he delinquent? Why does he act in this manner which we call delinquent? A child's longings, desires, urges and impulses must express themselves in behaviour of some sort; all behaviour is the response of the ego to conscious or subconscious urges conditioned by outside stimuli, and delinquent behaviour, in common with all voluntary activities, is but one form of self-expression. So we feel constrained to ask why, if all behaviour is an expression or outlet of the personality, does this child seek an outlet in anti-social (or delinquent) behaviour, whilst another child conforms to social standards?

For permanent results it is not sufficient for us to ascertain "Did the boy steal?" but "Why did he steal?", not "Is he a thief?" but "Why is he a thief?" Having answered that, the commonsense plan would be to remove the cause, not merely eliminate or suppress the outward act. Although this seems obvious, it is surprising how little it is understood or practised; what parents and others undertake by way of correction or punishment serves mainly only to suppress the anti-social behaviour. If this behaviour is checked, the problem is considered solved.

This does not necessarily follow by any means. The child may be in a position of dormant delinquency, or latent delinquency, which needs only a suitable opportunity to reveal or express itself.

To eradicate delinquency, it is essential to discover and remove the cause.

The difficulty in dealing with this form of behaviour is that it is rarely easy, particularly for the untrained unskilled parent or worker, to discover the cause. The fact that the child's delinquency is labelled "Truancy," "Larceny," "Wilful Damage," "Illegally Using," in no way helps to discover its root cause. One child may "play the wag" (Truancy) for exactly the same motives as will actuate another to go "joy riding" (Illegally Using, or perhaps Larceny, of a motor-car).

Let us quote two examples:

"Suppose a child is convicted of THEFT. A search reveals poverty which incited the theft; then illness or misfortune which caused

the poverty. But underneath this is a poor physique always susceptible to illness. Beyond the physical were perhaps bad habits causing this state, and finally great lack of training, initiative and oversight on the part of the parents which allowed incipient illness and weakness of will to spoil the boy who could have been saved by wise oversight. This is a comparatively simple case, yet it is not easy to give one cause, for if the boy had had sufficient calibre, he could have dominated his circumstances at every point."*

"Take the simple and common offence: TRUANCY. One boy may be avoiding a situation in which he feels inadequate and discouraged; another has developed out of family life antagonisms to all forms of authority (school representing one form); another has such needs of recognition that, even though he does not dislike school, he truants in order to be a 'regular fellow' with his companions; still another is the victim of peculiar anxieties which make the classroom hateful to him. However, in spite of the diversity of determinants, the authoritarian attitude to all truancy and all truants is very likely to be the same, whether on the part of the school principal, the attendance officer, or the juvenile court."†

In order therefore effectively to stem the rising tide of juvenile crime, it is necessary to study the reason actuating the conduct which, according to adult legislature, is classed as delinquency.

CAUSES

This brings us to the first section of our essay: the CAUSES of Juvenile Crime. "The causes": the very use of the plural indicates their number and diversity. Indeed, the more thought and investigation one gives to this subject, the more one is convinced that the causes behind juvenile crime can be likened unto a giant octopus, spreading its tentacles in all directions; and when the grip of one tentacle is released, the hapless victim is still enmeshed by the others.

For convenience sake I have classified the major causes into different categories, but it is obvious that some of the data under the various headings must overlap, as do different threads which, all woven together, complete the intricate pattern of a fabric.

* *The Young Malefactor*, by Travis (1908).

† *New Light on Delinquency and its Treatment*, by Healy and Bronner (1936).

The predominating influences profoundly affecting behaviour seem to be: 1. ENVIRONMENT (a) Within the Home; and (b) Beyond the Home; 2. INDIVIDUAL TRAITS. And it is in this order I shall deal with them.

I. ENVIRONMENT

(a) *Within the Home*

Poverty: Poverty or low economic status is not often considered a direct cause of delinquency. But such conditions undoubtedly provide fertile soil for the propagation of criminal or anti-social tendencies. Personal desires are powerful driving forces, particularly in children, and even more so in the children of the poor, as their wants are not so easily satisfied. They crave the amenities or the luxuries of the well-to-do. Temptations therefore become more numerous. Added to this, poverty may cause undernourishment and poor physical stamina, which, in turn, may lead to lowered mental resistances to temptations which arise.

During the recent research carried out by the Slum Abolition Board in Melbourne (Australia), a survey was made of twenty-two of the Children's Courts in the metropolitan area, for the six months ended December 1933. The metropolitan area was subdivided into two groups: Inner and Outer, representing the congested industrial areas and the residential areas respectively. The following figures were revealed:

The incidence of juvenile delinquency is:
 Inner Areas—6.66 per 10,000 inhabitants.
 Outer Areas—2.07 per 10,000 inhabitants.

The nature of the crimes committed was:
 Acquisitiveness 91.3 per cent.
 Other 8.7 per cent.

A similar questionnaire, for the twelve months ended February 1933, sent to the largest Reformatory Prison (which houses prisoners 21 years of age and under) disclosed the following:

Inner Areas provided—1.76 per 100,000 inhabitants.
 Outer Areas provided— .35 per 100,000 inhabitants.

JUVENILE CRIME—CAUSES AND TREATMENT 291

The nature of the crimes was:

Acquisitiveness 92.6 per cent.
 Other 7.4 per cent.

A later survey (made by the same Board, as at 28th February 1937) showed that:

From Inner Areas—61.9 per cent. of those discharged were re-admitted to gaol.

From the rest of Melbourne—38.5 per cent. of those discharged were re-admitted to gaol.*

Another evil attendant on the poverty-stricken home is that of overcrowding. All ages and both sexes are herded together; infants, adolescents and adults; perhaps sharing a common sleeping apartment; frequently child and parents using the same bed. What chance is there of decency or delicacy in sexual matters being developed in the child? Granted present-day psychologists tell us that where there is little mystery in matters of sex there is little inquisitiveness; but this state of affairs is too extreme in one direction and brings with it a train of inevitable evils. At the very least, it is evident that with this environment, the irritation of the nerves of every member of the family and the continual emotional outbursts must have injurious effects.

In this type of home there are no recreational facilities. Even the ubiquitous radio of the present day becomes, instead of a source of recreation and education, a blare of noise and discord, and the subject of constant bickerings. It is the adults' domain; the child is the trespasser and soon learns to seek his own amusement in the streets; indeed, it is frequently to the streets that the harassed mother sends him when she wishes to be free. And it is from the knowledge acquired from the streets of a neighbourhood composed of this class, that the seeds of delinquency are sown in the already prepared soil of the child's mind.

Incompetent Home: Travis claims that "The great cause (of delinquency) is the non- or semi-functionary home," and adds that "when disorganisation (of the home) exists, the

* First (Progress) Report of the Housing Investigation and Slum Abolition Board 1936-1937; Victoria.

way is open for delinquency to enter." * The home where the father leaves too much to the mother, and perhaps lacks wholesome ideals himself, is not a proper training ground for the child. Quarrellings and recriminations are often indulged in; the child is not given wise oversight; there is no consistency of treatment; sometimes the discipline is lax, at other times stern, or even brutal, according to the caprice of the parent. This is confirmed by numerous investigators. Burt finds that

"Of all environmental conditions, indeed of all the conditions whatever that find a place in my list of causes (of delinquency), the group showing the closest connection with crime consists of those that may be summed up under the head of defective discipline. Such features are encountered five times as often with delinquent as with non-delinquent children."†

Defective discipline, of course, includes not only inconsistent treatment; it may be that the home discipline is far too strict; on the other hand it may be too lenient, or again it may be virtually non-existent.

Vicious Home: Drunkenness of parents, or immorality and loose living, are baneful influences. The child may be taught prostitution or unnatural sex actions, or may be encouraged to steal and pawn, no questions being asked as to the origin of the articles obtained, the children rather being commended for their haul. Again, to quote Burt, "Of all the factors of the vicious home, the commonest and most remarked is drunkenness," whilst he considers training in criminal practices to be rare.† In my own experience I have come across many families where sexual malpractices have been inculcated by parents, or where stealing and petty pilfering by the children have been not only condoned but encouraged; also instances where the mother, in carrying out her nefarious practice of "shop-lifting," has used the child as a cloak; indeed, frequently it was the child who actually stole the articles.

In the home of pernicious habits money is squandered, health and discipline are neglected, a depraved life of discord,

* *The Young Malefactor*, by Travis (1908).

† *The Young Delinquent*, by C. Burt (1925).

irregularity and passion is indulged in, indecency of speech and unseemly sexual relations occur in the presence of the children, and frequently irreparable harm is done to the child.

The Broken Home: By this is meant the home of only one guardian, widow or widower, who is away all day earning a livelihood and has not sufficient economic resources to hire anyone to care for the children. Here, again, the children are left to their own devices and are obliged to develop their own interests, generally on the streets.

Divorce, or desertion by one parent, subsequent on a period of domestic strife and unsatisfactory relationships, is detrimental to the normal development of the child.

Death of either parent is a tragedy, having its after-effects in the behaviour of the child and his reactions to the step-parent (if any) introduced to the family. In these circumstances it can readily be perceived that the reactions of the children depend to a large degree on the tact, sympathy and understanding exhibited by the parent or step-parent.

But this is in no way limited to that one type of home. The parents, both directly and indirectly, exert a tremendous influence over the child. Indeed it is becoming more and more realised by those actively engaged in the work that the responsibility of the child's behaviour rests to a large extent on the parent. This fact is stressed in the last available (1937) Report on Victorian Children's Courts.

The Mobility of the Home: Over recent years, urban migration, increased transport facilities, and economic stresses have caused population problems resulting in the greater mobility of the home. This is particularly noticeable in the poorer classes—it is frequently cheaper to move than to pay rent—and is yet another aspect of the relationship between poverty and crime. Removal from place to place is of itself not very detrimental to children, but rather the other conditions that go with mobility, such as poverty, changing neighbourhood environment, absence of fixed standards, lack of home spirit, and wanderlust. Researches along these lines have shown a very close correlation between mobility and delinquency.*

* *Maladjustments of Youth in Relation to Density of Population*, by M. C. Elmer.

When the home fails, many serious maladjustments may follow. Where the home is no longer a sense of security, comfort or opportunity, the child frequently seeks to escape an unpleasant situation and to satisfy certain needs by leaving that home. Hence arises the problem of the runaway child. (The runaway child and the truant child can frequently be regarded as one; but as truancy more particularly refers to absence from school, it is considered chiefly under that head.) The runaway child or youth immediately places himself in an environment of multiple temptation, and frequently forms the companionship of social and moral degenerates and hardened criminals, specialised temptations being encountered according to the sex of the individual. The nature of his precarious existence—a fugitive from home and authority—and, generally, inadequate means, render the runaway an easy prey to the temptations which arise.

(b) *Beyond the Home*

As already indicated, the home does not represent the sole confines of the child. When the home discipline is lax (whether through incompetence or misfortune) the child, at an early age, migrates to the street. Let us see what are the influences which surround him there.

Neighbourhood and Companions: First, it is here that he finds his companionship. Every investigator of juvenile misbehaviour knows that the most frequently tendered explanation of such conduct is "bad companionship." Whilst it must not be overlooked that in many instances this is merely indicative of the parents' desire to place the blame in other quarters, it is nevertheless a factor which cannot lightly be dismissed. Without discussing the moot question of whether or not the human species possesses a "herd instinct," it is evident that gregarious tendencies are manifested by the delinquent, as comparatively little delinquency is engaged in without associates or gang connections (not necessarily an organised gang under recognised leadership). The language, the conduct, the ethical standards of these associates are quickly absorbed by the child. In many cases the boy's contact with

the group or gang marks the beginning of his career in delinquency. It is here he gains familiarity with delinquent practices and acquires the necessary technique. In the *Melbourne Herald* of October 12th, 1938, is an account of a deputation to the Melbourne City Council asking for increased play space. Mr. H. J. C. Forster, a magistrate of the Children's Court, is reported as saying that crime was promoted by street gangs, by whom children and young persons were led to be offensive, destructive and anti-social in their attitude of life, and that this had been confirmed by his own experience and that of authorities throughout the world.

It does not follow, however, that all gangs exert a harmful influence. They may be a potent factor for either good or ill. Generally speaking, however, the unsupervised gang usually consists of a spontaneous group of young individuals looking for an outlet for their activities and for diversion for their minds, and therefore offers numerous opportunities for anti-social behaviour.

The youth who, for want of better diversion, spends his spare time loitering in the streets with companions of his own age, does so with no premeditated thought or intention of evil; but gradually this group develops into a gang, and in seeking to utilise the boundless energy of youth in excitement or activity, commences petty depredations. Then comes an arrest.

The choice of companionship is to a large degree limited to the same street, school or neighbourhood. In other words, the social stratum or economic status of the family restricts the opportunities of companionship for the child. In the main his companions have no better background of home life than he himself has, and the individual gangs or groups of the neighbourhood develop into a sort of society within society, having a common parentage, training and environment which pave the way for delinquent conduct.

Indeed, so powerful is the influence of the neighbourhood, particularly that of the poverty-stricken home, with its larger proportion of crime and illiteracy, and its undesirable congestion—in short, the slum environment—that even a trained social worker would not risk rearing his or her children in it.

In this environment, it is surprising in fact that youth does so well, having regard to all the drawbacks.

In the case of the immigrant family the reaction to surroundings is marked. The immigrant group tends to settle in the congested areas near the industrial section of the city, and the neighbourhood is not always one advantageous to the children. It frequently acts unfavourably on the family, causing disorganisation of the home and creating behaviour conflicts. The parents' culture is that of their native land, whilst the children quickly acquire the patterns of behaviour on the new environment. The child learns the language; his parent does not; the child feels he is brighter than the parent; discipline is lost, respect is weakened, and the child rapidly develops into a street urchin.

Leisure and Amusements: These, closely allied as they are to the child's companionship and neighbourhood, play no small part in moulding his outlook and determining his behaviour. If these influences are of the wrong type or utilised incorrectly, they exert a detrimental effect on his mental concepts of life and his standards of value.

The lure of the big city, with its gaiety and life, its offers of pleasure and excitement, makes great appeal, and is generally within reach of the child whose playground is the streets in the densely populated urban areas. It is an inducement to play the truant, to roam about at night. The attractive display of goods beyond his means or station in life frequently offers strong temptation, and ever at hand are excellent opportunities for begging and pilfering. Here abound hawkers, loafers, drunkards and hangers-on, with whom acquaintance is easily made and experiences exchanged, or in the case of the younger child, eagerly listened to and absorbed. "Pleasure Palaces," their penny gambling devices offering promise of thrill and gain for little outlay and no effort, are easily accessible to the child or youth whose spare time is uncontrolled and unguided. Habits of street loafing, bringing in their train dishonesty and dislike of steady labour, lower the morale of youth. Burt states that:

"More offences are committed in the street than in any other single place. Offences at home, at school, or at work, together barely

make up one-third of the total. And, taken as they stand, the figures clearly suggest that the supreme opportunity is generally found during the delinquent's vacant hours." *

One attraction, in view of its universal appeal to children, calls for special reference: the Cinema. What effect do motion pictures have on children, on their emotions and their behaviour? Conflicting opinions are held and much has been written on the subject. The result of a four-years' survey in this direction has been set out in a complete volume by Blumer and Hauser.† Whilst admitting its potentialities in both directions, they maintain the cinema has a direct, as well as an indirect, bearing on crime by arousing desires for "easy money"; by fostering day-dreaming of criminal roles (the romantic activities of the criminal and his prestige as ring-leader of a powerful "ring" appeal to the boy); by displaying criminal technique (e.g. cutting burglar alarms beforehand, leaving no finger-prints; fooling the police; etc.). Passion pictures stir up sexual feelings which may be used as the preliminary of illicit relations later in the same evening. This aspect appeals to both sexes, whilst an added appeal to the girl lies in the fact that it teaches the technique of love making, and at the same time, by arousing desires for clothes and appearance and a fast life, suggests methods of obtaining them by the exploitation of her sex.

On the other hand, the favourable influence of the better class film is more likely to be short-lived and may be completely lost in moments of temptation or in the thrill of adventure. Also, in crime pictures, although the culprit is usually brought to justice, the film deals in the main with his stirring exploits and thrilling adventures, and his retribution is glossed over in a few short moments.

As a member of a Police Force, I do not feel flattered at the subtle manner in which the Police are frequently belittled in this class of film. Generally the "Plain Clothes Detective" is portrayed as an uncouth individual with a large "corporation," whilst the actual crime detection is usually brought to a successful issue by the unwelcome assistance of the "amateur

* *The Young Delinquent*, by Burt.

† *Movies, Delinquency and Crime*, by H. Blumer and P. M. Hauser.

detective." Whilst by a certain section of the community this is received with a smile, to the less law-abiding citizens and youth who already are hostile to the Police, this caricature is accepted as a true portrait.

In endeavouring to gauge the effect of the cinema, one must not forget that the early experiences of the child serve as a basis for his future reactions, making him peculiarly susceptible to some influences and comparatively immune from others. Motion pictures may incite in boys thoughts of delinquency; but it is only the child who has acquired attitudes which render him liable to assimilate or emulate these portrayals, who is likely, as a consequence, to be influenced to commit acts of delinquency.

Apart from the influence of the films themselves, there are always the added temptations to truancy in order to attend and to the obtaining of entrance money by doubtful means.

School: The school plays a vital role in the moral development of the child. Just how large a part is seldom realised by those in authority. What an indictment of our educational system it is to recall that during the years when the school has these young people in its care, these anti-social tendencies and attitudes develop.

Bearing in mind that one of the common offences of the juvenile is truancy (being not only of itself a delinquent act, but the breeding-ground for more vicious tendencies), the subject of school attendance must be given close scrutiny.

As far as the school itself is concerned, it must be recognised that criminal careers sometimes result through the failure of the school to adjust the curriculum to the child's individual needs, the delinquent activities of their associates making more appeal than the activities and the interests of the school. This may be due to want of sympathy or understanding on the part of the teacher, who, though academically competent, may lack knowledge of the pupil's individual peculiarities or difficulties.

The problem of the school is well epitomised by the following:

"The child enters school with certain past social experiences in mind. He enters with a fixed emotional attitude compounded of

successes and failures at home. In school he encounters another circle of adults and children, each capable of being a source of comfort or anxiety. School is to him another arena where he wins or loses approval of other human beings, thus adding to self-esteem and enriching personality, or deepening sense of guilt and inferiority. To the school he carries his ready-made rebellion, submission, fear of failure, dependence or self-reliance. These new adults, the teachers, are simply other parents, rewarding, blaming, petting, loving, or criticising according to their own mysterious standards of action. The child reacts to teachers in ways already conditioned by the home. Unless the teacher has developed genuine insight into problems of personality, including her own, she is more likely to fix in the child some undesirable, destructive emotional attitude, and this far more through what she is, what she does, than what she teaches." *

And when this unsatisfactory condition at school is accentuated by maladjustment in the home, the problem of the truant or runaway child becomes one of concern.

Then, too, the attitude of the parent towards school is a determinant of the child's behaviour. Many parents are antagonistic towards certain laws, such as making school attendance compulsory, with the natural correlative of the child's non-attendance. Illiterate parents frequently have low ambitions for their children. Although illiteracy has some effect on delinquency and criminality, it is so closely interwoven with poverty that it is impossible directly to assess their separate influence.

Work and Puberty: At first glance these two conditions may appear in no way related. But as they occur almost simultaneously in the growth of the child, each calling for definite adjustment to new standards, and bringing its own sense of responsibility and adulthood, I consider their effects and hazards so interwoven as to render it expedient to deal with them under the one head.

Juvenile crime in almost every country seems to show an increase at this time.

Most avenues of employment open to the juvenile (with special reference to the street trades: newsboys, messengers, and the like) bring fresh temptations and new opportunities

* *Youth in Conflict*, by Miriam Van Waters (1926).

of delinquency, added to which is the restless urge natural at this stage of their physical development. The child now feels a new sense of independence and is apt to emulate the adult behaviour of his circle. But as he is still immature in his judgments, the result is a continual striving for adjustment and self-expression. If proper behaviour channels have not been cultivated, if delinquency technique and low standards of morals have been part of the child's heritage, the odds are overwhelmingly in favour of his conduct being anti-social.

This, too, is a critical period in the life of the girl. The very fact of her entering the labour market brings fresh problems and dangers, whilst her physical development adds new temptations. If she is of low moral calibre, if the patterns of adult behaviour in her circle have been depraved, the result is apparent. Avenues of "easy money" present themselves not only with greater frequency, but with added force. And this life can seem so much more alluring than the humdrum existence of the poorly paid domestic or the factory hand.

The young person forced into the labour market under these conditions represents unskilled labour. This in itself is a cause of maladjustment: job after job is tried, frequently leading to dead-end occupations or casual employment only, leaving the individual thwarted, dissatisfied, embittered and anti-social.

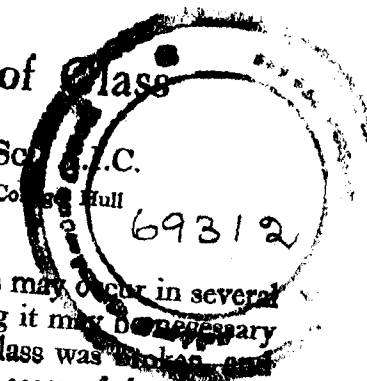
Illegitimacy: This might be regarded not only as a social problem but as an individual one. The illegitimate child has a stigma of his own. He commences life with a handicap which he never completely overcomes. He is deprived of normal home life (even when the mother marries later, he is still a misfit), and the circumstances of his birth place him in a low social stratum, frequently ostracised by society. He is a misfit. He has a growing sense of resentment, tending to develop in him an anti-social attitude and feeling of inferiority.

This brings us to further individual characteristics which may be regarded as having a direct bearing on delinquent conduct, resulting in juvenile crime.

(To be continued)

The Examination of Glass

By F. G. TRYHORN, D.Sc.
Professor of Chemistry, University College Hull



THE need for the examination of glass may occur in several types of offence. In cases of breaking it may be necessary to establish from which face a pane of glass was broken, and by what type of blow or instrument: in cases of the fracture of glass by projectiles it may be required to determine from which direction the bullet was fired, and whether it was one of high or low velocity. Such problems involve the examination of large, as opposed to small, pieces of glass, and their solution is based on a knowledge of the conditions determining fracture.

Other problems occur in which the essential work is the matching of fragments of glass with some comparison glass from which they may be derived. This may happen in cases of breakings in which entry has been obtained by breaking a window and fragments of glass have been found in the clothes or on the person of a suspect. Many examples of this type of problem occur in cases of motor accidents. Here, fragments of glass found at the scene of the accident or on the body of a victim may have to be compared with glass remaining in the windows, windscreen or lamps of a car suspected of having been involved in the accident. Such comparisons sometimes involve examinations of the fracture, and piecing together of the fragments: but more often in such cases it is a matter of determining by means of physical and chemical examination whether the fragments in question could have come from a suspected source.

For these reasons it is convenient to discuss the examination of glass under the two headings of *fracture* and *comparison of properties*.

I. PROBLEMS OF FRACTURE

(a) Simple Breaking

Matwejeff (*Archiv für Kriminologie*, II, 1930) has pointed out that the examination of the edges of a piece of broken glass shows that they usually bear certain markings by means of which it may be possible to deduce which face received the impact causing fracture.

A sheet of glass may be regarded as a slightly elastic medium of uniform composition. As a result of this slight elasticity the application of a force at a point on a sheet of glass will produce a slight bulging of the sheet, so that it becomes concave on the side on which the force acts, and convex on the other (Fig. 1a). The curvature, and therefore the strain, of the glass will be greatest at the point x, opposite the point of impact of the force. When the limit of the elasticity of the glass is reached and the strain on the surface becomes greater than the tensile forces in the surface of the glass, fracture will occur. The release of the strain usually occurs in several directions at the same moment and causes a series of cracks radiating from the point of impact (Fig. 1b). These cracks start from the point of impact and travel away from it, producing a star-shaped group of cracks: these are termed "radial" cracks. They open on the face away from the side of impact, i.e. on the face where the strain was greatest. A sharp blow from a pointed instrument may produce fractures of this type alone, the length of the cracks depending on the force of the blow, the brittleness of the glass, the manner in which the edges of the sheet are held, and similar factors. Fig. 1c shows how these cracks open at the moment of formation.

If the instrument is blunt-ended, or tapers abruptly to a point, or if the blow is of the "follow through" type, the forward passage of the instrument will tend to bend the apices of the triangular areas p, q, r, etc., in the direction of the motion. This will cause new strains in the surface of the glass on the side of impact: when the limit of elasticity is exceeded a new series of cracks, shown by dotted lines in Fig. 1b will occur. These, as will be realised by reference to Fig. 1d,

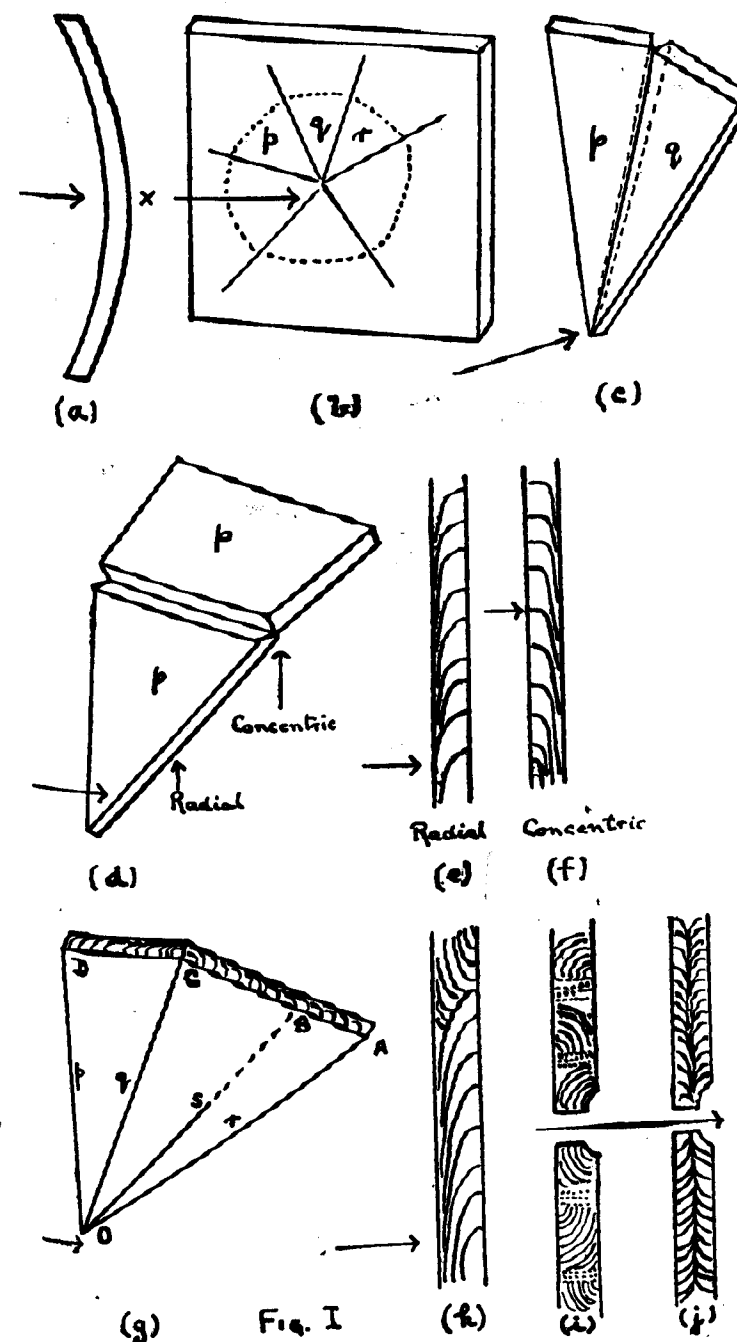


FIG. I

will open on the face of the glass which received the impact. Such cracks are called "concentric" ones. They are not always present in a fracture, but occasionally more than one set of them may be encountered: radial cracks are *invariably* present.

Experiment has shown that the release of strains in glass during fracture usually produces a series of markings on the fractured edges. The form and direction of these lines are determined by the manner in which the strains are released. The lines start approximately at right angles to the surface at which the fracture opened, and run tangentially to the other surface of the glass, and toward the point at which the crack began. Thus, in the case of a radial fracture, they run from the face opposite to the impact towards the point and surface of impact. In concentric fractures the lines run from the face of impact and end tangentially to the face away from impact. (Figs. 1e, 1f; figs. 3, 4.)

There is less regularity shown in the direction of the lines on the edges of concentric cracks than in radial ones. The appearance of the edges of the concentric cracks depends on the relative moments at which the radial and concentric fractures occur. Fig. 1g shows the appearance of the edges of a pair of concentric cracks if these occur at the instants when the radial cracks *p*, *q*, *r* have reached, or passed, the points D, C, A; the radial crack *s*, though started, has not reached the point B. This crack *s* may reach the concentric crack CBA later, and cause the two pieces of glass COB and BOA to fall apart, without, of course, altering the appearance of the edges CB and BA.

These markings on the edges of cracks occur in both thick and thin glass: on thick glass they are readily visible, but on thin glass it is usually necessary to examine the glass at various angles to the incident light in order to make them apparent.

It sometimes happens that an anomalous effect is observed at the end of radial fractures (Fig. 1h). The greater part of the fractured edge shows normal markings, but there may occur a reversal of the markings on the last $\frac{1}{2}$ in. or $\frac{3}{4}$ in. of the crack. This anomaly occurs most frequently at the

extreme edge of a sheet of glass where it is rigidly held in a frame or holder.

It will be realised from the description given that an examination of the edges of a piece of fractured glass will readily indicate from which surface the crack opened. If the piece of glass under examination is still in a window-frame the direction of the impact which broke it can easily be determined: but if the glass has been forced from the window it is necessary to know its original orientation in the frame before the problem of direction of impact can be solved. In general it is fairly easy to recognise on an isolated piece of broken glass which edges represent radial, and which concentric, cracks: if the piece has the shape of a long isosceles triangle (Fig. 1c, *p* or *q*) the long edges represent radial, and the short concentric, fractures.

In removing broken glass from a window frame for examination a mark should first be made on one face of the glass with grease pencil for reference purposes. The piece of glass may then be removed and the edges of its radial fractures examined. If it is necessary to break off a piece of partially fractured glass in this process and so extend a radial crack, it should be remembered that the characteristic markings on the edges will be observed only to the point at which the original crack ended. This point should therefore be marked with grease pencil before the glass is broken apart. If too little glass is left in the frame for a satisfactory examination to be possible, the broken pieces of glass must be pieced together, as in a jig-saw puzzle, until a sufficient area has been pieced together to make it possible to determine how it originally was related to such glass as is left in the frame. A short cut is sometimes possible when dealing with pieces of old window glass. The outside surface of a window is gradually attacked by corrosive agents in the air and by the abrasive action of sand and dust: the former cause minute cracks visible under a reasonably powered microscope, and the latter tiny pittings. These are rendered more easily visible if the glass is treated with a solution of a dye-stuff, such as methyl violet or malachite green, the surplus dye being washed off after a few minutes. In this process the dye is

absorbed into the surface cracks and makes them more easily visible. This method is helpful in determining which face of an isolated piece of glass was the weather side, but is applicable only to glass that has been in use for several years.

(b) *Fracture by Projectiles*

The perforation or fracture of glass by bullets presents a problem of a different type. In these cases the velocity of the projectile is so rapid that it may have penetrated the glass before there has been time for radial or concentric fracture to occur: it then happens that a more or less clean hole is drilled through the glass, with the invariable characteristic that the diameter of the hole on the entrance side is smaller than on the exit side. Usually considerable flaking of the glass occurs on the surface of the exit side. For these effects to occur it is necessary that the velocity of the projectile should be high and the glass relatively thin. If the projectile has been fired from a distance, or if the glass is $\frac{1}{8}$ in. or more in thickness, the glass is usually shattered. If a piece of glass so shattered is examined it is found that the edges exhibit a confused system of markings: at one point the markings may be of the radial type, at another of the concentric type, and at a third they may consist of lines running at right angles to both faces. In all cases there is at least one region surrounding the primary perforation in which the glass appears to have been "ground" or devitrified. Sometimes the "ground" effect is quite coarse, at others it is merely a slight dulling of the surface. In thick glass, such as a motor-car windscreen of the non-safety type, two or even three such dulled regions are seen (Fig. 11). In nearly every case the markings on the edge of the glass undergo reversal from the "concentric" to the "radial" type, or *vice versa*, when one of these dulled zones is crossed.

In some specimens prepared by shattering thick glass from a distance of about five feet with a .22 projectile from a miniature rifle the characteristic markings on the edges of the fractures, near the point of impact, were noticed to start from a line which ran midway through the glass, and to branch

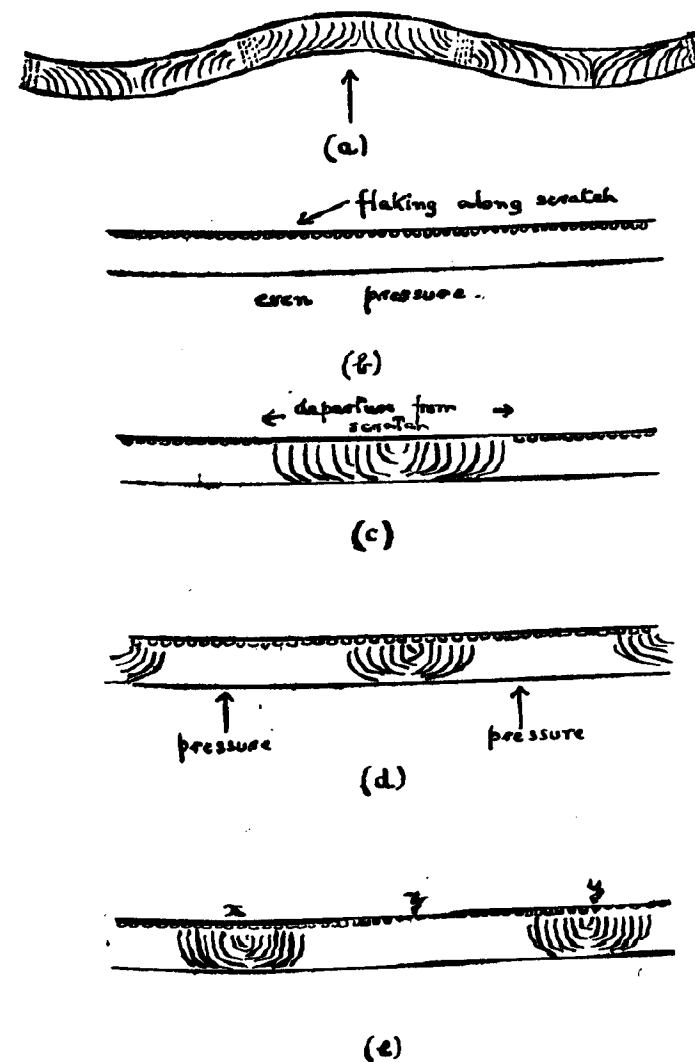


FIG. 2

more or less symmetrically in opposite directions from this line (Fig. 1j).

The essential difference between the appearance of glass shattered by a bullet and of glass broken by a brick or hammer lies in the fact that in the former case the force applied is of exceedingly short duration, and in the latter the force acts comparatively gradually. In the former case the impact sets the glass vibrating before fracture occurs. Strain waves from the point of impact are reflected back from the edges producing interference effects between the two sets of vibrations: the result is that at certain points in the glass zones occur in which the glass is under compression simultaneously from two directions. It is in these zones that the dulled fractures seem to occur. On either side of such a zone the glass is under tension from one face or the other according to the direction of the curvature produced by the vibration: the glass thus fractures from opposite sides as a dulled zone is passed, thus causing a reversal of the type of markings produced on the fractured edge (Fig. 2a).

(c) *Fracture after scratching of the surface*

When a piece of glass is scratched with a diamond or a hard steel cutter, a trough of $\frac{1}{500}$ in. to $\frac{1}{250}$ in. depth is produced: the scratch consists of a series of small cavities caused by the flaking of the glass. If the glass is then broken by *even* pressure along the scratch from the opposite face an almost *structureless* fracture may be produced (Fig. 2b). If the fracture departs at all from the scratch mark it will at the points of departure show markings typical of a crack opening from the face scratched (Fig. 2c). If the glass is broken by *uneven* pressure at points along the under-side of the scratch, the fracture will appear structureless in the regions where the pressure was applied, and in the others will show markings running perpendicularly from the face of the scratch and tangentially to the other face (Fig. 2d). In all cases the flaking along the scratch-line will be visible—usually to the naked eye, but sometimes only with low-power magni-

fication—when fractures that have closely followed the scratch are examined.

The results are not so simple when the scratch has been converted into a crack by tapping the glass along the scratch: it is immaterial on which side of the glass the tapping occurs. The cracks in all cases begin on the scratched side, but not every tap may produce a crack. However, where cracks appear they will show markings running perpendicularly from the scratched face and tangentially to the other. When the glass is afterwards broken, structureless fracture occurs at places where there were discontinuities in the cracks made by tapping. In Fig. 2e the points *x* and *y* represent cracks made by tapping, and *z* the structureless fracture between those cracks.

II. COMPARISON OF PROPERTIES

When small fragments of glass are recovered in the investigation of breakings or of motor accidents the problem presented is usually that of determining whether the fragments came from a given source, e.g. a particular window, windscreen or lamp-glass. In most of such examples *conclusive* proof of the origin of the fragments is difficult to obtain. As is so often the case with circumstantial evidence the result of the examination usually indicates the *probable* rather than the *actual* source of the glass. The value of such evidence is determined by the number and the nature of the tests applied, and, the more numerous the correspondences between the fragments and the comparison material, the more weighty is the evidence. Many of the tests applicable are simple and may be regarded as preliminary checks to be made before a detailed examination is undertaken. Provided it has been ascertained that the fragments are free from stains (e.g. blood), and from adherent matter, many of the tests may be applied without risk of making it impossible to carry out a more exhaustive examination later.

It is useful to consider the tests under four headings, those in the first two groups being applicable without risk of damage to the specimens.

(1) *Examination of "form"*

It is clear that the only conclusive proof of the origin of a fragment of glass is the finding among the "comparison" glass of a piece or pieces with which the "exhibit" fragment shows a perfect fit. This is a task which becomes the more difficult, if not impossible, the smaller the fragment and the greater the number of companion pieces. If the fragments are from a plane sheet of glass the problem is complicated by the lack of knowledge as to which is the "back" and "front" of the specimen, unless, as is seldom the case, this can be decided by the methods suggested above. This complication does not arise if the original glass possessed curvature or pattern, as usually is the case with lamp-glasses. In all cases of discovering a "fit" between pieces of glass the problem, if soluble, is a matter more of patience than anything else.

Even if it is not possible to relate a fragment to its origin by piecing together, it is often possible to indicate its probable origin if it possesses marked form or pattern. This frequently happens when examining fragments of lamp-glasses in motor accidents. Such glasses usually possess a moulded rim (often with lettering or figures on it), curvature, and usually a fluted or ribbed surface. Nearly 90 per cent. of British cars are fitted with Lucas headlamps and glasses. Reference to the manufacturer's list (*e.g.* Lucas list No. 400A) enables a rapid determination to be made of the type of glass fitted to a given make or date of car, or, what is often more useful, what cars and of what dates were fitted with a glass of a given size, pattern and type. Of the cars not described in this list most will be found in the Delco-Remy list.

When two plane surfaces are evident on a fragment the thickness should be measured. This is best done by means of a micrometer gauge. The mean of not less than a dozen measurements should be taken on both the "exhibit" and "comparison" specimens, because there is frequently an appreciable variation in the thickness of both drawn and cast glass. Measurements of thickness are not of much use in the case of fragments of curved lamp-glasses, which taper in

thickness from the periphery to the centre, unless the measurements can be made of portions of the rim.

If the glass fragment forms part of a lens-shaped whole, the radius of curvature may be measured by a sphereometer. It should, however, be remembered that the curvature of a moulded glass is not usually as constant or as accurate as it would be in an optical or spectacle lens.

III. DETERMINATION OF PHYSICAL PROPERTIES

Certain physical properties of glass, such as specific gravity, hardness, refractive index, etc., are closely related to the chemical composition of the material and alter appreciably in their values with even slight changes in composition. They are, moreover, properties which are easily measured with a high degree of accuracy, and thus are extremely useful in characterising a glass. In the descriptions given the methods suggested are rather those to be chosen in a preliminary examination than those employed in a detailed examination. The accurate determination of the values of such properties demands the use of sensitive and expensive instruments: but as a rule, comparative measures of the properties may be made with simple equipment.

(a) *Specific gravity*

The definition of specific gravity may be taken as the weight in grammes of a cube of a substance of 1 centimetre edge. Since the weight of such a cube of water at 20° C. is 1 gramme, the specific gravity measured at the same temperature gives the density of a substance relative to water.

In a preliminary examination it is enough to determine whether the specific gravity of an "exhibit" fragment is the same as, or different from, that of the "comparison" material. The simplest method of ascertaining this is based on the fact that a fragment of a solid will remain suspended (*i.e.* neither floating nor sinking) in a liquid of specific gravity equal to its own. In a lighter liquid it will sink, and in a heavier one it will float. The specific gravity of common glass

lies between 2 and 3: that of most ordinary glasses is between 2.4 and 2.65. Thus almost any specimen of glass likely to be encountered will float in bromoform (specific gravity, 2.65) or in methylene iodide (specific gravity, 3.33). By adding alcohol (e.g. industrial methylated spirits) to either of these liquids mixtures of lower specific gravity may be made, of which the specific gravity approaches 0.79 as the amount of alcohol is increased indefinitely.

The simplest way of comparing the densities of two fragments of glass is to allow one piece to float on the surface of bromoform or methylene iodide and then to add gradually alcohol until a mixture is obtained in which the specimen remains suspended. It is convenient to begin with about $\frac{1}{2}$ in. of the heavy liquid in a test-tube and to add the alcohol drop by drop from a fountain-pen filler, with thorough mixing between each addition, until the mixture of correct density is obtained. The behaviour of the "comparison" fragment in this mixture is then determined: it will, of course, remain suspended in the liquid if it has the same density as that of the exhibit. In making rough comparisons of density by this method changes of temperature must be reduced to a minimum: this is conveniently done by immersing the test-tube in a larger vessel of water at room temperature during the test. When it is required to determine the exact value of the density of a glass fragment, the density of a liquid mixture in which it just remains suspended may be measured by any of the usual laboratory methods. Similarly, in the examination of larger pieces of glass (e.g. of weight over 2-3 grammes) it is best to determine the density directly by weighing first in air and then in water in the common laboratory method.

(b) *Refractive Index*

When light passes at an angle other than perpendicular from one medium to another it suffers, in general, a slight change of direction. This process is termed *refraction*, and the specific power of a substance in producing this effect is measured by its "refractive index." The refractive index of common glasses lies between 1.5 and 1.9, and is a property

which varies sharply with the nature and composition of the glass, and, by suitable instruments is capable of rapid and highly accurate measurement. The refractive index of a substance varies also with the wavelength of the light for which it is measured, and with temperature. In precise measurements, therefore, the refractive index has to be determined at a measured temperature and for light of a known wavelength. But, as in the case of density measurements, it is a simple matter to make comparisons of the refractive index of glass fragments in a preliminary examination. This determination is based on the fact that a fragment of glass in a liquid of the same colour is visible only if there is a difference of refractive index between the glass and the liquid. Of the several methods available the simplest is analogous to that used in the comparison of densities. The "exhibit" fragment of glass is placed in a few drops of a liquid of refractive index higher than its own, and then a liquid of much lower refractive index is added, drop by drop, with thorough mixing after each addition, until the fragment of glass suddenly becomes invisible. The refractive index of the liquid is then identical with that of the glass fragment. The "comparison" fragment is then placed in the liquid: if this fragment remains visible it has a refractive index different from the "exhibit." In practice it is unusual to meet with glass fragments of refractive index greater than 1.65. Thus, mono-bromo-naphthalene (refractive index 1.66) diluted with alcohol (refractive index 1.37) as described, will serve for all practical purposes: mixtures of these two liquids give a range of refractive index from 1.66 to 1.37. For glass of uncommonly high refractive index methylene iodide-alcohol mixtures may be used: these give a range of refractive index from 1.74 to 1.37.

For reasonably large fragments of glass this method may be carried out in the smallest sized test-tube that will accommodate the specimen. Owing to its high cost (approx. 2s. 6d. oz.), the mixtures should always be made by diluting the mono-bromo-naphthalene with alcohol and not *vice versa*. For tiny fragments of glass, such as may be recovered from the debris of a suspect's clothes, the comparison of refractive indices may be carried out on a microscope slide. The fragment is placed

on the slide and covered with a drop of mono-bromo-naphthalene. Tiny drops of alcohol are then added and thoroughly mixed until the fragment becomes invisible. The behaviour of a similar fragment of the "comparison" glass in the mixture is then noted.

Where the numerical value of the refractive index is needed it may be rapidly found by measuring by usual laboratory methods the index of the critical mixture in which the specimen became invisible.

(c) *Hardness*

Since different glasses vary considerably in hardness it is usually possible to obtain an additional point of difference or resemblance by comparing the hardness of "exhibit" and "comparison" fragments. It is not easy to make precise measurements of hardness. In comparing the hardness of minerals it is possible to set up an arbitrary scale of hardness by taking the following series of substances:

- | | |
|-------------|-------------|
| 1. talc | 6. felspar |
| 2. rocksalt | 7. quartz |
| 3. calcite | 8. topaz |
| 4. fluorite | 9. corundum |
| 5. apatite | 10. diamond |

Each member of this series is harder than, and will therefore scratch, any members coming before it in the series. On this scale glasses have a hardness between $4\frac{1}{2}$ and $6\frac{1}{2}$, *i.e.* the softer commercial glasses will scratch fluorite but not apatite, the harder ones will scratch felspar but not quartz. It is clearly not possible to determine hardness with any precision by this scale. It is more convenient in examining glass specimens to construct one's own scale of hardness by placing in order of hardness (as determined by their mutual scratching powers) a series of fifteen to twenty fragments of different kinds of glass. Although a scale so built up is a purely arbitrary one it permits a more precise comparison of the relative hardness of glass specimens than does the usual mineral scale given above.

(d) *Colour*

Two fragments of glass from the same source, should, after any necessary cleaning, match in colour. If there are differences in colour obvious to the eye, and it is known that neither of the samples under comparison has been exposed to strong heat or to chemical action, it is justifiable to assume that they differ in origin. It is, however, not safe to assume that two specimens are of common origin because the eye cannot discern differences of tint between them. The eye is insufficiently sensitive to colour to be able to distinguish minute, but real, differences in tint. Failure to distinguish visually between the tints of two glass fragments suspected of having a common origin should be regarded as strong justification for submitting the specimens to a rigorous laboratory examination, in which their colours may be compared scientifically in a tintometer or by measurements of their absorption spectra.

(e) *Ultra-violet Fluorescence*

Glasses of different compositions show different fluorescence colours when examined in ultra-violet light. The colours vary from black, through brown, violet, purple to lightish green or blue. The test is of limited use because it distinguishes only between glasses of markedly different composition, and the majority of common glasses fluoresce with a brownish-violet colour. It is, however, a test so easily and rapidly applied that it is conveniently made a matter of routine. It is well, perhaps, to emphasise that here, as in most of its applications, the value of ultra-violet light examination lies primarily in its ability to give evidence of *dissimilarity* rather than establishing *similarity*.

Evidence of similarity based on examination in ultra-violet light can only be regarded as strong if the precaution has been taken of measuring spectroscopically the wavelengths of the fluorescent light emitted by the specimen. This can be done only under laboratory conditions and by the use of rather elaborate apparatus.

IV. CHEMICAL COMPOSITION

The complete chemical analysis of a glass is a long and laborious process, and requires a considerable amount of material. The complete analysis of glass fragments is therefore not possible. Even if it were possible its value would be limited because of the rather narrow variations in the nature and proportions of the constituents of ordinary glasses. Micro-analytical methods have been worked out by means of which some of the constituents of a tiny fragment of a glass may be determined. But the constituents which it is feasible to recognise by such methods (*e.g.* silica, oxides of calcium, barium, boron, magnesium, zinc, lead and aluminium) are merely those which are common to the majority of glasses. On the whole, it must be stated, little evidence of similarity or difference in the case of small fragments of glass can be obtained by chemical methods that could not be obtained much more easily and rapidly by the physical methods described in section II.

Attempts have been made to work out spectroscopic methods for the examination of glasses. Such methods, while rapid and capable of detecting even minute traces of unusual metals in a glass, are, as a rule, not quantitative in character, and give no evidence as to how the elements found are combined in the specimen.

V. SPECIAL TESTS

Certain special tests are being developed in the hope of characterising glass specimens more definitely than is possible by the methods already described. Some of these special tests have the obvious advantage that they depend on the history of the specimen rather than on its actual composition. In this way it may be possible to distinguish between specimens from the same batch of glass that differ only because they have undergone different treatments after their initial manufacture.

Because such tests are essentially more complicated than the preliminary tests described above, they will be treated in less detail.

(a) *Thermal analysis*

Pure chemical substances melt at sharp and definite temperatures. Mixtures of substances such as glass do not melt sharply, but soften over a fairly wide range of temperature and thus pass gradually from the solid to the liquid state. The melting-range of a glass is useful in characterising it. This property is most conveniently studied by finely powdering some of the glass and then heating it in a furnace of which the temperature is steadily and gradually raised. The rising temperature of the glass is recorded mechanically on a rotating scale so that a temperature-time record is obtained. If the test is made with a standard quantity of the glass (5 grammes) two specimens of similar glass will give similar temperature-time records. Any differences of softening or melting temperatures of the specimens is evident in the comparison of the temperature-time records.

This method is useful when considerable amounts of material are available, but obviously is inapplicable when the "exhibit" consists of a few tiny fragments only.

(b) *Polish marks*

Glass that has been polished or burnished has latent on its surface extremely fine irregularities left by the polishing tool. These are invisible to the eye, and, usually, undetectable by normal microscopical examination. They may, however, be made visible microscopically by the following method. The glass is cleaned by washing first in soda solution, and then in alcohol. Air is then blown by a small rubber hand-bellows through some moderately strong hydrofluoric acid and allowed to impinge on the surface of the glass. The vapour from the hydrofluoric acid etches the polish marks more deeply into the surface of the glass. After a few minutes' treatment the glass is again washed in alcohol and dried. The "polish" marks may then be photographed in obliquely incident light through a microscope. The marks appear usually as series of parallel lines crossing each other at rather sharp angles. They are, of course, independent of the composition of the glass, and

are, on the other hand, characteristic of the type of tool and abrasive used in the polishing process. This method is applicable to quite small fragments of glass, so long as some portion of a polished face is available.

(c) "*Griffith's Cracks*"

When glass is annealed there are formed on the surface minute cracks, smaller than the "polish" marks, and invisible even on microscopical examination. Even hydrofluoric acid vapour fails to develop these cracks sufficiently to make them visible. It has, however, been found that if the glass is heated to about 300° C. in an atmosphere of potassium vapour at a pressure of about 1000 millimetre these "cracks" become sufficiently enlarged to be visible when examined in oblique light under the microscope. The Griffith's cracks are different in appearance and structure from the polish marks, but, like them are dependent on the history of the glass rather than on its composition. It is not yet possible to say how far a glass specimen can be definitely characterised by the examination of these "cracks," but experiments so far carried out suggest that this is one of the most promising methods of examination, the more so because it is applicable to quite tiny fragments of glass.

In conclusion, it may be emphasised again, that inasmuch as conclusive evidence of the identity of origin of two specimens of glass is seldom obtainable in practice, it is desirable that as many as possible of the tests described should be applied in the comparison of glass fragments. Only by so doing can any opinion expressed as to their being of common origin be raised to a high probability value of correctness. Such an opinion should be based, as a minimum, on agreement between the colour, ultra-violet fluorescence, density, refractive index hardness, form and type of fracture of the specimens. In addition, some attempt should be made to confirm the agreement of these tests by the use of one or more of the test mentioned in section V.

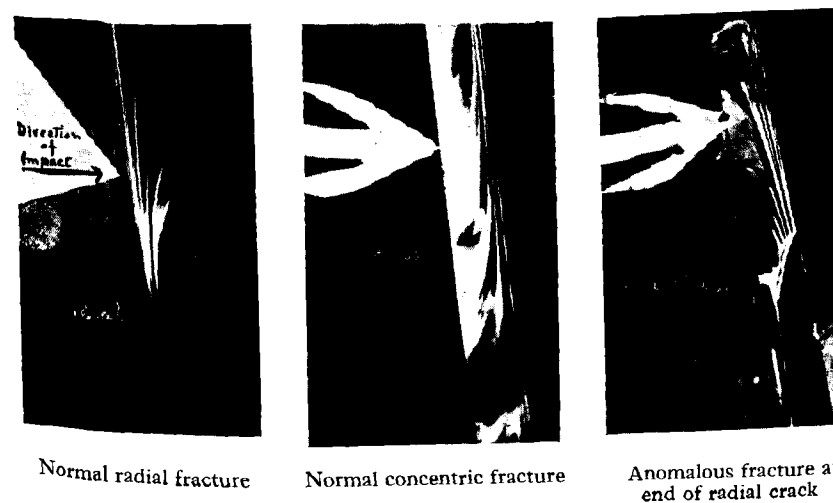


FIG. 3

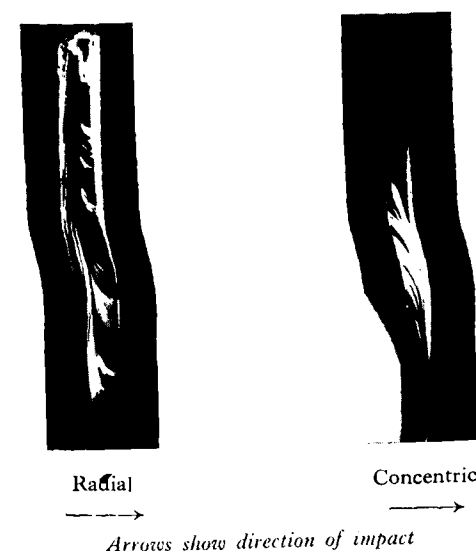


FIG. 4

(face p. 311)



Set on pack using the quarter wave aerial. The controls are underneath the instrument case on the operator's back



Shoulder harness slipped off and the set in use with quarter wave aerial on the ground. Switch and tuning dial just visible on top of the instrument case



Set in use with the dipole aerial. It can be held and operated thus very simply, otherwise put on rocks, walls, etc.

The Marconi Type H.9a Lightweight Radio Telephone Set for Police Purposes

By MAJOR D. H. J. WILLIAMS

Commandant, South Waziristan Scouts

VARIOUS little problems confront those whose duties comprise watch and ward, preservation of the peace, in different parts of the Empire. Among these is the problem of communication, more pressing as a rule in backward and undeveloped territories than elsewhere.

On the North-West Frontier of India the local civil armed forces consist of the Police, the Frontier Constabulary and the Frontier Corps.

The Frontier Constabulary and the Frontier Corps (the latter consisting of various corps of Scouts and Militia) are both organised on a semi-military basis, and have very similar duties. The Frontier Constabulary lives and operates roughly speaking on the "Administrative Border," and the Frontier Corps in that strip of tribal territory which lies between the "Administrative Border" and the Afghan frontier.

We both occupy chains of small posts and our duties comprise patrol, interception of raiding gangs, dealing with outlaws, and other tasks of this description. The whole is suitably summed up in the budget head which concerns us as "Frontier Watch and Ward."

Communications can exercise great influence on our activities, and until recently on patrol were confined to visual means, helio, lamp, or flag.

The mountainous nature of the country calls for lightly equipped patrols whether horse or foot. It was for long obvious that wireless would be a great improvement on visual methods, but any such equipment had to be simple, really light and reliable.

Until the production of the Marconi Type H.9A we were unable to find equipment answering to our requirements. In my own Corps we have now used this equipment for some eight months with very satisfactory results. Others are taking it up, and some notes on this radio telephone set may therefore be of interest.

I will not give any technical detail of the H.9A, all of this can be found in the Marconi handbook "Working instructions for the lightweight telephone set type H.9A." Some idea of the instrument, the method of carrying and operation, can be gained from the accompanying photographs.

The total weight of the set is eighteen pounds. It is divided into two parts, first the instrument box, all metal, and enclosed in a strong waterproof case to which the shoulder harness is attached, secondly the battery haversack. This division of the equipment is most convenient. The instrument box very rarely requires opening up for inspection or replacements of parts, and is in fact best left alone. The batteries on the other hand must have attention, their inter-connections require inspection, and they themselves must be periodically tested and renewed.

A pocket on one side of the instrument case holds the microphone and headphones, when they are not in use. A very simple and comfortable design of canvas strap is used to keep the phones on the head. Almost any headdress can be worn without discomfort when using the phones.

The wave range of the set is 4.75 to 5.25 metres. This very low wavelength gives freedom from atmospheric interference in all conditions of weather and climate, and speech is therefore always clear.

The instrument is of course a combined transmitter and receiver. Two valves only are used. Both these are identical, which means for the purposes of spare parts only one type is necessary.

The controls are simple. One a knob for tuning, the other a strong metal switch for Send-Off-receive. On an operator has tuned in, operation of the switch also remains to be done.

Two types of aerial are used with the set. The first

MARCONI H.9A RADIO TELEPHONE SET 321

quarter wave, the second a dipole aerial. Simplicity of design is seen here. The dipole aerial is formed by plugging in a second quarter-wave aerial. In reality therefore the operator carries two quarter-wave aerials, each consisting of two light alloy sections. The second quarter-wave aerial can be plugged in at an angle of 180 degrees to the first one at any time dipole working is required. Otherwise it forms a very useful spare.

The batteries contained in their haversack are,

108 volt for H.T. supply

3 volt grid bias

2 volt unspillable accumulator for L.T.

This last gives twenty-four hours' continuous working. In practice we find it necessary to recharge L.T. accumulators about once a month. H.T. batteries last us about six months, though it is of course impossible to say exactly. The factor is too variable, depending on the amount of work done.

Having described the equipment as shortly as possible, I pass now to our experience of its operation over the past eight months. We have had eight sets in use during the period.

The range of the set varies greatly according to the type of country over which it is used. On a flat plain it achieves its shortest maximum ranges. Using the dipole aerial this is from two to three miles. Across a valley, from hill to hill, or mountain to mountain, it achieves its longest maximum ranges. I do not know what the limit may be, but twenty-five miles should be easy. Our conditions of work take us mostly in and on mountains, with intervening ridges between a patrol and its base. Under those conditions I can give some idea of the limiting factors. Communication has frequently been carried out over seventeen to eighteen miles, with intervening contours rising to a height not exceeding six to seven hundred feet above a line of sight between communicating stations.

The country we work over is generally rather bare hills. In well-wooded mountain country these limiting factors might perhaps be reduced. It is hard to say. I tested these sets out in Devonshire last year, and found an average range

of two to three miles over the flatter parts of the country round Exeter. I also established communication between Hay Tor on Dartmoor and Woodbury Common near Exmouth. This latter distance was approximately eighteen miles as the crow flies.

The dipole aerial, which is far more effective than the quarter wave over long ranges and over obstructions more than an odd hundred feet high, is highly directive. It is impossible to lay down hard-and-fast rules, as factors such as large conducting masses near a set affect the matter, but as a guide dipole aeriels should be used horizontally, and approximately at right angles to the direct line between stations. Experienced operators will soon get used to this point, and swing their aeriels slowly to the position of best reception. Inexperienced operators may quite well fail to get communication at all over this point, if they are doubtful, within forty degrees or so, of the direction of their communicating station.

The operation of the instrument could hardly be made more simple, and our somewhat illiterate Pathan ranks mastered it very quickly.

Although equipment under our conditions of service receives considerable rough treatment, we have only had a total of three breakages of a minor nature among our eight sets, over a period of eight months.

On the first occasion a set was dropped from about seven feet on to a rocky hillside. An ebonite socket for the aerial plug was broken. The valves were quite unaffected, to date in fact no valve replacements have been required in any set.

On the second occasion an operator coming under fire rolled over on to his back where the set was. The ground, being hard and stony, damaged the ebonite aerial plug. The spare quarter-wave aerial proved useful this time for maintaining communication thereafter.

The third breakage was a damaged L.T. accumulator terminal, due to a heavy fall on rocks.

The robust reliability of this equipment has surprised me more than anything else in connection with it. One would have been quite prepared for minor internal faults,

MARCONI H.9A RADIO TELEPHONE SET 323

valve replacements, etc., in our rough work. However, the instruments themselves have not required looking at during their eight months' use. Maintenance has been confined to tightening battery connections, and routine replacements of accumulators or batteries.

A set was once completely immersed in a river. The operator lost his footing in a deep ford. Dried off in the sun, the instrument continued to function perfectly, though the H.T. battery suffered from the immersion.

It should be realised that in looking for this type of equipment and in adopting it, we weighed its value against that of the only communications our patrols previously had—visual signalling. The advantages of the H.9A telephone set over visual communication should be appreciated.

1. Communication can be maintained in weather which prevents visual signalling, cloud, rain, dust, haze, etc.
2. It is invisible in operation, day or night, a very important point if secrecy is required.
3. By comparison it is light, weighing less than all the day and night paraphernalia of visual methods.
4. Although the apparatus is limited in the height of obstructions, hills, etc., over which communication can be obtained, there is no question of stations having to be in sight of each other, and it does function at appreciable distances over obstructions several hundred feet high.
5. The operator requires no technical signalling training. Any intelligent man can work the instrument, using his own mother tongue.
6. Communication can be established very rapidly, on the move if so desired.

I have mentioned above the division of the equipment into two loads, and given two reasons why this is convenient. We did actually try out an earlier instrument of American origin which was all contained in a single metal box. It weighed twenty-seven pounds, rather heavy for our purpose, but from it we found out the disadvantages of equipment contained in one case. Switches were continually being

left on after use, or knocked on accidentally and not noticed.* Every minor fault in batteries and their connections, every inspection of these things, necessitated opening up of the instrument. In addition spare batteries, if required, had to be carried loose. Spare batteries can readily be carried for the H.9A, connected up and ready for immediate use, in a second battery haversack. In practice the instrument is far more economical in its consumption of current than the first one tried out, and we have not so far found carriage of spares necessary. Instruments have been used on treks of nine or ten consecutive days, and could no doubt be used for much longer periods without any risk.

The instrument box is very small, not large enough to attract attention. It can be conveniently left on the top of rocks, walls, etc., while the operator remains behind them under cover.

We have now used this equipment in most types of weather, from hot-weather days with the shade temperature at 110° or more, to cold-weather days with a continuous downpour of rain and a temperature near zero. In the latter misery it was necessary to empty the aerial sockets of the sets of water periodically, or perhaps it was not necessary, the instrument did not seem to mind either way. We have not tried them in a snow-storm. A young officer had an excellent chance to do so some months ago, but the equipment at his remote post was at that time very new and very precious, so he wrapped it up carefully and went out with no communication instead.

Finally I can only say that this radio telephone set has proved robust, reliable and useful in all conditions of our work, simple to maintain and to operate. There must, I think, be more than a few Police organisations throughout the Empire to whom it would prove of value.

* Impossible on the H.9A, as the battery lead is disconnected and packs on the instrument case when not in use.

Detective Organisation and Procedure

THE REPORT OF THE DEPARTMENTAL COMMITTEE
(Continued from page 204)

II

SELECTION AND TRAINING; RECORDS; COMMUNICATIONS

MEN; machinery; movement. The investigation of problems relating to any phase of human affairs invariably demands the examination and treatment of these three subjects. The detailed examination by the Detective Committee of the subject-matter of their inquiry fell naturally under the main heads of selection of personnel for the detective branch, training, the records and equipment necessary to be maintained for various purposes, communications, scientific aids, and legal and miscellaneous questions. So wide proved the scope of the inquiry, the conclusions to be drawn and the recommendations to be made, that selection and training, records and communications are dealt with in separate volumes. The task, both for the administrator and the student, of assimilating the report and finding ways and means to implement the Committee's recommendations, is further eased by the inclusion, in various appendices, of draft rules, instructions and *pro forma*.

THE SELECTION OF DETECTIVES

Adherence to the general principles enunciated by the Committee will ensure, to the satisfaction of police officers in general, and of detectives in particular, a future development of the criminal investigation department which is essentially *police* in character. For police officers who have the good fortune to be selected for duty in the C.I.D., the report opens up

an improving personal status and enhanced prestige, as well as the prospect of a wider recognition by the public of the quality of service rendered to the community by this important branch of the public service.

The conclusion reached by the Committee that experience in the uniform branch of the police force is an essential qualification for appointment as a detective will be received in the service with satisfaction. The fact that such a conclusion could be reached with unanimity is testimony not only to the integrity and skill generally found to have been shown by detectives who served as such before the commencement of the Committee's inquiry, but also to the response made by detective officers, of various ranks, and of widely differing ages, who attended the experimental courses organised at Hendon and Wakefield before the Committee committed themselves to final conclusions. Now that detective training schools are an integral part of the organisation of the English Police Service, it is difficult fully to appreciate the obstacles of the past, and necessary to acknowledge the good work done by officers who successfully "delivered the goods" in spite of the defective mechanism of their former organisation.

The pioneer work in the field of detective training, carried on in some forces for many years before the appointment of the Detective Committee, is rightly acknowledged, and the data furnished in the form of memoranda and evidence of officers experienced in this field of work made a good foundation for the Committee to build the structure of the modern detective training course.

There will be general agreement that, although the need for educational qualifications merits suitable emphasis, it is not proposed to institute an inflexible educational standard of entry from the uniform to the detective branch of the police force. The Committee wisely put first things first: the field of selection, limited as it must be to serving members of the force, must be wide enough to enable every police officer who shows special aptitude for detective work to be considered for employment in the C.I.D. Accordingly the qualities of restraint, discipline, and above all the consciousness of duty to the public, which are acquired almost exclusively in the

DETECTIVE ORGANISATION AND PROCEDURE 327

training and routine duties of a police constable, are made the basis of the initial test.

On these and similar grounds the Committee also reject the proposal that the qualifying promotion examinations should be taken before a constable is considered for employment in the C.I.D. The successful detective is the man who has initiative, industry, an infinite amount of patience, and the ability to follow up lines of information with a diligence, a shrewdness and a tenacity which can only be generated by the man himself and not merely infused from a superior officer, even less by an instructor. Most experienced police officers could point to individual detectives who, through lack of educational opportunity in early youth, are weak in the examination room, yet having all these qualities, they prove to be unusually well fitted for detective work.

TRAINING OF DETECTIVES

Following the principle emphasised early in their Report, that the detective and crime preventive work of the Police are tasks to be shared by the whole of the Service, the Committee have inserted an appendix which deals with that portion of the syllabus for the training of police recruits which relates to crime and crime prevention and detective work. The subjects prescribed are intended to be interspersed with and not separated from the rest of the Recruits' Training syllabus.

Training in some form or other is necessary in practically every form of organisation, and where, as in the Police Service, there is a constant inflow of personnel to fill the ranks of those who leave the service, as well as a continuous development of duties, and the methods by which duties are performed, unless "training" is given its due place the whole organisation suffers. Successful measures for training depend not only on the planning of an appropriate syllabus, but also on the selection of the teachers. Moreover, the teachers, however well qualified and suitable for the purpose of the instruction in hand, cannot succeed in their task unless the teaching is given in surroundings in which buildings, locus, and social amenities

all have a contribution to make in producing the atmosphere required.

This essential requirement was recognised by Lord Trenchard when, in his reorganisation of the Metropolitan Police Force, he decided to inaugurate the Metropolitan Police College in the premises and surroundings selected for the purpose at Hendon. It is recognised and acted upon in many professions, particularly in the University centres and in the institutions, maintained largely if indirectly at the cost of the public purse, devoted to the training of members of the scholastic profession. The recommendations which the Detective Committee make for developing the organisation and facilities for the training of detectives should be regarded, therefore, more as a good beginning than as a piece of machinery to be set in motion and left to run itself on the lines laid down in the report. If this fact is acknowledged, police authorities should in due course be asked to direct their energies, in consultation with officers responsible for the administration and organisation of the courses, and with the officers engaged as teachers, to develop detective training to a degree of proficiency which will make the Police Service effective for its duty in the detection and prevention of crime, and the prosecution of offences.

Since the issue of the Committee's Report the recent extension in the use of the Metropolitan Police College, whereby officers from forces outside the Metropolitan Police Force are to be accepted for training, has opened up the prospect of a closer alliance between the aims of the Detective Committee and the selection and training of officers destined for the higher ranks.

The syllabus of detective training outlined by the Committee (appendix 6 to Volume 2) runs into eight weeks, and thus every constable who seeks to be chosen for employment in the C.I.D. is armed with a full list of the qualifications which he must possess, and the duties which he will eventually be required to perform, if he has the good fortune to be selected for detective duty.

The syllabus itself indicates a recognition that something more than educational and paper knowledge is essential to the

detective. Observation tests, general intelligence, a true appreciation of the use to which various "aids" can be harnessed to his task, as well as an acknowledgment of his duties as policeman and citizen, form the ground work of training of the detective. Selection for the training course must obviously be preceded by some years of study, in which the individual acquires a true conception not only of his functions in the office of constable, but also a comprehensive knowledge of criminal law and police procedure.

The Committee does not appear to have explored the possibility of linking up the training of police with facilities existing in the universities and educational and technical institutions. No steps, apparently, have yet been taken by university and other educational bodies to inquire whether their services could usefully be extended to the field of police and detective education; though at least one of the Colonial forces now requires candidates for the administrative side to possess a science degree. The tendency, as we shall notice later, has so far been to set up the Home Office Forensic Science Laboratories quite independently of the local universities. How far this plan is long-sighted enough to prove the wiser course cannot now be envisaged, but if we apply the axiom that the detective cannot do his work without calling in the aid of all sorts and conditions of men (*e.g.* jeweller, pawnbroker, lodging-house keeper, banker, medical practitioner) there seems good ground for drawing attention to the wisdom of utilising the universities as the centres for advanced and technical police education. In a small way in some centres, *e.g.* at Hull and at Exeter, the university buildings and scientific staff have been used for short courses, and merit further examination as to their advantages.

SELECTION OF INSTRUCTORS

The Police Service is one of the few vocations in which no steps have yet been taken to offer professional or academic honours to its members on attaining rank or a standard level of qualification or rank. While there is no profession or branch

of public service which is entirely analogous to the Police, reference may usefully be made to those which are fairly comparable. The fire service, municipal and county engineering, electrical engineering, sanitary inspection, public health, all have their machinery for the award of degrees or diplomas. The defence services have their badges of specialist rank and distinction, including gunnery, wings, physical training, torpedo. The military officer who passes his staff college course is gazetted p.s.c.

The adoption of a comparable system in the Police Service would give due recognition *within the Service* rather than publicly to officers who distinguish themselves, and benefit the Service by qualifying as instructors in varying subjects, or otherwise qualify for employment in the various specialist posts. The suggestion is not merely fanciful when it is noted how, with considerable success, many officers have filled the new designation of Instructor in A.R.P.

The instructors of the police must in the main be selected from within the Police Service. Apart from highly technical specialists it is a fallacy to assume that a man who has no experience of an occupation is useful as an instructor of a training class for people in that occupation, regardless of his other qualifications. Apart from the practical difficulties of the man in trying to teach the subject, he would not command the respect of the trainees, who would soon recognise that he is trying to prepare them for work in a field in which he is himself inadequately informed. Adequate experience as a policeman is an indispensable requirement for a teacher of policemen. But the police instructor should also possess the technique of teaching; he must know enough about teaching methods, and have the personality to be able to do a reasonably good job of teaching what he knows to men who know less than he does. He must fulfil two specific requirements: (i) he must be sufficiently experienced and sufficiently well informed regarding the practical work of the police to have a foundation on which to work as an instructor; and (ii) he must be sufficiently trained as an instructor to be able to use efficient and modern teaching methods in his teaching.

The prospective instructor for the detective training

DETECTIVE ORGANISATION AND PROCEDURE 331

school must therefore be selected mainly on (i) his police experience, and (ii) his teaching qualities. To fulfil the latter requirement he must be a "well-balanced" officer, with the personality of the good teacher. Just what this means can be summed up, in the words of an American writer, in the description of the four principal groups of characteristics which any individual may be expected to possess in varying degrees. These four groups of characteristics are shown by the way a man deals with (i) things, (ii) ideas, (iii) other people, and (iv) himself. The way a man *deals with things* is indicated by the way in which he does everyday things connected with his job. If he is a mechanic it is reflected in his skill in the performance of his work and the way he handles tools and materials. Some people who have had a great deal of schooling are helpless in doing small practical things in a skilful way, such as making minor adjustments to a motor-car, or repairs about a house. A man who has a certain amount of ability to deal with things intelligently or, in other words, to use his hands and head with some degree of skill, measures up well in the test of his possession of characteristic No. 1.

The way a man *deals with ideas* is meant to suggest the degree to which he has "brains" and intelligence, as distinguished from the number of years spent at school and the school attended where he received his education. Ability to deal with ideas means also ability to think straight, or to reason things out clearly and logically, from cause to effect, and to arrive at sound conclusions, logically expressed, when all the elements of the problem are known. The police teacher clearly needs this ability if his trainees are to benefit, and possession of skill and experience in other directions, as for example individual in detective work, or ability in athletics, are not satisfactory substitutes for the ability to deal adequately and competently with ideas.

Ability to *deal with people*, the third essential characteristic for the teacher, has been referred to by one writer as "social intelligence," but in police circles can be more appropriately termed the ability to be a good mixer. More, the police teacher must be able to demonstrate how the habit can be cultivated into leadership, plus the ability of being able to

speak to and lead an audience as well as to speak to and guide the individual.

To talk of the way a man *deals with himself* is really to say "what he is" rather than what people think he is. An instructor in the Police Service is obviously in a position where leadership is necessary. He must be a man who actually has those characteristics if his trainees are to have confidence in his ability to lead and teach them.

The teacher's progress in making himself fitted for the task of turning out detectives from the course outlined by the Committee will, therefore, consist of four principal stages, as follows:

1. Securing an appreciation of the teaching job.
2. Developing the ability to do a good teaching job.
3. Developing the ability to plan instructional work.
4. Developing the ability to prepare teaching material and to use it intelligently.

The members of the Detective Committee would be the last persons to suggest that detective training is exhausted by the syllabus contained in Volume 2 of their Report. As indicated in the summary, "courses of instruction cannot take the place of experience," but they are of incalculable value as laying the foundations accumulated as the result of experience, and also to carry on the great traditions on which the reputation of the Service has been built.

That the Police Service is ready to-day to find the teachers for the Service of to-morrow has been well demonstrated in the comparatively short time since Detective Training courses have been organised on a national scale. Many of the teachers employed on these courses had, of course, varying experience of the work at their respective force training schools, and the Detective Committee was fortunate to find in them a nucleus for the staff required for the courses set out in the recommended syllabus.

The Police Service in general, and the Detective Committee in particular, have good reasons for pride in the fact that the schemes were framed, and largely piloted on their original courses, under the skilful chairmanship of Mr. John

Maxwell, Chief Constable of Manchester. Mr. Maxwell's own career, begun in the rank of constable, is an example and inspiration to every young officer who seeks to profit by the Detective Committee's scheme for the training of detective officers and the improved status of those whose duty and privilege it is to serve in the C.I.D.

Is it too much to hope that the ultimate sequel to the deliberations of the Detective Committee will be the establishment of a "Council of Police Education," comparable in status and value to the council of legal education maintained for the English Bar, and with the academic bodies of similar organisations, serving to safeguard the status and promote the efficiency of the members of the profession concerned?

RECORDS

As the skill of the craftsman depends in large measure upon the quality of his tools, so in criminal investigation the success of the detective officer depends largely on his skilful employment of various "aids." Records are the tools of the detective. In the chapter (Vol. 3) devoted to the subject of records, the Detective Committee show, for the first time in the history of the English Police Service, how the records of crime and criminals must be co-ordinated to serve the needs equally of the Criminal Record Office at New Scotland Yard and of the detached stations of remote county police forces. When the model system prepared by the Committee is in complete and active use throughout the country its value is likely to be demonstrated mainly in two directions. The first and main advantage of a common system for records of crime and criminals is that, since criminals do not observe the boundaries between police districts, records of uniform pattern and quality will better serve the needs of the country as a whole, and thus facilitate national and regional, as well as local, organisation for the dissemination of crime news and intelligence. The second and, from the wider aspects of economy and national prestige, equally important consideration is that records of crime and criminals should be so uniformly organised as to

present, in the annual Criminal Statistics, a well-audited and authentic account of the social record of the nation. It has to be admitted that, despite improvements in recent years, much has still to be done to make the annual volume of Criminal Statistics the authentic document it should be, enabling conclusions to be drawn not only as to the social record, but more particularly to point to the areas where concentration of preventive forces and social reforming influences are in most urgent demand.

As in other spheres of the inquiry, the Committee found that, in many forces, a great deal of useful work had already been done. So evident was this, in the case of records, that the main difficulty appeared to be to ascertain the best means for superseding many systems of merit by one system the chief merit of which is that it will promote uniformity and a common standard on which to work. Inevitably, therefore, some delay must occur before every administrator is convinced of the wisdom of replacing his own records organisation by the model system recommended by the Committee and now urged for adoption by the Secretary of State. The cynic would be well advised to turn to those pages of the Report in which the Committee discuss the merits and demerits of the former haphazard arrangements, by which some forces maintained elaborate records of criminals which were at best an inadequate attempt to imitate the statutory functions of the Criminal Record Office, while others omitted to keep any but records of persons who had been convicted in their own courts.

Although published as a separate volume, the Committee's conclusions on the subject of co-ordinated records must be examined in conjunction with the main principles laid down in the earlier review (chapter III) of the detective work of the police. The responsibility for the detection of crime and prosecution of offenders is one generally to be borne by the constable, acting under the Crown. The danger of over-centralisation is, indeed, raised by the Committee themselves. It is always possible to systematise any organisation, particularly one like the police, so beyond the bounds of sound judgment that it speedily becomes an encumbrance and an unjustified expense. The need is always present to ensure that the

application of the general to the particular case does not result in an inadequate service to the particular case. Elaborate schemes which seem appropriate to the larger organisation may call for ridicule when the attempt is made to apply the same standards to smaller ones. The system becomes top heavy. The logical attitude is to apply the system with discrimination and with due regard to its application (i) to the local needs, and (ii) to make it accord with the system used for larger and related units.

In building up systems of criminal records in the past, too little attention was paid to the need for discriminating between the various sections of records, their purposes and scope. No attention was given to the need for co-ordination between the systems kept for common purposes by different forces. As the Committee point out, records should be separated into three classes, (i) records of crimes, (ii) of criminals, and (iii) of property. Those who remain unconvinced on this point will find adequate answer in Volume 3. While records of criminals have been systematically maintained since the establishment of the Criminal Record Office at New Scotland Yard, it is but recently that the need has been felt for systematic and uniform treatment of the records relating to the remaining two categories. Their importance, explained by the Committee, is emphasised below.

RECORDS OF CRIMES

The general principles on which an effective system for maintaining records of crimes must be founded are that (i) the records should be complete, (ii) there should be connecting links in related crimes to facilitate supervision, (iii) the progress of inquiries should be capable of being recorded without unnecessary clerical labour, and (iv) "the records should be in such form as to enable the Chief Constable to obtain, for the purposes of supervision and direction of the force, the maximum value from the material at his disposal." The Committee proceed to recommend the adoption of a uniform system and standard forms by which effect would be given to

the principles enunciated above. Three main instruments are recommended: the crime complaint book, the crime report and the crime register.

Records of crimes are not so much the tool of the investigator as of the administrator, and the crime complaint book is to be regarded as an immediate and permanent record of every complaint that, within the jurisdiction of the police district concerned, a crime has been or is alleged to have been committed. From the angle of administration the crime complaint book is an essential piece of bookkeeping. Without a system of official receipt for moneys received no servant can be expected to handle his employer's accounts, or provide the auditor with the data on which the shareholders of the company can be satisfied with the progress of business. Similarly, without the crime complaint book, in which the official record is entered as soon as a crime or alleged crime comes under the notice of the Police, no Chief Constable can be satisfied that his state of crime can be given the test of audit.

As in the simile of the cash receipt book, the crime complaint book is thus the basis on which the interior economy of detective work is founded. The cash receipt counterfoils, in due course transferred to ledgers and customers' accounts, together with the profit and loss and departmental financial statements, remain the foundation of the company's accounts. And, since cash receipts and their auditing are a systematised function, the machinery for auditing and bookkeeping of crime records should be systematised by the use of an analogous *pro forma*. The *pro forma* for the crime complaint book recommended by the Committee is set out in an appendix to Volume III.

If every crime or alleged crime is recorded when it first comes to the notice of the Police, the basis of crime bookkeeping is sound. The record is thus available for the further stages of accountancy and disposal.

The annual volume of Criminal Statistics presented by the Home Secretary to Parliament makes but a passing reference to undetected crime, the bulk of the tables relating exclusively to persons dealt with on apprehension or otherwise proceeded against. While it is of value to know the number of

DETECTIVE ORGANISATION AND PROCEDURE 337

persons proceeded against, the remedies produced, and adjudications pronounced, the community should be no less interested in the volume and variety of crime which is committed of which the perpetrators remain undetected.

The Criminal Statistics, 1937, show that of 266,265 crimes committed in England and Wales, 130,973 were cleared up during the year.

The Crime Report, the next stage in the model system of recording crime, is designed to be the instrument by which the administrator will maintain active supervision, through the progress of inquiries, with the executive. The crime report is the basis of the file relating to the particular crime, and the model form recommended by the Committee facilitates a picture of the salient features of the case, including several factors making up the method by which the crime was committed and other details on which specialist aids may be invoked. Provision is made for supplementary or progress crime reports, and the follow-up investigation, the subsequent review of circumstances and re-exploration of clues, in the undetected cases, all of which are supplementary to the crime report on the file.

The Crime Register is the third link in the chain, constituting the permanent record of the crimes committed in the police district and their disposal. The opportunity is taken by the Committee, after examining the merits of various forms of register in use, to point to the modern method of looseleaf binder which facilitates the use of typewritten entries and a minimum of duplication.

Given the complaint book, report and register in the forms recommended by the Committee "to be adhered to in all essentials in the record system of every force," there is reason to hope that future volumes of the published statistics will be less subject to criticism on the ground of unreliable foundations.

RECORDS OF CRIMINALS

Records of criminals serve a different purpose and must be distinguished from records of crime. In paras. 185-290 of

the Detective Committee's Report the student will find excellent guidance, not hitherto available in the bibliography of detective work, on the scope and purposes of the various forms of criminal records, ranging from the national records of convictions maintained at the Criminal Record Office to the single fingerprint M.O. and photographic indexes now maintained at every force and many divisional headquarters throughout England and Wales. Each in its separate category has its value. Registration records, identification records, main and single fingerprint records, records of names, methods (M.O.) and personal characteristics, and photographic records are examined, classified, and dealt with in respect of their relative importance from the local, inter-force, regional and national aspects. The fundamental part which criminal records must play in the technique of general detective duties is dealt with:

"Records of criminals . . . enter directly into the investigation of crime, supplementing the inquiry work in various ways, their main purposes being to make accessible to police officers, not only locally but wherever the information is required, as much of the accumulated knowledge of criminals, their names, ages, descriptions, distinguishing marks and methods, as can be recorded in and imparted through the medium of systematised indexes. The information available to a detective investigating a crime may go so far as to give the suspect's name; but much more commonly it will only afford, with varying degrees of precision, particulars of his personal description or some peculiarity of feature or manner or of his associates; or it may consist in a fingerprint left at the scene of the crime. In many cases there may be no information at all about the individual responsible for the crime except such as is afforded by characteristics of the crime itself. Given such particulars, it may be possible for a detective, from his personal knowledge of criminals with whom he has come in contact and their respective methods, to recognise at once the identity of the individual in question. Every experienced detective has a store of information of this kind, but if it remains personal to himself it necessarily dies with him, and even while he lives and is in active service no use can be made of it except in so far as he can be made personally aware of the details of any crimes which to him (and possibly to him alone) suggest a certain individual as the perpetrator. Obviously, therefore, such information can only be of use in a very restricted field unless it is reduced to a form

DETECTIVE ORGANISATION AND PROCEDURE 339

in which it can be systematically recorded and indexed, with a view to recognisable characteristics being 'picked up' when they are required. This is the main object which the records of criminals now under discussion are designed to achieve."

The work of implementing the Committee's recommendations in the introduction of the Local Record system is helped by the issue of a model set of instructions. Probably no item in the Committee's itinerary proved more difficult to traverse than the question of the respective merits of national, local and regional records of criminals. But careful examination of the Committee's report shows there can be little doubt as to the soundness of the conclusions reached, or of the wisdom of putting the work in hand with the least possible delay.

RECORDS OF PROPERTY

If any police officer will reflect for a moment on the point, he is bound to agree that articles of property, their location, description, value and kind, play a major part in the solution of the majority of crimes. Indeed, in the cases of many of the more common forms of crime, such as the theft of a bicycle, the detection of the offender depends almost wholly on the stolen property being traced. The tracing and recovery of the article stolen is important to success in any crime of stealing. The identification of the accused with an article which becomes an exhibit in a criminal prosecution may have an important bearing on the verdict of the jury. To classify and index all articles of property which are involved in theft or other forms of crime would be a task too unwieldy and heavy to be recommended for adoption in every police station, but the Committee draw attention to the need for each force to keep such property records of a simple character as may be necessary for the needs of the particular case. The establishment in recent years of a central and comprehensive property index for England and Wales is a welcome asset which has already proved its worth to the Service.

FINGERPRINTS

The sub-committees which dealt with records and communications were fortunate to have the services in a co-opted capacity of Mr. Harry Battley,* and his researches and knowledge of fingerprints are reflected in the conclusions reached by the Committee on the subject. Fingerprints are examined, however, from the angle of organisation and procedure rather than from the point of view of the fingerprint expert. The respective requirements of the local, regional and national fingerprint collections are discussed, and sound advice is given. The different purposes served by *sets of fingerprints* and *single fingerprints* are made clear. A recommendation is made that the fingerprints of every member of the force should be filed so as to be available for ready reference. This seems to have given rise to doubts among a small number of policemen as to whether an order that this recommendation should be acted upon was not a reflection upon their integrity. But careful examination of the matter shows such an attitude to be fallacious. Fingerprints are not evidence of wrong-doing but of identification. A finger impression found at the scene of a crime does not prove the guilt of its owner, but merely his presence there. The fallacy may have its origin, among policemen, in the fact that under present practice all fingerprint sets are taken on the form which is prescribed for the fingerprints of accused or convicted persons, and on which provision is made for "prisoner's signature," the details of the charge, conviction, or remand, and other particulars of the "prisoner." The object of taking and filing sets of the fingerprints of the police is, of course, to save time during the early stages of an investigation, when it may be necessary for purposes of elimination to take the fingerprints of all persons, including police officers, who may have come in contact with the article on which a finger impression is found.

Although the report of the Detective Committee does not deal with the point, there seems a need for revision of the

* Students who wish to have practical guidance on fingerprints are referred to Mr. Battley's articles on the subject in Volumes X and XI of *The Police Journal*.

DETECTIVE ORGANISATION AND PROCEDURE 341

official fingerprint form to eliminate from its *pro forma* all reference to the subject as a "prisoner," or at least for the *pro forma* to distinguish clearly between a set of fingerprints taken from a person who is charged or convicted of an offence and the set of fingerprints taken from and with the consent of a person against whom no charge has been preferred.

A revised form, suitably prescribed for the purpose of taking fingerprints of persons unconnected with crime, and accompanied by wisely directed propaganda, might result, in time, in a larger national collection being available, comparable in size with the collection now accumulated in the Federal Bureau of Investigation at Washington. The first need, if such a proposal could be acted upon, would appear to be to dissociate fingerprints, *qua* fingerprints, from crime records, and to make them part of the identification records of the community, perhaps ancillary to those maintained for the registration of births and deaths. Apart from sentiment, no logical objection can be sustained to such a proposal. It gathers emphasis as we contemplate the conditions of modern war, where in the absence of some ready and simple means of identification like that of the fingerprint, there is the risk that many victims among the civil population, like soldiers in the Great War, would have to be recorded as "missing."

CLEARING HOUSES

The Committee make a number of observations on the propriety of extending the number of clearing houses, where by mutual arrangement, shared financially by the police authorities concerned, the inter-force organisation of adjacent forces in relation to crime records, publications and other phases of detective organisation can be pooled. In the past such centres, where they existed, and where much good work was performed, were not organised on a systematised plan, and remained unco-ordinated with each other or with New Scotland Yard. The result is gaps in some directions, and overlapping in others.

"Thus, it is by no means uncommon for a force which has circulated an information to find that, when an identification can be made on the basis of M.O., suggestions are received not merely from one centre but from several. On the other hand, the local record systems from which these identifications have been made can only be partially effective, because of the incompleteness of their records of criminals whose crimes have been completed in other police districts. The remedy, in our view, is clear, namely, to systematise the work by the formation of clearing houses serving, in the case of regional centres, such adjacent forces as can be most effectively served from each centre or, in the case of the Criminal Record Office, the country as a whole."

The clearing houses would also be suitable for the issue to the forces concerned of crime memoranda and composite crime informations. Such publications issued over the area of a number of forces would not supersede the local crime informations. Chief Constables would retain full discretion to supplement any information which is circulated in a group paper by issuing to their own forces such additional crime information as they think desirable. The need for this decision is emphasised when we return to Appendix 3, and observe that the great bulk of persons who commit crimes are resident in the police district, and their arrest or detention can only be effected in that district.

COMMUNICATIONS

Closely related to records, the subject of communications is covered by the Committee in a separate volume (IV), and ranges from means of communication by wireless and teleprinter to the form of communications by which constables on their beats can be informed rapidly of any item of news or intelligence that will enable them to assist in the prevention of a crime or in the detection and arrest of an offender. Wireless is not exhaustively dealt with, having regard to the separate examination of this problem by other authorities, but for the general and specific duties of the Police in preventing and detecting crime sound principles are laid down, for the guidance of the technical staff, in planning the extension of wireless

to those areas in which no steps have yet been taken to use this valuable aid to police communications.

Other forms of communications, particularly the telephone, are examined. The organisation of communications on a plan to meet the needs of the local and inter-force systems is urged. The appointment of an "information officer" for every force is recommended, as being the appropriate method by which the organisation of the force's communications can best be handled. In the largest forces this officer would have appropriate rank, with a special staff, and in the smaller forces the work could be done by a single officer in conjunction with other detective work or be undertaken by the Chief Constable himself. The special functions of the information officer are described by the Committee and show how varied and important a place, in police organisation, must be given to communications. The recommendation is made that schemes for rapid circulation of messages by telephone should be extended, to cover areas worked out in collaboration by the Chief Constables concerned, irrespective of force boundaries and with due regard to the geographical and industrial, transport and other conditions of the district.

On the subject of written communications the Committee urge the need to systematise the organisation of the various crime publications so as to bring all within an ordered plan of purpose and achievement. To assist with this aim a set of model instructions is appended to Volume IV, in which the prefatory note intimates that in communications between police forces on the subject of crime "the successful organisation depends on the discharge of three main functions, namely:

- (i) editorial, *i.e.* the drafting and preparation of the communications;
- (ii) distribution, including the means and the machinery for delivery, and
- (iii) the action on receipt of the communication, including recording and cancellations."

The model instructions deal comprehensively with that important and difficult part of police technique, the art of describing—

Quis, quid, ubi, quibus auxiliis, cur, quomodo, quando?

Who, what, where, with what, why, how, when?

Or, as Dr. Hans Gross tells us:

“ What was the crime, who did it, when was it done, and where,

How done, and with what motive, who in the deed did share? ”

The recommendation is made, and examples given in the model instructions, that the technique of police descriptions should be developed on lines which, bearing in mind the need for compression, will ensure that the communication shall convey to the reader a word-picture of the person, place or thing described. How far the aim will be achieved will depend largely upon the selection and ability of Informations Officers.

The Detective Committee may have aimed high, but if its recommendations result in the finding, for the designation of Informations Officer, of men who can combine the arts of author and journalist with the skill of the administrator, the success of force and inter-force communications, and the national and regional publications, will be assured.

(To be concluded)

The Pseudo Priests and Nuns

By EL LEWA SIR THOMAS RUSSELL PASHA, K.B.E.,
C.M.G.

Director C.N.I.B., Cairo

THE Central Narcotics Intelligence Bureau (C.N.I.B.) of the Egyptian Government is directed from Police Headquarters in Cairo and has branches at Alexandria, Port Said, Suez, Tanta and Assiut.

Opium, hashish and heroin are the principal drugs in use in Egypt. None of these drugs is produced in the country itself except for small quantities of opium; it is therefore at the big ports like Alexandria that the Bureau finds its most important work.

The following case, handled and described by Major A. G. Whitfield of the Alexandria C.N.I.B. branch, is a good example of the ingenuity of the smugglers and of the patience, astuteness and hard work necessary for their defeat by the Police.

About the middle of February 1938 a confidant reported to the Central Narcotics Intelligence Bureau, Alexandria branch, that one Latif Wassef had asked him if he could get hold of a girl, not too fat, who would be prepared to go aboard ships and bring drugs ashore. He added that she would have to be disguised as a nun. The information immediately set the wheels of the C.N.I.B. organisation in motion. The confidant was told that he could have just the girl he requested for the job, and a meeting was arranged. The girl, who, naturally, was in the employ of the police, was taken to Wassef, who was favourably impressed and told her exactly what was expected of her.

There followed other meetings, during which the girl was introduced to two men in particular: Boutros Wassef, a son of Latif, and Raphael Shrager. She also met Maria Vescia and her husband, as well as the wife of Latif Wassef. It was

learnt that Boutros Wassef and Raphael Shrager, together with the girl agent and Maria Vescia, would be dressed in clerical garb of the Franciscan Order; the two men as priests and the women as nuns.

About two weeks later the girl agent reported that everything was in readiness and that in all probability the drugs would arrive in a French steamer towards the end of the week, and that the party after boarding the ship would leave by a particular gate from the Customs Zone, from which they would proceed to a house on the Corniche Road.

In the meantime the agent and the other members of the gang were kept under the surveillance of the Bureau representatives but unbeknown to them.

The Police girl agent played her cards well and succeeded in making a favourable impression upon Raphael, for the latter fell in love with her and proposed marriage. . . . Unfortunately for Raphael, he was spotted before going on board by an old acquaintance who remembered that he had been tried in 1930 for drug smuggling. He reported the fact to the Customs official, and the latter lay in wait for him at the foot of the gangway.

When on board, the party met someone wearing a "béret basque," who introduced them to Francesco Kokeilj, the baggage master. The latter took them into a first-class cabin, where he handed them a large suit-case containing the drugs. Both the men and the women were carrying on them yards of thin surgical gauze bandages with which to wrap the drugs around their bodies.

When this operation was completed, the two men left the ship, followed a few yards behind by the two women. Despite their long flowing robes, complete with girdle and crucifix, giving the impression of being devout members of the Holy Order, the Customs official went up to Raphael, and on feeling his arms discovered that his suspicions were well founded. He immediately arrested him as well as his companion Boutros. The two women, however, were left stranded, and the C.N.I.B. officer who was on board the ship at the time with a constable in plain clothes, had no alternative but to arrest the two women, one of whom was, of course, the Police girl agent. By a strange

trick of fate there happened to be at the time a third nun leaving the ship with the other two, and in order to make sure that she was not a later-comer to the combine, she was also arrested. The party was taken to the Customs Office where they, as well as the two men, were disrobed and searched. On them were found the following quantities:

Raphael Shrager	Opium 4 kg. 935 gr.	Hashish 0 kg. 947 gr.
Latif Wassef	" 0 " 145 "	" 6 " 860 "
Maria Vescia	" 6 " 374 "	" 2 " 295 "
Police Girl Agent	" 1 " 285 "	" 5 " 805 "

The third nun, who proved to be a real member of her profession, was released.

The girl agent was immediately taken on board by the C.N.I.B. officer, who explained to the captain what had happened and the latter gave the Police every assistance. The crew were paraded, but the Police girl could not identify the member who had escorted them to the cabin where the drugs were handed over. The officer then sent for Raphael, who was able to show him the cabin where the drugs had been handled.

Once more the crew were paraded and the baggage-master was identified as the man who had handed them the drugs. The latter's bunk was searched, but nothing of an incriminating nature was found. On being questioned he denied any knowledge of the whole affair, but later confessed that the bag in which the drugs were contained had been handed to him at Haifa by a dragoman from a shipping agency, with the request that he should hand it over to some nuns at Alexandria who would come on board for it. He was told that it contained religious matter and stated that he received twenty piastres for his services.

The investigations aboard occupied nearly three hours, but no trace could be found of the man with the "béret basque," who acted as intermediary. Later, permission was secured to search the house of Mohammed Hassan Aly on the Corniche, where the fictitious nuns had changed their clothes; but the police had been forestalled, as these had disappeared. A vital item, however, had been overlooked by Mohammed Aly's wife, Amina Mohammed Salem, who, in her haste to dispose of the clothes, forgot to remove the shoes of the two

women, which were found under the bed. She was arrested. Her husband, however, could not be found. The wife volunteered the information that he had been away at Port Said for the past week, but this was contradicted by the girl agent who said that she had seen him that morning in his house, and by the door-keeper of the building who declared that he had seen him the previous night with Raphael. Mohammed Hassan Aly gave himself up a few days later but could produce no satisfactory evidence that he had been in Port Said on the day in question.

Realising the game was up, both Raphael and Boutros gave valuable information to the Police. The former stated that the drugs were intended for Mohammed Hassan Aly and Abdou Moustafa Soliman *alias* Moustafash, both well-known drug traffickers who had been previously convicted and sentenced to heavy terms of imprisonment. Abdou Moustafa Soliman *alias* Moustafash was immediately arrested, and evidence secured that he had given to Raphael some ten days before, in the presence of a witness, a five-pound note to buy the material needed for the clothes. Maria Vescia implicated her husband, Armando, by stating that it was he who had purchased the tickets to board the ship and that it was he who had introduced her to Raphael.

Armando was arrested, and he made a clean breast, making poverty and three starving children as his excuse for taking part in the affair. He stated further that his wife was pregnant and that he was in dire need of the money to pay for an abortion. He also stated that he had been introduced to Raphael by one Vincenzo Vitalis, who was later arrested but who denied having any dealings with him. A few days later Armando was taken seriously ill and removed to hospital, where he died. He was a comparatively young man.

Raphael also implicated one Moursi Mohammed Moursi, but the latter could not be run to earth for some time. Eventually he was given away by a woman who knew of his connection with the gang and whom he had married in the hope that she would not betray him.

It will be remembered that the pseudo priests had intended to board two ships, viz. the S.S. *Marco Polo*, and the

S.S. *Mariette Pasha*. The latter sailed on the same day on which the arrest of the gang had taken place; but it was learnt later by an informer (who turned out to be none other than the man with the "béret basque") that the drugs were still on board and that an attempt would be made to land them on the return of this ship from Marseilles on April 30th, 1938. The informer-cum-trafficker stated that the owner of the drugs had arrived from Beirut the day before and had commissioned him to proceed on board on arrival of the S.S. *Mariette Pasha*, and make arrangements for the safe landing of the drugs. The person in question was identified on the quay where the ship made fast, and in order to prevent him from going on board was arrested on a pretext of having infringed Police Regulations.

On arrival of the steamer the informer was sent on board with a representative of the C.N.I.B., who posed as an emissary of the owner. They eventually located the man who had possession of the drugs and who turned out to be a member of the enquiry staff of the ship named Max Bunnel, a British subject from Singapore, 23 years of age and of a respectable family, his father being a retired captain. After Bunnel had assured himself of the bona fides of his visitors, he escorted them to the cabin of one Leonetti Octavius, the Captain's steward. Leonetti was away at lunch at the time but had given the keys to Bunnel.

Now that he knew the incriminating evidence was at hand, the C.N.I.B. representative was in a quandary as to how he could communicate with his officer without raising suspicions. It was only momentarily, however, as the informer managed to talk Bunnel into accompanying him outside while he procured a big case in which he put the drugs. As soon as they were out of sight, the representative beckoned to his officer, who was waiting expectantly on the deck above. Stepping unobtrusively down the staircase, the officer entered the steward's cabin, where he waited for the return of Max Bunnel. The latter's surprise may be judged when he returned and found himself confronted by a complete stranger. His surprise changed to consternation when he saw the door of the cabin locked behind him and the identity of his visitor disclosed.

Realising the game was up, Bunnel willingly volunteered

all the assistance he could give. He took out a key and opened the wardrobe, producing two suit-cases which contained 23 kg. 135 gr. of opium and 5 kg. 230 gr. of hashish, carefully packed up in rubber containers and the whole wrapped up in a rubber sheet, obviously to keep out the smell. Bunnel also gave a description of the man who had handed him the drugs, which coincided with that of the person arrested on the quay in front of the ship. He turned out to be a Libanese subject by the name of Mohammed Khaled Daaboul, a well-known drug trafficker who had been imprisoned by the Syrian authorities for drug trafficking. Leonetti and Bunnel were arrested, but the former was released later owing to insufficient evidence.

Owing to Maria Vescia being an expectant mother, a sympathetic view was taken of her case, and she also was released by the Investigating Magistrate of the Mixed Tribunal, on the ground that she had acted under the influence of her husband. A similar view was taken in the case of the wife of Mohammed Hassan Aly, when tried by the Native Court.

As already stated, the informer was suspected of being the person with the "béret basque," who had acted as intermediary between the fictitious priests and nuns and the baggage-master of the S.S. *Marco Polo*. His name was Mohammed Attap, and the suspicions proved correct. Having failed to obtain a share in the spoils owing to the arrest of the ringleaders, he turned informer in the hope of receiving an official reward. He was, however, denounced to the Investigating Magistrate, who had no alternative but to have him arrested. In his defence he accused Hamdi Kheir El Din Tarabulsi as being the man with the "béret basque." Investigations revealed that this person left via Kantara on April 18th, 1938, for Syria. He gave himself up to the authorities there as he had been sentenced in 1923 to seven months' imprisonment for attempted murder, but had escaped from the country. Although subsequent investigations proved that this man was not the one who had acted as an intermediary, his association with Attap and hurried departure from Egypt would seem to indicate that he must have had a finger in the pie.

The other accused were tried on different dates by the Native and Mixed Courts and, with the exception of Vincenzo Vitalis, who was found not guilty, were sentenced to the following terms of imprisonment:

BY SUMMARY NARCOTICS COURT, ALEXANDRIA

- (1) Mohammed Hassan Aly—five years' imprisonment and £E1,000 fine.
- (2) Abdou Moustafa Soliman alias Moustafash—five years' imprisonment and £E1,000 fine.
- (3) Mohammed Khaled Daaboul—five years' imprisonment and £E1,000 fine.
- (4) Moursi Mohammed Moursi—four years' imprisonment and £E500 fine.
- (5) Raphael Shrager—two and a half years' imprisonment and £E200 fine.
- (6) Boutros Wassef—two and a half years' imprisonment and £E200 fine.
- (7) Latif Wassef—one year's imprisonment and £E200 fine.
- (8) Penelope Wassef—one year's imprisonment and £E200 fine by default.

BY MIXED TRIBUNAL, ALEXANDRIA

- (9) Mohammed Attap or Khattab, Italian subject—two years' imprisonment and £E500 fine.
- (10) Francesco Kokeilj, Italian subject—one year's imprisonment and £E200 fine.
- (11) Max Bunnel, British subject—one year's imprisonment and £E200 fine.

Penelope Wassef, wife of Latif, who had been released on bail pending trial, absconded, and is still at large.

The drugs seized are presumed to be of Syrian origin.

On appeal, the above sentences were confirmed with the exception of that of Mohammed Attap, which was reduced to one year's imprisonment and £E200 fine, and that of Penelope Wassef, who was acquitted.

Dusts and their Importance in Crime Detection

By PROFESSOR H. T. S. BRITTON, D.Sc., D.I.C., F.I.C.

Department of Chemistry; University College of the South West, Exeter;
Consultant to Exeter City Police.

DUST is present everywhere. It is continually being formed by the incessant activity of living beings in slowly grinding down the matter on which they walk. It is being produced by man in building houses, in making roads and in a large number of industries in which he is engaged. It is also formed as the result of Nature's wearing forces, the sun, the wind and the rain. Thus iron becomes corroded with a red oxide, and even copper acquires a greenish appearance, caused by a finely divided deposit on which copper, oxygen, water and carbon dioxide are chemically bound together. Then again the air is polluted with smoke, which is merely a cloud of particles of finely divided carbon, and which when they have aggregated to give sufficiently large particles settle on the walls and roofs of buildings in the form of dust.

Dust particles may be so small as to be beyond the limit of microscopic vision, *i.e.* smaller than just over one ten-thousandth part of an inch. Yet by cumulative deposition they may clog up the capillaries of the lungs and so impair life. Thus workers in mineral mines and in the cement industry run the risk of *silicosis*, a disease caused by the accumulation in the lungs of gritty particles of the nature of quartz. These dust clouds will also leave deposits on the clothing and in such exposed cavities as the ears, where it is retained by the wax. The dusts associated with a man's occupation have persisted in the wax for upwards of two years after the man has given up that particular calling.

All matter is derived in the first place from the Earth's

DUSTS IN CRIME DETECTION 353

crust. Although the earth is made up of some ninety different elements, twelve elements constitute ninety-nine per cent. of the Earth's crust. The winning and technical application of many of the remaining elements, particularly metals, give rise to important industries. The metals are usually present in the Earth's crust in a state of chemical combination with other elements, particularly oxygen, carbon, hydrogen and phosphorus. Moreover the dozen elements referred to above are widely spread throughout the surface of the Earth, whereas the other elements are procurable only in particular parts of the world and even then often at some depth below the surface. The common elements and their percentage amounts are:

Oxygen 47.17 per cent., silicon 28.00, aluminium 7.84, iron 4.44, calcium 3.42, magnesium 2.27, sodium 2.43, potassium 2.49, hydrogen 0.23, titanium 0.44, carbon 0.19, phosphorus 0.11.

Ordinary soil is composed of the oxides of silicon and aluminium and water together with relatively small quantities of lime and sodium and potassium salts and varying proportions of decomposed vegetable matter, known as humus. Although the actual ingredients of a soil do not vary much, the form in which they are present may differ widely and so also may their relative proportions. In the case of agricultural land these proportions are varied by the application of artificial fertilisers and the extent by which the crops have removed them from the soil. It will be seen that the quantitative analysis of dried soil dusts may therefore supply valuable evidence of crime, and especially so when it is possible to obtain microscopic evidence of the nature and size of particles contained in the dust. Before passing on to a consideration of the dusts encountered in the various industries it might be an advantage from the point of view of the criminologist to review a few cases in which evidence from dust has been of service.

CASES

In a recent case of warehousebreaking in Exeter in which a considerable quantity of whisky was stolen, the only definite

evidence was that two men arrived in a lorry the previous night at an inn at Pinhoe, about two miles from the scene of the crime. As these men aroused the curiosity of the innkeeper he went outside and recorded the registration number of the lorry. On reporting his observations to the Exeter police, after he had heard of the robbery, they, together with the innkeeper and with the help of the Metropolitan Police, were able to find the two men at addresses in East London. Possession was taken of a trilby hat and a pair of boots, the heels of which were of rubber but the soles were of leather.

The thieves had gained entry to the warehouse through a hole which they had made in the slate roof. To gain access to the roof they must have touched some rusty iron guttering, after which they broke a hole through the slates and then climbed down the white-washed woodwork supporting the roof.

One of the men had been careful enough to send his clothes to the cleaners before the police arrived; but he forgot his hat. Detective-Inspector Kemble submitted this hat to me, and I found a small accumulation of dust underneath a small fold at the top of the hat-band. Despite the very small amount of dust available, I was able to detect the three substances, iron rust, slate dust and lime, with which the man's hands must have been covered. Incidentally my colleague, Professor Newman, proved that an imprint made on a box just below the hole through which entry was effected was such as could have been made by the shoe of the accused. Both men were found guilty.

In a case of stealing coal from a railway wagon, coal dust, found in the pockets of the suspect, provided useful evidence. The amount of coal dust found was too small for an examination of the coal as such, but it was found the constituents of the ash were able to supply valuable information.

Another example refers to breaking into a building, the walls of which were constructed of "cob," common in old Devonshire buildings. Cob is a type of mortar in which slaked lime is mixed with clay. Dust, removed from the overcoat of the suspect, agreed with that taken from the surface of the wall. Well-water, on becoming stagnant, becomes acidic in

reaction, and this factor, in conjunction with another process which comes into play as the result of bacterial action on organic matter, causes some of the iron oxide in the earth to dissolve. Some time ago the Bideford Police brought for examination two pieces of rope, a small piece found on the ground near the top of a well from which some lead piping had been stolen, and a longer piece which had been found in possession of the suspect. Both pieces of rope were similar, but furthermore both pieces had been immersed in stagnant well-water and so had become impregnated with iron oxide. On exposure to air and after the water had evaporated, the iron oxide was left behind as a fine dust on the fibres of the rope. The men eventually admitted the theft.

I would now like to give two examples of cases which have been reported in which dust has supplied convincing evidence. The first refers to a theft of potatoes from a shed. To these potatoes was adhering dried soil which contained much phosphate and was thus similar to the soil in which they had been grown and not similar to the non-phosphate-containing soil of the accused's garden, in which he stated he had grown the potatoes. In the other case a man was found on the sleeve of whose mackintosh was distemper dust, and disinfectant dust was found in the pocket. He was proved to have entered a house through the lavatory window and in so doing to have upset a packet of powdered disinfectant.

OCCUPATIONAL DUSTS

Reference has already been made to soil, but a distinct character may be imparted to it by treatment with artificial fertilisers. Not only may dusts of soils so treated provide valuable clues, but the fertilisers may themselves, for many of them are supplied in powdered form. Examples are basic slag, a black powder which contains lime, silica and phosphate, super-phosphate of lime, potash fertilisers, *e.g.* kainite, bone ash, dried blood, etc. Then again there are the insecticides, weed killers and fungicides. Some are applied in solution in water, but in the event of some getting on the clothes deposits

will be left when dry. A weed killer now commonly used is sodium chlorate and is applied in solution. Any being spilled on the clothes will eventually leave a white mark. Insecticides in use as powders are white arsenic, a white powder, and the arsenates of lead, calcium and copper. Sodium arsenite is also used but this is applied in solution. Powdered sulphur and also calcium sulphide also find favour. Examples of fungicides are copper sulphate, sometimes in conjunction with slaked lime, zinc chloride and sodium fluoride.

Perhaps the most important powdered substances used in the building trades are : Portland cement, plaster of Paris and the so-called granite plasters, hydraulic limes and Keene's cement. Portland cement is essentially a mixed silicate and aluminate of lime, formed by heating at 1,400-1,600 degrees centigrade. Small quantities of iron oxide are also present. After cooling it is ground to an exceedingly fine powder. In order for the resulting cement to have the desired properties as regards time of setting, durability and strength the percentage amounts of the oxides of calcium, silicon and aluminium have to be carefully adjusted. In addition, a small amount of calcium sulphate in the form of gypsum is incorporated in the final grinding. Grinding plays an important, but very dangerous, part in the manufacture of cement, and so it is occupational dust of the operatives engaged in its production besides of the masons who use it.

Hydraulic lime is not pure slaked lime but contains a certain small amount of silica and alumina. Plaster of Paris is gypsum which has been heated at a comparatively low temperature in order to drive off three-quarters of the water present in the crystals. On mixing with water this dehydrated calcium sulphate takes up some of the water again and in so doing becomes hard or sets. This setting process is rapid, so much so that it is unsuitable for use in preparing interior walls. In consequence, a retarder is incorporated by the manufacturer. Glue, dried blood, and "scutch" are employed. Scutch is a degradation product of the keratin of hair, hooves and other stockyard waste obtained by boiling these substances with caustic soda. These retarding agents add to these plasters yet another element, *viz.* nitrogen, which can be detected chemically.

Keene's cement or hard plaster is gypsum from which all the water has been driven by heating, then immersing it in a bath of alum solution, drying and heating at a high temperature, and this is followed by finely grinding.

The manufacture of pigments constitutes a large industry which feeds the paint trade, the manufacture of rubber, and the comparatively new plastic industry, of which Bakelite is an example. For each of these purposes the pigments must be ground to an exceedingly fine consistency and so may serve as useful clues in the case of operatives in any of these industries. In general, the pigments are of mineral origin and some contain fairly rare elements, such as chromium, cadmium and mercury. Lampblack, made by the incomplete combustion of an oil or a resin and collected as a smoke in settling chambers, is extensively used as a pigment in rubber production. Then again a certain proportion of finely divided mineral matter is incorporated during the manufacture of rubber in order to confer on the finish product sufficient "body." The commonest of these substances is "whiting" or calcium carbonate, which may be obtained by milling natural chalk, or limestone-whiting, or by chemical precipitation. Parenthetically, precipitated chalk is used largely in dentifrice manufacture. Other bulking agents are barytes, mined at Kingsteignton, china clay and gypsum. Here again reference must be made to the use of china clay as a "filler" of highly glazed papers.

Other callings which give rise to their own characteristic dusts are baking (baking powders and flour), metal working and turning, carpentry and joinery, mining and boring operations (mineral dusts), pottery manufacture (siliceous dusts) and laundering (powdered soaps, bleaching agents and ultramarine), dye manufacture and dyeing.

PACKING

Great care should be exercised by the police-officer in taking samples of dust, and particularly in the way in which he submits the samples to the expert. Wherever possible, it is desirable that the expert should personally visit the scene of

crime and procure any samples which he considers might be of service. A very convenient means of packing samples of dust is to enclose them in cellophane envelopes, to which labels are attached.

In the event of the possibility of information of evidential value originating from the dust on clothes, it is again preferable that the expert himself should remove the dust from the clothes. When this is not convenient the officer should endeavour to remove the major quantities of any dust deposited in such places as in the pockets, on the cloth surrounding the pockets, the coat sleeves and the front of the trousers, and along the seams, particularly those on the shoulder of the coat. Each sample should be inserted in a separate cellophane envelope and duly labelled.

Finally, each garment should be placed in a large flat brown paper bag, closed and thoroughly beaten so as to release any dust. The bag should then be submitted to the expert. The use of vacuum cleaners is not to be recommended unless it can be proved that absolutely no dust was remaining in the cleaner before use. This is extremely difficult in the case of cleaners in which the dust-bearing current passes over the fan before reaching the collecting receptacle. It is possible to fix a suitable attachment to a vacuum cleaner by which these objections may be overcome, but in the opinion of the writer the use of such devices should be left to the person who undertakes the investigation of the dust.

Brake Testing by the Police

By POLICE-SERGEANT L. TOMPKINS

Bedfordshire Constabulary

IT has been my privilege, through my Chief Constable and the Chief Constable of Lancashire, to lecture on this subject to a representative gathering of many Forces, and the Editor of THE POLICE JOURNAL has kindly invited me to make my lecture available to a wider circle. Brake testing by the Police can be a very simple matter; but an officer who conducts a prosecution for defective brakes must be armed with a thorough knowledge of the subject, as he is quite likely to be attacked by a clever defending solicitor or counsel, and a perfectly clear case of defective brakes may be dismissed for want of "specialist" knowledge by the prosecution.

It is the duty of the Police to prosecute whenever they find that the brakes of a motor vehicle are defective, and there is no need to stress the importance of efficient brakes as a means of reducing accidents. The law on defective brakes is contained in Article 68 of the Construction and Use Regulations, 1937.

The action of bringing a vehicle to rest from a state of motion involves the science of *Mechanics*, and there are certain "laws" in this science which are invoked for proof. These laws must be clearly understood at the outset; for the accurate testing of brakes depends upon the employment of this science, and without a knowledge of it, it is not possible for a prosecution to be fairly pursued. An attempt will here be made to explain the nature of the fundamental laws of *Mechanics* by using ordinary language wherever possible. Some of the explanations must of necessity incorporate formulæ, but they will be fully reasoned in each case and nothing need be taken for granted.

Brake testing can be very easy, and in practice it is very simple if one uses the Tapley brake testing meter. In the first

place, therefore, to test a vehicle's brakes (power to do this being given to the Police under Article 95 of the Construction and Use Regulations, 1937), it is necessary to obtain a Tapley brake-testing meter. This costs £8 1s. 6d. A patrol car is also required. This must be fitted with an accurate speedometer, and it must be manned by at least two police officers.

Before describing the Tapley meter it will be as well to give a brief account of the way in which it is used.

PROCEDURE

1. Select a vehicle which is likely to have defective brakes. Observe the "dip" of the front of the vehicle when it actually stops—no dip indicates light braking by the driver or bad brakes.
2. Tell the driver the brakes are going to be tested and mount the meter in any convenient position on the vehicle. Care must be taken that the meter is so placed that it can be read by any person facing in the same direction as the car, but it must be in a horizontal plane. Next set the meter to "Level." Now it becomes obvious that the road must be level. The small lever on the meter is set to "test" and all is ready.
3. The driver is then told to drive the vehicle at his usual speed (but warned not to exceed 25 m.p.h. whilst testing as it might be dangerous) and to apply his brakes to the fullest extent as it is a test and the Police only wish to know the maximum efficiency of the brakes. If the brakes are only partially applied the Police will not know their true efficiency. The Police Officer then mounts the vehicle beside the driver to see that the brakes are applied fairly and only when the vehicle is in top gear; that the meter is not interfered with, and that the driver does not make off with the meter.
4. The other Officer follows behind with the accurate speedometer and notes the speed when the brakes are applied. When the vehicle being tested stops, he goes to the meter and also notes the reading.

The brake testing is then complete; but it is very far from finished as regards obtaining a conviction in a Court.

It should be proved in Court that the meter is known to be accurate by the officer using it. This can only be done if the officer can say on oath "I have tested the meter and found it to be correct."

The meter is more exact than the normal means available for testing it. This becomes obvious when one considers the time taken by a human reaction. A young man converts an impulse received by his eye into a movement of his foot on to the brake pedal in about $\frac{3}{4}$ to $\frac{1}{2}$ of a second; but the average person takes from $\frac{1}{2}$ to 1 second to do so. If a car is travelling at built-up-area speed (30 m.p.h.), this might mean that if a child ran into the path of the car the driver would do nothing about it until he had travelled (at $\frac{1}{2}$ second reaction-time) some 22 feet:

$$\begin{aligned} 30 \text{ m.p.h.} &= 44 \text{ feet per second} \\ \text{and } \frac{1}{2} \text{ of } 44 &= 22 \text{ feet.} \end{aligned}$$

So that when testing the meter the error due to human reaction-time must be taken into account. For this reason, too, brake testing without a meter (the meter having no reaction-time) is in reality testing in part the driver's reaction-time, and there is no law about that. Testing without a meter means measuring the distance required to stop by a vehicle after the driver has acted on some prescribed impulse. This is very unjust; also a driver might easily cheat by applying his brake before the reception of the prescribed impulse.

Anyhow, to test the meter reasonably, attach it to the patrol car fitted with the accurate speedometer, run at a certain speed, apply the brakes to their *fullest* when passing a certain point, measure the distance required to stop, apply the formula (which follows later), allow for human reaction, and the results will be reasonably accurate. Also test to find that the brake *fully* applied produces the same efficiency no matter what the speed.

THE METER

The principle on which the meter works is quite simple; it is that of a pendulum. Inside the meter is a piece of steel

freely suspended from very fine bearings; it is also a magnet. Round this pendulum is a drum, with a dial of percentages printed on it. The magnetic pendulum is enclosed in a tank of fluid of such viscosity as will damp out road shocks. The pendulum is made a magnet so that its movements are followed by the drum, which is attracted by the magnet.

The meter works when the vehicle slows down, because of the effect of inertia (laziness). When the vehicle is suddenly slowed, the pendulum, so freely suspended, goes on and swings as pendulums do, and attracts the drum and dial with it. It is vital to note here that the pendulum falls to rest when the braking stops, although the drum is held in position by a ratchet device. This is the answer to the criticism that the meter may be made to build up a high percentage reading by continual application of a low braking efficiency. It is impossible in practice, it is impossible in theory, and it is a deliberate falsehood to say that it can be done.

Now comes the explanation of the mechanical principles involved, from which are derived the formulæ which will supply the stopping distances at certain speeds and efficiencies.

It is necessary to know why, when a pendulum swings and attracts a dial with it, the efficiency of a brake can be known. When a pendulum is swung by inertia, some particular forces have been acting upon it to produce the swinging. One is the forward movement of the vehicle, and the other, acting against its movement, is the pull of the force of gravity. So the two forces could be represented by the two sides of a triangle, so:

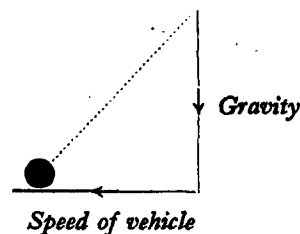


Fig. 1

We have to calculate from the above the force which was applied to produce the two sides of such a triangle. All we

have to work on is the force of gravity in a vertical direction and the angle produced by the pendulum and marked by the dotted line. A proposition in trigonometry is that the "opposite" side of a right-angled triangle divided by the "adjacent" side gives what is known as the tangent of the angle. (We will call the angle Theta.)

$$\text{Tangent} = \frac{\text{opposite}}{\text{adjacent}}$$

The triangle is designated as follows:

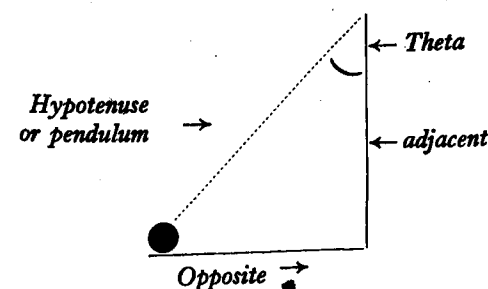


Fig. 2

Now, in the triangle in Figure 1 the side marked "gravity" will always be the same no matter what the value of the other sides, because the weight of the pendulum is always the same. The "opposite" side is the one we wish to know the value of. Therefore, it can be seen that the Tangent of Theta is always going to be proportional to the "opposite" side. So if we know the value of Theta and the adjacent side in one particular case (say 100%), all the other values of Theta produced by various brake efficiencies must be proportional to Tangent Theta. In general terms it can be said that because the tangent of Theta (the angle formed by the pendulum) is proportional to the force applied to produce Theta, the readings on the dial, being but proportional representations of Theta, are true results of the application of the brakes.

There is a chart issued by a well-known firm of brake-lining makers which sets out efficiencies per cent. and the corresponding stopping distances according to the speed. Such

If the above is worked out as follows four times—

$$\text{for 4 seconds } D = \frac{32 \times 4 \times 4}{2} = 256$$

$$\text{for 3 seconds } D = \frac{32 \times 3 \times 3}{2} = 144$$

$$\text{for 2 seconds } D = \frac{32 \times 2 \times 2}{2} = 64$$

$$\text{for 1 second } D = \frac{32 \times 1 \times 1}{2} = 16$$

It will be seen that these results have a peculiar significance one to the other—they are proportional:

As 4 seconds is to 3 seconds, so is $\sqrt{256}$ to $\sqrt{144}$ worked out is

4 is to 3 as 16 is to 12.

So is created the statement "the distance varies as the square of the time," and from it, because S is proportional to t, we have the statement "the distance varies as the square of the speed." (Where S equals speed and t equals time.)

Relying on the above reasoning the proof of the constant .3 in the formula is as follows:

Where S is the stopping distance in feet—

V is the speed in m.p.h. (transposed is $V \times 1.465$ feet per sec.)

E is the percentage of braking ($100\% = 22$ m.p.h. per sec.).

The distance in which a vehicle stops is found by multiplying its average speed by the time it is travelling.

As the commencing speed was V and this fell to Zero we have

$$\begin{aligned} \text{average speed } \frac{V}{2} \text{ m.p.h. or } \frac{1.465 V}{2} \text{ feet per second} \\ = .733 V \text{ feet per second.} \end{aligned}$$

The time to stop is given by the dropping speed in a second divided by the commencing speed V.

100 E is a drop in speed of 22 m.p.h. in 1 second, therefore,

$$\text{the drop in speed is } \frac{E \times 22}{100} = .22 \text{ m.p.h. per second.}$$

The time to stop is therefore

$$\frac{V}{.22E} \text{ seconds.}$$

The distance in which a vehicle stops is therefore

Average speed in feet per second, which is $.733 V \times$ the time which is $\frac{V}{.22E}$ = feet required to stop.

$$\text{so, } s = .733 V \times \frac{V}{.22E}$$

$$\text{or } s = \frac{V^2}{.3E}$$

or again we have the original formula

$$\frac{\text{m.p.h.}^2}{.3S} = E.$$

A reading of 100% on the meter is possible and is frequently seen. This does not mean an instantaneous stop. There is no such thing possible. If a car was driven up against a wall of iron of unlimited thickness it would not stop instantly but would make some minute impression in the wall of iron. The iron would to some minute degree rebound and the car would bounce off. This is common knowledge in the case of dropping a steel ball on to a slab of stone, when the ball bounces. Both the stone and the steel are depressed and regain their shapes, and the result is the bounce.

What a 100% braking means may be described in several ways. It means that if a car weighing one ton suddenly had a ton attached to it, it would be braked 100%; but there is the speed to be got rid of, and this would take time. Again, it means that the whole weight of a car has been transmitted to the road through the tyres and that there has been no slip. In practice if a car is towed with a pull of 85% of its own weight with its wheels locked, and the road is dry and level and normal surface, it will just begin to slide over the surface.

So we say the coefficient of friction between the rubber tyres and the road is 85%. In practice, just before the car stops and the wheels cease to revolve, there seems to be a further increase in the coefficient of friction of 15%, thus making 100%. However, brakes which are capable of producing 100% braking may also be dangerous in the hands of an indiscreet driver. Brakes of 60% to 70% are the safest for the average person. Brakes of 30% and less should be brought to the notice of the magistrates, as in practice 30% brakes are useless.

From the information here given the following facts should be seen to be true:

1. The percentage reading of the meter will be the same no matter what the speed.
2. No fictitious readings can be obtained by "building up."
3. The meter is a scientific instrument and is very exact.

By the use of the meter in practice it has been found advisable to have the portion of the dial which reads "feet required to stop from 20 m.p.h." obliterated, because some persons like to infer that the meter only gives results if a perfect speed of 20 m.p.h. is sustained, whereas the speed is only necessary to supply the stopping distance as the now well-known formula demands.

In conclusion it must be pointed out that the use of the meter is simple and that it is only when a clever defence delves into proofs which may be easily misrepresented that the above scientific facts and formulæ must be known. It has been found in practice that when a defence realises that a Police Officer knows the above scientific proof he does not put forward false theories.

Conviction by Fibres, Hair and Soil

By DETECTIVE-SERGEANT C. SMITH

Leicester City Police

DURING January 1937 reports began to come into the C.I.D. at Leicester of good class dwelling houses being broken into and jewellery and money being stolen. In the majority of cases, entrance had been gained by smashing a pane of glass in a rear downstairs window, releasing the catch and climbing through. All the rooms in the attacked houses were visited, drawers were thoroughly searched and in some instances the beds had been turned back.

Special enquiries were made respecting the movements of local men who were known to commit this class of offence.

One morning in February, after about fifteen offences had been committed, a C.I.D. Sergeant reported that he had seen a local housebreaker in a good class residential part of the city wearing horn-rimmed spectacles and wash-leather gloves. This man had never previously been seen wearing spectacles. From enquiries it was established that he ought to have been at work at a local factory. He was at once suspected of these offences.

This man was known to the local C.I.D. as a clever and resourceful housebreaker and very difficult to catch. However, a Detective Sergeant was fortunate one day in recovering a few articles of jewellery. This jewellery was identified as part of the proceeds of a case of housebreaking, but at the time it was thought that there was not sufficient evidence to arrest the man for housebreaking. Arrangements were made for the Police to be notified should the man attempt to dispose of any more jewellery.

About 5.15 p.m. on Wednesday the 3rd March 1937 the welcome message was received that the man P. had disposed of three articles of jewellery. The Detective Sergeant

immediately took possession of the jewellery, and on return to the Police Headquarters found that a report had been received to the effect that a good class dwelling house had been entered and a quantity of jewellery stolen.

The house was visited and it was found that entrance had been gained in a similar manner to that of the other reports. The occupant's wife stated that she returned home about 4.55 p.m. and on entering the front door she heard someone upstairs. She shouted and then heard the bathroom door bang and the bolt pushed across. She obtained assistance and searched the house before notifying the Police.

When the house was visited the bathroom door was still bolted and the outside window was open at the bottom. A climbing rose tree, on the wall underneath the open window, had been broken and some of the leaves were crushed on the wall. On a window ledge under the bathroom window was a clod of earth, apparently scraped from the thief's shoe as he fled. The thief had made his escape by going across the lawn, over the vegetable garden, into a field at the side and thence on to the main road.

The jewellery which had just been recovered was identified by the occupant's wife.

Enquiries were made and P. was arrested the following morning. He strongly denied being connected with the housebreaking. However, he was put up for identification and picked out by the person to whom he had sold the jewellery.

Up to then this witness was the only link we had by which P. could be connected with this case of housebreaking.

On the day of P.'s arrest it was established that he was wearing the same shoes as on the previous day, that of the offence. They were taken from him, carefully packed and taken to the East Midland Forensic Science Laboratory at Nottingham and handed over, together with a concise history of the evidence up to that point, to the Director, Dr. Holden.

The following morning Dr. Holden requested that he be supplied with hairs and fibres from all the rooms which had been visited by P. Accordingly the Detective Sergeant again visited the house and obtained fibres from every carpet and mat in it. Hairs were taken from the house dog. Fibres were

CONVICTION BY FIBRES, HAIR AND SOIL 371

also taken from a bath towel, which appeared to be the last thing with which the thief came into contact. Rose leaves were taken from the rose tree, soil from the lawn, vegetable garden and the field at the side of the house—in all thirteen envelopes containing samples were taken to Dr. Holden.

Meanwhile P. had appeared before the magistrates at the City Police Court, Leicester, and been remanded.

Before his second appearance, information was received from Dr. Holden that from amongst the envelopes containing fibres and hairs, six contained hairs and fibres which agreed exactly in colour and structure with the fibres and hairs found on the accused's shoes. The soil contained in the envelopes was also found to be similar in composition to that found on his shoes.

When P. again appeared he was committed for trial, and three charges of housebreaking and three of receiving were preferred against him.

The trial took place before the learned Recorder for the City of Leicester, Paul E. Sandlands, Esq., at the Leicester City Quarter Sessions on the 5th April 1937. So satisfied were the jury with the evidence of Dr. Holden, that the fibres and hairs found on the shoes of the accused agreed exactly in colour and structure with those from the house, that a verdict of guilty was returned against P., the fibres from the bath towel playing a most important part in convincing the jury that P. had broken into the house.

In passing a sentence of four years penal servitude upon P. the Recorder said, "You have been found guilty of breaking and entering and stealing in all three cases. Great credit is due to those taking part in the prosecution."

After sentence had been passed and before being removed to the Prison, P. sent for the Detective Sergeant and said, "When this lot is over I think I shall pack in. With evidence like that we don't stand a chance."

Nevertheless P. appealed; but the conviction was upheld by the Lord Chief Justice.

Protecting Unoccupied Houses

WITH the approach of the summer season, Police administrators are once more confronted with the perennial problem of ensuring adequate protection for temporarily unoccupied houses just at a time when annual leave and a variety of other causes are combining to deplete the already depleted man-power of the Service. It may be profitable, therefore, to consider in advance what—if any—combative measures can be adopted to minimise the annual increase in this class of crime. For whether we like or loathe the fact, it must be admitted that while the application of scientific knowledge and increased mechanisation are enabling the Police to minimise almost every other class of crime, the housebreaker still maintains his unpleasant eminence as "Public Enemy No. 1" on this side of the Atlantic.

It has been said with some truth that even if every house in every road had its own particular police officer stationed at its gate, it would still be a comparatively simple matter for a cool and experienced thief to commit a "break-in" with impunity with the aid of a duplicate key.

True as this may be, however, the general public is rarely disposed to ponder on such abstract aspects of the difficulties of police administration. All that the average person is concerned about is the disagreeable fact that although he pays heavily in rates and taxes for the privilege of citizenship, he is still unable to depart for his annual holiday with any guarantee of immunity from an unlawful visitation. Consequently, he is ever ready to join in the periodical raileries against the alleged failures of the Police which have become such a wearisome feature of modern journalism.

In an age when freedom of speech is rapidly becoming a rare privilege in some countries, it would be unreasonable to expect any public service in this country to claim any immunity from criticism; but the vast majority of police

officers must often feel inclined to dispute the degree of responsibility for this particular class of crime which devolves upon the Police.

It is true that the primary function of the Police Service is to prevent crime; but it is also true in both law and tradition that the Police in this country are merely the agents of the general public, appointed to attend to a vast number of duties which, broadly speaking, could well be attended to by the ordinary citizen. In other words, as Cabinet Ministers, His Majesty's Judges and many authorities have repeatedly pointed out, the Police Service is essentially a civil organisation which exists merely to safeguard the welfare of the majority in the modern State. It fulfils no other need and enjoys no other sanction, and as such, it is morally and legally entitled to depend upon the co-operation of the public.

Unfortunately, however, the increasing tendency of the State to usurp the traditional functions of parenthood and guardianship seems to have resulted in a co-incidental tendency on the part of the public to show more and more carelessness in regard to the custody of property and safety of their homes. Thus, one of the most prolific incentives to attacks upon dwelling-houses is the appalling disregard shown by their occupiers with respect to securing means of ingress. Doors, windows, trapdoors, skylights, cellar entrances and other possible entrances are so often left open or insecure—even when the family has departed upon a prolonged holiday away from home—that if it were not for the continual vigilance of the police, the number of felonious entries would be intensified to a dozen times its present figure.

Much of this carelessness is undoubtedly due to the comforting assurance that the home and its contents are amply covered by insurance; but as everybody with experience of criminal investigation knows, the deliberate and wanton damage committed by felonious intruders is often inconceivably greater than the actual property purloined—particularly in the case of modern suburban dwelling-houses. Moreover, it is worth while considering the fact that even the most liberal forms of insurance make no provision for

restitution in regard to loss occasioned to public funds through prolonged criminal enquiries!

In the interests of both the individual householder and the financial liability of the community, therefore, it is high time that the public conscience was reawakened to the old virtues of self-defence in regard to household security. During the past few years, we have had several impressive demonstrations of the effects which can be achieved through the medium of intensive propaganda, and there seems to be no reason why equally concrete results should not be achieved by a skilfully directed propagandistic campaign to secure co-operation from the general public in safeguarding dwelling-houses from felonious entry.

Broadcast talks by senior officers, periodical reviews of local crime conditions by Chief Constables in the form of published statements in the press, lectures, the distribution of leaflets to householders stressing the importance of co-operation with the Police, and similar measures, might well be considered as means of enlisting the aid of the general public. The latter system has been widely adopted by some Transatlantic police forces, and according to press reports the Metropolitan authorities have also experimented with the same idea recently; but it is too early yet to estimate the possible effects of the innovation.

It may be well to consider what advice can be offered to those members of the public who are disposed to co-operate with the authorities in protecting their homes. Those who leave notices pinned to the doors—"Gone on holiday" "Don't leave milk until—" etc., are of course beyond redemption, and deserve the attention which they usually receive. On the other hand, there are many others who go to the opposite extreme and defeat their own object by their too obvious precautions, such as advertising their absence by shuttered windows, drawn curtains and padlocked gates.

Another painfully common error is the failure to remove letter-boxes or make provision for the collection of mail, with the result that after a few days' absence the letter-box is often overflowing with letters and circulars, and the doorstep

littered with parcels—an attractive invitation to potential housebreakers.

It is one of the minor mysteries of police administration that although the records of the Patents Office literally bristle with examples of perfectly efficient burglar alarms, the general public will have nothing to do with them. In the opinion of many experienced officers the time has now arrived when the insurance companies should seriously consider making their provision compulsory for accepted clients.

Householders should also be awakened to the fact that even when locked in the ordinary way, doors and windows fitted with leaded lights present no difficulty whatever to those who specialise in the ever-popular "removal of pane and insertion of hand" *modus operandi*. In most modern houses this method of entry is facilitated by the popularity of cheap Yale-type locks which only require the turning of the knob on the inside to permit entry. If only occupiers of houses where such vulnerabilities exist could be persuaded to go to the comparatively trivial expense and trouble of fitting old-fashioned box locks near the top or bottom of the doors, and substantial screw type of fastenings to windows, the task of the potential intruder would be considerably impeded. In the case of smaller windows and door panels fitted with leaded lights, a sheet of light metal painted in some neutral colour firmly screwed to the inside, offers an almost impregnable obstacle to potential intruders.

The possibilities of unguarded balconies, skylights and sun-rooms as potential means of ingress are often overlooked by householders, and wherever possible, the Police should be ready to offer advice on these matters. Having regard to the vast variety of such architectural features, it is obviously impossible to lay down any universal remedies; but any experienced police officer is in a position to offer protective suggestions according to the particular circumstances, which will prevent felonious entry.

Even the most enthusiastic co-operation on the part of the general public, however, cannot reasonably be expected to curb the enterprise and ingenuity of the modern house-

breaker. Let us therefore consider the matter from the police administrative point of view. The major difficulty confronting the authorities in this respect is undoubtedly the continued depletion of man-power combined with the constant growth of suburban property.

During the past fifteen years, the outskirts of almost every large town in the country have witnessed the mushroom-like growth of housing estates adding hundreds of miles of new roads and streets, with the result that the Police have been faced with the great problem of supervising these districts. Never overburdened with a surplus of man-power, they have had to contend with this phenomenal increase in areas requiring surveillance without anything like a corresponding addition to the strength of the Police Service.

On top of all this, other facts have combined to reduce the man-power of the Service. The astounding growth in specialised departments, photography, wireless, chemistry, and other branches of scientific police administration, in addition to the continually increasing burden of traffic (and now A.R.P.), necessitates the withdrawal of more men from the preventive branch of the Service, with the natural result that man-power has been expanded up to, and in some cases beyond, the very limit of efficiency.

The authorities have done their utmost to meet the difficulties of the situation by the adoption of the Box System, patrol cars, wireless and every other possible branch of scientific research; but the most scientific investigation of a crime cannot compensate for the lack of uniformed patrol officers, whose presence may have prevented the crime from being committed at all. It has always been recognised by both law and tradition that the fundamental function of the Police in this country is the prevention of crime—not merely the detection of offenders after crime has been committed. For this reason, the psychological value of the presence of the uniformed police officer has always been regarded as of supreme importance, and the annual incidence of housebreaking during the summer months indicates clearly that the depletion of the uniformed branch represents a heavy handicap to the Police.

In the present state of public finance, there is little room for the hope that this will be remedied by the obvious solution of increasing the strength of Forces, and one can only suggest that police authorities once more seek the aid of mechanisation. More patrol cars—preferably of the small two-seater type—have much to commend them in this respect, as they allow the carriage of an extra officer to outlying suburbs where he could patrol on foot for a time and visit premises requiring particular attention, while his colleague continues his car patrol. The extra officer could be picked up again at a specified time, and the manoeuvre repeated in another suburb. In this way, two officers can efficiently cover an area which would require perhaps a dozen men on foot patrol in the ordinary way; while the carriage of a first-aid kit and wireless communication with Headquarters will enable them to attend to accidents and other emergency matters.

In areas where this scheme has been adopted, however, one weakness has been noticed that requires attention. For some incomprehensible reason, the public seem strangely loath to accost car patrols as they would an officer on foot, even for the purpose of reporting suspicious incidents and complaints. This difficulty might well be met by the exhibiting of a prominent "Police Patrol" notice on the front of cars and the circularisation of householders to the effect that their co-operation with the patrol car staffs would be appreciated.

A less ambitious and expensive form of mechanisation would be the employment of pedal cycles for the patrol of suburban areas. Hitherto, this system has been chiefly confined to the country areas; but one cannot help thinking that it would do much to relieve many borough authorities.

Even in the daytime, the roads in many suburban districts are as sparsely populated as many rural lanes, and they could be surveyed quite as adequately, and in much less time, by a cycling officer, than one patrolling on foot; while at night, these cycle-mounted officers could cruise quickly and silently about, covering a far greater area and with far greater efficiency than is possible for their colleagues on foot.

An accurate register of houses where the occupants are known to be away should, of course, be kept at all police stations, together with the temporary addresses of occupiers; and wherever possible, those of any local persons to whom keys have been entrusted. Suspicious noises and marks could then be properly investigated without entailing the immediate return of the householders.

In many cases, suburban housing estates are connected with the local 'bus and tram termini by one or two arterial roads along which persons going to or from the town must pass, and observation at these points by experienced plainclothes officers has frequently resulted in the detection of well-known thieves—although it might be observed in passing that the present legal confusion on the question of "loitering with intent" is yet another handicap on the Police in this respect. The frequent changing of routes for patrol constables is, of course, now a well-established feature of police duty; but unfortunately, the depletion of man-power has, to some extent, stultified the value of discretionary working, because beats are often so extensive that, in practice, men are often compelled to traverse the shortest possible way between their "points"—thus ignoring those cul-de-sacs and quiet backwaters of suburbia where the housebreaker finds his easiest prey.

There is also reason to believe that a too rigid insistence upon the "making of points" at specific times by superior officers defeats its own objects by making patrol officers disinclined to investigate suspicious sounds and sights because of the fear of being reprimanded for being late at the next "point." Such a state of affairs is deplorable, from the points of view of the rank and file, the administrative authorities and the general public; and it is to be hoped that where the need for such criticism has risen it will be speedily removed.

There are, of course, various other defensive measures which can and have been adopted against the housebreaking fraternity, having regard to local conditions. Hitherto, however, the fact that the majority of felonious entries of dwelling-houses are the work of local criminals has resulted

in a tendency to regard the matter as being one of purely local administration, and for that reason it has not received quite the same degree of national attention as certain other spheres of police duty.

The amazing growth of suburban residential districts and the depletion of police man-power during recent years, combined with such phases of modern life as the increasing habit of spending holidays away—which will inevitably be increased by the "paid holidays for all" scheme—and the continued reluctance of modern builders to provide houses which offer any real resistance to intruders, are circumstances which have made housebreaking one of the major problems of our time. In the interests of Police and public alike, it should receive the serious and immediate attention of everybody concerned.

E. F. ROGERS

Police Gold Medal Essay Competition

Subject of the Essay for 1939

"Discuss the Psychological Aspects of Crime and Punishment"

Essays must be submitted on or before 1st November, 1939, to:—
THE SECRETARY OF THE COUNCIL OF THE POLICE GOLD MEDAL ESSAY
COMPETITION, HOME OFFICE, WHITEHALL, LONDON, S.W.1.

Essays must be the original work of the competitor, 7,000 to 11,000 words in length, typewritten and submitted in triplicate and anonymously. A sealed envelope bearing on outside a *nom de plume* or motto, and containing the competitor's name and address, must accompany the essay. (For full conditions see THE POLICE JOURNAL, April number, p. 256.)

A PORTABLE ULTRA VIOLET LIGHT TORCH

By A. E. HARWICH, F.R.M.S.

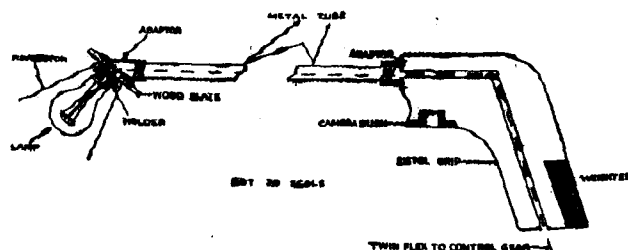
Uganda Police

EVERY police officer is aware of the widespread use of ultra violet light in modern forensic science, than which no more efficient weapon exists in the war against crime. The many ways in which its application has speeded up and yet simplified practically every branch of criminal analysis need no further elaboration. Hitherto, however, it has suffered by the disadvantage of being restricted to use in the laboratory, the necessarily cumbersome and expensive equipment being neither technically nor economically suitable for transport.

Recent research by a well known firm of electric lamp manufacturers has been responsible for the development, for industrial purposes, of a source of ultra violet radiation in a form which now makes it possible to construct a complete U.V. unit as easily portable as a camera and which should be included as an equally indispensable part of the "scene of crime" equipment of the investigator.

The lamp, which is a little larger than an ordinary household one, consists of a minute but powerful mercury arc tube enclosed in a bulb of conventional shape but manufactured from Wood's glass which cuts out practically all visible light but passes the whole range of the ultra violet spectrum. To avoid damage to the tube the lamp is designed to fit into a special three pin bayonet holder so that it is impossible to use it directly off the mains in error. The lamp can be run off any source of alternating current provided that a suitable choke and condenser are fitted to control the current. The consumption is surprisingly low, only 125 watts, and the cost of the lamp and control gear is about five pounds.

A suggested portable unit can be easily and cheaply made up as shewn below. It consists of a lamp and reflector (which also serves as a guard) mounted on one end of a three foot metal rod on the other end of which is a pistol grip in which is fitted a camera bush so that the whole can be mounted on a tripod for steadiness if required. With this torch it is possible to search underneath furniture, or other heavy objects, or in places otherwise difficult of access *without being obliged to move anything from its original position*. The value of this is obvious when it is realised that many microscopical clues must inevitably be lost in the course of transport between scene of crime and laboratory. It has the added advantage that photographs by ultra violet light can be taken *in situ*. To appreciate this one need only imagine the ease and rapidity with which a large dark carpet or the interior of a motor vehicle could be examined for blood or other traces.



REVIEWS

POLICE LAW. By C. C. H. MORIARTY, C.B.E., LL.D., Chief Constable of Birmingham. Sixth Edition. (Butterworth & Co. Ltd.) 5s. net.

This sixth edition includes references to thirteen recent statutes and eleven additional decided cases.

There are new sections dealing with hire purchase and obstructing public justice.

The Chimney Sweepers Acts have disappeared and the sections relating to infanticide, loiterers and suspected persons, trade marks and fires have been rewritten.

Speed limits for motor vehicles has been rewritten and the various speed limits for wheeled and track-laying vehicles are given in Appendix I.

Construction and use of motor vehicles and trailers has also been rewritten to include both wheeled and tracklaying vehicles, and details of the regulations thereon are given alphabetically in Appendix II, which has new items relating to markings, removal of vehicles, and roads experiments.

Thus the speed limit and the construction and use regulations will be found together at the end of the book.

Additions have been made where necessary throughout the book and the law has been brought up to date generally.

STONE'S JUSTICES' MANUAL FOR 1939. 71st Edition. Edited by F. B. DINGLE and E. J. HAYWARD. (Butterworth). 37s. 6d. (thin paper, 42s. 6d.)

"THERE are certain legal textbooks which have ceased to be merely useful and have become indispensable." So we wrote when reviewing the sixty-first edition of *Stone* ten years ago. The words are of course just as true of this new edition: the loss to those who sit and practise in the lower courts would be great indeed if the "Justices' Manual" failed to put in its annual appearance.

In the last ten years *Stone* has grown by no less than 600 pages: there are, in the edition before us, 2,528 pages of text. In addition, the lists of statutes and cases accounts for 311 pages, the index for 179. A sidelight on the measure (we had nearly said "space") of contemporary legislation!

Mr. E. J. Hayward, O.B.E., Clerk to the Cardiff Justices, now joins Mr. Dingle on the editorial bench.

The additions this year comprise 36 new statutes and upwards of 160 new cases. Decisions of all the important cases of the past year are given. The Matrimonial Causes Act, 1937, has brought a large number of cases of desertion "that are not always easy to reconcile, but will have to be considered by the justices when applications are made for maintenance orders on the ground of desertion." The most material cases are here incorporated.

In a word, this book of almost national importance continues to form a veritable corpus of the law required in the lower courts.

BOYS IN TROUBLE: A Study of Adolescent Crime and its Treatment.

By L. Le Mesurier, O.B.E., with a Foreword by Alexander Paterson, M.C., Commissioner of Prisons. (John Murray. 3s. 6d.)

MRS. LE MESURIER'S qualifications to write on this subject need no insistence. They are well known to everyone who is concerned with the problem of juvenile wrong-doing; and what she has to say to us is based on intimate knowledge over the long period since 1922, when she accepted the position of first woman visitor to the Boys' Prison Block at Wandsworth; work which has developed into the leadership of a fine organisation of voluntary service of untold value.

I am delighted to see that this book of hers, published some eight years ago, but out of print for some time past, is now once more made available in this new cheap edition. At this time, when the juvenile offender is again under legislation discussion, it should be of great service in creating a real public understanding of the problem.

Much that has been written on this subject is mere sentimentalism. But this is a practical book based on wide knowledge and experience. It is, of course, not possible in a brief review to discuss the many aspects of the problem on which the author touches. My purpose is to commend it to the general reader as a book which, while written with intimate knowledge of the facts, brings to the study of the facts a deep human understanding of a problem which is too often discussed as if it were a rigid legal question of crime and its punishment.

Mrs. Le Mesurier's main argument is directed against what she describes as "the folly and futility of punishing adolescents by detention in prison." Her chief plea is for placing a greater and more intelligent variety of alternative treatment at the disposal of the Courts when dealing with such offenders.

These are the conclusions which years of devoted work amongst juveniles in prison have led her to insist upon; and everyone who has had the responsibility of dealing practically with young offenders will endorse what she says about it. As Chief Constable of a great city, it has fallen to my own lot to have to handle many thousands of juvenile cases. My own procedure has been to keep such cases as far as possible out of the routine of Court procedure. The procedure of cautionary talks with young offenders in company with their parents, in the informal and friendly atmosphere of my own office, has proved to be splendidly effective. What one has to aim at, in dealing with juvenile offences, is not punishment, but putting the youngster on the right road. And my experience over many thousands of cases has been that barely 1 per cent. of the cases dealt with in this way ever reappear in further offences; a result better many times over than punitive Court procedure achieves.

"The question," says Mrs. Le Mesurier in her closing sentence, "is a very plain one: Shall we continue to send boys to prison, or shall we choose some better thing, and take the other ways of treating them which have already been tried and not found wanting?" Her answer to that question is decisive; and I again commend to all readers this book in which they will find the evidence of experience on which her answer is based.

J. H. DAIN,
Chief Constable of Norwich.

MEET THE PRISONER. By JOHN A. F. WATSON. (Jonathan Cape.) 1939. 8s. 6d.

MR. WATSON is on the side of the penal reformers, having reached that position by way of his own experience, while keeping an independent judgment in details. As a prison visitor of long standing, and as Chairman of a Children's Court, he is convinced that the aim of all social service should be the *prevention* of crime. In a preventive purpose, too, he finds "the essence of all penology."

His book is a clearly written commentary on legal and technical problems affecting prisoners. He is equally concerned with existing conditions, with the latest experimental schemes at Wormwood Scrubs and Wakefield, and with the vital matter of aiding discharged men.

The author expects marked progress when the Criminal Justice Bill of 1938 becomes law; particularly by the provision of "corrective training" for offenders still young in years, but not in crime; and by the new form of preventive detention, designed to protect society from persistent evildoers, but to be "remedial rather than custodial." Mr. Watson also approves the proposed substitution of a definite system of after-care, by an appointed body, for the "ticket of leave" during the licence term.

He suggests as the necessary qualities of a prison visitor: "Breadth of outlook, sympathy and, above all, a sense of humour. He should not be too young; most certainly he must not be too old. He must have a hard head—which is quite unrelated to a hard heart—and be devoid of all false sentiment or morbidity. Preferably he is a man who leads an active life outside the prison, and is in close touch daily with social and industrial conditions."

THE AMERICAN PRISON SYSTEM. By FRED E. HAYNES. (McGraw-Hill Publishing Co. Ltd.) 24s. net.

THIS book, one of a series on sociological subjects, is an authoritative work, covering the whole complex field of penal administration in the State and Federal institutions. The author's exhaustive record of existing buildings and conditions is the natural successor of Dr. Louis Robinson's *Penology in the United States*, published in 1921. It will be invaluable to students who wish to compare the American system with the usage of other countries.

Mr. Haynes first considers the evolution of penal theory in the United States and elsewhere—indicated by architectural changes in recently constructed prisons. The old type, designed solely for "maximum security" with stone or steel cells and high surrounding walls, was very costly to build and maintain. Consequently an excessive number of prisoners have been herded together; and the notorious riots in certain American prisons, within recent years, may be traced to overcrowding and under-employment.

The need for "a more intelligent handling of criminals" than mass treatment has long been recognised. Many prisoners are still confined in American State prisons which are wholly unfitted for any reformative purpose, and do not even fulfil the primary standards of hygiene. But public opinion has been roused; and, since the present decade began, new penal schemes are being tried out on a large scale away from the cities, and having the character of colonies and camps in their general organisation.

These are still "prisons," but the inmates are carefully classified, studied individually, and trained, so far as possible, for re-entry into normal life and work.

LA POLICE SCIENTIFIQUE. By M. BISCHOFF. (Payot, Paris; p. 236, 45 illus.) 36 francs.

PROFESSOR BISCHOFF has produced in this volume an eminently readable account of the application of scientific methods to criminal investigation. The treatment is not intended to be exhaustive, but the practical value of the matter presented is enhanced by the arrangement adopted. A brief account of the development of scientific methods in different countries is followed by detailed descriptions of the techniques which may be needed in the investigation of homicides, breakings, incendiarisms, altered documents and counterfeits. Nearly half the book is devoted to homicide investigation, and in the account of this stress is laid on such subjects as photographic work at the scene of crime, including normal and stereo photogrammetric methods, the inferences to be drawn from the shape, size and position of blood stains, methods of personal identification, fingerprint development, and the examination of firearms. In the chapter on breakings an account of the tools and methods employed, and of the traces which may be found at the scene or on the instruments used cover the principal techniques encountered in such investigations. By following similar treatments in the other chapters, the author has covered in outline, and on occasion in some detail, the salient features of the field of 'la police scientifique.'

This is a book that can be strongly recommended to readers requiring a general account of the subject, without the burden of details which concern the laboratory worker rather than the police officer.

FORENSIC MEDICINE. By DOUGLAS J. A. KERR, M.D., etc. Third Edition. (A. & C. Black.) 15s. net.

THIS new edition of Dr. Kerr's excellent book will be welcomed. Although described on the title-page as "A text-book for students and a guide for the practitioner," it is probably the qualified man—especially the one whose work in a city brings him continually in contact with crime—who will find it the more valuable. Dr. Kerr's experience of forensic medicine is great indeed, and into this book he has compressed the major part of that experience.

The book is copiously illustrated, and the photographs are very good, showing most clearly the types of wounds and injuries in cases of murder and suicide.

The thirty chapters cover the entire range of forensic medicine, and as the text numbers but 315 pages it will be seen that the book is a *multum in parvo* which most practitioners will like to keep near at hand. The writing is firm and concise, lucid and, at times, terse—a refreshing contrast to many text-books on this subject—and there is shrewd common sense throughout. We have nothing but praise for it. Senior police officers will do well to add it to their shelves; for it will help them to appreciate, the better, medical reports on crimes.

THE POLICE JOURNAL

VOL. XII, No. 4

OCTOBER-DECEMBER, 1939

The Police and the Law

LOTTERIES

SINCE the law relating to lotteries was brought more into line with public opinion by the Betting and Lotteries Act, 1934, there have been less flagrant breaches of this branch of the law. However, ingenious attempts are still made to disguise as some other kind of transaction what will be found on closer analysis to be nothing but a lottery, that is, "a distribution of prizes by lot or chance." Some years ago attempts were made to run lotteries in the pretence that they were sales of articles to persons who could earn "commission" by themselves acting as salesmen of the articles. This type of enterprise appears to have come to an end when the Lord Chief Justice (in *Director of Public Prosecutions v. Phillips* (1935) 1 K.B. 396) described the scheme as having "the word 'lottery' written all over it." A more recent device appears to have been to wrap up a lottery with a genuine offer to engage in credit betting. This is what was done in *Barker v. Mumby* (1939, 55 T.L.R. 410), in which case the High Court upheld the action of the Hull City Police in taking proceedings against a local printer for unlawfully printing tickets in a certain lottery contrary to sec. 22 of the Betting and Lotteries Act, 1934.

The scheme consisted in the printing of cards which were to be offered to the public, the cards being such that they could be folded and fastened at the perforated edges like a post office letter-card. On the front of each card was set out a number of bets and inside was a list of jockeys. It was stated on the cards: "We lay you the following credit bets against your credit stakes of 1d. that the three jockeys suggested by us (being three of those named in the list) do not win whole or part of ante-post bets offered herewith." There was also

offered an "optional bet" under which the backer was allowed to make his own selection of three jockeys from the list. The case came before the Hull stipendiary magistrate, who accepted the contention on behalf of the respondent that as there was no obligation to accept the bet of named jockeys, the backer could exercise his skill under the "optional bet" and make his own selection. As there was skill involved, the scheme was consequently not a lottery.

Upon the case reaching the Divisional Court by way of case stated attention was called to a previous unreported decision of that Court in *Challis v. Newman* on the 27th April, 1937. In that case the purchaser of certain coupons was offered a prize if certain football teams mentioned in the coupon won their matches. The purchaser was also offered the alternative of making his own selection of the winning teams from a list. With reference to that scheme the Lord Chief Justice had said:

"It is quite obvious when one reads this ticket, that the primary, and almost the main purpose of the ticket is to sell, for the sum of 3d., a chance in a lottery, that is to say, in a scheme for distribution of prizes by lot or chance. . . . Provision is made that the man into whose hands the ticket comes may, if he pleases, make another bet. . . . The two schemes on this ticket are separate and distinct. The first and the main one, the one which obviously this ticket is intended to provoke and encourage, is a lottery pure and simple . . . but it is said that because side by side with that scheme, another and alternative scheme is indicated, there may be an element of skill that will save the first scheme from being a lottery. It is a little difficult to follow the conception." (55 *T.L.R.* at 411.)

In the present case the Lord Chief Justice repeated the above observations, adding that the present case was even clearer. The case was therefore sent back to the magistrate with a direction to convict the respondent. Before parting with this case the following points should be borne in mind with regard to lotteries of this type:

1. If a scheme involves any degree of skill in order to qualify for a prize or other benefit, it is not a lottery (*Hall v. Cox* (1891, 1 *Q.B.* 198)) although it may be an illegal prize

competition conducted in a newspaper or in connection with the sale of some commodity contrary to sec. 26 of the Betting and Lotteries Act, 1934.

2. The fact that a lottery and a lawful betting scheme involving some degree of skill are combined in one offer does not legalise the lottery any more than if premises upon which "unlawful gaming" is permitted are also used for playing lawful games.

NOTICE OF INTENDED PROSECUTION

Road traffic offences differ from other breaches of the law in that such offences often occur in a very few seconds and the wrongdoer may well not have realised that he has broken the law. For this reason no doubt Parliament thought fit to require that the mind of the alleged wrongdoer should be directed to the conduct complained of by a warning at the time of or shortly after the alleged offence, so that he can consider what answer to make to the charge when it is formally presented against him. This principle was first introduced in the Motor Car Act, 1903, in relation to the offence of exceeding the then speed limit of 20 m.p.h. By sec. 9(2) of that Act there had either to be a warning at the time the offence was committed or notice of the intended prosecution had to be sent to the accused or the registered owner of the car within 21 days of the offence. By sec. 21 of the Road Traffic Act, 1930, much more elaborate provisions were enacted. In addition to extending these requirements to driving in a manner dangerous and to the then new offence of careless driving the section lays down that a person accused of any such offence shall not be convicted unless:

"either (a) he was warned at the time the offence was committed that the question of prosecuting him for an offence under some one or other of the provisions aforesaid (*i.e.* exceeding the speed limit or dangerous or careless driving) would be taken into consideration; or (b) within fourteen days of the commission of the offence a summons for the offence was served on him; or (c) within the said fourteen days a notice of the intended prosecution specifying the nature of the alleged offence

and the time and place where it is alleged to have been committed was served or sent by registered post to him or to the person registered as the owner of the vehicle at the time of the commission of the offence."

There then follows a proviso excusing fulfilment of these provisions if the Court is satisfied that they could not "with reasonable diligence" have been complied with or the accused by his conduct contributed to their non-compliance.

The wording of requirement (c) as to the sending of notice of intended prosecution is somewhat ambiguous: (1) does it mean that the notice shall be sent and received within the specified time or is it sufficient if it is sent? (2) to what address should it be sent if the accused is known to be residing elsewhere than at his usual place of abode? The recent decision of the Divisional Court in *Stanley v. Thomas* (1939, 55 T.L.R. 711; 3 C.L. vol. iii, p. 404) will be welcomed by those charged with the giving of such notices, as it supplies a clear and useful answer to both these questions.

The facts of that case were somewhat unusual. On the 8th September, 1938, the respondent to the appeal before the Divisional Court met with a motor accident which was subsequently the subject of a prosecution under sec. 11 of the Road Traffic Act, 1930. As a result of this accident the respondent was rendered unconscious and was detained at a hospital until the 18th September. On the 13th September the appellant, a superintendent of the Warwickshire Constabulary, knowing that the respondent was in hospital, sent by registered post to the appellant's residence a notice of intended prosecution for dangerous driving contrary to sec. 11 of the Road Traffic Act, specifying the time and place of the alleged offence. On the 22nd September the time for sending notice of intended prosecution expired. On the following day the appellant had returned to him the notice he sent by registered post with the statement "unable to deliver." It subsequently appeared that the respondent's house had been closed when he went to hospital and that on leaving hospital he went to stay with friends. When the postal packet had been returned the police ascertained that the respondent was due to visit the

hospital on the 26th September, and on that date a further notice of intended prosecution was served upon him. The summons was served upon the respondent on the 25th October, 1938. At the hearing of the case before the Sutton Coldfield (Warwickshire) magistrates it was contended for the respondent upon these facts being proved or admitted that sec. 21 of the Road Traffic Act, 1930, had not been complied with and that consequently the prosecution must fail. The magistrates accepted this contention and dismissed the summons but stated a case for the opinion of the High Court, who reversed the magistrates' decision and sent the case back to them to hear and determine it upon its merits.

Delivering judgment allowing the appeal, Lord Hewart, C.J., pointed out that whilst it was possible for the word "sent" to mean "sent and received" this was not its usual meaning. In a case under the Sale of Food and Drugs Act, 1899, a Divisional Court had held that a warranty was "sent" within 7 days upon proof of its despatch within that time (*Retail Dairy Co. v. Clarke* (1912, 2 K.B. 388)) and Lord Hewart considered that "sent" in sec. 21 of the Road Traffic Act, 1930, had the same meaning, so that the notice of intended prosecution was "sent" when posted on the 13th September, 1938, five days after the alleged offence was committed.

Upon the second question whether the notice had been properly sent when it was posted to the respondent's residence the Court considered the terms of sec. 26 of the Interpretation Act, 1889, which is as follows:

"Where an Act passed after the commencement of this Act authorises or requires any document to be served by post, whether the expression 'serve' or the expression 'give' or 'send' or any other expression is used, then, unless the contrary intention appears, the service shall be deemed to be effected by properly addressing, prepaying and posting the document. . . ."

In sending the notice to the respondent's permanent address the police superintendent had reason to suppose that it would reach him and consequently the notice was "properly addressed" within the meaning of the above section.

Mr. Justice Humphreys and Mr. Justice Lewis delivered judgments agreeing with that of the Lord Chief Justice.

It may be useful to remind readers of two other important decisions upon sec. 21 of the Road Traffic Act. It will be remembered that the notice may be sent to the registered owner of the vehicle concerned. The effect of this provision is that where the registered owner's name and address are known but the driver is not known, the notice should be sent to the registered owner and the police should not wait to ascertain particulars of the driver. This was shown by what happened in *Rex v. Bolkis* (1932, 97 *J.P.* 10). An accident occurred on the 11th August, 1931, and the police ascertained the name and address of the owner of the car on the 18th August but did not learn of that of the accused until the 25th August, which was the last day for serving a summons or notice of intended prosecution. A summons for dangerous driving was served on the 29th August. The appellant was tried and convicted for this offence at Gloucester Assizes, but the Court of Criminal Appeal found themselves obliged to quash the conviction on the ground that the police had not acted with "due diligence" in having failed to serve notice on the registered owner of the car within fourteen days of the offence although they had ascertained the name and address of the registered owner seven days after the accident.

The other point to be borne in mind is that the requirement that the notice shall specify the "nature of the alleged offence" means that fact and not law should be stated. Thus in *Milner v. Allen* (1933, 1 *K.B.* 698) the notice accurately described what the driver had done but stated that he had driven "in a manner dangerous to the public," which therefore appeared to contemplate a prosecution under sec. 11 of the Road Traffic Act, but in fact the prosecution was under sec. 12 (for driving without due care and attention). A Divisional Court held that a valid notice had been served, as the facts complained of were accurately set forth in the notice.

Criminal Law and Practice in Scotland

BETTING—CASH OR CREDIT?

THE decision of the High Court of Justiciary in the recent case of *Kennedy v. Hill* (July 5th, 1939) is instructive to police officers in Scotland who are particularly concerned with the enforcement of the Betting Acts. It serves to throw light upon the nature of the evidence required to satisfy a court that premises are kept for the purpose of ready-money—and not merely for credit—betting.

The Appellant was charged, in the Sheriff Court at Paisley, with a contravention of Section 1 of the Betting Act, 1853, as extended to Scotland by the Betting Act, 1874. Although, in his Complaint, the Procurator-Fiscal charged both the keeping of premises for the purpose of betting with persons resorting thereto and the keeping of the premises for the purpose of ready-money betting, it was only upon the latter point (cash or credit?) that the Appeal was argued. (That is to say, it was agreed that the evidence led before the Sheriff fell short of proof of betting with persons resorting to the premises.) In convicting the accused, after hearing evidence on a plea of not guilty, the Sheriff would appear to have drawn the inference of cash betting from the following facts, which are summarised from the Stated Case submitted for the opinion of the High Court:—

The Appellant occupied certain premises in Paisley, where he carried on business as a bookmaker and turf commission agent. On June 22nd, 23rd and 24th, the premises were under Police observation during racing hours. The officers watching the close giving access to the premises (and also to another bookmaker's office) saw a considerable traffic of persons to the close, including two known street touts, who entered on several occasions each day. One of these men had, on a recent apprehension for street betting (of which he was subsequently

convicted) been bailed out by the Appellant. Following these observations, the officers, on June 24th, about 2.35 p.m., entered the premises in possession of a warrant. The Appellant with four assistants was working at a large table on which were found 986 betting lines relating to races being run that day. Some were in envelopes, others had been taken out of envelopes, and still others were in "clock bags" of the type familiar to the Police. The lines were of the normal character of lines taken by street touts. In each "clock bag" the lines were rolled in bundles each marked by a pseudonym to identify the collector. Similar lines relating to previous days were found in cupboards and other receptacles. The assistants had racing programmes and were checking the lines. No money relating to the lines was found on the premises. There were also found on the premises certain books with entries headed by pseudonyms which in some cases corresponded to those found on the bundles of bets in the "clock bags." No entries had been made relating to the day in question.

From these facts the Sheriff "inferred in fact that agents for the Appellant collected cash bets from members of the public on the street, that the betting lines collected by them were transferred to the Appellant's office but not the cash, that the Appellant used his office for the purpose of checking the lines and making up statements of wins and losses and that at a later time he settled with the various persons who had collected the bets on the street." The Sheriff accordingly convicted, but the bookmaker appealed to the High Court.

In allowing the appeal and quashing the conviction, the Judges of the High Court said that it was of the essence of the offence charged that cash passed at the time of the bet either to the bookmaker or to some person acting on his behalf, *e.g.* to a street tout. But none of the facts proved pointed unambiguously to a cash transaction—*i.e.* the possibility was not entirely negated that, as between punter and tout, the bet was a credit bet.

In assessing the significance of this decision, it is important to realise that failure to find on the premises money relative to the bets taken on the street is quite immaterial. It would have been sufficient to prove that as between the punter

and the street tout the transaction was a cash one, although the tout retained the money and merely settled up in the evening with his principal. (*Reid v. Hill*, 1931 J.C. 19.) In the experience of the present writer, the cash nature of the bets has frequently been brought home by the evidence of coin marks on the lines. Such evidence may be reinforced by general evidence that, in the nature of things, street betting must normally be conducted on a cash basis, for a street "bookie" can hardly be expected to give "tick" to his casual clientele. And, of course, wherever possible, there should be evidence of a (cash) test bet placed by, or on behalf of, the Police and recovered in the premises on the occasion of the police raid.

"KNOWN OR REPUTED THIEF"

It may be taken as a tribute to the discretion with which Section 409 of the Burgh Police (Scotland) Act, 1892, has been operated by the police and the criminal authorities that only now, when the Section has been in everyday use for nearly fifty years, has the question been pointedly raised of the proper meaning to be assigned to the leading phrase—"known or reputed thief or associate of known or reputed thieves." It is unfortunate that the issue has now been raised in a form which may prove embarrassing to the police.

In the recent High Court case of *Mitchell v. Moir* (decided on June 30th), Moir had been convicted, in the Police Court at Laurencekirk in a complaint at the instance of the Burgh Prosecutor charging him that, being a known thief, he was found in possession of a green and white silk scarf without being able to give a satisfactory account of his possession thereof, in contravention of the Section above referred to. He pled not guilty and the case went to trial. After hearing evidence in support of the complaint, the Magistrates found the charge proved, but the accused appealed to the High Court, where the conviction was quashed. The question of whether the explanation of possession of the scarf tendered by the accused was a "satisfactory" account was not argued in the debate before the High Court, where the discussion was confined to the question of the proof of the accused's character

as a "known thief." The only evidence which could be relied upon by the Prosecutor as setting the accused in the category of "known thief" was "that the Appellant was convicted on March 1st, 1933, at the Sheriff Court, Stonehaven, of the theft of hens and was fined £1."

In quashing the conviction the High Court held that a single conviction of theft of hens six years before the offence now charged was insufficient to establish that Moir was a "known thief." With this finding we imagine few will be disposed to quarrel. It would be manifestly unfair to hold that a conviction of a petty theft had the result of "labelling" a man for life or even for a lengthy period of years. Unfortunately, the Lord Justice-General (Lord Normand), who delivered the leading judgment, went on to indulge in certain remarks of a more general character, and it is from these that embarrassment may follow. Lord Normand took the view—although this question had not been fully argued by counsel—that the phrase "known or reputed thief or associate of known or reputed thieves" must be read as a whole and that there had to be something of the nature of an established character as a man who committed thefts. Obviously, such an expression of opinion will prove a "godsend" to defence agents, who will now argue that the section was designed to apply only to a comparatively limited class—well-known pickpockets or house-breakers and others with an impressive criminal record of recent date. In the opinion of the present writer, however, Lord Normand's remarks may be properly regarded as *obiter*, i.e. as remarks gratuitously made and not necessary for the decision of the case. A court's decision is "authority only for what it actually decided" and Moir's case should be regarded as establishing merely that a petty conviction some years ago is not enough—that and no more. It is suggested that the Police are still safe to proceed (1) where there is a recent finding of guilt—say within the past three years or so—of a theft of some seriousness, even if it be the only previous charge ever brought against the person to be accused and (2) in the case of persons with a number of convictions, even after the lapse of six or seven years; for it would be manifestly defeating the purpose of the enactment if a well-known thief

should go free merely because he has evaded detection over a period. In the latter case, it should be left to the accused to establish, if he can, that he has turned over a new leaf.

FRAUDULENT DEBT-COLLECTING

The Procurator-Fiscal of Lanarkshire at Glasgow is to be congratulated upon his determination, apparent in the recent case of *Adair v. Muir*, to test the power of the criminal law of Scotland to reach certain doubtful practices of debt collectors—notably the attempt to recover, in addition to the sum truly due by the debtor, a sum of money called "expenses," a practice which trades upon the ignorance of many persons of their legal rights.

In the Sheriff Court at Glasgow, a complaint was raised charging the directors of Status Agency Limited that, being directors of the Company in question, which Company was instructed by A.B. to recover from C.D. a debt amounting to £50 4s. 7d., and said Company being entitled in terms of its contract with A.B. to a commission of 10 per cent. on said sum if recovered, they did post or cause to be posted to C.D. a letter in the following terms ". . . Before instructing proceedings against you, in accordance with our client's instructions, we give you an opportunity of settling the account of £50 4s. 7d. plus expenses of £4 4s. 2d., making £54 8s. 9d. in all. Payment in full or at least a definite and suitable arrangement for settlement must be made within the time stated. We have to say that unless we hear from you not later than . . ." and said letter was received in ordinary course by C.D. and they did thereby pretend to the said C.D. that she was liable to make payment to the said Company of said sum of £4 4s. 2d. and did attempt to defraud the said C.D. of said sum of £4 4s. 2d. The charge, it will be observed, was in form a simple charge of attempted "falsehood, fraud and wilful imposition" at common law. The relevancy of this charge having been challenged by the defence agent, the Sheriff, after hearing parties, sustained the objection and dismissed the complaint. Against this finding the Procurator-Fiscal appealed to the High Court.

It is a measure of the importance attached to the case by the criminal authorities that the Crown argument was personally submitted by the Lord Advocate, who represented the case as a "Test Case" taken in view of a wide-spread public agitation against methods alleged to be operated by debt-collectors. The case was directed against one particular activity of the typical debt collector. It was alleged that the persons accused knew that the sum claimed in name of expenses was not due but falsely and fraudulently represented to the debtor that it was due. It was, he argued, surely fraudulent to make such a representation, coupled with a threat that if the sum was not paid certain consequences would follow, to a person who might well be of poor education and without legal advice. For the Respondents, on the other hand, counsel argued that the civil law supplied adequate sanction against the practice complained of. After a very full discussion, in which every aspect of the matter was fully canvassed, the Judges of the High Court unanimously remitted the case back to the Sheriff to proceed—*i.e.* to call upon the accused to plead and, if need be, to hear evidence. This decision may be taken as tantamount to a finding that if the facts alleged in the complaint are brought home to the debt-collecting Company, conviction must follow.

ROAD TRAFFIC

Light is thrown upon the application of road traffic law to vehicles in use for Fire Brigade purposes (and so exempt from speed limit) by a recent decision of the Sheriff at Edinburgh. The facts were unusual in their circumstances. Accused was a fireman who happened to enter the yard of the Central Fire Station just when his services were urgently required. Some time before, word had been received of an extensive outbreak of fire within the City and every available engine had been dispatched to the scene of the outbreak. Later, a further message reached the Central Fire Station urging the officer in charge to send every possible man, as there was danger of the fire spreading to neighbouring tenements. The officer tried to get into touch with the only remaining engine (which had been

called to another part of the City to attend to a minor outbreak) by telephone, but failed to do so. It was at this stage that accused came into the yard in the Firemaster's motor car. He at once received orders to "nip along" to Gorgie Road and send the engine to the scene of the major outbreak. This he proceeded to do and, in course of his journey to Gorgie Road, was involved in a fatal accident. Being charged with reckless driving, he pled not guilty and evidence was led. From the evidence, it appeared clear that accused drove his car at a speed of at least 40 m.p.h. along a narrow and busy street (about 5 p.m. on a Saturday). He was sounding his horn vigorously—one witness deposed to hearing it 600 yards away. He was keeping a sharp lookout and had his vehicle under control, promptly applying his brakes when the pedestrian came into his view.

In giving judgment, the Sheriff (who found accused not guilty) made it clear that had accused been a private party engaged on some personal avocation, the speed proved would have been sufficient, in the locality and at the time in question, to justify conviction. "But," said the Sheriff, "I have no doubt whatever that he was on Fire Brigade business and that to have restricted his speed to 30 m.p.h. would have hindered the use to which the vehicle was being put." He went on to add, however, that the statutory exemption from speed limit did not necessarily absolve a fireman driving a car for fire brigade purposes. Although not tied down to a speed limit, such a person must observe care and take precautions for the safety of others using the roadway.

At a recent sitting, the High Court sustained a conviction of a contravention of Section 11 of the Road Traffic Act, 1930—driving a car recklessly and in a manner dangerous to the public—in a case where the only element of recklessness averred or proved was that, while driving the car along a road, accused was engaged in reading a magazine held by him on the steering wheel. The case, which was heard in Paisley Sheriff Court, will prove specially instructive to "speed cops."

Accused, as was proved by evidence tendered at the trial,

was driving a Morris 12 saloon car along the road leading from Renfrew to Greenock at about 30 m.p.h. A police patrol car met and passed him about half a mile west of Bishopton and accused, who was the sole occupant of the car, had a paper on the steering wheel and appeared to be reading it. The patrol car was turned and followed close behind accused for half a mile. The accused had a magazine in front of him all the time and was seen to turn over a page of the magazine. The accused, while being followed by the patrol car, drove his car along the road on his proper side and at the rate of about 30/35 m.p.h. The driving of the car was quite good and there was no indication from the driving that the car was being driven other than in a proper manner except that when he was turning over the page of the magazine the car swerved slightly. The traffic on the road, which is a busy one, was in no way interfered with by the accused's driving. The Police Officers stopped the accused's car and the magazine was then seen to be resting on the steering wheel in front of the accused and was being held there by both of his hands. Accused, when questioned as to the presence of the magazine on the steering wheel, handed the magazine to the officers and explained that his hands sweated and that the magazine was used to absorb the moisture and that he had not been reading it.

On this evidence, the Sheriff, disregarding the explanation tendered by accused, convicted "in respect that in my judgment he had been deliberately reading a magazine while driving the car" and imposed a penalty of £10. On appeal, the High Court approved of the conviction. (*Huxtable v. Hill.*)

WHAT IS "SCOTS WHISKY"?

Certain Whisky Merchants and Blenders in Glasgow were charged in the Sheriff Court there with applying the false trade description "Scots Whisky" to each of three hundred bottles containing whisky which was a blend of 33 per cent. Scotch whisky and 67 per cent. Northern Irish Whisky, in contravention of the Merchandise Marks Act, 1887, Section 2 (1) (d). They pled not guilty and evidence was led before Sheriff Guild, who convicted. On appeal to the High Court, this con-

viction was sustained and the appeal dismissed. (*Henderson & Turnbull Ltd v. Adair.*)

In giving judgment in the High Court, Lord Normand said that the Sheriff's finding was substantially that when whisky was sold as Scotch (or Scots) whisky this representation carried the meaning that the entire contents of the container in which it was sold had been distilled in Scotland. In his opinion, there was no ground in law upon which the High Court could disturb this finding. It appeared from the findings in the Stated Case that 90 per cent. of the whisky sold as Scots whisky consisted of whisky which was entirely Scottish. On that evidence it was idle to suggest that the Sheriff was disentitled to come to the conclusion that "Scots whisky" meant whisky which was in its entirety distilled in Scotland. Suggestion had been made in course of the hearing of the case that Scotch whisky as understood by the public and by the trade was a whisky which had a particular flavour and not a whisky with a particular origin. But the Sheriff, with full evidence before him, was unable to accept that view. The fact that (as was contended on behalf of the blenders) the 33 per cent. of Scotch whisky gave the flavour to the whole did not affect the fact that 67 per cent. of the bottle was Irish and could not properly be described as Scotch whisky.

CULPABLE HOMICIDE—NO BODIES

In the POLICE JOURNAL of April-June 1939 (p. 165) a report was given of an unusual charge of culpable homicide heard before Lord Aitchison and a jury, in which, among other matters, the question was raised of the possibility of a conviction of culpable homicide where no bodies had been found. The Jury having convicted, accused appealed to the High Court of Justiciary, where the Judges, after a very full hearing, declined to interfere with the Jury's verdict.

Photographs of Cartridge Cases and Bullets

By LIEUTENANT G. C. BRITZ,
South African Criminal Bureau, Pretoria

AT one time the expert in Forensic Ballistics could give his evidence in a Court of Law and was not required to support his evidence by photographic or other illustrations. Nowadays that kind of expert will find it hard to convince anyone that his evidence is reliable unless he can show how he arrived at his conclusions.

In the event of evidence about the identity of cartridge cases and bullets it may be difficult to mark minute points of identity on the photograph in such a way that detail is not interfered with and yet anyone may check up on the various points. In the accompanying illustrations a method is shown which is reliable and easy to use.

The writer has found that for small objects, such as cartridge cases, the "Leitz" large comparison microscope is the best to use, because of the moveable prism set employed in its eyepiece component. On this microscope it is an easy matter to take photographs of identical magnification and perspective, which is essential if success is to be ensured.

Assume that cartridge cases have to be examined. Using the comparison microscope an examination is made and it is found that on the base of each cartridge case appear minute marks of similarity which were made by the pistol in which they were fired. On the groove edge of the rim of each it is found that the pistol has left its mark in the form of a scar. All these marks are similar to marks found on test cartridges fired in the suspect's pistol.

Photographs are taken as required, and it is found that only the expert will be able to locate the points of identity because of their minuteness or similarity to other nearby points.

PHOTOGRAPHS OF CARTRIDGE CASES 401

To overcome this difficulty, a squared screen must be overprinted on the photograph. Take a piece of white drawing paper. Rule it off into suitable squares, and index the marginal squares as seen in the illustrations. For accuracy the ruled area should be at least twelve inches square. We will now refer to it as the "screen."

If your photomicrographic negatives are on quarter-plates, reduce the screen, by photography, on to a half-plate. The reason for the difference in size is so that the smaller plate can be moved about on the larger plate, and when in position sufficient margin is left for sticking both together with cellulose adhesive tape.

Make transparent positives off the negative of the screen; one for each photomicrographic negative.

The writer finds that the screens are best prepared on process films and the photomicrographs on fast panchromatic portrait films of a fine grain.

Having now dried all the films (positives and negatives), just check up on those of the photomicrographs to see if the magnification and perspective are the same.

Next take a transparent screen and attach to it, with adhesive tape, one of your photomicrographic negatives (emulsion side to emulsion side). Use this as your standard combination.

With a paper-clip to hold it in place, another screen is placed against the combination and the squares matched up. Take the photomicrographic negative that is to be attached to this screen and place it into contact with the screen as before. Orientate it with the first negative and stick it on to the screen as was done with the standard combination. Remove the paper-clip and proceed with the next set until all of the same type have been made into combinations.

Printing on to paper is done through a projection printer when the desired size of enlargement is decided on. Reference to any square is made by stating the index letter and numeral appearing in the marginal squares.

The accompanying illustrations were used in a case recently, and are of the base of a cartridge found at the scene of the shooting compared with the base of a test cartridge fired in the suspect's pistol by the writer.

Photo No. 6 is of the "murder" cartridge case. Photo No. 8 is of the test cartridge case. Reference for similar marks are squares D3, E3, D11, K3-4 and J2-3.

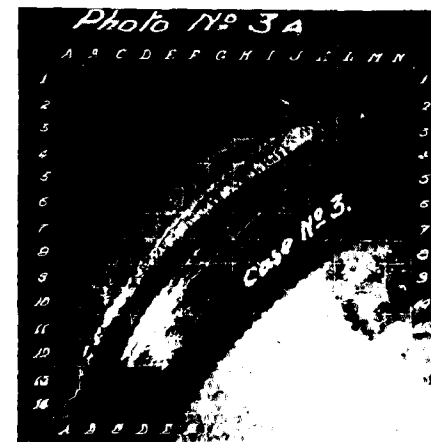
Photo 3A is of a scar on the rim of the "murder" cartridge case. Photo 2A is of a similar scar in a similar position on the test cartridge case. Reference may be made to squares B12, B11, C-D9, F6, G5-6 and many others.



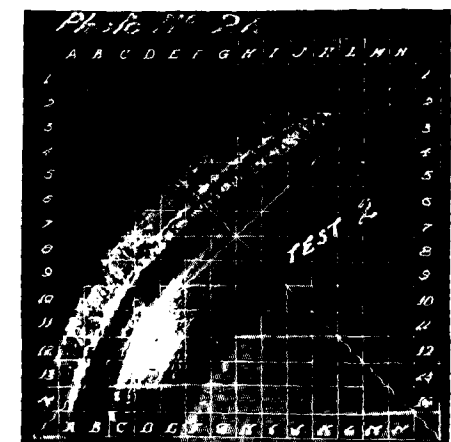
"Murder" cartridge case



Test cartridge case



"Murder" cartridge case



Test cartridge case

Photomicrographs of base of a cartridge found at the scene of a shooting compared with bases of test cartridges fired in suspect's pistol

(face p. 402)

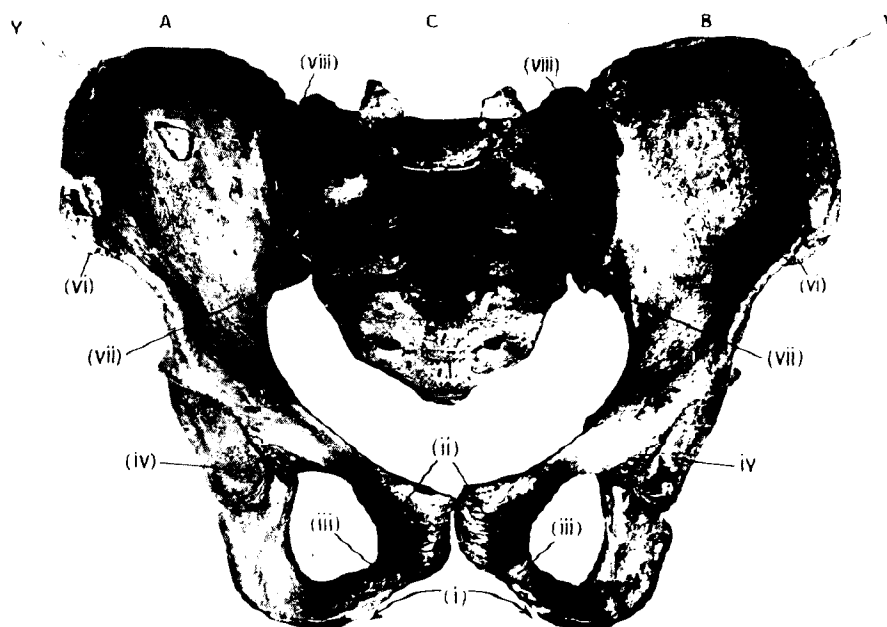


FIG. 1 : Photograph of reconstructed pelvis. A—Right hip-bone. B—Left hip-bone. C—Sacrum. (i) Pubic arch ; (ii) Body of pubic bone; (iii) Constricted neck of bone between body and lower limb of pubic bone; (iv) Acetabulum; (v) Crest of ilium; (vi) Anterior spine of iliac crest; (vii) Pre-auricular sulcus; (viii) Sacro-iliac joint

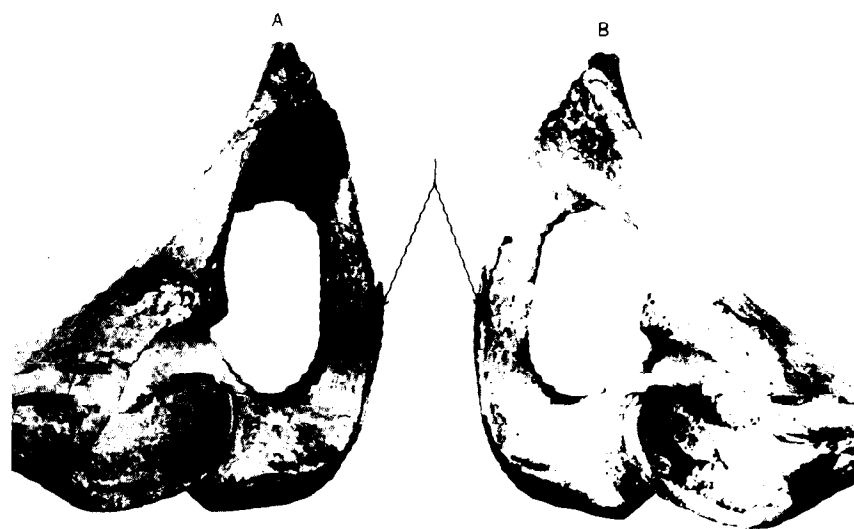


FIG. 2 : Lower ends of the hip-bones. A—Right. B—Left. Arrows indicate the line of separation between areas of primary and secondary ossification

Studies in Identification. No. 4

By SYDNEY SMITH, M.D.

Department of Forensic Medicine, University of Edinburgh

IN certain of the preceding studies I have pointed out that the material available for examination may be very fragmentary in character and limited in extent. The reader will have noted, however, that if the fragments—of bone, for example—are sufficiently numerous or characteristic, much useful and quite definite information may be obtained regarding race, age, sex, stature, and so on.

Occasionally, the identification may be rendered ever more personal and individual by the presence of evidence revealing occupation, habits, or state of health, either in the past or at the time of death. In the same way, identification may become very precise if the fragments present features indicative of deformity or long-continued disability, as was shown in my previous article. In addition to the identification of the individual, it is commonly possible to obtain sufficient evidence to enable the examiner to arrive at certain conclusions as to the cause or manner of death, and the method of disposal of the body, and also in some cases to allow of a reconstruction of the crime, which may be very helpful in suggesting suitable lines of police investigation. Certain of these points are well illustrated by the case which I am about to describe.

A certain village well, disused for years, was being cleaned out with a view to rendering it once more serviceable. In the course of cleaning operations, three separate bones were found. The find was reported to the police, who took possession of the bones and passed them on to the laboratory for examination and report.

The bones were human, and comprised two hip bones,

right (*A*) and left (*B*), and a sacrum (*C*), which could be accurately articulated. All three, therefore, came from one and the same body, of which they had, in fact, formed the pelvis (*Fig. 1*). Of all the bones of the body the pelvis is the one which presents the most characteristic sexual features, and a definite identification of sex can almost invariably be made if this part of the skeleton is available. The illustrated pelvis shows quite well certain of the sex characteristics which prove it to be that of a female. Amongst these may be mentioned the greater width and rounded apex of the pubic arch (*i*), the square shape of the body of the pubic bone (*ii*), and the pinched appearance (*iii*) at its junction with the narrow pubic ramus or limb. The typically short, wide, triangular sacrum (*C*) can also be seen. In addition, the great sciatic notches are widely open (*Fig. 3*), and the acetabula, or sockets for the heads of the thigh bones, are small and measure only some 46 mm. in diameter. The presence of all these features may be considered positive proof that the bones are those of a female.

The stature of the deceased female could not be accurately estimated, but from the small size and light weight of the bones it could be deduced that she was at all events small and slightly built. Indeed, an inexperienced examination might, and in fact did, lead to the opinion that the bones were those of a child rather than an adult. That this is not so, however, is evident from the state of ossification. As I have mentioned previously, practically all the epiphyses or growing ends of the long bones have united with their shafts at about twenty years of age. Between twenty and twenty-five years, certain minor epiphyses begin to unite, and these are seen in three places, namely, the ends of the ribs, the ends of the collar bones, and the margins of the hip bones. In the latter, there is an epiphysis along the crest of the ilium, which forms the main part of the hip bone. This crest unites with the remainder of the ilium at about twenty-two or twenty-three years of age. In the bones from the well, it can be seen that the crests have united, but only recently, as the line of union is still apparent. The secondary centre along the margin of the pubic ramus is still separate (*Fig. 2*), and since union of this centre occurs at about

twenty-four years, the age of the deceased woman could be estimated with relative certainty at about twenty-three or twenty-four years.

Another feature of significance is the presence in either hip bone of a groove, situated just in front of the articular surface which, with the corresponding area on the sacrum, forms the sacro-iliac joint (*Fig. 1, viii*). Such a groove is called the pre-auricular sulcus (*Fig. 1, vii*), and in my opinion the presence of a pre-auricular sulcus, moderately well developed, in a young woman of twenty-three or twenty-four years of age, is very suggestive of a previous pregnancy. I do not advance this as an authoritative statement, but rather as a suggestion which I have found to be borne out on more than one occasion by facts subsequently ascertained.

So far, then, confident opinions could be expressed regarding the age, sex, stature and general build of the deceased. In addition, there was the suggestion of previous pregnancy and a possible indication, therefore, of her marital status, frequently a helpful point in the identification of females, and one which should always be noted when possible.

Information of a still more personal nature was obtained by careful comparison of the two hip bones. As can be seen in *Fig. 3*, the right and left bones show obvious differences. For example, the great sciatic notch (*ix*) is wider and the ischial tuberosity (*x*) heavier on the right side than on the left. Associated with these differences, other points of asymmetry can be noted on the hinder margins of the bones. The cavity for the head of the thigh bone (acetabulum) on the right side is of rather greater capacity and depth than that on the left. The difference is not easily shown photographically, but is sufficiently indicated in *Figure 4*, which is a photograph of casts from the two acetabula. There is a difference also in the measurements of the areas which form a joint with the sacrum on the right and left sides, and a slight asymmetry of the sacrum itself. The weight of the right hip bone is slightly greater than that of the left. These differences between the two sides suggested that the right hip bone had borne most of the weight of the body, and, therefore,

that there had been prolonged disability and comparative disuse of the left leg, probably dating back to birth or early childhood.

It will have been noticed in Figures 1 and 3 that the right hip bone has been injured. The nature of the injuries is perhaps still better shown in Figure 5. Close to the sacral iliac joint, an irregularly-shaped lead slug or pellet is embedded in the bone (a). About one inch above and in front of this, a triangular fracture can be seen. At the original examination this fragment was found still "hinged" to the main mass of the bone, as if dislodgment had been caused by something passing through the bone from before backwards (b). In the spine-like part of the ilium there is an injury (c) showing a grooving or channelling of the bone from before backwards and slightly upwards. This injury has caused some comminution of the neighbouring bone, and a fracture running downwards, well seen in the illustration. Since a slug was actually present in the bone, it is a reasonable assumption that the objects which passed through the bone at the other points described were also slugs, and that the injuries were all due to the discharge of a shot-gun loaded with heavy, rough, or irregular slugs. The spacing of the injuries gives some idea of the dispersion of the shot, and suggests a range of at least a few yards.

The margins of the injury near the iliac spine show a considerable degree of erosion of the bone, such as is characteristically produced by suppuration. The extent of this erosion indicates that vital processes were active for about seven to ten days after the injury was sustained, that is to say, the victim lived for that length of time after the injury. The position of the injuries to the bone show that the abdomen must have been penetrated, and this fact, coupled with the definite evidence of septic infection, suggested that the cause of death was probably septic peritonitis. As regards the time since death, it was impossible to be very accurate. In the adherent tags of soft tissue, however, there was a small amount of adipocere, such as would require at least three months, and probably even longer, for its formation.

From the examination, therefore, a fairly detailed report

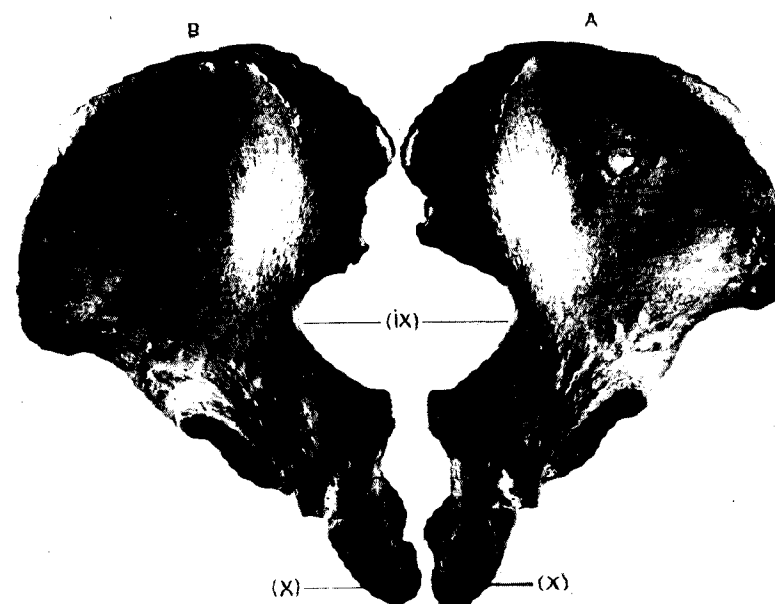


FIG. 3 : Rear view of hip-bones. A—Right. B—Left. (ix) Great sciatic notches;
(x) Ischial tuberosities

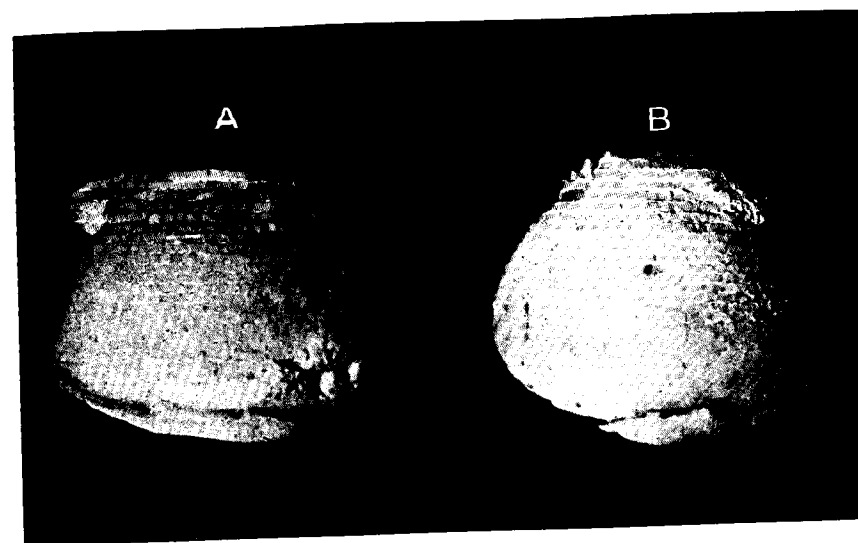


FIG. 4 : Photograph of casts from acetabula. A—Right. B—Left
(face p. 406)

was made as follows : The bones are from the same body, and have formed a pelvis of a young woman of small stature and light build. She was twenty-three or twenty-four years of age, and possibly had had one or more pregnancies. She had been lame on the left side since infancy or early childhood. She was injured by the discharge of a shot-gun loaded with irregularly-shaped and possibly home-made slugs. The shot was fired from in front of the woman, at a range of some yards. If the woman was in an erect position at the time, the direction of the shot was from before backwards, slightly from left to right, and slightly upwards. The shot must have penetrated the abdomen and injured the viscera. Death occurred about seven to ten days after the shooting, and was probably due to septic peritonitis. The whole occurrence is not more recent than three months ago, and may be considerably more remote.

As a result of this report, police investigation led to the discovery that a woman had been missing from a neighbouring village for some months. A perfectly innocent explanation for her absence was at first advanced, but the description of the missing woman included all the features described in the report, except that she had been lame in *both* legs since infancy, from what cause I was unable to learn. She had been married and divorced, had had one child, and had been living in the village with her father. The father was arrested, charged with the murder of the woman, and at once he made an explanatory statement regarding the tragedy. It appeared that the girl had been standing in the doorway of the house, while he was seated on the ground in the vicinity, cleaning a shot-gun. He was unaware that it was loaded, but there was a sudden accidental discharge and the girl was wounded. He had been afraid to notify the police of the accident or summon assistance, as he was not entitled to possess the gun. He had nursed the injured girl at home until she died after about a week. Considering himself in a worse position than ever, he had then disposed of the body in the disused well. The facts deduced from the examination of the pelvic bones, therefore, agreed precisely in all the essential details with the actual facts of the case.

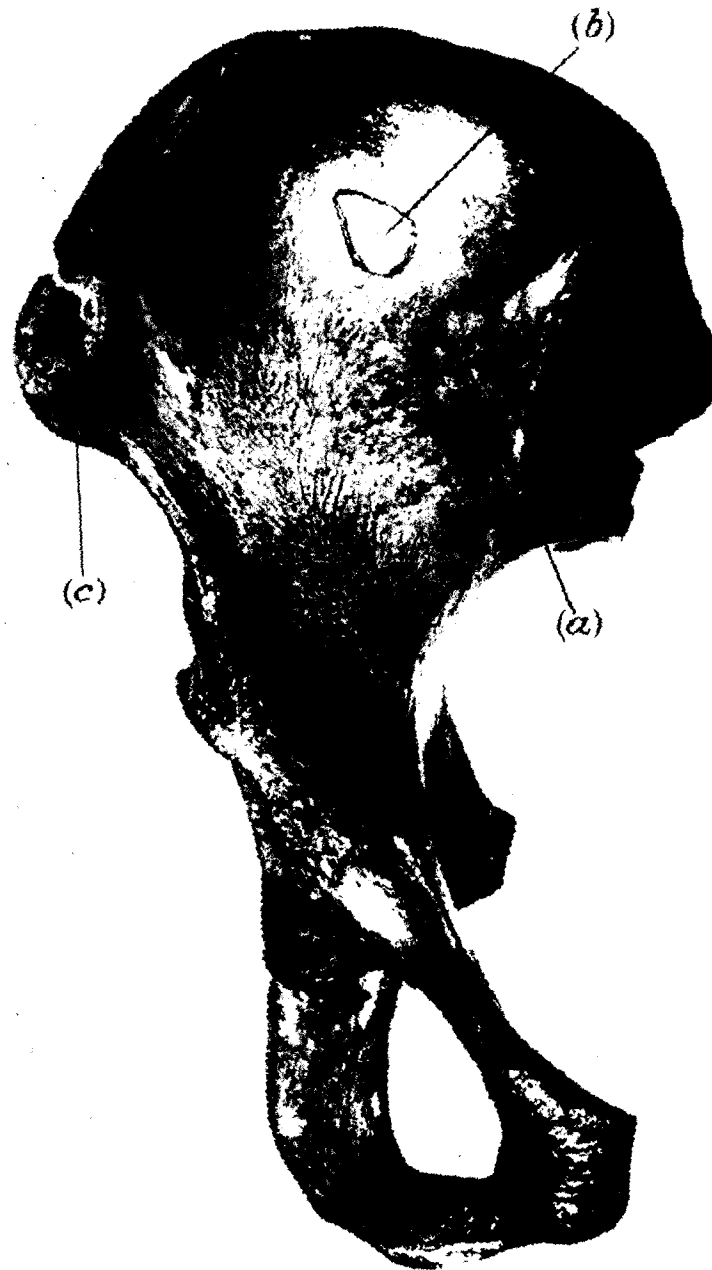


FIG. 5 : Right hip-bone. (a) Irregularly shaped lead slug embedded in bone; (b) Triangular piece of fractured bone; (c) Grooved fracture, showing erosion of bone

I have to acknowledge the help given me by Sergeant Stobie of the Edinburgh Criminal Investigation Department who prepared the photographs, and by Dr. F. S. Fiddes, m Assistant, who co-operated in preparing the text.

The Property Index of the Criminal Record Office at New Scotland Yard

By DETECTIVE-SERGEANT J. A. KENNEDY

Metropolitan Police

YOU have no doubt read or heard a great deal about many of the branches of the Police Service operating from New Scotland Yard, but there is one branch, the working of which, through the mere fact of its utility, has not been advertised, eulogised or even mentioned in any newspaper, periodical or broadcast, and yet it merits as much praise as any. I refer to the Property Index, a section of the Criminal Record Office of New Scotland Yard.

How many people, seeing a big conflagration, stop to think of the fireman at the hydrant round the corner, working unostentatiously, supplying the necessary water for the men at the actual scene of the fire? The Property Index is analogous to the man at the hydrant, its duties do not bring it under the eye of the public, and the credit for its successes more often than not go to the officer investigating the case, who in all probability could not have brought his enquiry to a successful conclusion without the collaboration of Property Index. Even by police officers themselves it is not sufficiently realised what an important factor property can be in the successful conclusion of an investigation. It always has played an important part, because in every case of stealing and in many cases where property is obtained by fraud, a description of the articles can be obtained.

All police officers realise that very often at the outset of an enquiry the description given by the loser of property is of varying degrees of accuracy, but by a certain amount of judicious questioning, cross-examination if you like, it is possible to obtain a really good description. In cases where no person has been seen, and there is no suspect, as in the majority of cases of housebreaking or burglary, or in many

simple thefts, the property becomes the only clue that an investigating officer has towards the identity of the person who committed the crime. No one has been seen, so no one can be described or identified from description or photograph, but if even the smallest article stolen is traced to the possession of anyone, then the officer has something on which he can get to work.

If this important point were realised by the loser and by the investigating officer, still greater care would be exercised in ascertaining at the commencement of the enquiry the very best possible description of the stolen articles.

As far back as the year 1828, before the Metropolitan Police Force was in existence, there was published, daily, for the information of those then responsible for policing the Metropolis, a *Daily Police Report* giving information of the happenings at the different police offices that were instituted in the various parts of London. The heading of this *Daily Police Report* included the phrase "Also a description of property that has been stolen, with as much particularity as can be given with other circumstances that may be useful for the purpose of tracing and recovering it." So, even as long ago as one hundred years, it was fully realised that "as much particularity as can be given" was necessary to assist in tracing and recovering property. If that phrase were borne in mind by the investigating officer when taking descriptions of stolen articles, much better descriptions would be available for the purpose of identifying property that might be traced, either as a result of a police search or through the arrest of a prisoner.

The man in the street cannot imagine the difficulty Police have in obtaining a good description of articles from a loser, especially in the case of personal jewellery, and yet it is not surprising, when one stops to consider, how few persons really observe their own property—they see it daily but they do not *observe* it. For instance, how many of you readers can describe the face of your watch? What figures are there on it? Where is the six o'clock and how is it shown? What is the exact wording of the inscription on the cigarette case presented to you? If any of your property is lost or

stolen, are you in a position to give a good and proper description to the officer who has the task of undertaking the investigation? How many people ever trouble to take a note of the number of their watch, bicycle, wireless set or typewriter? Fortunately, with articles of this description, there is generally a guarantee given, which, when found, would no doubt supply the required number.

With inscriptions or initials there is generally some member of the family who can supply better information than the loser, and, as a last resource, the donor could be approached and asked what he or she had had inscribed on the article. In any case it is no good guessing, you will never get your article back if you do. If exactitude cannot be arrived at, far better give an alternative; for example, "A gold cigarette case believed to bear initials "D.G." or "D.A.G." Articles of value are usually insured and a description set out on the insurance policy, and in quite a number of such cases there is also a photograph attached to the policy. To quote an old Chinese axiom, "One picture is worth a million words." Another source from which a description can be obtained is the maker or vendor of the article, who would be able to supply a trade description that would be quite satisfactory for record purposes.

It is general knowledge that it was the practice for descriptions of stolen property to be circulated throughout the country in police publications, and, in fact, it still is in some of them, and, in the good old days, not so very far distant though, whenever property came into possession of Police, perhaps found on a prisoner or at his address, no matter how in fact, it was the duty of an officer to search back through police publications over a period of months, sometimes of years, in an endeavour to try to find a description therein that might fit the property in possession of Police.

Nearly all readers of this article are cognisant of the type of printing that was prevalent in those publications, small, lines close together and not too clear. You can imagine, perhaps, what a task it was; maybe some of you have had it to do. What a job! searching through page after page of monotonous descriptions of very uninteresting articles, of all

classes of property, from the single stone ring to the Adam mantelpiece, perhaps, in an endeavour to connect up a brooch of floral design. The descriptions were not arranged in alphabetical order, neither were articles of the same classification together even; no, they were printed just higgledy-piggledy, and amongst those hundreds of pages you were expected to find something that might answer the description of that small brooch.

Of course it was an important job, and you realised its importance, as by that one article you might connect the prisoner up with a case of housebreaking or burglary; but what a hopeless job it really was! Unless the property had been circulated recently the search was doomed to failure from the start, as after an hour or so of looking through descriptions under such circumstances I am afraid if anything *had* been there it would have been missed in the hazy mass of other articles.

What an advance is the present-day system, with the Property Index at your service, under which particulars of property are centralised and systematically arranged under suitable classifications. Whenever Police are informed that property has been stolen a description of it is forwarded to Property Index, where the identifiable articles are recorded, and when property comes into possession of Police, through no matter what channels, an enquiry of the Index is all that is necessary to ascertain whether or not a description of that property has ever been circulated in police publications or reported to Police of the Metropolis. In a few minutes an officer can be told definitely whence the property emanated.

This wonderful Index records property under one or more of nine classifications.

(1) *Names and Inscriptions*

Whenever an article bears a name or inscription particulars are recorded in this section alphabetically, therefore care should be taken to supply the name or the inscription correctly. Naturally this only applies to names or inscriptions that are made out in languages which employ characters similar to the

English alphabet. The inscription should be given in full; it is not sufficient to say it is an inscription in French or German, it should be written out letter by letter: "*Honi soit qui mal y pense*" or "*Ich dien*."* Inscriptions in characters that cannot be written out are carded as a foreign inscription, and comparison would have to be made with any article bearing such an inscription that might eventually come into the possession of Police.

(2) *Initials*

Under this section are recorded details of articles bearing initials. It is necessary to have the full initials, so that they can be recorded properly. That might sound obvious, but it often happens that a loser is unable to give the initials correctly, or an officer assumes that because a person gives his name as "Mr. John Knight," the initials on his stolen cigarette case are "J.K."; he may have other Christian names, perhaps of an effeminate type which he is reticent to use, therefore he makes use of the one name only. One cannot blame a person for the name in which he was christened, and Mr. Knight, with the names of John Clarence Claude might prefer to be known as plain Mr. John Knight; but the donor of a gift, say a cigarette case, usually has all four initials engraved upon it. Therefore be certain to ascertain all the initials on a stolen article.

It should also be mentioned whether the initials are in the form of a monogram or not. The search on initials involves one search only, but a search on a monogram entails looking through every combination of the letters in the monogram, as it is so simple to quote them without knowing their proper sequence.

(3) *Numbers*

Any number on an article (other than bicycles or bank-notes, which are dealt with separately) is recorded under this section, and each known number is carded. As has been mentioned, when dealing with wireless sets and the like the loser can generally obtain the number from the guarantee.

* "Evil to him who thinks evil of it"—the motto of the Order of The Garter ;
"I serve"—the motto beneath the Prince of Wales's "feathers."

(4) Crests and Coats of Arms

Often, in cases of housebreaking or burglary in country mansions, articles bearing crests and coats of arms are stolen, and under this section they are recorded. For the purposes of record in Property Index it is more important for us to know the composition of the crests or arms than the owner of them. For example a coat of arms is recorded—a shield quartered; top left corner, a fish; bottom left corner, a lion rampant; top right corner, a rose; and bottom right corner, a castle.

It may be said that if we are told it is the coat of the Earl of Wardom that should be sufficient; so it would be from the point of view of information, because books of reference are handy from which could be ascertained the composition of the coat; but the composition must be recorded in the Index because should an officer find it in possession of a prisoner he is not to know then and there whose coat it is; he is going to enquire of Property Index if there is any trace of a coat of arms of which he will give the composition, and a search will be made accordingly.

Should there be a motto with the crest or arms, that would be recorded as well under the section dealing with inscriptions.

(5) Dates

An article of sentimental value often has a date inscribed on it, and, under this section, these are recorded according to the month of the year shown. If only the year is given it is treated as a number and carded under Section 3.

(6) Banknotes

Banknotes of the smaller denomination, £1 or 10s., are really too common to record, nevertheless there are circumstances when they are recorded, such as when a large number of notes bearing consecutive numbers are stolen, or when several notes might have been stolen by a person of the tramp class, in whose possession it would be suspicious to find clean notes in sequence. In the ordinary way, however, only the numbers of banknotes of £5 or over are recorded in Property Index.

(7) Bicycles with numbers

It is a very common occurrence for Police to receive reports that a bicycle has been taken away, but there is no doubt that in the majority of cases the alleged thief does not intend to steal the machine, but has borrowed it to enable him to ride from the scene of the taking to some other district, where he abandons it.

It is really extraordinary that such a large number of cyclists do not trouble to take the number of their machine, or to notice something about it by which they could recognise it amongst a number of others, and, unless a loser is able to supply the number and make of his machine, or the number only, then this section becomes inoperative. Many endeavours have been made through the Press and cycling journals to educate the cyclist to learn something about his machine; it has been requested that a piece of paper bearing the owner's name and address be inserted in the hollow cross bar underneath the saddle, which is a simple, yet effective, method of identification, but he continues apathetic in this direction and when his machine is taken he is unable to describe it with any degree of accuracy; consequently it is never returned to him.

Bicycles of similar manufacture all look alike, and the loser of, shall we say, a Hercules cycle would not be able to recognise his machine from amongst others of the make unless his differed in some way. If the number were known it would be simple, and in an endeavour to overcome the apathy of the cycling public the next section was commenced.

(8) Bicycles on description

In this section are recorded, on a special form which sets out in detail a description of all the component parts of the machine, all bicycles that are reported to Police as lost, stolen or found. These forms are filed away according to the make of the cycle, and whether it is a lady's or gent's, found or stolen. Every year, all over the country, a very large number of bicycles that are found abandoned are sold by the police authorities because no owner can be found for them. They are machines whose numbers do not correspond with

any that have been given of machines reported stolen, and their ordinary description is not sufficient to single them out.

Whenever a form is received giving details of a bicycle found abandoned, those details are compared carefully with the details of all other machines of similar make that have been reported as stolen, in an endeavour to connect it up with one of them by means of the description alone. Again the Index is handicapped to a large extent, as, unless there is something, no matter how small it might be, that makes that machine different from other machines of similar make, the search cannot be successful. It might be, however, that one mud-guard is missing, or there is something in the contents of the saddle bag peculiar to both the stolen machine and the found one; perhaps the cycle has one rat trap and one rubber pedal, and even such a small item as a piece of American cloth underneath the bell clip on the handlebar has been the means of getting a bicycle restored to its correct owner.

By this section it has been possible, simply by comparing the small outstanding details, for the Index to be responsible for identifying a large number of machines, and ensuring their return to the owner, incidentally clearing up what has been reported as a crime. Previous to the inauguration of this section these machines would have been sold because they were considered to be unidentifiable without a number. During the past year quite a number of bicycles, "borrowed" in one part of the country and abandoned in another, have been identified through the services of this section.

(9) *Articles on description*

This is undoubtedly the most difficult classification that is dealt with by Property Index. Under it are recorded articles according to their description, and the difficulty arises because different persons describe the same article in a vastly different manner.

The article is first carded in the section according to the article itself—a brooch, camera, tie-pin etc.—and then according to the shape of the individual article, and finally, if necessary, according to the stones with which it is set.

The type of article is not difficult to describe, but the

shape becomes more complicated because, strange as it may seem, losers will describe a square as rectangle and an oval as round; therefore, as a triangle seems to be the only geometrical shape that cannot be wrongly described, that is the only geometrical one that is recorded. It is in connection with articles that might be put under this section that a picture of the article in question is so useful, because when a similar article comes into possession of Police it is quite simple to compare it with the portrait. As there are many stones of similar colour, they are recorded according to the name of the stone irrespective of the colour.

It should be realised more than ever that with this section it is necessary to have the very best possible description, because it is on the description alone that identification is anticipated. With other sections, no matter what the article is, if there is a number, inscription or a name, it is recorded under the appropriate section, but here we are dealing with articles having nothing but the description to assist in identifying them, so they are carded according to the description given by the loser.

To assist identification the metal concerned should be mentioned, also the exact size, details of shape, the number of and the way in which the stones are set in the case of rings and brooches, and lastly, but by no means the least important item of identification, the approximate value. It would be useless suggesting that an article worth only £1 might be identical with an article worth £100.

It is not too libellous to say that the loser who can readily give all the information required concerning a stolen article has yet to be met; but by intelligent questioning it is surprising the amount of latent knowledge that comes to light.

One or two types of articles are worthy of special mention in connection with this section. Rings are amongst the most common articles that are stolen, and, in order to avoid overcrowding the Index, these are not recorded unless, by reason of their value, unusual setting, cut or size of the stones, or some other peculiarity, they are outstanding from other rings of a similar kind.

Furs are another type of article frequently reported

stolen, and as one knows, in value they sometimes run into three or four figures. To the uninitiated it is difficult to tell whether the article is worth £5 or £500, so, unless expert opinion can be obtained, every possible detail should be given, including the name of the fur, the number of skins, how they are sewn together (chevron, vertical stitch, etc.), the length, description of the lining, the colour, number and position of fastenings, and, if a necklet, the number of heads and paws.

Of course, it must be realised that unless an article is identifiable it is not much use recording it in Property Index or anywhere else, and by "identifiable" is meant property that can be so described that any person reading the description and afterwards seeing the article would recognise it without further information. Many a person could recognise their own property but would be unable to describe it so that another person could do so. There must be something about the article to make it different from other articles of a similar type.

In order to effect an identification in Property Index, two sets of facts are necessary and they must agree :

(a) The description of the stolen article as given by the loser to the investigating officer.

(b) The description of the property in possession of Police.

The description in the case of (b) should be absolutely perfect, because there is the article before the eyes; every little detail can be given and, if there is any doubt as to the correct manner of describing it, expert advice can always be obtained from the local jeweller or pawnbroker, or, if it is other than jewellery, from some person in the trade concerned with an intimate knowledge of such articles. It is, therefore, incumbent on all investigating officers to make the very best possible endeavour to ensure that the description under (a) is so good that when property comes under the heading of (b) the descriptions will readily agree.

Difficulties arise daily as to how certain articles should be described; whether as a chopper, a hatchet or an axe; a deer or reindeer; an alligator or crocodile; the head of a fox or wolf : as these queries are met with a decision is made and all

future descriptions of a similar nature are recorded accordingly.

The officers responsible for the working of the Index are not experts on jewellery or any other article, but, by their continual connection with descriptions of articles, and seeing property that has been traced to the possession of prisoners, etc., they have acquired an excellent knowledge and know exactly under what heading an article should be carded or searched for. As with all indexers, the officers acquire a flair for their work; their intuition is awakened, and even memory and imagination play their part in effecting identifications. Having received particulars of property recently stolen, an officer in Property Index immediately connects it up with a similar description given of property in the possession of Police.

All information relating to property stolen or found, which is received in Criminal Record Office, is automatically referred to Property Index. If it is details of stolen property it is carded in black and if particulars of property coming into possession of Police it is written up in red.

What, you might ask, is the idea of recording property in the possession of Police? Well! it often happens that property comes into possession of Police before the loser realises his loss. A wallet or cigarette case may be stolen from the pocket, the thief arrested on some other charge, perhaps only drunkenness, and when searched the property is found. Enquiry at Property Index reveals no report of the loss, but particulars of the article are noted in red. When eventually the loser finds that his property is missing he informs Police; they, in turn, advise Property Index, who, having put in a red card for the article found, now put in a black one for that reported stolen. Contact is made and the owner informed that his property is already in possession of Police, much to his surprise and delight.

That is Property Index. Why there are not more indexes of a similar nature it is hard to explain, since there is no doubt at all that to centralise particulars of property, whether stolen or found, is a policy that is fundamentally sound, because police officers know that they can get reliable information

through such an index in a very short time. If there were more of these indexes throughout the country, a great deal of police time would be saved and efficiency would be improved.

In the majority of cases, when an article is stolen it does not go very far from the scene of the crime, which is generally committed by some local person. There are, of course, the heavy cases of house or shop breaking where criminals from town make the journey expressly for the purpose of carrying out a preconceived plan; they have "spotted" certain premises as being a likely "coup." But in the ordinary way, that watch stolen from your pocket, or the jewellery taken from the bedroom, is not carried many miles before it is disposed of, and, if its description could be recorded in a local Property Index in a similar manner to that in which it is recorded in the Criminal Record Office, that would be sufficient to ensure it being connected up should it be traced by Police or come into their possession.

The system is simple, straightforward and easy of manipulation by the person of average intelligence, and if by chance there is an item in this article that is not clear to any police officer reading it, should he be in the vicinity of New Scotland Yard at any time he can visit the Index and see for himself the inner working, which will be explained in detail to him.

As a final word to police officers, do not overlook the fact that if the information is not sent to Property Index it cannot be recorded, and therefore is not available for the information of officers enquiring at a later stage. So, whenever you have identifiable property, and think that a description of it in Property Index might assist, send along the finest possible description you can obtain.

Some Applications of the Spectrograph to Criminal Investigations

By PROFESSOR F. H. NEWMAN, D.Sc.

University College, Exeter

IN a previous article (POLICE JOURNAL, Vol. II, No. 3, 1938), some particulars of the spectrograph, and the way in which it is used, were given. The instrument is very useful in conducting a qualitative survey of questioned materials. If the results are negative, no further tests are necessary. If, on the other hand, the analysis indicates the presence of elements which would tend to incriminate, further analyses are made by chemical means. One great advantage of the spectrograph is that only minute quantities of material are needed. Let us consider a few instances where spectrographic methods have been employed in police work.

In forcing a safe, a burglar used a common iron bar, and a few days later the suspect was picked up and had a bar in the house which corresponded with the dimensions of the marks on the safe—the latter being painted green. On close examination of the bar a few green smears were discovered on the end. These were dissolved off by means of ethylene bichloride and the residue tested in the arc by means of the spectrograph. The results were compared with those obtained from the paint on the safe, and among the constituents from both specimens were barium, chromium, lead and zinc, the latter coming from an undercoat of white paint. The similarity of the paint smear on the bar and the paint from the safe door were thus established.

In another burglary case entrance had been made through an opened window, on the sill of which was a faint film of green vegetable matter which is often found on parts of buildings. The trousers of the suspect also had one or two green

smears, but when these were examined spectroscopically the constituents were not the same as those of the green matter from the window sill, and thus the suspect was cleared.

A motorist, under the influence of drink, had collided with a horse and trap and had driven off without stopping. Finally the motorist was traced, and the paint of his car was compared spectroscopically with the smears of paint found on the trap. The two sets were similar. In this particular case there was confirmatory evidence. The pieces of glass, found at the scene of the accident, were carefully replaced to form the complete cover glass of one of the car lamps. It may be mentioned in passing that glass fragments may be examined by means of the spectrograph. It is best to grind the glass into a powder and mix it with some carbon scraped from one of the carbon electrodes of the arc. The troublesome point is, however, that so many glasses made by different manufacturers have almost identical constituents, and evidence submitted from spectrographic analysis of a glass is not altogether satisfactory. Special markings, due to moulding and possibly the accident, must be examined and found.

In another interesting case a motorist had stopped in a fog and, getting out, went to the back of the car. As he did this two other cars crashed into the first one and the man was killed. Because of the poor visibility and rapidity with which the accident happened, it was not possible to say what had actually occurred and which of the two cars had struck the man. On the clothing of the victim, however, there were a few particles of paint which had been impressed in the fabric of his waistcoat. An examination of these paint particles, and of the paint on the two suspected cars, showed which of the latter had been responsible for the death of the man.

Sometimes examination gives unexpected results. For example, a sample of tea was submitted which was found to contain a considerable amount of sulphuric acid—an attempted poisoning case. Some of the sample was tested by means of the spectrograph and the latter disclosed traces of copper, lead and antimony which do not occur in sulphuric acid. Finally it was found that the acid had been taken from an old

SOME APPLICATIONS OF THE SPECTROGRAPH 423

accumulator in the possession of the suspect, and the impurities had come from the lead plates.

The chemical examination of bullets, and of shot and powder residues, is of the greatest importance in the investigation of crimes involving the use of firearms. Here again the spectrograph is of the greatest assistance, because as the bullet passes through the tissues of the human body, it leaves traces of metal which can be wiped off and examined. At the entrance of the bullet there will be a preponderance of heavy metals, particularly lead, and it is possible to distinguish, in this manner, between the entrance and exit wounds. Not only so, but a bullet wound sometimes resembles that which might have been caused by some other weapon. A spectrographic examination however definitely decides whether the wound was caused by a bullet. The cloth fabric surrounding the bullet hole in the cloth can also be examined. It is burnt at a low temperature, and the resulting ash is placed in a small hole at the lower carbon of the arc electrodes. As a rule a considerable quantity of lead is found in the cloth and, in addition, tin, antimony and barium are frequently detected. Barium is probably due to the fouling of the gun barrel by primer residues from previous shots. Sometimes great difficulty is experienced in attempting to determine the chemical composition of the bullet from traces left on the clothing around the bullet hole, because there are several factors to be considered, *viz.* the fouling in the barrel, left by previous shots, distance of shot, etc.; but the very presence of lead around every bullet hole is a good indication that the hole is, in fact, a bullet hole and not that caused by any other instrument.

Experiments are now being carried out in order to determine how the elements from a bullet, deposited on cloth, vary with the distance from which the shot is fired. In general the intensity of the spectrum lines depends upon the quantity of the substance present in the specimen, *i.e.* if a small amount of lead is there, then the lead lines are comparatively faint. In this way it is possible to obtain both a qualitative and a quantitative analysis of the metallic traces. From such experiments it may be said that at two inches' distance the traces contain lead, copper, arsenic, tin and antimony, in addition

to manganese from the powder. When the shot is fired from about twelve inches, lead, copper and antimony are found, whereas with a distance of three feet there are traces of lead and copper alone. In general, at distances of from three to six inches, it may be said that the following sources contribute to the lead traces around the bullet hole: (a) the bullet, (b) fouling of the gun barrel, (c) lead contamination of the powder, or the base of a jacketed bullet, (d) lead from the primer. The powder and the primer do not directly contribute appreciable amounts of metal to the bullet hole beyond five feet—the only significant factors being the bullet and the fouling.

The examples quoted above will give some idea of the important part which the spectrograph plays in a police laboratory, and the time saved is always one of the chief points in favour of the instrument.

Detective Organisation and Procedure

THE REPORT OF THE DEPARTMENTAL COMMITTEE

(Continued from page 344)

III

SCIENTIFIC AIDS; POLICE POWERS

THE chapter which the Detective Committee devote, in their Report, to the subject of the application of science to the investigation of crime briefly records the progress made in this field both before and since the inception of the Committee's work in 1933, and indicates the plans by which further developments can be arranged to the best advantage.

It is recognised that the organisation of measures for scientific aids for the Police Service must relate to the lay-out of the service as it exists, and not as the several units which form the service might have been arranged in a new organisation. Regard must obviously also be made to the distribution and incidence of crime, related as the volume of crime is to distribution of population, wealth, industry and other factors.

In probably no field of police activity has progress been so rapid during recent years, largely at the instigation of the Detective Committee, as in the organisation of measures for bringing to the aid of the detective officer the services and skill of the specialist. It is true that prior to the appointment of the Detective Committee there existed in most police districts the means for obtaining the advice and help of various experts, ranging from the jeweller in the identification of valuable articles in cases of theft, to the eminent pathologist and the Home Office analyst in cases of homicide. Co-ordinated plans for the routine employment of, or even consultation with, the expert were rare, either in the particular or general type of case, and no plans existed for the systematic

instruction of the general body of police, most vital as this need is now recognised to be, or even of detectives, in the liaison necessary between police, on the one hand, and experts on the other.

In their conception of the scope of the work which the laboratory can undertake in aiding the detective in the investigation of crime, the Committee, basing their reasoning on data and advice from all the available sources, estimate that probably in four per cent. of the crimes reported to the Police the need may arise for laboratory examination. Thus the total number of cases in which the laboratory may be expected to function may reach, or even exceed, 10,000 a year. The main branches of the work are summarised by the Committee, and examined, under the following heads:

1. The instruction of the rank and file in the subject generally ;
2. The further instruction of detectives, especially in certain branches of police technique and scene of crime work ;
3. Laboratory work, including (a) routine examinations ; (b) specialist examinations ; (c) research ;
4. Work in the interests of the service as a whole which could best be provided for by a Forensic Science centre embodying a research laboratory, a library, a museum of specimens of various kinds, and machinery for the co-ordination of the work going on in the different laboratories and for disseminating information to these laboratories and throughout the police service.

INSTRUCTION OF THE POLICE

This important consideration is wisely separated under two heads. The first deals with the training necessary to be given to the police generally, and secondly that to be given to detectives. As to the first, the uniform constable, the man on the beat, is generally the first police officer to arrive at the scene of a crime, of whatever category, and the need is

DETECTIVE ORGANISATION AND PROCEDURE 427

accordingly emphasised for this officer to have an adequate knowledge, both in theory and practice, of what to do (and also what not to do, an important factor) at the scene of a crime ; how to preserve objects, however trivial ; how to search for traces and clues ; how to handle, pack, label and forward any materials he may find and consider worth preserving for laboratory examination. The syllabus of instruction in crime work for police recruits accordingly provides for suitable instruction along these lines to be imparted during the constable's initial course of training. An instructional pamphlet for the use of police officers on *Scientific Aids to Criminal Investigation** was prepared by the Home Office during the proceedings of the Committee and is recommended for issue to every constable. The pamphlet is a valuable guide to this important feature of police work.

Reference to the syllabus of training for recruits (which is presented as an appendix to Volume II) affords an indication of the extent of the knowledge which, in the view of the Detective Committee, every policeman should possess of that part of his duties which relates to the prevention and detection of crime. Among the forty-six headings prominence is given to the application of scientific aids in no less than twelve. They include lectures and practical demonstrations, with later practical tests, on such subjects as "Steps to be taken at scenes of crime," "Preservation and packing of clothing, etc.," "Importance of bloodstains and other stains," "Fingerprints," "Footprints and tyre marks." Visits are recommended, if local circumstances permit, to the laboratory, M.O. Bureau, etc.

The initial course of instruction of police recruits must naturally include all other spheres of police duties, covering much detailed information on such important subjects as the control and regulation of traffic and the working of beats. The volume of instruction in scientific aids must, therefore, in the initial training be severely limited, but with the development of powers of observation and search, and the recognition that scientific and other specialists are available to come to his

* Published by H.M. Stationery Office, price 3d. (obtainable through official channels by chief constables, etc.).

aid on any occasion of need in handling a crime, there is reason to hope that the aim of the Detective Committee in this respect will be capable of achievement. The keenness with which constables attend lectures in various parts of the country when these are given by the directors of the various Forensic Science laboratories is an augury of the desire of the Police to make the fullest possible use of this new aid to their work.

As to the training of detectives in the application of science to the investigation of crime, the Committee distinguish between processes (i) undertaken by the detective himself, and (ii) those dealt with in the laboratory. Under the former head come the photographic department, an essential branch of the detective equipment and personnel in the C.I.D. of every force, the means and facilities for developing casts, marking articles, and the appropriate methods of search, and the preservation, handling and packing of material for examination and treatment in the laboratory by the appropriate expert. Some of these processes are simple, others complicated, and all need careful guidance and instruction if the officer is to be competent in the task. Facilities for the appropriate courses of training of detectives in the several processes are indicated in the syllabus of detective training, also presented in Volume II, and these are now an established part of the curriculum of the schools for detective training organised at Hendon, Wakefield and Birmingham.

It is important that the training of the detective in the subject of forensic science shall be such as to qualify him to distinguish between those processes which he should undertake himself and those which are the function of the appropriate expert. This knowledge is most necessary at the scene of the crime, in the search for the traces and clues which, when examined by the expert, may yield significant information of importance to the investigation, and in the precautions necessary in handling, packing and labelling for transmission to the laboratory.

In the regional forensic science laboratories which are steadily taking their place throughout the country in fulfilment of the scheme outlined by the Committee the important requirement of close contact between the rank and file of the

Police on the one hand, and the laboratory staff and experts on the other, has been met by the appointment of selected Police officers with the designation of liaison officer to the laboratory. In this way liaison is promoted as a matter of routine instead of being left to be arranged when the need arises for laboratory assistance, when otherwise the assistance would probably be sought too late or in too haphazard a fashion to be effective. The growing confidence of the general body of Police, and particularly the confidence of senior officers, in the ability of the directors and staffs of the regional laboratories to help is evidence of their value and the wisdom of the Home Office in putting into effect the plans recommended by the Committee.

A craftsman cannot work without tools, and the detective cannot undertake his share of the work envisaged by the Detective Committee unless he is equipped and accommodated to perform the task. The Committee point out that this need not be extensive, but that a typical force's requirements include a dark room, with photographic apparatus, a room with large table space and good light for the examination, labelling and packing of articles of various kinds, simple optical aids, a binocular magnifier, and ultra violet lamp to assist in the examination of articles brought from the scene of a crime, ample apparatus and materials for work in casts of various kinds, and any chemicals and apparatus that may be required for other purposes of police technique. In the case of smaller forces arrangements may be made for these appliances to be available when required from an adjoining force. It is to be hoped that police authorities will realise that good work cannot be done in cramped premises, and that active steps will be taken to house the C.I.D. of each force in premises where men and apparatus can be used to the best advantage.

LABORATORY WORK

Under this head, considered in relation to the closely allied functions of (a) routine, (b) specialist, and (c) research laboratory work, the scope of the laboratory for police purposes is outlined. The range of the work is indicated by the following list :

Examination of materials by ultra-violet and infra-red radiation.
 Chemical analyses.
 Spectrographic identification of traces of metallic dust, traces of paint, etc., etc.
 Various classes of work on documents, ink, etc.
 Comparison work applied to fine details on tools, toolmarks, and fragments of various kinds.
 Identification of marks on weapons, bullets, cartridge cases, etc.
 Comparison microscope work of various other kinds.
 Tests of semen and identification of spermatozoa.
 Tests for blood, including identification of blood groups, parasites, etc.
 Processes for bringing up filed out identification marks in metal.
 Comparison and identification of fibres, hairs, etc., and all manner of specimens, organic and inorganic.
 Pathological work of various kinds.
 Photographic work in connection with most of the above for demonstration purposes.

The list is by no means exhaustive; it serves to indicate, on the one hand, the variety of clues which the investigating police officer may expect to find and in respect of which he should count upon the help of the laboratory expert and, on the other hand, the various types of expert whose services must be available through the laboratory if the laboratory is to fulfil its true function, which is to give the best evidence possible towards the solution of the problem and the examination of the questions submitted to it.

Several of the individual headings, in the list just quoted, cover in themselves a wide range of processes. Some, by reason of their frequency, may be regarded as matters of routine, common to many classes of investigation and types of crime. The possibility of the employment of the police themselves for some of the routine work is examined by the Committee. Consideration is given to the alternative questions whether policemen should themselves be trained to apply the laboratory processes, or whether reliance should be placed upon existing laboratories, or public analysts, or experts practising in various fields, or whether laboratories should be established and staffed with fully qualified personnel specifically engaged for this particular work.

"With regard to the question of the employment of the Police themselves for this work, we consider that all detectives and other selected police officers should receive a measure of training on the lines we have indicated; that the closest liaison should be maintained between the members of the force engaged in the investigation of crime and any experts who may be responsible for the scientific work, and that for this purpose it will always be advantageous for one or more members of the force to have had rather wider scientific training and experience than would be required by detectives as a rule; but the responsibility for carrying out the crucial examinations of materials, that is to say, those from which any definite conclusions must be drawn and on which evidence may have to be given, should always rest with a fully qualified expert. Any witness giving evidence on behalf of the prosecution in such matters should be one who is thoroughly familiar with the theoretical and practical aspects of the subject matter with which he is dealing and fully competent to meet cross-examination of the kind which may be brought against him if expert advice has been called in by the defence."

For similar reasons the Committee reject a suggestion that a police officer who has had a measure of scientific training should be allowed, as a matter of routine, to undertake the initial preparation of the material which will be subsequently submitted to the laboratory for detailed examination. Police technique, including search, preservation and preliminary examination of clues, is the function of the Police, but the examination of the materials or traces by the application of scientific processes is the function of the laboratory and should therefore only be handled by the appropriate expert or under the direction of the laboratory staff throughout.

The Committee recognise that cases will occasionally continue to arise in which the best course will be to obtain the help of some acknowledged outside expert, but the conclusion is reached that there should be set up laboratories specifically equipped and staffed for police work. Crime work is, after all, outside the main scope and functions of the public analyst and other local laboratories. The main and fundamental objection to the continuance of the haphazard methods of the past, and the casual employment of experts (mainly expert in subjects which do not relate to crime) was the unlikelihood of their being able to fit in with the need for systematic

instruction of the Police in the application of science to police work or for the day-to-day contact between the detective and the scientist which is essential to the successful employment of the latter to solve the problems which confront the policeman in his investigation of a crime.

The success of the regional forensic science laboratories established at Birmingham (to serve the police forces in the West Midland region), Nottingham (East Midlands), Cardiff (South Wales), and Preston (North Western region), has proved the wisdom of the Committee in laying down the principles upon which they should be founded and developed, and also of the Home Office in the selection of the gentlemen who so ably fill the positions of directors of the several laboratories. The directors so far appointed themselves constitute an eminent and unrivalled combination of experts, and with the members of their respective staffs are daily proving the efficacy of the organisation as a whole. It is to be hoped that ways and means will shortly be found to make provision for the remaining areas to be served by similar regional laboratory organisations. Interim measures are facilitated by initiative on the part of the Home Office, whereby the Home Office make the appointments of the directors and staffs, and provide the premises and equipment, and for an experimental period meeting the whole cost. This latter arrangement must, however, be replaced in due course by measures which reflect the usual division of cost of the police between local funds and the Exchequer. A useful financial precedent has thus been created which merits emulation in other spheres of police administration, particularly where the sphere is one of creative and experimental organisation.

The needs of research are emphasised by the Committee, as well as those of the recruitment and training of the future staffs of the forensic science laboratories. The formation of a national organisation is envisaged, to fulfil a variety of purposes which are summarised under the following heads:

- (a) Affording authoritative guidance and advice on Police technique.
- (b) Arranging or providing practical training in Forensic Science for prospective workers in regional laboratories who have already received an academic training.

DETECTIVE ORGANISATION AND PROCEDURE 433

- (c) Collating and disseminating information as to new work in regional Police laboratories, in Police laboratories abroad, and at other centres where work bearing on police problems is being done, including experience gained in current police cases.
- (d) Co-ordinating and circulating information as to the available facilities for specialist examinations of all kinds.
- (e) Co-ordinating research work and arranging facilities for research work in conjunction with Universities and Technical Colleges.
- (f) Providing a central library of books and periodicals, and collating and disseminating information from scientific literature at home and abroad.
- (g) Providing a central museum and sets of reference specimens, and securing access to specimens retained in laboratories, whether connected with the Police Service or not.

The Committee proceed to lay down the principles upon which these needs should be met. The primary needs are to secure adequate collaboration between, the confidence in, and combination of the points of view of the scientist, on the one hand, and the practical investigator on the other. Thus a recognised technique would be built up "to which Police instructors and laboratory workers can look for authoritative advice on current problems and guidance as to new work." We hope it will be possible, through the same organisation, to provide means by which individuals who have had a general academic training in chemistry, physics, biology, etc., and wish to take up Forensic Science laboratory work may receive a course of practical instruction directed specifically to police requirements.

"Another and very important requirement in this connection is that of the maintenance of contact with the work which is going on in the police laboratories and elsewhere, with a view to making any useful experience available to the laboratories generally, and, so far as necessary, to the Police themselves. This is work which can be done partly on paper, but must, in the main, be a matter of personal contact: it will also involve not only the visiting (rather than formal inspection) of the various Forensic Science laboratories, but also the maintenance of contact with scientific and technical work going on elsewhere. It calls, therefore, for the establishment of an alert intelligence organisation, in contact both with the police work and with other centres of scientific and technical work in this country and abroad."

Anticipating the administrative needs of the situation, in 1935 the Home Office appointed the late Mr. C. T. Symons as Adviser on scientific aids. Mr. Symons brought to the task not only the experience of a distinguished career as Government analyst in Ceylon, but great skill and ability. The Committee acknowledge the invaluable contribution which he made to the development of forensic science in the English police service before an untimely demise cut short the prospect of further distinguished service to the State in his new sphere.

In the comparatively short time since the Metropolitan Police laboratory at Hendon was inaugurated in 1935, followed by the opening of the regional forensic science laboratories at Nottingham, Birmingham, Cardiff and Preston, much has been done to demonstrate the potential value of this auxiliary to the police service. There is reason to hope that the edifice to be built on foundations so well and truly laid will serve both Police and public in their unending effort to reduce the incidence of crime and the ranks of the criminal element in the community.

POLICE POWERS

In the final chapter of their Report the Committee draw attention to the special difficulties of the Police in connection with certain phases of detective work, and the need for strengthening the powers of the Police in such directions as will not impinge unduly upon the liberty and rights of the subject or upon the traditions in which the administration of justice and the principles of the criminal law have been founded. It may not always be realised that the detective, working as he does in plain clothes like ordinary members of the public, has no greater powers than the uniform policeman. Indeed, in the case of a number of misdemeanours the power of police action is limited to policemen in uniform and is therefore denied to the detective officer. The power of the detective depends in the main upon his personality, and the skill with which he is able to talk to and deal with the various types of person with whom he makes contact in the course of his work.

The essential distinction, of course, between the Police

and most other organised bodies is that the policeman's powers are not delegated to him by superior authority. While modern conditions have grouped Police into organised forces, with grades, designated ranks and all the essentials of a disciplined organisation, the policeman's powers and duties are derived from the historic and important office of constable, "responsible to the Crown for his acts." A constable is not an "agent" but is personally liable for any misuse of his powers or any act in excess of his authority, and he cannot plead that he is obeying the orders of his superior officer or of his police authority.

The reluctance of Parliament in times of peace to increase the powers of the Police, though understandable in some directions and considered from some points of view, is a severe handicap. It is indeed in many respects illogical, particularly in such spheres of police work as in the taking of fingerprints. Fingerprints are recognised as a valuable aid to detective work by reason of their infallibility as a means of identification. There is widespread recognition that, unless fingerprints are maintained as a part of police records, many offenders, particularly those engaged in serious crimes, would not be detected and convicted in respect of the offences which they have committed. To take a person's fingerprints involves no infliction of pain, no indignity, not even the removal of a single garment or the intrusion upon the privacy of sex. Fingerprints provide a record of identity which cannot be either mistaken or obliterated. Yet at the present time no specific powers are vested in the Police generally, or in detectives in particular, enabling them to obtain the fingerprints of any person for purposes of comparison with prints found at the scene of a crime, or for purposes of record. This position applies, as the Committee point out, to England and Wales. In Scotland in the case of *Adair v. McGarry*, 1933 (*Sc. L.T.* 482) the High Court of Judiciary held that the Police were entitled, in the exercise of their reasonable powers for the investigation and detection of crime, to take the fingerprints of a person arrested on suspicion, as a means of identification and as evidence that he is the person who committed the offence.

Like other records relating to criminals, the objects of

fingerprint records are twofold, the one registration and the other identification. The broad distinction between these two purposes is that the *identification* of a particular person can be proved by the finding of his fingerprint at the scene of a crime, while *registration* of fingerprints is of value in establishing the identity and previous history of a person in custody. In the absence of fingerprint evidence, of course, reliance must be placed largely upon other testimony, such as the powers of memory of any persons who saw or heard what happened when the crime was committed, or what the accused said or did before or after its commission. But it is well known that testimony of this character is invariably accompanied by the faults inherent to the human memory and all the imperfections of the human mind. Fingerprints alone make identification exact and conclusive, and their presence in the case may, of course, in certain circumstances serve equally to establish innocence as guilt.

Reference is made by the Committee to the difficulties met with in connection with juvenile crime, and to the need for powers for the Police to obtain the fingerprints of offenders—say those of thirteen and over—who are arrested or suspected of having committed offences. Applying the maxim that the best method of deterring persons from engaging in crime is the speed and certainty of detection of those who do, the power to take fingerprints of children and youths would not only be a valuable aid to detection, but a strong deterrent.

Closely allied with fingerprints is the subject of photographs. The recommendation is made that power should be given for the photographing of juvenile offenders and adults who are found guilty of crime, whether or not they are sent to prison, which is within the category of a "fingerprintable offence." A list of these offences is given in an appendix to the Report.

The special difficulties of the Police through the absence of special powers to deal with such misdemeanours as obtaining credit by fraud, to search premises without warrant in cases where the power to arrest without warrant already exists, of arrests for loitering with intent to commit a felony, and for false pretences and other frauds, and in certain circumstances

to inspect such premises as pawnshops, are discussed and recommendations made for amendment of the law to confer the necessary powers. Restitution of property in cases where the offence is "taken into consideration" when a prisoner is dealt with on another charge is also the subject of a recommendation for remedying a defect in the existing law which sometimes operates harshly upon innocent persons who are anxious to regain possession of property which has been stolen from them.

Some important observations are made by the Committee on the subject of Press publicity, first on the procedure necessary for issuing to the public Press official details of criminal matters which may legitimately be published, and secondly, the difficulties which have grown up with the practice of certain newspapers in conducting so-called independent investigations of sensational crimes, and to publish details which purport to be based on such investigations, often with little regard for the truth and none for the interests of justice. This twofold problem is both delicate and difficult. In peacetime the newspapers and those who control them have, in this country, a greater freedom than their contemporaries in most other states. The traditional right of free speech, and a Press which is in no way controlled by the Government of the day, are rightly regarded as essential characteristics of the democratic structure of our national life. It is clear that Parliament will not, during peace, tolerate any semblance of censorship in any branch of journalism. Freedom of word and action, however, while it may involve no legal inhibition, carries a strong moral responsibility to prevent any deterioration of the standards of probity which are traditional to journalism in England.

It is curious that official communications from public offices for dissemination to the public at large are held by some journalistic spheres to have little "news value." The official announcement, informative as it may be, correct, concise, complete, is held not to be suitable for publication in the news columns of certain newspapers unless it is re-written in a form of journalism which takes a phrase out of the context to convert an unalarming item of news into a sensational item of

journalism. The excuse for this is sometimes made out to be the need for news to be of human interest, to contain an arresting phrase which attracts the reader's attention and stimulates inquisitiveness and a search for more news of a similar character. The primary considerations of truth and veracity are subordinated to other claims. These, and other, considerations may be responsible for the difficulties, described by the Detective Committee, met with when Police are investigating serious crimes and in which they find that certain newspapers have sent representatives specially to the scene of the crime, to interview witnesses, make enquiries independently of the Police or to report their conclusions, assuming the designation of "crime investigator" or "special representative," in highly coloured despatches in successive editions of the paper until some fresh subject of journalistic attention appears to replace them. If criminal proceedings are pending, the publication of any matter which is connected therewith constitutes a contempt of court. But the propriety of proceedings for this type of offence, which are issued and heard only in the High Court, are apt to be overlooked by the Police when they are concentrating their attention upon the investigation of the crime itself and using all their available resources to trace the perpetrators. The Committee point out that there is no obligation upon the Police to assist the Press by providing material for publication. It is open to the Police, with discretion, to provide the Press with such details of criminal cases as may reasonably be given to the public, without involving any disclosure which would be contrary to the interests of justice or cause unnecessary pain or anxiety to innocent members of the public.

The Committee express the view that where a chief officer of police is advised that a contempt of court has been committed, there should be no hesitation in taking proceedings both against the individuals immediately concerned in the offence and, where it is practicable, against the editor and the proprietor of the newspaper itself. But as it is possible, under the existing law, for material to be published which, in the public interest, ought not to be published, at any rate at the time, the recommendation is made that "there should

be some definite measure of restriction of the publication of details of crime and on the conduct of journalists sent to the scene of a crime. In our view, what is needed is legislation aimed primarily at the prohibition of interviews and the obtaining of statements from prospective witnesses, and of reports of reputed crimes, where such reports are reasonably likely to prejudice the investigation of the crime."

Public relations are an important feature of police work, particularly in local spheres. Good relations between the Police and those who guide and control and those who serve the local newspapers are a great asset in promoting satisfactory and smooth relations locally between Police and public. On the rare occasions when the local Police have to deal with a serious crime, the importance of maintaining the confidence of the public in the skill and energy of the Police to attack and solve the problems immediately in issue should have careful consideration by all those who are responsible for directing the enquiries. Crime, especially serious crime, is news, and it is a wise course to give the public through the Press some authentic details of the case. The best results, and a successful outcome of the investigations, are most likely to be obtained if a right and reasonable regard is had, by all concerned, to the interests of justice.

CONCLUSION

There is abundant evidence already that the Report of the Detective Committee is not to share the fate which seems to befall so many documents produced, after much effort, by Royal Commissions and Departmental Committees. The Detective Committee did not fall into the error of so many of its kind and embody in its recommendations a great number of matters which could secure approval and adoption only by legislation. The police service, anomalous as its lay-out seems to be in so many respects, with its varying types of police authorities, its extraordinary differences in size and character of the units which comprise the whole, has demonstrated in recent years the value of the structure, half national, half local, and of the traditions with which the force to-day is imbued.

The rank and file of the force, in every branch, is typical of the best manhood of the nation. In organisation, relations between force and force, and relations between Police and public, there was at the outset of the Committee's investigation no serious defect and no incurable disease. Accordingly, as the Committee indicated in their preliminary review, the recommendations were framed on the basis that the Police will remain essentially a local service. In policing, the local nature of the service, despite the disadvantages and the risks inherent in any local as opposed to national administration, avoids much dissipation of time and energy on detail, and other disabilities which are inherent in the elaborate departmentalisation of any large administrative machine operating on a country-wide scale, and is therefore to be preferred, even for detective organisation, to a national service, centrally organised and controlled, which is the alternative.

Most of the plans, therefore, which have been so skilfully drawn by the Committee for improving the quality of our detective organisation, training of detectives, and the provision of equipment and apparatus are steadily being co-ordinated and perfected without the necessity to wait for the process of amendment of the law. As has been related in this review, many of the plans were experimented upon, and launched into schemes of well-directed activity long before the formal publication of the Committee's report. The interests of police authorities in the recommendations of the Committee are being provided for in the setting up of Advisory Committees, on the lines suggested by the Committee in paragraph 438, and publication* of the report of the conference between representatives of the Home Office, the County Councils Association, and the Association of Municipal Corporations, indicates that administrative control on the lines recommended, in the case of the regional organisations proposed or already set up, is acceptable to the police authorities. The lines on which the regional organisations will be administered, as suggested to this conference by Mr. Dixon, and accepted by the police authorities, will take the form of control by the Home Office, so far as this relates to the appointment of staff

* *Municipal Review*, August, 1939.

and holding property. In some instances the service provided and the staff will be found by a particular force. Collaboration will be secured by the establishment of an Advisory Committee, consisting of six representatives from each Association, the majority of whom should be members of police authorities as distinct from officers, and their task would be to meet at least once a year to consider estimates and on other occasions as might be necessary for watching the general financial implications of the scheme. Such administrative and technical problems as arise in particular regions will be discussed at chief constables' conferences which are held regularly. The financial administration will continue to be based on an equal sharing of the cost as between taxpayer and ratepayer, and a central fund will be established with appropriate machinery, the strengths of forces being agreed upon as the basis of allocation of cost.

The widespread interest of the Police in the proposals of Committee have already been noted. The interest of and recognition by police authorities of the need to implicate the recommendations of the Committee, so far as they demand further expenditure and public oversight, is a good sign for the future. There remains the need for Parliament to recognise the wisdom of early legislation to deal with a comparatively few amendments of the existing law to which attention is drawn. Parliament has recently shown that, when convinced of the need for special powers for the Police in particular cases, it is ready to legislate. The Prevention of Violence (Temporary Provisions) Act, 1939, will enable the Police effectively to deal with the serious problems created by the terrorists of the I.R.A. It is to be hoped that the power of the Police in relation to fingerprints, property, and other matters referred to will be strengthened in the way suggested, and so enable the Police more effectively to discharge their duty to the public in these important spheres.

The Identification of Fingerprints in a Bomb Outrage

By JOHN M. REID

Officer i/c Jerusalem Fingerprint Impression Bureau, Palestine Police

DURING the recent disorders in Palestine, considerable use of bombs, both of home and factory construction, has been made in the form of booby traps.

At about 8 a.m. on the 15th August, 1936, a British Constable, leading a military patrol along the sea beach at Tel-Aviv, Palestine, was stopped short by an explosion in the sand near him. On approaching the spot he found a crater measuring approximately 2½ feet deep by 4 feet in diameter. About 30 metres from this crater the party found what appeared to be another bomb lightly buried. This bomb was connected by a piece of flex and electric plug to a small, closed wooden box from which a ticking sound emanated. The box, when opened, disclosed an alarm clock. The apparatus was immediately rendered harmless and submitted to Police Headquarters, Tel-Aviv, for examination.

The bomb, which had been constructed from a piece of rough metal piping, was found to have an unsuitable surface for the retention of fingerprints. The clock, an ordinary alarm of cheap manufacture, was submitted to the Fingerprint Bureau, Jerusalem, for examination.

The case of this clock at first sight appeared to be of a black metal, but upon closer examination it was found to be a bright nickel case painted over with bitumen. The face of the clock, except for a few black smudges, had been left untouched. The purpose which this bitumen was to serve could not then be understood, but whatever the object, any fingerprints on the bright surface had been effectively obliterated. Marks of ridge depressions could be seen in the bitumen, but owing to

IDENTIFICATION OF FINGERPRINTS 443

much handling and dirt these were useless for identification purposes.

It was hoped that, as the clock had been dismantled in order to wire it electrically, fingerprints would be found inside—possibly on the glass. The back of the clock, when removed, was found to be blackened on the inside also. The mechanism and inside of the case were clean, but when tested for fingerprints, produced negative results. No latent finger marks could be found on the face or on the inside of the glass. The face bore traces of ridge marks but these had been daubed by a brush and were useless. Efforts to “get at” these prints under the bitumen were unsuccessful. It was now concluded that the bitumen had been used for the purpose of obliterating fingerprints, which must have been left in profusion.

The back of the clock now remained the only part to supply a clue, if such were to be found. A minute examination of the inside surface showed an unbroken covering of bitumen. This surface was glossy and somewhat tacky, and no marks could at first be seen upon it. During the examination the light struck the surface obliquely, revealing three or four marks at the edge. These, when examined under magnification, proved to be fingerprints so faint as to be almost undecipherable. The marks were then subjected to high magnification, which revealed a shallow pitting of the glossy surface caused by the touch of fingers after the bitumen had dried. Various tests carried out on similar surfaces with liquids proved useless, as the gloss was destroyed and the prints vanished.

Whilst examining the prints again under magnification, the operator breathed heavily upon them and instantly they showed up grey on a jet black background. The condensed moisture was seen to adhere only in the pitting.

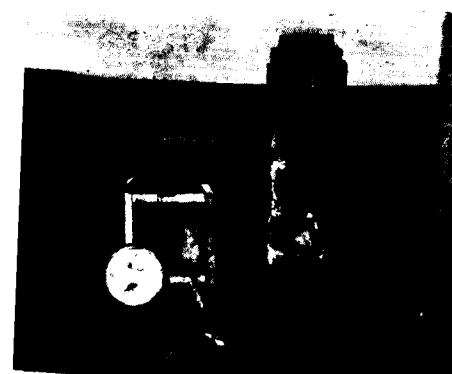
At this juncture the assistance of the Government Analyst was solicited. A simple cold stage was constructed consisting of a metal box about 2 ins. in diameter filled with a freezing mixture. The exhibit was placed on this box on several thicknesses of filter paper. The thickness of the insulating layer of filter paper was adjusted so that the difference of temperature between the exhibit and the atmosphere

caused sufficient moisture to condense on the fingerprints in minute globules which were stable for several minutes.

Photo-micrographs of these prints outlined by moisture globules were then made in oblique illumination. The prints were then filed for future reference.

On 4th February, 1938, police, acting on information, searched the house of a certain man in Jaffa suspected of being connected with the manufacture of infernal machines. He was arrested and his fingerprints, on submission to the Bureau, were found to be identical with those developed on the clock almost two years previously.

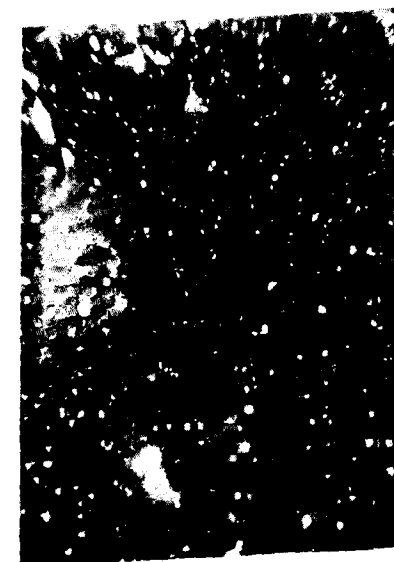
It was subsequently ascertained that the first bomb was fired by remote electrical connection, the explosion being intended to gather a crowd, when the second, and more powerful bomb, was timed to explode. Fortunately, the bombs were placed too near to each other, the larger being dislodged by the first explosion.



The bomb, showing alarm clock attachment



Impressions of left four fingers of accused



Photomicrographs of print found inside clock

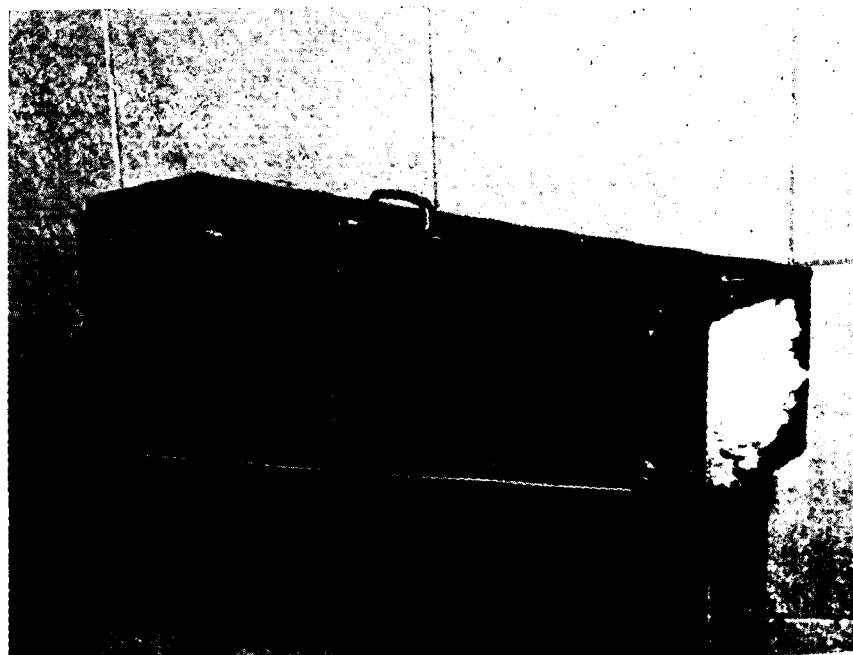
(face p. 444)



Enlargement of a photomicrograph taken through the comparison microscope, showing the bottoms of the indentations made in the percussion caps of two cartridges by the firing-pin of a rifle



Photomicrograph showing striations on portions of two bullets brought into juxtaposition and photographed through a single eyepiece by means of the comparison microscope



Test shot recovery box, used for firing test bullets for the purpose of comparison

Forensic Firearms Identification*

By J. EDGAR HOOVER,
Director, Federal Bureau of Investigation, Washington, U.S.A.

FORENSIC firearms identification involves the scientific examination of evidence resulting from the use of firearm. This evidence usually consists of the weapon itself, the fire projectile or the cartridge case. In addition to the examination which seeks to determine the weapon in which the projectile or cartridge case was fired, it is part of the expert's work to prepare photomicrographs for the purpose of substantiating his opinion and demonstrating the same in court.

MARKINGS

The identification of firearms evidence is predicted on the principle that the softer metals used in the manufacture of bullets and cartridge shells are indelibly imprinted with the metal patterns of the hard steel surface of the firearms with which they come in contact. In the manufacture of a rifled arm, lands and grooves are cut into the interior surface of the barrel for the purpose of twisting the bullet into a spin as it progresses through the gun. The ballistic significance of this twist on the bullet is to cause it to hold straight and true in its course after it leaves the muzzle of the weapon. In cutting these lands and grooves the hard steel surface of the barrel is left, even after final polishing, with microscopic imperfections caused by the cutting tools. Subsequent use and wear also contribute to this pattern of imperfections. The fired bullet is generally cut by the lands as it passes through the barrel in such a manner that an examination of this bullet surface will readily indicate the width of the lands and grooves and the direction of and degree of pitch to the twist. This information in itself frequently permits firearms identification experts to determine the model of the gun from which the bullet was

* Reprinted with the permission of the Author and of Dr. F. C. Warnshuis, editor of the *American Journal of Medical Jurisprudence*, in which publication this article originally appeared.

fired, for the reason that different manufacturers in different models utilise varying numbers of lands and grooves of different widths, twisting either to right or left with varying degree. But even more important is the fact that these fired bullets bear microscopic scratches within the land and groove markings resulting from imperfections on the surface of the interior of the barrel. These imperfections, of course, are accidental and the pattern formed is, for this reason, individual to any particular gun. It is easy to realise that the soft metal bullet forced through the tight-fitting barrel by the terrific pressure of thousands of pounds per square inch resulting from the explosion will be permanently engraved with the irregular surface of the hard steel of the barrel. In actual practice the firearms identification expert discharges a test bullet through the suspected weapon and compares it with the questioned missile for the purpose of determining whether similar microscopic markings are found on both.

In a manner somewhat similar to that of matching evidence bullet with test bullet is the work of examining the fired cartridge case. When the ammunition is exploded it must be remembered that the cartridge case is forced backward with the same amount of force that drives the bullet forward. This backward action in a firearm is stopped by the breech block or breech bolt, the principal function of which is to hold the exploding cartridge in place while the bullet goes forward. This part of the gun is also made of fine hard steel and after the cutting and tooling of the same no effort is made on the part of the manufacturer to reduce the surface to a mirror-like finish for the reason that such is not necessary to the proper functioning of the weapon. This microscopically irregular surface therefore serves as a die to permanently stamp the soft metal surface of the primer or cartridge case as it is forced hard against the breech block by the terrific power of the explosion. Thus the irregular pattern design of the tool markings on the hard steel breech is transferred to the softer brass of the cartridge. As when examining bullets, the firearms identification expert discharges a test cartridge in the suspected gun and then compares the microscopic imprint on the face of the test shell with the evidence specimen in question.

Even before suspected weapons have been submitted for test, the expert can frequently determine the model of gun in which the cartridge case was fired, from an examination of that specimen alone. As different kinds of guns will cut different types of land and groove markings in the bullet, so will many of them leave characteristic markings upon the face, rim, or sides of the cartridge case. Such information of course simplifies the work of the field investigator in his search for the weapon used in the crime.

EXAMINATION EQUIPMENT

In making these various comparisons, special equipment has been developed for the purpose, in the form of the comparison microscope for firearms identification work. This instrument consists essentially of two microscopes which are optically joined by a prism system which combines the two images in one field of view. A bullet or shell specimen may be placed on the stage below one microscope, and the specimen to be compared therewith below the objective of the second microscope. Through the ocular mounted on the comparison yoke may then be viewed the image of a portion of the surface of each specimen, optically brought into close juxtaposition in such a manner that microscopic scratches and other markings on the surface of one can be matched with like markings on the other. This is accomplished under low magnification and by means of special revolving mounts on the stages which permit a manipulation of the specimens' surfaces until the proper match is obtained. Photomicrographs may be prepared through this comparison microscope, and the resulting photograph will clearly show the continuity of important scratches and striations from one specimen through the dividing hair line, and appearing on the other specimen in perfect match.

In the F.B.I. Laboratories photographs of this type for court presentation are usually $\times 75$ enlargements of the original specimens and are prepared on 11" $\times$ 14" paper. The comparison microscope as developed to date reflects the evolution of methods for comparing such microscopic markings particularly on fired bullets. Earlier attempts involved the

rolling of the bullet surface over a softer material such as thin lead sheets or tin foil in an effort to transfer the markings to a plane surface suitable of such manipulation as to permit direct comparison with markings taken in a similar manner from another bullet. Other investigators make individual photomicrographs of selected surfaces of single specimens and then bring the markings into juxtaposition for matching purposes by cutting the photographs or negatives. The comparison microscope produces these results optically. It is conceivable that further improvements will be made in the methods of analysing and recording these markings. At present, for example, certain research workers are experimenting with apparatus designed to record the entire cylindrical surface of the bullet on a film moving through the camera, the motion of which is synchronised with a turntable upon which the bullet revolves before the lens.

In addition to the breech face markings on the fired cartridge case, which are the most frequently used for identification, the cartridges occasionally bear other markings distinctive of the particular gun in which they were fired. These may consist of peculiar markings of the firing pin in the primer, the markings of the extractor or ejector in automatic loading type weapons, or possible markings from the side walls of the chamber imprinted on the cartridge case during the explosion. The procedure for examining such markings and demonstrating them photographically is essentially the same as that followed with bullet markings and breech face markings except that they are usually carried out under much higher magnification.

BULLET RECOVERY

Although the obtaining of test cartridge cases for examination presents no problem, the recovery of fired bullets for test purposes is an interesting procedure. In the Federal Bureau of Investigation Laboratory a test shot recovery box is utilised for this purpose. This consists of a wooden box 6" x 6" x 36" with a hinged cover and with one end open. This box is filled with ordinary cotton cleaning waste separated into sections by paper

partitions. At the open end a thin layer of fine cotton batting is placed, and in front of this another paper partition. Ordinary sidearms are fired into this box from a distance of about three feet. The discharged bullet pierces the first paper partition, indicating that a spent projectile is in the box. As the bullet spins through the fine cotton batting it becomes wrapped in a protective coating of the cotton as though in a cocoon. This in turn enters the heavier cotton waste, and the momentum of the bullet is gradually slowed until it comes to rest perhaps 12" to 18" forward in the box. The number of sectional paper partitions which are found to be pierced after the shooting permits the immediate location of the spent projectile within the bed of cotton waste. After its removal the punctured partitions are replaced by fresh paper and the next shooter is assured that no specimen has been casually fired and left in the box. When recovered in this manner fine microscopic markings on the surface of the bullet caused by the gun barrel are carefully protected for the subsequent examination. This method serves for all but the highest velocity weapons such as rifles of the heavier type. In the latter case the most satisfactory method of recovering test shots is to reduce the powder load in the cartridge to a point where the velocity is sufficiently lowered to permit adequate stoppage within the recovery box. This is accomplished in a simple manner by making a small hole in the side of the cartridge case and withdrawing the desired amount of powder. Other methods have been used for stopping test shots, the most common of which include firing into a special vessel containing water, into a recovery box containing oiled sawdust, or shooting into paraffin. The first method described has been found most satisfactory in the F.B.I. Laboratory. A modern soundproof, bulletproof room has been designed and built for this part of the work, and shots may be recovered in the ballistics laboratory without danger or disturbance.

REFERENCE SPECIMENS

Quite important in connection with determining the type of ammunition or the model of gun used in a crime are the reference collections of standard ammunition, guns of various

types, and internal ballistics specifications of the various weapons. In the F.B.I. Laboratory at Washington, D.C., there have been assembled 1,839 ammunition specimens of all kinds. These are arranged according to calibre, weight and design, and can be readily checked because of the varying shapes, metallic finish, et cetera used by different manufacturers. Likewise there are maintained about 350 guns, mostly sidearms of the types most frequently used by criminals. The collection makes readily available almost any type of gun for conducting tests, generally for the purpose of determining the powder residue patterns resulting at varying distances following the discharge of the weapon. This information is frequently of importance in determining the distance from which the gun was fired in the actual commission of a crime. This reference collection of guns is also frequently used to furnish actual information as to the impressions left by the lands and grooves of that particular type of weapon. In addition to having the guns available there have been prepared for ready reference fired test specimens from all of the weapons as well as from a number of rarer types of guns not so frequently found in use. These number about 550 specimens and comprehensively cover the field of modern small arms. Supplementing this collection there is a file in which have been gathered the engineering specifications of the various firearms manufacturers both in this country and abroad, setting forth the essential data concerning each model of firearm.

The F.B.I. also maintains, with the assistance of information furnished by the Customs Service of the Treasury, a file containing information on all firearms currently imported into the United States. This provides ready information concerning foreign made weapons found in the possession of criminals.

Another file of considerable interest contains evidence bullet and cartridge specimens from unsolved cases which have not yet been identified. These specimens are continually being compared with test shots discharged from firearms confiscated in the possession of criminals and they are also checked against evidence specimens found at the scene of new crimes. A total of six identifications has been made in this file since its inception in the F.B.I.

The Scottish Licensing Laws

By D. G. FRASER, B.L.

Solicitor; formerly Legal Assistant to the County Clerk of Midlothian

THE principal Statute dealing with licensing in Scotland is the Licensing (Scotland) Act, 1903, which consolidated the law and also made far-reaching changes in it. It set up many more restrictions on the sale of intoxicating liquor and introduced a system of registration of clubs which previously had been outwith the licensing laws altogether.

The next enactment, the Temperance (Scotland) Act, 1913, is noteworthy in that it made possible a modified form of prohibition under the name of "Local Option." It also made important amendments on the 1903 Act. Emergency war legislation was repealed by the Licensing Act, 1921, which, however, perpetuated a certain amount of it. This Act was soon followed by the Intoxicating Liquor (Sale to Persons under 18) Act, 1923, and the latest Statute is the Licensing (Permitted Hours) Act, 1934. These four Acts are cited together as the Licensing (Scotland) Acts, 1903 to 1934.

The two characteristics which mainly distinguish the Scottish licensing laws from those of England are: (1) no public house can ever open on Sundays, and (2) the presence of "dry areas."

The basic principle of licensing in Scotland is that no one can sell or retail excisable liquor without a licence obtained by application to a Licensing Court. Licensing Courts sit for the cities, large burghs and counties (in some cases for districts of counties) twice a year, in April and October. A chief constable or superintendent of police has the right without notice to make objections, verbally or in writing, to the granting or renewal of any certificate by the Licensing Court. Appeal Courts are provided for the purpose of hearing appeals and applications for confirmation of new certificates.

There are three main forms of certificate: (1) inns and hotels, (2) public-houses, and (3) dealers in excisable liquor

and grocers and provision dealers trading in excisable liquor. In addition special permission may be granted to sell beyond permitted hours (except on Sundays) and to open any restaurant for which a public-house licence is held for the sale and consumption of provisions and refreshments other than excisable liquors before or beyond the prescribed hours in the case of certain entertainments. A six-day licence may be granted to inns and hotels, in which case travellers cannot be supplied on Sunday. A rebate of Duty is given.

The following contraventions of the condition of certificate are known as "breaches of certificate" and are prosecuted as such.

HOTEL AND PUBLIC-HOUSE CERTIFICATES

(1) Adulteration of bread or other victuals or liquors, (2) sale of groceries and uncooked foods, (3) knowingly to permit a breach of the peace on premises, (4) intoxication of licensee on premises, (5) permitting persons of ill-fame to frequent premises ("knowingly permitting" in hotel certificates, "permitting" in public-house certificates), (6) permitting assembly of boys and girls and supplying those apparently under 14 with liquor, (7) permitting drunkenness on premises, (8) supplying liquor to intoxicated persons, (9) permitting unlawful games, (10) selling liquor or allowing drinking in prohibited hours (but on a certificate by a police officer, procurator-procol or medical officer, or by a medical practitioner in case of illness or accident a sale may be made), (11) breach of "special permission," (12) maintenance of good order (no definition of this is given but it is probably covered by condition regarding breach of peace).

Taking in wearing apparel, etc., as the price of liquor, is a breach of public-house and grocers' certificates, while allowing drinking on premises is a breach of a grocer's certificate. This does not prevent hospitality being given.

In addition to the above, offences have been created by the licensing Acts, the principal of which are: (1) harbouring police constables while on duty or bribing them. Under sec. 62 of the 1903 Act it is an offence knowingly to harbour or knowingly suffer to remain on the premises any constable

while on duty unless for the purpose of keeping or restoring order or in execution of his duty or to serve liquor or refreshments whether by way of sale or gift to such constable while on duty unless by authority of some superior officer. The section also makes it an offence to bribe or attempt to bribe any constable, (2) distributing liquor from vans unless previously ordered, (3) collecting rates and taxes on licensed premises, (4) shebeening. This is a word peculiar to Scotland and Ireland and means selling liquor in any house, shop, etc., without a certificate and excise licence, (5) being found drunk or drinking in shebeens, (6) hawking excisable liquor, (7) inducing grocer to sell excisable liquor illegally (drinking on premises), (8) disorderly conduct and drunkenness, (9) supplying drunkards (persons convicted four times as stated in section 72 of the 1903 Act). This is known as the "black list" section, and is seldom put into force, (10) drinking in places of refreshment, (11) procuring liquor for drunken persons, (12) false representation as traveller, (13) supplying liquor on credit, (14) sale of liquor to young persons.

There are other offences under various Statutes, and a point of procedure often puzzling to young constables may be here mentioned viz.: that motor-car "drunks" are prosecuted under the Road Traffic Act 1930 and not under the Licensing Acts.

It is the duty of a Chief Constable to report to the Procurator Fiscal, or other person directed to prosecute, all offences coming to his knowledge, and at all times to use the means within his control for the detection and, when necessary, the apprehension of all offenders. Offences are tried and determined under the provisions of the Summary Jurisdiction Acts, except where inconsistent with the Licensing Acts. Prosecutions may be proceeded with in absence upon proof by the oath of an officer or constable that the accused has been duly summoned.

TRAVELLERS

Supplies to travellers—or the offences connected therewith—form the greatest difficulty in the administration of the Licensing Laws in Scotland so far as the Police are concerned.

This class of person was once defined by a well-known lawyer-politician as one who "took a *bona fide* walk to get a *mala fide* drink." The difficulty is accentuated by the fact that, as has been stated, all public-houses in Scotland must remain closed on Sundays, and travellers are, consequently, numerous.

In the certificate under the 1903 Act there was a saving clause for "refreshments to travellers" during prohibited hours, as well as on Sundays "for the accommodation of travellers." By this Act also it was made a breach of the certificate "to sell or give out excisable liquor on Sunday to any traveller except for the personal use of and to be drunk by such traveller within such inn and hotel or on the premises belonging thereto." Section 60 of the 1903 Act is not repealed by the 1921 Act, but the latter Act makes no exception in favour of the traveller who is not a resident. The view has, therefore, been expressed by an authority (but not judicially determined) that the supply of liquor to *bona fide* travellers outwith permitted hours is no longer legal. As the supply to travellers is specially excepted on Sundays by sec. 60 of the 1903 Act these considerations are apparently not applicable on that day.

The question of what is and what is not a *bona fide* traveller depends on the circumstances of each case, and possibly the best exposition of the law on the subject is that given by Lord Alness, the Lord-Justice-Clerk, in *Millar v. Donald* (1927 J.C. 7). In that case the driver of a milk lorry, who had taken milk cans from a farm to a railway station on a Sunday, stopped on the return journey at a hotel, and he and his "helper" were supplied with drink. The railway station was $2\frac{1}{4}$ miles from the farm, and the hotel half a mile from the station, so that they had travelled more than three miles on their employer's business. It was held that they were travellers and that, in any event, the hotel-keeper had reasonable grounds for believing them to be such. In the course of his judgment Lord Alness said:

"The first question which is to be put involves an inquiry into what is a *bona fide* traveller. There is no definition, as has been pointed out, in the Act of Parliament. Parliament has refused, as we were informed, to attempt that task, and I certainly do not mean to make

the attempt now. As I said at an early stage of the case, it appears to me that what is or what is not a *bona fide* traveller is a question of circumstances to be determined in each case as it arises. I can think of no inflexible criterion for the solution of the problem, no foot-rule which one can invariably apply. For myself I think that important elements in reaching a conclusion are these: First of all the element of distance which is not only important but essential, and secondly, whether the mission on which the applicant for a drink was engaged was a mission solely for the purpose of obtaining the drink or was for a different purpose whether of business or pleasure—in other words, whether the visit to the licensed premises was an incidental, not the main purpose, of the journey."

It is important to note that a traveller does not cease to be such on being supplied with refreshments, *i.e.* he may proceed to a second hotel and there be again served. It is, however, an offence for a person to represent that he is a *bona fide* traveller for the purpose of obtaining liquor.

CLUBS

The other great source of trouble to the police in Scotland is clubs. In the cities there are a great many of these, mostly small—for example, in Edinburgh with a population of 438,998 there are 168 registered clubs. While a certain number of those clubs, large and small, are conducted in an exemplary manner, there is no doubt that the vast majority of the small ones are not, and they are frequently and justly assailed by the public as being nothing but Sunday drinking saloons. This, like the *bona fide* traveller problem, is a result of the non-opening of public-houses on Sundays.

Clubs have always been in a privileged position as regards the supply of liquor, and up to the passing of the 1903 Act were quite outwith the provisions made by Statute for the conduct of licensed premises. They did not require a certificate, the supply of liquor in a club to a member was not a "sale," nor did it constitute "trafficking." This is still the law, but under section 77 of the 1903 Act to be able to supply liquor to members a club must be registered. The 1921 Act tightened up matters further and placed them on the same footing as licensed premises in the matter of (1) hours of

supply, (2) the giving of credit for liquor supplied, and (3) the measure of supply. Apart from the restrictions imposed by these two Acts they are in a class by themselves beyond the reach of the ordinary licensing laws.

In consequence of this privileged position of clubs the police are unable to check abuses, such as selling outwith permitted hours, drunkenness on premises, and supplying intoxicated persons. The police have no right of entry as in the case of ordinary licensed premises. Before they can enter a club they must be armed with a search warrant in terms of sec. 82 of the 1903 Act, which provides that if a J.P. or magistrate is satisfied by information on oath that any registered club is so managed or carried on as to constitute a ground of objection to the renewal of its certificate, or that an offence under the Act has been or is being committed in any registered club, or that any excisable liquor is sold or supplied or kept for sale or supply on the premises of an unregistered club, he may grant a search warrant to any constable or constables named therein, giving authority to enter the club at any time, if need be by force, and to inspect the premises, to take the names and addresses of any persons found therein, and to seize any books and papers relating to the business of the club.

SPECIFIC POWERS AND DUTIES OF POLICE

The most important power given by Statute to the Police is the power of entry under section 95 of the Act of 1903. The object of this section is to secure that no evasion or infringement of the licensing law is taking place outwith public observation. Power is given to an officer of police to enter (1) any place in which food or drink of any kind is sold to be consumed on the premises, (2) any place in which he has reason to believe that illicit traffic in excisable liquors exists, (3) any licensed hotel, public-house or restaurant, (4) any licensed grocer's premises where he has reason to believe that a breach of certificate is being committed. The like power is also given to any constable as regards licensed premises—(3) and (4). He cannot, however, exercise this power as regards (1) and (2) without a warrant which should be exercised

within eight days. This authority should be produced if admission or entry is refused.

In the case of *Duncan v. Dowding* (1897 1 Q.B. 575) the Police were refused admission to a room in a public-house temporarily used for a meeting of members of a friendly society. The court held that in the circumstances the refusal was justifiable and quashed the conviction that had been obtained against the appellant.

Under the next section of the Act (96) the Police may obtain authority to enter a shebeen under a search warrant. The section provides that it shall be lawful for a J.P. of any county or justice or magistrate of any burgh, upon being satisfied by the personal examination on oath of a credible witness that there is sufficient ground for believing that excisable liquors are trafficked in within any house or other premises not licensed for the sale thereof, or by a person not having a licence to sell excisable liquor in or at such house or premises, or that such liquors are illegally kept for sale or for the purpose of being trafficked in at such house or premises, to grant a warrant authorising any police officer with any constables to enter and make a search.

The police powers in this matter of entry are thus more or less the same as in the case of a club. The legal principle underlying the rule, of course, is that both clubs and alleged shebeens are private premises and therefore protected from entry on demand without a warrant.

If the holder of a licence or the secretary of a club wishes to take advantage of section 3 of the 1921 Act so as to sell liquor with a meal for an hour after the usual closing time, he must give notice not less than fourteen days previously to the superintendent of police of the district of the date on which he intends to begin to avail himself of the provisions of the section, which shall apply for the period of the current licensing year and shall continue to apply unless the holder of the licence or secretary of the club gives not less than fourteen days' notice before the expiry of any licensing year to the superintendent of police that he intends to cease to avail himself of the provisions of the section. The permission may be withdrawn on a report by the chief constable to the clerk

to the Licensing Court not less than fourteen days before the meeting.

When a licence-holder obtains a "special permission" under section 40 of the 1903 Act he must lodge this with the chief constable or superintendent twenty-four hours before the commencement of the entertainment in respect of which it was issued. The chief constable furnishes him with a certified copy of the document and this must be shown to any constable requiring to see it.

The important power which a chief constable has of objecting to the grant or renewal of a licence by the court has already been referred to.

A constable *per se* has been given certain powers by the licensing statutes. He has the right to examine any vehicle or receptacle used for the delivery of liquor and delivery books and invoices. He may warn licensees against supplying liquor to persons under the ban of the "black-list clause." If he is in charge of a station he has authority to sign an order for a "special supply" of alcohol, *i.e.* outwith permitted hours.

Lastly there is the perennial problem of the "drunk and disorderly." Constables have wide powers to deal with these. Section 68 of the 1903 Act is concerned with disorderly persons, and under it a constable is "authorised and empowered to assist in expelling such riotous, quarrelsome, or disorderly person refusing to quit premises at the hour of closing." Section 70 relates to drunkenness, riotous behaviour, and other offences involving drunkenness, in which a constable can act, including the various offences coming under the formula of "drunk in charge of," except motor-car "drunks."

DRY "AREAS"

These are few in number and little need be said of them. On a request signed by at least one-tenth of the electors a poll may be held in an electoral area to determine whether there shall be (1) no change, (2) limitation of licences, (3) no licence. If "no licence" is carried the effect is that no certificate may be granted in the area except that the Licensing Court may, on proof of special circumstances, grant one or more certificates

for an inn and hotel or other premises *bona fide* used as a restaurant under conditions.

In the scope of an article such as this it is impossible to deal with more than the most important parts of such a wide subject as the Licensing Laws of Scotland. The administration of these laws forms a very difficult branch of police duty, requiring as it does great judgment and tact, but it is generally admitted by the public that it is admirably performed.

Juvenile Crime

ITS CAUSES AND TREATMENT

By Policewoman JESSIE J. CLAREY

Melbourne City Police

[This is the Winning Essay in the King's Gold Medal Essay Competition, 1938]

(Continued from page 300)

2. INDIVIDUAL TRAITS

(a) *Hereditary*: Biological science has not yet been able to ascertain with any degree of certainty what is transmitted through heredity to human beings—widely differing individuals coming from the same stock. Spaulding and Healy state, after research among 1,000 recidivists,

"It seems hazardous to offer any conclusion concerning the possible relationship of heredity to delinquency. Among the difficulties of interpretation is the fact that there are so often, surrounding youth, bad social situations created by socially unfit parents, the effects of which are not those of biological inheritance."*

It therefore seems as though, except where the basis of delinquent conduct exists in mental abnormality, we may, for the purpose of this essay, disregard the possibility of delinquency or criminality being a direct inheritance.

(b) *Physical*: A considerable portion of delinquent children is found to be under-developed and of poor physique. But this factor must be considered, not as a prime cause but chiefly as the result of poverty or of neglect on the part of the parents.

The undersized, as also the overgrown, have certain individual problems to face. In the wrong surroundings each has his own peculiar disadvantages. The undersized lad,

* *Inheritance as a Factor of Criminality*, by E. R. Spaulding and W. Healy, as quoted by Healy and Bronner in *New Light on Delinquency and its Treatment*, 1936.

JUVENILE CRIME—CAUSES AND TREATMENT 461

unable to hold his own by other means, may resort to petty sneaking and underhand secretiveness; the overgrown may find himself a misfit amongst the smaller children at school, leading to truancy with its attendant ills. He may become a bully or the ringleader of an unruly gang.

The child suffering from chronic disease or lingering malady is apt to develop an anti-social outlook. Early in life the weakling has probably had bestowed on him an extra share of petting and attention, and has failed to develop habits of industry and consideration for others. If he belongs to the lower economic classes his bodily frailties are a definite handicap. All the future can promise is, at the best, the life of an unskilled worker, whilst more probably he will merely exist upon charitable assistance or develop into a thief.

It is frequently found upon medical examination that your delinquent children suffer from a nasal obstruction, adenoids or similar growth, resulting in a dull, nervous, debilitated condition. Medical treatment has shown marked results in behaviour standards.

On the other hand, the normal healthy child is full of life and vitality; he has boundless energy; he throws stones; invades railway yards; "explores" empty buildings, and is constantly seeking an outlet for his overflow of spirits. With suitable opportunity, and supervision, he goes for long rambles, he enjoys fishing and swimming, or participates in sports of various kinds. In the country he has plenty of space for outlet of his animal spirits; but in the crowded area the outlet for this energy is through mischief and lawlessness on the street and surroundings.

(c) *Intellectual*: It is very evident that a high percentage of criminals is intellectually dull. According to Duncan, "Investigations tend to show that delinquents are more often intellectually dull than mentally deficient," and one of the reasons suggested is that, whilst more care and control have been exercised over the mental deficient, there has been a failure to provide suitable education for the dull and backward child.*

That opinion is not accepted by all authorities, as others

* *Mental Deficiency*, by J. Duncan, 1938.

aver that mental deficiency and defective intelligence constitute an important factor in crime. The conflict of opinion may be accounted for by the line of demarcation between the mentally dull and the mentally deficient being difficult to place.

Intellect alone, however, is not an essential factor in juvenile crime, and provided the mental defective is given simple surroundings, proper training and a favourable environment, there is no particular reason why he should become delinquent. Or, if he does yield to delinquency and is given early attention and proper treatment, either in an institution or selected environment, he should be as amenable as one of a higher grade of mentality. But without supervision his prospects are bad.

The mental defective is highly suggestible and is very easily inveigled into accepting the vicious proposals of a more skilled or an experienced wrongdoer. As he grows older he can mix on terms of equality with neither adults nor children; he becomes lonely and isolated, and he is likely, if left to his own devices, to drift into anti-social ways. His delinquencies are of a limited scope according to his mental development; he generally tends towards illiteracy. As a child he is frequently the wandering, untruthful type; as an adolescent his outlet is frequently in sexual misdemeanours, and as an adult he may damage property or persons.

(d) *Psychological*: For the normal development of a child it is necessary that he have certain fundamentals, notably a sense of security, of oneness, with family or other social relationships; a feeling of recognition as an individual personality, and a feeling of harmony with his immediate surroundings. There are, of course, many other urges and desires, as for example accomplishments satisfying to himself, outlets for physical and mental energies, ownership, and so on; and with increasing age comes a desire for independence and self-direction.

Interference with these fundamental wishes engenders in the young person feelings of dissatisfactions, deprivations, thwartings, inadequacy, jealousy and the like, with resultant inner conflicts.

These fundamental wishes or urges are the driving forces

JUVENILE CRIME—CAUSES AND TREATMENT 463

of the stream of life's activities, seeking satisfaction through various modes of self-expression (behaviour), and frustrated activities must be diverted into other channels. Activity of some sort must offset dissatisfactions and thwartings, and whilst the particular form of this activity will depend partly upon external circumstances it will be conditioned by certain ideas already in the mental make-up of the individual. And as I have shown, delinquent ideas are available for assimilation from many sources, particularly from certain types of environment.

It does not necessarily follow that the emotional thwartings find an immediate reaction in delinquent behaviour or that the delinquency impulse must be new-born. Ideas of delinquency have generally been assimilated in the mental content at some previous time, and there has been a period of incubation, as it were, under the stimulus of some environmental conditions. There is a gradual period of development: a seed, a root, a growth, a fructification. Aichhorn's research in Vienna indicates that delinquency is closely allied to inadequate family relationships for the child.

"We found that the cases in our institution came almost without exception from families where the home situation was disturbed, broken up, or disharmonious, regardless of the deeper underlying causes of their delinquency. It seems as if shocks which the individual receives from society are endurable only when he finds a haven, which in our society the family normally offers. Given such a haven, the expressions of his instincts are held within bounds acceptable to society." *

This is confirmed by statistics of the Victorian (Australia) Penal Establishments, which show:

For the six months ended 30th June, 1935, of delinquents 21 years of age sentenced to imprisonment, 60 per cent. came from homes broken by divorce, death or separation.†

For the six months ended 31st December, 1935, of delinquents 21 years of age and under who served gaol sentences, 62·5 per cent. came from homes broken by death, separation, divorce, etc.‡

* *Wayward Youth*, by A. Aichhorn (1936).

† Report and Statistical Tables for the year 1934, of Penal Establishments, Gaols and Reformatory Prisons, Victoria, Australia.

‡ *Idem*, 1935.

But how does it happen that some young people living in the same surroundings, particularly in the same home or family group, refrain from delinquency whilst others participate in it? A research conducted by Healy and Bronner mainly along this line of enquiry clearly shows that from the psychological viewpoint, the environment of two children in the same home can be entirely dissimilar. Psychologically one can have normal development, whilst another may experience deep emotional disturbances—by feeling rejected, or deprived, or unloved; by fancied inadequacies or inferiorities, either in the home or school; by emotions of jealousy towards other members of the family; or by an intense feeling of discomfort due to parental misconduct or conditions in the home. They expressed the result of their survey as follows:

" Stated in terms of a general principle, the origins of delinquency in every case unquestionably represent the expression of desires and urges which are otherwise unsatisfied. For the onlooker delinquency merely signifies misconduct; for the offender it is just as much a response to inner drives and outer stimuli as any other kind of conduct."

Further on the authors say:

" In considering this question (why some members of a family are delinquent whilst others are not) we have had to take account of various differences in personality characteristics, but in the main we have found that the behaviour derivatives of emotional satisfaction to be the answer. When there has been no intense feeling of deprivations, inadequacies, or thwartings as related to either ego-impulses or desires for affection, the individual has been able readily to find sufficient satisfaction in socially acceptable behaviour." *

SUMMARY

The motive power behind the actual delinquent act is an individual one and may have its roots in one or more of the foregoing conditions. In other words, it is the personal reaction to an existent condition that makes a person a criminal; it is not the surroundings or the temptation alone that create delinquency; it is rather the channel through which these surroundings and desires find their outlet in the individual's activities.

* *New Light on Delinquency and its Treatment*, Healy and Bronner, 1936.

Scientific research in recent years has proved that only a very small proportion of delinquency can be regarded as entirely due to external circumstances or environment. Certainly as the delinquent's behaviour is the individual's reaction to the sum total of his life's situations, it therefore follows that environment plays a large part in the production of delinquency. But psychological research reveals that it is the subjective side of the delinquent's life, his feelings, attitudes and mental content, which motivate his behaviour. Of environmental conditions, those outside the home are far less important than those within; and material conditions are less important than the harmonious or moral tone of the home, whilst psychological factors far outweigh the physical.

Modern scientific research has also proved that frequently the individual himself does not know what actuates his conduct; the delinquent does not consciously say, "Now that I have been deprived of this, I will seek revenge or compensation by doing so-and-so." It has required the work and patience of skilled psychiatrists to disclose the sub-conscious motives.

If, then, delinquency is a reaction to unsatisfactory and unsatisfying emotional conditions of life, what is its meaning to the individual concerned? Why does he act in this particular anti-social manner? The following motives, elicited by clinical research, are significant of the behaviour to the delinquent, viz.:

A desire to avoid an unpleasant situation or to escape from it by flight, real or imaginary;

An attempt to obtain substitutive satisfaction, perhaps by the thrill of a delinquent adventure, or the gratification of obtaining special attention or notoriety as a delinquent;

A desire to bolster up wounded feelings of inferiority or lack of appreciation in the home by gaining recognition with the gang;

An unconscious expression of revenge, through a hidden desire to punish others in the home by conduct which will make conditions difficult for them.

Delinquency is then shown to be a symptom of some

personal or social maladjustment, and the treatment should be, not according to the actual behaviour, but according to the nature of the maladjustment expressed in the behaviour.

It is therefore evident that attempts to deal with delinquency by admonition, threat, compulsion or punishment are almost certain to fail, being merely repressive.

What form then must our efforts to eradicate this type of behaviour take?

We have already established one important premise: the treatment must be individual, according to the offender's need, not according to his misdeeds.

TREATMENT

Until a little more than a century ago it was not uncommon in England and America to hang a child for an offence. But with the acceptance of more enlightened ideas, there has come a greater realisation of the child's inexperience and of his inability to exercise mature judgment; legislation has been passed for the protection of the young, and separate tribunals have been constituted to study their needs.

This treatise is concerned only with the latter and their subsidiary agencies.

Juvenile (or Children's) Court: The judicature established to deal with the delinquent child and his activities is the Children's Court. In Victoria (Australia) this court was established about thirty years ago.

As its name implies, it has jurisdiction over children only, up to the age of seventeen years. At once an anomaly is evident. For hundreds of years the law has decreed that persons under the age of twenty-one years are to be regarded as children—it even designates them "infants." Whilst the law has classified such persons as being inferior to adults in wisdom, judgment, experience and a sense of responsibility, and for that reason has debarred them from the exercise of the franchise, and has regarded them as incapable of performing valid contracts, it affords them special consideration in respect of anti-social behaviour only until a lower age. The age varies in different States and countries, ranging from

sixteen to twenty-one years. The Victorian statutes stipulate seventeen years. From then on, the child must accept full responsibility and be dealt with according to the standards of maturity. Indeed, it is only fourteen years in the case of a boy, and sixteen years in the case of a girl, that dependency is provided for; in other words, although he cannot have control of his property (if any) until he is twenty-one, he may control himself at fourteen.

The personnel and procedure of the Children's Courts vary in different States and countries, and in the main my comments apply to the Children's Courts in Victoria (Australia).

The functions of the court are not merely to discover whether the child has committed a specified crime, but to aid him to meet his needs normally, practically, and in harmony with the ideals of the larger community in which he lives. The court can deal with children brought before it in a variety of ways.

One excellent piece of legislation, of great preventive value, has recently been adopted. The provisions of the Act have been extended to include as a "Neglected Child" one who is "Living under such conditions as would indicate he is likely to lapse into a career of vice or crime."

Among other things, the Act provides for special magistrates, separate court rooms, probation officers, and for the hearings to be conducted without regard to legal forms and solemnities.

The capabilities of the Children's Court rank it as the greatest factor for the prevention of juvenile crime; but unfortunately it has not achieved anything like its potentialities.

The special magistrates (125 in the metropolitan area, 28 in other districts) are all honorary and are not necessarily specially trained or qualified; in many instances they are entirely dependent on the clerk of the court for their legal guidance, and may have preconceived and fixed ideas regarding the treatment and training of children. I am not belittling their efforts; some are admirably suited for their self-imposed task, others unfortunately are not; all are sincere and gratuit-

ously devote a considerable amount of their time to the treatment of juvenile crime. More effective work, however, could be accomplished, and a preliminary step in this direction has already been taken. The magistrates themselves, realising the weaknesses of the present system, recently approached the Government, requesting the reorganisation of the Children's Court and the appointment of a special stipendiary magistrate with whom they could confer. A recommendation in favour of such an appointment was made in the 1936 report of the Victorian Children's Courts. It is reported that the Government has agreed to this recommendation, but no appointment has yet been announced. Other Australian States are in advance of Victoria in this direction.

This appointment, when made, will increase the salaried personnel of the Victorian Children's Courts to three, the other two consisting of the officer in charge and a clerk. Where either of these officials is unable to attend, the court functions with the assistance of the clerk of petty sessions.

The probation officers, like the magistrates, are honorary, having necessarily no special qualifications, training or experience: for the most part they are Church social workers, and are sincerely doing their best according to their outlook and capabilities. They have no official status or recognition, and their work receives no supervision; the account (if any) of their stewardship is rendered to their particular religious denominations. As I have stated with respect to magistrates, some are eminently suited for the work and render the community invaluable service. Some, perhaps, measure the value of their work by the number of children placed in the Homes of their particular denomination; whilst others again, though well meaning, have insufficient time to follow up the cases, their chief concern being that the child under their care reports to them occasionally and attends Church or Sunday School.

The probation officer should be able to supply the court with a full report of the child's circumstances, for the guidance of the bench. This presupposes (according to modern overseas standards) the physical and mental examination of the child,

JUVENILE CRIME—CAUSES AND TREATMENT 469

a knowledge of his environment and home life, his developmental history, school career, and some estimate of the basic causes which have led to the act or acts for which the child is now before the court. In actual practice, the probation officer frequently knows nothing of the case until he hears the evidence given in court; it is more than likely that no one except the constable who is the informant knows anything of the case; the constable prosecuting (a capable police officer, but not necessarily a specialist in child psychology) is aware only of what the brief of evidence tells him. The extent of the informant's knowledge, beyond the essential facts of the offence and the apprehension and arraignment, depends entirely on his personal attitude toward child welfare; so long as a probation officer representing the religious denomination of the child is in attendance at the court, the informant has performed his nominal duty; all he feels called upon to do is to present to the court the evidence relating to the offence. The responsibility then lies with the bench.

As to the physical and mental examination of the child: In cases of female sexual delinquents, where there is suspicion of venereal disease or of pregnancy, the women police arrange for medical examination, either at a public hospital or a special Government clinic (V.D. Clinic), prior to the presentation of the case, as a knowledge of the girl's condition has a vital bearing on her future treatment. The services of a psychiatrist, a psychologist and a paediatrist have recently been made available, to furnish reports on the mental condition of persons accused of crimes "if cases should arise in which it is thought that a report on the children may be helpful to assist magistrates in determining what action should be taken in regard to them."*

At the present time this examination is exceptional, not customary, whereas I feel that it should be carried out as a general practice and that it should be followed by the appropriate medical treatment.

It is from this scanty and frequently inadequate information that the Court must make decisions vitally affecting the child's whole career.

* Report on Victorian Children's Courts for the year 1937.

If the Children's Courts in Victoria were to function to their full capacity—as they could with a larger and properly trained personnel, supplemented by greater facilities for scientific treatment—they would be a powerful force in administering both preventive and remedial measures to combat juvenile crime. The court's powers should be widened to bring within its jurisdiction the adults responsible for the child's conduct, as is the position with respect to Children's Courts elsewhere.

Probation: The probation system is largely used, and despite its many shortcomings, secures favourable results.

This system offers unlimited scope for the treatment of the youthful wrongdoer and for the prevention of further delinquency, not only by the particular child concerned, but also by other members of the same family.

To attain the best results, the probation officer (male or female) should be specially trained and carefully selected, not only for his knowledge but also for his sympathy and understanding. He should be a member of the permanent personnel of the court, working scientifically, and being responsible to a superior officer for progress reports of the cases under his care.

The personality of this worker is of paramount importance, as in many instances he will have the charge of children whose emotional life has been frustrated, and whose parents cannot or will not fulfil their functions. If the worker approaches and handles the child in the proper manner, the child will look to him as an "ideal" or "father-substitute."

The probation officer should be a frequent visitor to the home, coming in close contact with the delinquent and his parents in their habitual surroundings. He has therefore every means of ascertaining exactly where the child's most urgent needs lie, and should have at his disposal the facilities to render whatever assistance—material, social, medical or psychological—is required.

Through the agency of the probation officer, treatment can be extended to the parents, without necessarily any compulsion or authority on the part of the court.

Where the child is not already beyond reform, it is a far

better policy to improve him within his home than to remove him from it. Either system costs money, but results obtained by the former are better from the point of view of the community, as well as that of the child.

The need of prolonged contact with maladjusted families is great. To achieve this, there should be more social agencies performing preventive work, especially in the field of outdoor life, more trained workers, and greater resources for the task.

The period of probation can be extended by the court from time to time. If, under this supervision and guidance, the conduct of the child shows no further cause for complaint, there is no necessity for the child to come again before the court.

Adjournment of Case: Another method which has proved efficacious is that of adjourning the case. The effect is somewhat the same as in probation; the child returns to his home, or perhaps to that of a relative, and is placed under the supervision of some suitable adult, probation officer or member of the police force, and unless he again relapses into delinquency he is not again brought before the court and the case is ultimately withdrawn.

In these two methods of treatment, if the child shows no improvement or if he commits other offences, he can then be dealt with by the court on the original charge. He is then usually committed to an institution or to the care of the Children's Welfare Department, in which latter event he is generally transferred to a Church home according to his nominal religion.

Assistance of Police: The women police play an important part in the prevention of juvenile crime—perhaps not as large a part as in other countries where there are greater numbers, a separately controlled branch to meet specialised requirements and work, and more resources at their disposal. Their services bridge the gap which, owing to prejudice, exists between the work of the police and other preventive agencies.

The policewoman co-operates with the Children's Courts, carrying out many of the investigations and duties which could well be performed by qualified probation officers. Frequently, at the request of the court, she collects data regarding the

environment and home conditions of a child, and visits the home, rendering advice and guidance to both child and parents. She naturally does things directly, and at once, to remedy a given situation, but she does not duplicate what can best be done by others. Her aim is to bring into effective co-operation, for the welfare of the particular child, those agencies or measures which her knowledge of the situation indicates as essential. Frequently, as the result of her co-operation with parents and with social bodies, adjustments are made for the child, obviating the necessity of his being brought before the court.

Psychological Treatment: The establishment of a fully staffed psychological clinic, working in conjunction with the Children's Courts, and to which parents could voluntarily bring the behaviour problems of their children, would be a valuable asset.

The atmosphere of a clinic differs from that of a court, no matter how informal the procedure of the latter. There is a more friendly attitude between parent and worker (as against the hostility and resentment sometimes aroused in a parent when his child is charged), and naturally this is conducive to better results.

The sphere of an institution of the type suggested is wide. It would examine and treat children who present serious behaviour problems; it could co-operate with teachers, social workers, and other community agencies, and add to the available fund of scientific knowledge regarding the behaviour and the mind of man. Its aim would be to adjust the child to his environment and to prevent undesirable personality traits from developing into delinquency. It could supply vocational guidance, which might be both remedial and preventive; and if in addition to the youth receiving guidance, congenial employment were obtained (through utilising available resources) beneficial results must accrue.

As in the case of the probation officer (who, indeed, would be an officer of such a clinic) instruction and assistance need not be confined to the child but could extend to the parents, and thereby aim at improvements in the whole of the child's environment.

JUVENILE CRIME—CAUSES AND TREATMENT 473

Education of the Parent: This is vitally necessary. The 1937 Report on the Victorian Children's Courts states:

"A most important step conducive to the reduction of crime among juveniles lies in educating erring parents in parental responsibility of their children."

To say the least, it is illogical, as well as unfair, that the child though not considered wholly blamable should be the sole recipient of treatment.

The Children's Court should have great jurisdiction over the responsible parents or guardians. In some instances the court may impose a fine, which must be met by the parents. By means of the conditions which the court prescribes when placing a child on probation, to some extent it exerts control over the parent; it may, for example, permit the child to remain in the custody of the parents, conditional on the family's removal to a better locality. Taking the recognizances of the parent to ensure good behaviour on the part of the child may be effective where the child's behaviour has been due to neglect or laxity on the part of the parents; where the child's behaviour has arisen from ignorance or mismanagement, this effort is useless without re-education of the parent. This, as we have already indicated, can be achieved through the instrumentality of the probation officer or the clinic.

Parental education could be carried out by a constructive community programme, and by the establishment of community centres. The formation of study groups and mothers' classes would assist. Literature on child care and training could be made available; radio talks on child care, home management, hygiene and other subjects would be helpful.

The first step in the re-education of the parents is to make them realise that in some measure they are responsible for the problem presented by the child. That sense of responsibility having been awakened, the parents would be more ready to co-operate with the clinic in its programme of re-education and rehabilitation.

Schools: The influence of the schools is far reaching, beginning with the earliest years of the child and continuing until, at least, adolescence.

Correctional training to offset defective home training can be commenced with children of a very tender age, in the Nursery School. This should be a place, not merely where babies are minded, but where their education commences. They can be trained in matters of discipline, cleanliness and respect of the property rights of others—all matters in which the child from the wrong type of home receives no training, and all factors influencing the development of the child into a reputable citizen. The training commenced in the Nursery School can be continued in the Kindergarten, and so on, during the years of growth and development.

The school has almost unlimited possibilities in the detection and prevention of juvenile delinquency. Close co-operation should exist between the schools and the psychological clinic, and the guidance of the clinic obtained where necessary in the child's interests—notably in the case of truant children. Where a child becomes a problem which the school cannot handle, it should not (as is frequently done) merely compel the child to change his school, but with the assistance of the clinic should select another school.

The school comes in contact with all children in a way no other social service does; it has the confidence of all persons; it reaches into all homes, and it can (and should) secure the co-operation of all agencies.

The aim of the school should not be to compel the child to conform to its methods, but to adapt itself to his requirements.

Leisure: The proper use of leisure is one of the most pressing social problems.

It is vitally necessary to provide boys' clubs, gymnasiums, and other means by which young people may be kept occupied. It is useless warning a youth to avoid bad company and to keep off the streets, if he has no other companionship and no other place to visit. Splendid preventive work amongst boys and lads in the poorer suburbs of Sydney is carried out by the New South Wales Police Boys' Club, not only by providing facilities for wholesome recreation, but by fostering a spirit of friendliness and by inculcating the idea that the police should be regarded as their friends, rather than natural enemies to be hated and despised.

The mere advice to a young person to join a club does not go far enough. Here is another field for the probation officer or social worker. An effort should be made to ascertain the individual bent of the child, and the worker should then secure for him entry into a club of the particular type likely to retain his interest. In addition, the worker should see that the boy or girl has the suitable equipment, e.g. sports attire, racquet, etc.

Placing the child in contact with a club, however, does not go the whole way. There are still times when the club facilities may not be available. The worker or club leader must see that this time is not spent in such a manner as to nullify the good work he is endeavouring to do; he can at least give advice and make arrangements to enable the youth to occupy himself with pleasure and to advantage, instead of leaving him entirely to his own devices.

More clubs, play centres, and recreational reserves are needed. From where shall they come? The many commodious school buildings are unused every evening, and on Saturdays, Sundays and holidays—the very times when play and recreational space is most in demand. They would be ideal for the development of Community Centres, combining recreation and education for young and old. The Government (which owns the buildings) and the local Councils, by co-operating along the lines suggested, could do much to eliminate juvenile crime.

Many excellent clubs and organisations—notably the Y.M.C.A., Y.W.C.A., Boy Scouts, Girl Guides, etc.—are in existence and render splendid preventive work, but in a different sphere. Their appeal is not to the child who has already delinquent tendencies. What is needed are clubs to meet the specific requirements of the delinquent or the potentially delinquent who has no home recreations.

And it must always be borne in mind that the first essential of these clubs is suitable leadership; without that, they develop and foster the very characteristics which they are intended to remove.

The effective adoption of the foregoing projects and recommendations would naturally require finance. But is it

really any more expensive to provide for youth whilst mingling in the normal way in the community, than to erect and maintain huge reformatories and incarcerate youth therein, only to be released with a more than 50 per cent. prospect of being returned? If only those in authority—politicians, councillors, and influential citizens—could be brought to realise that money spent in prevention would not only build a better youth and manhood, but would reduce expenditure in other directions (health bill, penal institutions, etc.) we might expect more results. Vast sums of money are spent in the detection, trial and segregation of criminals; why not spend a little more in preventing crime and criminals from developing?

Segregation in Institutions: In dealing with the juvenile, this should be a last resource, and it is usually resorted to only in extreme cases, as for example, where the child's environment is considered so bad that there is no chance of his making good, or where, having been given opportunities to reform at home, the child persists in wrongdoing. The choice of a Home is determined, not by the child's needs, but by his nominal religion. If some of the foregoing suggestions were adopted, is it not reasonable to suppose that the child's home environment could be improved, that examination by a psychiatrist would reveal in what way he was a misfit, and that through the wide scope of the psychological clinic he could be suitably placed? In short, if the probation treatment were more scientific and adapted to individual needs, if it embraced the family and the parents, is it not reasonable to suppose that there would be very few "extreme cases"?

The incarceration of a young person in an institution does not, of itself, improve him. There is not always space to permit a proper segregation and classification of the inmates; in addition, there is the hardening effect of institutional life on the individual. His change of environment does not necessarily render him better fitted for a return to normal life at a later period; he may still remain a misfit.

Institutional confinement, as a means of treatment, has not proved successful. The annual report of Penal Establishments (Victoria, 1937) states that:

JUVENILE CRIME—CAUSES AND TREATMENT 477

"On every occasion on which a test has been made, more than 50 per cent. of the Restraint Gang have at one time or another been inmates of Orphanages, Boys' Homes, or Reformatories."

(Prisoners under 21 years of age serving sentence in the gaol at Pentridge (Melbourne) are segregated from older prisoners into what is known as the Restraint Gang.)

Confinement to an institution should only follow after all other possible channels have been exhausted, or where the child's mental abnormalities are such as leave no other option.

Where incarceration is absolutely necessary, it should be conducted on the "colony" (or "village") style—a "community," the inmates being subdivided into small groups, each being a "citizen" and having certain rights and responsibilities.

Again, in the case of a fairly young child whose period of detention may not be very lengthy, what is to happen when he returns to his old environment, to the same devastating home influences? For while he has been away no supervision or instruction has been given (under existing conditions) to his parents. They may have made an effort of some sort, of their volition, to effect temporary improvements in the hope of securing the early return of the child; but their mental outlook remains the same; they are no more competent to understand the child and his psychological needs on his return than they were when he had to be removed from their custody.

Where institutional treatment is resorted to, another danger lies in the possibility of the child acquiring additional vices from older and more experienced inmates, whilst associations formed in the institution may be continued after his discharge.

FINALE

The prevention of crime is of benefit to all sections of the community and the work should not be left to a small section. All should do their share—Parliament, the municipal authorities, the home, the schools, the churches, and social agencies. Whilst it is admitted that an important measure of

responsibility rests with the Police and the courts, all forces must unite, as the chief problem in carrying out an effective programme of delinquency prevention is to secure the co-operation and co-ordination of all bodies interested in the civic and moral improvement of the community.

To handle effectively the problem of juvenile crime in all its aspects, it is necessary to have a tribunal composed of experts in several fields, to whose care the child should be handed for treatment. The members of such a body must give full-time service, work in close co-operation with the Children's Court, be granted official status and State wide authority, and have access to all avenues of public and private resources for treatment.

To rid the community of crime the attack must be made on the roots; it is useless trying to cull out infected trees by having a special squad to gather and remove the rotten fruit as it ripens. The eradication of crime must be attacked by specialised treatment of the child whose conduct shows any sign of being anti-social.

The prevention of crime, therefore, constitutes one of the community's greatest moral, social and educational problems.

A Case of Definite Proof that a Particular Knife was used to Commit a Murder

By DR. A. I. KAYSSI,
Director, Medico-Legal Institute, Baghdad
J. F. WILKINS, O.B.E.,
C.I.D., Baghdad

EARLY in April, 1938, it was reported to the Police of 'Adhamiyeh, a suburb of Baghdad, that one Abdullah bin Salman had been missing for some days. Enquiries were made and on the 23rd April his body was found buried in the courtyard of the school in which he had been employed as a waiter. Death appeared to have been due to a multiplicity of stab wounds.

The body was received in the Medico-Legal Institute, Baghdad, on the 23rd April and was in an advanced state of putrefaction. The autopsy confirmed that death had been due to the many severe stab wounds.

Of these, there was one, situated immediately under the left nipple, which had penetrated the heart and was so distinctive in shape and size that it was thought it might be of value as suggesting the type of weapon by which it had been caused. Accordingly the skin of the area was removed and preserved (*see Photograph No. 1*).

After the body had been buried, a large and newly sharpened kitchen knife, stated to have been seized from the possession of a suspected man, was received from the Police for examination for the presence of human blood. This examination proved negative in spite of the fact that the knife was completely taken apart and every portion subjected to test.

It was, however, noticed that the shape and breadth of the blade of the knife were such as to suggest that a knife of

this type could have been the cause of the wound mentioned above. It was also observed that the blade of the knife was slightly bent, and that the point had very obviously been in forcible contact with some hard substance, while the point itself appeared to be missing (*see Photograph No. 2*).

Later on certain other information and facts came to light which, in spite of the failure of the blood tests, appeared to indicate that the knife was without doubt the weapon with which the crime had been committed. It was considered possible that the bending of the blade and the breaking off of the point might have been caused when it struck a bone, and that it might be possible to find the missing point in the body of the deceased. Accordingly, after some difficulty, an order of exhumation was obtained and carried out on the 28th April.

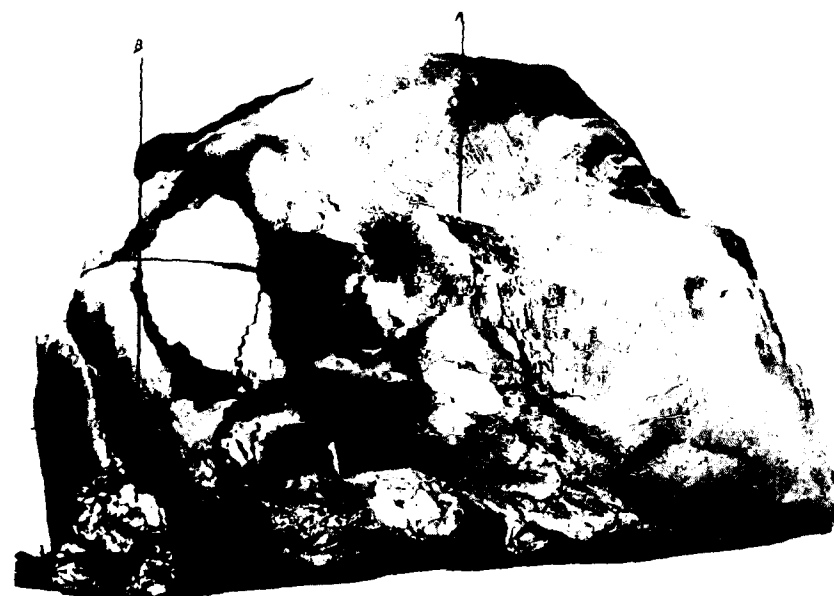
During the course of the first autopsy a severe stab wound had been observed on the posterior part of the right cheek (*see "A" in photograph No. 3*), the direction of which was from front to back and in which the weapon had struck the bone with such force that a flake of bone, approximately two centimetres in diameter, had been split off from the bone of the skull. This was the only wound observed where the weapon had been in forcible contact with a bone, and it was therefore considered that the most promising field of search for the missing point was in the vicinity of this wound. For this, and certain other adequate reasons, it was therefore thought necessary only to remove the head. This was done and, after a search conducted in the Institute, a fragment of steel was found firmly embedded in one of the mastoid bone cells. The actual place of finding is indicated by "B" in *Photograph No. 3*.

The fragment was approximately two millimetres in area, and owing to chemical changes had turned jet black. As already mentioned, it was very firmly embedded in the bone cell and the whole area was covered by earth, etc., from the place of burial. After the fragment had been removed it was set up with the end of the blade under a low power microscope, and it was at once apparent that it was the missing point (*see Photograph No. 5*).

Photograph No. 4 shows the complete knife with the



PHOTOGRAPH NO. 1: Skin over heart area, showing stab-mark



PHOTOGRAPH NO. 3: The head, showing A—stab-wound, B—flake of bone in which the point of the knife was found

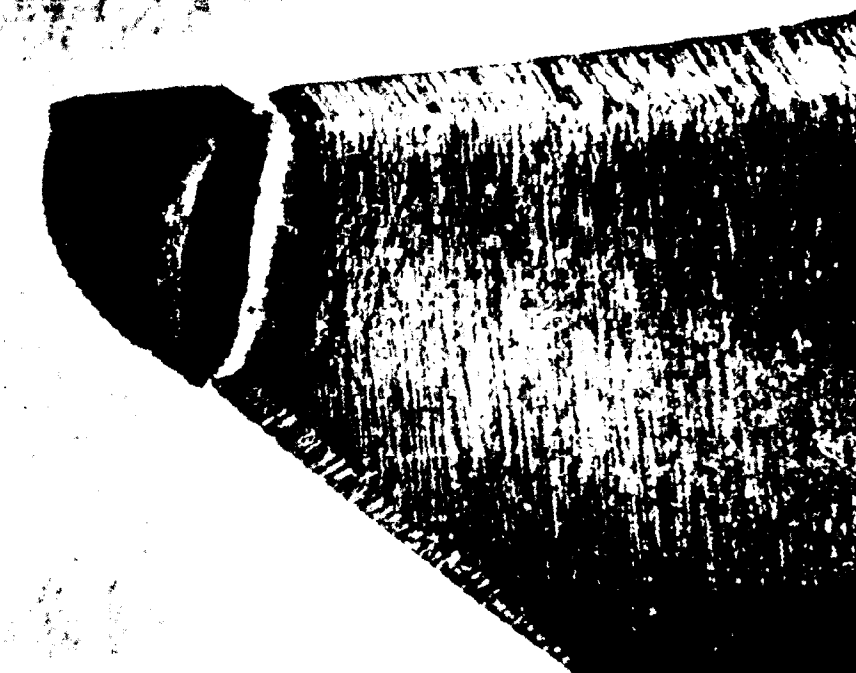
(*face p. 480*)



PHOTOGRAPH NO. 2: Knife as received from the police, with point missing



PHOTOGRAPH NO. 4: The knife with the missing point placed in position



PHOTOGRAPH NO. 5: The missing point set up with the broken end of the blade. Photomicrograph at a magnification of 24 diameters

CASE OF DEFINITE PROOF IN MURDER

point replaced in position, while No. 5 shows the point and a portion of the blade. When produced in Court the photographs of the wound in the breast, the head, and the complete knife (Nos. 1, 2, 3 and 4) were at "actual size" and that of the point and a portion of the blade (No. 5) at a magnification of 24 diameters.

The finding of the missing point of the blade actually embedded in the skull of the deceased enabled evidence to be given that the knife, which was proved to have been seized from the possession of the accused, had definitely been used in the commission of the crime in spite of the fact that no trace of human blood had been found anywhere upon it.

Faced by this evidence the accused confessed to having killed the deceased with the knife, and to having buried the body in the place where it was discovered some twenty days later.

The Colonial Police

The following appointments are announced by the Colonial Office:

FORD, N. H. B. (Assistant Superintendent, Palestine Police Force)	Assistant Superintendent of Police, Nigeria.
GIBSON, A. S. (European Clerk)	Chief Inspector of Police, Tanganyika Territory.
MASON, J. C. (Assistant Superintendent)	Superintendent of Police, Mauritius.
SMITH, F. B. (Assistant Inspector)	Inspector, Police Department, Nyasaland.
STAFFORD, A. E. (Assistant Superintendent)	Superintendent of Police, Mauritius.
WEBB, J. C. H. (British Constable, Palestine Police)	Assistant Inspector of Police, Tanganyika Territory.
WOLTON, E. F. E., M.M. (Assistant Superintendent of Police)	Superintendent of Police, Tanganyika Territory.

Automatic Traffic Signals and their Operation

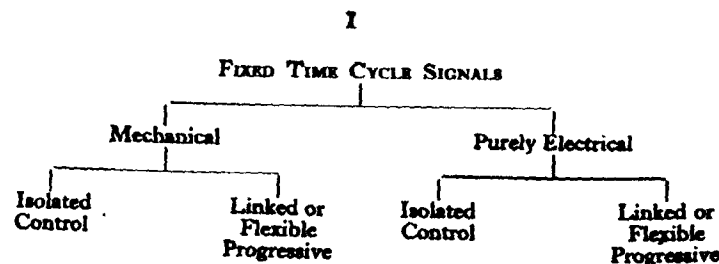
By POLICE CONSTABLE G. W. BARLOW

Traffic Department, New Scotland Yard

GENERALLY speaking, manual control of traffic is not a pleasant task, and most of us have experienced point duty under extremes of temperature. We have complained about the heat and the cold, but if the installation of Automatic Traffic Signals has meant the abolition of a traffic point, have we complained then? I don't think so.

This traffic signal business is one of complexity, and I think it is realised that present-day methods of electrical control mean more than a few relay-sets to give us a sequence of lights, with the colours and code of which we are so familiar.

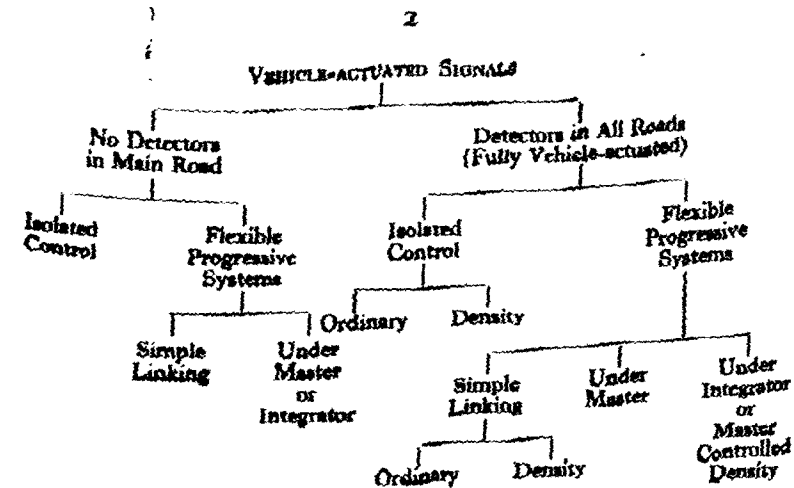
We know that signals are either fixed cycle or vehicle-actuated, but how many kinds there are is another matter. This article, then, is a survey of traffic signal types, and no attempt will be made to delve into their mechanical or electrical intricacies. The following tables are, up to a point, self-explanatory.



482

AUTOMATIC TRAFFIC SIGNALS

483



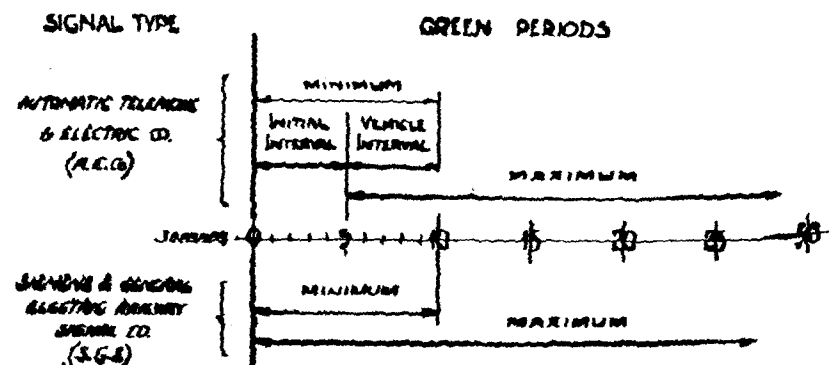
Now I do not propose to dwell on Fixed Time Cycle Signals. The very name conveys all we want to know. It conceals nothing, it means what it says. No matter what their make-up, the signals conform to a set cycle of operation, regardless of traffic flow. They are classed as being inefficient. They cause unnecessary hold-ups and give right-of-way to roads devoid of traffic. This is particularly noticeable at night, but, in spite of this, fixed cycle signals have at least one good point—pedestrians are not dependent upon side road traffic to enable them to cross the road, as is the case at most places where vehicle actuation is the form of control. And further, we must not lose sight of the fact that some of the latest types of flexible-progressive systems of signals operate on a fixed time principle.

What is vehicle actuation? Vehicle actuation is the flexible recording and distribution of traffic flows by electrical impulses, and the medium is the traffic detector, which may be in the form of a rubber mat in the carriageway, or a photo-electric ray.

In the detector, the signal engineers have provided an essential part of traffic control that stands up to its work extremely well, in view of the mechanical and climatic stresses imposed upon it. Water, of course, is the greatest enemy of the "mat" detector, and once it gets to the contactor mechanism

it puts "paid" to vehicle actuation. Either an electrical contact is permanently established, in which case the particular phase runs to maximum, or no contact is made at all. This latter is the worse of the two evils because a vehicle cannot register its presence at the controller, and right-of-way is withheld until contact is made by another vehicle at the far side of the intersection. If the disconnected detector is on the leg of a "T" junction, the driver of the vehicle is unlucky, and this is putting it mildly. Fortunately, such happenings are rare. The ray type detector is not subject to mechanical stresses, but it is affected slightly by light values. It appears to be suited to one-way thoroughfares and pedestrian crossing places.

Operation of the detector, we know, provides and extends right-of-way, but the *modus operandi* is slightly different in the signals manufactured by the Automatic Telephone and Electric Company and those manufactured by the Siemens and General Electric Railway Signal Company. Referring only to simple isolated controllers, the green periods of A.E.Co., and S.G.E. signals consist of three and two parts respectively, as follows:



The Initial Interval is the theoretical time allowed to stationary vehicles to get in motion and its duration is determined by the nature of the intersection or junction, e.g., traffic proceeding uphill takes longer time to get in motion than traffic proceeding downhill. The Vehicle Interval is the time allowed a vehicle to go from the detector to the intersection zone before the amber light appears on loss of right-of-way.

The initial interval forms part of a minimum green period, in which case it precedes a single vehicle interval. It forms part, also, of a "true maximum" running period, in which case it precedes a series of overlapping vehicle intervals, called the Maximum Period. In the case of S.G.E. signals there is no initial interval, while the "true maximum" is consistent with the controller maximum dial setting and is also made up of overlapping vehicle intervals.

In the case of the A.E.Co. controller the vehicle interval is one of fixed time, adjustable by means of a dial giving a wide range of values. In the case of the S.G.E. controller the interval is adjusted by the vehicle, and, within limits, its duration is proportionate to the speed of the vehicle. Three adjustments, or vehicle strappings, are available to suit the control. They are long, medium, and short, and the extension at twenty miles per hour is different for each one. The fitting for this feature is contained in the controller and is not brought out in the form of a dial on the control panel.

As yet, no vehicle interval caters for traffic adequately, for if the setting suited a coal cart, the signal timings would appear sluggish. For example, if the interval was set to give fifteen seconds, any fast-moving vehicle would extend right-of-way to the order of fifteen seconds, and it follows that the maximum period could be covered by two widely spaced vehicles, thus defeating the object of sensible vehicle actuation. In point of fact, five or six seconds appears to suit traffic generally.

A well-used figure for the minimum green is ten, and so is twenty-five for the maximum green.

Now these minimum and maximum green periods are all right for isolated control, but they seem all at sea when it comes to linked or flexible-progressive schemes. True, the same features are retained at the local controllers, but the dial settings are only provisional, and in some cases operation is governed by a Master Controller, Integrator, or Density-Controlled Master. The Master Controller keeps the time cycle to a fixed predetermined maximum period at all the signalled intersections in the particular system. The Integrator and the Density-Controlled Master keep orderly time cycles, proportionately variable to suit traffic densities. For example,

the time cycle might be fifty seconds at 2 a.m.; at 10 a.m. it might be sixty seconds, and at 4 p.m. it might be eighty seconds.

Under these systems, thoroughfares (phases) are allowed certain maximum green periods to provide orderly traffic movement at speeds peculiar to the places in question. In other words, the Master Controller or Integrator operates to a Time and Distance Diagram, of which a good example is shown (Fig. 1). Reference to the diagram will show that a vehicle leaving junction "X" on Phase C can proceed through the system to intersection "Z" at fifteen miles per hour without stopping. Similarly, a vehicle leaving junction "Y" on Phase C can pass through junction "X" at seventeen miles per hour. So much for that part of fully vehicle-actuated flexible-progression.

Now such a Time and Distance Diagram holds good if there is traffic about to provide those overlapping vehicle intervals already mentioned. But, if through some hold-up of traffic between intersections, the detectors are not operated, our diagram doesn't look so good. We find side roads receiving right-of-way at the wrong time, and when the main road traffic does get on the move, more often than not it comes up against a red light. This is fatal in busy thoroughfares. How can it be overcome? There are two methods:

- (a) suppression of the main road detectors (also called Automatic Time);
- (b) have detectors in the side roads only.

Whichever method is adopted, the time allowed main road traffic can never be less than as stated in the Time and Distance Diagram, regardless of traffic flow. In other words, we are almost back where we started—fixed time.

Where detectors are in operation, it is easy to understand how proportionately-variable time cycles can be got under Integrator or Density Control. A "key" intersection is chosen where opposing traffic streams are consistent enough for counting purposes. The Integrator adjusts the time cycle every five minutes; the Density Controller does the job instantaneously, and both types provide a main road green

period to permit of progression for such traffic that is, or might be expected to be, passing through at the time.

But I have given two examples where main road detectors appear to be left out. The traffic must be counted somewhere to give us a variable time cycle. Here again a "key" intersection is chosen, and a good example of flexible-progression without detectors is that in Marylebone Road, London, where, in addition to Marylebone Circus (used for counting), there are thirteen local controllers on the east to west route, and three along the north to south route, which is Baker Street.

A word about Density Control. The controller is provided with two maximum periods—one high and one low—and a variable density setting. The latter is adjusted to suit general vehicular headway and common figures are $\frac{1}{2}$ and 1, representing seconds. Under ordinary control a straggling line of vehicles can run a phase to maximum at a time when an opposing phase, loaded to saturation point, could well do with right-of-way. Density control overcomes the snag in this way. If vehicles having right-of-way are well spaced and arrive at the detectors with more than the density setting between them, the controller times fast and we get a low maximum green period. If the vehicles establish themselves at the detectors within the density setting, the controller times normal and we get a desirable high maximum green period.

In addition to what has been mentioned there is a host of other things bound up in the control of traffic by lights. There are Early Cut-offs, Suppressible All Red periods, etc., but do not think it is necessary to enlarge upon the foregoing to enable us to find two forms of traffic signal control which appear to commend themselves to us.

They are:

- (1) Density Control ... for isolated junctions or intersections.
- (2) Integration or Master-Controlled Density, with main road detectors suppressed during the day ... for multi-signalled thoroughfares.

do not wish to imply contradiction when I state that such

a finding does not represent finality. Before traffic lights are installed many factors have to be considered. Therefore I do not mean that Density Control should be used at all isolated junctions or intersections. Many places are amply catered for by the ordinary controller because the very minimum of vehicles use one or more of the converging thoroughfares. To the casual observer some such signals are there only to prevent violent fatal collisions.

Many linked schemes even do not justify Master Control. Why? Unfortunately, the answers to this question and those which inevitably follow, could not be paragraphed here. The safe marshalling of pedestrian and vehicular traffic is not a subject for stereotyped tabulation. It is a case of "what happens here, doesn't happen there—what works here, doesn't work there."

However, apart from all the ifs and buts, this article covers the salient features of traffic signal technique from the Police point of view, and I can only hope that I have served, not to mystify, but to assist.

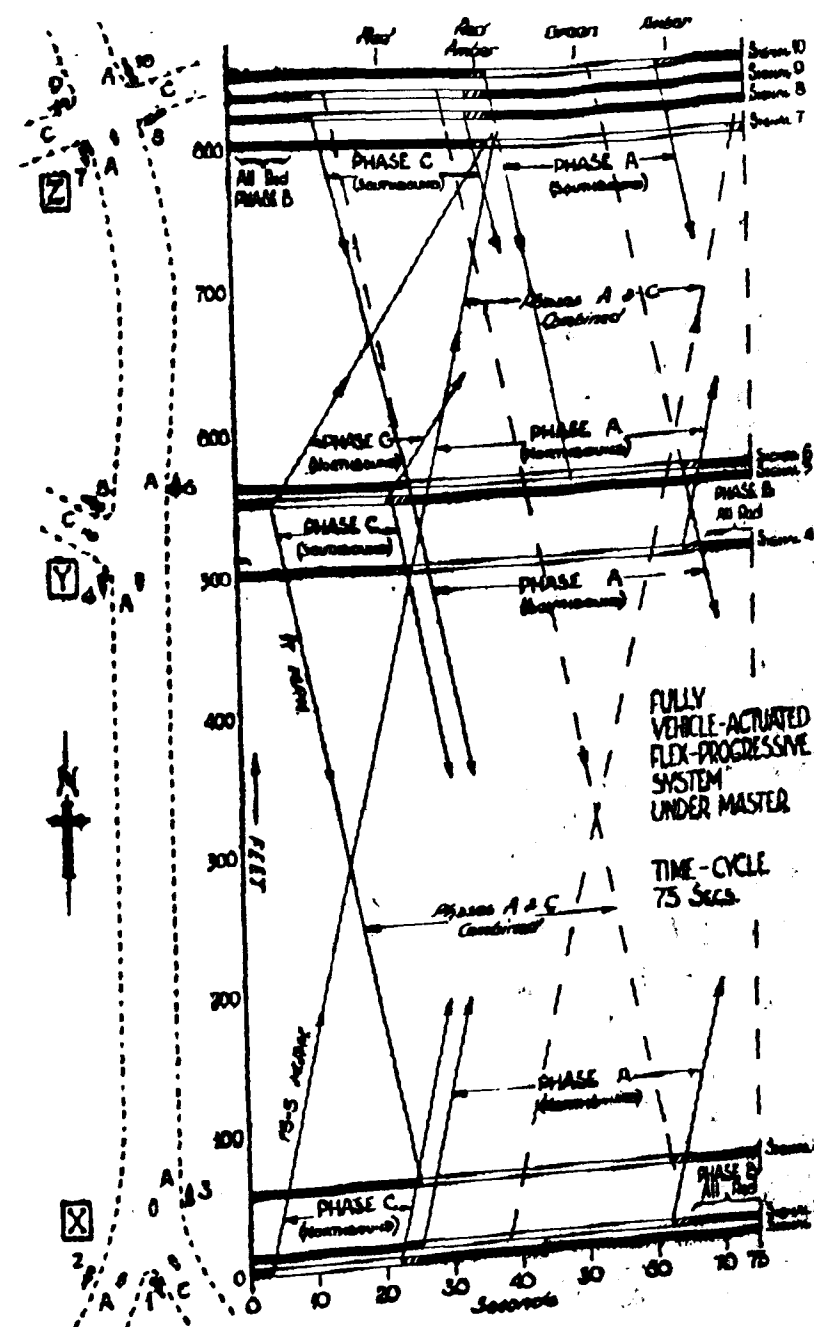


FIG. 1

Abortion

REPORT OF THE DEPARTMENTAL COMMITTEE

THE publication of the report of the Inter-departmental Committee on Abortion, presided over by Mr. W. Norman Birkett, K.C., again focusses attention upon a subject which has ramifications in many spheres: ethical, moral, social, eugenic, sociological, medical and legal. We are concerned mainly with the legal, or as we prefer to call it, the criminal, aspects of abortion, and it is proposed here to discuss the report, and the conclusions reached, from a Police point of view. The ethical and sociological aspects of the problem are matters for Parliament, in the interpretation of enlightened public opinion, and in respect of which it need only be said that the committee has collated and presented a great deal of material on which it may be hoped that all concerned will inform themselves in future before venturing opinions and criticism of the administration and enforcement of the existing law.

The committee was asked to enquire into "the prevalence of abortion, and the law relating thereto, and to consider what steps can be taken by more effective enforcement of the law or otherwise to secure the reduction of maternal mortality and morbidity arising from this cause."

Abortions are classified by the committee into three types: (a) *spontaneous*, or natural, due to some condition of disease and produced unintentionally, and therefore primarily a medical problem; (b) *therapeutic*, an abortion induced in good faith by a medical practitioner, when he is satisfied that continuance of his patient's pregnancy will endanger her life or result in serious impairment of her health; and (c) *criminal*, deliberate interference with the course of pregnancy in circumstances which do not afford a lawful justification for that interference.

The available statistics on the prevalence of abortion are imperfect. The committee's general impression from the available material is that an estimate that from 16 to 20 per cent. of all pregnancies end in abortion is not unlikely to be a near approach to the true figure. This means between 110,000 and 150,000 abortions each year, and, although the impression formed has no statistical foundation, it is thought that perhaps 40 per cent. of abortions are criminal.

The general impression among medical, police and social circles is that criminal abortion has become more frequent. Since the beginning of the present century there has been a steady increase in the number of offences of abortion annually "reported to the police," but even so the number of "crimes reported" represents only a fraction of the number, gained as it is with imperfect statistical material, of criminal abortions mentioned in the previous paragraph. The Home Office criminal statistics for 1937 show that 197 offences of criminal abortion were reported to the police, and recorded as such, 65 persons (16 men and 49 women) being committed for trial and 57 (14 men and 43 women) convicted. If the assertion of one authority* be accepted, that some 90,000 women in this country annually resort to criminal abortion, there is indeed either a need for the Legislature to say that the act of abortion is not a punishable offence, or that measures be introduced to secure more effective detection of offenders and prevention of the commission of the crime.

The crime of abortion is almost invariably committed in circumstances of the greatest secrecy, and the possibility of police action depends upon the co-operation of every citizen who may be cognizant of the act done. Moreover, it is essential to the interests of the State that every effort should be made to prevent the commission of crimes, particularly those of a grave character affecting human life, from being committed with impunity. For this reason the committee reject any proposals made which savour of privilege for witnesses, of any type or profession:

"The position of a doctor who has reason to believe that a patient has undergone criminal abortion is complicated by the confidential

* Dr. Joan Mallison, a witness on behalf of the Abortion Law Reform Association.

relation existing between him and his patient. Doctors should, however, keep constantly in mind the importance of the assistance which they can render to the Police. They should, in particular, act upon the recommendation of the Royal College of Physicians that patients who have had criminal abortions should be urged to consent to having the matter reported to the Police. They should not, moreover, press their claims unduly far."

There can be no doubt that, as the committee say, closer co-operation by doctors with the Police would help to terminate the career of many professional abortionists. Unfortunately the committee as a whole do not implement this view by a recommendation that there should be a statutory obligation upon medical practitioners to notify abortions which come to their notice. Six members of the committee of fifteen (including two medical members) strongly urge the introduction of a system of general notification, both of spontaneous and criminal abortions, as a real contribution to the solution of the problem. "The difficulties of setting up such a system, if difficulties there be, are not of such a nature that by energy and willingness they cannot be overcome." The reservation proceeds to set down the principles upon which the system of notification should be worked. Under the suggested scheme every case of abortion, whatever its cause may be, which comes to the notice of a medical practitioner, should be reported to a central medical authority which should be set up for purely statistical and research purposes. (Midwives are already required to notify the local authority (medical officers of health) of any case of hæmorrhage, which would obviously include any case of abortion.) The retort is made to opponents of compulsory notification who claim that notification of fever is for the good of other persons, and not for the good of the patient herself, that notification of abortion is, in the end, of the greatest use to other persons. This notification would, on the view taken by the minority of six, include all three types of abortion, spontaneous, therapeutic and criminal. As to the last:

"Criminal abortion is a serious menace to the community. . . . There is reason to believe that the number of deaths resulting from abortions is substantially greater than the average of 500 a year shown

on the returns of the Registrar-General as being due to this cause. In many cases in which the immediate cause of death is, say, septic pneumonia, or some similar condition which has supervened as a direct result of criminal abortion, no mention is made of the abortion on the certificate, and the death of the woman is not, therefore, classified under this heading. . . .

"While there are many criminal abortions, prosecutions are few. This is often because of the paucity of evidence, and this in turn is due to the failure of doctors to report at once, or at all, to the authorities cases of undoubted criminal abortion which come to their notice. . . . The criminal abortionist is entirely conversant with the present attitude of doctors, and can feel safe in advising his victim to call in a doctor, should her condition demand it, with the almost certain knowledge that the matter will go no further.

"We believe that the general public, and perhaps most doctors, do not realise the extent to which the abortionist is able to benefit by the inactivity of the medical profession in this matter."

The reservation quotes the attitude of Parliament in rejecting the Medical Practitioners' Communications (Privilege) Bill, which sought to provide that certain communications between medical practitioners and their patients should be privileged from disclosure, together with the dictum of Avory, J., in a charge to a Grand Jury at Birmingham, in December 1914, in a case in which a woman had been committed for trial on a charge of murder, following the death of another woman from an illegal operation. The woman upon whom the operation had been performed had been attended by three medical men, to one of whom she had communicated, under secrecy, the name of the abortionist; but no information was given to the police or the authorities. The learned Judge said in the course of his charge:

"Under circumstances like those in the present case, I cannot doubt it is the duty of the medical man to communicate with the Police, or with the authorities. . . . No one would wish to see disturbed the confidential relation which exists, and which must exist, between the medical man and his patient in order that the medical man may properly discharge his duty towards that patient: but there are cases, of which it bears to me that this was one, where the duty to preserve that confidence must be subordinated to the duty which is cast upon every good man to assist in the investigation of a serious crime."

The importance of the assistance which doctors can render to the Police in such cases as this should, in the view of the committee, be kept constantly in mind by medical practitioners. It is clear that, whether or not information has been volunteered before proceedings are instituted, it is established that in a court of law there is no privilege entitling a doctor to refuse to give in evidence statements made to him by a patient, however confidential the communication may be.

The law relating to criminal abortion is found in Sections 58 and 59 of the Offences against the Persons Act, 1861. By Section 58:

Every woman, being with child, who, with intent to procure her own miscarriage, shall unlawfully administer to herself any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever with the like intent, and whosoever, with intent to procure the miscarriage of any woman, whether she be or be not with child, shall unlawfully administer to her or cause to be taken by her any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever with the like intent, shall be guilty of felony, and being convicted thereof shall be liable . . . to be kept in penal servitude for life. . . .

The recent case of *R. v. Bourne* has already been discussed in THE POLICE JOURNAL,* and need not be repeated here. The law was strengthened somewhat by the Infant Life (Preservation) Act, 1929, and *R. v. Bourne* has clarified the position with regard to the position of medical practitioners who induce an abortion when that course is necessary to save or preserve the mother's life.

The prohibition of the sale and supply of drugs and instruments known to be intended for the purpose of procuring criminal abortions is stated in Section 59:

Whoever shall unlawfully supply or procure any poison or other noxious thing or any instrument or thing whatsoever, knowing that the same is intended to be unlawfully used or employed with intent to procure the miscarriage of any woman, whether she be or be not with child, shall be guilty of a misdemeanour, and being convicted thereof shall be liable . . . to be kept in penal servitude. . . .

* *The Police Journal* (1938) Vol. XI, p. 398

This law has also recently been strengthened by the application of the Poisons and Pharmacy Act, 1933, to place restrictions upon the sale of poisonous drugs which are widely reputed to be effective for procuring abortions. The ease with which abortionists, of all types, have been able to acquire both drugs and instruments, and "noxious things," contributes greatly to the difficulties of the Police. Many of them are, of course, falsely described when they are referred to as abortifacient drugs, and naturally are not so described by those who market and vend them to that section of the public which is willing to use any ready means to terminate or prevent pregnancy. Several attempts have already been made to promote legislation. The latest was the Medicines and Surgical Appliances (Advertisement) Bill of 1936, which included a provision making it an offence (subject to certain savings) in connection with the sale or supply, or offer of sale or supply, of a medicine or surgical appliance, or in connection with the administration of, or offer to administer, any treatment, by any method of advertisement to hold it out, whether directly or by implication, as being effective for (among other things) the cure of amenorrhœa, or for procuring the miscarriage of women. The committee recommend that legislation on these lines should be promoted. It is true that such a measure would not solve the whole of the problem; but it would tend to check the gravest abuses, and if combined with educational measures would undoubtedly strengthen the arm of the law in its effort to deal with this crime. In abortion, unlike many crimes to-day, ignorance has quite a large place.

The inclusion of a brief description of the law on abortion in foreign countries is a valuable feature of the report. While the degrees of restriction vary, apparently no country permits induced abortion at the will of the woman. Generally, as now is the case in this country, abortion is legalised on the medical grounds that continuance of pregnancy is likely to endanger the life, or seriously impair the health, of the woman. In Russia, between 1920 and 1926, pregnancy could lawfully be terminated by a medical practitioner in hospital at the woman's request, provided that the operation was performed during the first two and a half months of pregnancy. This was generally

discouraged in the case of first pregnancies, and there appears to have been a requirement that no abortion might be induced earlier than six months after a previous abortion. The law was rescinded in 1936, and abortion is now lawful in Russia only if life or health are endangered, or when a serious disease of the parents is likely to be inherited. All operations to induce abortion on these grounds must be performed in hospital, and heavy penalties are prescribed for unqualified persons performing and women undergoing criminal abortion.

In a number of countries, including Germany, the additional grounds of eugenics have crept into the law which authorises abortion. Under the Germanic Law for the Prevention of Hereditary Disease in Posterity, 1933, as subsequently amended, the procuring of abortion by a medical practitioner for eugenic reasons is permitted in certain circumstances, with the woman's consent; and the induction of abortion (as well as sterilisation) with a woman's consent is also permitted for the purpose of averting a serious danger to her life or health. The procedure laid down requires that, except in cases where delay would be dangerous, application must be made to a court of medical referees, whose services are given, and the operation must be performed in hospital, unless the patient is too ill to be removed, by an independent practitioner. In Germany, all abortions, spontaneous and induced, must be notified to the medical officer of health. Under Article 219 of the German Penal Code, the advertisement or display of instruments or other means of procuring abortion is a crime rendering the offender liable to a term of imprisonment not exceeding two years, or a fine, subject to certain savings in favour of doctors and chemists.

In Denmark, a recent enactment (the commencement of which has been postponed to October 1st, 1939) legalises abortion if the operation is necessary to avert serious danger to the woman's life or health, or if pregnancy is the result of a criminal offence, including rape and incest, provided in regard to certain offences that the crime has been notified to the Police and that the Police, after investigation, have not rejected the report as incorrect. A further legal ground in Danish law for inducing abortion is where there is obvious danger that the

child will inherit insanity, mental deficiency, other serious mental disturbances, epilepsy, or serious and incurable physical disease. Sweden has a similarly newly enacted law on the subject, which came into operation in January 1939.

Birth control is practised to-day in every class of society, not least by educated people with a sense of social responsibility. The means and variety of contraceptives is widespread, but it cannot be said that the control over their manufacture, and the restrictions upon their sale to the public, are wisely ordered. The committee discuss the various aspects of this problem, and observe that:

"If a perfectly reliable contraceptive which was harmless to the user and simple to use was at present available, and if the wider issues could be disregarded, the spread of birth control knowledge and of the facilities for obtaining contraceptive advice would be an obvious solution of the problem of criminal abortion. But the matter is not so simple."

The committee, however, is not prepared to recommend that the public health services should be utilised for the unrestricted dissemination of birth control advice. Such advice should, it is said, be reserved for those married women to whose health pregnancy would be detrimental, and the medical grounds should not be limited by too narrow an interpretation.

The problem of criminal abortion cannot be left without consideration of the social and economic background, and the chapter devoted to this aspect merits close attention by all concerned in social work. Public enlightenment in the nature and consequences of criminal abortion, and its prevalence, particularly in some police districts, is seriously needed. Social workers can, of course, make a valuable contribution in the sphere of education, which in this instance cannot be delegated to the Police but must be shouldered with diligence and judgment by those responsible for the health of the community and by all concerned for the future of the race.

A Modern Raffles

By DETECTIVE-LIEUTENANT J. WESTLAND

Officer in charge of Criminal Investigation Department,
City of Aberdeen Police.

ONE whom for the purposes of this article I shall call Raffles, was born in Aberdeen on January 24th, 1902. His father was a baker in the employment of one of the principal bakery firms in the City, while his mother also came of working-class stock. Throughout his childhood he resided with his parents in various working class dwellings, and attended Council schools until 14 years of age. On leaving school, he was employed as a message boy and handyman, first at a drug store and then at a shipbuilding firm in the City.

While in the latter employment, Raffles made his introduction to crime in a rather novel and unpremeditated way. One night, when almost 17 years of age, he followed two young ladies to their home in the west end of the City. These maidens were rather renowned for their beauty, and it is possible that Raffles, in the exuberance of youth, derived some satisfaction from merely looking at them and, consequently, when they entered their home he lay in wait in the grounds of the house, hoping, no doubt, to get one last look at the girls before they retired for the evening. Eagerness eventually overcame discretion to such an extent that he climbed a rain pipe to one of the bedrooms on the first floor of the house, entered by the window, and there found some trinkets which, in legal parlance, "he forthwith appropriated to his own use."

Shortly afterwards Raffles enlisted, when 17 years of age, in the 2nd Battalion Gordon Highlanders at Aberdeen, his first and, for some considerable time, his only deviation from the path of righteousness being recorded in the City Police records as an undetected crime. He served in this regiment from 1919 until 1926, and gained from his Commanding

Officer a testimonial to the effect that he was "A splendid soldier, of sterling quality, and a loss to the regiment."

In 1919, Raffles, Senior, died, and in 1926, when the son returned to his home at Holburn Street, Aberdeen, he found his mother in failing health and his 17 years old sister, Winifred, doing her best to support the widow on the meagre wages of a shop assistant.

Like many others, Raffles, who had no trade or profession, found difficulty in persuading employers that he was a man worthy of their consideration, and remembering no doubt the success of his first venture in housebreaking, he embarked, soon after his discharge from the Army, on a career of crime confined to the City of Aberdeen, and, as hereinafter related, succeeded in avoiding detection until July 5th, 1939.

With the exception of three occasions, when he broke into shops in 1926, all his efforts were directed against houses situated in the West End.

Initially, his method of entry was by insecure windows, but after a few months at his newly acquired "trade" he purchased a pair of surgical pliers, and with these he frequently succeeded in turning, from the outside of a locked door, the key when left on the inner side of the lock, or pushing it out of the lock and drawing it out under the door on a piece of paper previously pushed under the door to receive the key as it fell. Frequently, he took impressions of keys so obtained, and from these made duplicates and skeletons which he used on a return visit to the premises several weeks or months later.

His thefts from the houses he visited were confined to money and gold in whatever form, and if by chance he found nothing of this nature on his first visit, he left everything undisturbed in the house, hoping that the residents would be unaware of his call and that on some future date they might be careless enough to leave something sufficient to reimburse him for the trouble of a second nocturnal inspection. All articles of gold which he stole found their way to Jewish bullion buyers who visited the City from time to time, and on no occasion did he sell such articles to local dealers.

During the winter of 1926-7, Raffles, flushed with the success of many housebreaking ventures, began to apply his

mind to the question of how best to continue committing these crimes without leaving any traces. There is little doubt that his study of this question continued until he ceased to operate, towards the end of 1935. It seems perfectly clear also that from each individual crime he learned something which aided him in perfecting the commission of the next.

In addition to spying out, for several weeks in advance, the lie of the land at the houses he intended to burgle, he kept his eye religiously on the social columns in the local press. There he gleaned information about forthcoming social functions to be held by different business houses. He then went to the Public Library where, from the Post Office Directory, he obtained the names and addresses of the principals of the firm in question; his next step was to the Voters' Roll where he obtained a list of the adult residents in each residence. A visit to the grounds of these houses and he had decided which, if any, was the most suitable for his attention, and on the night in question he lay in wait watching for the residents to leave for the function. He counted these people as they left and, frequently, after the master of the house and his family had departed, he found that the maids also vacated the premises and, if they made up the total as shown in the Voters' Roll, he concluded that the house was now empty of all but dogs, cats, rats, mice, and little children (as he himself expressed it), none of which troubled him at all in the execution of his depredations.

Round about this time, Raffles read in the *News of the World* that a man named "Gimlet Jimmy" was convicted and sentenced to penal servitude for housebreaking committed in the Manchester district, and that his method of entry was to bore a hole in the window sash, push a wire through the hole and with it pull off the window snib. The account of the *modus operandi* in the press paragraph was no more detailed than is given here, but Raffles pondered over the idea and experimented with it. He obtained a brewer's gimlet and with it bored a hole, slightly more than $\frac{1}{4}$ of an inch in diameter, under the bottom sash of the top half of the window near the snib. He then pushed the looped end of a flexible wire, or sometimes a fiddle string, through the hole. One end of the

wire was held and the other he fed through the hole, causing the loop to increase in size inside the window. Eventually gravity brought the loop down to the snib level, and delicate manipulation of both ends enabled him to pass the loop over the knob of the snib, after which he carefully pulled the loop taut, and then pulled on both ends and brought the snib back to the off position.

Several of his housebreakings were committed in this manner before he realised that there was still room for improvement. His aim was to leave no traces and, consequently, he substituted an $\frac{1}{8}$ -inch diameter gimlet for the $\frac{1}{4}$ -inch one and, after opening the window, he filled up the $\frac{1}{8}$ -inch hole in the window sash with chewing gum, both outside and inside, and dirtied the gum over with earth, thus covering up the means of access from the eyes of all but extra-vigilant policemen. Later still, he went a step further and pinned up a piece of paper with drawing pins under the sash before he bored the hole, thus catching the sawdust as it fell during the operation. Any sawdust on the inside was also carefully swept into the paper and the whole burned at the first available opportunity—in the house itself immediately after entering if a fire was burning.

As his work was carried out mostly in darkness, he procured a small piece of rubber tube, about $1\frac{1}{2}$ inches long by $\frac{1}{4}$ of an inch in diameter. This he slipped over the bulb of his torch, giving him a pin-point ray of light with which to cover the window snib as he worked on it. The torch he held between his teeth as both hands were engaged in manipulating the wire.

The drawing pins, wire, rubber tube, gimlet, fiddle string, and torch comprised the sum total of his housebreaking kit. He avoided carrying unnecessary tools as he would the plague. On his way to and from the scene of crime, he carried the gimlet behind the lapel of his jacket, the torch in one pocket and the rubber tube in another, so that in the event of their being found on his person they would not be associated in the mind of the finder. The drawing pins were in still another pocket, while the wire was wound round the leather band inside his hat.

On one occasion when burgling a house while the residents were having a party downstairs, he found it necessary to cross a hard floor landing from one bedroom to another, and, in order to deaden the sound of his footfalls, he used two sanitary pads from the stock kept by the lady of the house in her bedroom chest of drawers—a novel use for such intimate articles—and one, no doubt, to bring a blush to the cheeks of even the most sophisticated of the gentler sex. Even from this callous caper he learned a lesson, and forthwith he procured extra-long socks which, when the occasion warranted, he pulled down over the soles of his shoes to deaden his footfalls.

Raffles never, at any time, knowingly associated with a thief, was never in prison, Borstal, or approved school, and yet, when searching a chest of drawers, he started from the bottom and worked upwards, "according to Hoyle," in order to minimise the noise and save time.

The height of his genius was, in my opinion, his practice of preparing his person for the crime. His housebreakings were invariably committed between 6 and 10 p.m., and about 5 p.m. on the night on which he had decided to "do a particular job" he entered his bedroom, stripped himself to the skin, and as he re-dressed he examined each article of clothing with meticulous care to see that no buttons were loose, that no tears existed, and that nothing except his gimlet, torch, rubber tube, wire, glass phial with drawing pins, and piece of old paper, was in his pockets. After the crime was completed, and on his return home, he undressed and again examined each article of clothing to check that everything was exactly as it had been before he set out. If by chance a button was lost, or a tear made in his clothing, it was his intention to retrace his steps in an endeavour to recover the button or the piece of torn clothing, but on no occasion did he find this necessary.

Raffles studied the weather also. He avoided moonlight nights and loved wind, as it stifled any noise he might make. His first concern, after entering a house, was always to make sure that the way was clear for a quick exit.

His hiding places for stolen property were varied, and intelligently thought out, and one in particular, namely the roller window blind for money notes, is worthy of mention.

He pulled the blind down and, as he rolled it up again, he fed the notes into the roll. This idea, he says, he got from a crime film many years ago. He was a prolific reader of crime stories and, like most criminals, was overwhelmingly vain.

During the period 1928 to 1933, Raffles, a bachelor, became very intimate with a local lady of easy virtue, and the extent of his raids on the property of others may be approximately assessed from the fact that he regularly paid this woman a monthly gratuity of £16, in addition to lavishing expensive presents on her. He planned his campaign against Society on the assumption that "He travels far who travels alone"; but it was while resting in the arms of this harlot and while in a communicative mood that he unfolded for the first time an account of his depredations. Not until July 1939, however, did the prostitute betray his confidence, and even then only in part. In a teasing mood she taunted a police officer about the inability of the Police Force to bring to book the man who had, for a number of years, committed different crimes, the *modus operandi* of which she very accurately described. Neither money nor threats would induce her to divulge this person's name, but, fortunately for law and order, she unwittingly gave too much detail, with the result that Raffles was apprehended on July 5th, and ultimately, when charged with two of these crimes, he admitted them.

Few, if any, criminals may claim infallibility in all their operations and this man proved no exception; yet how near to perfection he came we can only hazard a guess. To the downfall of this self-styled "Modern Raffles" we can but attribute the age-old adage "*Cherchez la femme*."

"As a jewel of gold in a swine's snout, so is a fair woman who is without discretion."

An Interesting Scientific Case

By SUPERINTENDENT N. W. GOODCHILD

Oxford City Police

A RECENT case of school breaking at Oxford illustrates again how useful the laboratory can be to the detective and affords an excellent example of the completeness of the evidence which scientific aids can sometimes produce.

The caretaker of a large secondary school in the city arrived at the school at 6 a.m. on the 20th January and found that during the night the premises had been broken into. The school is approached via a lane and is surrounded on three sides by the playing fields. Around the buildings are a number of flower beds in which sand had been mixed with the original heavy clay soil.

The window of a lavatory had been levered from its hinges and was lying on the ground. Inside the school offices a safe had been carried away from a room at the front and was found in a vestibule with the back ripped off. The sum of seven pounds, made up of five £1 notes, silver and copper, had been stolen.

The caretaker telephoned to the Central Police Station, and whilst detective officers went to the school other officers made a search of the city for possible suspects. One officer found two men waiting in the coach station. They had no luggage and said that they were waiting for a coach to London, having come to Oxford to visit a friend. The officer was not satisfied with their replies to his questions and detained them. Between them they had a little over seven pounds in money, including five £1 notes. They gave a vague account of their movements during the night, and this was obviously false although they adhered to the story. One of them had a cheap torch without a battery. Later a set of housebreaking tools, including powerful jemmies, was found in a field adjoining the school, but whilst one of the jemmies fitted the marks on the

AN INTERESTING SCIENTIFIC CASE 505

window which had been forced there was no evidence to connect the suspects with the tools.

The clothing, including boots, of the suspects was taken from them, and each item packed and sealed separately.

In the meantime a careful examination of the premises had been made. On the stone window-sill of the lavatory a bunch of fibres was found. These were removed and sealed. Inside the lavatory a splinter of wood from the window frame was found, and this also had a bunch of fibres adhering to it. This too was separately packed.

No fingerprints could be found.

It was noticed that the safe ballast was in two groups, the top packing being light coloured and that at the side being much darker. Samples of each kind were taken.

The outside of the safe was painted dark green over a pink undercoat. The inner lining was painted light green directly on the metal. Scrapings of each kind of paint were taken and sealed.

Finally, samples of the soil from the lane, the playing fields, flower beds, and the field where the tools had been found, were taken.

The whole of the exhibits were taken to the West Midland Forensic Science Laboratory at Birmingham.

The fibres from outside the lavatory window-sill were found to consist of 13 wool fibres, each of a different colour, and two cotton fibres of different colours. These were found to be identical with fibres from the jacket of the first suspect. A similar result was obtained on examination of the fibres on the splinter of wood.

Soil present on the boots of both suspects was compared with the samples of soil taken from the flower bed and fields; it was found to be similar in structure and character. Further, two microscopic plants—one somewhat unusual—which occurred on the surface of the soil were present in the soil on the boots of both suspects. There was also on the boots of one of the suspects a small quantity of heavy clay soil similar to that in the lane.

The splinter of wood with fibres adhering to it which was found on the floor of the lavatory was found to consist of teak,

and a splinter of teak of similar colouring was found in the trousers' turn-up of the clothing of the first suspect. From the trousers' pockets and turn-up of this man were extracted fragments of beech, spruce, Scots pine and boxwood. The packing ballast from the side of the safe was found to contain the first three, and that from the top of the safe was found to contain the fourth.

From the trousers and trousers turn-ups of the second suspect fragments of beech, spruce, and Scots pine were extracted.

The dust was extracted from the clothing of both suspects. In the dust from the pockets and trousers' turn-ups of the first suspect there were found numerous particles of light green paint and also of dark green paint with a pink under-coating.

Similar particles of both kinds of paint were found in the dust from the trousers, trousers turn-ups and coat pockets of the second suspect, whilst particles of light green paint were recovered from his trousers pockets.

The two varieties of paint recovered from the clothing of both suspects was subject to tests and found to be identical in colour and chemical composition with the samples of paint which had been taken from the safe.

There was thus abundant evidence upon which to charge the two suspects, in the one case the contact being established both ways by fibres from the clothing being found at the scene of crime whilst material from the scene of crime was found on the clothing of the suspect, and in the other case the contact being established only one way but by a combination of materials which could leave no room for doubt.

Charged at Quarter Sessions, both men pleaded guilty and were sent to prison.

No charge could have been preferred without the aid of the laboratory, since the two prisoners were never seen nearer than two miles from the scene of the crime, nothing identifiable had been stolen, and neither would admit being implicated until overwhelming evidence had been found against them.

The Gussage Murder

By DETECTIVE-SERGEANT FRANK ELMES

Dorset Constabulary

THAT "murder will out" is no doubt a fallacy perpetuated in this country by the similar, but by no means identical, fact that when murder does out it seldom escapes detection.

Perhaps the most amazing feature of the Gussage murder case was that in a small village of some 160 souls an empty grave in a plantation was discovered, a woman disappeared, the grave found to have been filled in, and yet a month was allowed to pass before anything was done to connect these sinister events. Whispering there was in plenty, stealthy hints passed from one villager to another, but not one word was said to a person in authority. One wonders whether, in view of the struggle truth had to reach the light in this case, there are not many unrevealed cases especially in the towns, where life is more complex and relations with one's neighbours more impersonal.

Gussage St. Michael's is a "truly rural" village in North East Dorset, and in 1913 it was almost completely isolated. The nearest railway station was seven miles away, and the main link with the rest of the world was a motor-bus which ran to Blandford and Dorchester twice a week.

This remote village was squired by a family named Good, of whom there were three sisters and two brothers. These people employed a number of the villagers on their farm, Manor Farm, and among their employees was William Walter Burton, age 29, whose job it was to trap rabbits and do odd jobs about the house and farm. Burton was married to a highly respectable woman twelve years older than himself, and there was one child, a boy aged five. Mrs. Burton was post-mistress and school-teacher, so that the standard of living of the Burtons was higher than that of the ordinary farm-labourer's family.

The marriage was reasonably happy, but Burton had a very bad reputation as a "lady's man." Unconfirmed

stories of liaisons with the servants employed in the Good household were heard, and it is alleged that at least one of these affairs was attended by tragedy prior to the events which led up to the murder.

Winifred Mary Mitchell was 24 years old, and a native of Manswood, a hamlet eight miles from Wimborne and quite near Gussage. She was a domestic servant, and in October 1912 she obtained a situation as cook at Manor Farm, Gussage. Mitchell's mother had endeavoured to persuade her not to accept employment at Manor Farm, mainly because of the stories connecting Burton with previous servants there. The girl, however, was high spirited and independent, and she rejected her mother's advice with "I'm old enough to look after myself." Her self-confidence, had she but known it, thus assured her untimely death.

Mitchell had not been at Manor Farm long before Burton was telling his men friends that he intended to "find out what she was made of." There seems to be little doubt that for a time Mitchell avoided misconducting herself with him—notes written by Burton and kept by Mitchell record more or less the progress of his efforts to seduce her—but it is probable that by January 1913 intimacy between them had commenced. Burton was the type of man who likes to boast of his conquests, and he told a number of his acquaintances of his success with Mitchell, and was not above making coarse jests at her expense.

From January onwards the affair developed rapidly. It would appear that Burton was contemplating running off with the girl, and he tried to get money from money-lenders in sufficient quantity to get to Canada. In this he failed, and all he did succeed in getting was £5, but even for this meagre amount he was obliged to get his wife's signature in addition to his own. He did this by telling her that he was thinking of taking a small-holding and needed the money by him. In actual fact he settled debts contracted at Blandford for clothes and cheap jewellery given by him to Winifred Mitchell, and he quite unashamedly left the responsibility of paying off capital and interest to his wife.

However, an elopement had become out of the question

as far as Burton was concerned. It is thought that he believed the girl to be pregnant, or it may be that she was pressing him to take her away and becoming a nuisance, but whatever the way of it, Burton's failure to raise money was doubtless responsible for the murder. He was unable to run off with her and thus it was necessary to seek another way out.

In March 1913 both Mitchell and Burton had mumps. They kept in touch by means of notes delivered through the agency of the housemaid, in whom Mitchell had confided the intention of the pair to elope. On the 27th March, Mitchell had recovered and was working in the kitchen when her mother paid her a visit. Mitchell took the opportunity to tell her mother that she was leaving the Goods and taking service in London. Questioned by her mother she was very vague as to how she had obtained the situation, and she expressed her intention of leaving the Goods without notice. Very helpful preparation for a "disappearance" and quite possibly prompted by Burton himself.

That same day Burton told one of his cronies, a man named Butt, that the girl wanted him (Burton) to go away with her, that he had promised to do so but had not thought she wanted to go so quickly. According to his story Mitchell had received a letter which had caused her to make up her mind to get away at once, but here Burton was in a difficulty because he had not sufficient money for the project. Butt strongly advised Burton against an elopement, but the ground had been prepared for Mitchell's disappearance.

On the 28th March, Mitchell wrote to her mother asking her to collect some articles from Manor Farm which she, Mitchell, would not be wanting as she was going away. On the afternoon of the 29th March Burton had persuaded her to go to the top of a nearby hill, adjoining a small wood known as Sovel Plantation, for the purpose presumably of arranging details with "a man with a motor-car" of the forthcoming elopement. As it turned out Mitchell did not go; it was raining very heavily indeed and there was some difficulty in obtaining permission to leave the house, and there is no doubt that this added two days to her life and also contributed to Burton's downfall.

The 30th March was a Sunday and Mitchell went to visit her mother at Manswood, but could still give no details of the new situation she was taking. Her mother was not a little worried at her daughter's reticence, worry which was more than justified when it turned out that this was the last occasion on which she was to see her daughter alive. On that afternoon and while this last visit was being made, two youths picking primroses in Sovel Plantation found a freshly dug hole, shaped like a grave. They were so intrigued by this macabre likeness that they even took measurements of the hole and afterwards spoke in the village of their find.

Monday, 31st March, 1913, was Winifred Mitchell's last day of life. In the afternoon she asked permission to go out, dressed herself in her best clothes, and left Manor Farm on her bicycle just before four o'clock, at which time she told the housemaid she had to be "on the hill." Mitchell apparently was a little uneasy about this conference with Burton and the man with the motor-car, and she told the housemaid "If I'm not back at a quarter past four, you will know something has happened to me." Mitchell never returned to Manor Farm and she was only once again seen alive, at about 4 p.m. when she was in the road near Sovel Plantation talking to Burton.

Earlier in the afternoon Burton had borrowed a gun and three cartridges, as he said he wanted to kill a cat, and there is no doubt that he lured Mitchell into the plantation, shot her, and buried her in the already prepared grave. Later in the day he returned the gun and two cartridges and, with almost incredible stupidity, the same evening he persuaded a man named Boyt to walk with him to Manswood, taking with them Mitchell's bicycle which they left outside her home. They returned to Gussage without having been seen by a single person.

So Winifred Mitchell was missing. The housemaid was not alarmed as she thought Mitchell had gone off to some place, there to wait for Burton to join her. Mitchell's mother, perturbed by the mysterious appearance of her daughter's bicycle outside the house, and notwithstanding the fact that Mitchell had threatened to run off to a new situation,

reported the girl's disappearance to the constable on whose beat Manswood lay. He in turn reported to his superior, but not a great deal of notice was taken of the incident because of the ready-made explanation contained in the girl's avowed intention of leaving Manor Farm. No one sent word to or spoke of the disappearance to the constable supervising Gussage, and he actually did not hear of it until a month had elapsed and the whole thing was dragged into the light.

Whisperings were plentiful in Gussage; round and round went the story of the open grave, afterwards found filled in, and of the borrowed gun and the cat no one saw killed, and a number of curious folk walked through Sovel Plantation to see if anything else of interest was discoverable. On the 6th April, George Gillingham, a dairyman, picked up three false teeth, doubtless at the very spot where the girl was killed. He took them home and placed them on the mantelshelf, where they remained until the 29th April, when the Rector's wife, having heard of the existence of the teeth, went first to Gillingham to confirm the rumour and then to her husband, whom she induced to report the whole matter to the local constable.

At last things began to move. The constable, with his sergeant, made some preliminary enquiries, and what they learned was sufficient to justify an organised search of Sovel Plantation. On May 2nd a searcher's probe met some resisting material, and a few minutes' digging revealed the body of Winifred Mitchell. It was only too obvious that she had been shot at fairly close quarters from behind.

Burton was arrested, but the task of the police was only just begun. There was a general reluctance on the part of the villagers to tell all they knew, but gradually this was broken down and a complete case against Burton was pieced together. As an example of this reticence (which, by the way, is quite typical of the rustic's reaction to unpleasant incidents of this kind—it was very pronounced in the Kennels' murder and, to a lesser degree, the recent Bryant murder) it is worthy of note that the eminently important evidence of Boyt, the man Burton selected as companion when he

took the dead girl's bicycle to Manswood, was not forthcoming until a fortnight after the finding of the body and then only came out more or less by accident. The investigating officers thought that much of the trouble was due to fear of Burton, who wrote letter after letter from prison to potential witnesses telling them what to say, reminding them of this incident and that incident, all favourable to his story.

However, with the accumulative power of a snowball the case for the prosecution gathered weight, and on the 4th June, 1913, Burton was duly convicted of murder.

There was no appeal against verdict and on the 24th June, 1913, the legal penalty was exacted. Before this took place Burton confessed to the crime, became reconciled to his wife and, as he firmly believed when he went to the scaffold, forgiven by his God. William Walter Burton was the last man to be hanged in Dorchester Prison.

Police Gold Medal Essay Competition

Subject of the Essay for 1939

"Discuss the Psychological Aspects of Crime and Punishment"

Essays must be submitted on or before 1st November, 1939, to:—

THE SECRETARY OF THE COUNCIL OF THE POLICE GOLD MEDAL ESSAY COMPETITION, HOME OFFICE, WHITEHALL, LONDON, S.W.1.

Essays must be the original work of the competitor, 7,000 to 11,000 words in length, typewritten and submitted in triplicate and anonymously. A sealed envelope bearing on outside a *nom de plume* or motto, and containing the competitor's name and address, must accompany the essay. (For full particulars see THE POLICE JOURNAL, April number, p. 256.)



3L
Y: 4: 61 m 2, N28
N 28.12