

1144

1144

REGD: No. 9 M. 429.

NOVEMBER, 1933.

Vol. XXX. No. 11

The Antiseptic

A MONTHLY MEDICAL JOURNAL

Edited by

DR. U. RAMA RAU & U. KRISHNA RAU. M.B., B.S.

CONTENTS.

PAGE.

Original Articles:—

AURICULAR FIBRILLATION. By B. G. Mallya, M. D., F.R.C.S.E., L.R.C.P. (Lond.), Major I.M.S.	893
FEVER OF REMITTENT TYPE. By T. D. Mukherjee, M.B.	895
CHOLERA ASIATICA. By J. N. GHOSAL, L.M.S.	901
A SHORT NOTE ON THE TREATMENT OF ANÆMIA BY INTENSIVE DOSE OF FERRIC AMON CITRAS. By I. M. Dutta L.M.F.	911
HEMATURIA. By Dr. R. P. Saxena.	918
DEPARTMENT OF ANATOMY of the GOVERNMENT MEDICAL COLLEGE, VIZAGAPATAM, Affiliated to the ANDHRA UNIVERSITY. By R. Krishna Rau, F.R.C.S.E., L.R.C.P.	933

Cases and Comments:—

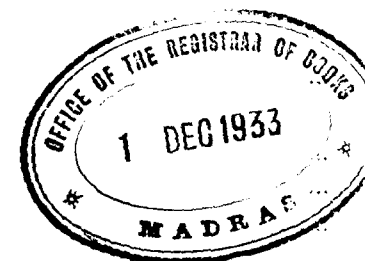
TABES DORSALIS IN TWO CASES IN SIMLA HILLS. By S. N. Malhotra, M.B., F.C.P.S.	939
AN INTERESTING CASE OF HERNIA. By Ramachandra Rau, L.M.P.	940
AN INTERESTING CASE OF EXTENSIVE SURGICAL EMPHYSEMA. By K. Gopalan, L.M.P.	942
A FEW KALA-AZAR CASES TREATED WITH NEO-STIBOSAN AND A FEW WITH UREA STIBAMINE AND THEIR RESULT. By Asvini Kumar Paul.	943

Editorial:—

OUR KNOWLEDGE OF CANCER	945
-------------------------	-----

Gleanings from Medical Press:—

SURGERY	949
OPHTHALMOLOGY	952
MEDICINE	954
Notice	956



Editorial & Publishing Offices: 323, Thambu Chetty St. G. T., Madras.

Subscription Rs. 5, Foreign 10 sh. a year. Post Paid. Single Copy As. 12. In advance.

Index to Contents See page 1; Index to Advertisements, page 6.

When other medicines fail, Dr. PUROHIT'S SHWASHARI demand trial.
It is a liquid preparation containing the most powerful drugs on
ASTHMA AND OTHER LUNG DISEASES.

Principal Contents.

EXT. PANAMA BARK.	AMMON CARB.
" GRINDELIA LEAVES.	ADHOTODA VASAKA.
" CROTON ELUTERIA.	POT. IODIDE.
" CORIANDER FRUIT.	EUPHORBIA.
" SENNA LEAVES.	DR. PUROHIT'S BLOOD TONIC.
" CARAWAY FRUIT	

Dr. Purohit's Shwashari
for Asthma & Ch. Bronchitis

Sample & Literature
 free on request
 to Dr.
 Purohit's Pharmacy
 Kothapur.

Bombay Stockist:—The Oriental Medical Stores, Princess Street.
Madras " Sri Krishnan Bros., Thambu Chetty Street.
 Sold in 3 oz, 6 oz, 12 oz. bottles by all chemists.

**For INCIPIENT PHTHISIS, TUBERCULOSIS,
 LUNG TROUBLES, HACKING COUGH,
 STIMULATING APPETITE,
 REDUCING FEVER,
 INCREASING BODY WEIGHT**

SIROP 'THIO-CALCIN'

Fluid Ounce Represents

Pot. Sulphate	grs. 20
Calcium Phosphate	" 20
" Lact. Phosphate	" 10
Glycerine	minims. 120
Syrups	Q. S.
Aromatics	Q. S.

In Bottles of 50 doses

Available at all Chemists or from

The Chief Distributors: Messrs. DADHA & CO., P. T. MADRAS.

1933] THE ANTISEPTIC

INDEX TO CONTENTS.

Anemias Reclassification of	954
Cardio Vascular Disease in relation to the R-tina	953
Diathermy in Ophthalmology	952
Surgical Errors Common	949

OFFICE OF THE REGISTRAR OF COMPANIES
 1 DEC 1933
 MADRAS

Awarded Medals and Certificates in
 The Indian National Congress Exhibitions.

BEST BLOOD PURIFIER
DR. Waman Gopal's IODIZED Sarsaparilla

It acts like a magic specially on all stages of syphilis. It is also useful in all skin diseases. It is a very efficacious remedial agent in all the complaints arising from impure blood.

Price Rs. 1-4 per bottle, V. P. Extra.

Stockists:
Damodar & Co., Madras
 and other Stockists.

ZEAL'S
CLINICAL THERMOMETERS
THE REPELLO (REGD.)
 A 30-second pushed back in an instant.

GUARANTEED ACCURATE

NO SHAKING DOWN REQUIRED!

NEW IMPROVED LENS FINDER
 THE ORIGINAL AND RELIABLE MAGNIFYING CLINICAL ON THE MARKET

IN FOCUS

OUT OF FOCUS

REGISTERED TRADE MARK

THE SQUARE MARK ENGRAVED ON THE LENS FRONT LOCATES THE MERCURY COLUMN IMMEDIATELY
BEWARE OF IMITATIONS

REGISTERED TRADE MARK

G. H. Zeal Ltd., 77, St. John Street, London, Eng.
 WHOLESALE MANUFACTURER OF CLINICAL THERMOMETERS, HYDROMETERS ETC.
 Established 1888 Cables, Zeal-dom Smith, London

When writing to advertisers, please mention the "Antiseptic."

"GARDENAL"
REGISTERED TRADE MARK.

FOR THE ROUTINE TREATMENT OF EPILEPSY.

"GARDENAL" is a completely reliable, non-narcotic hypnotic of unvarying therapeutic efficiency. It is a highly efficient sedative in epilepsy, and is widely employed in other nervous disorders such as chorea, migraine, eclampsia, neurasthenia, pertussis etc.

*Supplied in powder and tablet form
Further information obtainable from*

MAY & BAKER (INDIA) LIMITED.

Head Office: 3, Mangoe Lane.
Branches: BOMBAY, CALCUTTA, MADRAS, RANGOON, KARACHI.

IRVO

Irvo is not a secret medicine. The idea originated by reading Nighantu, origin of Codliver Oil and lastly the uses of Ultra Violet rays. Doctors are convinced now that Irvo is extremely useful in place of codliver oil and also many Nerve diseases, probably by removing Intestinal Toxemias, or helping absorption or by filling in a deficiency Vitamin. Every patient comes with a grateful relief and it is not psychological.

Liver Substance Desiccated.

From sheep or goat is prepared from raw material which is passed by Veterinary doctor as completely healthy. The drying is done in such a way that the full properties are available for treating Anemias and allied conditions.

For further particulars and other preparations please write to 'Irvo Laboratories,' Nagpur or

AMRUT PHARMACY, Princess Street, BOMBAY.

Syrup of Adulsa and NAGPHANI Co.

Contains 33% of fresh juice with Adulsa and Syp Tolu and an expectorant preservative. It does not contain morphine or codein or Dionin. Best remedy for WHOOPING Cough and dry coughs.

When writing to advertisers, please mention the "Antiseptic."

ERUGON

Organotherapy

Bayer Meister Lucius

BAYER

UNDEN

CAMPOLON

INSULIN

PROLAN

LACARNOL

PAOUTIN

ERUGON

Hormonal preparation of the male generative gland standardised by the capon comb method.

In all functional disturbances of the male generative gland, e.g., disturbances of potency and premature senile symptoms.

UNDEN

Standardized ovarian hormone.

For substitution therapy in deficiency or lack of follicle hormone.

PROLAN

Standardised anterior pituitary hormone according to Zondek.

The superior sexual hormone dominating both sexes. To activate sexual function in sexual hypoplasia.

For particulars and literature write to:

Bayer Meister Lucius

HAVERO TRADING CO., LTD.,

Pharmaceutical Dept., P.O. Box. 2122, 15, Clive Street, Calcutta.

When writing to advertisers, please mention the "Antiseptic."



Brand products are a series of medicinal Preparations unsurpassed in quality and which Have stood the test of time and experience To produce the best of clinical results.

B. R. B. COD LIVER OIL & MALT EXT. COMP.

A combination of Cod Liver oil, Malt Ext., Orange Juice, Fresh eggs & Ext. of Yeast. Best Nutritive tonic for Adults & reliable Body-BUILDER for Growing Children.

BLUPUROL.

(Blood Purifier)

Composed of IODIDE, SALICYLATE, FLUID EXT. of RED JAMAICA, SARSA, CHIRETTA, CINCHONA, TRIFOLIUM COMP., SENNAE, etc., etc.

Highly recommended by the Doctors in the treatment of IMPURE BLOOD, POOR APPETITE & in ELIMINATING IMPURITIES which undermine Health & which create Eruptions of the skin, Scurvy, Sores Ulcers, Ulcerated Legs, Piles, Gout, Rheumatism, Blackheads, Pimples of the face etc. etc.

EYESOL.

(Eye Drops.)

A rational treatment for relieving IRRITATION & STRAIN caused by the exposure to sun, wind & dust and as preventive of Boil-shot condition, Lack of Lustre & Tired feeling of the eyes?

RINGOSOL.

(Skin Lotion.)

Best for all skin troubles such as: RINGWORM, DHOBIES ITCH, WEEPING & DRY ECZEMA, etc. etc.

CAMPBOROL.

(Tablets No. 1)

Invaluable in and after WASTING DISEASES due to Self abuse, excesses, Functional impotency, Neurasthenia, Nervous Disorder, of Heart, Palpitation, Nervous indigestion & Neuralgia. An all Round Tonic for Ladies and Gents.

MALTEXOL.

(with Vitamines)

Contains Ext. of Fresh Cod Livers, Ext. of Malt, Ext. of Yeast, Nucleine, Glycerine, Hypophosphites & Liquorice. Highly recommended by competent Doctors for SCROFULA, RICKETS, ANAEMIA, MALNUTRITION & GENERAL WEAKNESS. Invaluable in the treatment of BOTTLE-FED INFANTS to promote General growth by Calcification of the Bones and to prevent malnutrition.

SPLEENOL.

(Spleen Mixture)

As a strengthener invaluable in imparting vigour to the system. As a perfect appetizer best in promoting a Healthy appetite & in giving tone to the digestive organs. As a General Tonic in convalescence after any illness.

ANTEXMOL.

(Skin Ointment)

A non poisonous preparation for use in the treatment of all ITCHING, INFLAMMATORY & VARIOUS OTHER AFFECTIONS of the SKIN.

Apply for Further Particulars, Illustrated Literatures to

Beli Ram & Bros., 304, Princess Street (West) BOMBAY, 2.

When writing to advertisers, please mention the "Antiseptic."



'Byno' Hypophosphites

An efficient Digestive, Tonic and Restorative
Invaluable in retarded convalescence and
asthenic conditions generally

In 'Byno' Hypophosphites are combined the tonic qualities of the Nux Vomica and Cinchona alkaloids, the restorative value of the mineral hypophosphites, and the nutritive and digestive powers of 'Bynin' Liquid Malt, which is the basis of the preparation.

'Byno' Hypophosphites has for long been prescribed with great success in convalescence after acute infections and following surgical operations; in nervous and mental conditions due to overstrain or exhaustion; as an adjunct in the treatment of tuberculosis; in asthenia of the aged, and in a diversity of conditions where a general tonic and digestive is indicated.

COMPOSITION

Calcium Hypophosphite 2 gr. Iron 1 gr. Nux Vomica Alkaloids 1 gr.
Potassium 1 gr. Manganese 1 gr. Equal to Strychnine 1/100 gr.
Sodium 1 gr. Cinchona Alkaloid 1 gr. 'Bynin' Liquid Malt 1 oz.

In bottles containing 10 oz., 20 oz. and 40 oz.

Further particulars will be sent on request.

Allen & Hanburys Ltd.
LONDON

Special Representative for India:
A. H. P. JENNINGS,
Block E, Clive Buildings,
CALCUTTA.

When writing to advertisers, please mention the "Antiseptic."

Index to Advertisers.

	PAGE.		PAGE.
Alembic Chemical Works Co., Ltd.	... 40	Jasani Dr. D. N.	... 53
Allen and Hanburys Ltd.	... 5, 24	Kushmol (The Asthmatics' delight)	... 43
Allen Stafford & Sons	... 55	Lactopeptine	... 28
Alibhoy Vallijee & Sons	... 14	Malaria Co.,	... 31
American Apothecaries Co.	... 14	Malgham Brothers	... 23
Amrut Pharmacy	... 2	Martin & Harris Ltd.	... 16
Angier's Emulsion	... 64	Martin H. Smith Co., N.Y.	... 17
Anglo-Siamese Corporation, Ltd.	... 53	May & Baker Ltd.	... 2, 51
Antiseptic	... 42	Merck E.	... 27, 54
Banerji P.	... 18	Mellin's Food	... 44
Beli Ram Bros.	... 4	Murty Dr. A. S.	... 13
Bengal Chemical and Pharmaceutical Works.	Inside of back cover	Nadkarni	... 28
Bisurated Magnesia	... 56	New Era Manufacturing Co.	... 11
Bombay Surgical Co.	... 34	New Formula Co.	... 58
Boots' Pure Drug Co., Ltd.	... 52	Paragon Products Co.	... 22
British Drug Houses Ltd.	... 21	Parke Davis & Co.	Last cover page.
Butterworth & Co., (India) Ltd.	... 41	Petrolagar Laboratories Ltd.	... 29
Calcutta Chemical Co., Ltd.	... 8	Powell & Co., Ltd. N.	... 32, 33
Calcutta Medical Journal	... 62	Purohita Pharmacy	Inside front cover.
Carnrick & Co., G. W.	... 25	Rai B. S. Bhandari	... 31
Castophene Manufacturing Co.	... 39	Roy & Co.	... 10
Continental Drug Co.	... 57	Sanghvi Pharmaceutical Works	... 23
Cow and Gate Ltd.	... 48	Schering-Kahlbaum (India), Ltd.	... 45
Denver Chemical Mfg. Co., N. Y.	... 61	School of Chemical Technology	... 11
Dikshit M. P.	... 31	Seller L. H.	... 11
Evans Sons Lecher & Webb	... 20	Sharp & Dohme	... 12
Fellow's Medical Mfg. Co.	... 44	Shriyogendra	... 62
Gajjar & Co. I. G.	... 42	Siqueira & Son	... 58
Genatosan Ltd.	10, 11, 13	Srinivasa Iyengar D.	Inside front cover
Glaxo Laboratories	46, 47	Thacker's	... 63
Goodwin & Son	... 19	Tripathi M. H.	... 60
Gordhandas Desai & Co.	... 30	Union Drug Co.	... 26
Havero Trading Co.	... 3	Upjohn Co.	... 35
Hewlett & Son Ltd. C. J.	... 19	Vora & Co. M. D.	... 36
Horlick's Malted Milk Co.	... 15	Waman Gopal Dr.	... 1
Imperial Chemist Co.	... 9	Wander A. Ltd.	... 49
Indian & Eastern Druggist	... 63	Waterbury's Compound	... 7
Indian Medical Journal	... 58	Weiss Dr.	... 59
Indian Medical Record	... 62	Westren Homoeo-Biochemic Pharmacy	... 23
Indo Foreign General Agency	13, 38	William R. Warner & Co.	... 37, 50
Jack & Co., B. G.	... 9	Wulff & Co.	... 17, 28
Jammi Venkataramanayya	... 56	Zeal G. H.	... 1

The Tonic . . . Up-To-Date

Fresh liver and spleen for bloodbuilding
Cod liver oil for its food value
Malt extract for its nutritive influence
Hypophosphites for remineralization

combine to make

WATERBURY'S COMPOUND

Plain or with Creosote and Guaiacol

the preparation of choice as a tonic and recon-
 structive at every age period, at every season
 of the year.

Its palatability is unusual—no oily taste or odour.

A bottle of each form is at your service.

May we send them ?

MARTIN & HARRIS LTD.

Rowlette Bldg., Prinsep Street, CALCUTTA.

Made by Waterbury Chemical Co., Inc.

New York & St. Louis, U. S. A.

When writing to advertisers, please mention the "Antiseptic."

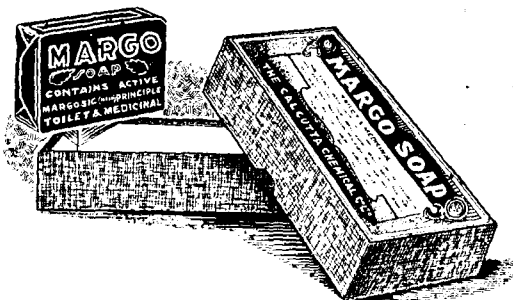
WHICH a Real guaranteed (Margosa) NEEM OIL Soap or a doubtful so called neem soap?

THE CHOICE IS EASY
if you value the health of your skin.

MARGO SOAP

(CALCHEMICO)

is made from margosa oil that has been deodorised by a special patented exclusive process of our own



Its worth
is proved
by popular
preference

Manufacturers:
**The Calcutta Chemical
Co., Ltd.**
BALLYGUNGE, CALCUTTA

Agents: SRI KRISHNAN BROS., P. O. 165, MADRAS

SCIENCE and EXPERIENCE ! SPEAK ALIKE !



THE HIGHLY antiseptic germicidal and refreshing properties of the Neem twig, so wellknown and patronised in this country, have been secured for modern use by scientific labour in the form of

NEEM TOOTH PASTE

(CALCHEMICO)

containing the active neem principles combined with what is best for dental hygiene.

Keeps teeth clean, mouth sweet, breath fragrant.

CALCUTTA CHEMICAL COMPANY, LTD.
BALLYGUNGE CALCUTTA

Manufacturers of—MARGO SOAP

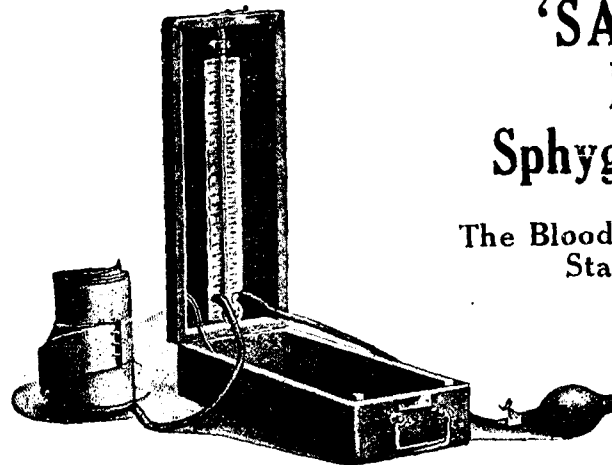
Agents: SRI KRISHNAN BROS., P. O. Box 166, G. T., MADRAS.

BUILT FOR LONG SERVICE

'SAHANORIS' Mercurial Sphygmomanometer

(Name Registered)

The Blood Pressure Instrument of
Standard Accuracy.



STRONG
CONSTRUCTION
SIMPLE
MECHANISM
LIFETIME SERVICE

Every "SAHANORIS" Sphygmomanometer is supplied with a small Metal Reservoir Pump which enables to raise the pressure in the armlet and manometer steadily and thus take the measurements not only as the pressure falls but also as the pressure increases. The instrument can be carried safely without having to empty the mercury reservoir, there being no risk of spilling the mercury.

Complete with English Pattern Armlet and Reservoir Pump in a portable Polished oak case. Size 12"x5"x3," Rs. 45.

Sole Distributors in India, Burma and Ceylon:

B. G. JACK & Co., Lamington Road, BOMBAY, 4.

MADARY PILLS FOR INSANITY

For the last twelve years MADARY PILLS are prescribed as most effective and harmless remedy for Insanity, Excitability, sleeplessness, Restlessness, Irritability, Insomnia, Delirium, Epilepsy, Confusions, Chorea, Neuralgia etc. etc., by the Eminent Physicians from all parts of the Country and in the Hospitals, Nursing Homes & Dispensaries.

The results are Entirely Satisfactory.

SOME UNSOLICITED TESTIMONIALS:—

- (1) I tried the last bottle sent by you & it acted A I.
- (2) He had been mentally ill for the last 7 years, your Madary Pills have done him much good.
- (3) Your MADARY PILLS have shown the happiest result in Insomnia, Hysteria, Melancholia & in Wet-dreams.
- (4) I have used the same personally & found it most beneficial & harmless cure.
- (5) I am very glad to inform you that your Madary Pills have given me the best result in a case of Insanity.
- (6) I used these Pills in a case of Puerperal Insanity & found these pills very useful.

MADARY PILLS are Absolutely harmless Do not affect the temperature, Heart, Blood vessels or Respiration.

Price Rs. 3-8-0 per bottle of 30 Pills.

A Booklet with full instructions for the treatment with each bottle.

THE IMPERIAL CHEMIST COY. BOMBAY 4

or From SRI KRISHNAN BROS., P. B. 166, MADRAS.

Safe and effective
as a gargle... mouth wash
and nasal spray...



Of value at this season as a prophylactic measure against communicable respiratory diseases. SAFE... Because it is non-poisonous even if accidentally swallowed. EFFECTIVE... Because it destroys bacteria almost instantly on contact.

HEXYLRESORCINOL SOLUTION S.T.37

(Liquor Hexylresorcino'is 1:1000)

SOLE AGENTS: VOLKART BROS., BOMBAY, KARACHI,
INDIA, BURMA, CEYLON, MADRAS, CALCUTTA, COLOMBO.

SHARP & DOHME

SUCCESSORS TO H. K. MULFORD CO.,
PHILADELPHIA—BALTIMORE, U. S. A.

"The effects of CYSTOPURIN are at times ASTONISHING"

SO writes a well-known English Doctor dealing with Cystitis in "Recent Advances in the Treatment of Genito-Urinary Disorders." "Its use," he continues, "generally renders irrigation of the bladder unnecessary. In Cystitis, no matter what may be the cause, we have the happiest possible results with CYSTOPURIN."

Some writers go so far as to state that they would not attempt to treat a case of Cystitis without it—than which we can have no greater praise. The action of CYSTOPURIN, moreover, "is as well marked in alkaline as in acid conditions," while its complete freedom from irritant or gastric effects ensures its perfect toleration by the patient.

MAKE SURE — PRESCRIBE

CYSTOPURIN The Non-Irritant

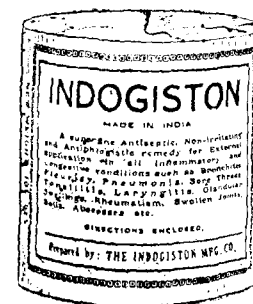
URINARY ANTISEPTIC

Medical practitioners desiring further information are invited to apply for clinical samples and literature from the Indian Agents of GENATOSAN Ltd.

MARTIN & HARRIS LTD.

Rowlette Building, Prinsep Street, CALCUTTA, or Graham's Buildings, 119, Parsi Bazar Street, Fort, BOMBAY.

INDOGISTON THE IDEAL ANTIPHLOGISTIC DRESSING



Medical Opinions.

"Easily the best among Indian substitutes for 'Antiphlogistine'."

"The quality is beyond our expectations."

"Have tried every known Indian substitute for 'Antiphlogistine' and I can truly say that INDOGISTON is the only product whose consistency and therapeutic action equal those of the original."

CAN BE HAD OF ALL CHEMISTS

Distributor:

T. RAMACHANDRA RAO,

153, Broadway, Madras.



Do you
Want to
Enjoy.

BREAK PILLS TAKE TO-NIGHT.

ENJOYMENT can only be ensured by using our famous Break Pills prepared out of Himalayan drugs and herbs, Musk and Gold. Best cure for impotency, re-gains lost man-hood, nervous debility, physical exhaustion. Gives effect in four hours. Guaranteed. 20 pills sample Rs. 2. Gonorrhoea cure Capsules, Box of 30, Rs. 2-8 invented by a Himalayan Sage.

60 Break Pills Rs. 5 List free.

Dr. A.S. MURTY, CHICACOLE

When writing to advertisers please mention the "Antiseptic"

Suppliers to Govt. and Mission Hospitals in India, Burma & Ceylon

If you are user of distinctive

**SURGICAL FURNITURE AND
STEAM STERILIZERS, &c.**

we shall esteem your orders.

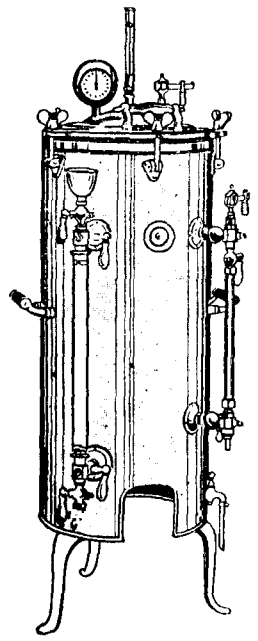
AS ACTUAL MAKERS, WE CAN OFFER, AT FAVOURABLE PRICES, ARTICLES OF HIGH STANDARD OF QUALITY AND FINISH.

WE ARE ALSO OPEN TO ENQUIRIES AND ORDERS FOR SPECIAL CONSTRUCTIONS.

MAY WE MAIL YOU A CATALOGUE?

ALLIBHOY VALLIJEE & SONS,
Alvi Works, Multan Cantt. PUNJAB.
Telegrams: D. SPACHBOX.

28 Gold and Silver Awards in India and Europe.



SALVITÆ
TOXEMIAS OF PREGNANCY.

Because of its general alkalinizing, eliminative and antiseptic action, SALVITÆ helps to obviate fermentative and putrefactive changes in the intestinal tract, a most important desideratum in the treatment of pregnant states.

SALVITÆ helps to dissipate the headache, vertigo, insomnia etc., which so often presage an impending uremia. It serves to prevent or clear up oedema, activates safely the sluggish kidneys and relieves dyspnoea and cardiac embarrassment.

Salvitæ given to a woman through the gravid state practically insures her against toxic or acidotic disaster.

Samples and literature to the medical profession on application to Sole Agents.

Manufactured by

THE AMERICAN APOTHECARIES COMPANY, NEW YORK.

Messrs. Muller, MacLean & Company, Manowar House, 43 Bentinck Street Calcutta, Messrs. Muller, MacLean & Company, Hashim Bldg., 38 Churchgate Street, Fort, Bombay, Messrs. Muller, MacLean & Company, 82 Tsockai Mg, Tundlay Street, Rangoon, B.B. Messrs. Muller, MacLean & Company, P.O. Box No. 2 Madras.



When writing to advertisers, please mention the "Antiseptic."

IN EPIDEMIC DIARRHOEA—



ALL over the world, the experience of physicians with various foods in summer diarrhoea has emphasized the value of Horlick's Malted Milk. Horlick's fully satisfies the dietetic requirements of this condition, and in the acute stage it is even better tolerated than skimmed milk mixtures.

Horlick's contains a relatively low, but easily digested, proportion of fat, and an adequate and easily assimilated protein content. Its carbohydrates consist of lactose, maltose and dextrin, and clinical and laboratory experience has shown that malt sugars are more easily absorbed and more readily oxidized than other sugars, and are less liable to cause fermentation.

HORLICK'S

THE ORIGINAL MALTED MILK

Available Everywhere

When writing to advertisers please mention the "Antiseptic."

PERTUSSIN TAESCHNER

The ideal remedy against all Diseases of the Respiratory System

For any catarrhal complaints, Acute bronchitis, chronic bronchitis

and of especial value in the treatment of

WHOOPING COUGH

Laryngeal Catarrh, Bronchial Catarrh, Asthma Etc. Etc.

Dr. Frederick Dady, Jabulpore, India writes:

I may inform you that I have obtained brilliant results with the exhibition of Pertussin in the treatment of whooping-cough. I prescribe it very often, and confidently recommend it to all those suffering from this malady.

For literature and Physician's Samples free of charge.

APPLY TO:—The Managing Agents in British India.

MARTIN & HARRIS LTD.,

CALCUTTA, BOMBAY, MADRAS, KARACHI.

Supplies available from all Chemists and Dealers.

QUININE, QUININE SALTS

AND

QUINIDINE, CINCHONINE, CINCHONIDINE.

Quality and Colour Unsurpassed

ALSO

Plain and Sugar-coated Quinine Tablets.

Prices on Application to:—

BANDOENG QUININE FACTORY, JAVA.

Or to The Sole Agents for INDIA, BURMA and CEYLON.

MARTIN AND HARRIS LIMITED.

Rowlette Building, Prinsep St., CALCUTTA---15, Parsi Bazaar St., BOMBAY.

15, Sunkurama Chetty Street, Madras.

When writing to advertisers, please mention the "Antiseptic."

ERGOAPIOL (Smith)

A non-narcotic agent prescribed by physicians throughout the world in the treatment of:

Amenorrhœa, Dysmenorrhœa, Etc.

Ergoapiol (Smith) is supplied only in packages containing twenty capsules.

As a safeguard against imitation, the letters "M. H. S." are embossed on the inner surface of each capsule, thus

Dose: One or two capsules three or four times a day.

Literature on Request.

MARTIN H. SMITH COMPANY, New York, N.Y., U.S.A.

ERGOAPIOL (Smith) is a singularly potent utero-ovarian anodyne, sedative and tonic. It exerts a direct influence on the generative system and proves unusually efficacious in the various anomalies of menstruation arising from constitutional disturbances, atonicity of the reproductive organs, inflammatory conditions of the uterus or its appendages, mental emotions or exposure to inclement weather.

It is a uterine and ovarian sedative of unsurpassed value and is especially serviceable in the treatment of congestive and inflammatory conditions of these organs.

The anodyne action of the preparation on the reproductive organs is evidenced by the promptness with which it relieves pain attending the catamenial flow, and its antispasmodic influence is manifested by the uniformity with which it allays nervous excitement due to ovarian irritability or other local causes.

Ergoapiol (Smith) proves notably efficacious in amenorrhœa, dysmenorrhœa, and menorrhagia.

In Gynæcological Practice

KALZANA

ensures effective

**Calcium
therapy**

Kalzana regulates the function of the ovaries by diminishing the over-sensitiveness of the vegetative nervous system (dysmenorrhœa, menopause).

Kalzana regulates the hormonal functions of the ovaries and decreases the permeability of the blood vessels in all cases of gynæcological hæmorrhagia.

Kalzana reduces blood pressure and checks exudative inflammatory processes.

(See paper by Dr. Malfatti, Innsbruck University, Zentralbl. f. Gynäkologie, No. 43, 1931).

Calcium losses are closely connected with a decreased blood alkalinity. Kalzana increases the blood alkalinity thus ensuring perfect fixation of the calcium. (Pharmacological Institute of Berlin University.)

An Interesting Snake-Bite News

Reported By Dr. Md. IBRAHIM MIAH, L.M.F., Medical Officer,
Mohanganj Dispensary, P. O. Aliabad, Dt. Rajshahi.

In the Indian Medical Journal, Calcutta, July, 1933, Page 396

"History of the case: A patient named Osimuddin Pramanik, a boatman aged 30, native of Khojipur under P. S. Bagmara-Rajshahi was drawing his "Gahana boat" by "Goon" along the bank of the river Baranai on the night of the 19th May, 1933. At Mahabatpur Ghat he was bitten by a snake on the left leg just above the ankle joint. He tried to come to Mohanganj Bazar which is about a mile and a half from the place where he was bitten but he fell down on the way whence he was brought by his colleagues to the above bazar. His companions brought Ozhas (native physician) from the neighbouring village to get rid of the poison by chanting "mantras" but all these proved of no avail and the patient began to grow worse. Seeing his miserable plight a gentleman of the bazar came running to my quarter, roused me from sleep at about 1 A. M. and informed me of the incident. I at once hurried to the spot with the necessary medicines and found the patient in an apparently **hopeless condition with no radial pulse and no respiration** and coolness all over the body and froth coming out of the mouth and the nostrils. Having failed to apply Lexin which I took with me as directed by Mr. P. Banerji, the inventor.....either by inhalation due to stoppage of respiration or by dropping the same over the tongue when in completely unconscious state.....and finding that the condition of the patient is absolutely hopeless I at once gave him an intravenous injection of 3 c.c. of Lexin and the apparently dead person jumped up within a few minutes of the injectionhis pulse returned... ..respiration returned and the temperature of the body became gradually normal within about 6 hours.

The point of interest is that Mr. P. Banerji has not given any direction for intravenous injection of the medicine when his methods of application of the same fails in completely hopeless condition of the patient.

I therefore request my professional brethren to given a fair trial whenever any such chance occurs to this wellknown medicine by intravenous route and to circulate the results obtained through the medium of this Journal* for the benefit of the suffering humanity."

Please report also to: MR. P. BANERJI, MIHIJAM. E.I.R.

For Lexin (Re. 1. per phial)

Write to Messrs.

Sri Krishnan Bros., P. B. 166, Madras.

(Sole Agents for S. India)

HEWLETT'S MIXTURE

with or without Opium
MIST. PEPSINAE CO. c. BISMUTHO (HEWLETT)
A Useful Compound

Containing Pepsina Porci, Bismuth, Nux Vomica, Acid. Hydrocyanic
Sol. Opii Purij (Hewlett's), Chloric Ether and coloured.

Useful in all forms of Dyspepsia, Pyrosis, Gastric Pain and Vomiting and for alleviating the pain in cases of Ulcer and Cancer of the Stomach.

DOSE—Half to one fluid drachm diluted.



"The production of high grade pharmaceutical preparations has been the aim of Hewlett's since they first introduced Mist. Pepsinae Co., (known generally as Hewlett's Mixture.)"—*Indian Medical Record.*

This preparation is also supplied "sine Opio." the dose and price remaining the same.

Price in England, in 4-oz., bottles 10d. oz.

In 10-oz., 22-oz., 40-oz., and 90-oz., bottles, 12/6 per lb.

Stocked by the leading chemists in:

BOMBAY, CALCUTTA, COCHIN, MADRAS and COLOMBO.

INTRODUCED AND PREPARED ONLY BY

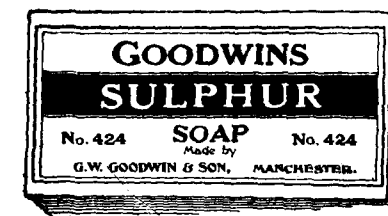
C. J. HEWLETT & SON., LTD.,

Wholesale and Export Druggists and Surgical Instrument Makers,

35-42, Charlotte Street, and 83-85, Curtain Road, London, E.C.2.

SKIN TROUBLES?

If you suffer from skin troubles, such as pimples, rash, blemishes, etc., you should start using GOODWIN'S SULPHUR SOAP. Its regular use will not only keep you free from the many skin diseases so prevalent in tropical countries, but will also help you to have a good complexion, as it thoroughly removes all dirt and dust from the pores.



Sold at all good chemists, stores and bazars throughout India. For prices and particulars, write to the Sole Selling Agents:—

MAY & BAKER (INDIA) Ltd.

MADRAS, CALCUTTA & BOMBAY.

When writing to advertisers, please mention the 'Antiseptic.'

Evans'

EPHRETUSS

This is a pleasant and effective syrup of Ephedrine, containing Ephedrine Hydrochlor gr. $\frac{1}{4}$ in one fluid drachm.

It is particularly valuable in controlling the spasmodic coughing and vomiting of **WHOOPIING COUGH**.

Reports of the use of Ephedrine in Whooping Cough are extremely encouraging. No serious toxic symptoms or complications have been reported and the general conclusion is that it is extremely useful during the second stage.

*Dose:—For children under 1 year, up to 1 drachm.
" " over 1 year, " 2 drachms.
Generally administered night and morning and occasionally three times a day.*

Issued in bottles of 4 oz., 8 oz. and 16 oz.

Prepared at Evans' Biological Institute by



EPHRELIX

This is an effective combination of Ephedrine Hydrochlor, Codeine, Squills and Virginian Prune. Each fluid drachm contains Ephedrine Hydrochlor gr. $\frac{1}{4}$, Codeine gr. 1.

This preparation is recommended for the treatment of Asthma, Bronchitis and spasmodic conditions of the Bronchi.

*Dose for adults:—
Single, 2-4 drachms. Repeated, 1-2 drachms.
In complicated true bronchial attacks, up to 4 drachms may be given in 30 minutes.
In Bronchial Asthma with secondary infection, a larger dose is indicated, and up to 8 drachms may be given in 30 minutes.
Issued in bottles of 4 oz., 8 oz. and 16 oz.*

Special Agents:
Mr. M. J. BATTIWALA, P.O. Box 313, DOMBAY.
Mr. A. CHATTERJEE, P.O. Box 647, CALCUTTA.
Messrs. A. S. R. MUKTI & SONS, 21/22 LINGHA CHETTY ST., MADRAS.

EVANS' Biological Institute by

EVANS SONS

LIVERPOOL

LESCHER & WEBB Ltd.

LONDON

Runcorn

When writing to advertisers, please mention the 'Antiseptic.'

*For the Premature
and
Undeveloped Infant*

By reason of its balanced content of Vitamins A, B₁, B₂ and D, Radio-Malt presents an ideal medium for the administration of all these four vitamins in accurately-measured amounts to infants born before term and to those which are weak and under-developed.

This fact was demonstrated recently in the case of an infant, weighing only 1 lb. at birth, which, according to the physician, was reared entirely on milk with Radio-Malt as an adjuvant. Within three months its weight had increased to 5½ lb., and its progress was satisfactory in every way.

Radio-Malt is valuable also to normal children because it provides properly-balanced and standardised amounts of Vitamins A, B₁, B₂, and D, the supply of which in the ordinary dietary is often inadequate for the daily requirement.

RADIO-MALT

(Standardised Vitamins A, B₁, B₂ and D)

Full Particulars are available from

HENRY S. CLARK & CO.,
27/4, Waterloo Street,
CALCUTTA.

BYRAM MISTRY
109, Parsi Bazar Street,
FORT, BOMBAY No. 1

The British Drug Houses Ltd., London.

RM/Ln/3311

When writing to advertisers, please mention the "Antiseptic."

Purity, Activity
and Stability

INSULIN 'A.B.'
TRADE MARK

The world-wide supremacy of Insulin 'A.B.' is due to its unequivocal purity no less than to its well-known potency and stability under all conditions.

Supplied in three Strengths:

20 units per c.c. packed in bottles containing:
5 c.c. m. = 100 units
25 c.c. m. = 500 "

40 units per c.c. Packed in bottles containing:
5 c.c. m. = 200 units

80 units per c.c. Packed in bottles containing:
5 c.c. m. = 400 units

Full particulars and latest literature will be sent free to members of the Medical Profession.

Joint Licensees and Manufacturers:

Allen & Hanburys Ltd. The British Drug Houses Ltd.
LONDON

Representatives for India:

A. H. P. JENNINGS, Clive Buildings, Calcutta
HENRY S. CLARK, 8/10 Waterloo Street, Calcutta
BYRAM MISTRY, Graham's Buildings,
Parsee Bazar Street, Fort, Bombay

When writing to advertisers, please mention the "Antiseptic."

A COMBINATION of all of the active derivatives of the pancreas which control carbohydrate metabolism together with the specific proteins necessary for regeneration of the pancreatic tissues.

TRYPSOGEN



FOR ORAL
ADMINISTRATION

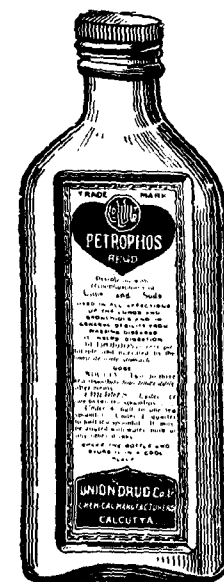
Supplied with Enterosol Coating to insure the passage through the stomach for immediate absorption in the intestine.

*Bottles of 100, 500 and 1000 tablets.
Plain or Enterosol Coated.*

G. W. CARNRICK Co., 20 Mt. Pleasant Ave.
Newark, N. J., U. S. A.

Consult:

MULLER & PHIPPS (Asia) Ltd.
Nicol Road, Ballard Estate, Bombay



PETROPHOS

PETROPHOS is a scientific combination of the purest Liquid Paraffin of High Viscosity with Hypo Phosphites of Lime and Soda. It is soothing, lubricating, antifermentative, palatable emulsion and it is tolerated by the most delicate stomachs.

(Petroleum Emulsion with Lime and Soda)

APPROVED BY THE MEDICAL PROFESSION

UNION DRUG CO., LIMITED,
CALCUTTA.

When writing to advertisers, please mention the "Antiseptic."

Merckozone



**MERCK'S
PEROXIDE OF HYDROGEN**

containing 12 Vol. of Oxygen

for all Medical, Surgical,
and
Household Uses.

The Best Antiseptic, Safest Disinfectant,
and Most Reliable Germicide.

Specify and Insist on

Merckozone

and accept no Substitute

SEE THAT TRADE MARK SEAL IS INTACT

E. MERCK, CHEMICAL WORKS, DARMSTADT

Made in Germany

When writing to advertisers, please mention the "Antiseptic."

The Positive Remedy
for **INDIGESTION**

Lactopeptine is not a single digestive, but a compound of the powerful NATURAL Digestives—Pepsin, Diastase, Pancreatin, Lactic Acid, etc.—each in their correct proportion and which do the work of digestion in the human body. Lactopeptine is the positive remedy for such distressing symptoms of **INDIGESTION** as Pain, Nausea, Palpitation, Flatulence, and a course of this remedy will quickly build up a normally sound digestion.

FREE SAMPLE (in Powder, Tablet and Elixir Form) may be obtained from:—
Messrs. Muller & Phipps,
(India) Ltd.,
P.O. Box 773, BOMBAY.

Lactopeptine
Hazelwell Products, Limited,
St. Helens, Lancs., Eng.

**DIGESTS LIKE
NATURE DIGESTS**

For effective

Oral Prophylaxis & Disinfection

NUMEROUS clinical observations and laboratory tests have demonstrated the bactericidal power of Formamint and its therapeutic action. Prof. Seifert, Wurzburg University, Piorkowski in his Institute in Berlin, Marschik in the Clinic for Diseases of Throat and Nose (Prof. Chiari) at the Vienna University, are among those who have carried out these tests. Marschik (Wien. Med. Wochenschr.) states that:

"Formamint, according to the results obtained at the clinic in Vienna, can be recommended as a harmless, antiseptic mouth and throat disinfectant pleasant and easy to take."

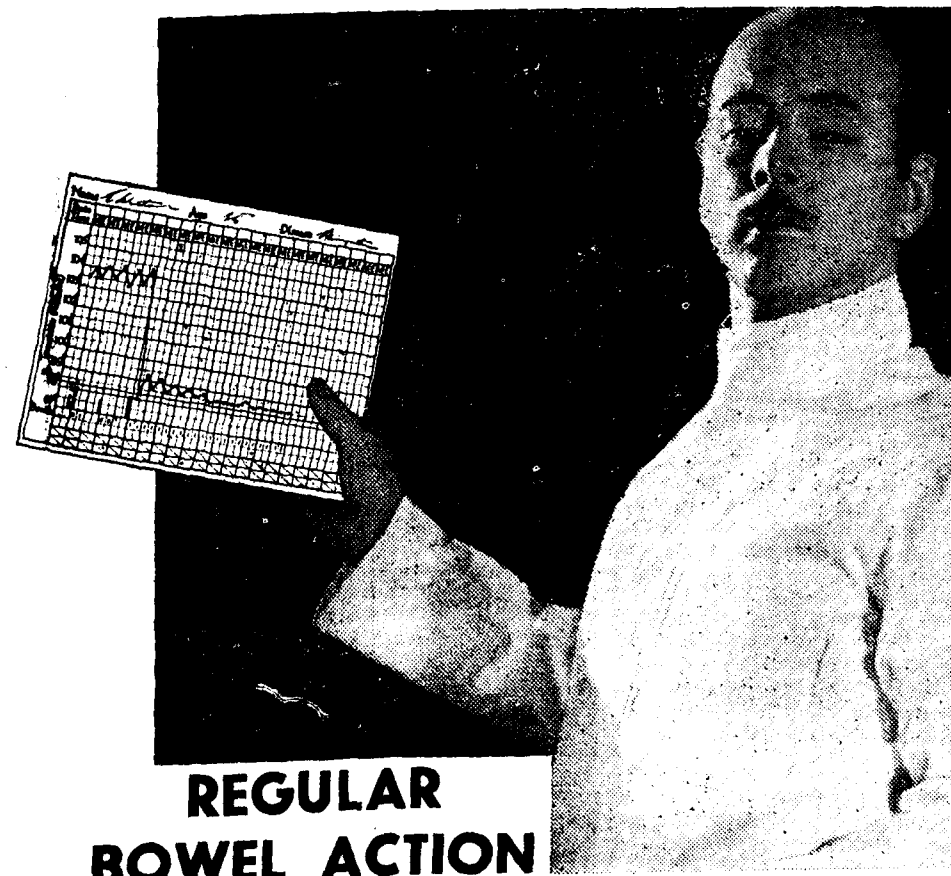
FORMAMINT

Complications of SCARLET FEVER

without	FORMAMINT	with
22.6%	Rhinorrhoea	10%
20.0%	Otorrhoea	7%
16.0%	Albuminuria	7%
11.3%	Enlarged cervical glands	8%
8.6%	Scarlatinal Rheumatism	3%

From "The Lancet"
Nr. 4413, Vol. C.L.XXIV

When writing to advertisers, please mention the 'Antiseptic.'



**REGULAR
BOWEL ACTION**

"**F**OR easy, complete and regular bowel movement, natural contraction waves of the colon must be brought about." This cannot be accomplished by laxatives as they cause forced fluid motions, with irritation of the intestines and exhaustion of the bowel muscles.

A regular bowel action obtained by normal peristalsis is provided by the use of 'Petrolagar' which, by supplying bulk and unabsorbable moisture, gives normal faecal consistency.

For the purpose of more exact medical prescription, 'Petrolagar,' which contains 65% of emulsified medicinal paraffin, is issued in two varieties: No. 1, Plain, and No. 2, with Phenolphthalein.

'Petrolagar'

(Regd. Trade Mark)

Distributing Representatives for INDIA:

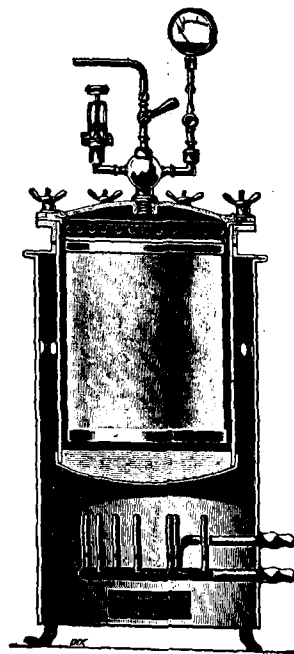
Messrs. H. J. FOSTER & COMPANY, LTD., P.O. Box 202, BOMBAY.
Sole Proprietors: Petrolagar Laboratories Ltd., Braydon Road, London, England.

When writing to advertisers, please mention the "Antiseptic."

Complete Laboratory & Hospital Equipment

REICHERT
Microscope,
Micro-Camera,
Microtome,
Christeller Stage,
Etc. Etc.

LIESEGANG
Janus &
Trajanus
Epidiascopes,
Cine-Projectors,
Magic-Lantern,
Optical Bench
Equipments.



HEARSON
Incubators,
Autoclave,
Centrifuge, Baths
Kymograph,
Metabolism
Apparatus.

HELLIGE
Comparator,
Colorimeter,
Haemometer,
Sphygmo-
Manometer,
Bacteriological
Sundries.

Chemicals, Stains, Glass, Porcelain Ware,
Balances, Weights Etc.

Surgical Instruments-Ultraviolet Lamp
Diathermy Apparatus Etc.

Stockists & Sole Agents

GORDHANDAS, DESAI & CO.,

5, Dalhousie Sq. Calcutta. : : 204, Hornby Road, Bombay.

When writing to advertisers, please mention the "Antiseptic."

THE MALARIANA COMPANY, MANGALORE, (17) S. INDIA.



MALARIANA, certified by the various All India Swadeshi Exhibitions with gold and silver medals and certificates of merit as the most reliable and unrivalled specific for every type of malaria and spleen. Hundreds are cured daily and is safely recommended by the medical profession everywhere.

Large Re. 1-8.
Small As. 14.

BRONCHITIS CURE.
For bronchitis, chronic rhinitis, constant

blocking of the nose, oppressed breathing and wheezy respiration. 1 phial Re. 1.

SYRUP VIBURNOA: The best uterine tonic indicated in the earlier months of pregnancy to combat miscarriage or threatened abortion. Of great service for menstrual irregularities, endometritis, prolapse or womb displacement.

Large Rs. 3-3. Small Re. 1-14.

BABYTONE: A tonic food for rickety or ill-nourished children for a healthy growth of bone, teeth, nerve and muscle.

1 phial Re. 1-4.

LEUCORRHOEA CURE: For leucorrhœa, burning or itching of the parts, back-ache, waist pain, shifting or dragging pain of the limbs, discomfort in the heart or abdominal region, fatigue on rising and other symptoms peculiar to women.

1 phial Re. 1.

Large stockists of Tissue and Homœopathic medicines.—Guide free.

Sole agents for Gujrat & Kathiawar: **Vrajlal & Co., Ahmedabad.**

Stockists: **Sri Krishnan Bros., Chemists, P. O. Box 166, G. T. Madras.**

AGENTS WANTED EVERYWHERE.



PRESCRIBER'S COMPANION

1927 Edition

An Excellent Reference for Practitioners.

CONTAINS over 3300 prescriptions under different heads of diseases, numerous useful tables, a complete list of incompatibles, urine testing, a section on toxicology giving symptoms, fatal dose, etc., etc. Closely printed in double columns and nicely bound in full cloth.

750 Pages Price Rs. 5-12 ;
postage extra.

The book is offered at a special concession price of Rs. 3-12 to suit subscribers of Antiseptic and to those who mention the advertisement when ordering the book. The concession will be withdrawn shortly. So please send your order at once.

Recommended by the Inspector-General of Prisons C. P. for every jail in the Provinces.

See Press Opinions of the year 1927:—The Indian Medical Journal, January. Practical Medicine, April. Madras Medical Journal, June—August, The Medical Review of Reviews, August, Indian Medical Record, September, The Quarterly Journal of Medicine, October. Antiseptic, November. Of 1928 Indian Medical Gazette May and Journal of Association of Medical Women in India, August, all of these speak very highly of it. Full copy of the reviews on application.

Can be had from:—**M. P. Dikshit, Barabanki.**

SEX-VIRILITY.

A man without, or lacking in, sexual virility is just like a castrated animal. A castrated calf grows no horns. A castrated bull is meek and subservient. Similarly anybody lacking in manly vigour at any period of his life ceases from that moment to be a real man. From his high position of a He-man he falls into the low depth of a No-man. He loses all self reliance. There is no domestic bliss for him.

Such unhappy beings should look sharp, get a free copy of our book "Life after Death" and learn for themselves how the world-renowned "Erectuss" can help them to regain their Manhood, Lost vitality and sex vigour without the aid of any drugs, internal or external medicines, ointments, plasters, etc., etc.,

Write at once to:

HUSTON BROS., CO.,

(CHICAGO, U. S. A.)

Sole Agency in the East,

Lahore Branch: **RAVI ROAD, LAHORE.**

When writing to advertisers, please mention the "Antiseptic."

USE ONLY
POWELL'S
PHARMACEUTICALS
 AND PRESCRIBE
POWELL'S RENOWNED MEDICINAL
SPECIALITIES

Our preparations have made a name for themselves. They are prepared in one of the finest and most scientifically equipped Laboratories in India which is entirely under Indian Management and supervision. All our preparations are standardized and made from the finest materials.

EMULSION OF CODLIVER OIL
 CHEMICAL FOOD
 EASTONS SYRUP
 GRIPE DROPS
 ELIXIR GLYCEROPHOSPHATES CO.

THYMO-GLYCEROL
 UNGUENTODEX
 TABLETS OF ALL KINDS
 TINCTURES, EXTRACTS,
 ETC. ETC.

ASK FOR LITERATURE.

WE ARE ALSO THE PIONEERS IN INDIA IN MANUFACTURING

SURGICAL INSTRUMENTS
 ASEPTIC HOSPITAL FURNITURE
 INVALIDS FURNITURE
 ARTIFICIAL LIMBS

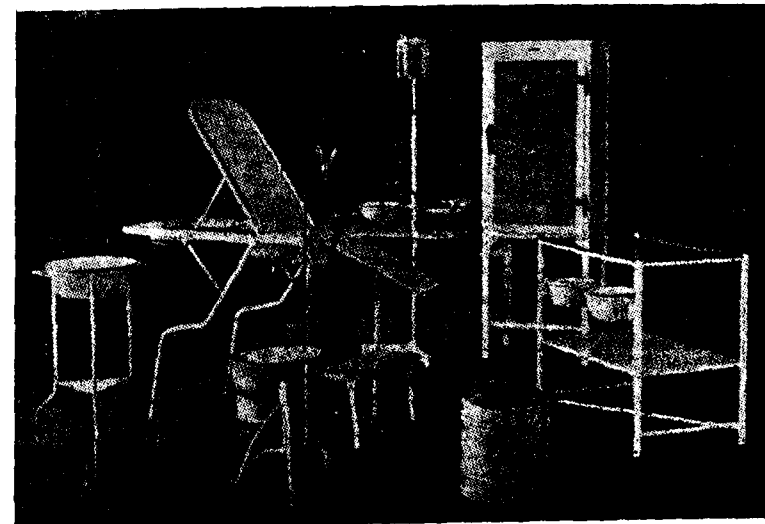
TRUSSES FOR HERNIA
 ABDOMINAL BELTS
 ORTHOPÆDIC APPLIANCES
 LABORATORY FITTINGS. ETC. ETC.

Powell's is a National Enterprise with Indian
 Capital and Indian Management.

N. POWELL & Co., LTD.,
BOMBAY No. 4.

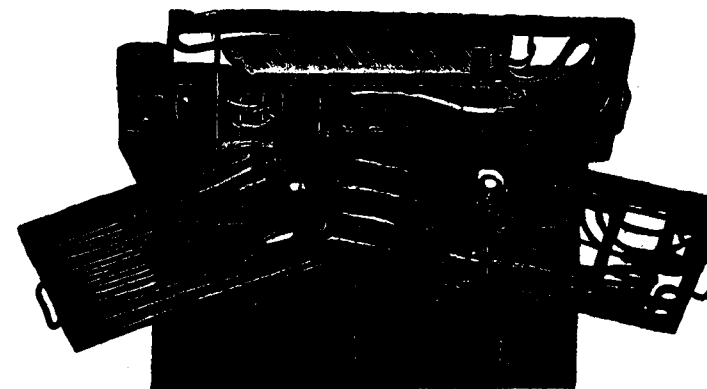
When writing to advertisers please mention the "Antiseptic."

ASEPTIC HOSPITAL AND
INVALIDS FURNITURE,



(The above illustration shows our "Utility" Furniture Set)

SURGICAL INSTRUMENTS
AND HOSPITAL
REQUISITES.



CAN BE HAD FROM US AT COMPETITIVE PRICES.
 Please send your inquiries to us.

N. POWELL & Co. LTD. BOMBAY No. 4.

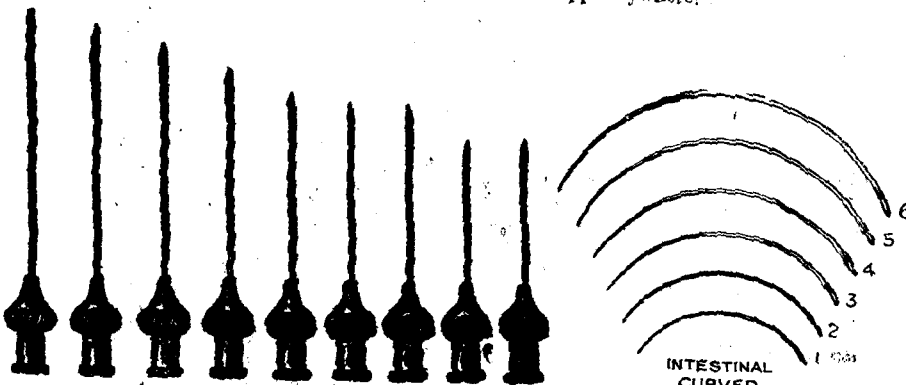
When writing to advertisers please mention the "Antiseptic."

KRUPP

V2A METAL RUST-RESISTING HYPODERMIC METAL V2A
SERUM and SUTURE NEEDLES

Krupp metal is not plated, has no thin outer surface to wear off, and is in short, the perfect material for needles and instruments. Points are sharp, strong and unbreakable.

This extraordinary new alloy is stronger than steel, smooth as glass, as lustrous as silver, and as lasting as granite. Impervious to acids and even sea water. Positively unrusting, unstaining and untarnishing. Nothing else like the Krupp anywhere!



- No. 1400.—KRUPP INJECTION NEEDLES, record mount, different lengths and gauges. Sizes: 1, 2, 12, 14, 16, 18 and 20 ... Rs. 3-12 per doz.
- No. 3520.—KRUPP INJECTION NEEDLES, Luer mount, for all glass syringes. Sizes: 12, and 12 ... Rs. 4-0 per doz.
- No. 1405.—KRUPP SERUM NEEDLES, with record mount, two inches long. 8, 10 and 12 ... Rs. 7-8 per doz.
- No. 1075.—KRUPP LUMBAR PUNCTURE NEEDLES, for special anaesthesia, Medium Rs. 4-0 each. Large Rs. 4-8 each.
- No. 1484.—KRUPP PNEUMOTHORAX NEEDLE, comprising graduated cannula, stopcock and trocar with blunt point ... Rs. 9-8 each.
- No. 1625.—KRUPP SPRINGER REPT., safest method of injection ... Rs. 3-0 each.
- No. 1052.—KRUPP WINTHAUD'S INTRAVENOUS SALINE NEEDLES ... Rs. 2-0 each.
- No. 1408.—KRUPP ANAESTHETIC NEEDLES, long, to fit Labat's syringe ... Rs. 3-0 each.
- No. 1007.—KRUPP INTESTINAL SUTURE NEEDLES, Straight and Full curved ... Rs. 2-0 pkt. of 6.
- No. 1003.—KRUPP SUTURE NEEDLES, Surgeons' Straight, Half curved, Full curved—Triangular pointed ... Rs. 2-0 pkt. of 6.
- No. 1015.—KRUPP HAGEDORN'S SUTURE NEEDLES, Straight, Half circle and Full curved ... Rs. 2-4 pkt. of 6.

'Bosco' Stainless Steel Injection Needles—Rs. 2-0 doz. (Record). Rs. 2-8. doz. (Luer)

Jena Resistance glass syringes—This famous glass is positively proof against the sudden, extreme thermal changes of sterilization. The scale is also absolutely permanent, being unaffected by acids or sterilization.

Our 1933 Illustrated Catalogue Now Available.

BOMBAY SURGICAL CO.

Tel. Add. 'SURGICO'

BOMBAY, 4.

[Telephone No. 41936]

Foremost Indian House for Dependable Surgeons' Instruments and Hospital Requisites.

When writing to advertisers, please mention the 'Antiseptic.'

CREOSOTONE, (UPJOHN)

Each ounce represents:
Creosote and Potas Guaiacol Sulphonate, 16 grs.
Quinine Sulphate, 1 gr.
Nux Vomica, 1 gr.

Combined Hypophosphites of Calcium, Potassium, Manganese and Iron, 8 grs.

Usual Dose:
2 to 4 drachms.

A SOLUTION of Creosote and Guaiacol (with tonics) which your patients will take without objection. The Guaiacol is imperceptible to the taste, being present in the form of a soluble, palatable combination.

Creosotone is valuable for treatment of catarrhal conditions of the bronchia, in early or suspected tuberculosis, winter cough, and as a reconstructive during convalescence, either alone, or in connection with cough sedatives as required.

Creosotone is Free
from Opiates and Alcohol.

Manufacturers: THE UPJOHN COMPANY, KALMAZOO, MICH, U.S.A.

For samples and literature apply to Sole Agents:

T. M. THAKORE & CO., 111, Nainiappa Naick Street, P. T., Madras.
Head Office: 43, Churchgate Street, Fort, Bombay.

CALCIUM THAT IS ABSORBED

The daily adult requirement of calcium amounts, according to highest authority, to 0.45 gram (7 grains) per day. It can be predicted that the intake of a very large proportion of patients is far below this requirement. Our great interest in Cod-Liver oil, violet rays, vegetable diets, etc., should not blind us to the fact that after all they contain little or no calcium. The satisfactory use of lime requires a number of considerations, such as (1) acidity of the upper bowel, (2) alkaline metabolic end products, (3) a balanced administration of phosphorus, magnesium and the alkaline bases. These considerations are fully met in

CALCIONATES

Three teaspoonfuls = the lime of 1 pint of milk

Calcionates is supplied in 4 ounce bottles

Manufacturers:

THE UPJOHN COMPANY, KALAMAZOO MICH. U.S.A.

For particulars and literature apply to Sole Agents:

T. M. THAKORE & Co., 111, Nainiappa Naick Street, P. T., Madras.
Head Office: 43, Churchgate St., Fort., Bombay

When writing to advertisers, please mention the "Antiseptic."

UTERINE ELIXIR

What it Contains :—

- (1) Uterine Tonic and Sedatives :—(a) Aletris (b) Asoka—in purest form retaining all the active principles of the drug.
- (2) Stimulants :—(a) Alcohol 90% (b) chloroform (in mild doses).
- (3) Sedatives :—(a) Bromides (in small doses.)
- (4) Syrups and Carminatives.



Why it is Preferred :—

- (1) Mild Tonic giving best results when regularly used.
- (2) Does not contain any harmful or intoxicating drug.
- (3) Can be prescribed even to a weakest constitution without any disadvantage.
- (4) does not irritate the bowels.
- (5) Recommended by specialists in diseases of women.

A well-known Lady Dr. (Assistant Surgeon, Civil Hospital, Aurangabad.) writes :—

I have the pleasure to say that I tried your specific Uterine Elixir in several cases and it has given beneficial results to patients suffering from Dysmenorrhoea, Leucorrhoea and several other womb complaints. I can safely recommend it as an uterine Tonic.

Available at Rs. 2-8 only from Leading Chemists.

Sole Distributors for India and Overseas :

M. D. VORA & Co., Hospital Suppliers, Bombay 2. P. B. 2003.

Agents :—R. JOGIDASSAU & Co., 113, Nainiappa Naick Street, P. T., Madras.

When writing to advertisers please mention the "Antiseptic."



"FOR better results"—is the watchword in producing Agarol. A mineral oil emulsion of highest grade ingredients obtainable, prepared with the efficiency of seasoned experience, cannot but be dependable. Its effectiveness is a reliable aid in teaching the intestinal tract to "keep hours," its exceptional palatability makes the taking of medicine easy and reasonably pleasant. § Agarol is the original mineral oil and agar-agar emulsion with phenolphthalein. It contains no artificial flavouring, no sugar, alcohol, or alkali.

Prepared by

WILLIAM R. WARNER & CO., INC., Manufacturing Pharmacists Since 1856.
113-123, WEST 18th STREET, NEW YORK, U.S.A.

*Agents in India :—*MARTIN & HARRIS LTD.,

Rowlette Building, Prinsep Street, Calcutta;

Graham's Buildings, Parsi Bazar Street, Fort, Bombay;

15, Sunkurama Chetty Street, Madras; 2, Campbell Street, Karachi;
and 189, 32nd Street, Rangoon.

When writing to advertisers, please mention the "Antiseptic."

I. F. G. AGENCY

CUDDALORE OLD TOWN.

ASTHMA

Dear Doctor,

Here is something worth your attention. Our Principals, Messrs. Luitpold Werk, Munchen (Germany) have, after years of scientific research brought out a perfectly Reliable Cure for Bronchial Asthma.

The name of the product is

PASPAT

It is administered in the form of a vaccination and the full course of the treatment consists of only ten inoculations at intervals of a fortnight.

Paspat treatment is radical and certain. It is creating quite a stir in the Medical World, and we exhort you to give it a trial at once. We shall be happy to send you convincing clinical reports together with a sample if you will let us know your interest.

With best regards,

We remain, Doctor,
At your service
I. F. G. AGENCY.

(Boxes of 5 ampoules are available at all leading chemists at Rs. 10/per box).

When writing to advertisers, please mention the "Antiseptic."



DOCTORS
prescribe
it

—the laxative
that is as delicious
as CHOCOLATE!

Unpalatable laxatives are not only nasty to take but often injure the delicate organs of the stomach and intestines. That is why doctors, nurses and hundreds of grateful users of Castophene recommend this laxative—for its safe and gentle action. And it is pleasant to take—just like chocolate! Get a bottle to-day—there's no better laxative.



CASTOPHENE
CASTOR OIL CHOCOLATE

FROM ALL CHEMISTS

CASTOPHENE MFG. CO., BOX 88, KARACHI
& P. O. BOX 2187, BOMBAY 2

Agents for Southern India:—
Sivaram & Swamy 27, Sembudas St., Madras.

ALEMBIC

LATEST SPECIALITIES.

MILKOTINE.

Contains:

Finest dried milk Malt Extract, Cocoa Powder, Vitamins A. B. C. & E. and Mineral Salts.

Very Valuable for:

General debility, over work, Sexual Debility, Convalescence, old age etc.

MILKOGEN.

Contains:

High Protein Food with dried milk, Cocoa, Malt Extract, Glycerophosphates, Sodium and Vitamins.

Ideal for:

Nursing Mothers and Growing Babies.

ABSORBENT COTTON WOOL.

Carefully Sterilised and Perfectly Absorbent.

FOR ALL SURGICAL PURPOSES.

(Tissue Lined)

CARBO KAOLIN WITH BELLADONNA.

Contains:

Carbonates of Calcium and Bismuth, Peroxide of Magnesium with Sterilised Kaolin, Belladonna and Pancreatin.

For:

Acid Dyspepsia and other types of indigestion.

ANTISEPTIC LIQUID SOAP.

For:

Medical, Surgical, Midwifery Practices and General Cleansing Purposes.

CAN BE HAD FROM ALL CHEMISTS AND STORES.

For particulars please write to:—

The Alembic Chemical Works Co., Ltd.,

381, ARTHUR ROAD, BOMBAY 11.

Madras Agents:—SIVARAM & SWAMY,

27, Sembudas Street, Madras.

When writing to advertisers, please mention the 'Antiseptic.'



The House of BUTTERWORTH

places itself at the service of the Members of the Medical Profession for all Indian, English and Foreign Medical Publications including The Practitioners Library of Medicine and Surgery, Tice's Loose Leaf Medicine, Nelson's Loose Leaf Living Surgery, Forchheimer's Therapeutics of Internal Diseases, Gynaecological and Obstetrical Monographs, Physical Therapy, etc.

Write for details of the
BUTTERWORTH INSTALMENT SERVICE.
("Library-Building out of Income")

A SELECTION OF LATEST BOOKS JUST RECEIVED

KIRSCHNER'S OPERATIVE SURGERY The Abdomen and Rectum.

By Dr. MARTIN KIRSCHNER, Professor of Surgery and Director of the Surgical Clinic at Tubingen, Germany. Authorised Translation by I. S. RAYDIN, B.S., M.D. 580 pages, 395 illustrations, mostly coloured. Rs. 37-8 net. (1933)
The enthusiastic reception which was accorded the first volume has made the editing and publishing of the present volume a welcome task. This covers the field of Abdominal Surgery, including the Rectum.

ROSE AND CARLESS' MANUAL OF SURGERY.

Edited by CECIL P. G. WAKELLEY, D.Sc. (Lond.), F.R.C.S. (Eng.), F.R.S. (Edin.), Surgeon, King's College Hospital; Lecturer in Surgery, King's College Hospital Medical School, London, etc., and JOHN B. HUNTER, M.C., M.Chir. (Cantab.), F.R.C.S. (Eng.), Surgeon, King's College Hospital, and Lecturer in Surgery, King's College Hospital Medical School, London, etc., etc., and assisted by other eminent contributors. New (14th) edition, 1498 pages, 16 coloured plates, 8 black and white plates, 744 illustrations. Rs. 22-8 net. (1933).

In this revised edition many subjects have had to be revised and large amount of new matters added.

MAGNUSON'S FRACTURES.

By PAUL B. MAGNUSON, M.D., Associated Professor of Surgery, Northwestern Medical University School, Chicago. 486 pages, 317 illustrations. Rs. 18-12 net. (1933).
Written for the man who first sees the fracture with the aim of simplifying methods of treatment, and to approach the problem of fractures from the standpoint of Anatomy and Physiology.

KERR, FERGUSON, YOUNG AND HENDRY'S COMBINED TEXTBOOK OF OBSTETRICS AND GYNÆCOLOGY.

By Professor MUNRO KERR, Drs. HAIG FERGUSON, and JAMES YOUNG and Professor JAMES HENDRY, with other contributors. New (2nd) Edition, 1120 pages, over 500 illustrations. Rs. 26-4 net. (1933).

FUCH'S DISEASES OF THE EYE Textbook of Ophthalmology.

By HOFRAT ERNST FUCHS, former Professor of Ophthalmology in the University of Vienna. Authorised Translation by E. V. L. BROWN, M.D., Professor of Ophthalmology, University of Chicago, from the 15th German Edition of LEHRBUCH DER AUGENHEILKUNDE as revised by MAXIMILIAN SALZMANN, Professor of Ophthalmology, University of Graz, Austria. New (10th) English Edition, 641 pages, 255 illustrations in the text and 41 coloured figures, Rs. 31-8 net. (1933).

HOLT'S DISEASES OF INFANCY AND CHILDHOOD.

Revised by L. EMMETT HOLT, Jr., M.D., and R. McINTOSH, M.D., New (10th) Edition. 1240 pages, 5 plates in colour and 204 illustrations in the text. Rs. 31-8 net. (1933).
"A valuable and comprehensive textbook."—*Lancet*.
"The book to which the children's physician turns in the first instance for accurate information in his speciality."—*Practitioner*.

BARTON AND YATER'S SYMPTOM DIAGNOSIS: Regional and General.

By W. M. BARTON, M.D., and W. M. YATER, M.D. New (2nd) Edition. 851 pages. Rs. 33-12 net. (1933). "The authors may be congratulated on having produced a remarkable, complete and concise volume."—*Lancet*.
"After ten reprints, a second edition has appeared, and the popularity of this book of reference is now obvious."—*British Medical Journal*.

BUTTERWORTH & CO., (INDIA) LTD.,

CALCUTTA:—Med. Dept. 6, HASTINGS STREET, POST BOX 251.
BOMBAY:—Med. Dept. Jehangir Wadia Building, Esplanade Road. Post Box 250.
MADRAS:—Med. Dept. 317, LINGA CHETTY STREET.

THE WESTERN
HOMŒO - BIOCHEMIC PHARMACY.
 Kothari Mansion. - - opp. G.P.O. Bombay 1.

THE
HOMŒOPATHIC PHARMACISTS
 for PRESCRIPTIONS, BOOKS, TABLETS,
 PILULES, TINCTURES, TRITURATIONS,
 GLOBULES, AND MEDICINE CHESTS
 FOR BIOCHEMIC AND
 HOMŒOPATHIC MEDICINES.

May we send you our Price List?

MANAGERS NOTICE.

Complaints are often received about non-receipt of copies long after the usual date of arrival to destination. Copies often become out of stock then. It may not be possible to send copies a second time free or even on payment of cost. Non receipt of copies should therefore be intimated then and there at least within ten days, after the due date. The cause for non-receipt will then be enquired into and if it is found that the mistake does not lie in the Office, and if copies are available, a second copy will be sent charging the cost thereof to subscribers' account. The trouble is chiefly due to intimation regarding change of address not being communicated in time or being received just after the journal was despatched. Subscribers must make their own arrangements to receive their copies in such cases. Further, subscribers are informed that copies are allowed to be posted by the Post Office only twice a week (i.e.) on Wednesdays & Fridays.

As postal rates have increased, the management is compelled to restrict correspondence to the lowest possible minimum and it is hoped that subscribers will earnestly co-operate with it in the matter.

Manager,
 "ANTISEPTIC."

When writing to advertisers, please mention the 'Antiseptic.'

RENOWNED PRODUCTS OF
The KUSHMOL PHARMACY,
 A-23, Victoria Park Street, BENARES CITY.

DR. KHURSHID'S "KUSHMOL"

A weapon of precision; 98 percent.
 accurate. Effective from first dose;
 Superior to all the drugs yet known
 to physicians.

**Arm Yourself with Kushmol
 and Defy Asthma.**

Life-long chronic cases are cured in days.

Price Rs. 3-4. Postage Extra.

KAGTA SILVER PILLS

(FEMALE)

A GENUINE UTERINE TONIC

Cures Leucorrhoea and Menorrhagia,
 radically, by internal use only.

No douchings or local applications re-
 quired. One bottle, 20 days' use, enough
 for an average case. Removes Sterility
 due to above diseases. Results extremely
 pleasing to both the patient and the
 physician. **Price Rs. 3.**

Stockists SRI KRISHNAN BROS., P.O. Box No. 166, G.T. Madras
 DADHA & CO., :: P.O. Box No. 541, P.T. Madras

FOR THE
 TREATMENT OF

Inflammation and Congestion

in cases of

EMPIRE'S Congesti-
 cide has earned the
 approval of Medical
 Men by its exceptional
 power to maintain for
 12 to 24 hours a continu-
 ous and uniform heat,
 which not only effecti-
 vely relieves pain but
 restores normal circula-
 tion and induces relaxa-
 tion.

Pneumonia, Bronchitis, Pleurisy,
 Sprains, Colds, Chronic Ulcers, Boils,
 Tonsillitis, Inflamed Breasts, Sore
 Throat, Abscesses, Burns, etc., etc.,

EMPIRE'S

CONGESTICIDE

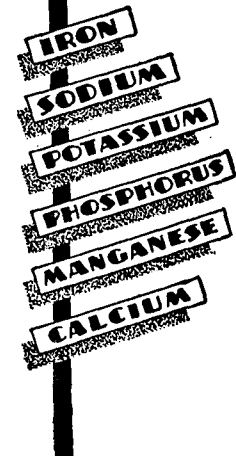
IS INVALUABLE

I. G. GAJJAR & CO.,
 Princess St., Bombay. 2.

AVAILABLE AT ALL CHEMISTS.

When writing to advertisers, please mention the "Antiseptic."

Remineralize with FELLOWS' SYRUP



to overcome the marked mineral depletions caused by such acute infections as acute bronchitis, coryza, the debility of old age, and postoperative cases.

It is the most valuable preparation in these conditions.

Suggested dose: One teaspoonful t.i.d. in water.

SAMPLES ON REQUEST

FELLOWS MEDICAL MFG. CO., INC.
26 Christopher Street, New York, N.Y.

Rapid gain in weight

is secured in cases of retarded development by the use of

Mellin's Food

because it supplies Malto-Dextrin, the most readily absorbed of all carbohydrates.

It contains peptised vegetable proteins and essential amino-acids, which, by lowering the pH of the mixture, ensures complete fat emulsification and casein flocculation.

Thus gastric and intestinal irritations are allayed and normal conditions quickly restored.

Samples and booklet containing full details of composition and calorific value of mixtures suggested for different ages and conditions, post free, from:

SPENCER & CO., LTD., MADRAS.

When writing to advertisers, please mention the 'Antiseptic.'

The Antiseptic

[Estd. 1904]

A MONTHLY JOURNAL OF MEDICINE & SURGERY.

Editors: DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

Editorial and Publishing Offices:—323, Thambu Chetty St., Madras.

ANNUAL SUBSCRIPTION RS. 5, FOREIGN, 10 SH. POST PAID.

Original Articles

AURICULAR FIBRILLATION *

BY

B. G. MALLIA, M.D., F.R.C.S.E., L.R.C.P. (Lond), MAJOR I.M.S.

Superintendent, Chittagong Medical School.

Case 1. H. a rifleman aged 29 was admitted to the Chittagong General Hospital for fever of four days duration. On admission he appeared to be acutely ill. Temp. 102.8, pulse small volume, rhythm irregularly irregular. The condition of his pulse led to a thorough investigation of his case. He did not give any history of rheumatism and the fact that he was a rifleman pointed to his being in good health as he had to parade and do heavy duties. He was not in hospital for any serious illness before this. He had no sick leave during his ten years service. His blood was positive for malaria B. T.

Case 2. K. male aged 55 was admitted for dyspnoea and swelling of the legs and feet and his pulse was irregularly irregular. This man had been in this hospital before with the same trouble.

These two cases are typical examples of the two types of Auricular Fibrillation. The first case illustrates the topic type which occurs in association with Influenza, Pneumonia, Endocarditis, Hyperthyroidism, Diphtheria, and exhausting diseases. Bodily effort such as running to catch a train or bus in the middle age or by

* Edited from a clinical lecture delivered at Chittagong Medical School and specially sent to the Antiseptic for publication.

this brief analysis I propose to dwell on the most common diseases of which fever of remittent type is an invariable symptom.

1. The most common of this type of fever is *Malaria*. The symptoms are a little atypical. For the first two or three days the fever is often of intermittent character, then the morning temperature does not fall down to normal and a continuous course of the temperature chart follows. Why a malarial fever instead of taking intermittent type, becomes remittent is a question which cannot be answered very easily. Malignant Tertian may take the course of remittent type as the cycle is often continuous and the Merozoites are liberated very irregularly. In other two types the cycles of which are though more regular may collide with each other and the continuous and irregular type of temperature results. Clinically the disease is not diagnosed properly and the help of microscope is not available in all places, and quinine administered not in proper doses aggravates the condition. Generally, what happens is this. The patient gets fever, does not seek the help of any physician for 2 or 3 days, fever increases, then he comes to the doctor who administers only a diaphoretic mixture, suspects malaria but in the mean time the temperature becomes irregular, either costiveness or diarrhoea supervenes which may be attended with slight tympanitis, eyes red, brain complaint sprouts, fever misleads the doctor who cannot boldly push quinine without affirmative diagnosis, fever continues in a remittent form. Due to quinine, Malarial parasites, if blood is examined at this period, are not found in the films which misleads the doctor more. When the form of asexual type of parasite becomes less virulent, a spontaneous cure occurs. Fever drops then and the patient is cured, spleen is enlarged but this enlarged spleen helps the patient very much, as the destruction of the parasites takes place in the spleen. Therefore enlargement of the spleen is only a symptom, as fever is, and indicates the degree of virulence of the disease. On the other hand enlarged spleen is protective to the patient and is an index of severity of the disease. But enlargement of liver hinders the cure of the disease. The fever does not cut short but continues. The fault in the liver is often found the cause of nonremission of the fever. In these cases a few doses of Sodii Salicylas Mixture often do immense good, the fever is dropped and the patient is cured, which condition the Quinine Mixture could not effect. Time of remission of the fever depends upon the individual susceptibility, it may be on the 13th, 17th, 21st day of the course, or some such time. If the vitality is lowered and

further infection of any other disease, specially intestinal or pulmonary, supervenes, the course becomes much more complicated and the physician is much more puzzled, in the treatment of this sort of fever. Failure of treatment often occurs, sometimes spontaneous cure is again effected, or better result sometimes is available without medicine, which is very peculiar indeed. I know of three cases in which after two or two and a half weeks of allopathic treatment by well qualified practitioners, fever dropped with a single dose of Homeopathic medicine. All medicines were stopped and the patients were cured. Again in another case in an interior village a certain young lady was suffering from remittent type of fever; in the second week, fever rose high, up to 105° F or so, without remission; but in the third week the fever waned a little though without remission. Incoherent speech, much prostration etc. resulted. One dose of Quinine Bihydrochlor x grains intramuscularly with a little Adrenaline Chloride solution hypodermically cured the patient. In another case, duration of fever six days, much delirium, red eyes, no motion for three consecutive days, patient a little boisterous, residing in a village, called a physician from the town. Douching of the lower intestines and one intramuscular injection of Quinine and fifteen grains of Quinine per mouth daily for two days brought a cure to the patient. Of course symptomatic treatment for the complaints was adopted at the same time. When any fever takes the course of remittent type, if the help of microscope is available, the blood should be at once examined and whether the result be positive or negative, Quinine in xv grains doses in a day for four consecutive days should be administered. But if the temperature dose not come down, think more of the disease and do the needful.

2. The onset of *Kala-Azar* is diverse. It may come on insidiously or at once in a continuous type of fever. As the patient can perform his ordinary work even with a temperature of 102° F and as the headache is very much less, and as appetite rather increases though with poor digestion, the patient feels only a little out of sort, and this course may run even for months, then the severity of the disease is felt and the fever generally takes the course of a remittent type. The peculiar symptoms of double rise of temperature often leads to the proper diagnosis. Leucopenia is marked and by positive Aldehyde test and by finding L. D. bodies in the blood, the diagnosis becomes confirmed. A few doses of Urea-Stibamine, cure the patient. Other symptomatic treatment must be followed at the same time. Intravenous route of Antimony

medication is the best form of treatment at our hand at present. I have seen cases with large abscess due to intramuscular injection of Antimony preparation. These abscesses had to be cured by operation. Spontaneous cure from the disease is very seldom. I saw one case, that of a young Hindu Brahmin village boy, being cured spontaneously after suffering for more than two years. He is now a man of thirtyfive and possesses a good physique.

3. Next in order comes the *Para-typhoid* group. A very anomalous disease; M. P. not found, Aldehyde test negative, Widal reaction not positive, great prostration, muttering delirium, quinine had no action upon the temperature, there is slight tympanitis, fever remittent, diagnosis is vague,—physician declares it to be Para-Typhoid. I hope not to be misunderstood because I am speaking about facts. Diagnosis purely depends upon the Agglutination test of the patient's serum against Para-Typhoid bacilli. The fever continues in the form of remittent type, and clinically it resembles typhoid fever in mild form and true to speak the fever terminates spontaneously by lysis. Treatment is purely symptomatic. I doubt whether the reputed intestinal antiseptics have any action upon the course of the fever. Hydrotherapy is the best sort of treatment. Failure of medical science to terminate the fever earlier is rather very ludicrous.

4. The severest type of remittent fever is *Typhoid*. True typhoid cases are not common. The disease generally ends fatally. Prostration is very great. It is a specific fever. Malaise and lassitude continues for several days. Patient quite healthy, feels very depressed and weakness becomes so great that he cannot perform his ordinary work. Ladder like temperature, pea-soup diarrhoeaic stools, tympanitis and gurgling in the right iliac-fossa red tipped dry tongue, subsultus tendinum, muttering delirium and carphology leading to typhoid state, are the characteristic symptoms. Diagnosis is established a little later. Widal reaction may become positive very late and generally it does not appear in the expected time, moreover to rely diagnosis upon this point only, is very uncertain. In the treatment careful nursing and Hydrotherapy are the two essential objects. Drugs are of little avail. Patient's strength should be maintained. Sufficient water should be taken. Bacteriophage, Digitalis etc. do much good. All other treatments are symptomatic.

5. *Coli bacilluria* may cause a prolonged course of remittent type of fever, and is very disgusting both for the patient and the physician. The disease itself does not indicate any definite groups

of symptoms. The disease is generally found in the tropics, causes a prolonged course of irregular type of fever. It is diagnosed very late and after excluding all other diseases. Culturing the bacilli from the urine, drawn by a catheter aseptically and finding out the specific bacilli, help the diagnosis. Generally the disease runs the course similar to enteric infection but in a more prolonged way. Fever does not abate but continues and continues its course. The debility of the patient becomes very great. About treatment, vaccine, alkaline mixtures, urotropine etc. do much good.

6. *Tuberculosis* infection may attack any part of the body and no matter where the infection lies, it is attended with rise of temperature, which is not felt by the patient in the first stage, weakness and emaciation follow, the fever becomes prominent keeping even at that time other symptoms in an incipient condition. The fever at first may be mistaken to be of malarial origin; but no effect from quinine is obtained. Then if the disease is not diagnosed earlier, alarming symptoms arise. Fever takes the course of remittent type and little hope to save the patient remains. Diagnosis depends upon the finding of the bacilli from the exudate of the organ infected. Treatment should be directed towards the maintenance of the strength, to allay the symptoms and to kill the virus.

7. *Influenza* sometimes causes a prolonged course of fever even three weeks or more. The diagnosis is very difficult as in such cases the characteristic symptoms of nasal catarrh, pain in the limbs etc. may be absent or so slight as are overlooked, and the bacilli can seldom be isolated.

8. *Broncho-pneumonia* is attended with a remittent type of fever. The pulmonary signs easily lead to the diagnosis.

9. *Infective endocarditis* is a condition in which inflammation of the valves and the endocardium takes place. Actual ulceration occurs. The simple acute endocarditis which is often a complication of rheumatism is not so severe a disease as the malignant infective endocarditis. The causative organisms are generally of a septic type and the disease generally is secondary to some septicaemic condition. The fever is generally of irregular remittent type, culture of bacilli from the blood leads to the diagnosis; and vaccine prepared from the bacilli obtained, forms the nidus of the treatment.

10. *Septic Toxaemia* is another cause of remittent type of fever, though hectic type of temperature is characteristic. Septicaemia, pyemia, liver abscess and pent-up-pus fall under the same

category. Gangrene, necrosis, empyema, unhealthy wounds, caries, periostitis, osteomyelitis, appendicitis, puerperal septicaemia, cellulitis, erysipelas, diphtheria, etc., are the different causative factors. Diagnosis is easy when the cause is apparent. Albumin in the urine and leucocytosis are the diagnostic points. Treatment depends upon operation, antiseptic, curative serum or vaccine and keeping up patient's strength.

11. *Diseases such as pernicious anaemia, relapsing fever, hodgkin's disease, mumps, meningitis, rocky mountain fever, Malta fever, yellow fever, rat-bite fever, leukaemia, hysteric fever, etc.,* may be referred to be the causes of remittent type of fever, the discussion of which would be out of place in such a short article.

12. *Syphilis* occasionally causes fever of remittent type, especially if any Gumma formation takes place in some deep seated organ of the body. In such cases diagnosis becomes difficult. But it is more important to remember that Syphilis sometimes complicates a case of remittent fever due to some other origin until the fever is stopped by administering a few doses of potassium iodide.

13. *Measles* sometimes takes a peculiar course. Remittent type of fever even for a fortnight, then the eruptions appear and the fever then gradually subsides. I saw a few cases of this type.

14. In this connection I cannot help mentioning about the *infection of round worms*, which sometimes retard the cessation of the course of a remittent type of fever, which is occasionally seen in some ordinary remittent fever of simple malarial origin. One or two doses of Santonine bring the fall of the temperature. It is very interesting and must not be forgotten. I had to experience several times the benefit of santonine in such cases.

I hope I have mentioned nearly all the commonly observed diseases which manifest their advent by the remittent type of fever in the patient. Now I take the liberty of speaking something about the conducting of a case. Whatever the disease that cannot be positively diagnosed but is attended with remittent fever, first quinine should be administered in xv grain doses per diem consecutively for four days. If the temperature is amenable to this, further quinine should be given; if not, quinine bihydrochlor should be given for two days intramuscularly. If no result, pure and simple alkaline mixtures for three days. If no result and the diagnosis still vague, only symptomatic treatment and Hydrotherapy. If a diagnosis is obtained and for which one should try very hard, the specific treatment of the diseases should be adopted.

CHOLERA ASIATICA *

(A Synopsis of 500 Cases.)

BY

J. N. GHOSAL, L.M.S.,

Basirhat.

Diagnosis.—Cases closely resembling cholera sometimes occur in the malarial districts, where a correct diagnosis is essential. In all sporadic cases of cholera, one should therefore always note the rectal temperature and search for periodicity in the attack.

Food infection and arsenic and corrosive sublimate poisoning resemble cholera. (The characteristic features of bacterial food poisoning are, the sudden onset, severe diarrhoea with cutting abdominal pain, and pyrexia. The interval between the taking of the infected food and the onset of symptoms is 2 to 36 hours. Many foodstuffs have been connected with the outbreaks :—certain kinds of poisonous or tainted fish, meat, pork, mutton, contaminated milk, sausages, salmon, sardines, various made-up foods, etc. The differential diagnosis with cholera lies in the severe intestinal pain, severe and constant nausea, retching, distressing vomiting, liquid but faecal offensive stool, shivering and pyrexia, and, absence of suppression of urine. (Tomb) Even with very, severe diarrhoea, blood and mucus are rarely found in the stools which distinguishes these cases from severe dysentery. (Cruickshank)

Lal and others have recorded cases of,—*Ascaris lumbricoides* simulating symptoms of cholera.

Types.—Four distinct types of cases can be distinguished, one or more predominating in each epidemic.

1. *The diarrhoeic variety.*—Begins mainly with diarrhoea; other symptoms set in step by step—namely, vomiting, cramps, loss of voice, restlessness, collapse; all these are sequence to the huge loss of fluid from the system.

2. *The spasmodic variety.*—Cramps set in very early, after 2 or 3 evacuations, cause intense suffering, surpass all other symptoms and persist till the end. These are not confined to the extremities (as in other types), but affect particularly the chest and the abdomen and are extremely painful and suffocating.

(In 1929, a few sporadic cases occurred on both banks of the Ichamaty. The writer attended 6 cases and got history of 6 others. Of these 12 patients,

* Specially contributed to the Antiseptic.

11 died. Five had one injection each of saline solution and all died. The symptoms were, after 2 to 4 evacuations, the patients developed extremely painful spasms of the chest which threatened to suffocate them. The stools became few and far between, the abdomen became tympanitic, urine suppressed, vomit distressing, but topping all, the cramps caused tears to flow even from an ex-sanguinated cholera patient. One of the writer's cases, an exceptionally robust young cultivator of 20, turned blue in his presence with stoppage of respiration and pulse and looked suffocated to death for about 5 minutes. And this occurred thrice before his death. His abdomen was full and tense like an inflated football, and on passing a 12 catheter into his rectum, 6 to 8 pints of serous fluid spouted out with great force through the tightened sphincter. The muscular spasms were so severe, that heart beats were not audible and pulse was never felt. The S.G. of the blood was 1070 and B. P. below 60. A pint of "Hypertonic" was introduced with difficulty on account of the restlessness, but the restored pulse vanished within half an hour. After withdrawal of the fluid from the rectum, 50 c.c. of sugar solution and gr. 1-50 of atrophine sulph were put into a vein. But none survived, excepting one who was treated by none.)

3. *The Paralytic variety.*—In some epidemics, this rare type is met with. After a few evacuations, the patient lies in a state of stupor without restlessness and complaining very little of thirst or burning sensation or cramps. A complete loss of tone of the whole system is manifested from the beginning.

4. *The Asthenic type.*—begins insidiously, protracts long, shows no reaction; vomiting and purging continue unabated; pulse, although very feeble, is maintained throughout; there is passive congestion of all the organs. Symptoms continue for 7 or 8 days.

(An *Atypical variety* of cholera is seen especially at the close of the epidemics. The symptoms are those of true cholera with this difference that the flow of urine is maintained even when the stool is typically rice water, the voice does not become husky till the end, the pulse keeps up in spite of the pinched and cold condition. Most of these cases recover very slowly if left alone and not vigorously treated with repeated intravenous salines. Indeed the pulse and the S. G. of blood seldom indicate saline. This atypical variety is met with most often with the paralytic type, and, at the end of most of the epidemics. One special distinguishing feature is the total inhibition of the flow of bile while the function of the kidneys is maintained for days. Whereas in true cholera, almost all secretions are inhibited, the gastro-intestinal, biliary and renal. The causative organism may be other than the vibrio, as pointed out by Tomb and Moitra.)

Treatment.—The rational treatment of cholera, therefore, depends upon a close observation of the type of the disease, and, the urgent and immediate need of the body. A stereotyped, routine, and so-called specific treatment applied to one and all cases, irres-

pective of the type and stage, is bound to bring different results and discredit to the life-saving Hyper-tonic Saline.

(For the last 5 years sporadic as well as epidemic attacks of cholera in and around the town of Basirhat have shown a heavy mortality in spite of saline treatment. The types were mostly spasmodic and paralytic. Most of the saline-cases succumbed. And routinism has been beaten hollow. It is inherent in our nature to search for a royal road for every one to travel, and the search for a specific for each and every affection has possibly its origin in this feeling. But the result has been disastrous for the profession as well as the public.)

Since the advent of Roger's Hypertonic Saline treatment, the village doctors and also the lay public came to believe that one intravenous saline injection was a sure, infallible and specific remedy for the dreadful cholera. But the last few year's experiences have broken the spell and the suffering public is reverting back to Homeopathy. Salines have fallen into utter disrepute in spite of brilliant reports from Hospital statistics.)

Hence the writer is putting forward the following line of treatment with suggestive points for the thoughtful consideration of his Mofussil brother practitioners.

(a) In the **Diarrhoeic** type, and, for big and sudden depletion of fluid from the system, resulting in collapse,—

Inject adrenalin chloride solution 1 c. c. and atropine sulph gr. 1/50 intramuscularly at the first visit if the circulation is still flowing in the capillaries. Repeat adrenalin often, and the atropine whenever cramps are severe.

Inject Hypertonic Saline, solution, 2 to 4 pints, intravenously. The quantity and frequency of injection can be fairly guessed by measuring the S. G. of blood, (inject above 1060), and by recording B. P., (inject below 60). Repeat injection whenever deemed necessary.

(Even hypertonic saline solution is thrown out by the system many a time within an hour after injection by vomiting and purging. And this occurs frequently in spasmodic and paralytic types.)

• **Intraperitoneal Injection:** where veins are difficult to make out and time is precious, and especially in children, intraperitoneal injection should be practised by mofussil doctors. The site of injection is just below and a little to the side of the umbilicus. Apply tincture iodine and then a pin drop of phenol, draw up taut the abdominal wall and introduce a trochar and canula. Withdraw the trochar, slip on the rubber tubing of the saline apparatus over the canula, make it tight by a thread and allow the solution to enter the peritoneal cavity at the rate of 8 to 10 minutes per pint.

(In the spasmodic cases and in uremia, the abdominal wall is tense and tauting is almost impossible.)

In mild cases, where inspite of huge flooding, the pulse and warmth of the body are maintained, subcutaneous and rectal salines are to be preferred.

When the case is seen late and uremia is threatening, one pint of alkaline saline solution may advantageously precede the hypertonics.

(b) In the **Spasmodic** type and for **Cramps**, the following is recommended: Adrenalin and Atropine are our sheet anchors in this type. Pituitrin and caffeine sodi benzoas may help also. These are to be repeated as often as necessary. Intravenous saline offers little help so long as the spasms are not controlled. Dry ginger powder and hot mustard oil may be rubbed all over. Severe abdominal cramps may yield to mud poultices. Agonizing and suffocating spasms of the chest muscles and of diaphragm can only be lessened by intravenous injection of Morphine-Atropine. Mag sulph solution and novalgin intramuscularly may be tried. Vigorous massage of hot camphorated oil is soothing.

If the S. G. of blood indicates saline, alkaline saline solution should be very slowly introduced through a vein, and if this first pint is comfortably taken, a further pint of hypertonic, preferably 100 or more c.c. of Merck's Grape sugar solution may be given.

(c) In the **Paralytic** type, the writer has found that adrenalin chloride solution, or, Aconite, one drop per dose, administered once after each vomit or stool, from the commencement of the attack is almost a specific remedy. (Indeed Aconite ix rightly claims number of cures in every cholera epidemic. That it is a great friend of early diarrhoeic cases during an epidemic, there is no doubt.)

Adrenalin secured laurels in the epidemic of 1917-18, (when almost all cases receiving adrenalin freely by the mouth and vein and skin escaped death), and since then it has been extensively used by the writer in all of his cholera cases.

Salines through the vein are contraindicated in the first and second stages of this type. If the loss of fluid be heavy, and the S. G. of blood is very high, saline should be administered intraperitoneally in urgent cases and subcutaneously in milder cases. The intravenous route is to be avoided as long as possible.

In the later stages, intravenous sugar solution and calcium chloride helps greatly.

(d) The **Asthenic** type which is met with frequently at the close of each epidemic, drags on for a week or more without showing signs of reaction or speedy dissolution. The patient

remains drowsy most of the time but can be roused, the eyes are congested,—the whole of the conjunctiva—and not the lower half only (as in uremia), vomiting and purging continue for days in moderate quantity,—the patient neither dying nor showing any sign of recovery for a long time.

Here stimulant drugs like nitrites, strychnine, musk, etc., have no lasting effects. The only drug that helps in restoring some vitality is intravenous sugar solution and later on, calcium chloride solution. Small quantities of alkaline saline solution may be thrown in, once intravenously and often by the rectum, intraperitoneal saline injection may be tried and glucose D should be given orally frequently. Continuous rectal drip of sodi bicarb and chloride with glucose is helpful.

Internal Drugs.—On account of complete loss of absorptive power of the intestinal mucous membrane, internal use of drugs is so much wastage. The writer has given up pot permanganas, essential oil mixture, bacteriophage, etc. He uses Collosal Kaolin, sometimes calomel and lately glucose D. For complications, some drugs are of course given as a routine.

Useful Hints—1. In collapse, if the patient seems to be getting quieter, the number and quantity of vomit and stools diminishing, and if a 'thready pulse' is coming and going, that is to say, if there are positive indications of a natural reaction about to set in, intravenous saline injection should be withheld. If we are tempted to follow routine treatment in such a case and throw in extra-strain upon the slowly-recovering heart (by introducing 3 or 4 pints of 'hypertonics'), that may be the last straw in the balance, the complete loss of the heart's reserve, and a speedy relapse and death may ensue.

2. Cases encountered 'in extremis' should better be treated with intraperitoneal injection rather than intravenous. It is done very quickly and even if death occurs during the procedure, there will ensue no shocking cutting scene. Moreover the action is equally quick, there is less risk of burdening the heart, and it is the only alternative route where veins are difficult to make out as also in children.

(In 1917, the writer was brought before a gasping young man at Nakipur and requested to enliven a cholera patient if possible just for a few moments in order to learn about his financial affairs. Three pints of saline effected the wonderful phenomenon,—in that far off village, the young dying man as if woke up from a deep sleep, recognised the writer and his landlord, greeted them, conversed intelligently, felt well and even assured that he would certainly recover. After half an hour, however, he began to pass blood and

serum and died 4 hours after the injection. Intraperitoneal injection was not dreamt of at the time.

3. Some cholera patients present a seemingly good pulse inspite of severe vomiting and purging and pinched up appearance, and are misleading. Deep drawing breath, ghastly pinched up appearance, the half congested eyes, the peculiar husky voice, etc., are familiar to all. In all doubtful cases, the S. G. of blood should be taken. One need not wait for actual collapse and entire loss of tone in the system.

On the other hand, it should be debated whether 3 or 4 pints of hypertonics, if introduced very early,—when the system is fighting with no uncertain strength,—produce any harmful effect by inhibiting the morale of the corpuscles.

4. As regards the quantity, the writer does not advocate more than 3 pints at one sitting in the average Indian. It is safer to repeat injection whenever indicated. We should remember that the circulatory system is a living organism and not a reservoir of water, and therefore its feelings and likings are to be respected. Its capacity is also limited and whenever this limit is exceeded, the organism is hurt and the overflow goes to the tissues and produces oedema.

(MacDonell advised to observe pulse pressure after every pint of saline infusion. If it is below 20 mm. continue infusion; but if there is an increase of 4 mm. over the previous reading, infusion should be stopped. This is a nice suggestion. But the instrument is rarely seen in the mofussil. The writer has seen terrible sufferings, convulsions and death following excessive quantity of saline given in spasmodic type of cholera patients.)

5. Too rapid flow of saline infusion (more than 2 ounces per minute), may result in acute dilatation of the heart,—especially in the paralytic type. Moreover “the fluid passing from the heart to the lungs may be nearly pure salt solution, and the result will be,—difficult breathing and restlessness following deficient oxygenation of blood.”

6. Sometimes heavy shivering sets in when barely a pint of saline has been introduced. No explanation has been forwarded as to why one cholera patient in collapse takes 3 to 4 pints of saline solution quite comfortably while another can scarcely stand even a fourth of the amount. The writer's experience is,—diarrhœic cases takes salines satisfactorily, spasmodic cases resist and become restless if persisted with, and paralytic and asthenic cases exhibit dyspnœic and syncopic signs.

Treatment.—Severe rigor may be treated with adrenalin, ephedrine, small doses of aconite tr., hot drinks, hot water bags, hot bottles on the sides and legs, etc.

7. Headache, restlessness and sweating are sometimes met with in the course of saline infusion. The flow should be stopped at once and renewed very slowly if the symptoms abate. Otherwise another route should be chosen. These troubles are seen especially in spasmodic and paralytic cases.

8. Vomiting and purging sometimes re-appear with renewed vigour just after saline infusion. In some the washings prove ultimately beneficial, and good reaction sets in notwithstanding. In others these signs should be taken as warning and another route chosen. If the case is of the diarrhœic variety, then atropine is to be injected and alkaline saline solution should be infused.

9. Sudden syncope and death have been reported in the course of saline infusion. This may be due to,—(a) forcible and too rapid injection; (b) very hot liquid; (c) spasmodic and paralytic types; (d) moribund cases,—from detached clots acting as emboli, and closing the coronary artery. (Usually however embolic deaths occur during convalescence, from the 4th to the 12th days.)

Anuria and Uremia:—Suppression of urine and uremia are the two big problems in the present-day treatment of cholera. Since the advent of intravenous infusion of salines in the collapse stage of cholera, the above two complications are frequently met with. One group of doctors maintain that as the percentage of recovery has increased on account of saline treatment, there is an apparent increase in the number of uremic cases. Mackie and Gupta remarked in June 1921. “In those kidneys we have examined post mortem, we have found widespread necrosis and desquamation of the tubular epithelium with the result that the collecting tubules became choked with disintegrating epithelial cells which appeared in themselves to form a mechanical obstruction to excretion of urine. It is probable that the injection of hypertonic fluids tends to prevent free osmosis through the kidney epithelium and we found it advisable to substitute isotonic solution for hypertonic, once the excessive purging have been checked.”

(*Comments.*—Innumerable cases of uremia and anuria have been noticed where not a drop of saline had been injected. In the last outbreak at Harishpur, among jatris returned from Tarakeswar, excepting 2 cases, all the others, 7 in number, were treated by Homeopaths, and all showed uremic signs and succumbed from total suppression of urine.)

Some confusion exists about anuria and uremia. In *Anuria*, when the stage of collapse is passed, reaction sets in slowly, patient feels relieved from thirst, burning sensation, cramps, restlessness, etc., his general appearance improves, pulse is felt at the wrist, stools become smaller in quantity, fewer in number and even tinged with a trace of bile, every outlook is hopeful and the urine is expected with eagerness, but hours and days pass away, not a drop of urine appears and the bladder is empty. Gradually the patient's eyes become congested, pulse gets frequent, face flushed, breathing dyspnoic, restlessness reappears, and at the end, after 3, 4, 5, and even 6 days, the brain gets cloudy, and heavy drawing in of breath sounds the death knell.

In *Uremia*, on the other hand, the patient passes from the collapse stage into a typhoid-like condition. Where hypertonic saline has been used, a brisk reaction may be seen with unusually good pulse and even a few ounces of urine may be secured, but this temporary revival changes into a condition of apathy and coma. For a time, the pulse bounds unnaturally, eyes get congested especially in the lower portion, restlessness supervenes, and dyspnoea shows danger ahead. In children, paroxysmal convulsive seizures with stiff extended legs and pointed toes, stiffened and folded arms, may alternate with a period of depression and relaxation. Every symptom centres round suppression of urine and absorption of toxins. Rarely, all these signs are accompanied by the passing of clear watery odourless urine by the patient. Still toxemia gets severer, hiccough, tympanitis, rigid hard abdomen, Cheyne-Stokes respiration, etc., supervene and patient dies.

Treatment.—It is a fact that the percentage of recovery from the above condition is slightly greater in cases untreated by salines, and that, to some extent, corroborates the statement of Mackie and Gupta. Secondly, the anuric cases are more amenable to our treatment than the uremics. More uremics die than anurics.

Dry cupping, or, mustard over the kidneys, alternate hot and cold applications on the lower abdomen, alkaline-glucose solution per rectum, caffeine-sodi-benzoate, strophanthin and grape-sugar solution by the vein, and sometimes alkaline-isotonic intravenous injection, are the lines of treatment. The writer depends much upon calcium chloride and grape sugar injections.

Complications. *Vomiting.*—More or less vomiting co-exists with purging in all severe cases of cholera. Usually it stops before the cessation of the stools. Sometimes vomiting causes more

anxiety than purging. The vomit of the diarrhoeic type is a simple gushing flow of profuse clear fluid. It comes out with little efforts, continues till reaction sets in with lesser and lesser severity and gives little trouble. In the Spasmodic type, however, much retching and painful cramps accompany the vomiting, and little fluid comes out with great violence. In the Paralytic variety, vomiting is a noiseless passive affair, but each act renders the patient paler, ghastlier looking and gasping.

In many of the Atypical cases of cholera, retching and vomiting predominate even after abatement of the purging and often end in hiccough, acidosis and uremia.

Treatment consists in Adrenalin chloride sol., Chloretone on cracked ice, minute and repeated doses of Calomel, Morphine and Atrophine Sulph, and Calcium Chloride and Grape Sugar solution.

Hiccough is very difficult to manage in all stages. Occurring early in the disease, it signifies a very severe toxemia and a bad prognosis. In the Paralytic variety, hiccough is often met with early. Adrenalin, ephedrine and pituitrin are indicated. In the Spasmodic variety, atropine is the remedy. Linseed-mustard poultices over the diaphragm may help.

When hiccough ushers in at the later stages, it usually persists till the end and sometimes throughout convalescence. But when it is a complication of uremia, the prognosis is bad. The treatment is that of uremia.

When all other signs are favourable, only the hiccough gives trouble, the following drugs may be of help:—Pyramidon and Luminal, Chloretone on cracked ice, Sternberg's mixture, Atropine and Trinitrin, intramuscular injection of Ether sulph, intravenous sugar sol., calcium chloride, etc.

Cramps are very troublesome in the Spasmodic variety. Unfortunately in our excessive enthusiasm for saline infusion, we have forgotten the old palliative remedies, I mean, application of warm clothes and hot bottles to the part, rubbing with hot mustard oil and dry ginger powder, etc., which are certainly useful for the time being.

Tympanitis and Acute Distension of the Abdomen are occasionally met with. Adrenalin, pituitrin, atropine, physostigmine sulph are to be tried. Hot and cold mud poultices are beneficial.

Diarrhoea and rarely *Dysenteric* stools appear in some cases during the convalescence. Intravenous calcium chloride is particularly indicated here.

Enteritis has been met with in 3 cases and all died.

Corneal Ulceration is often seen, especially in Asthenic cases. Intravenous Sugar sol. helps to restore vitality. Weak Acriflavine or Mercurochrome sol. is both preventive and curative.

Parotitis, Cancrum oris, Bed sores and Gangrene have all been encountered.

Phlebitis and Periphlebitis have been seen in 2 cases, following saline.

Cholecystitis has been met with in 2 cases. In both, pain and tenderness over the liver and jaundice appeared on the 4th day of the disease, when the patients have rallied from collapse and progressing fairly well. Both died inspite of treatment within 48 hours.

Malarial infection with rigor and fever occurred in 2 cases on the 3rd and 5th day of the disease. Both recovered after quinine and sugar injections.

Pneumonic signs developed in 3 or 4 cases during the stage of reaction, (in two of the saline cases) and half died.

Pregnant women fight better and recover more but the foetuses die in most cases.

Cardiac Embolism, was seen in 3 cases. It supervened on the 8th, 9th, and 13th day of the disease. Two of the cases had been salined and the third with Homeopathic drugs. The symptoms in the first two patients followed immediately after standing and moving a few steps. They felt sudden dyspnoea which rapidly increased in intensity. In one, a big portion of the lung was found motionless. The third patient felt sudden anginal pain and died in my presence with signs of intense dyspnoea, cyanosis and heart block. Possibly the coronary artery was embolised. He had taken rice that day two hours before the attack. Morphine is the only drug that can give a little relief. Where a portion of the lung is embolised, oxygen, in addition may be employed.

Prophylaxis. (a) *Cholera vaccine*, is now extensively employed in the villages and towns during every outbreak of cholera. It is still early to give a definite opinion about its efficacy. It may be stated that since its use, the spread of the disease seems to have been checked a little, no widespread epidemic having occurred in this area.

The writer has heard of 3 deaths following prophylactic injection of cholera vaccine. In a boy of 4 years, the injection was followed by a severe reaction with hyperpyrexia and convulsion and death ensued after 60 hours. In one girl, enteric symptoms had developed and death took place on the 5th day after injection.

(b) *Choledo* is a preparation recently introduced by May & Baker, Ltd. and can be tried.

(c) *Bacteriophage*. The writer has employed the ampoules extensively last year, both as a prophylactic and curative, but nothing striking has as yet been noticed.

(d) *Aconite* ix. The writer repeats once again that in every epidemic Aconite 1x has proved its efficacy when used at the very beginning of the attack or in the premonitory diarrhoea. It acts more surely and noiselessly than Rubini's Camphor, or, Chlorodyne, or, essential mixture, or Bacteriophage. It is administered in a drop dose after every stool or vomit, and in severe cases, every 20 or 30 minutes with water. Its main indications are a feeling of dread and anxiety, a quick pulse, dry mouth and thirst, restlessness, pain on pressure on the abdomen, vomiting, purging, etc. It has no action on the spasmodic type of cholera. But in the diarrhoeic, paralytic and asthenic types, it has won laurels when used early in the attacks.

If all diarrhoeic cases during an epidemic get aconite from the beginning, number developing real cholera will be very few, almost nil.

A SHORT NOTE ON THE TREATMENT OF ANAEMIA BY INTENSIVE DOSE OF FERRI ET AMON CITRAS *

BY

I. M. DUTTA L.M.F.

Khobang T. E., Upper Assam.

In response to the preliminary lecture by Dr. D. P. Williams on intensive treatment of Anaemia at the last meeting of our society, I began to try extensively this treatment on all of our garden anaemics in general. We meet here to day to discuss the result obtained by us during the last few months.

Now before going into details it will not be out of place to mention the standard of anaemia I have taken. Of course this may not tally with the opinion of all, but in case of mass treatment we should have a standard, to measure our results. I have taken those cases as anaemia who show their Hb. 55% and below. I have summarised the results in a tabulated form which are appended hereto:—

* A paper read at a meeting of the Assam Frontier & Budla Beta Medical Society held on 22nd October 1932, and specially sent to the Antiseptic for publication.

Chart No. 1.
INTENSIVE TREATMENT OF ANAEMIA, KHOBONG TEA ESTATE.

Total.		Age incidence.						Caste incidence.					Lines and Bosties.				
M.	F.	Total.	1 to 10 yrs.	11 to 20 yrs.	21 to 30 yrs.	31 to 40 yrs.	41 to 50 yrs.	51 & up.	Uraon.	Munda.	Tanti.	Ghassi.	Dome.	Others.	Lines.	Jungle Bosties.	Other Bosties.
60	120	180	4%	23%	36%	27%	6%	4%	13%	33%	9%	6%	6%	33%	23%	42%	35%

Chart No. 2.
INTENSIVE TREATMENT OF ANAEMIA, KHOBONG TEA ESTATE.

60	120	180	Average weekly Progress										Total												
Males	Females	Total	Average Hb. on admission	1st week	2nd week	3rd week	4th week	Average Hb. on discharge.	Average days under treatment	Average days on list before	Total average dose per head	Daily average dose per head	Total average cost per head	Untoward symptoms Percentage	Failure and Percentage	Relapses and Percentage	Lowest number of days showing improvement								
5 days	12. 7%	10 Cases 6%	19 Cases 11%	1 Pulmonary T. B. 1% 2 Albuminuria 1% 3 Chronic Malaria 2% 1 Chronic Dysentery 1% 3 Anaemia of Preg-nancy 2%	6 Annas	91 Grs.	1094 Grs.	174 days. 68 days	12 days	62%	Average Hb. on admission	1st week	2nd week	3rd week	4th week	Average Hb. on discharge.	Average days under treatment	Average days on list before	Total average dose per head	Daily average dose per head	Total average cost per head	Untoward symptoms Percentage	Failure and Percentage	Relapses and Percentage	Lowest number of days showing improvement

Now I wish to go into details. It will be evident from the chart No. 1 that the females have been double the number of males and the number of anaemics has increased from the 2nd decade of life reaching its maximum in the third after which it has gradually diminished. As the majority of anaemics comes from female sex and the causal factors are common to both sexes, early puberty in girls and child bearing of the females during this period may have something to effect this. The highest number of anaemics i.e. 33% comes from the Mundas and the next highest 13% from the Uraons. I think there is nothing important in this. The higher the number of labour cases in a particular caste, the higher will be the percentage.

As regards line incidence, about 77% comes from the bosties, of which about 42% comes from a particular locality, called jungle bosti (Chart No. 1). The population being nearly one half of the total population of other bosties. It is perhaps due to defective sanitation of that area.

As regards treatment and method of treatment, so far I am convinced that coolies do not consider anaemia as a disease and they do not like to remain in the hospital over night for this disease. This fact often caused trouble before.

During this time I treated them as day in-patients. They used to come at 8 O' clock in the morning, get three doses of mixture in the day time together with hospital and other nourishment and go away in the evening just as they do in the garden works. This method brought rapid improvement and created confidence in them. Most of the anaemics were treated in this way. Tehossase I failed to bring to the hospital, I used to give them the mixture twice daily in out door-80 grs. per day.

Treatment:—The mixture used was:—

R.

Ferri et amon citras	...	grs. 30.
Tr. Nux Vom.	...	m. 5.
Liq. Arsenicalis	...	m. 3.
Aqua	...	ad Oz. one

together with oil Chenopodium m. 20 twice a week. Purgative was called for in some cases having constipation or other complaints. About the latter part of May, I increased the dose of Ferri et Amon. Citras to 40 Grs. per dose i. e. 120 Grs. daily, as the former dose did not give good results at that time. I further added 1/20 Grs. Copper sulph in each dose as some cases did not respond to even

120 Grs. Those cases showing malarial fever were treated with Ferri et Quinine Citras grs. 45, daily, while in fever and usual treatment of anaemia while afebrile.

Regarding progress in this treatment, the average Hb. on admission was 45% and average Hb. on discharge—62%. Amongst 180 cases all received treatment in the first week, average percentage of Hb. being 54%; 126 cases had to be treated on the 2nd week, average Hb. being 60%; 39 in the third week with average Hb. 60% and seven only in the fourth week, average Hb. being 65%. Average days under treatment were 12 days only; total average dose per head required was 1094 Grs.—daily average dose per head—91 Grs. and cost per head for the mixture and anthelmintics combined, annas six only.

70 cases were in the previous anaemic list, the average days they were under treatment before were 174 days or if I take the average with the total cases treated it would be 68 days.

Untoward symptoms met during the treatment were constipation 7 cases i.e. 4% of the total cases treated, Diarrhoea 5 cases i. e. 3%, pain in the abdomen 3 cases i. e. 2%, giddiness 2 cases i. e. 1%, dysentery 1 case i.e., $\frac{1}{2}$ %, abortion one case $\frac{1}{2}$ %, total being 19 cases with p. c. 11. Constipation, giddiness, pain in the abdomen did not require stoppage of treatment. A single dose of mag-sulp. cleared those symptoms. As regards diarrhoea, treatment was stopped for two days only in three cases, and was absolutely stopped in 2 cases. The latter cases were pregnant women, primipara and did not respond to this treatment. In the former cases, treatment was continued with no further bad result. The dysentery case was a female nursing mother—a chronic sufferer. This case was a failure. Most probably, Ferri et Ammon Citras set up the irritation in the intestine and the chronic disease started as an acute one. Treatment was absolutely stopped in this case. Regarding abortion, I am in doubt as to whether Ferri et Amon Citras could do this at all.

The following cases absolutely failed. Pul. T. B. 1, Albuminuria—2, chronic malaria—3. chronic dysentery—1 and anaemia of pregnancy—3 Total—10 cases. p. c. being 6.

Details of the cases resisting treatment:—1st albuminuria case is a female aged 22, pregnant 6 months, primipara, 45% Hb. on admission with oedema of legs and much albumin in the urine. Hb. got down in the 1st week. With the subsidence of the albumin from the urine, Hb. increased and the patient was discharged cured.

The other albuminuria case was a female aged 23, pregnant

6 months, primipara, admitted with Hb. 45% and with albumin in the urine and general anasarca, blood—no M. P. and not of pernicious type, was treated for 23 days with Ferri et Amon Citras with no result—then started diarrhoea and subsequently she aborted. She is still anaemic.

All the chronic malaria cases were women who suffered repeatedly from malarial fever before admission into the hospital. In the hospital too they suffered repeatedly. They all were safely delivered and had good puerperium. They were tried with ferri et quinine citras during fever and ferri et amon citras while no fever, but no improvement followed and all died subsequently. Blood was not of pernicious type.

I had 12 cases *i. e.* 7 % of the cases treated coming again with anaemia for treatment. They all rapidly improved after 2nd course.

Forty cases of which 22 were pregnant women, were treated as outdoor patients. They all improved but required more than a month on average for showing definite improvement. They all got 80 grs. ferri et amon citras daily in 2 doses. Some were subsequently admitted as day inpatients and discharged cured within a few days.

The dose of iron, the form and the method of its administration were all unsatisfactory previously. Ten minims of liqr. ferri perchlor daily was quite insufficient, the preparation is itself very disagreeable to take, nauseous, causes constipation or easily deranges bowels.

In our present experience an immense dose of iron is required and can be borne by the patients if given in proper form *i. e.* ferri et amon citras, which is definitely a better preparation than liqr. Ferri perchlor as we have seen that untoward symptoms are negligible and can easily be checked in most cases. As regards setting up diarrhoea in three p. c. cases, there might be some idiosyncrasy playing in this matter. Any how these are not serious.

The most important point is the time taken for the treatment. In the present series the average days of treatment are 12 only, whereas 174 days in previous cases. Even when the average is taken amongst all cases, it is 68 days—a remarkable difference between these two methods of treatment. That was not only annoying to the patients but disappointing even to us. Patients have more confidence in the present method. But the difficulty is

that the patients should remain in the hospital to show good results. It becomes difficult in some cases, but if the day inpatient method is adopted, this difficulty may be overcome in many cases.

The preparation of the medicine probably influences the progress of this treatment in some way. In these series of cases I had to increase the dose of iron when the P. S. & A. Co's. ferri et amon citras was replaced by May & Bakers' as I have already stated before. Even with the increased dose I did not find satisfactory results in some cases. Good results were obtained after adding minute doses of copper sulph. in the mixture. This idea I got from the P. D. & Co's. Therapeutic Notes in which they claim that the more impure the ferri et amon citras is, the better is the result. They say it is due to minute quantity of copper salt which remains, as an impurity in ferri et amon citras. Steenboch and Hart of the University of Wisconsin U. S. A. have shown that in experimentally produced anaemias in animals the anti-anaemic activity in Iron salts is materially enhanced by furnishing with it minute quantities of Copper.

As regards failure, anaemia during pregnancy is not a bar to this treatment. Only the pernicious anaemia of pregnancy does not respond at all. Chronic malaria, albuminuria and chronic dysentery are other causes of failure. Any how failures are not many.

Relapses are negligible. All the relapsing cases improved rapidly with 2nd course of treatment.

Regarding out door treatment, I have already mentioned that it requires more time and the results are not so satisfactory. Proper feeding is an important factor in the treatment of anaemia which should not be given in out door cases.

In conclusion, there seems to be no doubt that intensive treatment of anaemia with ferri et amon citras does appreciable improvement in most cases and in my humble opinion, there is a good field for further investigation.

My thanks are due to the President for kindly allowing me to read the paper, and the gentlemen present for patiently hearing it and to Dr. D. P. Williams, our medical officer for helping me in every detail and also to the Manager of our Garden for his kind co-operation in treating those cases.

HÆMATURIA *

BY

DR. R. P. SAXENA,

Sukhdeo Dispensary, Pratabgarh, Oudh.

(Continued from p. 859 of the Antiseptic, Oct. '33.)

(e) *Calculus Pyelitis*.—(1) History of renal colic, (2) Pain in the diseased side varying with exercise, (3) Haematuria varying with exercise, (4) Pus often varies from day to day, the patient feeling easier after a discharge of pus, (5) attack of intermittent pyrexia after rigors (6) crystals in the urine (important).

(f) *Hydronephrosis*.—Profuse haematuria is occasionally seen in connection with this trouble. The chief diagnostic points of the disease are:—(1) An elastic fluctuating tumour in renal region usually moving with the respiration and can be pushed about manually. On standing, the tumour descends. At intervals the tumour may be reduced or totally disappear on passing a large amount of urine; (2) urine—quantity reduced though frequency increased; (3) cardiac hypertrophy (left) usually seen; (4) pain, vomiting, dulness in the flanks on percussion; (5) anuria and uræmia may follow if both kidneys are involved.

5. *Congestions—Acute and chronic*.—Chemicals produce congestion or inflammation, depending on the amount taken. The quantity of urine in congested kidney is small, less dark in colour and of high specific gravity. Even moderate doses of cantharidin and turpentine may lead to pain in the loins, scanty high coloured urine, albuminuria and haematuria. There may be painful micturition or strangury. In large doses the urine may be totally depressed. Turpentine causes more or less the same symptoms and causes the urine to smell of violets. There are certain other drugs which cause congestion of urinary tract.

(6) *Infarction as in septic endocarditis*.—Infarcts also occur in kidney in this disease and may be accompanied with pain and the appearance of albumin or blood in the urine. This disease very much resembles typhoid fever and septicaemia and hence very difficult to be diagnosed from them. The points in favour are (1) Existence of a loud cardiac murmur even in early stages, (2) Rheumatic history; (3) Secondary emboli more frequently found in systemic arteries such as those of spleen, liver, kidney etc. and do not result in abscess formation.

* Specially contributed to the Antiseptic.

(7) *Villous disease of the pelvis of kidney*.—frequently associated with haematuria.

(8) *Injury to the loins (kidney)*.—Injury to the kidney, laceration or rupture is usually caused by falling on the back or loin, or due to crushes of the body as between the buffers of railway cars, or when a cart passes over the abdomen, or from blows over one or the other kidney or crushing injuries of bony pelvis or abdomen etc. The chief diagnostic points are:—(1) history; (2) a tense swelling (extravasated blood) with increased area of dulness in the kidney; (3) symptoms of severe shock and nausea, vomiting, pain in the loin, shooting down into testes or thighs and localized tenderness, (4) Haematuria of a short duration in slighter cases but severe and may threaten even life in severe cases.

(9) *Passive congestion of kidney*.—Some cases have been recorded by Edgeworth, and Brasher, in which attacks of true haematuria have been apparently brought on repeatedly by exposure to cold or to strain of exercise and in heart disease. Albuminuria is very common in mitral valve disease of dilatation of heart; (right), the urine is scanty, high-coloured, of high specific gravity and there may be blood-cells, renal cells, even casts which generally disappear when the heart is relieved.

(10) *Coli Infection and Oxaluria (a) Coli Infection*.—may give rise to haematuria but it is very difficult to distinguish it from calculus pyelitis and tuberculous pyelitis. The following points are in favour of Coli infection:—(1) the occurrence of attacks of pyrexia at irregular intervals of a distinctly pyæmic type attended by shivering, sweating, vomiting, and pain in the kidney, (2) a distinctive smell of volatile sulphides in the urine, (3) pure cultures of bacillus coli can be readily obtained from urine collected through a sterilized catheter. (b) *Oxaluria*.—It is generally indicated by a "powdered wig" deposit on the top of the mucous which settles at the bottom. Transient oxaluria has no clinical significance except as indicating the nature of a stone, revealing its presence by other manifestations. Oxalates are found in large excess in paroxysmal haemoglobinuria giving rise to albuminuria and haematuria.

(11) *Blood poisons and Blood diseases*.—Haematuria is occasionally seen in connection with acute fevers and other disorders such as leukaemia, purpura, scurvy etc. In acute fevers such as scarlet fever, mumps, acute rheumatism, malaria, relapsing fever, influenza and small pox etc, the urine is generally high coloured, and deposits a brick-red sediment of urates on cooling. The urea

is in excess and the chlorides are usually diminished and in some instances the urine is definitely toxic. In several febrile illnesses a small quantity of albumin may be seen. In *Black water fever* the urine may be pink or deep-red but later on black. It is high-coloured, scanty, and highly-albuminous. Other important diagnostic symptoms are:—Rigor and vomiting, epigastric pain over kidneys, enlarged spleen, jaundice, a feeling of distress, or typical history of the patient having remained for more than a year, or so in a highly malarious place and having had repeated attacks of malaria. In *Mumps*, haematuria has been seen as a complication. In *Blood diseases* eg leukaemia, purpura, and scurvy etc. haematuria is seen. The following are the diagnostic points:—

(a) *Leukaemia* (1) General weakness and debility and pallor, dyspnoea and haemorrhages from nose, gums, etc., (2) Irregular pyrexia, (3) Enlargement of spleen, liver, kidneys, lymphatic glands etc, (4) Gastro-intestinal disturbances—dysphagia, dyspnoea, and ascitis, (5) excess of uric acid in urine and excess of lymphocytes in blood.

(b) *Purpura* (1) Dark, abrupt-edged purple spots due to extravasation of blood into the skin (mild form). These patches do not fade on pressure. (2) In severe cases (purpura haemorrhagica) the haemorrhages are more extensive. The spots are larger, sometimes raised or oedematous and may be capped with bullae. Haemorrhages from mucous membranes, nose, mouth, stomach, intestines, kidneys, female genital organs and occasionally from bronchial mucous membranes occur and fever is more marked. Patient anæmic due to much loss of blood. (3) In *Hænoch's Purpura*—Recurrent attacks of slight pain and swelling of joints, severe colic (important), tenderness over the transverse colon. Vomiting may be with or without blood and may be severe. The skin lesions, erythema, urticaria and purpura may be absent or may occur. This trouble is chiefly seen in children and is difficult to be diagnosed from (4) *Purpura Rheumatica*, in which there are typical symptoms of acute rheumatism, also eruption which usually starts upon the legs near the joints, is of purpuric, urticarial or erythematous character. Anæmia is marked and there may be throat symptoms.

(c) *Scurvy*:—The following are the chief diagnostic points. (1) Increasing debility and anæmia, pain in the back and limbs and urine is scanty, highly acid and may contain albumin, (2) gums—spongy, swollen and bleed rapidly. Sloughing may follow and teeth become loosened. Breath—very offensive (3) characteristic

eruption—purpuric spots and swelling of brawny consistence found about the flexures of joints. These swellings are due to hæmorrhages into or beneath the skin; if the former, they the purple; if latter—pale colour.

(12) *Paroxysmal Hæmoglobinuria*:—Here the patient passes porter coloured urine at intervals. The attack commonly commences with rigor or chill, lumbar pain and the patient passes dark highly albuminous urine an hour or so later. Examine the deposits obtained by centrifugalising under microscope for the blood cells. If present, haematuria, if absent, hæmoglobinuria.

Uretral:—

(1) *Stone* (during passage of renal stone):—Typical symptoms of renal colic. Stone high up in the ureter causes pain in the lumbar and subcostal region and these pains radiate towards the groin, into the pelvis and testes. If the stone migrates downwards the pain will radiate towards the abdomen, groin and testes. When stone reaches the lower portion of the ureter, vesical tenesmus and urinary frequency is seen in addition to pain. Here in the lower part of the ureter the stone may sometimes be palpated through the rectum. A stone in the ureter near the bladder may be suspected by a grunting or swelling of the mouth of the ureter and by irregular flow from the obstructed ureter. The hæmaturia is moderate but becomes severe by excessive exercise and mitigated by rest. Worm-like clots which commonly form in the ureter (in case of oxalic acid stones) may be discovered in the urine. Sometimes a trace of albumin and a microscopic evidence of blood in the urine are the only urinary findings leading us to suspect a stone.

(2) *Tumours and Tuberculosis of ureter*:—Also cause hæmaturia which is generally scanty and attended with colicky pains (see Tumours and Tuberculosis in connection with renal Hæmaturia.)

(3) Dilatation also causes hæmaturia.

Vesical:—

(a) *Stone*:—The hæmorrhage is intermittent usually of the terminal variety and is never profuse. It may be the first symptom. The hæmorrhage is worst after exercise and there is pain which, like bleeding is worst at the end of micturition and after exercise, and is frequently referred to the point of penis. A few drops of blood may be squeezed out after micturition. The ensuing cystitis may complicate the symptoms (see calculus in Renal

Hæmaturia) and under the diagnosis very difficult but the stone can easily be found out by sound on cystoscope.

(b) *Acute Cystitis*:—Here the Hæmaturia is usually slight and terminal, only few drops are to be seen at the end of micturition. Alkaline cystitis is more severe than the acid one. The urine in acute cases is generally acid, foul, loaded with pus, and contains epithelia from the bladder, and urethra and often blood. Other important diagnostic points are:—(1) painful urination with more or less constant suprapubic pain. The pain being felt in the bladder and rectum and radiating to penis, and thigh, (2) strangury, tenesmus, pyuria (always constant), some constitutional symptoms e.g. fever etc. Cystoscopy will reveal the diagnosis.

(c) *Tubercular Cystitis*:—Here hæmaturia is prominent and typical, usually being terminal, a few drops appearing. It occurs early in the disease and continues throughout the entire course. It appears spontaneously and has no connection with exercise or movement. The urine is acid, of low specific gravity, commonly bloody, usually smoky but a pale milky colour is also very characteristic. Albumin is always present. The diagnostic points are nearly the same as in acute cystitis, but tubercle bacilli are demonstrated here in the urinary sediment after centrifuging.

(2) *Ulcers of mucous membrane usually T.B.*—See Tubercular cystitis.

(3) *Tumours*:—Especially villous tumours, adeno-carcinoma, papillary carcinoma, infiltrating carcinoma, tubercle polypi, papilloma, benign etc., give rise to hæmaturia. Papillary growths constitute about 90% of all bladder tumours. Though these growths may be benign, they take a malignant character—hence it is wise to regard all bladder new growths as malignant. Sarcoma is uncommon. Cancer is more common in men than in women. Hæmaturia is the only cardinal and most frequent symptom—in many cases the first sign to appear out of a clear sky. Usually intermittent but intervals between the attacks grow shorter. The blood is of a bright-red colour. A severe attack of hæmaturia without pain is usually the first important symptom in cancer and may stimulate a simple villous tumour but is more persistent and yields less rapidly to treatment. In simple papilloma or the superficial epithelioma bleeding precedes vesical irritability. In malignant growths pain and dysuria always precede bleeding. Pain is very inconstant early but always present in advanced cases. Constant pain over bladder due to invasion of bladder walls by neoplasm. Infection is always present in advanced cases, hence

cystitis aggravates the pain. Chronic cystitis induces irritability of the bladder, when the urine has undergone alkaline changes there is usually a copious exudation of ropy mucous which when mixed with the urine causes dysuria and even strangury dysuria may also be caused by the obstruction caused by the tumour situated near the neck of the bladder. The urine may also contain portions of the tumour which have been set free. Such (bits of flesh) when passed are diagnostic but a late feature and not constant. The frequency of urine is increased and is almost always associated with pain. Incontinence occurs late and only in a few cases. Pyuria results when bladder is infected. If there is ulcer in the bladder, small calculi are passed in the urine. The constitutional symptoms are:—(1) anæmia, loss of strength and weight, cachexia is more marked in cancer, (2) signs of septic infection, (3) renal infection usually a terminal feature. If pyonephrosis or perinephric abscess appears, a tumour is found in the renal region.

Tumour—generally found located at the three angles of the inverted isosceles triangle and on the trigone as an irregular mass projecting into bladder (on passing a sound). Palpability in hypogastrium occurs late.

The correct diagnosis of a vesicle tumour is only made by cystoscopic examination, or by discovering the fragments of its substance in the urine. On examining per rectum, the posterior wall of the bladder may be felt as hard and resistant. Vaginal examination is also valuable to disclose infiltrating growths at the base of the bladder. Infiltration will be detected by the palpating finger in the rectum and vagina.

(4) *Ulceration and fissures at the neck of the bladder*:—Give rise to hæmaturia and vesical irritability. The urine remains clear. Cystoscopy will reveal the correct diagnosis. Sometimes phosphatic deposits form over ulcerated surface and mislead for a stone.

(5) *Sudden and complete emptying of an over-distended bladder in acute retention*:—Hæmaturia is often seen in emptying of an over distended bladder in acute retention as in acute alcoholism, coma, after operations etc.

(6) *Injury to bladder and Fistula*.—may cause hæmaturia. History etc. will clear the diagnosis.

(7) *Vesical varix and certain diseases, scurvy, purpura and Billharzia Haematobia* may give rise to hæmaturia (see these in renal hæmaturia in their respective headings.)

(8) *Foreign body in bladder*:—e.g. portions of catheters or bougies, pins etc., introduced from without often give rise to hæmaturia. History as well as sounding will disclose the whole matter.

Prostatic.—

(1) *Enlarged prostate*:—(most common). Here hæmaturia is generally absent at the end of urination unless the prostatic hypertrophy is complicated by stone, ulcer or by the passage of a catheter or bougie used in the diagnosis or treating a disease. The bleeding is present in only 25 % of cases and free bleeding may occasionally occur in simple cases. The onset is usually sudden, sometimes the blood passes back into the bladder and hence may stimulate the vesical condition. Other diagnostic features are:—

(1) frequent micturition (especially at night) (2) increasing irritability of bladder (due to cystitis), dysuria. Straining hinders rather than helps the expulsive act; patient can't throw the urine to such a distance as he used to do before, later on dripping of urine. (3) old age, (4) enlarged prostate, felt as a tumour-like mass if examined rectally. The diagnosis can also be made by a biconde catheter.

(2) *Hard small prostate (fibrous) with erosion of bladder mucosa. Tumours-non-malignant and malignant. Prostatic abscess of a non venereal type and prostatic congestion, calculus etc.* also cause hæmaturia. Prostatic carcinoma is rarely associated with profuse hæmaturia and this, together with the relatively short history, is a point in differential diagnosis. Another point is, that benign prostate, by the rectum feels like a tennis ball while the malignant prostate is more apt to feel like a golf ball. For *Stone*.—frequency of urination, worse by day, in a male patient, associated with a history of the stream of urine stopping and starting is suggestive of vesical calculus. As already stated, the bleeding is generally profuse, and of a sudden onset, and usually unaccompanied by pain. A careful history of the case will make the diagnosis easy.

Urethral:—

(1) *Stricture*:—Hæmaturia is generally seen due to rupture of superficial veins. Other diagnostic points are:—(1) Stream of urine becomes thinner and thinner or retention of urine; a lot of urine to evacuate the bladder, stream of urine not straight and two are three streams, not one; bladder irritability, later on cystitis. (2) glutty discharge, (3) neuralgic pains in the perineum, (4) in-

terference with coitus.—feeble erections, premature ejaculations. (5) Catheterization will give out the correct situation of the stricture.

(2) *Gonorrhœa*:—Here the hæmaturia is terminal. If tenesmus is marked a few drops of blood will be expelled after urination. Other typical signs of gonorrhœa—hence the diagnosis is easy. The injections used in the treatment of gonorrhœa may also cause bleeding:—

(3) *Dilatation of stricture and meatotomy*:—Hæmaturia has been frequently observed.

(4) *Stone*:—This not infrequently gives rise to hæmaturia and can be easily felt through the walls of the canal.

(5) *False instrumentation* may result in hæmaturia, but history will clear the whole thing.

(6) *Papilloma and carbuncle, urethral angioma etc.*:—Bleeding is sometimes seen in these conditions. These have been generally seen at the orifice of the urethra and are red, vascular and often times exceedingly painful.

(7) *Fracture of Pelvis*:—Hæmaturia is also seen in this trouble. The chief diagnostic points are:—(1) severe shock and pain around the pelvis with local echymosis and tenderness over the pubic ramus, (2) Patient either cannot stand or feels as if he were falling to pieces or attempting to do so, (3) deformity, (4) crepitus etc.

(8) *Injury, laceration and rupture of urethra*:—Injuries from falls, kicks, blows etc., may cause bleeding. The history will clear the diagnosis. Haemorrhage may also assume a severe form, in laceration of urethra and wounds of membranous urethra. In rupture of urethra there may be severe haemorrhage from the meatus, perineal hæmatoma, retention of urine and pain.

(9) Sometimes excessive sexual indulgence in males results in bleeding from posterior urethra due to marked congestion.

Endemic Haematuria.

This is generally seen in Egypt and South Africa and is chiefly due to invasion of the mucous membrane of the urinary passages and of the alimentary canal by a parasitic trematode—*Bilharzia Haematobia*. The diagnostic points are:—(1) Pain in the loins or perineum, and in severe cases, anaemia from much loss of blood, (2) Haematuria is mostly of vesical origin and sometimes the haemorrhage may be very great, (3) urine is passed clear and followed by about a drachm of blood. It may contain no blood

but only whitish flocculent matters and shreds and filaments of mucous in which the highly characteristic ova of Bilharzia may be found in large numbers, (4) micturition is more frequent and there is often pricking at the prepuce or root of the penis. In last stage cystitis develops and the disease may persist for years. The micro-filaria sanguinis hominis may also cause haematuria.

Sometimes haematuria occurs without the existence of any discoverable cause and these cases have been named as *Idiopathic haematuria*, *essential haematuria* or *nephros-taxis renal haemophilia* or *vaso-motor-haematuria*.

N. B.—Rathbun (Long Island Medical Journal, Jan. 30) opines that the term Idiopathic haematuria is a misnomer, and that it simply means that we have been unable to make an accurate diagnosis. Ten years back this diagnosis was given in about 15% of cases and to day it comprises less than 5%. The majority of these cases, on careful examination, are found to be due to an early tuberculosis, early tumour, of calculi, of uric acid or cystin, or in some cases an unilateral nephritis is found.

With a history of injury when there is the slightest suspicion of a torn bladder, he says, the patient should be subjected to an exploratory operation. This is far safer than to await developments.

Certain other Drugs:—

Cantharidin, turpentine, salicylic acid, phosphorus, rhubarb, beetroot, straw-berries, sorrel, prickly-pear, log-wood, senna, acid carbolic in large doses and in rare instances quinine too turn the urine bloody. Sulphonal in large doses or used for a long time also turns urine red. All nitrites, acetanilide, pot. chloras, acid pyrogallie, and occasionally large doses of arsenic and mineral acids render the urine dark red from the admixture of the debris of the broken up red corpuscles.

Haematuria after insulin treatment has been reported by recent investigators to occur more frequently than has been believed hitherto. The haemorrhage may occur at any time even five years after the treatment.

Certain other Diseases:—

(a) *Abdominal aneurysm*:—Haematuria has been observed by many investigators and is chiefly due to pressure symptoms. The chief diagnostic features are:—(1) a pulsating and expansile tumour near the middle line either close to umbilicus or in

epigastric notch, (2) a severe fixed neuralgic pain in the spine, (3) breathlessness and cardiac signs—oedema of lower extremities. X-Rays will clear the diagnosis.

(b) *Epidemic Cholera*:—Haematuria has been often seen as a symptom. The five typical symptoms of cholera—rice-water stools, vomiting, suppression of urine, painful cramps in the calf-muscles and later on collapse will make the diagnosis quite easy.

(c) *Circumcision*:—Cases are on record where haematuria has resulted as a result of circumcision—as a complication of phimosis.

(d) *Hysteria*:—Here slight haematuria may result as a result of spasm of urethra (frequent) and may mislead renal colic. Other important manifestations of hysteria will make the diagnosis very easy. The patient being usually fair sex.

(e) *Appendicitis*:—Sometimes appendicitis is complicated with haematuria. In general, haematuria occurs in the first week without any other cause than appendicitis and without pro-dromal symptoms e.g., polyuria, difficult micturition etc. Its maximum duration is 3 to 5 days and disappears as quickly as it occurred. Seen mostly in youths and in males. It makes the prognosis less favourable, but does not contra-indicate operation.

(f) *Dysenteric ulcers*:—Haematuria has been frequently observed in this connection.

Painless gross Haematuria:—

This group is most important and most difficult to diagnose from any presented, since very frequently haematuria is the one and only symptom. However, in 50% of this group, the end diagnosis will be neoplasm, and 75% of the group will be bladder tumours. It will occasionally happen that when the source of bleeding is from one or the other kidney there may be some pain or ache on that side, occasionally an acute colicky pain caused by the passage of clots.

Ripe Experiences on Haematuria:—

(a) *Haematuria during treatment with Insulin*:—A. V. Neale (B. M. J., Sept. 8. 1928)—Because of the rarity of haematuria occurring in diabetic patients under insulin treatment Neale reports a case in which it occurred in a boy aged 5 years.

The points of interest peculiar in this case are:—(a) that the haematuria was extreme but of very short duration; (b) the rapid return of the urine to the normal; (c) the haematuria occurred 2

days after the last dose of insulin; (d) there was at this time only a slight ketosis.

Clinically this case did not appear to be one of nephritis. The benign nature of this urinary abnormality was apparent in this case and is in accord with observations made in other cases by Lawrence.

(b) *Haematuria as Symptom of Pregnancy*:—The author had the opportunity to observe and treat a patient with marked haematuria which persisted during the last four months of pregnancy and the first two weeks of the puerperium, in whom no pathologic change other than hydronephrosis could be detected after repeated examinations. Serious diseases of the genito-urinary tract were eliminated as a possible explanation for haematuria in this patient, so was ruled out, blood dyscrasia. Whatever hypothesis may be offered it can't be substantiated, but one is led to believe that the blood vessels (capillaries) in the kidney pelvis must have undergone some temporary alteration (Passive congestion), which made them permeable to blood cells over a considerable period of time, while the definite time relationship to gestation suggests that the pregnancy was actually a causal factor. The occurrence of haematuria with hydronephrosis, especially during pregnancy, in both mother and daughter suggests that this peculiarity may have been directly transmitted. C. N. Swanson, Detroit (J. A. M. A. Nov. 16, 1929).

(c) V. Blum in the "Wiener Klinische Wochenschrift" Dec. 28, emphasizes the fact that whatever solution used for washing out the bladder in cases of haemorrhage from that organ, it should be used as hot as the patient can tolerate. He recommends the injection of 1.5 c.c. of the following haemostatic and sedative solution into the bladder after it has been washed out:—

R

Adrenalin Hydrochlor	...	m. ii.
Sod. Chlorat	...	grs. x.
Chloretone	...	grs. viii.
Aqua Destill	...	℥s. iv.

This solution can be used diluted 1 to 10, to wash out bladder though tannic acid, 10 parts to 1000 or Silver Nit 0.20 to 0.50 to 500 are suggested as equally effective for the purpose. (Medical Suggestions, Oct. 29.)

Treatment:—There are generally two indications for this i.e. (1) to arrest the haemorrhage and (2) to remove the cause as far as possible.

Now (1) to arrest the haemorrhage especially in cases in which the bleeding has been sufficient in amount to affect the general constitutional condition of the patient *absolute rest* is of utmost importance. Next to this, fairly liberal doses of morphine for allaying restlessness, quieting the patient and circulation are necessary.

In renal haematuria many vegetable astringents have been advocated. Hamamelis should be given a trial but this is converted in the blood into Sodium tannate and Sodium gallate and these have no astringent action. Mineral astringents e.g. saline purgatives and in a less degree diaphoretic drugs should be tried. These lower the general blood pressure without encouraging accumulation of blood in the abdominal splanchnic area.

Ergot is not advised as it causes a rise of blood pressure. Emetine hydrochlor has been tried by Oeconomos with fairly good results and he gave it in 0.04—0.08 gram doses, larger amount being only rarely required. Haemostase, a patent preparation has been highly extolled in arresting bleeding. Haemostatol, another patent preparation is a very powerful and quick Anti-Haemorrhagic serum. It contains large amount of Prothrombin and Thrombokinase and a substance which counteracts the action of antithrombin present in the same blood. Some of the well-known styptics have some value such, for example, as thromboplastin, stypsin and some of the lime salts. Good results have been obtained from calcium chloride and chloro-calcion—a calcium chloride solution of pleasant taste. *Sistonin* (blood-fibrin) is stated to be prepared from blood. It is a yellowish white powder of a good haemostatic and is given orally dissolved in water in the concentration of 2.5—5% and solution given in the tablespoonfuls or 2—10—20 c.c. of the solution can be injected subcutaneously or intravenously. Effect of 10 c.c. injection intravenously is evident in half an hour, it approaches its maximum in 5 hours and passes off quickly at the end of two days. A 20 c.c. of a 20% solution of Soda Citras injected intramuscularly will occasionally stop persistent oozing which has resisted other forms of treatment, when using this drug, we should remember, that we are dealing with a hypertonic solution, the injection of which is apt to produce considerable local pain, which may require added doses of morphine. Gelatine solutions have been employed hypodermically in renal as well as other

forms of hæmorrhage but without any apparent good. Sometimes some external medication is of decided value *e.g.* ice bag to the loins, when hæmorrhage is from kidneys and to the hypogastric region when it is from bladder. Dry cupping to the loins in congestive or inflammatory cases is a good expedient, and if the bleeding should be traceable to a toxic irritant like cantharidine etc. Warm fomentations should be applied together with the internal exhibition of aperients. As regards diaphoretics, though no good has been seen from them yet Whilla speaks highly of Tinc. Jaborandi in 30 minim doses T. D. S. in most of the renal hæmorrhages.

Hæmaturia seen in early stage of acute nephritis or from acute congestive conditions rarely requires any active treatment. What we have to do here is to keep the patient on bed giving absolute rest and hot fomentations or other applications to the loins and a milk diet.

In hæmaturia due to renal calculus drug therapy has very little influence while absolute rest is of paramount importance. Keep the patient in the recumbent position and give him bland, cold acidulous drinks *eg* raspberry, vinegar in iced water or barley water with sliced lemon in it or lemon whey. If bleeding is accompanied with pain and restlessness, a hypodermic injection of morphia $\frac{1}{8}$ or $\frac{1}{4}$ gr. may be required.

N. B. It is worth while to remember that the great majority of kidney injuries should be treated with a conservative attitude in mind and not subjected to operation unless the indications clearly point to this necessity. In the event of operation being required it is rather apt to result in a nephrectomy. Further, how acute the emergency may be, a kidney should never be removed until we are satisfied beyond doubt that the patient has another kidney.

When the *bleeding is traced out from the bladder*, the injection of some astringent solution into it is advised after as complete removal as possible of its contents. Wash the bladder first thoroughly with a lukewarm saturated solution of boric acid. Use a large-eyed catheter to get rid of clots. Sometimes it becomes necessary to attach some kind of suction apparatus to the catheter. The following astringent solutions may be used with success:— Alum $\frac{1}{2}\%$, silver nitrate $\frac{1}{2}\%$, hazeline 1 part and water 2 parts or solution of adrenaline chloride (1:1000) $\frac{1}{2}$ dr. to an ounce of water. An ounce or two of any of these may be allowed to remain in the bladder.

N. B.—In case of bladder injuries when there is slightest suspicion of perforation or laceration of bladder wall the patient should undergo an exploratory operation.

In a few cases, profuse bleeding may arise from the anterior urethra following trauma. This is best controlled by passing a fairly firm soft rubber catheter into the bladder and applying a firm pressure bandage over the entire urethra, including a snug perineal pad. This controls the bleeding and at the same time keeps the bladder empty.

(2) *To remove the cause of hæmaturia as far as possible:—* This would lead to the consideration of treatment of various diseases of which hæmaturia may be a symptom. Some diseases *e.g.* cancer and tuberculosis are not immediately remediable. X-ray therapy is sometimes of value. Bladder tumours are at first benign and yield very readily to simple cystoscopic fulguration. If neglected they will go on almost invariably to the formation of papillary cancer, rendering the outlook more grave. Even then moderate surgery, plus radium and X-ray will occasionally effect a cure if the cases are not seen too late. Cases of enlarged prostates often bleed and their bladder full of blood clots are unable to void the urine. For this a catheter may be passed, a dry tapping is the result. Or, sometimes a small quantity of warm solution should be injected through the catheter with a large syringe and the suction should be applied with the syringe, working it back and forth until the clots break, thus permitting to empty the bladder. Such cases occasionally require cystotomy for evacuating the clots.

Some useful prescriptions on Hæmaturia:—

1. $\mathcal{R}$

Ergotin	...	gr. i.
Acid gallic	...	gr. ii.
Ext. Krameriae	...	gr. ii.
Mft. Pill one—T. D. S.		

2. $\mathcal{R}$

Acid gallic	...	$\frac{1}{2}$ dr.
Acid sulph dil Tr. opii Deod	...	āā 1 $\mathfrak{z}$.
Infusum Digitalis	...	4 $\mathfrak{z}$.
M. Sig—Tablespoonful every 4 hours (Drutt.)		

3. $\mathcal{R}$

Tinc. Hamamelidis	...	℥ xxiv.
Elix Simple Aqua aa	...	$\mathfrak{z}$ i.
M. Sig—Teaspoonful every 2 or 3 hours (Ringer.)		

4. R

Ext. ergot liqd. ... ʒss. 2.
 Sig—Teaspoonful T. D. S. when bleeding is from prostate or urethra.

5. R

Sodii Thiosulphatis ... ʒss. 2.
 Sig—One teaspoonful every two hours until free purgation takes place.

6. R

Calcii Chloride ... ʒ l.
 Aqua ... ʒ l½.
 Sig—One teaspoonful 4 times a day for three days.

7. R

Antipyrin ... grs. ixxx.
 Gomenolis ... ʒ 2½.
 Ol. Sterilisatiff ... ʒss. 3½.
 Sig—Inject 4 drachms of this emulsion in hæmorrhage of the prostate. Highly spoken of by Dr. Deschamps.

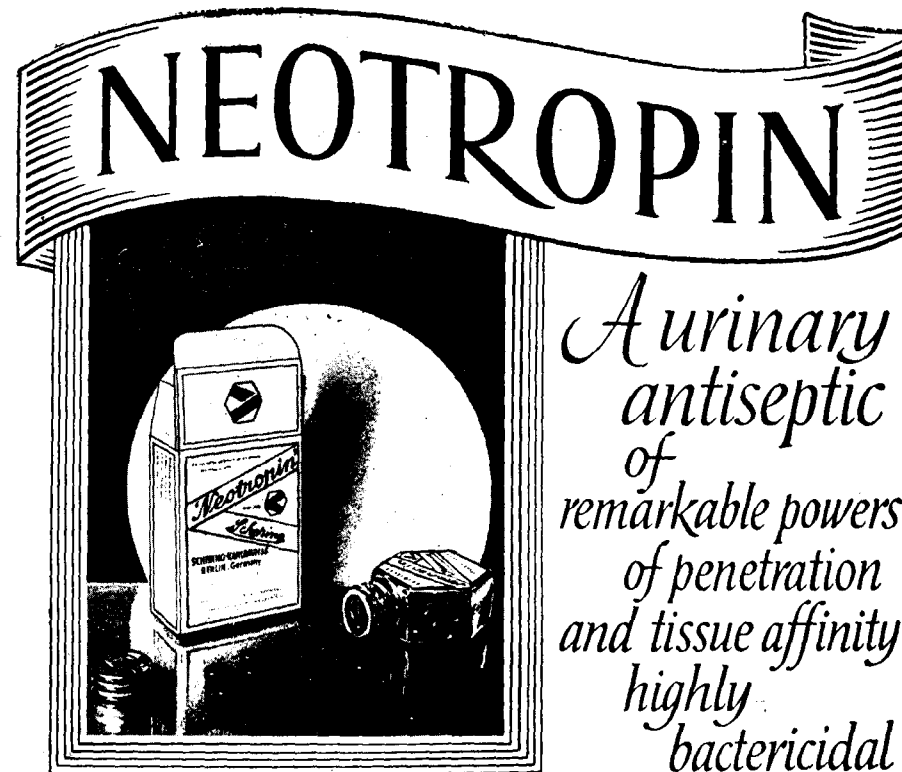
Drugs used in Ayurveda in Haematuria:—

1. Abutilon Indicum (Sans-Atibata, Kankatika; Hindi—Kanghi)—an infusion of the root is used in relieving strangury and haematuria.

2. Banhinia Variegata (Sans-Kanchanara; Hindi—Kanchnar)—Decoction of the buds.

3. Saccharum Officinarum (Sugar-cane)—very useful when when locally applied to the pubis.

4. Sida—Cardifolia (Sans—Bata; Hindi-Kharti, Barier)—Infusion-dose ½ to 2 drs.



A urinary antiseptic of remarkable powers of penetration and tissue affinity highly bactericidal

NEOTROPIN is a dye-stuff of the azo-pyridine series and possesses the marked powers of penetration and tissue affinity inherent to dyes. Shortly after its administration it imparts a yellowish red colour to the urine and later the prostatic, testicular and cervical secretions.

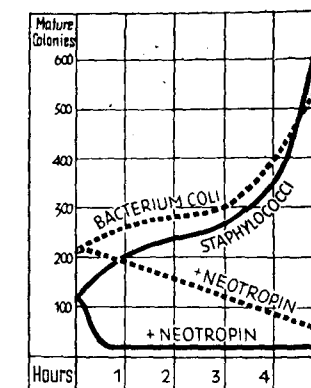
The bactericidal effects of Neotropin have been confirmed by a long series of experiments both in vitro and in vivo. Even in a dilution of 1/512,000 it still inhibits bacterial growth.

Its combined penetrative and antiseptic properties render it invaluable in the treatment of Bacteriuria, Cystitis, Pyelitis and Pyelonephritis.

Its freedom from any irritant effect explains its remarkable efficacy in acute gonorrhoea and cystitis.

Original Packing:

Bottles of 30 dragées of 1.5 grains.



The curves show the increase in growth of bacteria in ordinary urine compared with the decrease in growth produced by Neotropin

SCHERING-KAHLBAUM (INDIA) LTD.

P. O. Box No. 683, BOMBAY.

CALCUTTA.
 4, Dalhousie Square,
 P. O. Box No. 2006.

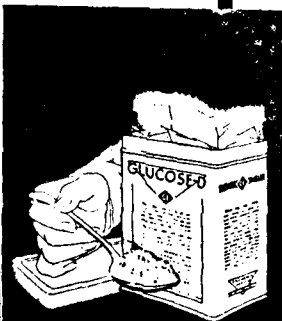
MADRAS.
 11, Linga Chetty Street,
 P. O. Box No. 1215.

The debilitated patient and the athlete

Even these extremes meet in their need for: (a) immediately accessible energy, i.e. glucose; (b) elements to nourish and control their nerve cells and reflexes, i.e. calcium and phosphorous; (c) vitamin D to ensure the assimilation of these elements.

Glucose-D is richly supplied with all these components. Whenever glucose is prescribed—whether as a therapeutic agent or as a product for everyday use, as a remedy for acidosis or a source of nourishment in fevers, as additional energy during periods of physical and mental strain or a "nutrient tonic" for debilitated adults and children—Glucose-D, the calcium vitamin reinforced glucose, is the preparation of choice.

In 1-lb. tins.



GLUCOSE-D

The potency of Adexolin preparations

is calculated to permit of the greatest flexibility of dosage. Each cc. of Adexolin Liquid has the vitamins A and D potency of 20 cc. of high grade cod-liver oil. One minim should be added to every bottle feed.

Each 3 m. Adexolin Capsule has the vitamins A and D potency of 10 grams of high grade cod-liver oil. Give one capsule a day for general prophylaxis and, in ante-natal cases, one a day for the last hundred days of pregnancy.

Adexolin Liquid is supplied in phials and 2 oz. bottles, each with $\frac{1}{2}$ -m. dropper.

Adexolin Capsules are supplied in boxes of 25 and 100.



ADEXOLIN

H. J. FOSTER & Co. Ltd., P.O. Box 202, Bombay; P.O. Box 2257, Calcutta; P.O. Box 108, Madras

Products of the Glaxo Laboratories, London, England

When writing to advertisers please mention the "Antiseptic."

VITAMIN D FOR DISPENSING

A tasteless, inodorous suspension of vitamin D (Calciferol G.L.) equivalent to 50 times its own volume of high-grade cod-liver oil. Being miscible with water and having no incompatibilities, Ostelin Liquid can be prescribed in medicinal mixtures. No other vitamin D preparation has this outstanding advantage.

In phials and 2-oz. bottles.

Ostelin vitamin D
LIQUID

THE ALL-ROUND VITAMIN TONIC

A very appetising preparation approximately three times as potent in vitamins A and D as Extract of Malt with Cod-liver Oil, B.P.C. and containing also vitamins B and C. Ostomalt is the family vitamin tonic. It is rich in anti-infective, calcium regulating, appetite creating, and nourishing components.

In $\frac{1}{2}$ -lb. and 1-lb. jars.

OSTOMALT

FOR SUBCUTANEOUS INJECTION

A sterile suspension for subcutaneous injection. Ensures intensive action of calcium and vitamin D. Held to be specific in the treatment of urticaria, angio-neurotic edema, and other capillary vasomotor disorders. Invaluable in skin diseases such as psoriasis and eczema, in capillary haemorrhage, and in delayed union of fractures.

Boxes of six 1 cc. ampoules. 30 cc. bottles.

Colloidal Calcium
with Ostelin vitamin D



THE G.L. AMPOULES

Pure, precisely standardised, completely dependable drugs for everyday practice, put up in a new type of easily opened ampoule AT EXCEPTIONALLY LOW PRICES.

G.L. Ampoules

ADEXOLIN LIQUID & CAPSULES

ADEXOLIN LIQUID

Containing vitamins A and D in the proportions they normally occupy in high-grade cod-liver oil, but at twenty times the potency. This concentration gives the greatest flexibility of dosage, from the smallest prophylactic to the largest therapeutic dose. Invaluable for administering vitamins A and D to infants or to patients with a low fat tolerance.

Add 1 m. to every bottle feed.

In phials and 2-oz. bottles, each with $\frac{1}{2}$ -m. dropper.

ADEXOLIN CAPSULES

A convenient form for the administration of exact doses of vitamins A and D to older children and to adults. Each three-minim capsule has the vitamins A and D potency of 10 grams of high-grade cod-liver oil. Invaluable for the prophylaxis and treatment of respiratory infections, and to build up resistance to infection.

Boxes of 25 and 100 capsules.

H. J. FOSTER & CO. LTD., P.O. Box 202, BOMBAY. P.O. Box 2257, CALCUTTA. P.O. Box 108, MADRAS

When writing to advertisers, please mention the "Antiseptic."



NUTRITIONAL ANÆMIA IN INFANCY

The Minister of Health draws attention in Circular No. 1290 (27th Oct., 1932) to the importance of the results of the investigations carried out under the auspices of the Medical Research Council on Nutritional Anæmia in Infancy (Medical Research Report No. 157 Mackay). In this Circular the Minister recommends all authorities responsible for the care of infants to give practical effect to the recommendations made as the result of these researches for the prevention and cure of Nutritional Anæmia. **The Milk Food which was used exclusively in this extensive work, and which is still being recommended for this purpose is**

HĒMOLAC

(Full Cream Milk Powder with Iron Ammonium Citrate)

The exhibition of Hēmolac in the treatment of Nutritional Anæmia has now been definitely established. In addition, it has been demonstrated that Hēmolac acts as a prophylactic against the common catarrhal infections of the respiratory and alimentary tracts.

Agents for India:—

CARR & CO. LTD., Ballard Estate, BOMBAY.

Supplies can be obtained from the following special distributors:—

Thomson & Taylor Ltd., Bombay; Frank Ross & Co. Ltd., Calcutta and Dacca; Wilfred Pereira, Madras; J. Bliss, Quetta; Smith & Campbell, Lahore; Fitch & Co. Ltd., Mussoorie; H. J. Reynolds, Naini Tal; P. L. Plummer, Shillong; Kumbhar's Pharmacy, Jodhpur; Poona Drug Stores, Poona; Bangalore Pharmacy, Bangalore.

COW & GATE LTD., GUILDFORD, SURREY

When writing to advertisers please mention the 'Antiseptic.'

DEPARTMENT OF ANATOMY*
OF THE
GOVERNMENT MEDICAL COLLEGE, VIZAGAPATAM
AFFILIATED TO
THE ANDHRA UNIVERSITY
BY

R. KRISHNA RAU, F.R.C.S.E., L.R.C.P.,

Head and Prof. of Anatomy, Vizagapatam.

Introduction.—Vizagapatam is a small sea-port of commercial importance, with a population of about 50,000, situated in the northern part of the East Coast of the Presidency of Fort St. George (the Northern Circars region). It enjoys the advantage of an equable and salubrious climate and is a favourite summer resort of the inhabitants of the Circars. It has earned the name of 'Brighton of the East.' It is the headquarters of the Andhra University which was constituted and incorporated in and for the Telugu districts of the Presidency with the assent of the Governor-General of India on the 13th January 1926. Till only a few years ago there was only one Medical College for the Presidency of Madras with a population of about 45 millions and with an extent of territory exceeding that of Great Britain and Ireland. It was found utterly inadequate to meet the growing needs of the medical education in the Presidency. The Vizagapatam Medical College was inaugurated in July 1923 providing for the admission of only 32 students each year. This number was raised to 50 only this year. The dimensions of the College are proportioned to the small number catered for by the institution. The Medical College is attached to the King George Hospital and is affiliated to the Andhra and Madras Universities.

Before the new buildings were erected, the College started work in an old building provisionally built for a Medical School by a private donor. The departments of Physics and Chemistry and the College library are now housed in this block. Another block of buildings has been constructed in close proximity to the former wherein the departments of Anatomy, Biology and Physiology are now accommodated. A separate new block or buildings up-to-date in all respects for the teaching of the regular clinical subjects, has been constructed in close proximity to the hospital. It was occu-

* Specially contributed to the Antiseptic.

picd for use in July 1925. The new buildings are erected on the slopes of the sand dunes nestling the beach and command a picturesque and variegated vista of the sea and the surrounding hills.

Description of the Building.—The new block is built of sand stone and consists of a ground floor and first floor. The department of Anatomy occupies the northern and western portions of the ground floor. It comprises a dissection hall, an operative surgery theatre, a museum, a laboratory for Embryological work, preparation room and staff rooms. The dissection hall is lofty, well lit and well ventilated. The floor is of thick cement concrete and has shallow side drains all round, an arrangement which provides for the efficient cleansing of the hall. It is roofed in by corrugated sheets of cement asbestos and Mangalore tiles at the sloping sides. The hall is illuminated from above by movable glazed shutters and by big windows at the sides. Electric fans have been installed to mitigate the heat of the tropics felt during the greater part of the year and with lights which are required only during the monsoon season. There are 16 large and 6 small tables. The former have zinc tops, the edges of which accurately fit into grooves cut out at the four sides of the table, which are filled with crude kerosine or an anti-septic lotion thereby rendering them almost airtight. This is obviously designed to prevent desiccation of cadavers. To the west of the dissection hall is a room 18 x 8 inches fitted with eight wash stands. The hall opens into the museum on the east.

The museum with a total floor space of 1500 sq. ft. consists of two separate rooms separated by a door way; the western portion of which is utilized for the display of the specimens of the soft parts, while the eastern portion is the bone room containing an osteology collection for use by the students. The classes in operative surgery are held in the latter during the spring session. The museum may be said to be just in the making as it is still in its infancy. It is at best a teaching museum consisting of specially dissected parts, preparations of viscera, frozen sections mounted in plaster of Paris, a few 'Spalteholz' transparent preparations of embryos, transparent bone preparations for showing the centres of ossification and a small collection of mammalian and human embryos. Special mention may herein be made of two very interesting Anatomical Exhibits, an articulated full-size human skeleton made of ivory and another of wood being masterpieces of Indian craftsmanship of the early part of the 19th century executed by the skilled artisans of South India at the instance of a Mahratta King—King Sarfoji of Tanjore.

The preparation room situated at the eastern end of the department is used for both embalming and storage of cadavers. There are 3 cement tanks for storing bodies now in use in brine after injection with the preservative 'Arsenic' solution. The composition of the 'brine' fluid is as follows:—

Common Salt	...	30 lbs.
Liq. Formaldehyde	...	10 „
Acid Carbolic	...	2 „
Glycerine	...	20 „
Water	...	300 „

The burial of bodies for bones and the maceration of bones are carried on in detached out-houses belonging to the old block. There is an animal room common to the departments of Anatomy and Physiology and Pharmacology. The animals are indented for whenever required for purposes of embryology.

The 'Embryology' laboratory is fitted up with the usual sinks, taps, gas fittings, electric incubator, embedding apparatus and microtome.

The lecture hall is designed to provide seating accommodation for about 100 students. It is fitted up with a "Spencer Delineascope" for use whenever required.

Courses and teaching.—The whole medical curriculum for qualifying for the degree of 'baccalaureate of medicine and surgery' M.B., B.S., conferred by the University, extends over a period of five years and a half. The subjects are spread out as given below during the period.

Pre-Medical.

Six months.

Medical.

... Five Years of which two years are for pre-clinical subjects and three years for clinical subjects.

Admissions to the College are made in July of each year. The candidate undergoes a course of study in the subjects of Inorganic Chemistry, Physics and Biology for a period of six months at the end of which, there is an University Examination in December of the same year. Only those who pass this examination are deemed eligible for admission into the I.M.B., B.S., class. The course for the I.M.B., B.S., examination extends over a period of one academic year for Part I and two academic years for Part II after passing the Pre-registration examination.

Part I.—Organic Chemistry.

Part II.—Anatomy including elements of Human Embryology, Physiology including Bio-chemistry.

The academic year consists of 3 terms spring, autumn and winter. The spring term extends from 1st January to 31st March. The autumn term from 1st July to 30th September and the winter term from 1st October to 31st December. The department of Anatomy offers instruction in descriptive and topographic Anatomy, sectional Anatomy and human Embryology. Histology is separately taught with Physiology.

The scheme of work in Anatomy and Embryology is arranged as shown below :—

1ST YEAR	
Spring Session	... Osteology of the extremities and trunk.
January—March.	... Dissections.
	... General Embryology.
Autumn Session.	... Osteology of the bones of the skull
July—September.	and face.
	... Arthrology.
	... Dissections.
	... General Embryology.
Winter Session	... Lectures on the Anatomy of the ex-
October—December.	tremities and Thorax including the
	development of the Thoracic Vis-
	cera Dissections.
2ND YEAR	
Spring Session	... Lectures on 'Abdomen' and the em-
January—March.	bryology of Digestive and Genito-
	Urinary organs.
	... Dissections.
Autumn Session	... Lectures on 'Head and Neck' and on
July—September.	the embryology of structures in
	relation to head, circulatory and
	respiratory organs.
	... Dissections.
Winter Session	... Lectures on Neuro-Anatomy and
October—December.	Aesthesiology.
	... Embryology of Central Nervous-
	System.
	... Dissections of the Brain and Spinal
	cord.

Three hours each day throughout the six sessions of about 12 weeks each are spent on dissections and an hour each day is devoted either to lectures, demonstrations or tutorial classes. Thus

four hours a day are exclusively devoted to the study of Anatomy. Students are encouraged to do the dissections unaided and all the members of the staff supervise and guide the students in dissections. For the freshers a predissection class is held by the Junior members of the staff for about half an hour each day before starting the dissections during which the student is given an outline of the practical work for the day and the structures he has to look for. Printed cards bearing the names of the various regions of the body are distributed to the students at the beginning of the course of Anatomy. Two students are assigned to each part of the body. As soon as a batch of two finish the dissection of a specified region of the body, they are examined orally by one of the members of the staff, with a view to find out if the work has been done satisfactorily before they are permitted to proceed to another part. An "abnormality" register is maintained wherein variations that are encountered are entered duly with special reference to the structures on which information is required by the C. I. R. P.

Points of interest from the standpoint of morphology, comparative Anatomy, Ontogeny and Phylogeny and clinical applications of anatomy and dynamics of anatomy are dealt with in the course of didactic lectures. No special lectures are given in Physical anthropology though a reference is made now and then to anthropometry. Instruction in embryology is imparted by means of drawings, wax models, models made of plasticine and histological sections of embryos in the various stages of development. During the course of two academical years, it is easily possible for an intelligent student to dissect the whole body twice, though for purposes of securing the certificate of 'eligibility' it is enough if he completes the dissection of the entire human body but once.

As far as possible attempts are made at securing the correlation between the lectures in anatomy and physiology so that candidates have the advantage of obtaining instruction simultaneously on the anatomy, embryology, and physiology of the various systems of the body. During the terminal session of the second year of their studies, the students get a fairly comprehensive course of instruction on Neuro Anatomy. One whole brain and a half brain are assigned to a batch of six students at a time. About 30 hours are taken in dissecting in detail the 'Brain'. Eyeballs of the ox are issued likewise for making a practical study in detail of the structure of the globe of the eye. By long experience, the writer is firmly convinced of the futility of too

many didactic lectures and that the most efficient method of imparting sound instruction is by increasing the number of demonstrations on dissected parts. The present day conception of the scope of anatomy as not merely a science of static morphology but the science of dynamics is not lost sight of. Nevertheless, special stress is laid on regional and topographic anatomy a thorough knowledge of which is so necessary for the practice of medicine and surgery. It is found that in the cumbrous mass of details—morphological and embryological—presented to the students, he is apt to fail 'to see the wood for the trees.'

Owing to shortage of staff and lack of facilities due to inadequate equipment consequent on financial depression no systematic line of research is carried on just at present. The 'somatometry' of the students of this College and the cranio-metry of the Dravidian skulls have now been engaging the attention of the members of the staff.

Staff and Personnel.—

The departmental staff consists of one Professor, one assistant to the Professor, and one Senior Demonstrator all of whom give their whole time to teaching. The non-professional staff comprises two unskilled attendants and 3 menials. Of technicians there are none.

Names of Members of the Staff:—

Professor	—	Mr. R. K. Rau, F.R.C.S., L.R.C.P., (Edin.)
Assistant to the		
Professor	—	Mr. O. Nayinan, M.B., B.S.,
Senior Demonstrator in Anatomy	—	Mr. D. Sivasubrahmaniam, M.R.C.S. (Eng.) L.R.C.P. (Lond).

Budget—Annual:—

Salaries of Professional Staff	...	Rs. 19560.
„ Non Professional staff	...	Rs. 924.
Supplies—Recurrent Expenditure of the Department	...	Rs. 1200.

Total Rs. 21684 or £ 1626.

It may be pointed out that light, water, annual repairs, furniture, and books have not been included in the departmental budget. The bare cost of running the department alone has been given under the heading of supplies.

Cases and Comments

TABES DORSALIS IN TWO CASES IN SIMLA HILLS

BY

S. N. MALHOTRA, M.B., F.C.P.S.,

Chief Medical Officer, Jabbal State.

IT WAS taught in the Medical College, Lahore that *Tabes Dorsalis* is not found in India though cases are common in the continent. I have not read any such case in any journal or medical books so far studied by me; and the medical men whom I have met so far are holding the common view that Indians are immune from this disease. I admitted two cases of *Tabes Dorsalis* in my hospital in one year. It may be pointed out that syphilis is the commonest malady found in these hills; and the people least bother about it till severe symptoms develop like bone necrosis, arthritis of joints, or perforation of the palate.

Most of them are content with local voids' treatment. When the acute symptoms subside, they discontinue the treatment. Just now I have five cases in the hospital of complication of syphilis e.g. two cases of perforate palate, one of syphilitic arthritis of both knees, a gummatous periostitis of the cranium and one case of cephalgia.

The following case may be of interest to the readers:—

A Hindu aged fifty years, from Khanehti state in Simla Hills was admitted in this hospital in August 1932, complaining of severe pain in both of his legs, impotency and inability to walk about without a support, and to completely empty his bladder. He had been having these symptoms for six months, and had tried all sorts of local means. (Here it is a custom to sacrifice a goat before a goddess to appease her wrath whenever anybody is ill, as they believe that all diseases are caused by these gods).

On examination I found his knee jerks and ankle jerks absent, the glans penis was insensitive to pin prick; the pupils reacted to accommodation, but very sluggishly to light; Romberg's sign was well marked, gait was ataxic, the bladder was full, and the bowels constipated.

Lumbar puncture was done by me and cell count was found to be 90 per c. mm. He gave history that he had syphilis ten years ago. I gave him four injections of N.A.B. once a week; analgesic

powder for the pain and iodide mixture twice a day. He then could sleep at night as the pain subsided, but gait and other symptoms did not show much improvement. He left the hospital after four weeks to come again for treatment, but he has not turned up so far. Another case of Tabes Dorsalis came to me in May 1933 but went away after a week.

AN INTERESTING CASE OF HERNIA

BY

M. RAMACHANDRA ROW, L.M.P.,

Rural Medical Officer, Konkuduru, E. Godavari Dt.

Name :—Kolli Challaya.

Age :—34 Years.

Sex :—Male.

Caste :—Hindu Naidu.

Occupation :—Driver.

Residence :—Pandalpaka.

Disease :—Left Inguinal Hernia with partly irreducible mass in the canal.

A Hindu by name Challaya came to me for treatment of a scrotal swelling moving up and down in the left side of the scrotum on 18-9-33. The duration of which, according to his history is from infancy. On off hand examination I thought it to be simple hernia of the scrotum. I reduced it but a portion of the mass remained unreduced, in the canal, resisting all the taxis, necessary for its reduction for the time being. The unreduced portion was taken to be omentum but on close palpation it was suspected to be varicose condition of the chord. On examination of the other side, right, I found that both the chord and the testes were missing. Naturally one would be tempted to search for the missing one. Hence I had to keep him under observation for two days, during which time I gave him purgatives, preceded and followed by worm powder. This treatment was continued with the simple object of clearing the intestines of its foreign matter. Meanwhile I examined him twice daily.

On the evening of the second day in spite of the presence of the unreduced mass in the inguinal canal, I came to suspect the presence of both the testes in the left scrotum. I explained to the patient the gravity of the case and posted the case for operation on 22-9-33.

I called upon Dr. T. Butchi Raju, L.M.P., R.M.O., Kuthukulum and Dr. M. Venkataratnam Pantulu, L.M.P. for my assistance. They examined the case. After exchanging our views we, taking into consideration the testicular pain felt by the patient at two points in the scrotum, came to the conclusion that they cannot but be both the testes. As for the unreduced mass, I am sorry to say that we could not arrive at a positive conclusion.

Operation.—The patient was prepared. Incision was made in the usual line and the structures were laid open. To my utter satisfaction, the condition was as described. The unreduced mass in the inguinal canal was found to be an encysted mass consisting of the right chord and testes, major portion of the left testes, and a portion of the left chord, rather loosely adherent, enclosed in a peritoneal sac through which the intestines were coming and going up and down. The left chord was loosely adherent to the mass but in a separate sac, enclosing the sac covering the mass i.e., the right chord with the mass and right testes were in one sac, inner, enclosed by another sac, outer, with the left chord loosely spreading on the inner sac.

I separated the left chord and testes from the mass. Since the operation was held under local infiltration anaesthesia, I explained to the patient the gravity of the situation, obtained his full consent and cut the right chord with the mass and adherent epididymis with the testes between two ligatures, closed a second time the peritoneal sac i.e., inner, cutting the mass with the end of the ligatured-stump within the ligature. Again for a third time the sac i.e., outer, was extirpated—after separating the left chord and testes with the ligatures of the united stump formed by the right chord and inner sac. The internal ring was extirpated fascia transversalis and was sutured with one edge over the other. The skin was sutured. The whole operation lasted for 1 hour, 20 minutes.

After Treatment.—The patient was put in warm bed. He passed urine and wind within 24 hrs. The dressing was replaced on the 2nd day. He was kept on low diet. No temperature throughout. The wound healed successfully by first intention. Sutures were removed on the 8th day and the patient discharged on the 13th day cured.

Previous History.—Ever since his childhood he gave history of a substance going up and down the left inguinal canal. It was strangulated (?) thrice before this date, i.e. at the ages of 24, 25 and 34. He never used to go out without a Langoti—a tight suspensory bandage of the scrotum for fear of recurrence of strangulation.

A man of regular habits, well built and constitutionally not otherwise defective.

Family History.—No hereditary history, married but no children. Points of interest in this case are :—

1. An irreducible mass in the left inguinal canal with chord and testes on either side.
2. Absence of chord and testes in the right side.
3. Presence of both the chord and the testes in the left.
4. The irreducible mass was found to be a new front matted together with right chord with epedemis and testes enclosed in a peritoneal fold.
5. The peritoneal fold was within another sac.
6. The outer sac contained the left chord only loosely adherent to the inner sac well at the seat of the mass.

AN INTERESTING CASE OF EXTENSIVE SURGICAL EMPHYSEMA

BY

K. GOPALAN, L.M.P.,

Sub. Asst. Surgeon, Govt. Dispensary, Daringbady. Ganjam Dt.

ON 11th October 1933, a young man aged about 18, by name Buddy Bisayi was brought to my hospital. His body was swollen and he was in dyspnoea. The whole of the right side of chest, both sides of the neck, the whole of the abdominal wall, the major portion of the back and the right upper limb up to the wrist were swollen. The characteristic fine crepitations were elicited all over the swollen area. The patient was in distress due to dyspnoea. His pulse was only 108 per minute and fairly good but his respirations were 40 per minute. I found an incised and lacerated wound 2" long $\frac{1}{2}$ " broad and $\frac{3}{4}$ " deep on the front of the right side of chest about 1" below the sternum running transversely. The wound was fairly clean and there was no bleeding. As there were no conveniences I did not explore the injury. I washed the wound and antiseptic dressings were applied and other appropriate treatment was given for his general condition. The dyspnoea subsided in the course of 2 days, his pulse became

normal and the air in the subcutaneous tissue is getting gradually absorbed. The swelling on the neck, back, right upper limb and abdomen have almost subsided. There was a slight swelling over the right side of chest. The crepitations were still felt over the whole surface, where swelling was present. The wound is healing. The history of the case as to how the accident happened is also interesting. The young man was following a party of men hunting shambar (a variety of horned stag); sharp wooden stakes were planted in the ground on the way of the animal and the animal was driven, and while running, this young man was caught stuck in the wooden stake intended for the animal. It seems 4 men were required to pull him out of the stake. The case is interesting as such extensive Surgical Emphysema is rare; and also such a violent injury where evidently parietal and visceral pleura had been injured for getting the emphysema, had no bleeding and is recovering so rapidly without any complication. I could not be sure if the dyspnoea which was present for 2 days after the injury was due to the injury to the lungs or only due to the enormous swelling of the subcutaneous tissue of the chest wall which was present.

The nearest hospital with proper surgical facilities is at least 65 miles away from the place and further the patient was disinclined to go and hence he was kept here and conservative treatment carried on and the patient is out of danger now.

A FEW KALA-AZAR CASES TREATED WITH NEO-STIBOSAN AND A FEW WITH UREA STIBAMINE AND THEIR RESULT

AT MAIBONG K. A. HOSPITAL, CACHAR DT.

BY

ASVINI KUMAR PAUL, S.A.S.

I AM here incharge of both K. A. and State Dispensaries since a year and have treated a few K. A. cases with Neo-stibosan and a few with urea stibamine. I find the latter drug is more efficacious in K. A. cases. A few cases are recorded here for information.

1. A patient named Ganadi, age 22 H. F. was admitted into the Maibong K. A. Hospital on 17-4-33 with the complaint of enlarged spleen with irregular type of fever. Duration of illness 4 months. Spleen $4\frac{1}{2}$ fingers from the costal margin. On admission Temp. was 103 F. She had cancerum oris. F. G. Test—was positive

to K. A. So I started injection with Neo Stibosan on 17-4-33. Initial dose was .10 gm., then .20 gm., .30 gm., .30 gm., .30 gm., .30 gm., .40 gm., .40 gm., .40 gm. Total dose was 3.00 gm. Injection was given every alternate day. Temp. was of irregular type and came to normal on 7-5-33. I gave the patient Mist Spleen and other precautions were taken for cancum oris. The patient was discharged cured on 16-5-33. Spleen was 2 fingers from the costal margin on discharge.

2. A patient named Thangbangdi 13 H. F. was admitted into the Maibong K. A. Hospital on 17-4-33. Spleen upto umbilicus. Fever of irregular type. Duration 4 months. On admission temp. was 99.2 F. F. G. Test-Positive to K. A. So I started injection with Neostibosan. Initial dose was given .10 gm. Then .20 gm., .30 gm., .30 gm., .30 gm., .30 gm., .30 gm., .40 gm., .40 gm. Total dose given was 3.00 gm. Temperature came to normal on 2-5-33. The patient was discharged cured on 13-5-33. Spleen on discharge was 3 fingers from the costal margin.

3. A patient named Kre 16 Hm. was admitted into the Hospital on 28-5-33. Spleen upto umbilicus. Fever was of irregular type. Duration 5 months. On admission Temp. was 97.4 F. F. G. Test-Positive to K. A. So I started injection with Neostibosan. Initial dose was given .10 gm. Then .20 gm., .30 gm., .30 gm., .30 gm., .30 gm., .40 gm., .40 gm., .40 gm. Total dose given was 3.00 gm. On second injection day, the temperature rose upto 101. F. Since then temp. was of irregular type. Temp. came to normal on 12-6-33. The patient was discharged cured on 21-6-33. Spleen on discharge was 5 fingers from the costal margin.

Besides the above cases, I have also treated 16 K. A. cases with Neostibosan.

I have also treated 32 K. A. cases with urea-stibamine during the year 1933.

So far, I am convinced that urea-stibamine stops the fever more quickly than neo-stibason—and the size of spleen is reduced more quickly under the treatment of urea-stibamine. So I prefer urea-stibamine to neo-stibosan in the treatment of K. A. cases.

In Nutritional Crises

WHILE the average adult is generally able to maintain a healthy existence on the ordinary everyday diet, there are certain periods in the life of each individual when an increased demand for the vital food elements arises.

Outstanding examples are the period of adolescence, the pregnant and nursing states and the stage of convalescence after severe and lowering illnesses.

"Ovaltine" is an eminently satisfactory adjunct to the ordinary dietary at all such times. Composed of fresh, full cream milk and malt extract in proportions adjusted to meet physiological requirements, it provides, in an agreeable form, calcium, phosphorus, vitamins and other important food elements. It is an exceptional nutrient.

"Ovaltine" is a metabolic stimulant and digestive which assists the assimilation of other foods and promotes general good health. It can therefore be taken regularly with advantage in place of tea, coffee and other beverages. A noteworthy feature is its delightful taste, which is appreciated by people of all ages.

OVALTINE

TONIC FOOD BEVERAGE

A liberal supply for clinical trial sent free on request.

Agent:—James Wright, 85-A, Ripon St., Calcutta.
310-318, Lohar St., (Op. Marine Lines Stn.) Bombay.
3-4, San Thome, Madras; P. O. Box 1071, Rangoon.

M.252

Kneeling Statue of Ramses II holding tablet for offering

When writing to advertisers, please mention the "Antiseptic,"

GASTRIC FABLES . . .

A Tale of Eating
One's Way to Sleep..

The doctor meant well when he advised his "nervous" patient to take a biscuit and a glass of milk before retiring. He felt sure the patient would find the rest and sleep she craved by diverting the flow of blood from the brain.

But he didn't reckon with the vagaries of the stomach. There was no sleep—but a sleepless tossing about in bed because the stomach rebelled against the untimely hour at which it was put to work. It put its energies into action with a vengeance and hyperactivity with hypersecretion was the painful result.

CAL-BIS-MA came to the rescue. A teaspoonful in half a glass of water neutralized the excess acid and soon convinced the stomach of the futility of resisting fate in the guise of medical science. The patient got her sleep and rest.



Cal-Bis-Ma is a combination of calcium and magnesium carbonates, sodium bicarbonate, bismuth and colloidal kaolin, blended into a palatable powder. It neutralizes excess gastric acidity quickly, efficiently and with lasting effect . . . We will gladly explain the therapeutic merits of Cal-Bis-Ma and send a professional trial package for the asking . . . Send for it.

In gastric hyperacidity . . CAL-BIS-MA

Prepared by WILLIAM R. WARNER & CO., INC., Manufacturing Pharmacists Since 1850.
113-123, WEST 18th STREET, NEW YORK, U.S.A.

Agents in India:—MARTIN & HARRIS, Ltd., Rowlette Bldg., Princep St., Calcutta; Graham's Bldg., Patel Bazar St., Fort, Bombay; 15, Sunkarima Chetty St., Madras; 2, Campbell St., Karachi; and 189, 32nd St., Rangoon.

When writing to advertisers, please mention the "Antiseptic."

NEPTAL

REGISTERED TRADE MARK

Hydroxymercuripropanolamide
of Orthoacetyloxybenzoic Acid

A NEW AND HIGHLY EFFICIENT DIURETIC

An organic mercurial agent of great service in Nephritis, Oedema of cardiac or renal origin and in pleural or pericardial effusions.

Its chief characteristics are:

Freedom from toxicity in therapeutic doses.
Its rapid and prolonged action.
Its ease of administration.
The fact that it is well tolerated.

Further information obtainable from

MAY & BAKER (INDIA) LTD.,

Head Office:

3, MANGOE LANE.

CALCUTTA:

Branches:

BOMBAY:

316/318, LOHAR STREET.

MADRAS:

144, BROADWAY.

RANGOON:

187, TSEKAI MAUNG TAULAY ST.

KARACHI:

1A, CAMPBELL STREET.

When writing to advertisers please mention the "Antiseptic."

BOOTS PRODUCTS

SULPHOSTAB

For subcutaneous and intramuscular injection in cases of Syphilis and other Spirochaetal diseases. A stable product, of low toxicity and high therapeutic value. Although when used with distilled water it is practically painless, a special Sulphostab Solvent is available for use when the patient is specially susceptible to pain.

BISMOSTAB

A suspension of very finely divided metallic Bismuth in a 5% Glucose solution. It is specially recommended for use along with Arsenobenzol preparations such as Sulphostab in the treatment of Syphilis and Yaws.

ACRIFLAVINE

The routine product for irrigation in cases of Gonorrhoea, and for use in all septic conditions. Neutral Acriflavine is also available, in powder, solution tablets, and enteric coated tablets.

Prices and literature available from:

BOOTS PURE DRUG Co., Ltd.,

(Calcutta Depot.)

Mercantile Buildings, Lalbazar, CALCUTTA.

When writing to advertisers, please mention the 'Antiseptic.'

VOL. 30. NO. 11.]

[NOVEMBER, 1933.]

The Antiseptic

[Estd. 1904]

A MONTHLY JOURNAL OF MEDICINE & SURGERY.

Editors: DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

Editorial and Publishing Offices:—323, Thambu Chetty St., Madras.

ANNUAL SUBSCRIPTION RS. 5, FOREIGN, 10 SH. POST PAID.

Editorial

OUR KNOWLEDGE OF CANCER

CANCER has been known and studied since the dawn of civilization. It is considered by some as second in importance among the causes of death, heart disease being first. The great mortality from cancer has awakened world consciousness, so that in practically all countries, government and private institutions have come into being, for the study, prevention and cure of cancer. Dr. Liborio Gomez in an admirable article in the Philippine Island Medical Journal, has given an idea of the present state of our knowledge regarding cancer.

THE NATURE OF CANCER.

For a long time research on cancer was confined to morphological lines and its treatment advanced only with the progress of operative technique. With the demonstration by Jensen and Loeb that carcinoma and sarcoma can be transplanted and retransplanted in mice and rats for an unlimited time, an era of experimental work was ushered in. It has since then been possible to keep cancer in living animals for the study of their biological characteristics and their sensitivity to various therapeutic agents.

Cancer cells are derived from pre-existing cells. They differ from normal cells in their capacity for rapid and unlimited multiplication, the greater degree of mitosis, their invasive power and are characterised by some biological changes such as the greater proteolytic power.

We have known for many years of the occurrence of localised cancer in connection with the practice of certain habits and occupations: namely the cancer of lower lip in connection with smoking a pipe; cancer of the skin of scrotum in chimney sweeps, cancer of the cheek associated with the chewing of betel-nut leaves, lime and tobacco; cancer of the hands following X-ray burns and many others in which the development of the disease could be suspected as attributable to physical injury or some chronic inflammatory process.

Many pathologists impressed with the above mentioned facts tried to produce cancer by painting or injecting with tar. Yamagiva and Ichikawa by painting coal tar on the ear of the rabbit succeeded in producing spontaneous carcinoma, with metastasis in lymph nodes. Cancer thus produced is attributed to irritation. The nature of the carcinogenic agent in tar has been the subject of exhaustive investigations; workers have produced cancer in mice by heating acetylene, yeast, isoprene and human skin to temperatures ranging from 700° to 920°C and cholesterol heated to about 800°C; by the action of aluminum chloride on acetylene, xylene, naphthalene, and bromobenzene; and by the subcutaneous injection of 1:2:5:6 dibenzene anthracene produced spindle-cell sarcoma in mice and rats. The variety of the agents that give rise to cancer establishes the fact that there is no single specific cause of cancer. Kenneway however thinks that the carcinogenic action of tar, whatever its origin, cannot be ascribed simply to irritation, for not all irritants produce cancer, and that the site of the lesion and the reaction of the tissue are as important as is the provocative agent.

The mechanism of the development of cancer caused by whatever agency is the subject of much discussion. Handley thinks that lymphstasis, which is the result of lymphangitis caused by irritation of some kind, precedes and causes the formation of cancer. Hammet found that the sulphhydryl radical S H stimulates mitosis of cells. Warburg believes that cancer arises whenever there is a lack of oxygen; the cells that survive must make up this lack by greater glycolysis, with consequent increase in lactic acid formation and consequent stimulus to growth. Other workers point out that cancer is associated with more alkalinity of the blood with a diminution of ionized calcium and even total calcium in blood plasma. It has also been found that rich nourishment increases tumour growth. Vitamin-B favours tumour growth. Another important observation was made by Slye who by breeding

thousands of mice, demonstrated that spontaneous tumours follow genetic laws.

To summarise, our knowledge of the nature of cancer, so far, is that it consists of cells arising from pre-existing cells, differing quantitatively but not qualitatively from the latter in their morphological and biological characteristics, and that their formation is caused by a variety of agencies, physical, chemical, and biological, their development being influenced by local reaction, morphological or chemical, and by some systemic or constitutional condition, notably hereditary susceptibility.

DIAGNOSIS OF CANCER

Serum diagnosis of malignant disease has not yet proved of practical value. The Abderhalden test, which depends on the demonstration of the presence of proteolytic enzymes in the blood acting upon specific proteins derived from a neo-plasm, is quite unreliable, and complement fixation tests have been found inconclusive. Fry however describes a test consisting of flocculation brought about by mixing the patient's serum with cholesterolized alcoholic extract of fresh cancer tissue. Lipschutz makes known the presence of the "plastine reaction," consisting of a basophilic stain of the cytoplasm of the tumour cells in the neighbourhood of the nucleus when stained with Giemsa. This however requires confirmation. Great progress however has been made in the diagnosis by the more general use of the frozen-section method which makes possible a diagnosis at the time of the operation.

TREATMENT OF CANCER

The prophylaxis of cancer must be directed to the detection and treatment of certain precancerous conditions such as pigmented moles, chronic ulcers and fissures of skin and mucous membrane, chronic irritation of the mucous membrane of lips and mouth.

Ever since cancer has been recognised, attempts have been made to control and eradicate the disease. 50 years before the Christian era, surgical treatment was practised, and surgery, in spite of all efforts for the last two thousand years, remains the method of choice. A long step in advance was taken when it was observed that rapidity of growth of cancer cells and the degree of their differentiation go hand in hand with increasing sensitiveness to physical and chemical damage. Thus cancer cells can be more easily destroyed than can the normal cells surrounding them. This fact is of the greatest importance in connection with the use of X-rays and Radium.

the technique of treatment or dosage or enter into the controversy as to which of these two therapeutic aids is more useful. But because the success of surgical procedures, alone or aided by irradiation is not certain, other methods of treatment have been tried.

One of the earliest attempts to find a chemotherapeutic agent capable of curing cancer was with eosin-selenium. Shortly afterwards a long series of experiments was carried out with the salts of practically all heavy metals including lead. Blair Bell thought that the abortifacient action of lead was due to its affinity to chorionic villi which were rapidly growing cells. On this assumption he thought that lead salts may act on malignant cells. He had prepared a colloidal lead preparation "choriotrope" which together with other lead preparations has been tested by other investigators. The general conclusion expressed in the Cancer Conference, London, 1928, is that this has no positive value in the treatment of cancer, and that this is likely to cause toxic symptoms in patients.

The quest for a vital dye to serve as a chemotherapeutic agent is being pursued. Trypan red, trypan blue, eosinate of selenium, Scheele green etc., have all been tried with no great success.

The first attempt to obtain cancer antiserum was made by Jensen, who after a series of trials concluded that serum had little or no effect, and that the apparent cure was due to spontaneous disappearance and not to effect of serum.

Cancer cures on an endocrinological basis have failed so far.

CONCLUSIONS

If we were to summarize our present knowledge on cancer, we would say that :—

1. Cancer arises through the direct or indirect action of various physical, chemical, and biologic agents, and that certain lesions especially subject to chronic irritation may precede cancerous formation. It is not a contagious disease, and in some cases hereditary predisposition can be established.

2. Recognition of cancer depends on clinical observations, supplemented when possible by a histological examination of the affected tissue. There is no specific biologic test for cancer.

3. Recognition of precancerous lesions and treatment of the disease in its earliest stage are at present our best means of controlling the disease.

THE MOST WONDERFUL REMEDY FOR UNYIELDING URINARY DISEASES SPECIFIC FOR GONORRHOEA **GONO-KILLER**

(REGISTERED)



Beware of Imitation.
Watch, COCK BRAND
Before buying.

is the unique remedy of the day. If the English and native drugs have not cured the disease and if the vaccines and injections have failed, at least once try our GONO-KILLER as the last resource. However old and chronic your disease may be, GONO-KILLER is useful in all URINARY DISEASES of males and females, in GONORRHOEA of any type (all ages and stages) Pain, Burning and Pus in urine, Gleet, Retention Cystitis, Urethritis, Prostatitis, Leucorrhœa, Seminal discharge and all other diseases due to Gonococcus, etc., etc. Price per phial of 50 (fifty) Pills Rs. 3 (three) V. P. P. Charges extra.

Sole Manufacturer : **Dr. D. N. JASANI,**
Girgaum Back Road, Bombay No. 4.

Madras City Agents :—Messrs. **DADHA & CO.,**
52, Nainiappa Naicken St., P.T., Madras.

EYE-AFFECTIONS

such as Conjunctivitis
Trachoma, Suppuration

of the tearsac

Effective treatment with:

Eye Ointment **ARGOLAVAL** Solution

silver hexamethylenetetramine nitrate 2% ointment

PAINLESS-NON-IRRITANT



Sole Agents:

The Anglo-Siam Corporation Limited
Bombay P.O.B.70 Karachi P.O.B.8
REMEDIUM LTD., BERLIN

When writing to advertisers, please mention the 'Antiseptic.'

Iodised Oils for Use in Iodine Therapy & in X-ray Diagnosis
IODIPIN
NEO- IODIPIN
produce a milder, more lasting iodine action
Supplied in various strengths from 10% to 40%
and in the form of tablets for oral use

For examination of the Alimentary Canal
CITOBARYUM
gives clear and well-defined shadows
No deleterious effects - No unpleasant taste
For internal use: bottles of 150 gm. and 2 kilos
For rectal use: bottles of 200 gm. and 2 kilos

Cell-Bladder Visualization calls for
'MERCK' TETRAGNOST
PRODUCTS
Iod-Tetragnost in bottles of 4 gm.
Capsules of 0.5 gm. (gr. 7½)
in boxes of 25
Iod-Tetragnost Ampoules of 3 gm. in 20 c. c.
in boxes of 3 and 10
Oral-Tetragnost in original bottles

 **E-MERCK CHEMICAL WORKS DARMSTADT**

SAMPLES AND LITERATURE ON REQUEST TO
 REPRESENTATIVES FOR INDIA: MESSRS. MARTIN & HARRIS LTD.
 Rowlette Building, Parsi Bazar St.
 17, Prinsep Street, Fort,
 CALCUTTA BOMBAY

When writing to advertisers, please mention the "Antiseptic."

StaffAllenS Pharmaceuticals



Cutting Belladonna on StaffAllenS farms at Long Melford, Suffolk.

EXTRACTS · POWDERS · PILLS
 PLASTERS · OINTMENTS
 ALL PHARMACOPŒIA PREPARATIONS

StaffAllenS Ext. ERGOTÆ LIQ.

Physiologically Tested.

Each batch is physiologically tested and a certificate of its activity obtained before it is passed for sale. Physicians can rely upon its constant therapeutic action.



STAFFORD ALLEN & SONS Ltd.
 LONDON, ENGLAND

Herb Farmers, Manufacturing Chemists,
 Drug & Spice Millers, Distillers of Essential Oils, etc.

Special representative for India, Burma & Ceylon:—

H. B. TILDEN, F.C.S., F.Z.S., Poste Restante, Bombay.

AGENTS—Ralph Paxton, 10, Lall Bazaar, Calcutta.
 Anglo-Siam Corporation Ltd., Tamarind Lane, Bombay.
 Anglo-Siam Corporation Ltd., McLeod Road, Karachi.
 G. E. Sampathu Chetty & Co., 193, Esplanade, Madras.
 J. A. Samuels, 28, Mg. Toulay Street, Rangoon.

Hyperacidity caused by Quinine.



Every medical man in the East has many patients who are unwilling to take quinine because of the obvious manifestations of gastric hyperacidity that ensue. In such cases, all difficulty can be overcome if 'Bisurated' Magnesia is prescribed a quarter of an hour before the administration of quinine. 'Bisurated' Magnesia is a pure antacid compound that instantly corrects gastric hyperacidity and protects the delicate stomach lining from further irritation. Medical practitioners throughout the world endorse the use of 'Bisurated' Magnesia whenever hyperacidity is indicated.

Dr. Henri Lehmann, of the Faculty of Medicine, Paris, says: "'Bisurated' Magnesia can be considered the ideal remedy for hyperacidity."

'BISURATED' MAGNESIA

Always see the
oval 'BISMAG' sign
on the cotton.

FREE SAMPLE and Medical Brochure may be obtained upon forwarding professional card to the Sole Agents: Volkart Bros., Bombay, Karachi, Madras, Colombo. G. Atherton & Co., Calcutta & Rangoon.

TRADE MARK

Dr. JAMMI VENKATARAMANAYYA'S

LIVER & SPLEEN SPECIFICS.



REGISTERED.

An unfailing and most efficacious specific on the field. Highly praised to be the best of all and recommended by Eminent doctors in cases of

INFANTILE BILIARY CIRRHOSIS.

Special treatment if jaundice, collection of peritoneal fluid, oedema, and other complications are present.

Acts both as a curative & preventive agent.

Literature & particulars from

8, SALAI STREET, MYLAPORE, MADRAS.

Stockists:—Messrs SRI KRISHNAN BROS., 323, Thambu Chetty St., Madras.

4. Surgical excision is still the best treatment. Deep X-ray and radium are recognized as the best auxiliary to surgery. Other methods of treatment are still in the experimental stage.

5. Our knowledge of the disease is rapidly increasing, on account of the greater interest now being given it throughout the world. Treatment of patients goes hand in hand with laboratory tests in animals in many cancer institutes, hospitals, and laboratories. May we hope that the human race will finally understand and conquer this disease!

Gleanings from Medical Press

SURGERY

Common Surgical Errors.—These lines would call attention to the fact that most of the deformities requiring surgical correction need never have occurred. For some inexplicable reason splints are forgotten until too late. A patient having a chronic or prolonged illness becomes uninteresting; and, before his physician realizes it, has developed deformities which the simplest sort of splinting, if applied early, might have prevented.

There are certain rules which can be followed in any community by any physician.

1. Any wound heals best at rest. Splints produce rest. A small superficial skin abrasion on the flexor surface of the wrist assumed real importance when the boy's parents began to demand an explanation of failure to produce a cure after four weeks. The application of a splint produced a dry closed wound in eight days.

2. A person suffering from infantile paralysis can be rendered invaluable aid by his doctor, irrespective of that doctor's particular training or speciality, if he is watched for beginning deformity and the deformity prevented by early bracing.

3. Any acutely diseased or injured joint should be splinted. To make such an obvious statement seems ridiculous. Everyone in the medical profession knows this without being told. But the following cases, seen in the last year from the best county hospitals in California, would indicate the contrary: (a) sciatic nerve injury with knee flexion contractures and severe toe drop; (b) acute staphylococcus infection of ankle joint with 70 degrees equinus deformity; (c) abduction flexion deformity of a hip which became ankylosed after open reduction for traumatic dislocation; (d) flex-

ion and wrist drop, after burns to palm; (c) a simple impacted fracture of the femoral condyles with knee flexion contracture. These cases were in the hands of good men. These deformities need never have occurred. All of them required surgical intervention.

4. Any joint so diseased or injured as to threaten a loss of motion should be splinted in the optimum position for use of a stiff joint and held there in the intervals of treatment, that is, 70 degrees abduction of the shoulder; 90 degrees flexion of the elbow; 40 degrees cock-up of the wrist; hand in position to grasp a large ball (never flat); hip 10 degrees flexion, with abduction according to existing or anticipated shortening; knee 5 degrees flexion; foot 5 degrees below a right angle to allow for wearing a heel. It is common practice to place an injured hand on a flat board splint. This position is the one in which the thumb is absolutely useless. The thumb must not be at the side, but in front of the palm to be used.

5. In cases of nerve injury any physician may institute good treatment by use of the simple rule that splinting should reverse the tendency to deformity. For example, a cock-up position for wrist drop, extension of the knee in paralysis of the quadriceps femoris, etc.

6. Splinting can do harm, but that harm is never from the rest or fixation. Damage from any dressing must be due to one of four things—undue pressure on the skin, compression of a superficial nerve, obstruction to normal circulation, or bad position. If the limb is not more comfortable after application of a fixation dressing, if the patient complains of discomfort in a brace, splint or cast, *listen to him!* When he states his foot goes to sleep in a cast get an accurate description of what part of the foot. Often it will be found that he really means the fifth toe and a small area just back of the first digital interspace on the dorsum of the foot. Such findings indicate pressure on the common peroneal nerve at the head of the fibula. Similarly in other faulty dressings, careful attention to the patient's complaints will disclose real errors in the application of the apparatus more often than not. Never fail to heed your patient if he is wearing a rigid dressing of any kind; bad disposition is the last diagnosis to use in explaining the discomfort of such a dressing.

To generalize, it is safer to splint an injured or diseased extremity than not. The common fear of losing joint motion is not justified. Rest hastens healing, and rapid healing ultimately

conserves motion. Mechanical support relieves pain and muscle spasm; the patient will be more comfortable, and his physician will have less trouble. And finally the fact that a splint was applied is a remarkable proof, in case of legal controversy, that the physician anticipated and attempted to avoid a bad result. In short, splint everything that can be splinted and the percentage of error will decrease.—*California & Western Medicine*.

The Treatment of Peptic Ulcer.—For more than fifty years able practitioners have been struggling with the problem of peptic ulcer, trying to find out why the stomach does not ordinarily digest itself, why acute ulcers heal and why chronic ones either fail to heal or else, when they do heal, tend to become active again. In a comprehensive review, with a full bibliography, Walter C. Alvarez, of the Mayo Clinic, discusses various aspects of this interesting subject (*American Journal of Surgery*, Nov. 32, xviii, 207). He concludes by giving one hint in regard to treatment which has come from several of the men who during recent years have been studying experimental ulcer. Many laboratory workers discovered years ago that when in dogs they snipped out bits of gastric mucosa the defects healed rapidly. When Ferguson tried this in rabbits he found that some of the lesions were converted into chronic ulcers, and he assumed that this was due to the constant presence of rough food in the stomach. Other observers found a difference in the rate of healing of experimental ulcers depending on the smoothness or roughness of the diet, and on several occasions experimenters have lost dogs because a piece of celery or turnip poked a hole through the floor of an ulcer. In some cases hair swallowed by the animal has served to retard healing. As Mann and others have shown, when an ulcer begins to heal, the defect is covered by a layer of epithelium one cell deep. It does not take much rubbing to remove such a membrane, and it becomes obvious that whatever other qualities an ulcer diet should possess, at least it should be smooth and free from indigestible particles. Experimentation suggests that more work should be done with fats and oils in the treatment of ulcer. They have been used particularly by Glaessner and Hurst, but unfortunately they tend to produce nausea and hence there are limits to their use during the day. They might, however, be used at night when they are most needed to inhibit secretion.—*The Practitioner*.

OPHTHALMOLOGY

Present Status of Diathermy in Ophthalmology. Grover H. Poes.

Am. J. Ophthalmol., 15:1150, (Dec.) 1932.

Authorities have not heralded diathermy as a panacea but rather as an adjunct to other recognised therapeutic or surgical methods.

Gala found that surgical diathermy yielded excellent therapeutic and cosmetic results in the treatment of carcinoma of the lids and the surrounding area. If the tissues are adequately coagulated there is no fear of recurrence. It is the method of choice in otherwise inoperable cancer.

Zuback has successfully removed, under the influence of butyn anesthesia, seven pterygia by a two-step electrocoagulation. The author concludes that this method is superior to surgical measures because it is safer, due to the sterilizing qualities of the current, and more rapid and economical in that there is no preparation or loss of time.

Larsson describes his treatment of retinal detachment with electroendothermy and trephining. The operation is described step by step. Lifting the conjunctiva to give an exposure of the sclera over the detached area, tenotomizing one or more of the ocular muscles if necessary, after which surgical diathermy is applied over the exposed sclera. One or two trephine openings are made with an Elliot trephine to allow an outlet for the subretinal fluid and prevent a rise in intraocular pressure from the postoperative reaction. All hemorrhages are controlled by electrocoagulation. Seven cases were operated on with this technic with good results. The reattachment probably occurs by setting up an adhesive chorio-capillaris because of atrophy of the cicatrized choroid.

The author has found by experience that medical and surgical diathermy are of value in the treatment of blepharitis and neuroparalytic keratitis. He has accepted medical diathermy as a valuable adjunct in the treatment of chronic conjunctivitis, atonic keratitis, iritis, and incipient cataract. Complete case histories supplement the author's presentation.

In the investigation surgical diathermy was limited to diseases of the eyelids and surrounding tissue. Warts, moles, xanthomata, and chalazia have been successfully removed.

Nov. '33]

GLEANINGS FROM MEDICAL PRESS

953

Chalazia was first treated by incision and evacuation of the contents, followed destruction of the lining membrane with desiccation. Certain cases of entropion yield to a mild coagulating current. The skin and subcutaneous tissues of the lid are punctured several times with a cambric needle electrode. This produces a scar contracture after healing and as a result draws the lid margin outward.

Desiccation with the needle point electrode applied to the surface of trachoma granules, especially in chronic cases, has been encouraging. Only a few granules should be treated at one time since the production of a reaction causes the patient to be uncomfortable for several days.

Malignancy, involving or adjacent to the inner or outer canthus, requires early complete destruction.

German and British authorities have written more about medical diathermy, while French and American writers have given more attention to surgical diathermy. No authority, however, would herald diathermy as a cure-all but rather as an adjunct to other recognized therapeutic or surgical methods. Arousing great interest among the medical profession everywhere, both medical and surgical diathermy are destined to play a part in ophthalmology; and we shall watch with interest, and further as much as we consistently can, the sober study and discussion by which, only, its claims can be established or disproved.—*Archives of Physical Therapy X-Ray and Radium*.

Cardiovascular Disease in Relation to the Retina.—H. P. Wagner, N. W. Barker and C. F. Burke (*American Journal of Medical Sciences*, 185:517, April, 1933) note that in certain cases of cardiovascular renal disease observed at the Mayo Clinic a form of retinitis has occurred that was not typical of that of essential hypertension, malignant hypertension, or chronic glomerulonephritis. The characteristics of this form of retinitis, which they designate as "acute diffuse angiospastic retinitis", are generalized marked attenuation of the retinal arterioles with or without irregularity of their lumina, a diffuse oedema of the retina, relative ischemia at times, mild oedema of the discs, cotton wool patches, hemorrhagic areas, and in the latter stages, punctate exudates of residual oedema and partial star figures in the macula region. The arterioles do not show the exaggerated reflex and sharply defined

indentation of the walls characteristic of the sclerosis of hypertension; arteriovenous compression is not present. This form of retinitis observed in men and nonpregnant women is similar to the retinitis characteristic of the toxemia of pregnancy. When the acute stage is passed, the retinitis may heal completely, leaving only signs of a past retinitis; it may result in chronic obliterative disease of the arterioles characteristic of the retinitis of arteriosclerosis; or it may assume the characteristics of the retinitis of malignant hypertension with sclerosis of the arterioles and increasing oedema of the discs. Six illustrative cases are reported, all in patients under forty years of age; in 2 of the 6 cases the diagnosis of primary glomerulonephritis was made; and the 4 remaining cases were classified as primary diffuse arterial disease with hypertension. Four of the patients died within seventeen months of the discovery of the angiospastic retinitis. The appearance and course of the changes in the retina in these cases indicate that the angiospasm results in definite organic injury to the walls of the arterioles of the retina; it is probable that the retinal changes are indicative of similar injury to the systemic arterioles; and that the retinitis is of serious prognostic significance.—*Medical Times & Long Island Medical Journal*.

MEDICINE

Reclassification of Anemias.—Reuben Ottenberg, New York *Journal A. M. A.*, April 29, 1933, reviews the work during the last ten years of a series of experimenters and clinicians; presents a new classification of the anemias based on their work, and discusses the methods of therapy. The classification that he presents is divided into three broad divisions: (1) deficiencies, (2) direct injury to the blood-making organs and (3) blood destruction from whatever cause. There is no fundamental division into primary and secondary anemias, because every anaemia has a cause, although in some cases the cause is still unknown, and the anemia can be classified only on its apparent pathogenesis. In many instances a given condition may have to be classified under two headings. For example, some cases of Bothriocephalus anemia have a group relationship to pernicious anemia and respond to liver therapy; others present only the picture of a hypochromic anemia, and recovery occurs after the removal of the worms. The same thing is true of pregnancy anemia: some patients do well on

liver therapy while others require only iron. The author states that almost all the diseases in which dietetic or medicinal therapy of anemia is effective fall in the first general group, that is, the deficiencies. He discusses certain general principles regarding the use of iron, liver and blood transfusion. Iron should be given by mouth and not by injection. Examination of the actual amount of iron in all the preparations that are suitable either for intramuscular or intravenous injections has shown that it is impossible to give sufficient amounts of iron unless the dose given is toxic or is extremely close to the toxic limit. For practical purposes the best preparations seem to be ferrous carbonate (in the form of the familiar Bland's pill or saccharated ferrous carbonate powders) or, particularly for children because of its ease of administration, iron and ammonium citrate in 25 per cent solution. For infants, the dose of this citrate is from 5 to 10 grains (0.3 to 0.6 Gm.) a day; for adults, from 60 to 120 grains (4 to 8 Gm.). In the six or seven years since the introduction of the antianemic principle derived from liver for pernicious anemia and allied diseases there has been great improvement in the method of its use. The dosage is now standardized approximately by comparison with the effect to be anticipated from known amounts of whole liver taken by mouth. Thus the most widely used preparation, liver extract No. 343, is marketed in 5 Gm. vials each of which contains the equivalent of about 60 Gm. of liver. The dose of liver or liver extract needed to reach and maintain a normal blood count varies from patient to patient. In a general way the equivalent of from 300 to 500 Gm. of liver a day is needed when the preparation is given by mouth. Blood transfusion is essentially an emergency measure. It is useful in patients acutely ill when first seen, in tiding anemic patients over critical periods, such as the later months of pregnancy or surgical operations, and, in general, in all situations in which an extremely rapid improvement is urgent. This applies particularly to deficiency anemias. In cases of bone marrow destruction, transfusion is almost the only means that is at present available of overcoming the anemia; and in instances in which there is any hope at all that the natural progress of the disease may reach an end persistent use of blood transfusion will sometimes keep the patient alive until marrow regeneration occurs. In the anemias due to hemolysis, transfusion is often of use as an emergency measure to tide the patient over until some other procedure can be used, such as splenectomy in the case of hemolytic icterus. In acute febrile hemolytic anemia, transfusion seems to

be specifically curative. In almost all anemias due to disintegration of blood, medicinal or dietetic therapy, iron and liver extract fail completely, and the only real cure is the removal of the cause in those cases in which that can be accomplished.—*Medical Times and Long Island Medical Journal.*

Notice

The Xth All India Medical & Sanitary Exhibition, 1933, Bombay.

Dear Sir,—We invite your attention to the Medical & Sanitary Exhibition which will be held in Bombay during the Christmas week, this year, in connection with the Xth All India Medical Conference and the 26th All India Licentiate's Conference at Parel, Bombay.

We would emphasise the fact that this Exhibition affords a splendid opportunity to give your goods and products publicity and to increase your sales.

The Conference will be attended by all the men in the Medical profession from all over India. A large number of manufacturers has already indicated the desire to utilise this unique opportunity for advertisement and we suggest that as the demand for accommodation is expected to be large, you may apply early for allotment of one or more stalls.

Full particulars can be had on application to the undersigned.

Yours faithfully,

Dr. M. B. Thakore M.B., F.R.C.S.

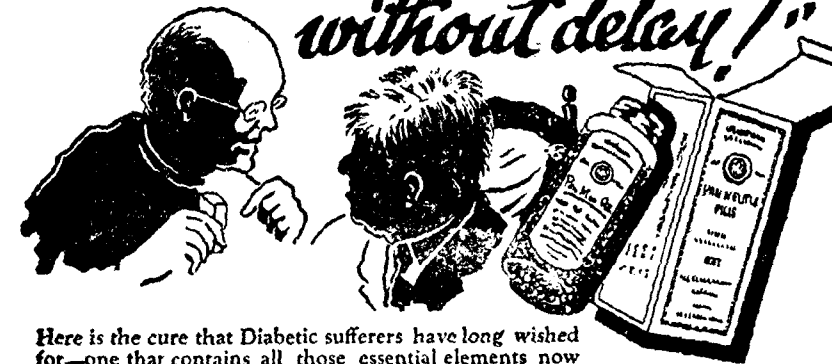
Dr. M. N. Talati L.C.P.S.

Dr. Joshi Mirajvala L.C.P.S.

Jt. Hon. Secretaries.—Jt. Exhibition Committee.

Xth All India Medical Conference and 26th All India Licentiate's Conference. 127, Girgaum Road, Bombay 4.

"Diabetes? Take 'Pan-Melitus' without delay!"



Here is the cure that Diabetic sufferers have long wished for—one that contains all those essential elements now revealed as missing in all other treatments, one that does not cause complications during treatment, and one that needs no constant medical attendance.

It is PAN-MELITUS that contains all the active principles of the Pancreas and more—the latest outcome of further researches and study into the shortcomings of Insulin and other treatments. Physicians assert it is a definite advance over Insulin Injections, in that it restores the damaged pancreas to normal working and rebuilds the digestive and metabolic processes, where all others have failed.

Sugar in the urine disappears, blood-sugar is lowered and the patient gradually picks up health, strength and vitality.

30,000 DOCTORS' First Choice this: Get a bottle of 100 pills from your nearest dealer. The results with the first bottle will amaze you.

Dr. H. H. J. Scudder, D.B. L. Hospital, Ferozepore Cantt. writes that she is cured of Diabetes, and adds "I suffered for two years. I had a very big appetite, nothing satisfied me. I suffered from thirst and passed large quantities of urine. I suffered fatigue. Since taking PAN-MELITUS pills, my urine is sugar free now and the above symptoms have disappeared."

Pan-Melitus



No other rational remedy provides such an instantaneous cure for Piles as RECTO-SEROL, the never-failing cure, —no matter whether Abscess, Fissures etc. have formed. It actually enters the home of disease germs, its powerful ingredients acting directly on the knots are quickly absorbed. Almost at once all agonizing pain, itching, burning, bleeding etc. stop, the piles begin to gradually shrink and often disappear permanently. Read what Mr. S. M. Husain, State Collieries, Umari, reports: "I was suffering from Piles and Fissure for the last 5 years and was to undergo operation, when Dr. M. Umar of Delhi recommended RECTO-SEROL. I got 3 tubes from him, two of which have been used. I have no pain no trouble now."

CONTINENTAL DRUG CO OF INDIA
COMMISSARIAT BLDG, HORNBY RD, FORT, P.O. BOX 998, BOMBAY
TEL. ADD. "CONDRUGCO" ALL INDIA

GONORRHOEA.

DIUROCYSTINE.

For Internal Treatment.

A powerful antiseptic of the urinary organ. A proven remedy for gout, rheumatism and arthritis.

Diurocystine is a preeminently cicatrizing and antiseptic agent, capable of dressing deep wounds in the vesico-renal organ and of causing poisons and waste matters which have been rendered soluble to be discharged in the urine.

Diurocystine cures and eliminates, removes poisons and reduces congestion; it is the most energetic modifying agent and the most powerful diuraseptic and should be prescribed for all vesico-renal affections.

Diurocystine is an excellent adjuvant in the treatment of Gonorrhoea and agrees extremely well with the patients.

Literature and case reports from:—SIQUEIRA & SON, 121, Fort Street, BOMBAY.

ULCERINE (REGD.)

Absolutely free from Mercury.
Copper etc.

No operation. No bandage. No dressing.

A sovereign remedy for all sorts of Boils, Sores, Sinuses, Gangrenes, Sore Finger, Carbuncles, Piles, Fistula, Necrosis, Burns, Cuts and Foul Ulcers, Ottorrhoea, Ozina, etc. It may also be taken internally as the best Blood Purifier, relieves pains of poisonous boils and ulcers magically in a day on application. Ulcerine plays a miracle in syphilis and operated sores.

Ask for free booklet.

Rs. 1-4 per bottle, Postage extra.

CURE your EYE

Diseases any kind—Glaucoma, Cataract, redness, granular lids, sty, etc., without knife by our safe remedy of nature LOTUS HONEY (Cocoonut Brand) 1 dram Rs. 2-8, 2 drams Rs. 4.

Ask for free particulars from:—

NEW FORMULA CO., Kandi Bengal, India.

Telegram:—"Ulcer," Kandi.

Agent:—

Sri Krishnan Bros., P. T. Box 166, Madras.
J. Tirath & Co., Bunder Road, Karachi.
Dadha & Co., Park Town, Madras.
Dey Bros., 220, Mogul Street, Rangoon.

ARGONAL.

For Local Treatment.

ARGONAL designed in France for the local treatment of the infection has now been accepted as a distinct advance in the problematic therapy of gonorrhoea.

Possessing a deep bactericidal and penetrating action, Argonal promptly arrests subsequent development in a fertile field.

Argonal does not produce irritant symptoms which so easily lead to an aggravation of the gonorrhoeal process and to complications. Argonal is promptly effective and is specially recommended for early and abortive treatment.

ARGONAL is presented to the medical profession in tubes fitted with nozzle which makes it of practical value in the treatment of women.

The formula has been given in the *Materia Medica* of Dr. U.B. Narayan Rao.

Established 1906.

The most widely circulated Medical Journal in India, Burma and the Far East, having a circulation of 4,000 copies every month.

THE Indian Medical Journal.

THE OFFICIAL ORGAN OF THE
ALL-INDIA MEDICAL LICENTIATES'
ASSOCIATION.

A Record of Medicine, Surgery, Public
Health and Medical News, Indian and Foreign

EDITED BY

Rai Saheb Dr. P. C. ROY, B.M.O.

Marwari Hindu Hospital & Member
Bengal Medical Council.

Published monthly at Calcutta by the
All-India Medical Licentiates' Association.

Annual Subscription Rs. 6.

Bonafide Medical Students Rs. 3.

To members of A. I. M. L. Association Free.
(To pay only Rs. 4 Annual Subscription with
Rs. 2. Admission Fee on Enlistment.)

For rates etc., write to:—

Manager,
143, Harrison Road, Calcutta.

When writing to advertisers please mention the "Antiseptic."

Hundred Thousand Deaths

The reports published by the Health
Depots in India show that several
thousands die of

MALARIA

Every year there are horrible news of the
severe destruction by this terrible disease
inspite of all the preventive means by
the Health Depot Local Governments
and its treatment by QUININE.

Should it not therefore be necessary for
every man to think earnestly and find out
some better successful means to fight
out the cause of MALARIA and destroy
the poisonous effect of insect called

"ANOPHELES"

QUININE cannot absolutely hold the
monopoly of its treatment. It is not enter-
tained warmly due to its bitter taste and
unpleasant effect such as buzzing in the
ear, deafness, nausea, trembling of the
hands and palpitation and giddiness.

THEREFORE the Scientists were in
search of such remedy which can be taken
both therapeutically & Prophylacti-
cally with no after effect.

It was for Dr. Richard Weiss to place
before the Medical World his wonderful
preparation called

SANOQUIN

which is cholic acid Quinine derivative.
The combination of Quinine with Cholic
Acid salt stimulate the digestive and mo-
tory functions of the Intestine and have
intensive action on secretion which is
most important in the treatment of MA-
LARIA. The Combination has also
made it possible to pass through stomach
unaltered and to pass into resorption.

Sanoquin has an immediate effect in all
forms of MALARIA and produces no
ill effects.

It is of a sweetish taste and can be taken
by feeble and anaemic patients.

*One tablet of sanoquin a day will keep
the Malaria away.*

Guarantee:—*If any patient suffering
from Malaria is not cured by using
"sanoquin" according to the directions
the full amount will be refunded.*

Beware of imitation or old stock

FRESH STOCK bottles bear the Gold
Green Label of our name slip and
Green band

Write for Illustrated Booklet SANO-
QUIN and all about Malaria.

Sole distributors For India:—

MADAN TRADING CO.,

Viriline Depot:—INDIAN AGENCY,

1st Floor, 185, Princess Street, Bombay. 2.

TUBERCULOSIS.

&

Its Cure by Santuben Treatment

1. Santuben introduced by Professor
Dr. Wolff Eisner and manufactured
in the pharmaceutical laboratory of Dr.
Richard Weiss Ph. D., M.A., F.C.S.
Berlin, has been approved and acknow-
ledged to be a CURATIVE TREAT-
MENT OF TUBERCULOSIS includ-
ing Catarrh.

2. The treatment consists of an applica-
tion of a special Tuberculin ointment
to be rubbed once a week and of a
Guaiacol Silicum tablets for oral use.
Santuben is a most successful weapon
against T. B. and its timely use has
saved thousands of patients from the
lingering malady and death.

3. What the Doctors say:—

Dr. Lt. Col. F.E. Gunter D.S.O.R.A.M.A.
(Retd.) Principal Medical Officer writes;
No one is dissatisfied with Santuben
which has come to stay in my practice
and I am so convinced to its efficacy
that I am gradually giving up injections
in its form.

Prof. Dr. Besredker Paris:—France will
now take up the cutaneous treatment of
T. B. i.e. Santuben Treatment.

Capt. Dr. Late I.M.S.
Bombay states; he has tried Santuben
in many cases with great success; so he
has taken up this treatment in his
practice.

Dr. I/C Dispensary
small Sample sent has been found
effective Please send ½ box per V.P.P.

Capt. Dr. M.B.B.S. Dist
Hissar. The first ½ box sent by you
has done good to the patient. Tempera-
ture has come down and the coughing
is certainly less. Please send ½ box more.

Dr. M.B.B.S. Gowalia
Tank, Bombay, states:—He is greatly
pleased with the results of Santuben.

*The above testimonials represent only a
few of the numerous medical expert opi-
nions in regard to Santuben treatment.*

*Complete literature will be sent
on demand.*

Sole Distributors:—

MADAN TRADING CO.,

185, Princess Street, Bombay.

When writing to advertisers, please mention the "Antiseptic."

5th Edition 1930. Revised and enlarged.

TRIPATHI'S "REFERENCE BOOK"

For the Young Medical Practitioner.

(Six Parts in one volume, Cloth bound, over 920 pages, Price Rs. 5 net.)

Sanctioned for the use of the Medical Institutions under the Government of Bombay and Bengal, and in the Provinces of Bihar and Orissa, Burma, Baluchistan, Delhi, Central Provinces and Berar, and several leading Native States of India. Highly praised by the eminent Members of the Medical Profession, and the Medical press and widely circulated all over India, Lower Burma, Ceylon, British East Africa Straits Settlements, and Federated Malay States.

The Indian Medical Gazette, Calcutta—This book is quite up to the standard of similar books intended as brief *Vade Mecum* helps to the Student and young Practitioner.

The Indian Medical Journal, Bombay—We heartily congratulate M. Tripathi for presenting this book to the profession for ready daily reference.

The Burma Medical Times, Rangoon—The name of Dr. M. H. Tripathi, is almost becoming a household name among busy Medical Practitioners and Senior Medical students as a result of his laborious undertaking and tiresome task in successfully bringing out a Reference Book for the Young Medical Practitioner.

The Antiseptic, Madras—The book is specially useful to students preparing for their Final Examination and we heartily commend the book.

The Practical Medicine, Delhi—We congratulate Dr. Tripathi for presenting to the Medical Practitioners in India, a useful handy work for daily reference.

The Surgeon General with the Govt. of Bombay—Desires to commend the book to the notice of the Medical Officers in charge of the Civil Hospitals and Dispensaries.

The Surgeon General with the Govt. of Bengal—The book seems a good and useful one and is likely to serve Sub-Assistant Surgeons at out-lying dispensaries as a ready reference book for diagnosis and treatment.

The Hon'ble Col. W. H. B. Robinson, C.B., I.M.S.—(Inspector-General of Civil Hospitals, Central-Provinces)—I recommend the book for use of out-lying dispensaries if Dispensary Funds can afford it.

The Hon'ble Col. H. Hendley, M.D., I.M.S.—(Inspector-General of Civil Hospitals, Punjab)—I think the book is quite a useful one for its purpose.

The Hon'ble Col. C. Mactaggart, C.I.E., M.B., I.M.S.—(Inspector-General of Civil Hospitals, United Provinces)—I have no doubt that it will prove useful to Medical Practitioners of the class you mention, and to Medical Students.

Col. F. J. Drury, M.B., I.M.S.—(Inspector-General of Civil Hospitals Bihar and Orissa)—It appears to the undersigned to be a very useful book for reference and is likely to prove valuable to both Practitioners and Students.

Col. P.C.H. Strickland, I.M.S.—(Inspector-General of Civil Hospitals, Burma)—Likely to serve Sub-Assistant Surgeons at out-lying Dispensaries as a ready reference.

Col. R. C. MacWatt, C.I.E., M.B., I.M.S.—(Inspector-General of Civil Hospitals, Punjab)—Appears to be a useful compendium and *aid memoire* for those who require it.

Lt. Col. Sir J.R. Roberts, K.T., C.I.E., I.M.S.—(Surgeon to His Excellency the Viceroy)—It is most excellent and useful publication and I am sure will become very popular. You deserve great credit for having compiled, such a good "*Vade Mecum*."

TRIPATHI'S GUIDE

To the Young Medical Jurist.

(Cloth-bound, 432 pages, Price Rs. 3, postage extra.)

Chiefly intended for the use of the Senior Medicos preparing for the qualifying Examination in Jurisprudence and Toxicology, the Rising Medical Novitiate, and the growing Legal Practitioner, to serve as a guide on matters of medico-legal interest regarding a variety of crimes of everyday occurrence, and highly praised by the Medical and Legal Men and the Medical Press.

To be had from—**Manishanker H. Tripathi,**
Senior-Grade Sub-Assistant Surgeon, Jamnagar, Kathiawar

PLEURISY

PLEURISY, both dry and moist, is favorably influenced by the application of prolonged moist heat in the form of Antiphlogistine packs, which will retain a warm, even temperature for hours.

Due to their high glycerine content and other components, not only do they afford grateful relief from the pain, but, exercising marked osmotic, relaxant, decongestive and bacteriostatic actions, they check the extension and favor the absorption of the effusion, and give good support to the chest.

The DENVER CHEMICAL MANUFACTURING COMPANY
163 VARICK STREET NEW YORK, N. Y.

Sample and literature on request

Name

Address

ANTIPHLOGISTINE

Agents in India.—
MULLER & PHIPPS (India) Ltd., P. Box 773, BOMBAY.

YOGA BOOKS

BY SHRI YOGENDRA
Founder of Yoga Institutes
in India and America.

YOGA PERSONAL HYGIENE:—"This is the only authentic and practical treatise on the secret practices of Yoga." *Daily Mail*. "No printed book can ever teach the real Yoga, but here the author imparts in a clear and popular way all the practical information on Yoga." Theosophist. "A monumental work on the Yogic Physical culture." *Justice*. Prefaced by J. W. Fox, M.D. pp. 327, 31 illus. Rs. 10.

RHYTHMIC EXERCISES:—"A new scheme of Physical Culture based upon the harmony of breath and physical movements." *Book Review*. Fifth Thousand. pp. 78, with 19 illus. Re. 1.

BREATHING METHODS:—"An ideal book on deep breathing and control of breath." *Health*. With 10 different methods of breathing known to Orientalists. Pp. 74 with 8 illus. Re. 1.

WAY TO LIVE:—"Here is health in a nutshell. It teaches how to care for the important organs of the body." *Modern Living*. Pp. 96, with 11 illus. Re. 1.

MEMORABILIA:—"These 600 practical thoughts on everything worth considering in life are shrewd, incisive and highly provoking." *Modern Review*. "It is a book that can thrill and shake your whole existence." *Justice*. Pp. 118. Rs. 2.

YOGA ANNUAL 1933. Send As. 4 for a copy.

Stockists:—The Manager, **HEALTH**, 323, Thambu Chetty Street, G. T., Madras.

THE Calcutta Medical Journal

SPECIAL NUMBERS ON EPIDEMIC DROPSY

Embodying valuable and illustrated papers read and discussions held on the subject by experts at six clinical meetings of the Calcutta Medical Club being the January and February, 1933, issues of the Journal.

Price Rs. 2. for 2 issues.

Subscription Rs. 5 per annum
Inclusive of postage.

Sample copy free on application.

Apply to the Manager,
CALCUTTA MEDICAL JOURNAL,
62, Bowbazar Street (2nd Floor), Calcutta

INDIAN MEDICAL RECORD SPECIAL NUMBERS

Are all that could be desired, containing up-to-date information on the subjects treated therein. No Medical man should be without these which are indispensable to them as ready reference book:—

- | | | |
|-----------------------------|----------------------------|-------|
| 1. Venereal Diseases Number | November, 1927. | Rs. 1 |
| 2. Special Tuberculosis " | December, 1920 | Rs. 2 |
| 3. " " | July 1925 | Rs. 2 |
| 4. Special Kala-Azar " | in 2 Vols. | |
| | August and September, 1923 | Rs. 3 |
| 5. Special Leprosy Number | September, 1926 | Rs. 2 |
| 6. Golden Jubilee " | February, 1930. | Rs. 2 |

The six series together, Rs. 8; Postage Extra.

COMBINED OFFER:—The annual subscription of the **INDIAN MEDICAL RECORD** is Rs. 7-8 but those remitting their advance subscription, period of subscription, commencing any month, shall have the Journal for one year and all the above numbers for Rs. 12-8 only.

Please write to the Manager,

INDIAN MEDICAL RECORD,

2, Horokumar Tagore Square, Calcutta.

Phone: 1090 Cal. Tele: "TROPICAL" Cal.

When writing to advertisers please mention the "Antiseptic"

The Standard Book on Indian Medical Jurisprudence.

EIGHTH EDITION

With 3 Plates and over 100 Photographic and other Illustrations.

Lyon's Medical Jurisprudence in India WITH ILLUSTRATIVE CASES

BY

L. A. WADDELL, C.B., C.I.E., LL.D., F.L.S., M.B.

With Special Chapters by Lt.Col. T. F. OWENS and OTHERS.

Crown 4 to. Cloth, Price Rs. 7-8.

ON THE DYSENTERIES OF INDIA WITH A CHAPTER ON SPRUE

BY

LT-COL. H. W. ACTON, I.M.S., & LT-COL. R. KNOWLES, I.M.S.

THACKER'S, :: P. O. BOX 54, :: CALCUTTA.

IT PAYS TO ADVERTISE IN THE INDIAN AND EASTERN DRUGGIST

Published exclusively for the chemical, drug and allied trades throughout India and the East: :: ::

Subscription rate 6 Rs. per annum post Free. The news and literary articles have special interest for the Medical Profession. :: :: ::

Specimen copy and advertising rates on application to:

The Advertising Manager,

INDIAN & EASTERN DRUGGIST,

35, Gordon Square,

LONDON. W. C. 1, ENGLAND.

When writing to advertisers, please mention the "Antiseptic."

The Original and Standard Emulsion of Petroleum

Angier's Emulsion
is made with petroleum specially purified for internal use. It is the original petroleum emulsion—the result of many years of careful research and experiment.

Bronchitis, Sub-Acute and Chronic.

There is a vast amount of evidence of the most positive character proving the efficacy of Angier's Emulsion in sub-acute and chronic bronchitis. It not only relieves the cough, facilitates expectoration and allays inflammation, but it likewise improves nutrition and effectually overcomes the constitutional debility so frequently associated with these cases. Bronchial patients are nearly always pleased with Angier's Emulsion, and often comment upon its soothing, "comforting" effects.

Pneumonia and Pleurisy.

The administration of Angier's Emulsion during and after Pneumonia and Pleurisy is strongly recommended by the best authorities for relieving the cough, pulmonary distress, and difficult expectoration. After the attack, when the patient's nutrition and vitality are at the lowest ebb, Angier's Emulsion is especially indicated because of its reinforcing influence upon the normal processes of digestion, assimilation and nutrition.

In Gastro-Intestinal Disorders

of a catarrhal, ulcerative, or tubercular nature, Angier's Emulsion is particularly useful. The minutely divided globules of petroleum reach the intestines unchanged, and mingle freely with intestinal contents. Fermentation is inhibited, irritation and inflammation of the intestinal mucosa rapidly reduced, and elimination of toxic material greatly facilitated.



Free Samples to the
Medical Profession.

ANGIER'S EMULSION

THE ORIGINAL AND STANDARD EMULSION OF PETROLEUM

W. & HARRIS, LTD., ROWLETTE BUILDING, PRINSEP STREET, CALCUTTA
Proprietors:—THE ANGIER CHEMICAL COMPANY, LTD.

When writing to advertisers, please mention the "Antiseptic."

The Antiseptic

A MONTHLY MEDICAL JOURNAL

Edited by

DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

CONTENTS.

8-FEB 1934

PAGE.

Original Articles:—

SUGGESTION IN EVERY DAY LIFE. By William Nunan, M.D.	957
THE VALUE OF RADIOLOGY IN MEDICAL DIAGNOSIS. By U. P. Basu, M.B., F.R.C.V.	963
DIABETES. By S. L. Somayajulu, L.M.S.	970
TREATMENT OF CHRONIC NEPHRITIS. By T. P. Tiwari, L.M.P.	978
COMPLICATIONS OF TONSILLECTOMY IN CHILDREN. By Dr. C. V. C. Rao.	981

Cases and Comments:—

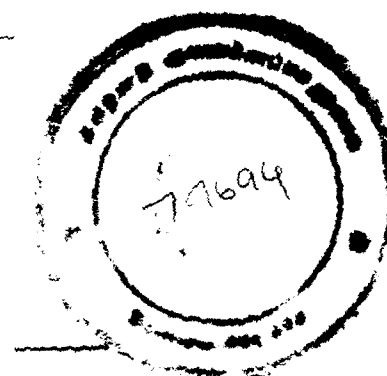
ROLL OF MILK INJECTIONS IN OPHTHALMIC PRACTICE. By S. S. Aigsonkar, L.C.P.S.	985
VAGOTONIA IN MALARIA. By J. Mukerjee, M.B.	988
A CASE OF PUERPERAL SEPSIS. By P. N. Bhatnagar, L.S.M.F.	994

Editorial:—

ARTHRITIS	993
-----------	-----

Cleanings from Medical Press:—

SURGERY	998
MEDICINE AND THERAPEUTICS	1003
OPHTHALMOLOGY	1009
Book Reviews	1017
Preparations and Inventions	1020
Notice	1020



Editorial & Publishing Offices: 323, Thambu Chetty St. G. T., Madras.

Subscription Re. 5, Foreign 10 sh. a year. Post Paid. Single Copy As. 12. In advance.

Index to Contents See page 1; Index to Advertisements, page 6.

The Original and Standard Emulsion of Petroleum

Angier's Emulsion
is made with petroleum specially purified for internal use. It is the original petroleum emulsion — the result of many years of careful research and experiment.

Bronchitis, Sub-Acute and Chronic.

There is a vast amount of evidence of the most positive character proving the efficacy of Angier's Emulsion in the efficacy of chronic bronchitis. It not only relieves the cough, facilitates expectoration and allays inflammation, but it likewise improves nutrition and effectually overcomes the constitutional debility so frequently associated with these cases. Bronchial patients are nearly always pleased with Angier's Emulsion, and often comment upon its soothing, "comforting" effects.

Pneumonia and Pleurisy.

The administration of Angier's Emulsion during and after Pneumonia and Pleurisy is strongly recommended by the best authorities for relieving the cough, pulmonary distress, and difficult expectoration. After the attack, when the patient's nutrition and vitality are at the lowest ebb, Angier's Emulsion is specially indicated because of its reinforcing influence upon the normal processes of digestion, assimilation and nutrition.

In Gastro-Intestinal Disorders

of a catarrhal, ulcerative, or tubercular nature, Angier's Emulsion is particularly useful. The minutely divided globules of petroleum reach the intestines unchanged, and mingle freely with intestinal contents. Fermentation is inhibited, irritation and inflammation of the intestinal mucosa rapidly reduced, and elimination of toxic material greatly facilitated.



Free Samples to the
Medical Profession.

ANGIER'S EMULSION

THE ORIGINAL AND STANDARD EMULSION OF PETROLEUM

MARTIN & HARRIS, LTD., ROWLETTE BUILDING, PRINSEP STREET, CALCUTTA
Proprietors:—THE ANGIER CHEMICAL COMPANY, LTD.

When writing to advertisers, please mention the "Antiseptic."

128

No. 9 M. 429.

DECEMBER, 1933.

Vol. XXX, No. 12

The Antiseptic

A MONTHLY MEDICAL JOURNAL

Edited by

DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

CONTENTS.

8-FEB 1934

PAGE.

Original Articles:—

- SUGGESTION IN EVERY DAY LIFE. By William Nunan, M.D. ... 957
THE VALUE OF RADIOLOGY IN MEDICAL DIAGNOSIS. By U. P. Basu, M.B., F.R.C.P., ... 963
DIABETES. By S. L. Somayajulu, L.M.S., ... 970
TREATMENT OF CHRONIC NEPHRITIS. By T. P. Tiwari, L.M.P., ... 978
COMPLICATIONS OF TONSILLECTOMY IN CHILDREN. By Dr. C. V. C. Rao, ... 981

Cases and Comments:—

- ROLL OF MILK INJECTIONS IN OPHTHALMIC PRACTICE. By S. S. Aijaonkar, L.C.P.S., ... 985
VAGOTONIA IN MALARIA. By J. Mukerjee, M.B., ... 988
A CASE OF PUERPERAL SEPSIS. By P. N. Bhatnagar, L.S.M.F., ... 992

Editorial:—

- ARTHRITIS ... 993

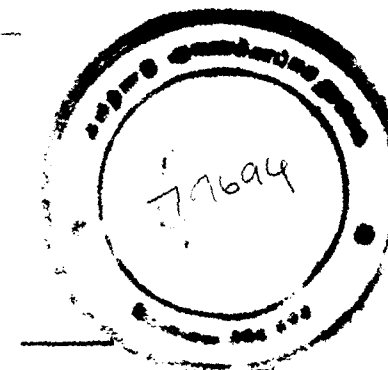
Gleanings from Medical Press:—

- SURGERY ... 996
MEDICINE AND THERAPEUTICS ... 1003
OPHTHALMOLOGY ... 1009

Book Reviews

- Preparations and Inventions ... 1017

- Notice ... 1020



Editorial & Publishing Offices: 323, Thambu Chetty St. G. T., Madras.

Subscription Rs. 5, Foreign 10 sh. a year. Post Paid. Single Copy As. 12. In advance.

Index to Contents See page 1; Index to Advertisements, page 6.

INDEX TO CONTENTS.

	PAGE.
Acute Poisoning - Treatment of some prevalent types of	1006
Food and Goitre	1004
Gastric disorders - The modern treatment of some	1003
Gastro-jejunosmoy - A New technic in	1000
Intestinal Knots	1002
Minor Infections - Treatment of	998
Pupillary Changes - The diagnostic significance of	1009

Awarded Medals and Certificates in
The Indian National Congress Exhibitions.



It acts like a magic specially on all stages of syphilis. It is also useful in all skin diseases. It is a very efficacious remedial agent in all the complaints arising from impure blood.

Price Rs. 1-4 per bottle, V. P. Extra.

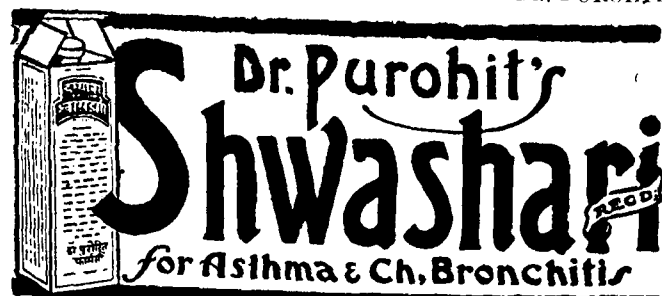
Stockists:
Damodar & Co., Madras
and other Stockists.

When other medicines fail, Dr. PUROHIT'S SHWASHARI demands trial.

It is a liquid preparation containing the most powerful drugs on
ASTHMA AND OTHER LUNG DISEASES.

Principal Contents.

EXT. PANAMA BARK.	AMMON CARB.
" GRINDELIA LEAVES.	ADHOTODA VASAKA.
" CROTON ELUTERIA.	POT. IODIDE.
" CORIANDER FRUIT.	EUPHORBIA.
" SENNA LEAVES.	DR. PUROHIT'S BLOOD TONIC.
" CARAWAY FRUIT	



Sample & Literature
free on request
to Dr.
Purohit's Pharmacy
Kolhapur.

Bombay Stockist:—The Oriental Medical Stores, Princess Street.
Madras " Sri Krishnan Bros., Thambu Chetty Street.

Sold in 3 oz., 6 oz. double, 12 oz Hospital size at all Chemists.
For Rs. 2 3-12-0 7-0-0

"INTERSTIZIAL"

INTERSTIZIAL is a complete extract of the testicular gland: the product obtained by special means which aim to the extraction of the lipoid active substances contained in the Interstitial gland, is, in fact, emulsified in a watery extract of equal quantity of testicular gland, prepared, so as to extract the specific Hormones contained in the germinative part of the organ.

It must not therefore be confused with the current testicular extracts from which it is distinctly different for the special method of preparation introduced by the I. O. N. Institute, Italy on the basis of the more recent acquisitions in the field of Interstitial Endocrinology.

INDICATIONS: Neurasthenia, Cases of early Senility, Nervous breakdown etc.,

SPECIALLY PACKED FOR THE INDIAN CLIMATE.

Rs. 12 per box of 12 amps. of 2 c.c. for Hypodermic Injection.

An Introductory offer. Free delivery given for Orders from Doctors only, for any place.

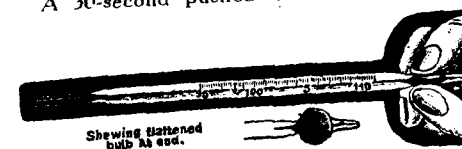
Sole Agents for India & Ceylon:

GOPAL & CO., 10 T. P. KOIL ST., MADRAS.
TRIPPLICANE.

ZEAL'S CLINICAL THERMOMETERS THE REPELLO (REGD.)

A 30-second pushed back in an instant.

GUARANTEED
ACCURATE

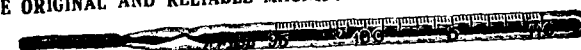


NO
SHAKING DOWN
REQUIRED!

NEW IMPROVED LENS FINDER

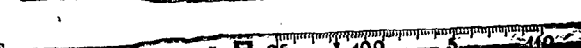
THE ORIGINAL AND RELIABLE MAGNIFYING CLINICAL ON THE MARKET

IN FOCUS



GUARANTEED

OUT OF FOCUS



ACCURATE

REGISTERED
TRADE MARK

THE SQUARE MARK ENGRAVED ON THE
LENS FRONT LOCATES THE MERCURY
COLUMN IMMEDIATELY
BEWARE OF IMITATIONS

REGISTERED
TRADE MARK

G. H. Zeal Ltd., 77, St. John Street, London, Eng.
WHOLESALE MANUFACTURER OF CLINICAL THERMOMETERS, HYDROMETERS ETC.
Cables, Zealdom Smith, London
Established 1888

When writing to advertisers, please mention the "Antiseptic."

NEPTAL
REGISTERED TRADE MARK.

Hydroxymercuripropionamide of Orthoacetyloxybenzoic Acid.
A NEW AND HIGHLY EFFICIENT DIURETIC

An organic mercurial agent of great service in Nephritis, Oedema of cardiac or renal origin and in pleural or pericardial effusions.

Its chief characteristics are:
Freedom from toxicity in therapeutic doses.
Its rapid and prolonged action.
Its ease of administration.
The fact that it is well tolerated.

Further information obtainable from.

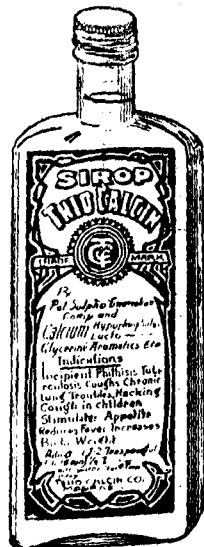
MAY & BAKER (INDIA) LIMITED.
CALCUTTA Head Office: 3, Mangoe Lane.

BOMBAY

Branches:
RANGOON

KARACHI.

For INCIPIENT PHTHISIS, TUBERCULOSIS,
LUNG TROUBLES, HACKING COUGH,
STIMULATING APPETITE,
REDUCING FEVER,
INCREASING BODY WEIGHT



SIROP
'THIO-CALCIN'

Each Fluid Ounce Represents

Pot-Sulpho-Guiacolate	grs. 20
Calcium Hypophosphate	" 20
" Lacto-Phosphate	" 10
Glycerine	minims. 120
Syrups	Q. S.
Aromatics	Q. S.

In Bottles of 50 doses

Available at all Chemists or from

The Chief Distributors: Messrs. DADHA & CO., P. T. MADRAS.



Behring
Sera

DIPHTHERIA ANTITOXIN:

Refined serum for prophylaxis and cure

TETANUS ANTITOXIN:

Refined serum for prophylactic and curative purposes.

**ANTI-GAS-GANGRENE
SERUM:**

Polyvalent-antitoxic, bactericidal. For prophylactic and therapeutic use in gas oedema of wounds.

STREPTOSERIN:

Polyvalent-antitoxic-bactericidal serum of high potency for the treatment of streptococcal infections.

All prophylactic and therapeutic sera in
pure and concentrated form are available in

SERULES

also. Same price as ordinary ampoules.

*Literature and full particulars on application:***Boyer Meister Lucius**

HAVERO TRADING CO., LTD., PHARMACEUTICAL DEPT.,

Commerce House, Ballard, Estate, Bombay.

o advertisers please mention the "Antiseptic"



Brand products are a series of medicinal Preparations unsurpassed in quality and Have stood the test of time and experience To produce best of clinical results.

PECTOROL.
(Cough Syrup)

Tonic. Soothing Powerful cure for all ACUTE & CHRONIC RESPIRATORY DISEASES:—

Coughs & Colds, Bronchitis, Influenza, Asthma, Laryngitis, Whooping Cough etc. etc.

ELIXIDOL.
(Tonic Syrup)

Contains:—Digestive Ferments, Glycerophosphates with Formates, Kola, Gentian, & Euonymus. Highly recommended by Doctors for all DISORDERS of STOMACH, the LIVER, and the NERVES, Invaluable in Malnutrition, Nervous Disorders, Exhaustion, Premature oldage, Dyspepsia, in Anemia and in Convalescence.

"XLOL" ANTISEPTIC DENTAL POWDER.

Sterilised, Medicated, Dentifrice, for daily use in PYORRHOEA PREVENTION and in treatment for Promotion of TEETH GUM, & MOUTH HEALTH. Its continued use will arrest the stubborn cases.

EUREXOL.
(Gono Capsules)

The most effective remedy for the treatment of diseases of the URINARY TRACT Gonorrhoea Acute & Chronic and Various Discharges, Cystitis, Pyelitis Pyelonephritis, Prostatitis, Catarrh of the Bladder and congestion.

NOSTROL INHALANT.

Best for all NASAL TROUBLES.

Relieves the Congestion due to cold, Hay Fever & Irritation, and promotes Sinus Ventilation & Drainage. It may be Sprayed, Swabbed or Dropped in the Nose.

BARBOL.

Brain & Nerve Tonic Pearls.

Contains: Restorative & Revitalising properties Liver, Extract Quinine, Strychnine, Gold, Yohimbin, Iron & Damiana.

Best for the Treatment of Anemia, Indigestion, Nerve Weakness, Debility, and for all Run down Conditions.

XLOL GUM PAINT.

Clinically tried by Competent Dentists & Found to be much SUPERIOR & a Definite cure for PYORRHOEA & all other GUM DISORDERS.

LAXIDS.

CHOCOLATE
LAXATIVE
TABLETS

A Valuable remedy for Chronic Constipation.

Apply for Further Particulars, Illustrated Literatures to

Beli Ram & Bros., 304, Princess Street (West)
BOMBAY, 2.

When writing to advertisers, please mention the "Antiseptic."

INFANT FEEDING ON SCIENTIFIC LINES



WHEN artificial feeding has to be adopted, either entirely or in part, the "Allenburys" Progressive System of Infant Feeding fully meets the case. The "Allenburys" Series of Foods is arranged on a true physiological basis; it provides a progressive dietary suited to the development of the infant, supplying at the appropriate times the stimuli that call forth, in a natural way, the secretion of the digestive enzymes.

The "ALLENBURYS" MILK FOOD No. 1 is adapted to the first three months of life. It is a scientifically balanced nutrient which, when prepared for use, is similar to human milk in composition, physical properties and ready digestibility. It contains no starch.

The "ALLENBURYS" MILK FOOD No. 2 is used from the beginning of the fourth month to the end of the sixth month. It is similar to the No. 1 Food except that it contains a proportion of the soluble phosphates, albuminoids and sugars obtained by the digestive action of malt on whole wheat. It contains no starch.

The "ALLENBURYS" MALTED FOOD No. 3 is for use from the beginning of the seventh month. It consists of a carefully selected wheaten flour of high albuminoid content so treated as to render it easy of digestion, together with a proportion of the diastase and nutritive constituents of malt. When prepared for use it contains no unaltered starch.

The "ALLENBURYS" MALTED RUSKS are made from special flours rich in protein and provide the infant's first solid food. As early as the fifth month these rusks may be used, a little at a time, to aid the cutting of the teeth. From about the tenth month they may be given as a staple article of diet in conjunction with the Malted Food No. 3.

The "Allenburys" Foods are designed particularly for Infant Feeding and are manufactured by special processes which make them peculiarly suited for this purpose. They are constant in composition and free from any pathogenic organisms.

The "Allenburys" book on "Infant Feeding and Management" will be sent post free on request.

ALLEN & HANBURYS LTD., LONDON

SPECIAL REPRESENTATIVE FOR INDIA **A. H. P. JENNINGS**
Block E (2nd Floor), Clive Buildings, Calcutta

When writing to advertisers, please mention the "Antiseptic."

Index to Advertisers.

	PAGE.		PAGE.
Alembic Chemical Works Co., Ltd.	... 40	Indian & Eastern Druggist	... 67
Allen and Hanburys Ltd.	... 5, 24	Indian Medical Journal	... 62
Allen Stafford & Sons	... 59	Indian Medical Record	... 62
American Apothecaries Co.	... 46	Indo Foreign General Agency	13, 41
Angier's Emulsion	... 68	Jack & Co., B. G.	... 9
Anglo-Siamese Corporation. Ltd.	... 57	Jammi Venkataramanayya	... 57
Antiseptic	... 62	Kushmol (The Asthmatics' delight)	... 47
Antiseptic Press	... 42	Lactopeptine	... 28
Banerji P.	... 18	Malaria Co.,	... 31
Beli Ram Bros.	... 4	Malgham Brothers	... 23
Bengal Chemical and Pharmaceutical Works.		Martin & Harris Ltd.	... 16
Inside of back cover		Martin H. Smith Co., N.Y.	... 17
Bombay Surgical Co.	... 34	May & Baker Ltd.	2, 55
Boots' Pure Drug Co., Ltd.	... 56	Merck E.	27, 58
British Drug Houses Ltd.	... 21	Mellin's Food	... 48
Burmah-Shell Oil Storage & Distributing Co. of India Ltd.	... 37	New Formula Co.	... 62
Butterworth & Co., (India) Ltd.	... 45	Paragon Products Co.	... 22
Calcutta Chemical Co., Ltd.	... 8	Parke Davis & Co.	Last cover page.
Calcutta Medical Journal	... 66	Petrolagar Laboratories Ltd.	... 29
Carnrick & Co., G. W.	... 25	Powell & Co., Ltd. N.	32, 33
Cassell & Co., Ltd.	... 14	Purohita Pharmacy	Inside front cover
Castophene Manufacturing Co.	... 39	Roy & Co.	... 10
Continental Drug Co.	... 61	Sanghvi Pharmaceutical Works	... 23
Cow and Gate Ltd.	... 52	Schering-Kahlbaum (India), Ltd.	... 49
Dahyalal & Co.	... 43	School of Chemical Technology	... 11
Dakin Brothers Ltd.	... 60	Scott's Emulsion	... 36
Denver Chemical Mfg. Co., N. Y.	... 65	Seller L. H.	... 11
Dhakappa & Brother	... 11	Sharp & Dohme	... 12
Dikshit M. P.	... 31	Shriyogendra	... 66
Electro-Therapeutic	... 44	Sri Krishnan Brothers	... 42
Evans Sons Lescher & Webb	... 20	Srinivasa Iyengar D.	... 2
Fellow's Medical Mfg. Co.	... 48	Thacker's	... 67
Gajjar & Co. I. G.	... 47	Tripathi M. H.	... 64
Genatosan Ltd.	10, 11, 13	Union Drug Co.	... 26
Ghosal Dr. J. N.	... 31	Upjohn Co.	... 35
Glaxo Laboratories	50, 51	Vora & Co. M. D.	... 38
Gordhandas Desai & Co.	... 30	Waman Gopal Dr.	... 1
Gopal & Co.	Inside front cover	Wander A. Ltd.	... 53
Havero Trading Co.	... 3	Waterbury's Compound	... 7
Hewlett & Son Ltd. C. J.	... 19	Weiss Dr.	... 63
Horlick's Malted Milk Co.	... 15	Westren Homoeo-Biochemic Pharmacy	... 46
Imperial Chemist Co.	... 9	William R. Warner & Co.	... 54
		Wulff & Co.	17, 28
		Zeal G. H.	... 1

When disease has left its mark

Poor appetite, slow return
of strength, anæmia —
this is the time for a tonic.

WATERBURY'S COMPOUND

Plain or with Creosote and Guaiacol

gives a new, and up to date interpretation to reconstructive therapy. Liver and spleen—for anæmia, cod liver oil—to correct malnutrition, and hypophosphites to aid remineralization; creosote and guaiacol, when they are needed.

Put Waterbury's Compound to the most conclusive test—the test of actual use. We will gladly send you a bottle of Waterbury's Compound, Plain and with Creosote and Guaiacol.

MARTIN & HARRIS LTD.

Rowlette Bldg., Prinsep Street, CALCUTTA.

Made by Waterbury Chemical Co., Inc.—New York & St. Louis, U.S.A.

When writing to advertisers please mention the "Antiseptic"

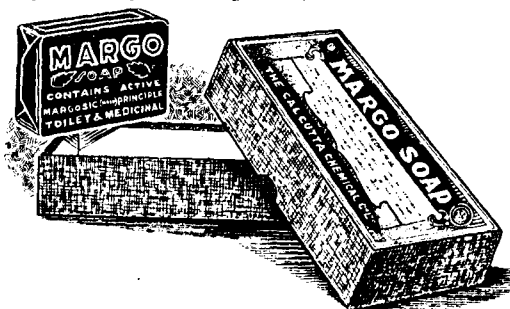
WHICH, a Real guaranteed (Margosa) NEEM OIL Soap or a doubtful so called neem soap?

THE CHOICE IS EASY
if you value the health of your skin.

MARGO SOAP

(CALCHEMICO)

is made from margosa oil that has been deodorised by a special patented exclusive process of our own



Its worth
is proved
by popular
preference

Manufacturers:
**The Calcutta Chemical
Co., Ltd.**

BALLYGUNGE, CALCUTTA

Agents: SRI KRISHNAN BROS., P. O. 166, MADRAS

SCIENCE and EXPERIENCE ! SPEAK ALIKE !



THE HIGHLY antiseptic germicidal and refreshing properties of the Neem twig, so wellknown and patronised in this country, have been secured for modern use by scientific labour in the form of

NEEM TOOTH PASTE

(CALCHEMICO)

containing the active neem principles combined with what is best for dental hygiene.

Keeps teeth clean, mouth sweet, breath fragrant.

THE CALCUTTA CHEMICAL CO., LTD.,
BALLYGUNGE CALCUTTA

Manufacturers of—MARGO SOAP

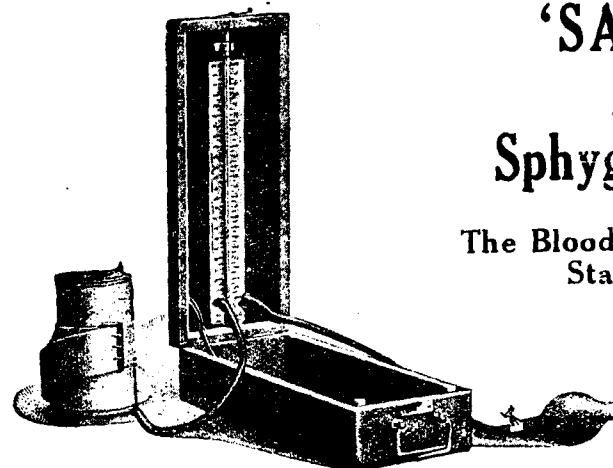
Agents: SRI KRISHNAN BROS., P. O. Box 166, G. T., MADRAS.

BUILT FOR LONG SERVICE

'SAHANORIS' Mercurial Sphygmomanometer

(Name Registered)

The Blood Pressure Instrument of
Standard Accuracy.



STRONG
CONSTRUCTION
SIMPLE
MECHANISM
LIFETIME SERVICE

Every "SAHANORIS" Sphygmomanometer is supplied with a small Metal Reservoir Pump which enables to raise the pressure in the armlet and manometer steadily and thus take the measurements not only as the pressure falls but also as the pressure increases. The instrument can be carried safely without having to empty the mercury reservoir, there being no risk of spilling the mercury.

Complete with English Pattern Armlet and Reservoir Pump in a portable Polished oak case. Size 12"x5"x3," Rs. 45.

Sole Distributors in India, Burma and Ceylon:

B. G. JACK & Co., Lamington Road, BOMBAY, 4.

MADARY PILLS FOR INSANITY

For the last twelve years MADARY PILLS are prescribed as most effective and harmless remedy for Insanity, Excitability, sleeplessness, Restlessness, Irritability, Insomnia, Delirium, Epilepsy, Confusions, Chorea, Neuralgia etc. etc., by the Eminent Physicians from all parts of the Country and in the Hospitals, Nursing Homes & Dispensaries.

The results are Entirely Satisfactory.

SOME UNSOLICITED TESTIMONIALS:—

- (1) I tried the last bottle sent by you & it acted A I.
- (2) He had been mentally ill for the last 7 years, your Madary Pills have done him much good.
- (3) Your MADARY PILLS have shown the happiest result in Insomnia, Hysteria, Melancholia & in Wet-dreams.
- (4) I have used the same personally & found it most beneficial & harmless cure.
- (5) I am very glad to inform you that your Madary Pills have given me the best result in a case of Insanity.
- (6) I used these Pills in a case of Puerperal Insanity & found these pills very useful.

MADARY PILLS are Absolutely harmless Do not affect the temperature, Heart, Blood vessels or Respiration.

Price Rs. 3-8-0 per bottle of 30 Pills.

A Booklet with full instructions for the treatment with each bottle.

THE IMPERIAL CHEMIST COY. BOMBAY 4

or From SRI KRISHNAN BROS., P. B. 166, MADRAS.

VACCINE PRODUCTS OF GENATOSAN LTD., ENGLAND.

THESE products have been exhaustively tested both in hospitals and in private practice and are now firmly established as important factors in treatment and prophylaxis.

DETOXICATED VACCINES

Very large doses of these Vaccines can be given with safety, without malaise or general reaction, a very high state of immunity being conferred without inconvenience.

These Vaccines, which are well tolerated even in acute febrile conditions, are available for use in the following indications:—

Acne	Coryza	Influenza	Rheumatism
Arthritis	Furunculosis	Pneumonia	Tuberculosis
Boils	Gonorrhœa	Puerperal Fever	Whooping Cough
Bronchitis	Hay Fever	Pyorrhœa	Typhoid

The above Vaccines are obtainable from the Indian Agents of Genatosan Ltd., who will gladly furnish any further information on request.

MARTIN & HARRIS, LTD.

ROWLETTE BUILDING,
PRINSEP STREET,
CALCUTTA.

GRAHAM'S BUILDINGS,
119, PARSİ BAZAR ST.,
FORT, BOMBAY.

AND BRANCHES.

ROY & CO.,

HOMŒOPATHIC CHEMISTS & DRUGGISTS.

PRINCESS ST., BOMBAY.

Sole Agents:—

For

BOERICKE & TAFEL,

PHILADELPHIA, U. S. A.

The World renowned Homœopathic Pharmacists
and Publishers.

'Their Medicines are the best'

At your service for all your Homœopathic drugs and literature.

PRICE-LIST, ETC., FREE ON REQUEST.

When writing to advertisers, please mention the "Antiseptic."



Tablet	Time	Disintegration
B.	94 sec.	Complete
W.	63 "	* Incomplete
P.	105 "	* Incomplete
X.	178 "	* Incomplete
Genasprin	20 "	Complete

* Only rendered complete by stirring.

YOUR patients will appreciate GENASPRIN for the extreme rapidity with which it disintegrates in water. The test outlined above was made with distilled water at 37° C. on five different tablets each labelled "Aspirin 5 grains."

The result is illuminating. What is of greater, if less "popular," importance is the fact that GENASPRIN, containing no free acids, produces no toxic symptoms and never upsets the digestion, while its degree of hydrolysis in the stomach is unusually low compared with ordinary brands of aspirin.

**PRESCRIBE WITH
SAFETY**

GENASPRIN

—the SAFE
brand of aspirin

All enquiries for further information
should be addressed to the Indian
Agents of GENATOSAN LTD.

MARTIN & HARRIS, LTD.,

Rowlette Building, or Graham's Buildings,
Prinsep Street, 119, Parsi Bazar St.,
CALCUTTA. Fort, BOMBAY.

INDIGENOUS DRUGS OF INDIA

their investigation manufacture, etc.,
in 4 volumes:—

Vol. I.—New Chemical Industries, crown R. A.
8 vo. pages 205, cloth bound, 3 0

Vol. II.—Technical Education, p.p. 316. „ 4 8

Vol. III.—Indian Education Problem—
A solution, p.p. 101, „ 1 8

Vol. IV.—Automatic Rural Re-construction, p.p. 115. paper cover, 0 12

Concession: combined price for 4 vols. 6 12
net. A limited number of copies only available.

Madras Stockists: SRI KRISHNAN BROS., MADRAS.

INDIGENOUS INDIAN DRUGS.

A three months' special course for Medical
Practitioners and others under Principal J. C.
Ghosh, B.Sc. (Mach.), F.C.S., (Lond.), Retd.
Govt. Chemist (Imperial).

S. C. T. Pharmaceutical Products.

Allyl Co. (S.C.T.) for Tuberculosis, etc.

Anti-Cholera Drops.

Ol. Psoralea Corylifolia for Leucoderma.

Ol. Hydnoarpus Co. for Leprosy.

Haze a, Antiseptic, Sypic toilet Snow.

B. P. Spirits, Tinctures, etc. (standardised).

Free Literature and free Medical Advice.

Apply, with a half anna stamp, to:

School of Chemical Technology,

P. 154, Lake Road, Kalighat, Calcutta.

YOUR EYE

Does it trouble you? If so, Try
SELLER'S LOTUS HONEY, the
safest, surest and most highly praised
Nature's cure for Eye-diseases. Cures
even Cataract etc. Literature free.

SRI KRISHNAN BROS., P. O. Box 166, MADRAS.

GRAND NATIONAL ENGLISH RACE SWEEPSTAKE TICKETS.

Conducted by:—

Roman International Charities Ltd.
Italy; Hospitals Trust Ltd. Ireland, &
Mutual Club Ltd.

Price, 5/-; 10/-; & 6/- Shillings or
Rs. 3-6-0; 6-12-0; & 4-0-0 each respecti-
vely. as. 3 for draw list extra.

Last day to receive the subscription, 25th Feb. 34.
for AIR MAIL.

Apply:—S. L. DHAKAPPA,

K. Sirsi, N. Kanara.

When writing to advertisers, please mention the "Antiseptic"



BARRIER TO INFECTION

THE danger of infection is constantly on your mind. Better than anyone else, you know of the millions of bacteria lying in wait to enter tissue when operative procedure gives them the opportunity.

Guard against this possibility by using Hexylresorcinol Solution S. T. 37 freely. This powerful antiseptic is stronger than carbolic acid in any usable solution. In laboratory experiments a one-to-three dilution of this highly active bactericide destroys vegetative bacteria on

less than fifteen seconds' contact.

Though it is so powerful, Hexylresorcinol Solution S. T. 37 is non-toxic—harmless even if swallowed. It's pleasant to taste. Doesn't irritate or burn. It is the antiseptic your patients will appreciate—one that you can rely upon.

Use it freely in your office. Recommend it for home use. It may be obtained at all druggists. It comes in two convenient sizes. 12 oz. and 5 oz.

HEXYLRESORCINOL SOLUTION S.T. 37

(Liquor Hexylresorcinolis 1:1000)

PHILADELPHIA

Sharp & Dohme BALTIMORE

Sole Agent:
India, Burma, Ceylon

VALKART BROS.,

Bombay, Karachi,
Madras, Calcutta, Colombo

"INSIST ON ITS USE"

A DISTINGUISHED English physician, discussing the treatment of prostatic enlargement by CYSTOPURIN, writes, "I insist on its use before and after prostatectomy in every case."

Another Doctor writes, "In cases of enlarged prostate, I find the CYSTOPURIN so beneficial that I now use it as a routine treatment. The relief yielded by means of such treatment is remarkable. The urine becomes clearer, the sediment and pus diminish, the frequency of micturition is lessened, the tenesmus relieved and the general condition of the patient is much improved."

CYSTOPURIN is, however, well tolerated since it produces no gastric symptoms and is devoid of any irritant effect.

MAKE SURE — PRESCRIBE

CYSTOPURIN
The Non-Irritant

URINARY ANTISEPTIC

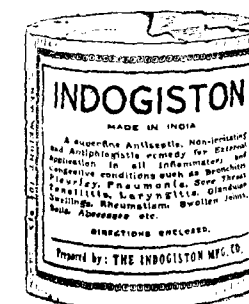
Medical practitioners desiring further information are invited to apply for clinical samples and literature from the Indian Agents of GENATOSAN Ltd.

MARTIN & HARRIS LTD.
Rowlette Building, Prinsep Street,
CALCUTTA, or Graham's Buildings,
119, Parsi Bazar Street, Fort,
BOMBAY.

When writing to advertisers, please mention the "Antiseptic"

INDOGISTON

THE IDEAL ANTIPHLOGISTIC DRESSING



Medical Opinions.

'Easily the best among Indian substitutes for Antiphlogistine'

'The quality of INDOGISTON is beyond our expectations.'

'Have tried every known Indian substitute for 'Anti.' and I can truly say that Indogiston is the only product whose consistency and therapeutic action equal those of the original'

Press Opinions.

Indogiston In flavor, colour & consistency it is equal to the original product. It is as useful as 'Antiphlogistine' in all cases of local and deep-seated inflammation and congestion'—Journal of The Madura Medical Assn. Oct. '33.

'Among the Indian substitutes for 'Antiphlogistine' INDOGISTON easily takes the palm. Its colour, flavour and therapeutic action are all of a high standard.....'—Medico Surgical Suggestions. Oct. '33.

CAN BE HAD OF ALL CHEMISTS

Distributor:

T. RAMACHANDRA RAO,
150, Broadway : Madras.

CASSELLS MEDICAL BOOKS

TRIED AND TESTED BY GENERATIONS OF STUDENTS

BRUCE AND DILLING'S

MATERIA MEDICA AND THERAPEUTICS

By W. J. DILLING, M.B., Ch.B. Aberd.

Professor of Pharmacology and General Therapeutics, Liverpool University; External Examiner in Materia Medica and Pharmacology in the Universities of Cambridge, London and St Andrews. *Fourteenth Edition.* This popular work has been entirely re-written since the appearance of the *British Pharmacopoeia* of 1932 and entirely reset. Foolsap 8vo., 700 pages. **10s. 6d.** net.

CLINICAL METHODS

By ROBERT HUTCHISON, M.D. Edin., F.R.C.P. Lond.
and DONALD HUNTER, M.D., F.R.C.P., Lon.

Ninth Edition. Foolsap 8vo., 698 pages. With 18 Colour and 2 Half-tone Plates and 152 Illustrations in the Text. **12s. 6d.** net.

MANSON'S TROPICAL DISEASES

Edited by PHILIP H. MANSON-BAHR, D.S.O., M.A., M.D., D.T.M. and
H. Cantab., F.R.C.P., Lond.

Ninth Edition. Demy 8vo., 942 Pages. With 23 Colour and 12 Half-tone Plates, 401 Illustrations in the Text, 6 Maps and 34 Charts. **31s. 6d.** net.

THE STUDENT'S HAND BOOK OF SURGICAL OPERATIONS

By Sir FREDERICK TREVES, Bart.

Revised by Cecil P. G. WAKELY, F.R.C.S. Eng., F.R.S. Edin.

Fifth Edition. Crown 8vo., 550 Pages. With 190 Text-figures. **10s. 6d.** net.

A HAND BOOK OF MIDWIFERY

For Midwives, Pupil-Midwives and Maternity Nurses

By COMYNS BERKELEY, M.A., M.C., M.D., Cantab., F.R.C.P. Lond.,
F.R.C.S. Eng., F.C.O.G.

Eighth Edition. Foolsap 8vo., 620 Pages. With Colour Plate and 67 Text-figures. **8s.** net.

IN STEADY DEMAND

INJECTION TREATMENT IN MEDICAL PRACTICE

A Practical Guide to the Ambulatory Treatment of Piles, Prolapse of the Rectum, Varicose Veins, Hydrocele, Varicocele, Bursae, Neuritis, Neuralgia, Etc., Etc.

By DAVID LEVI, M.B., M.S., F.R.C.S. Eng. "To the general practitioner it should prove a god-send."—Medical Officer. Demy 8vo., 158 Pages. With 26 Illustrations. **6s.** net.

CASSELL & CO., LTD.,

11 Belle Sauvage, LONDON. E. C. 4.

When writing to advertisers, please mention the "Antiseptic."

HORLICK'S

Malted Milk, a modified milk food, is full-cream cows' milk combined with the nutritive extracts of malted barley and wheat, evaporated to dryness at a low temperature in vacuo by the special Horlick process.

Horlick's Malted Milk has proved of value in infant feeding, disease of the alimentary canal, myocardial disease, fevers, during pregnancy and lactation, and in all conditions where it is essential that the patient should be given a palatable and agreeable diet, and one affording a maximum of nourishment with a minimum of digestive effort.

The characteristics of easy digestibility and absorption, and a high degree of assimilation, which have enabled Horlick's Malted Milk to be confidently recommended by the Medical Profession for nearly fifty years, cannot be obtained from a blend of cereals and dried milk.

Horlick's Malted Milk contains no free starch or cane sugar.



When writing to advertisers please mention the "Antiseptic."

Hirisan-Pasta

Combined experiences on the genesis and therapy of ECZEMA made during the last two decades have led to the manufacture of:—

"HIRISAN-PASTA"

the panacea in the cure of eczema. Its advantages are shown in the quick healing effect, possibility of application in every case of eczema and in the comparatively cheap price.

Further particulars may be obtained from:—

MARTIN & HARRIS LTD.,

CALCUTTA: BOMBAY: MADRAS: KARACHI.

QUININE, QUININE SALTS

AND

QUINIDINE, CINCHONINE, CINCHONIDINE.

Quality and Colour Unsurpassed

ALSO

Plain and Sugar-coated Quinine Tablets.

Prices on Application to:—

BANDOENG QUININE FACTORY, JAVA.

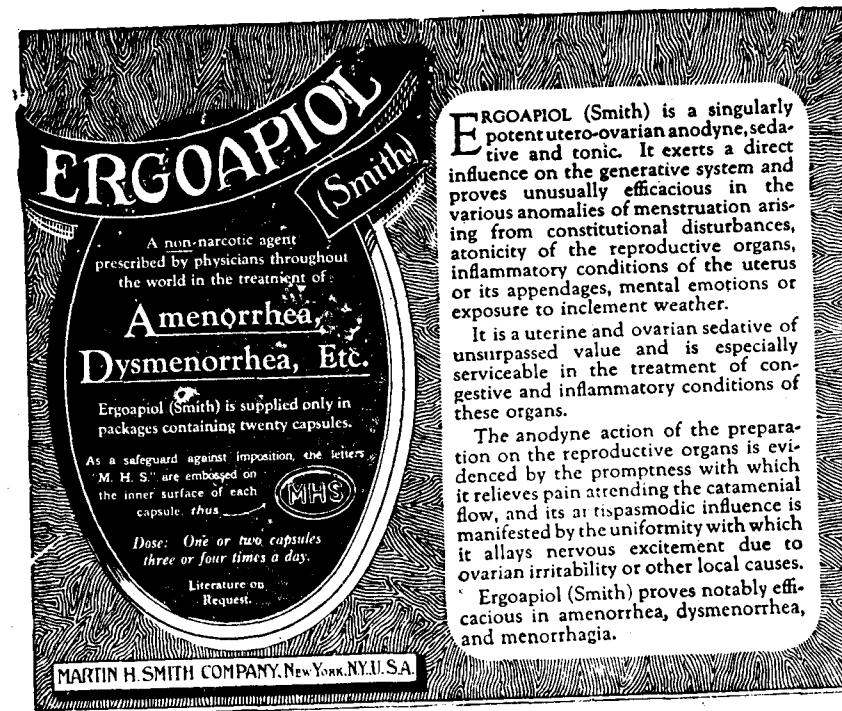
Or to The Sole Agents for INDIA, BURMA and CEYLON.

MARTIN AND HARRIS LIMITED.

Rowlette Building, Prinsep St., CALCUTTA—15, Parsi Bazaar St., BOMBAY.

15, Sunkurama Chetty Street, Madras.

When writing to advertisers, please mention the "Antiseptic."



ERGOAPIOL (Smith)

A non-narcotic agent prescribed by physicians throughout the world in the treatment of:

**Amenorrhœa,
Dysmenorrhœa, Etc.**

Ergoapiol (Smith) is supplied only in packages containing twenty capsules.

As a safeguard against imitation, the letters "M. H. S." are embossed on the inner surface of each capsule, thus:

Dose: One or two capsules three or four times a day.

Literature on Request.

MARTIN H. SMITH COMPANY, New York, N.Y., U.S.A.

ERGOAPIOL (Smith) is a singularly potent utero-ovarian anodyne, sedative and tonic. It exerts a direct influence on the generative system and proves unusually efficacious in the various anomalies of menstruation arising from constitutional disturbances, atonicity of the reproductive organs, inflammatory conditions of the uterus or its appendages, mental emotions or exposure to inclement weather.

It is a uterine and ovarian sedative of unsurpassed value and is especially serviceable in the treatment of congestive and inflammatory conditions of these organs.

The anodyne action of the preparation on the reproductive organs is evidenced by the promptness with which it relieves pain attending the catamenial flow, and its antispasmodic influence is manifested by the uniformity with which it allays nervous excitement due to ovarian irritability or other local causes.

Ergoapiol (Smith) proves notably efficacious in amenorrhœa, dysmenorrhœa, and menorrhagia.

Neurasthenia

SANATOGEN gives excellent results in all forms of neurasthenia, because:—

1. It has a specific tonic effect and gives new energy to the weakened system, at the same time soothing the irritated nerves. This is due to the composition of Sanatogen—pure milk proteid and sodium glycerophosphate. This latter is the most important component of lecithin—the chief constituent of nerve-cells. (v. Noorden, Vienna).
2. It increases the appetite, and is itself a milk proteid of high food value in a very concentrated and easily assimilable form. (Westheimer, Tunnicliffe, Damman.)

Samples on request to:—
MARTIN & HARRIS LTD.
Rowlette Building, Prinsep St.,
Calcutta.

SANATOGEN

EASILY DIGESTED AND ASSIMILATED

An Interesting Snake-Bite News

Reported By Dr. Md. IBRAHIM MIAH, L.M.F., Medical Officer,

Mohanganj Dispensary, P. O. Aliabad, Dt. Rajshahi.

In the Indian Medical Journal, Calcutta, July, 1933, Page 396

"History of the case: A patient named Osimuddin Pramanik, a boatman, aged 30, native of Khojipur under P. S. Bagmara-Rajshahi was drawing his "Gahana boat" by "Goon" along the bank of the river Baranai on the night of the 19th May, 1933. At Mahabatpur Ghat he was bitten by a snake on the left leg just above the ankle joint. He tried to come to Mohanganj Bazar which is about a mile and a half from the place where he was bitten but he fell down on the way whence he was brought by his colleagues to the above bazar. His companions brought Ozhas (native physician) from the neighbouring village to get rid of the poison by chanting "mantras" but all these proved of no avail and the patient began to grow worse. Seeing his miserable plight a gentleman of the bazar came running to my quarter, roused me from sleep at about 1 A. M. and informed me of the incident. I at once hurried to the spot with the necessary medicines and found the patient in an apparently **hopeless condition with no radial pulse and no respiration** and coolness all over the body and froth coming out of the mouth and the nostrils. Having failed to apply Lexin which I took with me as directed by Mr. P. Banerji, the inventor.....either by inhalation due to stoppage of respiration or by dropping the same over the tongue when in completely unconscious state.....and finding that the condition of the patient is absolutely hopeless I at once gave him an intravenous injection of 3 c.c. of Lexin and the apparently dead person jumped up within a few minutes of the injection.....his pulse returned.....respiration returned and the temperature of the body became gradually normal within about 6 hours.

The point of interest is that Mr. P. Banerji has not given any direction for intravenous injection of the medicine when his methods of application of the same fails in completely hopeless condition of the patient.

I therefore request my professional brethren to given a fair trial whenever any such chance occurs to this wellknown medicine by intravenous route and to circulate the results obtained through the medium of this Journal for the benefit of the suffering humanity."

Please report also to: MR. P. BANERJI, MIHJAM. E.I.R.

For Lexin (Re. 1. per phial)

Write to Messrs.

Sri Krishnan Bros., P. B. 166, Madras.

(Sole Agents for S. India)

HEWLETT'S SPECIALS

HEWLETT'S MIXTURE

Mist. Pepsinæ Co. c. Bismutho. (Hewlett's)

Useful in all forms of Dyspepsia, Pyrosis, Gastric pain and vomiting, and for alleviating the pain in cases of Ulcer and Cancer of the Stomach.

DOSE—Half to one fluid drachm, diluted.

"Messrs Hewlett's preparation of Pepsine and Bismuth is of standard excellence. The combination is a particularly good one for the treatment of diseases of the stomach which require a sedative."

Medical Review.

LIQ. SANTAL FLAV. c. BUCHU et CUBEBA (Hewlett's)

Since its introduction it has been largely prescribed all over the world as a specific for certain cases.

DOSE—3j to 5ij in water or milk.

"Experience has shown this preparation to possess the same efficacy as Santal Oil itself."

Practitioner.

LIQUOR ERGOTÆ PURIF. (Hewlett's)

PHYSIOLOGICALLY STANDARDISED.

Superior to the ordinary Liquid Extracts, etc.
Reliable and unalterable.

"A very excellent preparation of the drug" *Medical Times & Gazette*.
"A reliable preparation of Ergot, and well adapted for obstetric practice." *London Medical Record*.

HEWLETT'S PREPARATIONS ARE STOCKED BY:-

Bombay. BELI RAM & BROS., Princess Street.
RATILAL HEMRAJ, Princess Street.
Cochin. NATHAM & CO.
Ceylon. CARGILLS, LTD., Colombo.
Calcutta. M. BHATTACHARYYA & CO.
SMITH, STANISTREET & CO., LTD.

INTRODUCED AND PREPARED ONLY BY

C. J. Hewlett & Son, Ltd.

ESTABLISHED OVER A CENTURY
Wholesale and Export Druggists and Surgical Instrument Makers,
35-42, CHARLOTTE STREET & 83-85, CURTAIN ROAD, LONDON, E.C.2.

When writing to advertisers, please mention the 'Antiseptic.'

Evans'

EPHRETUSS

This is a pleasant and effective syrup of Ephedrine, containing Ephedrine Hydrochlor gr. $\frac{1}{4}$ in one fluid drachm.

It is particularly valuable in controlling the spasmodic coughing and vomiting of WHOOPING COUGH.

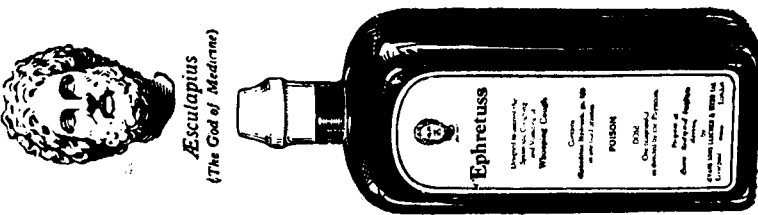
Reports of the use of Ephedrine in Whooping Cough are extremely encouraging. No serious toxic symptoms or complications have been reported and the general conclusion is that it is extremely useful during the second stage.

Dose:—For children under 1 year, up to 1 drachm. " " over 1 year, " 2 drachms. Generally administered night and morning and occasionally three times a day.

Issued in bottles of 4 oz., 8 oz. and 16 oz.

Prepared at Evans' Biological Institute by

EVANS SONS LIVERPOOL



EPHRELIX

This is an effective combination of Ephedrine Hydrochlor, Codeine, Squills and Virginian Prune. Each fluid drachm contains Ephedrine Hydrochlor gr. $\frac{1}{4}$, Codeine gr. $\frac{1}{10}$.

This preparation is recommended for the treatment of Asthma, Bronchitis and spasmodic conditions of the Bronchi.

Dose for adults:—Single, 2-4 drachms. Repeated, 1-2 drachms. In complicated true bronchial attacks, up to 4 drachms may be given in 30 minutes.

In Bronchial Asthma with secondary infection, a larger dose is indicated, and up to 8 drachms may be given in 30 minutes.

Issued in bottles of 4 oz., 8 oz. and 16 oz.

Special Agents:

Mr. M. J. BATHWALA, P.O. Box 313, BOMBAY.
Mr. A. CHATTERJEE, P.O. Box 647, CALCUTTA.
Messrs. A. S. R. MUKTI & SONS, 21, 22 LINGHA CHETTY ST., MADRAS.

When writing to advertisers, please mention the 'Antiseptic.'

S.U.P. 36

The symmetrical urea of para-benzoyl-para-amino-benzoyl amino-naphthol 3 : 6 sodium sulphonate.

S. U. P. 36 is a valuable weapon for combating febrile inflammatory conditions such as the common cold, influenza, tonsillitis, pneumonia and broncho-pneumonia, as the following clinical report testifies:-

"I have been very pleased with the effect of S. U. P. 36 and have come to rely upon a definite result usually a drop of about 2° in the temperature within a few hours of the first dose, with marked increase in the comfort of patient."

—M. D.

**For the
treatment
of
Febrile
Inflammatory
Conditions**

Full Particulars are available from

HENRY S. CLARK & CO.,
27/4, Waterloo Street,
CALCUTTA.

BYRAM MISTRY
109, Parsi Bazar Street,
FORT, BOMBAY No. 1

The British Drug Houses Ltd., London.

SUP/In/3312

When writing to advertisers, please mention the "Antiseptic."

COD-LI-LEU PLAIN AND COMPOUND

Vegetable substitute for Cod Liver Oil prepared from TRIGONELLA FENUM GRÆNUM and vehicled in ORANGE JUICE.

All religious objections to taking Cod Liver Oil overcome. COD-LI-LEU contains no non-vegetarian substances and is remarkably effective.

Formula:—

PLAIN

Concentrated Extract of Trigonella f.g. 1½ dr.
Extract Vitamin D, 3750 international units 20 grs
Orange Juice.

COMPOUND

Same as plain plus

Eucalyptol 5 m.
Potassii Guaicosulphonas 12 grs.
Quinine Bisulph. 5 grs.

INDICATIONS

Wherever Cod Liver Oil is indicated. In all tubercular affections and where creosote is not tolerated.

STOCKS AVAILABLE OF ALL CHEMISTS

SARSAGONILLA

(THE NEW IODISED SARSAPARILLA)

Purifies the Blood and Increases Red Corpuscles.

COMPOSITION & PROPERTIES.

Ext. Sarsaparilla (Indian) 95 grs. —Sudorific and Alterative.
Demulcent and Diuretic.
Ext. Gokhru 30 grs.—Diuretic and tonic. Ben.
Ext. Stillingia 20 grs.—Alterative and blood purifier against boils, abscesses, scrofula, etc.
Liquor Santalis et Copaiba 1 drm.
Pot. Iodide 10 grs.

Vehicled in SYRUP of FIGS and SARSAPARILLA.

AVAILABLE OF ALL CHEMISTS.

Sole Distributors for the Madras Presidency & Mysore:—

INDIAN PHARMACEUTICALS & INDUSTRIES LTD.,

10, McLean Street, Madras.

When writing to advertisers please mention the "Antiseptic."

SANGHOGISTINE



WHAT IT CONTAINS!

- (1) Heat Retaining—Silicate of Aluminium (Dehydrated)
- (2) Depel-tant—chemically pure Glycerine.
- (3) Antiseptics. (a) Iodine (b) Salicylic acid, (c) Boric acid. (d) Essential oils etc.

INDICATED IN:—

Pneumonia, Pleurisy, Bronchitis, Rheumatism, Gout, Sprain, Burns, Eczema Etc.

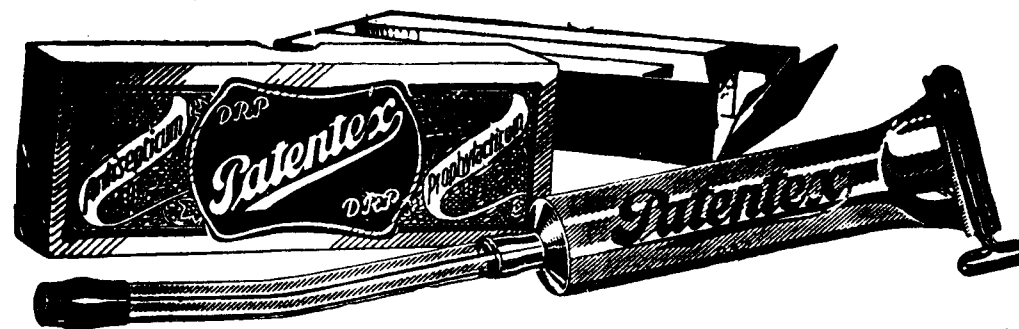
Doctor.....
M. R. C. S. (Eng.); L. R. C. P. (Lond.) writes:—
"I have used Sanghogistine on some cases and found it a good rub-facient and counter-irritant."

Manufactured by:—

The Sanghvi Pharmaceutical Works, Bombay, 2.

For free samples and literature apply to:

Sole Distributors: **R. CHHOTALAL & Co.,** Princess St., Bombay. 2.
Madras Stockists, **DADHA & Co.,** 52, Nyniappa Naik St., P. T. Madras.



The World's absolute reliable and most ideal
conception preventative

AGENTS FOR INDIA.

MALGHAM BROTHERS,

26, CUSTOM HOUSE ROAD, BOMBAY.

Stocks from:—**DADHA & CO.,** and **ASWIN & CO.,** MADRAS.

Price Per Tube Rs. 3-4.

When writing to advertisers please mention the "Antiseptic."



Purity, Activity and Stability

INSULIN 'A.B.'





The world-wide supremacy of Insulin 'A.B.' is due to its unequivocal purity no less than to its well-known potency and stability under all conditions.

Supplied in three Strengths:

20 units per c.c. packed in bottles containing:
5 c.c. m. = 100 units
25 c.c. m. = 500 "

40 units per c.c. Packed in bottles containing:
5 c.c. m. = 200 units

80 units per c.c. Packed in bottles containing:
5 c.c. m. = 400 units

Full particulars and latest literature will be sent free to members of the Medical Profession.

Joint Licensees and Manufacturers:
Allen & Hanburys Ltd. The British Drug Houses Ltd.
LONDON

Representatives for India:
A. H. P. JENNINGS, Clive Buildings, Calcutta
HENRY S. CLARK, 8/10 Waterloo Street, Calcutta
BYRAM MISTRY, Graham's Buildings,
Parsee Bazar Street, Fort, Bombay




When writing to advertisers, please mention the "Antiseptic."

SCANTY, painful or irregular menstruation usually results in fixed, faulty physiological habits. Treatment is more successful if instituted early.

Take advantage of an endocrine product which represents the best thought of research and clinical medicine.

HORMOTONE

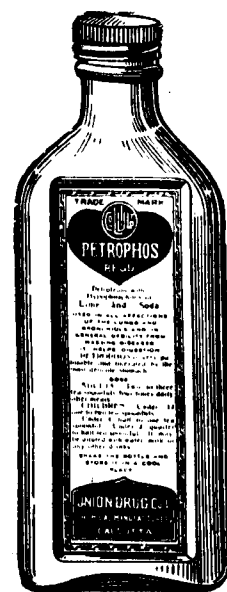


G. W. CARNRICK CO.
20 Mt. Pleasant Ave.
Newark, N. J., U.S.A.

BOTTLES OF 100 TABLETS

Consult
MULLER & PHIPPS
(ASIA) Ltd.
Nicol Rd., Ballard Estate
BOMBAY

When writing to advertisers, please mention the "Antiseptic."



PETROPHOS

PETROPHOS is a scientific combination of the purest Liquid Paraffin of High Viscosity with Hypo Phosphites of Lime and Soda. It is soothing, lubricating, antifermentative, palatable emulsion and it is tolerated by the most delicate stomachs.

(Petroleum Emulsion with Lime and Soda)

APPROVED BY THE MEDICAL PROFESSION

UNION DRUG CO., LIMITED,

CALCUTTA.

When writing to advertisers, please mention the "Antiseptic."

Merckozon



**MERCK'S
PEROXIDE OF HYDROGEN**

containing 12 Vol. of Oxygen

for all Medical, Surgical,
and
Household Uses.

The Best Antiseptic, Safest Disinfectant,
and Most Reliable Germicide.

Specify and Insist on

Merckozon

and accept no Substitute

SEE THAT TRADE MARK SEAL IS INTACT

E. MERCK, CHEMICAL WORKS, DARMSTADT

Made in Germany

When writing to advertisers, please mention the "Antiseptic."

The Positive Remedy
for **INDIGESTION**

because it precisely represents in composition the natural digestive juices of the stomach, pancreas, and salivary glands, and will therefore readily dissolve all foods necessary to recuperation of the human organism.

FREE SAMPLE (in Powder, Tablet and Elixir Form) may be obtained from :—
Messrs. Muller & Phipps,
(India) Ltd.,
P.O. Box 773, BOMBAY.

Lactopeptine

Hazelwell Products, Limited,
St. Helens, Lancs., Eng.

DIGESTS LIKE NATURE DIGESTS

ALBULACTIN IN INFANT FEEDING

"By the addition of three grains of Albulactin to each ounce of the diluted milk mixture the correct proportion of lactalbumin can be obtained. This has the additional advantage of assisting the precipitation of the casein for it has been proved that if the proper proportion of lactalbumin is added to cow's milk, suitably diluted, the casein is precipitated in soft, small, flocculent curds, comparable to the curds of human milk, instead of the hard, large, tough curds usually resulting from artificial feeding.

Samples and literature
on request to:

**MARTIN &
HARRIS LTD.,**

Rowlette Building,
Prinsep Street,
CALCUTTA.

From the book "The Difficulties and
Emergencies of Obstetric Practice."
By Comyns Berkeley, M. A., M. D.,
F.R.C.P. Lond. and Victor Bonney,
M.S., M.D., B.S., London.

When writing to advertisers, please mention the 'Antiseptic.'



'Petrolagar' may be diluted; sufficient water may be added to give it desired fluidity.

A PLEASANT WAY OF TAKING 'PETROLAGAR'

Some patients prefer to take 'Petrolagar' in water, fruit juice or milk. As it is a fine emulsion it will mix with fluids in the same manner as milk.

Because of its delightfully pleasant taste and compatibility, doctors use 'Petrolagar' as a vehicle for medicaments given orally. Liquids and insolubles mix with it readily.

This also clearly demonstrates how 'Petrolagar' will mix with the aqueous contents of the intestines. Owing to its fine emulsification it makes a homogeneous mixture with the intestinal contents, thereby forming a soft, plastic mass which can easily be evacuated by normal peristalsis.

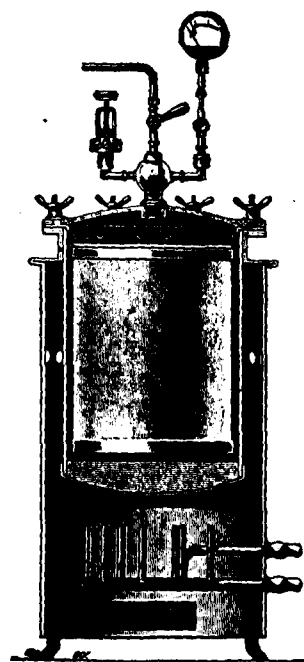
Distributing Representatives for INDIA :
H. J. FOSTER & CO., LTD., P.O. Box 202, BOMBAY.
Sole Proprietors : Petrolagar Laboratories Ltd., Braydon Road, London, England.

When writing to advertisers, please mention the "Antiseptic."

Complete Laboratory & Hospital Equipment

REICHERT
Microscope,
Micro-Camera,
Microtome,
Christeller Stage,
Etc. Etc.

LIESEGANG
Janus &
Trajanus
Epidiascopes,
Cine-Projectors,
Magic-Lantern,
Optical Bench
Equipments.



HEARSON
Incubators,
Autoclave,
Centrifuge, Baths
Kymograph,
Metabolism
Apparatus.

HELLIGE
Comparator,
Colorimeter,
Haemometer,
Sphygmo-
Manometer,
Bacteriological
Sundries.

Chemicals, Stains, Glass, Porcelain Ware,
Balances, Weights Etc.

Surgical Instruments - Ultraviolet Lamp
Diathermy Apparatus Etc.

Stockists & Sole Agents

GORDHANDAS, DESAI & CO.,

5, Dalhousie Sq. Calcutta. : : 204, Hornby Road, Bombay.

When writing to advertisers, please mention the "Antiseptic."

THE MALARIANA COMPANY, MANGALORE, (17) S. INDIA.



MALARIANA, certified by the various All India Swadeshi Exhibitions with gold and silver medals and certificates of merit as the most reliable and unrivalled specific for every type of malaria and spleen. Hundreds are cured daily and is safely recommended by the medical profession everywhere.

Large Re. 1-8.
Small As. 14.

BRONCHITIS CURE.
For bronchitis, chronic rhinitis, constant

blocking of the nose, oppressed breathing and wheezy respiration. 1 phial Re. 1.

SYRUP VIBURNOA: The best uterine tonic indicated in the earlier months of pregnancy to combat miscarriage or threatened abortion. Of great service for menstrual irregularities, endometritis, prolapse or womb displacement.

Large Rs. 3-3. Small Re. 1-14.

BABYTONE: A tonic food for rickety or ill-nourished children for a healthy growth of bone, teeth, nerve and muscle.

1 phial Re. 1-4.

LEUCORRHOEA CURE: For leucorrhœa, burning or itching of the parts, back-ache, waist pain, shifting or dragging pain of the limbs, discomfort in the heart or abdominal region, fatigue on rising and other symptoms peculiar to women.

1 phial Re. 1.

Large stockists of Tissue and Homœopathic medicines.—Guide free.

Sole agents for Gujrat & Kathiawar: **Vrajilal & Co., Ahmedabad.**

Stockists: **Sri Krishnan Bros., Chemists, P. O. Box 166, G. T. Madras.**
AGENTS WANTED EVERYWHERE.



PRESCRIBER'S COMPANION

1927 Edition

An Excellent Reference for Practitioners.

CONTAINS over 3800 prescriptions under different heads of diseases, numerous useful tables, a complete list of incompatibles urine testing, a section on toxicology giving symptoms, fatal dose, etc., etc. Closely printed in double columns and nicely bound in full cloth.

750 Pages Price Rs. 5-12 ; postage extra.

The book is offered at a special concession price of Rs. 3-12 to suit subscribers of Antiseptic and to those who mention the advertisement when ordering the book. The concession will be withdrawn shortly. So please send your order at once.

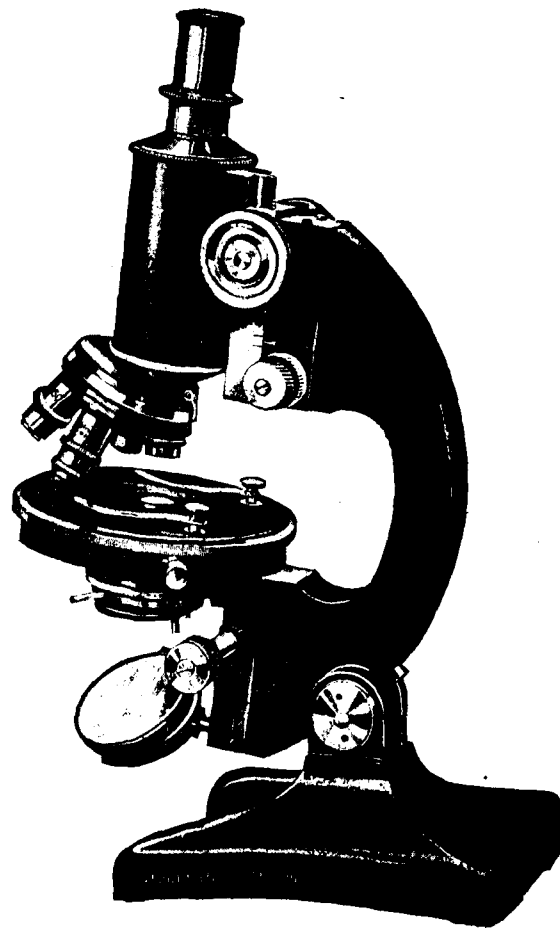
Recommended by the Inspector-General of Prisons C. P. for every jail in the Provinces.
See Press Opinions of the year 1927:—The Indian Medical Journal, January. Practical Medicine, April. Madras Medical Journal, June—August, The Medical Review of Reviews, August, Indian Medical Record, September, The Quarterly Journal of Medicine, October. Antiseptic, November. Of 1928 Indian Medical Gazette May and Journal of Association of Medical Women in India, August, all of these speak very highly of it. Full copy of the reviews on application.
Can be had from:—**M. P. Dikshit, Barabanki.**

Authoritative Books for Sale AT REDUCED PRICE.

1. Sajous Analytical Cyclopedia. 9th Revised Ed. 8 Vols.
 2. Nelson's Loose Leaf Living Surgery. (Complete)
 3. Choice Surgery. 3 Vols.
 4. Pye's Surgical Handicraft. 10th Ed.
 5. Taylor's Jurisprudence. 1928. 2. Vols.
 6. Tidy Synopsis of Medicine. 1926.
 7. Tidy Index of Symptomatology. 1928.
 8. French Index of Differential Diagnosis. 2nd E.
 9. Hutchison Index of Treatment. 1926.
 10. Solis-Cohen Pharmacotherapeutics. 1928.
 11. Starlings Physiology. 1920.
 12. Turner & Stewart Text Book of Nervous Diseases.
 13. Tweedy Obstetrics. 1925.
 14. Radiography and Radiotherapeutics by Robert Knox. 2 Vols. 4th Ed.
 15. Muir Manual of Practical X-Ray. 3rd Ed.
 16. Fisher Ophthalmoscopy. 1928.
 17. HOMEOPATHY.—Lilienthal Therapeutics. 1925.
 18. Kent Materia Medica. 1923.
 19. Everyman Encyclopedia in 12 Vols.
- (Books are almost new, belonged to the late lamented Dr. M. M. Banerji M.B., of Behar Govt. Service. Please Apply to Dr. J. N. GHOSAL, BASIRHAT. Bengal.)

When writing to advertisers, please mention the "Antiseptic."

STEINDORFF



THE FINEST
PRECISION
MICROSCOPE
EVER BUILT
FOR ITS VALUE.

It embodies several new and distinctive features. Very convenient in manipulation and more comfortable in observation. Inclined through an angle of 90° and rigid in any position. Optical components of the highest quality.

An Eminent Microscopist in Germany Writes:—

"I have employed the Steindorff Microscopes mainly for micro-photographic purposes, which as usually admitted, represent the most reliable test for ascertaining the qualities of a microscope. The micro-photographs taken prove in a remarkable manner the high standard of the Steindorff Optical components and they have been an object of admiration on the part of eminent microscopists."

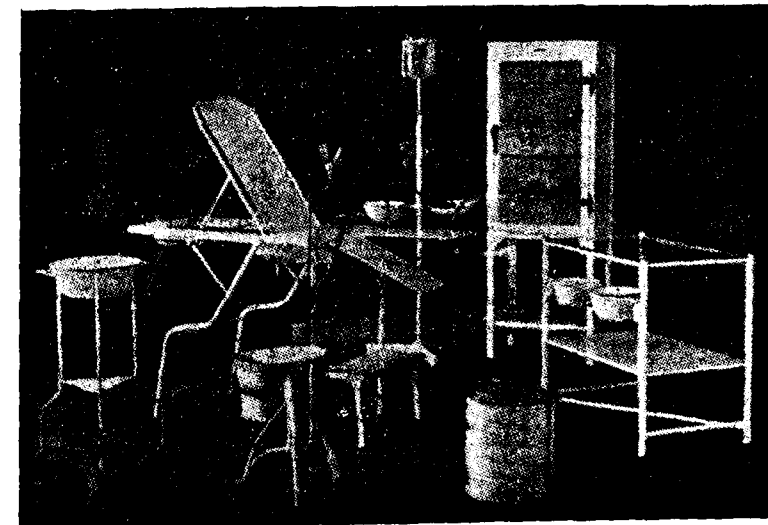
Illustrated Catalogue sent on request.

Sole Agents for India, Burma & Ceylon:—

N. POWELL & Co. Ltd., Bombay No. 4.

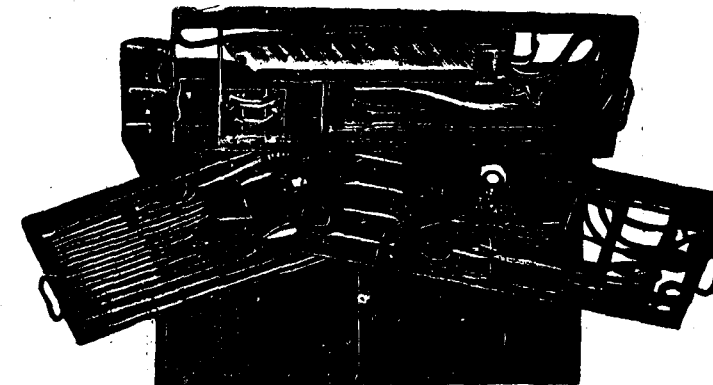
When writing to advertisers please mention the "Antiseptic."

ASEPTIC HOSPITAL AND INVALIDS FURNITURE,



(The above illustration shows our "Utility" Furniture Set)

SURGICAL INSTRUMENTS AND HOSPITAL REQUISITES.



CAN BE HAD FROM US AT COMPETITIVE PRICES.

Please send your inquiries to us.

N. POWELL & Co LTD. BOMBAY No. 4.

When writing to advertisers please mention the "Antiseptic."

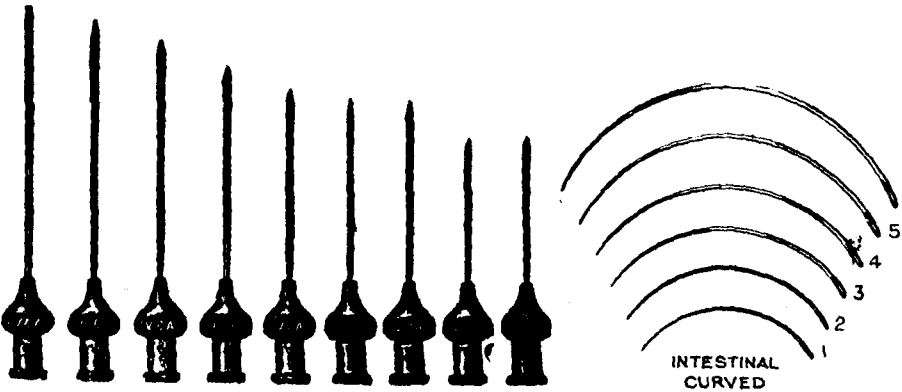
PREDETERMINED QUALITY

KRUPP

"V 2 A" METAL RUST-RESISTING HYPODERMIC METAL "V 2 A" SERUM and SUTURE NEEDLES

Krupp metal is not plated, has no thin outer surface to wear off and is in short, the perfect material for Needles and Instruments. Points are sharp, strong and unbreakable.

This extraordinary new alloy is stronger than steel, smooth as glass, lustrous as silver, and lasting as granite. Impervious to acids and even sea water. Positively unrusting, unstaining and untarnishing. Nothing else like the Krupp anywhere!



No. 1400.—KRUPP INJECTION NEEDLES, record mount, different lengths and gauges. Sizes : 1, 2, 12, 14, 16, 18 and 20 ... Rs. 4-0 per doz.

No. 3520.—KRUPP INJECTION NEEDLES, Luer mount, for all glass syringes. Sizes : 12, and 12 ... Rs. 4-8 per doz.

No. 1405.—KRUPP SERUM NEEDLES, with record mount, two inches long. 8, 10 and 12 ... Rs. 9-0 per doz.

No. 1075.—KRUPP LUMBAR PUNCTURE NEEDLES, for special anaesthesia. Medium Rs. 4-0 each. Large Rs. 4-8 each.

No. 1484.—KRUPP PNEUMOTHORAX NEEDLE, comprising graduated cannula, stopcock and trocar with blunt point ... Rs. 10-8 each.

No. 1625.—KRUPP SYRINGE REST, safest method of injection ... Rs. 3-8 each.

No. 1052.—KRUPP WEINTRAUD'S INTRAVENOUS SALINE NEEDLES ... Rs. 2-4 each.

No. 1408.—KRUPP ANAESTHETIC NEEDLES, long, to fit Labat's syringe ... Rs. 3-0 each.

No. 1007.—KRUPP INTESTINAL SUTURE NEEDLES, Straight and Full curved ... Rs. 2-4 pkt. of 6.

No. 1003.—KRUPP SUTURE NEEDLES, Surgeons' Straight, Half curved, Full curved—Triangular pointed ... Rs. 2-0 pkt. of 6.

No. 1015.—KRUPP HAGEDORN'S SUTURE NEEDLES, Half circle ... Rs. 2-4 pkt. of 6.

'Bosco' Stainless Steel Injection Needles—Rs. 2-0 doz. (Record). Rs. 2-8. doz. (Luer)

Jena Resistance Glass Syringes—This famous glass is positively proof against the sudden, extremethermal changes of sterilization. The scale is also absolutely permanent being unaffected by acids or sterilization. Most economical in use. Write for particulars.

MAIL ORDERS—a speciality with us.

BOMBAY SURGICAL Co.

Tel. Add. 'SURGICO' BOMBAY, 4. [Telephone No. 41936]

Foremost Indian House for Surgeons' Instruments and Hospital Requisites

When writing to advertisers, please mention the 'Antiseptic.'

CREOSOTONE, (UPJOHN)

Each ounce represents :
Creosote and Potas Guaia-
col Sulphonate, 16½ grs.
Quinine Sulphate, ½ gr.
Nux Vomica, ¼ gr.
Combined Hypophos-
phites of Calcium,
Potassium, Mangan-
ese and Iron, 8 grs.

Usual Dose :
 2 to 4 drachms.

A SOLUTION of Creosote and Guaia-col (with tonics) which your patients will take without objection. The Guaia-col is imperceptible to the taste, being present in the form of a soluble, palatable combination.

Creosotone is valuable for treatment of catarrhal conditions of the bronchia, in early or suspected tuberculosis, winter cough, and as a reconstructive during convalescence, either alone, or in connection with cough sedatives as required.

*Creosotone is Free
 from Opiates and Alcohol.*

Manufacturers : THE UPJOHN COMPANY, KALMAZOO, MICH, U.S.A.

For samples and literature apply to Sole Agents :

T. M. THAKORE & CO., 111, Nainiappa Naick Street, P. T., Madras.
Head Office : 43, Churchgate Street, Fort, Bombay.

CALCIUM THAT IS ABSORBED

The daily adult requirement of calcium amounts, according to highest authority, to 0.45 gram (7 grains) per day. It can be predicted that the intake of a very large proportion of patients is far below this requirement. Our great interest in Cod-Liver oil, violet rays, vegetable diets, etc., should not blind us to the fact that after all they contain little or no calcium. The satisfactory use of lime requires a number of considerations, such as (1) acidity of the upper bowel, (2) alkaline metabolic end products, (3) a balanced administration of phosphorus, magnesium and the alkaline bases. These considerations are fully met in

CALCIONATES

Three teaspoonfuls—the lime of 1 pint of milk

Calcionates is supplied in 4 ounce bottles

Manufacturers :

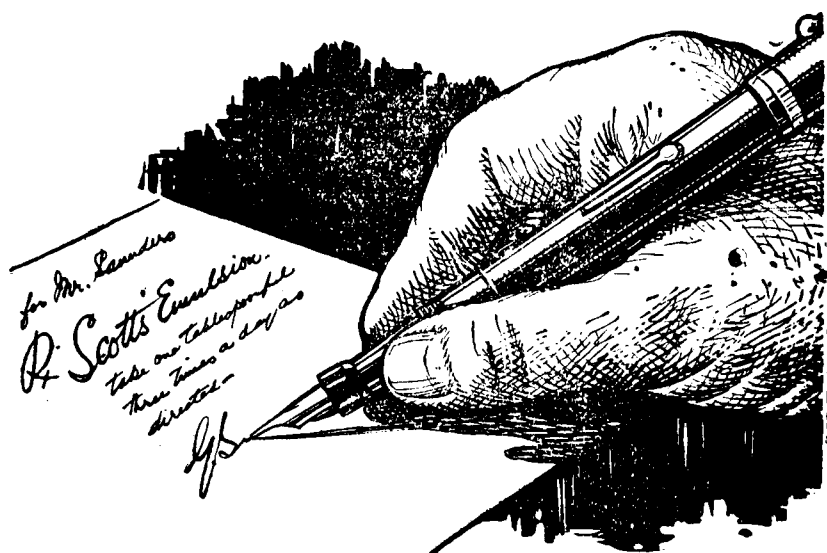
THE UPJOHN COMPANY, KALAMAZOO MICH. U. S. A.

For particulars and literature apply to Sole Agents :

T. M. THAKORE & Co., 111, Nainiappa Naick Street, P. T., Madras.
Head Office : 43, Churchgate St., Fort., Bombay

When writing to advertisers, please mention the "Antiseptic."

When you write prescriptions...



... for cases of anaemia, rickets, scrofula, marasmus and nervous debility — make SCOTT'S Emulsion your strengthening tonic.

The unique Scott process precludes the possibility of oxidation and retains the full potency of the vitamin content.

Stringent tests have demonstrated the purity and stability of SCOTT'S Emulsion under Eastern climatic conditions. Patients appreciate its agreeable flavour and ready digestibility.



Scott's Emulsion of Pure Cod Liver Oil

When writing to advertisers please mention the "Antiseptic."

MALARIA CONTROL

— A Case For "MALARIOL" —

It is generally accepted in these days that the only effective method of controlling this dread disease is by destroying the mosquito larvae in their breeding places, and although various agents are used to this end, experience has shown that the safest, most efficient and most economical is Petroleum Oil if scientifically selected for its film-forming properties on water and its toxic effect.

The killing effect of Petroleum Oil is definitely related, not only to asphyxiation through the Oil entering the breathing tubes, but to the entry of toxic substances both into the breathing tubes and mouths of mosquito larvae; hence the ease of entry, which depends both on viscosity for its rate and surface tension for further effect, must be good.

MALARIOL is the outcome of prolonged and extensive research and is specially designed to meet the above requirements. MALARIOL has been endorsed as the most suitable larvicide for rivers, streams, tanks, etc. by the Indian Branch of the Ross Institute, London.

Full particulars can be obtained from:—

BURMAH-SHELL

Oil Storage & Distributing Co. of India Ltd.,

CALCUTTA, BOMBAY, MADRAS, KARACHI, NEW DELHI.

When writing to advertisers, please mention the "Antiseptic."

UTERINE ELIXIR

What it Contains:—

- (1) Uterine Tonic and Sedatives:—(a) Aletris (b) Asoka—in purest form retaining all the active principles of the drug.
- (2) Stimulants:—(a) Alcohol 90% (b) chloroform (in mild doses).
- (3) Sedatives:—(a) Bromides (in small doses.)
- (4) Syraps and Carminatives.



Why it is Preferred:—

- (1) Mild Tonic giving best results when regularly used.
- (2) Does not contain any harmful or intoxicating drug.
- (3) Can be prescribed even to a weakest constitution without any disadvantage.
- (4) does not irritate the bowels.
- (5) Recommended by specialists in diseases of women.

A well-known Lady Dr. (Assistant Surgeon, Civil Hospital, Aurangabad.) writes:—

I have the pleasure to say that I tried your specific Uterine Elixir in several cases and it has given beneficial results to patients suffering from Dysmenorrhoea, Leucorrhoea and several other womb complaints. I can safely recommend it as an uterine Tonic.

Available at Rs. 2-8 only from Leading Chemists.

Sole Distributors for India and Overseas:
M.D. VORA & Co., Hospital Suppliers, Bombay 2, P. B. 2003.

Agents:—R. JOGIDASSAU & Co., 113, Nainiappa Naick Street, P. T., Madras.

When writing to advertisers, please mention the "Antiseptic."



DOCTORS
prescribe
it

—the laxative
that is as delicious
as CHOCOLATE!

Unpalatable laxatives are not only nasty to take but often injure the delicate organs of the stomach and intestines. That is why doctors, nurses and hundreds of grateful users of Castophene recommend this laxative—for its safe and gentle action. And it is pleasant to take—just like chocolate! Get a bottle to-day—there's no better laxative.



CASTOPHENE
CASTOR OIL CHOCOLATE

FROM ALL CHEMISTS

CASTOPHENE MFG. CO., BOX 88, KARACHI
& P. O. BOX 2187, BOMBAY 2

Agents for Southern India:—

Sivaram & Swamy 27, Sembudas St., Madras.

ALEMBIC

LATEST SPECIALITIES.

MILKOTINE.

Contains:

Finest dried milk Malt Extract, Cocoa Powder, Vitamins A, B, C. & E. and Mineral Salts.

Very Valuable for:

General debility, over work, Sexual Debility, Convalescence, old age etc.

MILKOGEN.

Contains:

High Protein Food with dried milk, Cocoa, Malt Extract, Glycerophosphates, Sodium and Vitamins.

Ideal for:

Nursing Mothers and Growing Babies.

ABSORBENT COTTON WOOL.

Carefully Sterilised and Perfectly Absorbent.

FOR ALL SURGICAL PURPOSES.

(Tissue Lined)

CARBO KAOLIN WITH BELLADONNA.

Contains:

Carbonates of Calcium and Bismuth, Peroxide of Magnesium with Sterilised Kaolin, Belladonna and Pancreatin.

For:

Acid Dyspepsia and other types of indigestion.

ANTISEPTIC LIQUID SOAP.

For:

Medical, Surgical, Midwifery Practices and General Cleansing Purposes.

CAN BE HAD FROM ALL CHEMISTS AND STORES.

For particulars please write to:—

The Alembic Chemical Works Co., Ltd.,

381, ARTHUR ROAD, BOMBAY 11.

Madras Agents:—SIVARAM & SWAMY,
27, Sembudas Street, Madras.

When writing to advertisers, please mention the 'Antiseptic.'

I. F. G. AGENCY,

Manufacturers' Representatives,
CUDDALORE, OLD TOWN.

Dear Doctor,

We have Good News for the New Year and solicit your making good use of it.

Our Principals, Messrs. Luitpold Werk, Munchen (Germany) have, after years of scientific research, brought out a Perfectly Reliable Cure for Bronchial Asthma. The name of the product is

PASPAT

It is administered in the form of a Vaccination and the full course of treatment consists of only ten inoculations.

Paspat is certainly not one more addition to the list of palliative anti-asthmatic remedies. It is radical and certain.

This epoch-making remedy is already creating quite a stir in the Medical World and we exhort you to give it a trial at once. Your patients will thank you and feel tremendously pleased.

Just write us about your interest and we shall be happy to convince you about the value of this new product.

With sincere Greetings,

We remain, Doctor,
At your Service,
I.F.G. AGENCY.

(Boxes of 5 ampoules are available at all leading chemists at Rs.10/- per box)

When writing to advertisers, please mention the "Antiseptic."



Printing for the Medical Profession

should be more than just printing. It should reflect both the dignity of the profession and the personality of the individual and that is the kind of printing you may expect from THE ANTISEPTIC PRESS. Having equipped itself with high-class machines, types, labour and expert supervision, it offers efficient service in matters of display, promptitude and neatness. Good printing of any size and magnitude in English, Tamil, Telugu and Canarese, Book Binding, Publishing and Colour Printing undertaken. Prices competitive consistent with quality. :: :: :: :: ::

Apply: Manager, 10, Thambu Chetty St., Madras.

Our Own — Compound Extract of — **SARSAPARILLA**

**THE BEST
BLOOD
PURIFIER**

A valuable remedy specially prepared from the best Sarsaparilla obtainable combined with several other blood purifying drugs. Largely used in a large variety of diseases, such as syphilis (primary, secondary and tertiary) scrofula, eczema, psoriasis, lupus, glandular affections, chronic rheumatism, pimples, patches, old sores etc., It has also been employed in various skin diseases of a syphilitic nature.

Highly recommended by the medical profession.

Bottle of 40 Doses Rs. 2-8-0.

SRI KRISHNAN BROS.,
P. O. Box 166, MADRAS.

Lasona

the ideal nasal-inhaler



The use of Lasona is efficacious against colds, catarrh, cough, headache, asthma, hay-fever, weariness etc.

Before using the wadding is to fill with the original Lasona oil. By means of a glass pipette the liquid is to draw through the above openings. The side entry-openings must be free for the entry of the air. After filling, the outsides of the olives are fine to wipe off. The apparatus is to stick into the nose till the metal bent and therefore to use nearly invisible.

All complaints disappear at once, when you breathe through the nose quiet and deep.

The apparatus is to sterilize, but it is possible to clean them also with warm water or with alcohol.

The wadding time to time is to exchange.

All parts of the inhaler are packed roomsparring; therefore kindly have the inhaler always in the pocket.

Kindly use only original Lasona liquid, which only gives guarantee for best success.

The nasal-inhaler Lasona and the original Lasona liquid only are to have in wellknown special business.

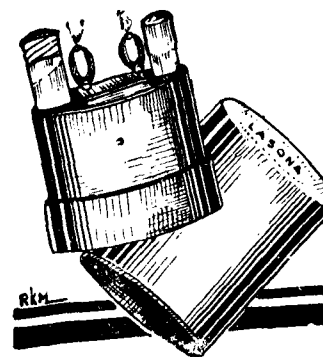
Price Rs. 2 (Post Free).

Agents;

DAHVALAL & CO.,

Chemists & Druggists

89, Princess Street, Bombay.



FOR YOUTH, HEALTH & VITALITY

NRG

ENERGISER :

THE SUPREME TONIC

SUPPLIED TO ROYALTY

Highest Medical Approval

Agents:

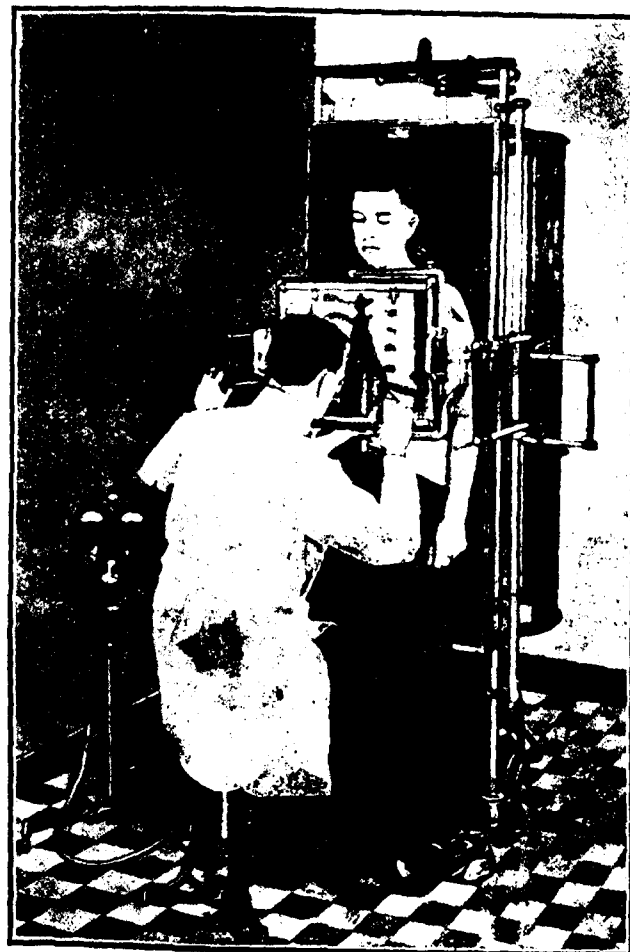
N. R. G. LABORATORIES

P. O. Box 383, Bombay.

When writing to advertisers, please mention the "Antiseptic."

Doctor,

Please Send your cases for
X-RAY PHOTOGRAPHS



TO
THE ELECTRO THERAPEUTIC INSTITUTE,
323, Thambu Chetty St., G. T. Madras.

When writing to advertisers, please mention the "Antiseptic"



BUTTERWORTH'S BULLETIN

THE WORK WHICH HAS IMPRESSED THE WHOLE
MEDICAL WORLD

THE PRACTITIONERS LIBRARY OF MEDICINE AND SURGERY

GEORGE BLUMER, M. D.,
Supervising Editor

Assisted by 14 Associate Editors and over 200 Contributors—all authorities
in their respective fields.

TO BE COMPLETED IN 12 VOLUMES Royal Octavo AND DESK INDEX.

READY	READY	READY	READY
Practitioners Library	Practitioners Library	Practitioners Library	Practitioners Library
VOLUME 1	VOLUME 2	VOLUME 3	VOLUME 4
ANATOMY & PHYSIOLOGY	TECHNIQUE OF CLINICAL MEDICINE	PRACTICE OF MEDICINE	NON-TRAUMATIC SURGERY

VOLUME 5—TRAUMATIC SURGERY.

VOLUME 6—GYNAECOLOGY AND OBSTETRICS.

Now in Press
For Early Issue.

In the Press.

- Vol. 7—PEDIATRICS.
- Vol. 8—THERAPEUTICS.
- Vol. 9—NEUROLOGY AND
PSYCHIATRY.
- Vol. 10—DERMATOLOGY &
SYPHILOLOGY.
- Vol. 11—EYE, EAR, NOSE &
THROAT.
- Vol. 12—HYGIENE AND
PREVENTIVE
MEDICINE.

DESK INDEX.

In this magnificent Work of reference the entire field of endeavour in practical Medicine and Surgery have been covered in a way that is *comprehensive* and yet assures the conciseness so desirable in a Work of reference.

The Practitioners Library has met with a reception never before given to a Medical Encyclopædia issued to the profession of this country. The Published Volumes already in the service of the profession have received, after the practical test of their use in daily practice, the unanimous approval of subscribers.

A four page prospectus together with Specimen Pages and full details of the Present Advantageous Special Terms will be sent gratis upon request.

BUTTERWORTH & CO., (INDIA) LTD.,

6, HASTINGS STREET, POST BOX 251, CALCUTTA.

Also at

BOMBAY, MADRAS AND LONDON.

THE WESTERN HOMŒO - BIOCHEMIC PHARMACY.

Kothari Mansion. - - opp. G.P.O. Bombay 1.

THE HOMŒOPATHIC PHARMACISTS

for PRESCRIPTIONS, BOOKS, TABLETS,
PILULES, TINCTURES, TRITURATIONS,
GLOBULES, AND MEDICINE CHESTS
FOR BIOCHEMIC AND
HOMŒOPATHIC MEDICINES.

May we send you our Price List?



SALVITÆ FAULTY METABOLISM

When metabolism, the conversion of food into vital force, is disturbed, there is an accumulation of lactic acid and urates in the blood stream and the tissues.
Gout, rheumatism, recurrent migraine, hepatic engorgement, constipation, lassitude, pyorrhea alveolaris and kindred manifestations of the retention of waste substances form the chief indications for Salvitæ.

SALVITÆ

Salvitæ increases the alkalinity and uric solvent power of the blood; prevents the overproduction of nitrogenized materials; augments the elimination of substances; invigorates capillary circulation; stimulates renal activity; promotes biliary secretion; dispels languor and creates a state of general well being.

Samples and literature to the medical profession on application to Sole Agents.

Manufactured by

THE AMERICAN APOTHECARIES COMPANY, NEW YORK.

Messrs. Muller, MacLean & Company, Manowar House, 43, Bentinck Street, Calcutta. Messrs. Muller, MacLean & Company, Hashim Bldg., 38 Churchgate Street, Fort, Bombay. Messrs. Muller, MacLean & Company, 82 Tseckai Mg. Tanlay Street, Rangoon, B.B. Messrs. Muller, MacLean & Company, P.O. Box No. 2 Madras.

When writing to advertisers, please mention the 'Antiseptic.'

AN UNEXPECTED DISCOVERY

Simply unbelievable - yet not to be disbelieved

"NOTOAA GRANULES"

Non-Operative Treatment of Acute Appendicitis.

Internal medication only. Most rapid action. The intense pain at McBurney's Point is relieved by a single dose within 30 minutes. Complete resolution being effected in 5 to 7 days.

CENT PER CENT SUCCESS GUARANTEED.

For full particulars, send for our literature.

WARRANTY REFUNDABLE IN CASE OF FAILURE

THE KUSHMOL PHARMACY, BENARES CITY.

FOR THE
TREATMENT OF

Inflammation and Congestion in cases of

EMPIRE'S Congesticide has earned the approval of Medical Men by its exceptional power to maintain for 12 to 24 hours a continuous and uniform heat, which not only effectively relieves pain but restores normal circulation and induces relaxation.

Pneumonia, Bronchitis, Pleurisy, Sprains, Colds, Chronic Ulcers, Boils, Tonsillitis, Inflamed Breasts, Sore Throat, Abscesses, Burns, etc., etc.

EMPIRE'S CONGESTICIDE

IS UNFAILING

AVAILABLE AT ALL CHEMISTS

L. G. GAJJAR & CO.,
Princess St., Bombay, 2

When writing to advertisers, please mention the "Antiseptic."



DURING PREGNANCY AND THE POSTPARTUM PERIOD

supporting treatment is essential.

To renew the impoverished blood stream, to replenish the constant mineral depletion, and to overcome the neural depression, there is no better tonic than Fellows' Syrup for the parturient and post-parturient patient.

Suggested dose: One teaspoonful t.i.d. in water.

SAMPLES ON REQUEST

FELLOWS MEDICAL MFG. CO., INC.

26 Christopher Street, New York, N.Y.

FELLOWS' SYRUP

OF THE HYPOPHOSPHITES

A MILK MODIFIER

Mellin's Food is specially prepared for modifying and adjusting the components of cow's milk to meet the nutritive needs of infants deprived of human milk.

No matter whether certified, pasteurised, dried, or condensed milk is employed, its digestibility and its value as nourishment for the baby is enhanced by the addition of Mellin's Food. In other words,

milk in any form is better borne, more completely utilized, and its nutritive constituents more appropriately balanced if properly modified with Mellin's Food.

There is no milk modifier exactly like Mellin's Food, and its wide recommendation by the members of the Medical Profession is ample evidence of its outstanding merits.

'Modified Milk
in
Infant Feeding'

The above named
booklet of 64 pages
will be gladly sent
to Members of the
Medical Profession.

Further particulars and samples will be supplied on request.

Mellin's Food

SPENCER & CO., LTD., MADRAS.

When writing to advertisers, please mention the 'Antiseptic.'



Col. SIR FRANK POWELL CONNOR, Kt., D.S.O., V.H.S., I.M.S.,
Surgeon-General with the Govt. of Madras.

Col. Sir Frank Powell Connor,

Kt., D.S.O., V.H.S., I.M.S.,

Surgeon-General with the Government of Madras.

LIFE SKETCH

Colonel Sir Frank Powell Connor, Kt. (1926), D.S.O. (1917), V.H.S. (1932) F.R.C.S. (Eng.), 1902, M. 1901, L.R.C.P. (Lond.), 1901, D.T.M. & H., R.C.P.S. (Eng.), 1913. St. Barts Hospital London, Brackenbury Surgical Scholar and House Surgeon. Entered I.M.S., 1902; served with 16th Rajputs, Shillong, Assam, 1904, and Manipur 1905; 13th Rajputs, Alipore, 1906. Resident Surgeon, Medical College, Calcutta, 1907-10; Civil Surgeon, Bihar and Orissa, at Gaya and Chapra, 1910-12. Left India with Meerut Expeditionary Force Sep. 1914, and served in France and Mesopotamia; Consulting Surgeon Mesopotamian Expeditionary Force, 1917-18-Mentioned in Despatches 4 times, Brevet Lieutenant Colonel, 1914 Star, D.S.O. Professor of Surgery, Medical College of Bengal, 1919-1930. Officiating A.D.M.S., Baluchistan, 1930; A.D.M.S., Bombay District 1931-32; Surgeon-General with the Govt. of Madras 1933. Publications: Surgery in the Tropics, 1929 (Churchill); Contributed Section on Surgery in the Tropics "Rose and Carless Manual of Surgery" and "Nelson Looseleaf Surgery"; Contributions to various Medical Journals on Surgical subjects and read papers at various learned Societies in India and England.

WE offer our hearty welcome to Col. Sir Frank Powell Connor, I.M.S., who has succeeded Major-General Sprawson as Surgeon-General with the Government of Madras. Madras has been singularly fortunate in that it has had as its Surgeon-Generals for three successive terms, three distinguished members of the medical profession who combine in them rare professional, literary and administrative talents with those rarer qualities of head and heart, which always constitute the keynote of success. Madras was really proud and happy to find Col. Megaw and General Sprawson lifted to the topmost rung of the official ladder also in succession and it is no idle prophecy if we predict that Col. Connor too will succeed them as Director General of Indian Medical Services, in the fulness of time.

The one pressing medical problem which is common to All-India at the present day is the levelling up of the Graduate and Licentiate qualifications and the dissolution of the so called 'Caste System' in the Medical Profession and this problem was attempted to be solved by his predecessors in this Presidency in a spirit of good will and sympathy. We trust the same good will and sympathy will prevail even with Col. Sir Frank Connor and he will fill the foundation which has been deeply dug by them, and lay, well and truly, the foundation stone, for that grand edifice of 'Concord, Unity and Equality of Status' in the medical profession, which we long to see built in the near future.

We wish Col. Sir Frank Connor a longer lease of life and continued and unabated success.

The Antiseptic

[Estd. 1904]

A MONTHLY JOURNAL OF MEDICINE & SURGERY.

Editors: DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

Editorial and Publishing Offices:—323, Thambu Chetty St., Madras

ANNUAL SUBSCRIPTION RS. 5, FOREIGN, 10 SH. POST PAID.

Original Articles

SUGGESTION IN EVERY DAY LIFE *

BY

WILLIAM NUNAN, M.D.,

Police Surgeon of Bombay.

A prominent medical authority stated publicly in London the other day that the time was ripe for the inclusion in the medical curriculum of a course in elementary Psychology as a compulsory subject.

Some of us, humble students of Psychology, have been for some years upholding the claim of Psychology to the more serious attention of the medical profession in India and especially to the teaching bodies of that profession.

This public statement goes perhaps to show that we, as pioneers, are not really so crazy as some people believe.

It is very satisfactory that a leading light of the profession holding a prominent position in the British Medical Association, has had the courage to proclaim the new faith, and to allow that proclamation to be broadcasted by the lay press.

It is all the more pleasant to be able to make this reference, because we cannot forget that not many years have passed since the British Medical Journal, the Journal of the B. M. Association

* Specially contributed to the Antiseptic.

refused to publish the reports of surgical operations performed in Calcutta by Esdaile, without pain to the patients, anaesthesia having been induced by the simple methods of so called Hypnotism. This obscurantism on the part of the medical profession was not a new phenomenon.

The medical profession must very properly examine with minute care the proposition of every new theory, and does not subscribe to its practical application until positive proof has been established.

No one can complain of this, but the public is entitled to complain if and when the medical profession refuses to examine evidence.

To the man who has not examined the evidence there is no evidence, and the man who, without knowledge of the subject, gives expression to his disbelief, is the man who does not wish to believe, and yet the caravan passes.

The introduction of chloroform as a general anaesthetic met with strong opposition from certain sections of the profession, and this opposition was strengthened by the denunciations of the theologians, when the administration of chloroform was suggested in cases of child-birth. "In sorrow and tribulation shalt thou bring forth children", quoted the doctors and the priests, who, be it noted, were all men, and were not, themselves likely ever to be called upon to suffer the pains and pangs of child-birth.

The opposition died a natural death. Let it be whispered that, possibly, the doctors who defied the conventions and guaranteed painless deliveries were bagging all the fees. Let us leave this painful subject.

Harvey, 300 years ago, announced his theory of the circulation of blood, and the heresy was denounced for a time. The introduction of the stethoscope raised laughter among the contemporaries of Laennec, its inventor. Lister was boycotted and abused by his fellows for his attempts, by methods of antiseptics, to lower the curve of mortality due to hospital gangrene. Here, in India, the daring scientist who proclaimed that the term malaria was a misnomer, and that the disease in question was not caused by "bad air," but is really carried by mosquitoes did not in these recent days meet with any enthusiastic response; and let us not forget that even today his opponents have their supporters in the ranks of the Bombay Municipality.

Perhaps, I have said enough to draw attention to the opposition to progress shown by scientific and by non-scientific

individuals and corporations. For thousands of years the rank and file of the medical profession have been attempting the impossible—the separation of the mind and the body.

"Whom God hath joined, let no man put asunder", this great law has fallen into abeyance in its matrimonial application as is made manifest by the returns of the Divorce Courts, especially in the ranks of the cinema artists, owing to whose matrimonial experiments with truth, the town of Reno has been 'placed on the map'. But this law, is as applicable to Psychology as to matrimony.

'Whom God hath joined, let no man put asunder'—runs the law, and the doctors down the ages have been defying that law in the separation of the mentality of the patient from his physical condition in the matter of the treatment of his ailments.

Let me take a simple case to prove my contention, and from one let us learn many, if not all. About 6 years ago, an elderly man, the confidential clerk of a large business organization was sent to me for treatment of Insomnia, Melancholia and general debility by Psycho-Therapy, as other lines of treatment had failed and the patient was getting daily more depressed, both physically and mentally.

As usual, the patient came with a bundle of prescriptions, tonics, correctives, aperients, purgatives, sedatives and hypnotics, containing most of the drugs in the pharmacopœia, and a few extra official and non-official. In the examination of his physical state, I found that he had several teeth which needed extraction or dental attention.

I advised him to go to a dentist, and offered the opinion that when his mouth was rendered healthy, he would probably not require my services in Psycho-Therapy. He was very dubious about this, and expressed his disappointment, but I pointed out that it was impossible for me to tackle his case while he was suffering from auto-intoxication by bad teeth.

Some months later, I returned from Europe and was congratulated by the manager of the firm on having performed what he called a miracle. He said "The man is better than ever he was". I with the becoming modesty which is so characteristic of my nationality, disclaimed all merit, and pointed out that it was Dentistry and not Psycho-Therapy that had effected the cure. However, I got a certain amount of the credit all the same.

Such cases could be multiplied indefinitely, and go to show how behindhand the medical profession is today in endeavouring

to treat mental illness in the presence of physical illness without attention to the latter.

There is on the other hand, an equal and opposite danger—that of attempting to treat physical ill-health without taking stock of the conditions of mental ill-health, or distress, which may be the cause, or at any rate the factor aggravating, or ensuring the continuation of that ill-health, resulting in the non-recovery of the patient.

We hear and read much of the control of the body by the mind. We seldom hear of the control of the mind by the body, and we forget that it is the question of a circle, vicious or healthy, in a particular case. These propositions should be self-evident, and sound like platitudes to the casual hearer.

Unfortunately these errors are of every day occurrence, and the medical profession down the ages have been ignoring the inter-relation of mind and body.

It would not be a great exaggeration to say that the lay man to day pays more attention to these matters than the average medical man in India. And yet the East is the home, the birth place of psychology. "*The kingdom of God is within you*" said Christ; and listen to the gentle Buddha, the contemplative, "*As a man thinks in his heart, so he is*" and again, "*as a man thinks, the results follow him like a shadow*."

The minimum of thought, or none at all, is given to this great subject, in this year of Grace, by the new generation issuing from the medical schools, in spite of the fact that courses in medical psychology are offered as post-graduate study by the principal Medical schools and Universities of the world. In Vienna, at least a dozen Professors, experts in the subject, lecture to eager medical graduates from the four corners of the world on the power of the mind over the body, and on the power of the body over the mind. Bombay has been described as an intellectual desert. Under the circumstances can this charge be honestly refuted? Let us then take the stand point of scepticism in the true connotation of the term and for a few moments examine with a view to understanding, this grave, important matter.

Psycho-Therapy is that branch of medicine which deals with methods of treatment which operate by, and through, the mentality of the patient. To say this, is really to say that Psycho-Therapy is, or should be, employed in all cases of disease, that is, ill-health, whether physical, mental or mento-physical for, if we endeavour, as practitioners in medicine, to separate the mind from the body,

or the body from the mind, in our daily work, the interests of the sick, who entrust themselves to our care, must inevitably be prejudiced. Every form of disease, whether organic or functional has a mental co-efficient and if that mental co-efficient, that spiritual factor in disease is not carefully considered, or is ignored, our ministrations, our therapy, our treatment, by whatever name it is called, and whatever form it takes, must be and is, and will be, greatly handicapped.

Some years ago, at a medical dinner in Bombay, a prominent medical man, whose prominence was made manifest to an admiring world by a plentiful supply of gold braid and a profusion of decorations, a vigorous and uncompromising critic and opponent of Psycho-Therapy, "and all that rot", to whom I had offered the above simple and (to the humble student of Psychology) self-evident proposition, replied with a laugh, "a fine lot of mental factor you find, for example, in malaria," and set back in his chair, self-satisfied that the question was settled once for all.

The reply was obvious and I gave it,—"*The mental factor in malaria is unusually high. The headache, the backache, the joint-pains, the insomnia the mental distress, the subsequent depression can be relieved in many cases almost instantaneously, in most cases in a few minutes, and, in all cases, where the patient is ordinarily intelligent, with certainty, by Psycho-Therapeutic methods. All these distressing or painful symptoms, are non-essential to the disease, which can be more successfully attacked by the administration by chosen routes, of quinine and arsenic, when they have been relieved.*"

The day-to-day practitioner, indeed, would fail in his duty if he made no attempt to relieve them, which he usually proceeds to do by prescribing drugs, which, while they relieve pain, insomnia, etc., do so necessarily, by further depression of the patient. When these symptoms are relieved by Psycho-Therapy, the patient's vitality is no longer being sapped by pain, by sleeplessness and by mental worry and distress, and the nervous energy of the patient can so be conserved to increase the resisting power." In some diseases the mental factor is higher than in others, but it is present in all.

Where the mental factor is large, Psycho-Therapy will cure the disease, if cure is possible, within the far-flung limits of human possibility and common sense, and where it is small the routine treatment by medicine, electricity, massage, diet, etc., will be advantaged by its removal.

Psycho-Therapy embraces all methods of treatment through

the mind, including Psycho-Analysis and Suggestion. Psycho-Analysis is based upon the theory that states of disordered mental health in functional nervous diseases are due to repression of painful memories or conflicting instincts and depends for its success upon the discovery of these repressions and their elucidation and explanation to the patient. The repression being brought to the surface, into the light of day, so to speak, the patient dismisses it from his mind, being enabled to view it in its true perspective, and to realize its relative non-importance. It occasionally happens, in a simple case, that, the repression being rapidly discovered, a cure resembling a miracle in its dramatic suddenness results. This unhappily, is the exception and, sometimes, infinite patience is demanded from both physician and patient. Fortunately for us all, Psycho-Analysis as such is required in only a small percentage of the cases which consult the medical psychologist. When the word "suggestion" or "auto-suggestion" comes into the conversation, the average man to-day, including the average medical man, who has usually not studied or examined the subject at all, cries "*Concism*", when he does not cry "*Hypnotism*", "*Mesmerism*", or when he is less polite, "*Quackery*". Even the medical profession, which is slow to accept new theories and new methods, forgets that suggestion is as old as man himself, and has always down the centuries swayed the conduct of the human race and moulded the history of the world before, during, and since the days of the Delphic Oracle.

Cone', a simple country-town chemist discovered nothing new. He merely simplified technique, stripped psychology of its mysteries and the camouflage with which it had been disguised by generation of conscious or unconscious charlatomies and obscurantism and brought to the knowledge of the work-a-day man and woman the mighty power at their disposal in the proper and scientific use of their own mental machinery. "*There is nothing either good or bad,*" says Shakespeare, one of the greatest psychologists of all time, "*but thinking makes it so,*" and again says Milton, the poet who could not see the faces of his fellows, but understood the minds through and through, "*the mind is its own place and, of itself can make a heaven of hell, a hell of heaven.*"

What does the suggestionist to-day claim?—merely that he can enlist the assistance of the patient's own mind to combat the patient's disease, and so enable a proud confident affirmative answer to be given to the despairing cry of Shakespeare's Macbeth to the physician. Let us read the passage—

Macbeth :—"How does your patient, Doctor?"

Doctor :—"Not so sick, my Lord, as she is troubled with thick-coming fancies, that keep her from her rest."

Thick—coming fancies"—What a wonderful phrase, who doubts that Shakespeare was a psychologist?—and lastly let us hear Macbeth's piteous appeal for himself no less than for his partner in guilt.

Macbeth :—"Can'st thou not minister to a mind diseased, pluck from the memory a rooted sorrow ;

Raze out the written troubles of the brain ;

And with some sweet oblivious antedote ;

Cleanse the stuffed bosom of that perilous stuff.

That weighs upon the heart?"

THE VALUE OF RADIOLOGY IN MEDICAL DIAGNOSIS *

BY

U. P. BASU, M.B., F.R.C.P.,

Physician to Calcutta Medical College Hospital, Calcutta.

ONE hundred and twelve years, that have rolled away since Laennec's invention of Stethoscope, have witnessed the birth of many scientific instruments and appliances devised to enable the physician to form a correct bedside diagnosis. None of these, however, has been able to open up for the purpose of diagnosis and therapeutics so many new fields in medicine, the limits of which are yet undefined and ever extending as the X-rays discovered by Professor Wilhelm Conrad Roentgen in the year 1895. It is not my intention to incorporate in the body of this paper the part played by Radiology in the diagnosis of the various diseases affecting the different organs of the human being as I am sure it is well known to this learned assembly. I shall try to assess its value from the help I have received from this important branch of science in the diagnosis of the following cases of rare incidence that came under my observation during the past twelve months.

Case No. 1. A Hindu male, compounder, aged 50 was admitted into the Calcutta Medical College Hospital on April 22, 1931 for the treatment of fever, progressive loss of strength and flesh

* Being a paper read before the British India Association, (Calcutta Branch) on the 11th of September 1931, and specially sent to the Antiseptic for publication.

of one year's duration and slight difficulty of breathing for the past 2 months. The fever used to come towards the evening, lasted throughout the night and was of a mild type. Two months prior to his admission, one morning he felt a choking sensation which gradually passed into the state of slight difficulty of breathing which aggravated on exertion and after meals. He had fever 8 years back lasting for about 2 months; Pneumonia 10 years back. Syphilis and Gonorrhœa 30 years back. He was diagnosed by his medical attendant as a case of rightsided Pleural Effusion and a skiagram of the chest taken outside the Hospital, confirmed the diagnosis. He was sent to the Hospital for treatment.

General inspection and general palpation revealed that the patient was lying comfortably in bed on the right lateral decubitus; any other posture aggravated his dyspnœa. He was much emaciated but the wasting of the upper half of the body was hidden by an œdema which was confined to head, neck, face, arms, and upper part of the chest and produced a striking contrast to the lower half of the body, specially the thighs and legs which were simply skin and bone. The face was puffy, the veins on the neck were distended and there was a close network of small blue tortuous vessels on the chest.

There was no abnormal pulsation over the præcordium, neck supra-sternal notch and on the right of the sternum. There was slight cyanosis and a number of glands were palpable in the right axilla which were hard on palpation and tender some of them being of the size of betel-nut.

Regional Examination revealed that the brunt of the disease was on the respiratory system. There was occasional dry cough and scanty expectoration. The rate of respiration was 30 per minute and the rhythm regular. Chest wall on the right side from clavicle downwards was shrunken and there was striking absence of movement over the whole of the right side of the chest, anteriorly although the corresponding portion on the left was freely moving. Vocal fremitus was diminished all over the front, laterally and back of the right side. On percussion the note was stony dull over the same areas but there was no pain nor any tenderness. Over the right supraspinous and right infraclavicular fossa there was bronchial breathing and bronchophony. In the remaining portion of the right lung there was no air entry but the vocal resonance was markedly diminished. Over the whole of the left lung and breath sound was puerile and the vocal resonance normal. No adventitious sound could be heard on either side. Pulse was



Photograph showing a close network of small Tortuous Vessels on the chest and Mediastinal Oedema.

To face page 964.



BRONCHOGRAM.
Following 20 c.c. of Lipiodol injection of the Bronchial Tree
by the Cricothyroid Route.

MASSIVE COLLAPSE OF THE RIGHT LUNG.

To face page 967.

regular 96 per minute and equal on both sides. Apex of the heart was in the 5th space 2 inches from the midsternal line, heart sounds feeble, no adventitious sound present. Teeth were covered with sordes, pyorrhœa alveolaris present, abdomen sunken, spleen not palpable, right lobe of the liver palpable $\frac{1}{2}$ an inch below the costal margin and tender; pupils of both the eyes were equal and reacted to light and accommodation. No inequality of the palpebral fissures: Blood was examined twice and showed secondary Anæmia and slight leucocytosis. Blood pressure systolic 95 m.m. Hg: Diastolic 60 m.m. Hg: W. R.—Moderately positive. Urine examination showed traces of bile salts, bile pigments and phosphates. There was no acid fast bacilli in the sputum, although it was examined several times. Exploratory puncture was done on the 24th April 1931, but was negative. Roentgenological examination of the chest was done twice. At first a simple Radiogram of the chest was taken in two positions—Anterio-posterior and oblique and a massive dense shadow of the whole of the right lung was seen, the heart and trachea were drawn to the right side.

There was neither any well defined nor irregular pulsatile swelling in the mediastinal areas.

On the 6th of May 1931, Bronchography was done immediately following 20 c.c. of Lipiodol injection of the bronchial tree by the Cricothyroid route while the patient was lying on the X-ray table. Bronchogram showed complete obstruction of the right main bronchus by a ring shaped growth growing from within.

Commentary.—All that the stethoscopic examination of the chest could tell us in this case was that there was apnoematosiis of considerable portion of the right lung: whether it was due to compression on account of Pleurisy or consolidation on account of inflammation, infiltration, neoplasm, or fibrosis or an account of atelectatic collapse, it was beyond the power of stethoscope to say. That the condition was not due to fluid was proved by the exploratory puncture which was negative. A diagnosis of right main bronchial obstruction giving rise to massive collapse of right lung was established with the help of Roentgen rays on account of the following reasons. (1) Homogenous dense opacity in the whole of the right lung without any lessening of the opacity at the apex; without any mottling and scattered opacity; (2) Displacement of the heart and trachea to the affected side (3) There was no S-shaped curve of Ellis nor D-Demoiseau line nor any flattening of the ribs and the other lung was

normal. That the obstruction was within the bronchus and not extrinsic could be made out by the conical annular type of complete obstruction after lipiodol injection. Mediastinal new-growth was ruled out of court owing to the absence of increase of localised opacity through the homogenous shadow by rotating the patient and by the want of visible pulsation. For a rapidly growing mediastinal neoplasm unlike old aneurysms gives rise to visible pulsation on the fluoroscopic screen owing to its extreme vascularity. The nature of the obstruction remained undecided as the patient did not allow removal of portions of the tissue from the neighbourhood of obstruction with the help of the Bronchoscope nor did he submit to the removal of a gland from the right axilla.

In the light of the history and the course of the case, it was probably a bronchogenic new growth. The case was of more than ordinary interest as the much controversial cause of massive collapse was in this particular case due to bronchial obstruction.

Case II.—A Hindu male student aged 24 years of the Mymensingh Medical School was admitted into the Calcutta Medical College Hospital on the 17th of January 1931 for the treatment of intermittent pain in the right lumbar and iliac region and loin. In April 1927 he had an attack of high continued fever lasting for 3 months. During its course he had pain in right lumbar region with frequent but scanty urine. Urine report during this attack of pain was not available. One month after he noticed one day a whitish discharge after micturition. Since then the pain in the right lumbar region used to recur every now and then. In the November of the same year he had another bout of a high continued fever which was diagnosed as Kala Azar and he had recourse to 12 injections of urea stibanine during the course of which he said his pain was aggravated.

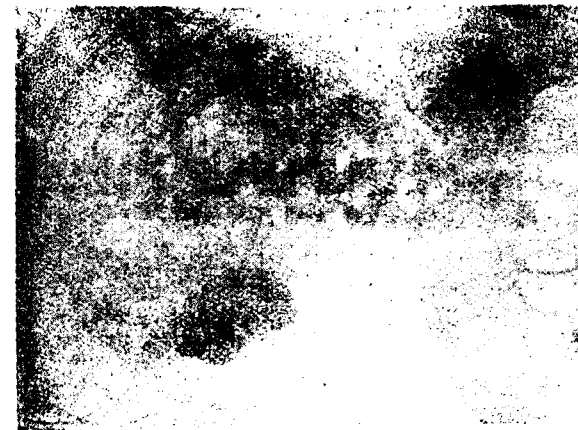
In December 1929 he was attacked with small pox and on the 3rd day after the eruption he was suddenly attacked with an excruciating pain in the right loin. Within one hour of the onset of this pain, it became so intense that he had a hypodermic injection of morphia which relieved him considerably but the pain persisted as a dull ache on the right loin and front. It did not extend downwards to the groin or thigh nor was there any dysuria or abnormal urine during this attack. After the subsidence of pain, however, the urine became turbid for the next 36 hours. The patient had 3 or 4 such attacks during the next 3 or 4 weeks but the pain was never so severe as on the 1st attack. Smallpox subsided in three weeks' time but the patient was having these

attacks of pain off and on which was accompanied with a rise of temperature of about 101° to 102°F. and lasting till the pain subsided in one or two days' time and was followed by polyuria and turbid urine which was examined on several occasions in Mymensingh and showed on each occasion plenty of pus cells and once B coli on culture but there was never any haematuria. The pain, as before, was localised in the right loin and lumbar region and there was no radiation. During two of these attacks the right kidney was palpable. Total number of attacks up till the time of admission was about 20 to 22. On physical examination the patient was found well built and no abnormality could be detected in any organ except tenderness in the right lumbar region, a tender spot on the back just lateral to the outer border of the sacrospinalis below the 12th rib; right kidney was not palpable. The patient stayed in the Hospital for about 6 months and during this period he had 3 attacks of pain, 2 in March 1931 and one in April 1931. Each of these attacks which lasted for about 3 days was accompanied by fever and the urine was diminished during the attack and increased immediately afterwards. There was plenty of pus cells and the culture showed overgrowth of bacillus Proteus Vulgaris on each occasion but there was no acid-fast bacilli and the Guineapig inoculation was negative: During the last attack the right kidney was palpable and tender but no swelling could be detected: Urea concentration test and phenol sulphonaphthalene test showed no inefficiency of the kidneys and on X-ray examination no stone could be detected. Blood urea was 0.02%; blood examination showed secondary anaemia and slight leucocytosis. W. R. was negative. Blood pressure 105 m. m. Hg. (Systolic) and 70 m. m. Hg. (diastolic); pyelography following the intravenous injection of 40 grms. of Uroselecton dissolved in 100 c.c. of water was done on 23rd January 1931 and the Pyelogram showed deficient function of the right kidney. Cystoscopic examination, Ureteral Catheterisation and Pyelography, following 20% solution of sodium Iodide injection through the ureteral catheter under the screen was done on 2nd July 1931 which revealed obstruction of the right ureter and hydronephrosis. Owing to the obstruction no urine could be available through the ureteral catheter for further investigation.

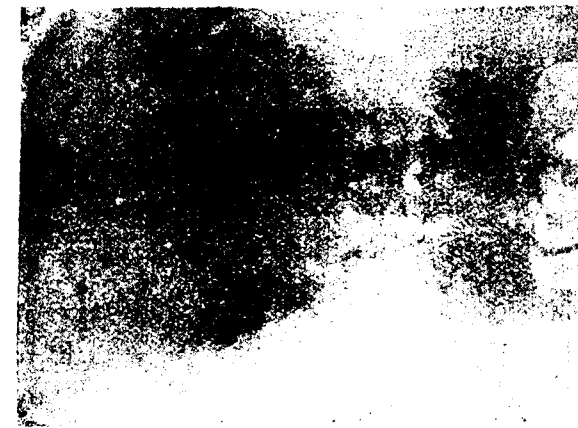
Commentary.—At first it was thought that the attacks of Pyelitis were primarily due to infection by B proteus vulgaris and the patient was injected with a course of auto-vaccine prepared from bacillus proteus vulgaris but it was soon found out that they were

due to added infection and vaccine therapy had no effect. The microscope having failed to give the diagnosis, recourse was taken to special methods of Radiography which revealed hydronephrosis due to obstruction of the right ureter; but whether it was due to a small uratic stone in the ureter which can easily give a negative radiogram or due to abnormal renal vessel causing a kink or due to valve ureter a condition described by Mr. Rowlands, Surgeon to Guy's Hospital in B. M. J. October 26, 1930, could not be said as the patient refused to submit to an operation which may have completely cured his condition and would have established the refinements of diagnosis.

Case III.—A Mahomedan sailor aged 35 years was admitted into the Calcutta Medical College Hospital on the 9th of October 1930 for the treatment of vomiting of blood at intervals of a fortnight or a month, of 5 years duration and pain in the right hypochondrium and right side of the chest of one year's duration. He also suffered from occasional attacks of fever lasting for a few days and had once swelling of knee joints in association with fever 5 years back. He contracted Syphilis 20 years ago and was addicted to alcohol. Physical examination revealed a well built feature but pale and anæmic. There was no cyanosis nor jaundice nor dyspnoea nor any orthopnoea. Pupils were equal on both sides and were reacting to light and accommodation. There was praecordial pain present every now and then which was dull in character but localised. The superficial veins of the neck were engorged and the carotids throbbing. Apex beat was in the 6th space 1 inch lateral to the midclavicular line. There was a feeble visible pulsation in the left 1st, 2nd and 3rd interspace over an area about 2 inches in circumference. There was no pulsation nor any bulging on the back between the scapula and the mesial-line; the cardiac impulse was heaving in character; but there was no thrill either at the apex or at the base of the heart. There was however a well marked thrill over the right carotid just above the clavicle occupying the whole of the systole and continuing into the earlier part of the diastole. The left border of the heart was about 1 inch lateral to the midclavicular line; the upper border on the 2nd left space and the right border merged with the lateral sternal line. In the mitral area the earlier part of the 1st sound was audible but the latter part replaced by a murmur which was systolic in time and was of a soft blowing nature conducted towards the axilla. The 2nd sound in the mitral area was normal. In the pulmonary area the 1st sound was



11th PYELOGRAM.
Following Sodium Iodide injection
through the Ureteral Route.



1st PYELOGRAM.
Following Sodium Iodide injection
through the Ureteral Route.



To face page 969



Large Aneurysm of the Descending Limb of the Arch
of the Aorta.

To face page 969.

completely replaced by a systolic murmur louder than that heard in the mitral area. The pulmonary 2nd sound was accentuated. In the aortic area the 1st sound was completely replaced by a murmur conducted along the carotids and the 2nd sound was feeble. There was no diastolic murmur in this region. Just above the clavicle and over the right carotid, a loud systolic murmur was present. There was no pistol shot sound; no durozio's murmur nor was there any systolic murmur on the back. Radial pulse rate was 92 per minute, equal on both sides, regular but collapsing. Blood pressure: right brachial systolic 110 m.m. Hg: Diastolic 50 m.m. Hg: There was no dry nor brassy cough nor any change in the voice. The vocal folds were normal, there was tracheal tugging present but no tracheal whiff. Lungs were normal. There was tenderness in the right hypochondrium. Liver and Spleen were not palpable, liver dullness was normal. Blood examination revealed a severe grade of secondary anaemia. W. R. was moderately positive and the urine was normal. Clinical diagnosis of Aneurysm of the arch of the aorta was given which was confirmed by the Roentgenological examination which showed a large Aneurysm of the descending limb of the arch of the aorta.

Necropsy revealed a large saccular aneurysm of the descending limb of the arch of the aorta, thickening of the aortic valves and an enlarged flabby heart.

Commentary.—The unusual features of this case were the abnormal pulsation in the left 3 upper interspaces in a case of aneurysm of the descending limb of the arch which usually gives rise to a bulging and a visible pulsation on the back between the scapula and the spine, the absence of dysphagia which is a common finding in such an aneurysm and the complete freedom from dyspnoea; but the behaviour of aneurysm is often very curious and it more often pushes the soft structures in relation to it than it compresses them. It is surprising to come across such a large aneurysm in these days of thorough antisiphilitic treatment which has made aneurysm extremely uncommon. The symptoms of haemetemesia and right hypochondriac pain could not be correlated with the physical signs which were themselves anomalous on account of the concomitant presence of a severe grade of a secondary anaemia and it was only the characteristic Radiogram that clinched the diagnosis.

Conclusion.—The more a physician comes across these interesting cases, the more is he impressed with the value of the Roentgen rays in the diagnosis of his case. Indeed it is not too much to

say that the real progress in medical diagnosis will be accomplished when Röntgenographic Examination will be looked upon as much a necessity and a routine procedure as the stethoscopic examination.

I conclude without fear of any contradiction that an electrocardiograph may help in the diagnosis of cardiac diseases, an ophthalmoscope may be of use in the diagnosis of ocular manifestations of the various diseases. A cystoscope may be of service in the diagnosis of diseases of the urinary organs but the Röntgen rays will help the physician in the diagnosis of diseases of almost all the structures of the human body. My best thanks are due to my colleagues Dr. G. Galstaun, Radiologist, Calcutta Medical College Hospital for the excellent skiagram he has kindly taken, the late Major S. N. Mukherjee I.M.S. Surgeon-Superintendent, Campbell Medical School for kindly doing the urateral catheterisation and my beloved ex-senior house physician Dr. Sushil Kumar Chatterjee M.B., for the genuine help he has kindly rendered to me in faithfully carrying out the investigations of these cases according to my directions.

References:—

- (1) *A further study of massive collapse of the lung by H. C. Jacobus and N. Westermarck Acta Radiologica, Stockholm, December 1930.*
- (2) *Bronchial obstruction, its relation to atelectasis, broncho-pneumonia and lobar pneumonia. By Pol. N. Coryllos and George L. Birnbaum. The American Journal of Roentgenology and Radium Therapy, November, 1920.*

DIABETES.*

BY

S. L. SOMAYAJULU I.M.S.

L. F. Hospital Ramachandrapuram.

The knowledge of Diabetes has definitely advanced with the discovery of insulin.

The disease is indefinitely old and is known to our ancients as Madhu-Meha. It is now a very common complaint due to the causative factors which I am now going to describe.

The usual definition given in the text books is not satisfactory. In old books it is described as a condition of the body in which sugar appears in the urine or there is an excessive flow of sweet urine. Sugar appears in so many other conditions like Pituitary tumour,

*A lecture delivered under the auspices of the Godavery District Medical Association, and specially sent to the Antiseptic for publication.

Renal Glycosuria, etc. The normal pregnant woman may be passing excess of urine and lactates but it does not fall within the category of diabetes.

It may be defined as a constitutional disorder due to deficiency in the secretion of the islets of Langerhans in the Pancreas resulting in a disturbance of the normal utilisation and storage of carbo-hydrates as seen clinically among other factors by persistent hyperglycæmia with or without glycosuria. The normal concentration of sugar in blood in a healthy individual is from .08% to .12%.

Definite Pancreatic lesion plays an important part in the etiology of diabetes. The root cause centres round the islets of Langerhans and in way depends on the loss of or damage to the Pancreatic acini though the nature of the factors giving rise to such diseased condition and therefore disfunction is not clearly understood.

*Predisposing causes:—*Obesity is quite common. About 80% of cases give a definite history of its first appearing whilst the patient was obese. Also about 50% of obese people who are 30 or 40% overweight in relation to age and height show a definite decrease in sugar tolerance. This may be considered as their pre-diabetic stage and if these people are not careful, they are likely sooner or later to run in for actual diabetes and its complications.

Excessive carbohydrate food is said to be one of the causes. But this is a fallacy. It is rare among the Japanese though they are rice-eaters and also among the poor working classes of our country who live on a diet chiefly consisting of carbohydrates. It is the overeating combined with indolent habits which tend to strain the Pancreas and the Liver and these faithful organs bear the insults for a pretty long time before they finally give way. The poor working class Indians who eat rice are accustomed to do enough of hard work to utilise all the sugar liberated therefrom which is wholly burnt with the production of heat and much energy in the shape of muscular work. The temporary hyperglycæmia which they get after the ingestion of carbo-hydrate food is thus soon brought to normal.

The rich overfed person on the other hand indulges in excess of carbohydrate food but does not help nature to reduce the hyperglycæmia caused thereby by taking a proper amount of exercise. The hyperglycæmia persists longer and throws an extra strain on the liver and pancreas in their efforts to bring down the blood sugar to normal. By the time the blood sugar becomes normal

the time for next meal comes in and the same process is repeated over again.

So long as the liver retains its functions of forming glycogen from the excess of blood-sugar or the deposition of fats from unused carbo-hydrates or the combustion of sugar by tissues remains intact the individual does not suffer much discomfort except perhaps from dyspepsia due to overeating. But in time the liver and pancreas break down with the result that sugar accumulates in the blood beyond the kidney threshold which is .18. So sugar appears soon after food in urine in small quantities. This is called alimentary glycosuria. It is a bad term. Because normally even after taking 300 grams of sugar the blood sugar does not go beyond .16%. As soon as the blood sugar is nearing kidney threshold the insulin producing cells of the pancreas become active releasing a good supply of insulin which causes the sugar to be taken up as muscle and tissue glycogen tending to bring down the blood sugar level to normal. Thus it seems that it is only those people whose storage mechanism is defective for some reason or other who would pass sugar after a rich carbohydrate meal and therefore we should look upon this alimentary glycosuria as pathological.

Recent researches have also shown that normally the amount of sugar in the cell constituents of blood is more than that of the plasma of blood and in diabetes the plasma sugar is more than that of cells. Insulin administration sets matters right and makes the cells permeable to and hold more sugar and the plasma sugar is decreased.

Physical exercise is a sure method of bringing the blood sugar down. In a mild case of diabetes it has been found that active exercise alone can reduce the hyperglycæmia quite efficiently within an hour.

It is believed to be hereditary. There are many families in which it runs on for two or three generations but in the history of most of these cases obesity is also a hereditary factor.

No age is exempt. Most of these cases are between 35 and 45 years.

Less common among females than males.

Races in India. Very common in Bengal. Common in the Delta Districts. Causes are a combination of ill-balanced diet, over-eating, disinclination to any form of physical exercise, excessive intellectual work, sedentary habits and too much worry inseparable from the present struggle for existence.



If not available from the nearest chemist.

Please order from—P. O. Box 857, Bombay (G.P.O.).

COMPOSITION

Hamamelis 3.00%
Horse-chestnut 3.00%
Adrenaline 0.02%
Cupressus 1.50%
Stovaine 0.50%
Menthol 1.00%
Analgesics 1.85%
Gelatine

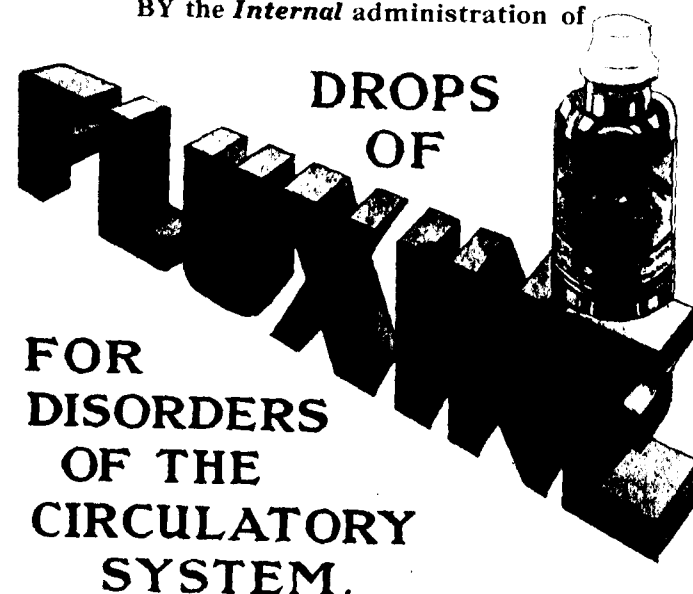
The New! HARSEN OINTMENT for PILES

ACTION

Reduces
Hæmorrhoids
Arrests
Bleeding
Heals the
Ulceration
Kills the Pain
Prevents
Infection

q. s. Forms the MOST ADMIRABLE COM-
BINATION of anti-congestive princi-
ples, powerful analgesics and potent
antiseptics—

which when SUPPLEMENTED
BY the Internal administration of



—a simple and complete association that must
easily top the list of all preparations offered to
the Profession as a *Venous-Vaso-Constrictor*,
tonic of the Vascular walls, and at the same
time, an *Analgesic*—

COMPLETES
RATIONAL and the EASIEST TREATMENT OF
EXTERNAL and INTERNAL HEMORRHOIDS
AND THEIR COMPLICATIONS
(Fistula and Fissures)

Please write to—

PARAGON (French) Products, P. O. Box 857, BOMBA

CLARIDGE & CO. LTD.

DEC. '33]

DIABETES—S. L. SOMAYAJULU

973

Common among well to do educated Indians especially among
members of Judicial service, lawyers and owners of landed proper-
ties etc.

Syphilis cannot be considered as a common cause.

Severe bacterial infections diminish the normal resistance
of the pancreas to the invasion of intestinal organisms. Examples
are:—Infectious fevers, septic state of mouth etc.

Carbohydrate Metabolism:—The carbohydrates are absorbed
into the blood and are stored up as glycogen in the liver and
muscles whence they are liberated again as dextrose for physiologi-
cal oxidation. Protein foods in splitting up also give glycogen as
much as 58% and fats give 10%. It is known that in severe
diabetes sugar may continue to be passed even after the total
withdrawal of carbohydrates. If these cases undergo fasting the
tissues are drawn upon and the body protein, glycogen and fat
begin to eliminate glucose which continues to be excreted as sugar
in the urine.

Sugar Tolerance Test:—In a healthy individual if 50 grams
of glucose are given on an empty stomach and blood sugar esti-
mations are taken before and every half an hour after ingestion
we find, (1) The fasting blood sugar is normal, (2) The minimum
blood sugar is within one hour and is not above .17%, (3) Normal
blood sugar level is reached in one and half hours after the glucose
is given, and (4) No glycosuria occurs. In a case of true diabetes on
the other hand, the blood sugar goes on rising and reaches maxi-
mum in 3 or 3½ hrs. after glucose. The fall takes place gradually
and the normal reached only after 5 or 6 hrs. This test is useful
in testing a candidate for Life Insurance who may present himself
before you after a certain amount of starvation to get rid of his
sugar he is previously passing.

Symptoms:—They are well-known. The classical symptoms
may be absent and the first sign may be failure of vision due to reti-
nitis or a cataract. Obstinate pruritis may be the first sign. In women
complete cessation of monthly periods before actual menopause
age. In some cases patients seek advice for a severe neuralgic
pain or a carbuncle and unfortunately for them the diagnosis of
diabetes is made when the disease is somewhat advanced.

Diagnosis:—The diagnosis of diabetes cannot be made by the
mere presence of sugar in the urine. There are several conditions in
which sugar appears in the urine such as EX-Goitre, Acromegaly,
cerebral tumour, infantile cirrhosis and renal glycosuria etc.

Renal glycosuria:—The blood sugar is normal. The kidney

threshold is low. Simply the kidney leaks. These people sometimes get into the clutches of inexperienced doctors and are made to fast unnecessarily: but the present day danger is that insulin is administered to them sometimes with disastrous results.

Dietetic treatment of diabetes:—The first principle in the treatment of diabetes is that the patient should never be under-nourished. It is assumed that 12 calories are sufficient for a diabetic doing ordinary work for each 1 lb of body-weight. The most simple method of calculation is $\frac{\text{calories}}{12}$ is fat: $\frac{\text{calories}}{30}$ gives carbohydrates: $\frac{\text{calories}}{33}$ gives proteid. Thus a diabetic weighing 150 lbs requires 1800 calories which divided by 12 gives 150 grams of fat, by 30, 60 grams of carbohydrate, by 33, 54.5 grams of proteid, 1 gram of fat yielding 9 calories of heat and 1 gram each of carbohydrate & proteid giving 4 calories. According to the food tables given below one can calculate a diet suitable for a vegetarian and a non-vegetarian.

Food Tables:—All vegetables when boiled twice lose roughly 50% of their carbohydrates.

Leaf Curries:—Spinach, thota-kura, gongura etc., have roughly 2%C and 5%P. Brinjals, cabbage, benda, potla, anapa, ash pumpkin, unripe mango, plantain pith, bira, donda, oil cake, channa belong to the 5% group. This is a very important group for the diabetic. 5% means 5 grams to 100 grams. Roughly an ounce of these contains one gram of carbohydrate when boiled.

Kakara has no carbo, negligible; tamarind 8 to 20%. So employ lime wherever necessary. Water melon 7%. Onions 10%. Cocoanut 15%. 20% in boiled rice, bananas and potatoes.

Fruit as cucumber and pomegranate have negligible carbohydrate. A moderate-sized orange has 12 grams of carbo.

Mutton, eggs and fish have no carbo but animal protein is more easily converted into sugar than vegetable protein.

All pulses have proteid 25%, C, 54%, F, 3%.

Ground-nut is a good stuff and has 8%C. A handful is an ounce.

An ounce of atta makes one chapati. One medium sized vada has one ounce of *moong-dal* in it.

The available carbohydrate of the above diet consisting of 150F, 60C, 54.5 P is

150 of F	gives	15 gr. C	at	10%
60 of C	„	60 gr. C	at	100%
54.5 of P	„	31 gr. C	at	58%
Total Carbohydrate=106 gr.				

The patient is on this diet for a week and if he is not passing any sugar in his urine, gives 500 calories over his basal requirements and if he passes sugar with this extra diet gives insulin.

Thus, in the above example, the available C is 106 grams and if he passes 50 oz. of urine in 24 hrs. having 2% sugar *i.e.*, 30 grams his sugar tolerance is 106-30, 76 grams, the 30 grams he is passing must be covered by insulin. Each unit of insulin causes 1 to 2 grams of C to be utilised in a moderately severe case of diabetes and so 15 units of insulin should be given.

Indications for insulin:—1. In all cases of diabetes where there is pronounced glycosuria and marked hyperglycæmia with or without ketosis. 2. Diabetes with complications as coma, tubercle, infections etc. 3. In children and young men below 35 years. 4. Mild cases with no definite symptoms where dietetic treatment has failed. If these cases are neglected they are likely to develop definite symptoms or complications.

Contra-indicated in:—1. Renal glycosuria. 2. Heart complications as Angina. It is very dangerous in myocardial degeneration. So examine heart carefully and ask for a history of Angina.

A few hints worth remembering:—There is no relation between blood sugar and urinary sugar when once the renal threshold is passed. 2. Always aim to keep the blood sugar normal and properly space the dose. 3. Surgical diabetics must be made sugar and ketone free. Insulin is used in a few cases of acidosis of non-diabetic origin, hyperemesis gravidarum, surgical shock, and mal-nutrition. In these cases always give glucose. 4. Body tolerates more sugar in the evening than in the morning.

Insulin treatment without regular blood sugar tests:—An initial B. sugar test is necessary to find out if the case is one of true diabetes. Then calculate a diet as above according to the weight of the patient. Divide this into 2 or 3 meals. Estimate how much sugar he passes after each meal. On the first day give a small dose of insulin $\frac{1}{4}$ hour before breakfast and see how far the urinary sugar goes down, especially in the two specimens 3 hours after breakfast and dinner. If the sugar falls after breakfast but remains the same after dinner, it shows that either the dose of insulin is insufficient or that its effect did not last long. In that case increase the dose say by 5 units. Continue this dose for 3 or 4 days to see if the urine after dinner becomes sugar free. If it dose not, there are two alternatives. 1. To increase the dose still further or give another small dose before dinner injected. In this way see that the urine is sugar free for 3 or 4 days. The diet may

be increased concurrently with the dose of insulin till the required quantity of food sufficient for ordinary work is reached. According to the present day ideas a diabetic does well when he is passing some little sugar in his urine and much of fat and some proteid must be cut down as the body tolerates more carbohydrate in this fashion except in children. Fats are first converted into acids before they are finally burnt in the body. In diabetes the fats smoke away as it were. There is imperfect combustion of fats, carbohydrates and proteids as well. The presence of ketones in the urine is more dangerous than actual sugar, and are forerunners of coma. To burn fats, more C is required because it is antiketogenic.

MODEL DIETS

	VEGETARIAN.		NON-VEGETARIAN.
7 A. M.	Butter-milk 4 to 8 oz.	Butter-milk	8 oz.
	Cocoanut kernel 1 "	Toast one slice	$\frac{1}{2}$ "
		Butter	1 "
		Egg	1
10 A. M.	Chappati 1 "	Chappati	2 "
	Dhal $\frac{1}{2}$ "	Greens 5% group	8 "
	Greens 5% group 8 "	Fish	4 "
	Curd 4 "	Curd	4 "
3 P. M.	Curd or butter-milk 4 and 8 "	Egg	1 "
	Cucumber and Pomegranate 1 oz each	Cucumber	1 "
8 P. M.	Chappati 1 oz.	Chappati	1 "
	Greens 8 "	Greens 5% group	8 "
	Milk 8 "	Fish	4 "
	Extras for cooking, ghee 3 "	Ghee	2 "
	Butter 1 "	Oil	2 "
	30 grms. = 1 ounce = 2 $\frac{1}{2}$ Tolas.		
	1 gram. = 16 grains. roughly.		

The conception of butter-milk in European countries is, I think, different, meaning that it is milk from which butter is removed. So the amount of carbohydrates in it is put down in text-books as the same as milk-5%. Whereas our idea is different. I think sour butter-milk contains very little of sugar and hence is a very good stuff for diabetics.

Cocoanut water has 1 gram sugar per ounce, so also sweet aerated waters.

Complications:—1. Carbuncle, Gangrene 2 Coma 3 Neuritis and neuralgia. 4 Tubercle. 5 Skin diseases.

The first is very common. Decide early if operative measures are required. Give insulin with carbohydrates to control hyperglycæmia and acidosis.

Coma:—Generally ushered in with an infection in a diabetic. Signs and symptoms are 1. Anorexia, vomiting, abdominal pain and sometimes diarrhoea. 2. Stertorous breathing. 3. Lowered tension of the eye ball. 4. Low tension pulse and a high pulse rate. 5. Fall of Blood pressure 6. Characteristic odour.

Treatment:—Rest in bed, copious enema. Give insulin 30 units straight away. Give glucose water or juice of 2 or 3 oranges with a tablespoonful of sugar. Examine urine 2 hours afterwards for acetone and diacetic acid. If positive give a similar dose followed by glucose and so on till some slight sugar is left in the urine but entirely sugar free.

Diet:—Liquid diet, chiefly of carbohydrates.

If the patient is unable to swallow give $\frac{1}{2}$ a pint of 5% glucose per rectum every 4 hours. Regarding the use of alkalies intravenously the present day opinion is that they are useless and sometimes harmful. They are condemned because (1) Even after the alkalinity of blood is brought back to normal the coma still persists. (2) They are liable to upset the stomach which is not desirable in a case of coma. (3) Large doses lead to convulsions in a few cases.

Neuritis and neuralgia:—These are very painful and persist even after the blood sugar comes to normal. Brachial, sciatic and intercostal are chiefly affected.

Tubercle:—Diabetics have generally a low temperature. With the onset of tubercle though the temperature is raised by a degree or so still it is normal or subnormal. This condition in the early stage of tubercle throws the patient and the doctor off their guard. The only symptom is cough. So the physician should be careful. Patient should have 20 calories per lb of body weight, the excess of carbo being covered by insulin. Give Calcium. *Ocular Complications*, are cataract, retinitis and diabetic myopia. Patient should be made sugar free and operated on.

Benedict's Test.—Is 10 times more delicate than the ordinary Felhing's. The correct method is: Take 5 c.c. of sol. or roughly, 1 inch. col. in an ordinary test tube, and 8 drops of urine and boil vigorously for 1 minute and allow it to cool. If the pp is light green, sugar is below .2%. Dark green below .5%. Green and yellow it is 1 to 1. 5%. Orange and red above 2%.

entire system. The system also with a view to keep this increased amount of salt in as much diluted a condition as possible tries to retain more fluid in the tissues which means an aggravated condition of the œdema. It is therefore very important that salt in chronic parenchymatous nephritis be completely withheld.

With the treatment outlined above it is possible to bring about a very considerable amount of reduction in œdema and in cases where the affection is confined only to parenchyma a cure may sometime be possibly effected. It must however be understood that this fortunate state of affairs is rare in the extreme. The trouble almost always shows an appreciable interstitial involvement and gradually passes on to the condition of chronic interstitial nephritis.

Chronic interstitial nephritis.—This is an incurable condition. It is characterized by a considerable degeneration and atrophy of tubular cells and marked increase of interstitial fibrous tissue. Arteries both in the kidneys as well as in other parts of the body get thickened and the blood pressure increases. Heart as a whole becomes very much hypertrophied. Functional activity of the kidney also becomes deranged. While there is no difficulty in elimination of water, excretion of nitrogenous waste products is very considerably diminished. Patient complains of polyuria, giddiness and headache and in course of time definite uræmic symptoms may set in. Any extensive œdema is rare and if present indicates weakness of heart and calls for suitable cardiac stimulants. While there is nothing to cure the condition, life can be prolonged for quite a number of years by judicious dieting and a disciplined mode of living. Exposure to cold, physical and mental strain, worries and alcohol must be avoided. The patient should be allowed to follow the ordinary pursuits of life provided these do not cause him any undue physical or mental exertion. Bowels should also be kept freely working. The question of diet is also an important one. The system shows a tendency to retain the waste products of nitrogenous metabolism and a rich protein diet in these cases is bound to produce an unfavourable reaction. Proteins should not be however completely cut off since this step will deprive the patient of all nourishment and rapidly take him down hill. The best thing to do is to give him small quantities of protein for some time, then stop for a few weeks and recommence the same and so on.

Treatment of high blood pressure.—In order to push the necessary amount of blood through the restricted capillary area in

the kidneys, compensatory rise of blood pressure and cardiac hypertrophy are not only unavoidable but even necessary in chronic interstitial nephritis. It is therefore important to bear in mind that no attempt should be made to bring down the pressure if it is not unduly high, since this step is quite likely to lead on to œdema. But if it is unduly high, treatment is most certainly indicated to avoid complications like apoplectic rupture. Administration of sodium nitrite or Liq. Trinitrini in suitable doses, encouragement of diaphoresis by baths and pilocarpine, free opening of bowels by suitable purgatives are some of the measures that will give considerable relief in this condition.

Anæmia.—Anæmia is almost constantly present in chronic nephritis. It is best treated by administration of iron in some form. I have largely used syrup hæmogen with normal serum in these cases. It is a preparation manufactured by Bengal Immunity Co. of Calcutta and works very well.

Uremia.—Treatment is very unsatisfactory. Letting out of 10-12 oz. of blood if justified by physical condition of the patient often gives relief for some time. Morphia chloral and chloroform may be had recourse to, to stop the convulsions. All these measures even if successful are only palliative and death soon overtakes the unfortunate patient and closes the scene.

References :—

Oster's Medicine.

Index of Treatment by various authors.

COMPLICATIONS OF TONSILLECTOMY IN CHILDREN *

BY

DR. C. V. C. RAO, (DIPLOMA OF VIENNA)

Eye, Ear, Nose and Throat Surgeon,

2-27, Broadway, Madras.

TONSILLECTOMY, although a minor operation, can give rise to several complications, whose prognosis although as a rule good, might sometimes be fatal. As a matter of fact, all the complications can't be said to be directly due to their development independent of the operation. The unhygienic and unhealthy surroundings of the child's abode, impoverished condition, the fact that till the day of operation the child is mixing freely with other

* Specially contributed to the Antiseptic.

children in the schools, some of whom perhaps have colds, not to speak of the possibility of early cases of infective fevers are some of the factors that must be considered before attributing the complication as directly due to the operation. In fact there are so many factors, which are beyond the control and the scrutiny of the surgeon, however vigilant and careful he is, that might contribute to the various illnesses of the child, in the convalescent period and at the same time may misguide any one to believe that they are the direct results of the operation, although the child would have developed the same even without the operation. For example a child might have suffered with some infectious illness or might have suffered with influenza or Broncho Pneumonia. This sickly child has to recover from the anæsthetic, from the shock of operation and from the mild sepsis of the throat and nasopharynx. Naturally those intercurrent diseases might be aggravated and a slight febrile disturbance might under these circumstances become a serious illness.

Hence one can't lay too much stress on the necessity of waiting at least for 4 to 6 weeks before operating on a child, who suffered with any of the intercurrent illness or infective fevers especially when there is an epidemic raging in the locality. Also if one finds in a child slight temperature, symptoms of an acute catarrhal infection or other signs of disturbed health, on the day of operation it is better to postpone the operation.

Recently the writer had a case of tonsillitis, a girl aged 9 years sent by a medical man. Although the acute condition subsided and a fortnight elapsed, I hesitated to operate, from the sickly appearance of the girl, who also showed slight temperature. Hence I advised to wait for a fortnight. And strangely on the second day, the father of the girl comes to say that the patient developed measles. If I had only operated on the child two days back which was the prodromal stage of the measles, imagine what would have been the anxiety of myself and her parents when the measles developed on the third day. This case is an eye-opener to every doctor and reminds him of the importance of excluding all such factors before deciding to operate.

It is not advisable to limit the time for the manifestation of the complications nor is it possible to say, in view of what is mentioned above, that a given complication is entirely due to the operation. Hence I am treating the subject on a broader basis and propose to treat all illnesses arising in the convalescent period, that is within two weeks of the operation, as complications,

irrespective of whether they are directly due to the operation or not.

Pulmonary complication.—These complications are generally due to the anæsthesia or to the aspiration of blood and of septic matter from Tonsillar crypts at the time of operation. Excluding the Prodromal stage of infective fevers, Lobar pneumonia, Broncho-pneumonia and acute Bronchitis seem to be the common complications. In these cases the child may not cough much, the throat may seem normal and healing takes place normally. The appearance of the child, the temperature and the stethoscope, are sufficient for diagnosis.

Toxæmia and Septicæmia.—When there is an open wound in the mouth a certain amount of surface infection, resulting in mild post-operative septic manifestations, is an invariable accompaniment especially in weak children. Here it is a direct consequence of the open wounds, left after operation. Although it is very mild and superficial in many cases, in certain cases, the sepsis might penetrate deeply and may spread to surrounding structures such as uvula, and pharyngeal mucous membrane. In these cases healing is delayed and more or less severe toxæmia results. In the normal course, a child is confined to bed for four days, and the throat is healed in about 14 days. So if a child is to be kept in bed for a week and if the throat still shows granulating surfaces, after 14 days, sepsis must be suspected. In septic cases, sloughs in throat persist longer than usual, there is slight rise of temperature and the tongue is coated and later there may be excessive scar tissue formation. About one in 20 or 30 cases has delayed convalescence—in some cases there is generalised pharyngitis, swelling of lateral bands of pharynx, fever and palpable cervical glands.

In some cases, fortunately they are very rare, the septic infection may be severe, that a break down of the defensive mechanism of body, occurs resulting in generalised sepsis. An important point in these cases of sepsis is that children rarely complain of throat.

Cervical adenitis is another complication of tonsillectomy. Either already palpable glands, become more palpable or non-palpable glands become prominent due to acute swelling. These conditions are only temporary and subside later.

In some cases septicæmia may be complicated by signs of consolidation in lungs or middle ear suppuration. Here these are to be considered as local manifestations of generalised sepsis.

Role of acute specific fevers.—There is no direct relationship between infectious fevers and operation. The child is either in the prodromal stage of the infection at the time of operation or it becomes infected after its return home. Diphtheria, Measles, Mumps and Scarlet fever are frequently observed during convalescent period.

Otitic complications.—Acute ear-ache in first week of Tonsillectomy is very common. It can develop in some cases into acute middle ear suppuration and mastoiditis necessitating an operation and in rare instances intracranial complications are also observed. Ear ache may be simply due to reflex pain from pharynx and the complications may be due to the spread of infection through the eustachian tube from the nasopharynx, or it may be acute exacerbation of a chronic middle ear suppuration or it can be brought about by lowered resistance, due to the loss of blood, or as already mentioned it may be the local manifestation of generalised sepsis.

Glotic spasm is another complication that one must be careful about as it requires immediate attention. Although this is considered to be an anæsthetic complication and may occur in any operation in nose and throat surgery, there is an additional danger of blood getting into Larynx and starting spasm by a reflex action. The child might get the attack during operation or after operation before it recovers from the anæsthetic; traction on tongue, forcing mouth open and hooking epiglottis forward must be tried and if failed an urgent laryngotomy will only save the child.

Subcutaneous emphysema is another though rare complication. It may be due to sepsis in the nasopharynx and throat, or a reaction to air in the tissues or an acute bronchitis or Bronchopneumonia. The throat appears to be healing normally but the pyrexia will be there, with marked crepitations all over the chest, back and front and lower part of the neck due to air in the subcutaneous tissues. It disappears in a week. The cause is believed to be as follows:—Some kind of Laryngeal irritation or obstruction is the starting point and subsequent violent efforts to get over it, lead to distension of lungs and bursting of one or more alveoli. Air escapes into the interstitial tissues causing interstitial emphysema. The coughing and further expiratory efforts cause more air to be pumped out. The emphysema travels to the hilum of the lung, thence to mediastinum, and then finds an outlet upwards into the subcutaneous tissues at the root of the neck. In severe cases it may reach any part of the body.

VERAMON



*A safe
and powerful
analgesic*

"As a sufferer from migraine myself, I can speak very highly of the excellent results I have had with VERAMON".

..... M. A., M. D.

"In Dysmenorrhoea I regard it as a 'specific'".

..... M. B., B. Ch.

VERAMON is an ideal remedy for all types of pain.

Its composition is so arranged that its components, both of which are powerful analgesics, are mutually detoxicated. Their secondary effects are entirely eliminated and the analgesic action of each is reinforced.

As a result, Veramon is non-toxic, non-hypnotic and non-habit forming.

Clinical experience has proved its worth in painful conditions, ranging from simple headache to severe dysmenorrhoea, from toothache to biliary colic.

Original Packings
Tubes containing
10 and 20 tablets
of 6 grains.



SCHERING-KAHLBAUM (INDIA) LTD.

P. O. Box No. 683, BOMBAY.

MADRAS.

CALCUTTA.
4, Dalhousie Square,
P. O. Box No. 2006.

11, Linga Chetty Street,
P. O. Box No. 1215.

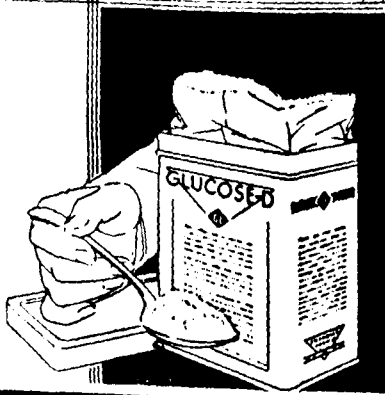
PATIENTS WHO WON'T EAT
WILL TAKE

GLUCOSE-D

Glucose-D completely solves the problem of feeding in every type of anorexia. It makes no claims on appetite or digestion; it is nourishment that the most unstable stomach will retain and the most debilitated patient will assimilate. Having no cloying sweetness it can be taken in large quantities, preferably with orange or lemon juice; being absorbed practically by osmosis it makes no demands on the kidneys and other organs of elimination. Moreover, by swiftly replenishing the glycogen reserve of the liver, it eliminates the complicating acidosis, and at the same time "spares" the patient's own body proteins. Glucose-D—the calcium-vitamin-reinforced glucose—is the ideal nutrient- tonic.



Pure medicinal glucose (98%), vitamin D in the form of crystalline calciferol G.L., and calcium glycerophosphate.
In 1 lb. and 7 lb. tins.



Colloidal Calcium
with Ostelin vitamin D



VITAMIN D FOR INJECTION

A sterile suspension for subcutaneous injection. Ensures intensive action of calcium and vitamin D. Held to be specific in the treatment of urticaria, angio-neurotic edema and other capillary vasomotor disorders. Invaluable in skin diseases such as psoriasis and eczema, in capillary hæmorrhage and in delayed union of fractures. Boxes of six 1 cc. ampoules. Also 30 cc. bottles.

VITAMINS A, D AND ALSO C

A very appetising preparation approximately three times as potent in vitamins A and D as Extract of Malt with Cod-liver Oil B.P.C. Ostomalt is the family vitamin tonic. It is rich in anti-infective, calcium regulating, appetite creating, and nourishing components. ½ lb. & 1 lb. jars.

OSTOMALT



VITAMINS A AND D THERAPY

ADEXOLIN
LIQUID & CAPSULES



Since 1928 Adexolin high concentrates of vitamins A and D have been used for the prevention and treatment of infective processes. There still exist no more potent, economical, or carefully standardised sources of vitamins A and D.

ADEXOLIN LIQUID. In phials and 2-oz bottles.
ADEXOLIN CAPSULES. Boxes of 25 and 100.

When writing to advertisers please mention the "Antiseptic."

ANTI-INFECTIVE ^{OR} EPITHELIUM-PROTECTING?

THE TERM "ANTI-INFECTIVE" applied to vitamin A may seem to suggest that this vitamin acts by altering immunological reactions.

"EPITHELIUM-PROTECTING" WOULD BE A MORE PRECISE TERM. All the evidence, clinical as well as experimental, has supported the view that vitamin A serves primarily to maintain the health and integrity of epithelial tissues—and that it is by so doing that it enhances resistance in infections and brings about their resolution.

MORE THAN THIS NEED NOT BE POSTULATED about the action of vitamin A to explain the outcome of the investigation* in which the mortality of an Adexolin-treated group of 300 children with measles and its complications was well under half that of a strictly equivalent group of 300 controls.

ADEXOLIN WAS EFFECTIVE BECAUSE the brunt of the infection in this illness falls on epithelial structures; and it is complicated by injury, desquamation, and metaplasia of the respiratory mucosa (resulting in broncho-pneumonia)—exactly the kind of lesions that an epithelium protecting vitamin might be expected to benefit.

THE FACT THAT ADEXOLIN IS A BALANCED PREPARATION, containing vitamins A and D in the proportion they occupy in cod-liver oil, is held to have effected the final result.

* Intensive Vitamin Therapy in Measles. British Medical Journal, October 15th, 1932, p. 708.

Although Adexolin Capsules have been available since 1928 there still exist no more potent, economical, or exactly standardised concentrates of vitamins A and D together.

ADEXOLIN CAPSULES

Each 3 minim capsule is equal to 10 grams of high grade cod-liver oil. Boxes of 25 and 100.

ADEXOLIN LIQUID

Each drop of Adexolin Liquid is equal to 20 drops of high grade cod-liver oil. Phials and 2-oz. bottles each with ½-m. dropper.

Products of the
Glaxo Laboratories,
London, England



H. J. FOSTER & CO. LTD.
P.O. Box 202 Bombay
P.O. Box 2257 Calcutta
P.O. Box 108 Madras

ADEXOLIN

When writing to advertisers, please mention the "Antiseptic."

Triumphant Motherhood



"SMILER"

IN the past the choice of an artificial food, when for any reason an infant could not be breast-fed, imposed a heavy responsibility upon the physician. In recent years, the increasing range of Cow & Gate Milk Foods designed to meet any aspect of infant feeding no matter how difficult, has done much to lighten this burden.

This picture of a happy mother and a healthy, intelligent child is typical of the results which the profession are achieving all over the world with this remarkable substitute for natural milk.

Clinical samples and literature of the whole range of Cow & Gate Products will gladly be sent on request.



Mrs. B. Howard of Kensington and her little Baby, fed on Cow & Gate. First prize winners at the London "News Chronicle" Mother & Child Competition, February, 1932.

Cow & Gate Milk Food

"The Best Milk for Baby when Natural Feeding Fails"

A free copy of the Cow & Gate Manual "Motherhood" will be gladly sent to all medical men on application to the Agents for India: CARR & CO., LTD., Ballard Estate, Bombay, and at Madras, Calcutta and Karachi.

COW & GATE LTD., GUILDFORD, SURREY.

"Special Distributors of the 'Cow & Gate' Auxiliary Foods"

H. J. Reynolds Esq., Chemist, Naini Tal.	The Kumbhat's Pharmacy, Jodhpur.
Smith & Campbell, Chemists Lahore.	The Poona Drug Stores, Poona.
J. Bliss Esq., Chemist, Quetta.	Thomson & Taylor Ltd., Bombay.

When writing to advertisers please mention the 'Antiseptic.'

Cases and Comments

ROLL OF MILK INJECTIONS IN OPHTHALMIC PRACTICE

BY

S. S. AINGAONKAR, L.C.P.S.,

Ophthalmic Surgeon, Malvan.

MUCH water has run under the bridge and none disputes the clinical benefits derived by the Protein Shock therapy in various diseases. Though its field is limited the object of the present article is to see how far this comes true in Eye diseases. We need not peep into the theoretical discussions and we will directly go to the clinical aspect of it.

Intractable conjunctivitis, recurrent Iritis, Keratitis, Uveitis and other major inflammations such as Panophthalmitis etc., are cured, in some cases, abated by Milk Injections, if given at the proper time. The technique is supposed to be known by every body and I need not take the valuable time of my reader unnecessarily. I will directly begin with one of the few cases of mine in which only protein shock therapy in the form of sterilised milk injections has come to the rescue of the patient and the physician.

On 28th June 1932 I was called to see a patient who was to all practical purposes blind. Physical examination revealed the following conditions.

Panophthalmitis, both eyes with pus in the anterior chambers, marked headache, watering and photophobia.

Physical Examination. Before treatment of the eyes.

	RIGHT EYE.	LEFT EYE.
1. Vision.		
(a) Perception.	Can see fingers at four inches distance dimly.	No perception at all.
(b) Projection.	Good.	Absent.
2. Tension.	Good.	Eye ball very soft.
3. Shape and Size.	Normal.	Low tension shrunken and irregular.
4. Conjunctiva.	Chemosis marked in both the eyes.	

986 THE ANTISEPTIC		[VOL. 30 NO. 12
	RIGHT EYE.	LEFT EYE.
5. Cornea.	Keratitis both eyes.	
6. Anterior chamber.	Hypopyon both eyes.	Shallow
7. Pupil.	Contracted.	<i>Occlusio-pupillae.</i>
After-Dilatation.	Irregular.	Does not dilate with atropine.
	Post. synachia + +	Adherent lens ?
8. Iris.	Iritis B. E.	
9. Lens.	Marks of iris Pigment.	Not seen due to <i>Occlusio pupillae.</i>
10. Vitreous.	Hazy-floating. Specks Seen.	
11. Retina.	Cannot be observed	
12. Sensations.		
Tenderness.		Absent.
Headache.		

Previous History.—The patient had an attack of conjunctivitis and iritis in the left eye, some three months back, before I saw him, after using some country medicines, it subsided. After some days the right eye had the same complaint. He tried some medicines as before with the result that both the eyes developed panophthalmitis making him blind for all practical purposes. Thinking his case to be a hopeless one the relatives of the patient called me to see him. He was brought out by two persons as he could see nothing. As nothing could have been done at his residence he was admitted in my hospital the next day.

History of syphilis and irregular life and malaria. The result of physical examination of the eyes is given above. Teeth very unclean, pyorrhœa, reflexes increased, anæmia and general debility.

Clinical Picture of the case during treatment :—

After admission, a calomel purge followed by saline was given with Ung Hg. Oxide flava 2% and protorgol for local use eye wash. But the mainstay of my treatment during the earlier part was *Milk Injections*. Sterilised 10 c.c. milk was injected intramuscularly on the very first day. He had no reaction or fever; only the chemosis of the eye ball was less. After two days I used the milk injection 12 c.c. He had fever, this time his headache was much less. But to my surprise and to the satisfaction

of the patient the left eye-ball which was utterly deprived of perception and projection of light could faintly appreciate a glimmer of light, and now the eye-ball which had no sensation of pain etc., began to ache.

Internally he was put on Potassium Iodide and Liq. Hg. perchloride. (Ung Hg. Oxide flava was now stopped and mercurochrome with Ung Resolvent Kusi used instead.) The third milk injection 15 c.c. was given on 4th July. The very next day both the eyes were cleared of chemosis and there was marked absence of pain and headache. He could see better with the right eye and the pus in the anterior chamber had practically disappeared. The vision of the left eye was improving slowly and he could recognise shadows.

Unfortunately for the patient—who thought he was better now and could walk outside without trouble—on 7-7-32, he missed a step while descending down and he felt some thing give way in the left eye. When I saw him in the evening he complained of severe headache on the left side and inability to open his eye due to sudden swelling. After opening the swollen lids the eye ball which was clear in the morning was seen angry looking, red and swollen; there was hæmorrhage in the anterior chamber. So a subconjunctival injection 4% saline one c.c. was injected in the left eye. Colomel purge and saline were given, on the next day, milk injection 12 c.c. was given intramuscularly and on the 9th the swelling and redness were markedly less, there was less of headache too. The right eye was for all practical purposes quite normal, except for the vision which was hazy and dim, after dilatation. Post synachia were broken off but the retina could not be seen properly due to opacities in the vitreous. So a subconjunctival injection 4% saline 1 c.c. was given in that eye. Three more injections were repeated at 4 days interval and the vision which was 6/60 at the end of the first saline injection came to 6/6. One more milk injection was given on the 12th and after that no milk injection was repeated; only subconjunctival injections were continued every 5th day alternately in both the eyes. The patient was given 3 injections of acetylarsan as antisyphilitic treatment with Ung Hg. for innunction at the temples and groins.

When he was discharged he could see 6/6 with the right eye and see fingers at 6" distance, recognise shadows and forms with the left eye. There was no headache but tenderness was present. The form and shape of the left eye-ball has markedly improved, tension though increased than before is yet low. The eye-ball is soft to touch. The whole of the pupil is occluded, the hazy cornea

is quite clear now but there is pigmentation of haemocedrine on its posterior surface, the regeneration of the left optic nerve instead of helping the acuity of the right eye hinders, it, due to dazzling in bright light and this troubles the patient much more.

The main point in publishing this case in detail is the use of protein shock therapy in the form of milk injections with sub-conjunctival saline injections and constitutional treatment of diseases. Had it not been for the milk injections it was well nigh impossible of curing the case to this extent. Another point of interest was the regeneration of optic nerve and retina which was not at all functioning before the effect of 2nd milk injection and the extent to which it has regenerated. Had it not been for the oclusio pupillæ and pigmentation of the posterior surface of the cornea the patient could have seen with that eye much better than at present. I for myself was going to remove that eye ball as it was practically hopeless but this unusual regeneration has given us a ray of hope. I have not read anywhere of such a regeneration and I think this to be a peculiarity of the case. I request my brethren to let me know what can be done to improve the vision of the left eye.

I would have reported some more cases about this very subject but for want of space I stop here.

The patient is following his usual vocation freely.

VAGOTONIA IN MALARIA

BY

J. MUKERJEE, M.B.,

Ranchi.

MALARIA is rightly called a protean disease. This character is most beautifully illustrated when it imitates typhoid. The onset may be typhoid like. The patient becomes drowsy, delirious or comatose. Blood finding may be negative, specially early in the course. Quinine may fail to elicit a perfect response or no response at all and the patient may be dying or dead before the exact nature of the case is understood. To crown all, the pulse rate may be below the proportion of the temperature. Our text books mention only two diseases viz. Typhoid and Dengue in which one meets with this kind of pulse. None has associated such pulse with Malaria as well. Of course, yellow fever has phenomenally slow pulse 30 to 40 per minute during the "Period of

Calm i.e., when the initial fever has subsided. One, therefore, ought to be chary about the diagnosis of Typhoid on this consideration alone as one does sometimes come across slow pulse in malaria. I have seen such cases and feel called upon to draw the attention of my fellow practitioners to this fact for observation and report. This rather peculiar factor ought not to negate the points in favour of Malaria or mislead one to jump to the conclusion of Typhoid whereas really Malaria is being handled.

Here are some fresh examples :—

(1) D., Hindu male, aged 16 years, of good musculature, stature and development, fell ill in July 1933. There were several cases of malaria in the same house. The patient had initial malaise for 2 days, then developed ladder like ascent in temperature. On the 6th day it rose to 104°. Thereafter it continued for a week varying between 102 to 104 or 104.4. One day he had epistaxis. Blood examination and quinine test proved negative for Malaria. His pulse continued beating slow till the end of the 2nd week. It never rose above 90 per minute. For sometime it was treated as typhoid. The spleen became palpably enlarged in the 3rd week. Quinine and heavy doses of alkali cleared up the case on the 17th day. The boy having once suffered from typhoid in childhood, Widal was not done as this test remains positive for one's life time, fever or no fever. Russo test was done several times but it consistently proved negative.

(2) Miss A, Hindu girl, aged 11, fell ill in August. During the first week she had gradually increasing temperature. The fever commenced with chill on the first day. Her temperature reached the acme on the 7th day. It assumed a continued type throughout the 8th, 9th, 10th and 11th day. Then it became remittent. She had several spells of chill during these days. Her pulse remained 96, regardless of the temperature of 103 to 105. She also resisted quinine in the first week. After suspension for nearly a week, she was again given quinine and she responded without a mistake. In this case too, Russo reaction was consecutively negative.

(3) Mrs. A. C., Hindu lady, aged 60 years, felt out of sort on the 7th Sept, 1933. She had head-ache, and malaise for 2 days. On the 9th, her temperature shot up to 106°. Quinine gr. X was injected intramuscularly. Next day the temperature came down to 101. Another gr X of quinine was injected. An alkaline mixture accompanied and followed the quinine injections. On 11th, 12th and 13th Sept., she remained fever free. She had no quinine

these 3 days. She took rice on the 13th and she again kicked up a temperature on the 14th Sept. Its character became remittent, varying from 102.6 to 104.4 up to the 16th Sept. The pulse all these days remained 86. The patient became delirious from the night of the 16th Sept. On the 17th Sept. a consultation was held as the patient remained delirious even at the temperature of 101.6. The slow pulse, delirium, remittency of fever, aroused the suspicion of Typhoid. On inspection it was noticed that the face and the skin of the chest and abdomen were appreciably yellowish tinged. The patient had occasional nausea and vomiting. The other facts now ascertained were (1) slow pulse upto 90, (2) no palpable spleen, dry, brown-rather chocolate coloured tongue, (3) delirium, (4) high coloured, scanty urine, (5) head-ache and body ache, (6) tender liver, (7) constipation. The second onset of fever was not attended with chill as the first onset was. Insomnia for the last 3 days. 3 slides were taken but no M. P. was found in the blood. The urine was positive for Russo and Diazo reaction. Albumin and casts were found but no R. B. C. This shut out the possibility of acute nephritis. There was slight leucocytosis in the blood. The discussion arose round Typhoid and Malaria. In this case too, widal was not done for the reason stated under case (1).

The issues raised were whether (a) it was a mixed case of Typhoid and Malaria (b) it was a case of typhoid from the beginning, (c) it was a case in which typhoid appeared after Malaria had cleared away and lastly (d) it was a pure case of Malaria.

Points for Typhoid :—

- (1) No rigor at the second onset.
- (2) Severe head-ache.
- (3) Slow pulse.
- (4) Fever without remission, though quinine had suppressed it for a time.
- (5) No enlargement of the spleen even at the end of 2nd week.
- (6) Delirious state even at 101.6.
- (7) No. M. P. in the blood.
- (8) Russo and Diazo test of the urine—positive.
- (9) Typhoid like tongue.

The greatest possible stress was laid on the slow pulse and tongue.

Points for Malaria :—

- (1) Jaundiced tongue, skin and face.
 - (2) Response to quinine on the 9th and 10th Sept. *i.e.*, on the 3rd and 4th day of the disease. Apyrexia for the 5th, 6th and 7th day of fever.
 - (3) The malignant tertian fever does not conform to any standard type of temperature. Besides, no quinine was exhibited on the 5th, 6th and 7th day of fever. Inadequate quinine is the reason for the second onset of fever. There is a typhoid like malaria in which the patient becomes delirious, drowsy much more rapidly than in true typhoid.
 - (4) Typhoid like tongue is not uncommon in malignant Malaria.
 - (5) Delirium, vomiting and early jaundice in combination point more to Malaria. This is rather important to remember.
 - (6) Leucocytosis. At the height of the fever and shortly afterwards, there is slight leucocytosis in Malaria. In typhoid leucopenia is the rule. In Malaria, leucopenia is found only just before the attack.
 - (7) Splenic enlargement though very common in malaria, may not be uniformly present in malignant tertian cases. A patient may die without showing it. Megaw reports a large number of cases in Calcutta in whom the palpably enlarged spleen was found in less than 50 p.c.
 - (8) Russo's test may be wrong in 12 to 15 p.c. of cases of typhoid *i.e.*, it will be positive when there would be no typhoid. It is also positive in some bad liver cases, bilirubin in the urine gives positive reaction. This case had bad liver. Ehrlich's Deazo reaction may be positive in Malaria, Typhoid, Tuberculosis, Pneumonia and eruptive fevers. Therefore its negative value is of more value.
 - (9) Slow pulse. Though not described in text books in connection with Malaria, it is observed in not an infrequent number of such cases. Malaria toxæmia stimulates the vagus in some people and produces a slow pulse as compared with the temperature.
- In the present case, the writer prescribed a course of Quinine and Alkali. The fever came down in 24 hours and vagotonia disappeared in 2 days.

The following prescriptions were given :—

- | | | |
|-----------------------------------|-----|-----------|
| (a) Ammon Chlor | ... | gr. x. |
| Quinine Hydrochlor | ... | gr. viii. |
| Ext. Gulancha Liq. (B. C. P. W.) | ... | 3 i. |
| Ext Chatim Liq. (B. C. P. W.) | ... | 3 i. |
| Aqua | ad | 3 i. |
| Mft. Mist. | ... | one dose. |
| Send 4 such. | | |
| One such to be taken twice daily. | | |

(b) Pot. citras ... gr. xx.
 Sodi Bicarb ... gr. xx.
 Magcarb ... gr. xx.
 Pep. Brown ... gr. x.
 Syrup Orange ... 3 i.
 Aqua ad ... 3 i.
 Mft. Mist. ... one dose.

Send 6 such.

One to be taken every 4 hours, commencing 1 hour after No (a).

The point of interest is that Malaria toxæmia may sometimes affect the vagus nerve and produce slow pulse which clears up under the influence of Quinine.

A CASE OF PUERPERAL SEPSIS

BY

P. N. BHATNAGAR, L.S.M.F.,

Jubbulpore.

I WAS called in to see a case of puerperal sepsis on the 15th July 1933. It was the 9th day of delivery.

Physical Signs :—Condition ... Good.
 Temp. ... 104.5.
 Pulse ... 140 P. M.
 Rapid and low tension.
 Discharge very little foul smelling.

Urine :—Normal.

Smear :—Showed streptococcus, epithelial cells and pus cells.

Treatment :—Douche and Ergot mixture was given freely.

2. One injection of 10. c. gm. Sulpharsenol was given.

16th July ;—The temperature came down to 100.4; pulse 110.

Patient feeling better, the same evening temperature came down to 98.4; pulse 100 a.m. Showing signs of exhaustion.

R

Tr. Digitalis .. m xx.
 Brandy ... 3 i.
 Aqua ad ... 3 i.

was given at once. After two days interval she was given Iodine 1% 1 c.c. injection for two days.

To-day there is no fever, no foul smell. She was put on milk diet only. Bowels were moved freely throughout.

The point of interest here is the use of "sulpharsenol" 10 cgm. in cases of puerperal sepsis of course if not contra-indicated. The name of the case is Laxmi Bai.



Before and after Operations

THE use of "OVALTINE" before a major operation is of great service in helping to build up the system against the strain involved by operative interference. In abdominal cases especially, where a light and unirritating diet is necessary, the use of "OVALTINE" alone for a few days before the operation will be found sufficient to maintain the patient's nutrition at a sufficiently high level. A routine hospital diet.

After severe operations, the regular use of "OVALTINE" is of the greatest service on account of its bland nature, its ready digestibility and its highly nourishing and sustaining properties. "OVALTINE" is a complete food, composed of fresh, full-cream milk and malt extract, in the form of crisp granules which dissolve readily in milk to form a delicious beverage acceptable to the convalescent patient.

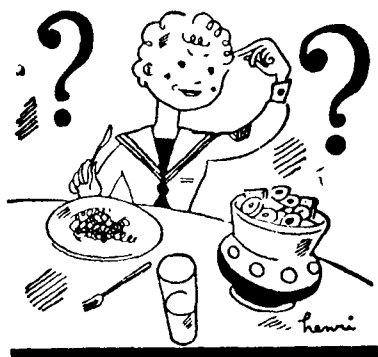
A liberal supply for clinical trial sent free on request.

Agent:—James Wright, 85-A, Ripon Street, Calcutta; 316-318, Lohar St. (Opp. Marine Lines Stn., Bombay; 3-4, San Thome, Madras; P. O. Box 1071, Rangoon.

M 253

When writing to advertisers, please mention the "Antiseptic,"

GASTRIC FABLES...



The Tale of One Small Boy and Two Dishes

A famed psychological laboratory invites us to take one small boy and place before him two dishes, one filled with spinach and the other with cakes such as grandmother used to make. Leave the room and try to guess which of the dishes will be empty when you return. Will the boy reach for a sweet or a vitamin?

Thereby hangs the tale. Sweet desserts increase the secretion of gastric juice. If Johnny had taken his spinach, the cakes would have helped him to digest it. But he kept his taste in mind and forgot his stomach, until he was forcefully reminded of the error of his ways. Until ripened experience can point the way to him CAL-BIS-MA will have to stand by and relieve him of his stomach-ache caused by an excess of acid. A teaspoonful in half a glass of water, and he'll be ready for another try. You simply can't keep a brave boy down.



Cal-Bis-Ma is a combination of calcium and magnesium carbonates, sodium bicarbonate, bismuth and colloidal kaolin, blended into a palatable powder. It neutralizes excess gastric acidity quickly, efficiently and with lasting effect... We will gladly explain the therapeutic merits of Cal-Bis-Ma and send a professional trial package for the asking... Send for it.

In gastric hyperacidity . . CAL-BIS-MA

Prepared by WILLIAM R. WARNER & CO., INC., Manufacturing Pharmacists Since 1856.
113-123, WEST 18th STREET, NEW YORK, U.S.A.

Agents in India:— MARTIN & HARRIS, Ltd., Rowlette Bldg., Prinsep St., Calcutta; Graham's Bldg., Parsi Bazar St., Fort, Bombay; 15, Sunkurama Chetty St., Madras; 2, Campbell St., Karachi; and 189, 32nd St., Rangoon.

When writing to advertisers, please mention the "Antiseptic."

Dmelcos Vaccine

REGISTERED TRADE MARK.

The Specific Treatment of Soft Sore and its complications.

The introduction of "DMELCOS VACCINE" marks a distinct advance in the treatment of soft sore and its complications, which clear up rapidly under its influence.

"DMELCOS" is a stabilised toxic vaccine of Ducrey's bacillus, the special method of preparation of which ensures low toxicity and uniform potency.

Supplied in boxes of 6 ampoules for progressive dosage.
Also in rubber-capped phials of 15 c. c.

Further information obtainable from

MAY & BAKER (INDIA) LTD.,

Head Office:
3, MANGO LANE.

Branches:
316/318, LOHAR STREET.
187, TSEKKAI MAUNG TAULAY ST.
1A, CAMPBELL STREET.

CALCUTTA:

BOMBAY:
RANGOON:
KARACHI

When writing to advertisers, please mention the "Antiseptic."

BOOTS PRODUCTS

SULPHOSTAB

For subcutaneous and intramuscular injection in cases of Syphilis and other Spirochaetal diseases. A stable product, of low toxicity and high therapeutic value. Although when used with distilled water it is practically painless, a special Sulphostab Solvent is available for use when the patient is specially susceptible to pain.

BISMOSTAB

A suspension of very finely divided metallic Bismuth in a 5% Glucose solution. It is specially recommended for use along with Arsenobenzol preparations such as Sulphostab in the treatment of Syphilis and Yaws.

ACRIFLAVINE

The routine product for irrigation in cases of Gonorrhoea, and for use in all septic conditions. Neutral Acriflavine is also available, in powder, solution tablets, and enteric coated tablets.

Prices and literature available from:

BOOTS PURE DRUG Co., Ltd.,

(Calcutta Depot.)

Mercantile Buildings, Lalbazar, CALCUTTA.

When writing to advertisers, please mention the 'Antiseptic.'

The Antiseptic

[Estd. 1904]

A MONTHLY JOURNAL OF MEDICINE & SURGERY.

Editors: DR. U. RAMA RAU & U. KRISHNA RAU, M.B., B.S.

Editorial and Publishing Offices:—323, Thambu Chetty St., Madras.

ANNUAL SUBSCRIPTION RS. 5, FOREIGN, 10 SH. POST PAID.

Editorial

ARTHRITIS

THE Council of the British Medical Association appointed in 1931, a special committee for the promotion of research into the causes of arthritis and allied conditions and investigation of methods of treatment, with Sir Humphrey Rolleston as chairman and Dr. R. G. Gordon as vice-chairman and honorary secretary. The report of this committee was published in the British Medical Journal of June 17th, 1933 and is a very important document. At the outset, the committee was faced by the very serious difficulty that scarcely any authorities agreed as to the classification or even the nomenclature of the diseases to be considered. The committee therefore decided to exclude from its consideration those forms of arthritis whose causation was reasonably clear—that is, the specific forms of arthritis, such as those due to gonococcus, pneumococcus and dysentery bacillus, that due to frank metabolic abnormality (gout), and that due to neurotrophic changes (Charcot's joints). Of necessity this confined the committee's reference to those conditions whose ætiology was obscure, and in consequence a scientific, ætiological classification was impossible. Recourse was therefore had to a clinical nomenclature comprising rheumatoid arthritis, osteo-arthritis, chronic villous arthritis, spondylitis and fibrositis. This clinical distinction between the various forms of arthritis, with stress on the varying causative factors so far as they are known, is a very important feature of the report. The report next

proceeds to discuss in detail the aetiology, signs, and symptoms of some of the main forms mentioned above. The conclusions arrived at with regard to prognosis are very useful. In the case of primary rheumatoid arthritis the prognosis is always slow, and intermissions and recrudescences are frequent. In secondary rheumatoid arthritis however, the prognosis is not so bad. Many patients, especially if treated in the early stages, recover completely after removal of septic foci. There are however some cases in which this process does not relieve the condition. Possible explanations of such failure are (a) the removed focus was not the cause of the disease; (b) other foci remain, though undiscovered, (c) sensitization of the joints may have been produced by repeated doses of bacterial antigen, perhaps from saprophytic organisms, not necessarily pathogenic. In the case of chronic villous arthritis with adequate local and general treatment the prognosis is favourable. In osteo-arthritis however the prognosis is governed by three factors—(a) the cause of the condition (b) the joint affected and (c) the state of the cartilages.

The aetiology of these various conditions are discussed under the headings—sex, age, climate, occupation, endocrine imbalance, allergic sensitivity and infection. Summarising the important aetiological factors, the report says (1) In Primary rheumatoid arthritis, unknown; in secondary, infection. (2) In chronic villous arthritis evidence of infection inconclusive; thyroid deficiency with strain on the affected joint due to excessive bodily weight is important. (3) In osteo-arthritis infection makes some contribution in secondary cases, but in the primary form strain and arterial degeneration (local and general) are often provocative agencies. (4) In spondylitis, infection is the primary cause. (5) In filaritis many cases are due to infection, but metabolic disorder and defective elimination are equally important. The teeth, tonsils, nasal sinuses, pharynx, intestines and the urogenital tract must be carefully and thoroughly examined.

About morbid anatomy little is said in the report since it is a difficult and technical subject and of no great importance to the practitioner but reference is made to the articles of Mr. Lawford Knaggs in which the whole matter is dealt with in great detail.

Differential diagnosis has been dealt with fairly fully, and, as far as possible in tabular form. The first table deals with the differentiation from one another of the several forms of arthritis. Then the difference from other forms of arthritis such as acute and subacute rheumatism, gout, gonococcal arthritis, tubercular arthritis,

Charcot's joints and syphilitic arthritis is given. Painful conditions such as headache, thoracic pain, abdominal pain which are caused by both fibrositis and other conditions are next dealt with.

The section on treatment is probably the best and most useful for the practitioner. In discussing prophylaxis the committee are of opinion that in addition to the "seed" or exciting agents, such as bacteria, their toxins and possible allergic reactions, attention must be directed to the "soil" and the resistance of the body. Hence conditions which impair the general health such as insanitation, over-fatigue, malnutrition, and chronic diseases prone to induce metabolic disorders must be taken into consideration and prevented. These however are sociological problems and require communal and co-operative action.

With regard to drugs, the committee is of opinion that while they have no specific value, they are useful for relieving pain and improving the patients' resistance and general well-being. Among the drugs that are used may be mentioned aspirin, sodium salicylate, phenacetin, amidopyrin, the quinolene derivatives (atophan, agoton, cinchophan, phenoquin, atoquinol), intestinal antiseptics (guaiacol carbonate, salol, cyllin, dimol, beta-naphthol and Hydrochloric acid), Iodine compounds, gold preparations and tonics such as cod-liver oil and vitamin containing preparations. For the relief of pain, local applications of methyl salicylate and the application of a combination of chloral, menthol and camphor and A. B. C. linament and kaolin poultice are useful. In lumbago 20 c.c. of 10 per cent glucose or 5 c.c. of one per cent quinine urea hydrochloride or 10 c.c. of a 1 per cent novocaine solution are used as valuable local injections. In sciatica the injection of sterile normal saline into the nerve sheath, combined if desired with 10 per cent novocaine has been used with advantage.

As the precise aetiology of none of the forms of arthritis has yet been determined with certainty, vaccine therapy does not rest on so secure a foundation as it does in conditions where the causative agent is beyond dispute. Taken as a whole, however, the evidence now available with regard to the bacteriology of arthritis indicates that organisms of the streptococcal group are in some way concerned in its aetiology and further evidence in favour of this view is furnished by the beneficial results of vaccine therapy in certain cases. Vaccines should not be given until a case has received the fullest clinical investigation. A vaccine, whether "stock" or "autogenous" should be given in doses which are followed by a response but not by a reaction. By "response" is meant a definite

and speedy improvement in clinical condition both local and general following an injection and lasting for two to six days, there being a slight constitutional disturbance. By "reaction" is meant an increase in pathological manifestation as shown by depression, malaise, nausea, headache, rise of temperature and increase of symptoms. It is difficult to lay down a precise direction for a small safe initial dose. In terms of streptococci 20,000 to 50,000 may be suggested where a septic focus is suspected, and half a million where no septic focus exists. It is rare for a dose of more than ten millions to be required. The practitioner treating arthritis with a vaccine should start with small tentative doses administered in increasing strengths every five or six days. Speaking generally the question of dosage is much more important than the question of the exact form or make of vaccine. Though it cannot be claimed that vaccines will effect improvements in the bony changes in a damaged joint, yet in some cases vaccine treatment will relieve pain and check the progress of the disease. Anti-streptococcal serum is not indicated in chronic arthritis. Protein shock therapy such as injection of peptone solutions, typhoid vaccine, milk or colloidal sulphur has been disappointing.

In considering the endocrine factor in the treatment of arthritis attention may be confined to the thyroid and the ovaries. Any influence that the other glands may have is problematical. After a careful consideration of the available data, the committee came to the conclusion that endocrine disturbances are not sufficient by themselves to produce joint diseases, but in some cases create a soil for other factors to produce effects harmful to the joints. Endocrine therapy may improve but will rarely cure a joint.

Diet in arthritis is a subject upon which there is great diversity of opinion and errors are very prevalent. The importance which is now attached to vitamins in diet has practical application in arthritic and fibrositic disorders, and the best rule is to see that the diet has its due proportion of each of the essential vitamins. The diet in rheumatoid arthritis should include among others, milk, butter, eggs, fish and meat of digestible kinds, including liver and some fat, wholemeal bread, yeast extracts, fresh fruit and vegetables, raw and cooked, including peas, beans, lentils, and young carrots and turnips. In fibrositis and chronic villous arthritis excess of carbohydrate must be avoided, and in osteo-arthritis, purines and excess of meat are contra-indicated.

With regard to physical therapy its objects are: (1) to relieve

pain; (2) to regulate sweat secretion and superficial capillary circulation; (3) to promote the absorption of fibrous thickenings from muscles, fascia and joint capsules, also of old inflammatory exudates, and thus to restore mobility in stiff joints and muscles; and (4) to regulate bodily metabolism and to raise, when present, a persistently low temperature and thus to stimulate the defence mechanism of the body. These objects can be attained by (1) the application of heat or of alternations of heat and cold, (2) massage, (3) passive and active movements including mechano therapy and remedial exercises. Local applications of heat may be made by mud, peat, or wax, by the hyperthermal douche, by hot air or vapour, or by diathermy. Massage is especially useful in dispersing nodules and adhesions in fibrositis. It should however not be applied to inflamed joints. Movements should be avoided in acutely inflamed joints, except when it is placed and splinted in the optimum position. Active movements should always precede passive movements. Electrical methods used in the treatment are heat, light, electric currents and irrigation. Heat may be applied by means of radiant heat lamps or infra-red lamps. Diathermy is also used for heating the deeper structures. Ultra-violet rays act by increasing the general resistance to infection and by producing a general tonic effect. Ionization by means of the galvanic current relieves pain especially in fibrositis and bursitis. With regard to X-Rays no definite opinion can at present be given. Observers however have reported benefits with "deep rays" in chronic arthritis especially in spondylitis. The report contains an interesting section on the role of mineral waters and baths in the treatment of arthritis, but to us in India this is not of much importance. It also contains sections on orthopaedic and surgical measures and on indications for future research. They are well written and we would ask our readers to refer to the original.

After perusing the report we are convinced that it is a very "useful contribution to the study of this important and difficult group of diseases." We only hope "that it may stimulate further enquiry and research whereby the many lacunæ in our knowledge may be filled and the present relative chaos give place to order."

Gleanings from Medical Press

SURGERY.

Treatment of minor Infections. — Harry C. Saltzstein, M. D.
(*American Journal of Surgery*, Sep. 1933, pp. 358) considers these affections under

- (i) Finger infections:—
 - (a) Distal phalanx infection.
 - (b) Osteomyelitis of the distal phalanx.
 - (c) Infection in proximal phalangeal region.
- (ii) Infections of the Dorsum of the hand.
- (iii) Lymphangitis.
- (iv) Axillary adenitis.
- (v) Furuncles and carbuncles.
- (vi) Infections in children.
- (vii) Paronychia.
- (viii) Ingrowing toe nail.
- (ix) The wet dressing.

He emphasises the need of timely mature judgment in the treatment of these apparently trivial affections.

Distal phalanx infection.—Due to its peculiar anatomical relations, these infections are extremely painful, pus forms early, and infection spreads easily. Infection may start from simple injuries as a pinprick and can develop from an abscess to osteomyelitis. Small localized collection of pus must be evacuated by an incision before it spreads to the periosteum. Careful watch is necessary and localized, indurated, tender and painful area warrants an immediate incision. If pain increases, if there is night pain, or tender area spreads, a wide horse shoe incision in the transverse plane $\frac{1}{4}$ " beneath the nail should be made and carried round down to the bone; or an ample incision along one side, is all that is required.

Osteomyelitis of the Distal phalanx.—Thick purulent discharge coming from a sinus like opening is diagnostic. Where the drainage is free, dry or moist dressing and splinting are all that are necessary. Where there is retention and pain, further incision beneath the nail is required. If pus points to one definite place, incision at the site will do.

Infections in Proximal Phalangeal Regions.—Tendon Sheath

involvement must be looked for. Infections in or about the flexion crease of the finger tip usually extend into the hand and the hand may be rendered useless within 36 hours. Where the tendon sheath is not affected, incision may be postponed for a day or two. After localization, a small incision, on the lateral border suffices. A drain need not be kept, nor a counter drainage contemplated. Moist dressings for two or three days and careful watch of symptoms usually end the scene.

Infections of Dorsum of hand.—Start usually from the hair follicle infection, spontaneous localization is the rule, and the touching of the core with a drop of pure Acid Carbolic is enough.

Lymphangitis.—Moist dressings to the original infected area often prevent these affections. Treatment of local lesion is much more important than ice bags, heat, poultices of the axillary or inguinal gland.

Axillary adenitis.—Local application of heat, till fluctuation manifests, and incision is a sound policy. Since infection spreads from part of axilla to the other through the hair follicles, rest and skin cleanliness are essential. Treatment:—Cleanse, and shave the part. Open all the pustules and apply wet dressings. Rest in bed with the arm at right angles and local heat, must be enforced. The skin is cleaned with alcohol, and any new crops opened, and thus the superficial infection is controlled. Under this treatment, the underlying inflamed glands usually subside within a few days following. When the skin is fairly clear of the infection a dry powder is used such as bismuth formic iodide.

Furuncles.—Cleanse the part, enforce rest and apply small dry dressing. Within two to four days the white cap develops and this is lifted. Wet dressings are not used as it induces easy spread of staphylococcal infection.

Rest, heat, dryness and cleanliness of the skin must be enforced. Carbohydrate intake is restricted and staphylococcus toxoid may be given every 5—7 days. (.05 c.c.—0.2 c.c.)

Carbuncles.—Drainage, crucial incision, excision, partial or complete, rest in bed, injection of patient's blood into the indurated area are all helpful.

Infections in children.—Abscesses are common in children; a quick incision under Ethyl chloride spray is useful. Neck abscesses are common in children. When it is behind Sterno-mastoid, deep drainage behind the muscle is necessary. Often infection spreads with the cervical fascia, in such cases, widen the incision under local anaesthesia as there seems to be a predilection for oedema of

glottis in children when done under a general anaesthesia in the presence of neck suppuration.

Paronychia.—As long as the infection lies superficially along—side the nail, it is useful to watch for a few days since there is a chance of localization of pus, when removal of the swollen skin above is enough to end the trouble. If the pus collects under the base of the nail, the nail overlying this area may be cut with a sharp scissors; the process is painless as this portion of the nail is loose.

Ingrowing toe nail.—When seen early, a triangular excision of the later edge of the nail may prove useful. The dressings consist in inserting a small plugget of cotton wool under the cut margin of the nail, until it has grown out. In long standing cases, and where the above method has failed excision of the latter portion of the nail on the affected side may be done under either, local or regional anaesthesia.

Wet dressings.—Considering the physiology of wound healing, and the biological changes that take place during the process it is recommended to use hypertonic salts, preferably the less irritating mag. sulph in 5.10%. Hypertonic Solutions exert osmotic tension and more actively aid the withdrawal of lymph from environs of the wound. Leucocytes coming in contact with such solutions are immediately broken up liberating trypsin. The salt solution soon becomes diminished in strength so that all inhibitory action on tryptic digestion is lost, and the liberated trypsin can act without hindrance on the sloughs. As soon as the strength of the salt solution approaches normal, fresh leucocytes migrate and the process continues until the wound heals.—V. C. S.

A new technic in Gastro-Jejunostomy.—Nor Back, M. B., F. R. C. S., (ENG.) *Lancet*, Oct. 7, 1933, pp. 802. Since the late results of gastro jejunostomy are so uncertain in many cases, the cause is attributed to (i) those in which the operation has been injudiciously done in unsuitable cases; or (ii) those in which the short circuit is mechanically unsound.

Mechanically unsound anastomosis is largely due to the way in which the operation of Posterior Gastro-Jejunostomy is commonly done. In the orthodox method, the selected portion of jejunum is clamped, opening is now made in the transverse mesocolon through which the posterior wall of the stomach is pulled through. In this procedure only a small portion of the

stomach to be anastomised is brought into operator's view, and it is impossible very often to see exactly the relation of the blood vessels in the delivered portion or to determine whether the proposed opening is in the long axis of the organ or whether it is oblique in one direction or another. These difficulties are increased in the fatty patients or where the ulcer has produced adhesions in the lesser peritoneal sac. The writer gives the following technique which obviates much of these difficulties and has given better results, immediate and late.

He opens the abdomen by a high right para median incision. The appendix is removed as a routine measure. Then an incision is made in the gastro colic omentum parallel with the greater curvature of the stomach. Through this incision the lesser sac is easily seen and the posterior stomach wall examined. The most mobile area and one farthest from the blood vessels is selected and clamped. A second opening is then made in the lesser sac through the transverse meso-colon: a coil from the upper part of the jejunum is drawn up through the opening in the transverse meso-colon, and the most proximal part that can be apposed to the stomach without strain or tension is selected and clamped. The transverse colon is returned to the abdominal cavity and the anastomosis is made in the usual way, except that it is done in the lesser sac. Finally, the edges of the opening in the transverse mesocolon are fixed to the jejunum by a few interrupted sutures and the opening in the gastro colic omentum is sewn up.

The advantages claimed by this method are:—

(i) Greater facility for examination of posterior wall of the stomach.

(ii) All traction on the stomach is avoided since the mobile organ (the jejunum) is brought up to the comparatively immobile organ (the stomach) instead of *vice versa*.

(iii) The absence of pulling on the viscera diminishes shock.

(iv) In contracted and adherent stomach the operation is rendered comparatively easy.

(v) The transeverse colon is pushed into the abdominal cavity during the anastomosis which is usually kept out in warm towels outside in the orthodox method. This diminishes the shock.—V.C.S.

Intestinal Knots.—Knot formation is one of the rare causes of intestinal obstruction. K. E. Kallio who has recently made a detailed study of the condition, has been able to collect and publish only 84 cases from the literature, to which he has added 77 hitherto unpublished cases from the hospitals of Finland. He draws attention to the curious fact that cases reported from Finland greatly out-number those from all other countries; in addition to his own cases, 45 of those previously published are of origin, *i. e.*, over 75% of the total number of cases. (161.)

Knotting may take place either between two freely moveable loops of bowel, if these become specially twisted around one another in opposite directions, or by the twisting of a single loop upon itself in the form of a Sailors' Knot. The latter kind is extremely rare: Kallio, has been able to find only one reported case. The former type falls into two classes. Knotting of (1) small with large intestine, (2) two loops of small intestines. The type of knotting in which the large intestine takes part is much the more common. Of the two situations, sigmoid and caecum, where knotting occurs, the caecum is very rarely involved (2 cases). The sigmoid group, on the other hand, includes the majority of all cases of intestinal knotting (83.3% of the present series); knotting of the transverse colon with the sigmoid is theoretically possible where both are long and mobile, but no case was found on record.

The exact mechanism of the accident is obscure. These factors appear to facilitate its occurrence: advancing age and loss of fat; an unusually long intestine and mesenteries; abnormally short parietal attachment of the sigmoid mesocolon and fixation of the terminal ileum.

Kallio believes that the relatively high incidence in Finland, among the poorest of the working classes, is accounted for by their habitual diet, which is chiefly vegetable, large in bulk but small in nutritive value, combined with a length of bowel which he states, on the authority of Wallenius, to be above the average for other nations. The meteorism which such a diet is apt to produce would tend to occur particularly after the largest meal of the day—among working men, the evening meal—which may explain the fact that the onset is almost invariably during the night. The fact that 90% of the patients are men is ascribed to the more generous dietary and greater average length of intestine in the male. The author suggests that the mode of development in the commonest (ileo-sigmoid) type may be that the sigmoid, filling with gas and aided by the recumbent position rises

out of the pelvis into the abdomen, where it lies in contact with coils of small bowel. A sudden movement of the body brings a loop ileum across the sigmoid, and a further movement or strong peristalsis, causes it to twist round the latter. The process once started is progressive, peristalsis and distension combining to draw the knot tighter and tighter.

The symptoms are those of an acute intestinal obstruction rapidly progressing to gangrene and peritonitis. The patient's general condition quickly deteriorates and he is often desperate by the time that he comes under treatment.

The total mortality of all the cases was 67.2%. This is more than double the figure, estimated by Rowlands and Farner as 32%, is the average mortality-rate for all forms of acute obstruction (strangulated hernia excepted) in seven large British Hospitals. Kallio lays stress on the necessity for careful preoperative preparation. He advocates general rather than local or spinal anaesthesia. Reduction is first attempted and is facilitated by puncture of one or both of the distended loops. If it proves impossible, the whole mass must be resected, once the knot is undone the question of viability must be decided, and "it is better to err on the side of pessimism." The exact treatment to be adopted when gangrene is present must of course be determined in accordance with the general principles of intestinal surgery.—(*The Lancet*, Oct. 7, 1933, pp. 816-817)

MEDICINE AND THERAPEUTICS

The Modern Treatment of some Gastric Disorders.—Arthur F. Hurst, M.A., M.D., F.R.C.P., writing in the *Practitioner*, October 1933, pp. 353, about gastric, duodenal and anastomotic ulcers emphasises the necessity of prolonged treatment. He condemns the systems of treatment which give a different diet for each successive week. He thinks that a strict diet should be given without alteration until all spontaneous discomfort, tenderness and rigidity have disappeared, no occult blood is recognizable, and the X-rays show complete disappearance of the crater. In no case should the treatment be for less than four weeks. When the ulcer has healed the patient must take to the intermediate diet for two or three weeks and then begin the post-ulcer regime which he should keep to the rest of his life. His strict ulcer diet consists of hourly, (1) 5 ounce feeds of milk alternating with arrowroot, Bengers, junket or custard.

(2) 1 oz. of cream is added to the 11 A. M., 1 P. M. and 5 P. M. feeds and

(3) $\frac{1}{2}$ oz. of olive oil is taken before the 9 A. M., 2 P. M., and 7 P. M. feeds.

(4) 10 grs. of Sodi. Citras is added to each milk feed.

(5) Atropine sulphate $\frac{1}{200}$ grs. in one drachm of water is given before the 8 A. M. and 3 P. M. feeds and $\frac{1}{100}$ gr. is given before the 10 P. M. feeds.

(6) During the night the patient should have citrated milk by his bedside, so that whenever he wants he can take a feed.

(7) No smoking is allowed during the strict treatment.

During the post-ulcer regime Dr. Hurst,

(1) avoids alcohol, effervescing drinks; vinegar; sour fruits spinach, fried fish; pepper, mustard, curry, chutney, tough meat, pork, thick soup, new bread.

(2) He also avoids all pips and skins of fruits (whether raw cooked, or in jam, and currants, raisins and lemon-peel in puddings and cake) nuts and unripe fruits.

(3) He advises the taking of plenty of butter and cream and a tablespoonful of olive oil before each meal.

He gives the following general instructions.

(1) Eat slowly and chew thoroughly.

(2) Rest for at least $\frac{1}{2}$ hour before and after meals.

(3) Don't smoke excessively.

(4) Bowels should be kept regular by means of magnesia and liquid paraffin.

(5) Have the teeth attended to regularly every six months by your dentist.

(6) Take no drugs in tablet form.

(7) If there is slightest return of symptoms, go to bed on a strict diet and consult the doctor.—U. K. R.

Food and Goitre.—Sir Robert McCarrison in a paper contributed to the section of Physiology and Bio-chemistry at the annual meeting of the B. M. A. Dublin 1933 describes clearly the influence of food on the thyroid gland. Incidentally the part played by the gland on the metabolism of nitrogen, hepatic glycogen, katabolism of fats, and its relation to mineral metabolism such as calcium and phosphorus, iodine, and water is reaffirmed.

The thyroid gland is sensitive to varying conditions of diet thus, its activity is increased under the influence of some food

TRADE MARK



REGISTERED.

Dr. JAMMI VENKATARAMANAYYA'S

LIVER & SPLEEN SPECIFICS.

An unfailing and most efficacious specific on the field. Highly praised to be the best of all and recommended by Eminent doctors in cases of

INFANTILE BILIARY CIRRHOSIS.

Special treatment if jaundice, collection of peritoneal fluid, oedema, and other complications are present.

Acts both as a curative & preventive agent.

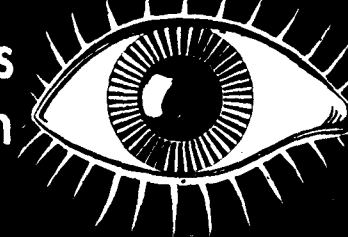
Literature & particulars from

8, SALAI STREET, MYLAPORE, MADRAS.

Stockists:—Messrs SRI KRISHNAN BROS., 323, Thambu Chetty St., Madras.

EYE-AFFECTIONS

such as Conjunctivitis
Trachoma, Suppuration



of the tearsac

Effective treatment with:

Eye
Ointment **ARGOLAVAL** Solution

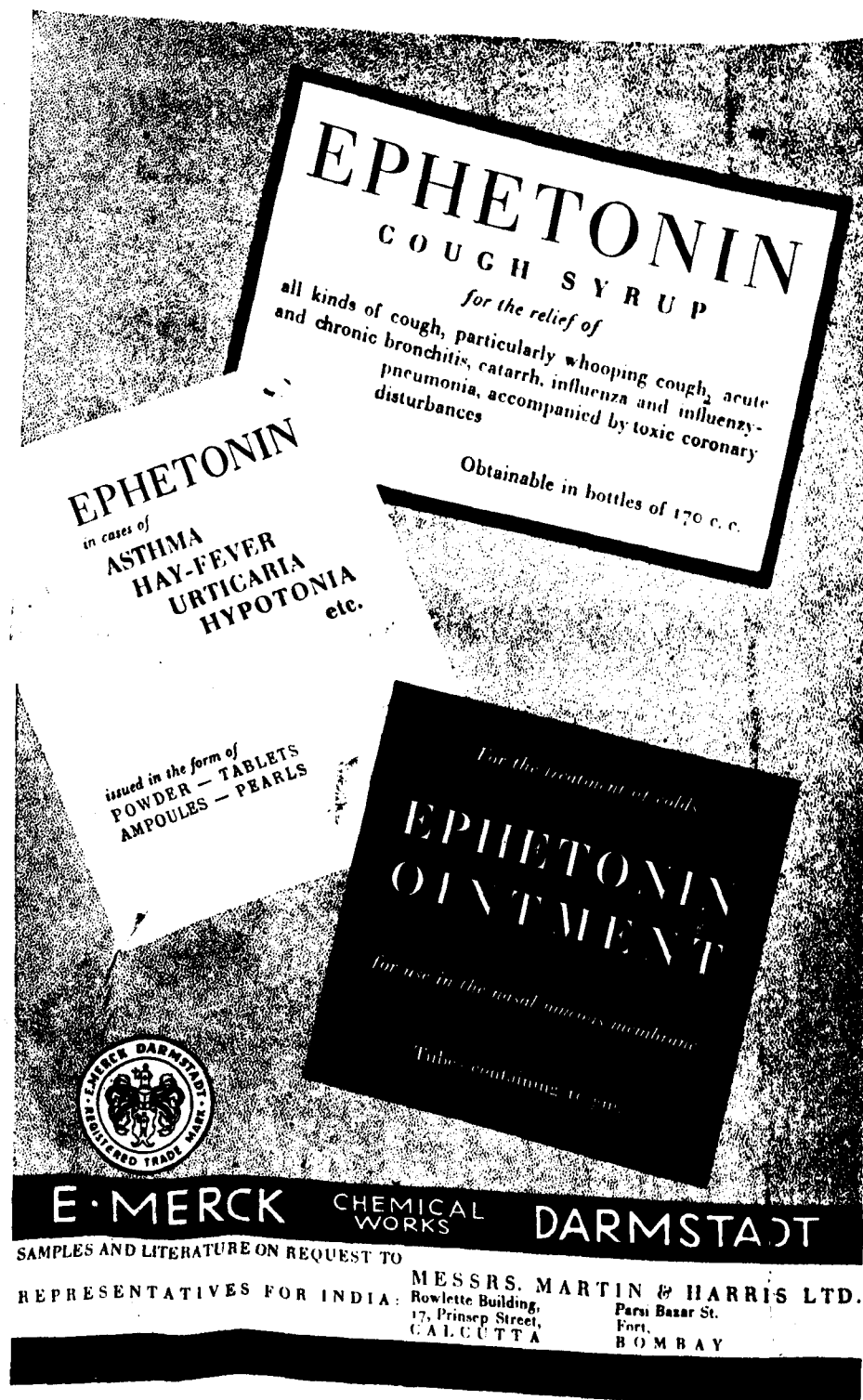
silver hexamethylene-tetramine nitrate 2% of the formula: $\text{Ag}_6\text{C}_6\text{H}_{12}\text{N}_4\text{O}_3$

PAINLESS-NON-IRRITANT



Sole - Agents:

The Anglo-Siam Corporation Limited
Bombay P.O.B.70 Karachi P.O.B.8
REMEDIUM LTD., BERLIN



EPHETONIN
COUGH SYRUP
for the relief of
all kinds of cough, particularly whooping cough, acute and chronic bronchitis, catarrh, influenza and influenza-pneumonia, accompanied by toxic coronary disturbances
Obtainable in bottles of 170 c. c.

EPHETONIN
in cases of
ASTHMA
HAY-FEVER
URTICARIA
HYPOTONIA
etc.
issued in the form of
POWDER — TABLETS
AMPOULES — PEARLS

EPHETONIN
OINTMENT
For the treatment of colds
for use in the nasal mucous membrane
Tubes containing 10 gm.

E. MERCK CHEMICAL WORKS **DARMSTADT**
SAMPLES AND LITERATURE ON REQUEST TO
REPRESENTATIVES FOR INDIA: MESSRS. MARTIN & HARRIS LTD.
Rowlette Building, 17, Prinsep Street, CALCUTTA
Paras Bazar St. Fort, BOMBAY

When writing to advertisers, please mention the "Antiseptic."

DEPENDABLE ERGOT

StaffAllens

Physiologically Standardised
EXT. ERGOTÆ LIQ.

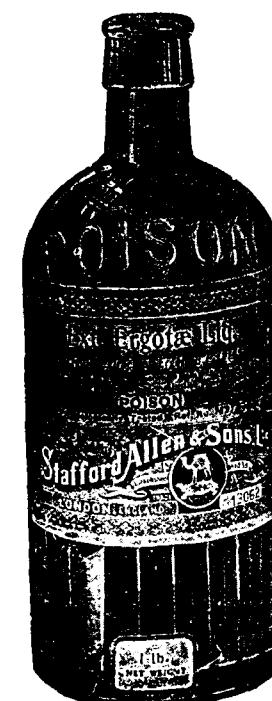
The physiological action of ergot is very variable, some samples being quite inert. In the absence of any reliable chemical method of assay, resort must be made to a physiological test.

Every batch of StaffAllens Ext. Ergotæ Liq. is physiologically tested and a certificate of its activity obtained before it is passed for sale.

Physicians can therefore place complete reliance in this preparation when sold under StaffAllens' label.

Specify "StaffAllens"

STAFFORD ALLEN & SONS, LTD.
Cowper Street, London, E.C. 2
Indian Representative:
H. B. TILDEN, Poste Restante, Bombay





VINVITAE

A nervine and nutritive Tonic and cordial possessing digestive and recuperative powers of high degree. It contains in a readily assimilable form the Glycerophosphates of Iron and Calcium, together with other mineral salts essential to the metabolism of the human body. The tonic is also reinforced with Lecithin, Guaiacol, Malt, the active principles of Cod Liver Oil, and a very small amount of Strychnine Hydrochloride. This combination has proved over a period of many years the ideal tonic for those who are suffering from the after effects of fever, are recovering from illness, or who desire to improve their general condition. Vinvitae is a valuable nerve food, supplying nutrition to the cellular tissues of the body when exhausted by wasting diseases. It may be confidently recommended to persons with weak digestions as it does not derange the digestive organs, nor is it constipating in action. It is a powerful restorative in cases of sexual weakness. Its combination of stimulating and anti-neurasthenic drugs is found to be highly efficacious when a reliable alternative is required.

Prepared only by

DAKIN BROTHERS LTD.,

Middlesex Street & Cobb Street, London.

Agents.

V. G. Sawmy & Co., 36, Rasappa Chetty Street, Madras.

Nares Chunder Dutt, 34, Clive Street, Calcutta.

The Universal Export & Import Co., 11, Bank Street, Fort, Bombay.

When writing to advertisers, please mention the "Antiseptic"

stuffs while it is lulled to placidity by others. A particular food may tax the gland so much, that it cannot bear without hypertrophy, or due to improper composition of the food, the gland may be deleteriously affected and certain retrograde changes might take place, which render the gland incapable of handling toxic agents, and goitre may be produced by faulty nutrition of the gland. The author gives the results of his experiment on ten rats rendered goitre free by suitable diets, and fed in different ways. He finds.

(i) That the size of the thyroid gland is profoundly influenced by the composition and quality of the diet:

(ii) that true goitre can arise despite the adequate ingestion of iodine as potassium iodide.

(iii) that vitamin insufficiency has an important relation to goitre.

Excess of animal protein in the form of fat free meat residue does not cause thyroid enlargement while the deficiency of suitable protein is likely to cause goitre specially when it is associated with vitamin deficiency. Fat in excess predisposes to goitre production, but this is preventable by the suitable administration of iodine. Butter acts differently under different conditions of the gland, depending on the quality and quantity of the diet to which it is added. When added in excess to complete diets it has a goitrogenous action. The existence of a fat iodine balance and its influence on the growth of body has been established. The calcium iodine balance in diets when disturbed in either direction affects the gland unfavourably.

Green vegetables contain certain unknown substances that are goitro-genetic when consumed in excess *i.e.*, cabbage. Such effects depend upon the amount of goitrogenetic content in a particular vegetable, depending upon the climatic conditions under which they are grown and the individual susceptibility of the animal. It has been suggested that these goitrogenetic substances contain a cyanide. The writer concludes from his observations that goitro-genetic potency of these vegetables may be in inverse ratio to the amount of sulpho cyanides. He has also experimentally found out that Vitamin A deficiency favours formation of goitre, when subject to subcutaneous administration of methyl cyanide.

It has been observed that anoxæmia or restricted intake of air in experimental animals has caused goitrous changes in the thyroid suggesting oxygen deficiency as one of the causes. Vitamin A, B, C deficient diets produce thyroid enlargements. Epithelia of the thyroid undergo degenerative changes and functional impair-

ment due to deficiency of Vitamin A. (Epithelial keratinization). A combination of vitamin deficiencies is more potent in favouring the development of goitre than deficiency of a single vitamin.

Iodine deficiency plays some part in the production of goitre and is not wholly responsible for the condition as it is often supposed.—V. C. S.

Treatment of some prevalent types of Acute Poisoning.—Sir William Willcox, K.C.I.E., C.B.C.M.G.M.D., F.R.C.P., Physician, St. Mary's Hospital, Medical Adviser to the Home Office *Ther. Practitioner* pp. 236 March 1933.

Poisoning:—

Emergency appliances and remedies for treatment.

1. Stomach tube with glass funnel with 4 ft. of Rubber tubing.
- (2) Gag
- (3) Tongue Forceps.
- (4) Potassium Permanganate crystals.
- (5) Stimulants, antidotal remedies.
 - (a) Caffeine sodii salicylate.
 - (b) Camphor in oil.
 - (c) Ether.
 - (d) Strychnine.
 - (e) Atropine.
 - (f) Morphine.
 - (g) Pilocarpine.
 - (h) Coramine.

Antidotes.

- (1) Co_3 . (2) CaO . (slaked) (3) $\text{Na}_2 \text{HCO}_3$.
(O_2 CO_2) apparatus.

Treatment of Special Poisons. Mineral Acids.—(e) HCl , HNO_3 , H_2SO_4 . (Gastric lavage contra indicated.) (Harmless alkalies, Sodii Bicarb. $\frac{1}{2}$ oz. or more dissolved in pint of water) should be given freely.

Egg albumin may be given freely as it combines with free acid to form an acid albumin which is less corrosive.

Mineral Alkalies.—Caustic Soda, Potash, Gastric lavage contra-indicated. Lemon juice, Tartaric Acid dissolved in water, Dil Acetic Acid or Vinegar should be freely given.

Ammonia.—The vegetable Acids should be given as with mineral Alkalies. A steam kettle into which acetic acid or Friars'

balsam have been added is useful since the moist vapour contains the volatile acid and helps to neutralise the inhaled ammonia vapour.

Oxalic Acid and Salts.—(Known as salts of Lemon or salt of Sorrel): Lime water or if available saccharated lime water should be mixed with chalk and given in large quantity immediately, thereby insoluble calcium oxalate is produced. It is advisable to wash out the stomach a few minutes after the antidote has been administered and to introduce a further one pint of Lime water mixed with chalk.

Phenol.—(Carbolic Acid and Lysol). Lime water should be given in large quantities and the stomach washed out with lime water. Non toxic calcium phenale is produced.

Olive oil has been recommended. It acts by selective absorption of the phenol and so causing delay of absorption. If given, the stomach should be washed out with warm water after a few minutes.

Acute Arsenical Poisoning.—When Arsenious acid or other preparation of arsenic has been taken by the mouth, the stomach should be washed out with warm water. A mixture of:

Liq. Ferri perchloride or Tincture ... 3ss.

in a pint of water, to which has been added one drachm of sodium or potassium carbonate, may be introduced by the stomach tube after lavage is completed.

Mercuric Chloride, corrosive sublimate.—Stomach should be washed out with warm water.

A large amount of egg albumin in a pint of water should be introduced after lavage and the stomach washed out again after half an hour.

Morphia, Iodine and opium preparations.—Stomach should be washed out with warm water coloured distinctly pink by Potassium permanganate, and should be continued until the washings are pink in colour. This lavage is repeated with advantage in two hours.

Respiratory failure is best treated by Atropine injections 1/100, grains 2 hourly for four doses. O_2 mixed with 5% CO_2 may be given by a mouth-piece.

Renal excretion after morphine poisoning is assisted by the administration of strong coffee by mouth or stomach tube and also by the hypodermic injection of caffeine sodium salicylate, 2 grains n sol. 4th hourly.

Hydrocyanic acid and Potassium cyanide poisoning: The action of these poisons is so rapid that there is often no time to wash out the stomach. Potassium permanganate solution about 1% should be given freely. Glucose solution intravenously or subcutaneously is advisable. Artificial respiration, Atropine hypodermically, and oxygen with 5% CO₂ are valuable. Cobalt Nitrate, ½% solution by mouth (1 fluid ounce) or subcutaneously 10 c.c. have been recommended as the result of animal experiments.

Carbon monoxide and coal gas:—O₂, with 5%, 7%, CO₂ is valuable.

Poisoning by Barbituric acid compounds, such as Veronal, Barbitone, Proponal, Dial, Didal, Allonal, Luminal, Soneryl, Veramon, Gardenal, Membutal, Amytal, Pernocton.

The author observes:—"These cases are becoming increasingly frequent. I should like again to emphasize the fact that all the barbituric acid compounds are toxic drugs and have a profound toxic action on the brain. In my opinion they are used much too frequently as ordinary hypnotics and are often used when no hypnotic is really necessary or when some harmless drug such as aspirin or a small dose of bromide, would be adequate. The continued use of these drugs may, and often does, lead to habit formation. Also the mental depression associated with the continued use of the barbituric acid compounds often leads to the taking of a dangerous or fatal over dose. When the drug is taken by the mouth, as is usually the case, the stomach should be washed out with warm normal saline and strong coffee with glucose and milk should be introduced by the stomach tube."

Colon lavage with warm normal saline should be done. Caffein-sodii salicylate gr. ii in solution hypodermically, every few hours, is advisable. The great danger of poisoning from barbituric acid compounds is that in the comatose condition the temperature begins to rise and pneumonia develops, which is usually fatal.

A new treatment for "Veronal Pneumonia" which the author recently used with success in several cases, was lumbar puncture. He says, "About 30 c. cm. of cerebro spinal fluid are drawn off and this may be repeated in 12 hours if required four cases have been treated by this method during the last 12 months in which recovery has taken place, without this treatment these cases would in my opinion, have been undoubtedly fatal."

Suppression of urine due to renal Necrosis may occur in poisoning by Nembutal, Amytal, and Pernocton. It is a

most dangerous complication and generally fatal. The treatment is lumbar puncture followed by measures to promote renal excretion, such as caffein-sodium salicylate injections, hot coffee and alkaline drinks by the mouth, glucose solution by mouth or subcutaneously.

It is essential these drugs, if used at all, should be given with a full knowledge of the dangerous toxic effects which may follow their employment.—V. C. S.

OPHTHALMOLOGY

The diagnostic significance of pupillary changes.—Arthur Edward Smith, M.D., *Minnesota Medicine*, Oct. 3rd pp. 623, early recognition and correct interpretation of pupillary phenomena may be of great practical clinical importance. The movements of the iris border forming the pupil is dependent upon three factors:

1. The action of the constrictor pupillæ muscle, which effects the contraction of the pupil.
2. The action of the dilator pupillæ muscle which brings about the dilatation of the pupil.
3. The function of the intrinsic nervous mechanism of the iris which, in the event of the isolation of the iris from its connections with the central nervous system is capable of causing a contraction of the pupil.

However the generally accepted conception in regard to the innervation of the pupillary muscles may be summarized as follows:

The sphincter pupillæ muscle is supplied by the parasympathetic fibers of the oculo-motor nerve.

The dilator pupillæ is innervated from the cervical sympathetic.

Both sphincter and dilator are composed of smooth muscle formed from the anterior layer of the secondary optic vesicle and are, therefore, of ectodermal origin.

Like smooth muscle in other parts of the body they are maintained in a constant state of tonus. The two muscles have a mutually antagonistic action and are maintained in a state of balance by reciprocal innervation, contraction of one being always accompanied by relaxation of the other.

The constrictor mechanism is comparatively simple. That a mesencephalic center exists is obvious. This is probably located

in the Westphal Edinger nucleus, a small-celled conglomerate under the anterior portion of the lamina quadrigemina.

The fact that ophthalmoplegia interna and ophthalmoplegia externa are sometimes associated and sometimes observed independently would indicate that the center for the muscles of the iris is near that supplying the extra-ocular muscles but distinct from it.

The afferent pupillo-constrictor pathway begins in the retina and is continued in the optic nerve, chiasm and optic tract. It leaves the tract to reach the constrictor centre. The efferent pathway is through the para-sympathetic fibers of the third nerve to the ciliary ganglion, where they are relayed and travel through the short ciliary nerves to the constrictor muscle.

The nervous mechanism controlling the dilatator pupillæ is extremely intricate. Derived from the cervical sympathetic, the motor fibers of the dilatator pupillæ leave the cord by the rami communicantes, of the lower cervical and upper dorsal roots passing over the stellate ganglion to the annulus of Vieussens where most of the fibers pass into the anterior cord. From here they run up the cervical sympathetic to the superior cervical ganglion. Up to this point the fibers have been medullated but the post ganglionic fibers are non-medullated. They run in the carotid plexus to the Gasserian ganglion, where they join the nasal branch of the first division of the fifth nerve and reach the eyeball through the long ciliary nerves.

There is a midbrain centre probably located in the hypothalamic region and there are centres in the cortex (particularly in the frontal lobe) which are concerned with pupillary activity. The pathway from the cortical area does not decussate. However, a partial decussation does take place between the hypothalamic centre and the spinal centre.

Lauber and others have demonstrated a delicate intramural iris plexus mixed with small ganglion cells. This is the intrinsic nervous mechanism of the iris to which reference has been made. We are concerned primarily with two principal reflexes: the light reaction acting through the reflex arc described as controlling the contraction of the pupil, and the sensory (or psychic) reflex acting through the sympathetic. Both reflexes are, of course, involuntary and unconscious. The size of the pupil is dependent upon the balance between these two reflexes. The reaction to light, under normal conditions, always affects both eyes, *i.e.*, if the light falls into one eye only, the pupil of the other eye contracts. The

contraction in the second eye takes place at the same time and in practically the same degree as that in the eye directly exposed to the light.

This consensual reaction is probably carried out by means of fibers which unite the two constrictor centres in the third nerve nucleus. In addition to the reflexes the diameter of the pupil is influenced by what are termed associated reaction.

The most important of these in the one which accompanies the adjustment of the eyes for near objects or what is known in the German literature as the "Naheinstellungsreaktion." This comprises convergence, accommodation and the vertical adjustment of the eyes to focus upon near objects. The muscles concerned are all innervated by the oculo-motor nerve, so that their associated action is the result of a simultaneous excitation of the portion of this nerve which supplies them. All associated reactions of the pupil result in a contraction.

Abnormalities of the pupillary reactions result from three general causes:

1. Local conditions in the eye. These may appear as the result of disease affecting the eye itself, such as glaucoma, sympathetic ophthalmia, etc., or in diseases of the retina causing a diminution or loss of vision. They may be the result of local conditions involving the iris itself, such as congenital anomalies, traumatism or disease of the iris tissue.
2. Conditions causing either stimulation or paralysis, partial or complete, of the nervous mechanism of the constrictor.
3. Conditions giving rise either to stimulation or paralysis of the sympathetic nerve supply of the dilatator.

In accordance with the double functions of the retina and the opticus neurones carrying impulses to the higher visual centres, any damage to the retina or optic nerve affects not only the vision but also the reactions of the pupil. Therefore, in general, lesions causing a loss of vision also cause a loss of the light reflex as well. This constitutes the so-called amaurotic pupillary paralysis. Sometimes, when the destruction is less complete, the loss of vision is only partial and then the pupillary reaction may be sluggish but not entirely absent.

A number of cases have been reported of disease of the retina or optic nerve giving rise to atrophy and total loss of light perception, in which there has been a retention of the pupillary reflex. Bumke, von Hess and others have expressed the opinion that in most instances the tests have not been made under properly

controlled conditions, but enough instances have been observed by dependable clinicians to establish the fact that this does, in rare instances, occur. This can only be explained by the assumption that the fibers in the retina and optic nerve concerned with the pupillary reflexes are distinct from those subserving vision. These cases must, of course, be carefully differentiated from those resulting from lesions of the higher visual tracts, that is the occipital cortex and optic radiations.

Our present methods of testing the reactions of the pupil leave much to be desired. There is no generally accepted standard of intensity of illumination. It is possible only to estimate roughly the reaction time except with special apparatus (motion pictures, etc.) which would not be available to the clinician. The testing of the light reaction consists in the observation of the response of the pupil to variations in intensity of light. This is, then, a "Differenzreaktion" in which a constant light adaptation is assumed. The reaction should be tested in light that is not too bright and so arranged that the illumination falls equally upon the two eyes. In order to elicit a strong response in testing the near-adjustment reaction, it is advisable to have the patient look first in the distance and then suddenly fix his attention on an object held about 10 cm. from the eye. This test should be made in subdued light.

I will now consider, as briefly as possible, certain of the more important derangements of pupillary reaction.

Reflex immobility of the pupil was first described by Argyll-Robertson in one of the classic contributions to medical literature. It is the most widely known and frequently mentioned of all pupillary signs but there is still a considerable vagueness of conception and some diversity of opinion as to exactly what constitutes a true Argyll-Robertson pupil. The impression that it is simply one which reacts to accommodation but not to light is responsible for many incorrect diagnoses. The most logical conception of the Argyll-Robertson pupil is that of McGrath. He defines it as "a complex phenomenon consisting of various components, all equally important and invariable," these components being:

1. Alteration in the size of the pupil (miosis).
2. Alteration in the form (irregularity).
3. Inequality in size.
4. Impairment or loss of the light reflex.
5. Alterations in the color and texture of the iris.

Even at the present time, nearly sixty-four years after the

publication of Argyll-Robertson's monograph, there is a diversity of opinion as to the location of the lesion causing this condition. It must, of course, be somewhere in that portion of the reflex path which lies between its centripetal limb (optic nerve) and its centrifugal limb (oculo-motor nerve).

The most generally accepted theory is that it is located in the course of the afferent fibers running from the optic tract to the mesencephalic centre, but McGrath outlines very convincing reasons for believing it to be in the ciliary ganglion.

However this may be, in order to establish a diagnosis of true reflex immobility of the pupil the changes described above must be present. The pupil is always miotic. In monocular cases, therefore it is always smaller on the affected side. It further tends to lose its roundness and become irregular in shape. This has been attributed, even in very recent literature, to irregularity in the relaxation of the sphincter tonus but convincing evidence has been adduced to the effect that it is, in reality, due to trophic changes in the iris tissue. The resulting atrophy can often be demonstrated even without the slit lamp. Developing unevenly in different sectors of the iris, it is the real cause of the irregularity in the shape of the pupil.

The question of an exact conception of what constitutes a true Argyll-Robertson pupil is not a mere academic one but is of very definite clinical importance since it is, when present, an evidence that a degenerative process is at work in the nervous system.

I do not believe that the true Argyll-Robertson pupil, in which all of the mentioned characteristic findings are present, is ever found in anything except cases of syphilis of the nervous system.

It has been described as being observed in epidemic encephalitis, in tumors of the corpora quadrigemina, in chronic alcoholism, in diabetes and, in monocular form, in herpes zoster ophthalmicus, etc. Careful examination of these cases will, however, demonstrate that they do not, in all particulars, meet with the requirements of this definition and are not, therefore, to be classed as true Argyll-Robertson pupil.

It is of importance to differentiate clearly between the cases of true reflex iridoplegia and those of the various types of pseudo reflex paralysis. Axenfeld first described certain traumatic oculomotor paralyses in which, in spite of the apparently complete absence of the light reaction, the near-adjustment reaction remained

unimpaired. Many of these traumatic cases (mostly monocular) have been reported in which a complete, or nearly complete, oculo-motor palsy cleared up entirely except for the permanent loss of the light reflex. It is probable that in such cases a degeneration begins in the fibers of the oculo-motorious near the nucleus and involves the nucleus secondarily. It is assumed that in the portion of the nucleus supplying the sphincter the regenerative process begins later and is less complete. Therefore a certain functional weakness remains which manifests itself in a loss of reflex excitability.

The tonic pupillary reaction.—In 1902 Strasburger and Saenger, working independently, called attention to this entity. It has been referred to as "Pseudo Argyll-Robertson pupil with absent knee jerks. It has probably been misinterpreted more frequently than any other pupillary sign. In it there is a tonic contraction, on accommodation or convergence, of a pupil which apparently does not react to light.

The fact that it is often associated with the absence of one or more of the tendon jerks has made it particularly liable to be mistaken for the pupil of tabes.

It occurs characteristically in healthy young people. The failure to react to light is not complete.

If these patients are kept in a dark room for an hour the pupils dilate to about an equal size. If they are then exposed to bright light the abnormal pupil first contracts slowly and then returns to its original size.

The reaction to near adjustment appears slowly but eventually is greater in extent than the normal reaction. It is very easily differentiated from the true Argyll-Robertson pupil as the accompanying table will show.

The fact that the tonic pupil is capable of contracting through a wide range shows that we are not dealing with a true paralysis. As Adie says, "The tonic reaction seems to be the expression of an unique kind of perversion of pupillary activity."

Its frequent association with abolished knee jerks and its characteristic appearance in patients in whom the most searching physical examination does not reveal any evidence of disease, makes it a really unique clinical entity and one which is very difficult, in the present state of our knowledge, to explain satisfactorily.

ARGYLL-ROBERTSON PUPIL

TONIC PUPIL

Invariably small. Miosis, in monocular cases, in affected eye only.

Invariably larger in the affected eye.

Constant in size and unaffected by light and shade. Bilateral in 95 per cent of cases.

Weak reaction to light after prolonged stay in dark room. Usually unilateral.

Contracts promptly and fully on near adjustment and dilates promptly when convergence and accommodation are relaxed.

Contracts very slowly on near adjustment and dilates slowly on its relaxation.

Dilates slowly and incompletely with mydriatics.

Dilates rapidly and completely with atropine or cocaine.

Pupil tends to become irregular in outline as a result of trophic changes in iris tissue.

Pupil remains regular in form. The iris tissue is normal.

Very much rarer than the Argyll-Robertson pupil is the opposite condition in which the pupil responds to light but fails to react on adjustment to near objects.

This condition may be the result of disease or traumatism. The precise location of the causative lesion is unknown. This phenomenon has been observed as a congenital peculiarity, in atypical tabes and in the late stages of epidemic encephalitis.

Absolute pupillary paralysis.—In this condition the pupil fails to react to any of the stimuli mentioned. It is, of course, not strictly accurate to classify this condition as an absolute paralysis since the dilatator muscle continues to function. However, in the absence of any function in the sphincter, the action of the dilatator is of little consequence and the condition may be regarded, clinically, as a complete paralysis.

The great majority of cases of absolute pupillary paralysis are dependent upon a sphincter paralysis in the eye itself but the arrangement of the structure of the centrifugal pupillary pathways is such that lesions of various anatomical characteristics may result in this condition. The lesion may be in the sphincter nucleus, in the trunk of the oculo-motor nerve, the ciliary ganglion or the short ciliary nerves. It may, indeed, be supra-nuclear. In the latter event, with a complete loss of both light and near-adjustment reactions, the lid closure reflex is not only retained but heightened.

Absolute pupillary paralysis may be a congenital anomaly. In acquired cases, the most frequent cause is a cerebral syphilis. In patients in whom the paralysis of the pupil is associated with paralysis of the accommodation, the cause will be less likely to be lues and more probably the result of disease of the nasal accessory sinuses, botulism or some toxemia of unknown character.

Spastic mydriatic paralysis.—This rather rare condition is the result of state of contraction of the dilatator pupillæ which is ordinarily associated with an inhibited sphincter tonus. This condition is observed in head injuries, in epileptic seizures, in extreme alcoholic intoxication and in schizophrenia. Sometimes, in highly neurotic patients and in post-traumatic hysterics, the resulting sensory or psychic excitation of the sympathetic may become a true spastic mydriatic paralysis and last for a considerable time.

Pupillary abnormalities due to affections of the sympathetic nerve supply to the dilatator may result from an excitation or a paralysis. Miosis and a narrow palpebral fissure may indicate interference with the conduction in the sympathetic tract. Much less frequently dilatation of the pupil and retraction of the upper lid with consequent widening of the fissure may accompany irritation of the sympathetic.

The oculo-pupillary syndrome resulting from a destructive lesion of the sympathetic fibers may be found in disease of any part of the tract. It may be met with in traumatism of the cervical cord and in traumatic lesions of the brachial plexus in which the first dorsal root is injured close to its connection with the cord.

Accidental or operative wounds in the neck may affect the ascending sympathetic fibers. Diseases or neoplasms involving the medulla or the cord down to the level of the upper dorsal roots as well as intrathoracic aneurysms or mediastinal tumours may give rise to irritation and later to paralysis of the dilatator of the pupil. Pulmonary disease, particularly tuberculosis, may affect the pupil in the same manner and pupillary inequality is sometimes observed in aortic diseases. However, in affections of the aorta in syphilitic patients the anisocoria may be due to a concomitant *tabes dorsalis*.

To go into a detailed discussion of the various rarer anomalies of the pupillary reactions such as the different forms of paradoxical or inverted reaction, etc., would require an inordinate length of time and be of little general practical interest.

I should like to consider briefly, in closing, the pupillary phenomena observed following head injuries. In severe head trauma the pupillary signs appear early and are of great significance both in regard to the localization of subdural or epidural hemorrhage and in indicating the prognosis. In fact, the condition of the pupils is the most dependable sign in the determination of the site and the degree of the brain compression. It is much more dependable, for instance, than an accompanying hemiplegia. In severe head injuries the pupil on the side of the beginning compression at first reacts sluggishly. Later it becomes pinpoint and fixed, usually finally dilating slowly.

So far as the prognostic significance of the pupillary signs are concerned, it may be said that if the pupil is dilated but reacts to light, the prognosis is good.

If the pupil is dilated and fixed, the prognosis is extremely grave. Nearly 95 per cent of the patients in whom this is observed die.

When a dilated pupil which at first reacts to light later becomes fixed, a fatal outcome is to be expected in about 30 per cent of the cases.

In patients in whom the pupil remains contracted and fixed the mortality is about 70 per cent.

Decompression will reveal the injury on the same side as the affected pupil even though there be a homolateral hemiplegia. The possibility of bilateral injury or hemorrhage should, of course, not be overlooked.

The use of morphine or mydriatics in patients with recent head injuries obscures the pupillary signs and deprives the attending surgeon of valuable information.—*Minnesota Medicine*.

Book Reviews

A System of Clinical Medicine.—By T. D. Savill, M.D. Edited by Agnes Savill, M.D. and assisted by E. C. Warner, M.D., 1933, 9th edition, 1063 pages, illustrated. [Edward Arnold & Co.] 28 sh. net.

Savill's text book of clinical medicine needs no introduction from us. Ever since its first appearance in 1905, this well known text book of clinical medicine has been very popular with medical students and doctors. Its great advantage over other medical text

books is that it approaches diseases from the clinical standpoint, from the position of the physician who sees the patient at the bedside and seeks to trace the observed symptom to its hidden cause, the disease in operation. The present edition is, in many ways, an improvement on its predecessors. Long descriptions of diseases have been omitted and lists and tables inserted in their place. Among the list of contributors figure such well known names as Dr. J. D. Rolleston who writes on fevers, Prof. Louise Mellroy who writes on diseases of women, Dr. Hamilton Fairley who writes on tropical diseases, Dr. Fleming who writes on the eye and Dr. Redvers Ironside who writes on nervous disease. Amongst the new matter may be mentioned agranulocytic angina, tropical anaemias, blood transfusion, tropical ulcer, the Zondek Asheim test. Many old-fashioned illustrations have been discarded and new figures take their place. A new plate of blood cells has been provided by Dr. Hickling and six excellent coloured illustrations of retinal diseases by Mr. Fleming. The book on the whole is an improvement on its predecessors, and we have no hesitation in saying that it will be as popular as the previous editions.

Food and the principles of Dietetics.—By Robert Hutchison, M.D., F.R.C. P., Physician to the London Hospital and to the Hospital for sick children, Great Ormond Street; and V. H. Mottram, M.A., Professor of Physiology at Kings College of household and social science, University of London. London: 1933. Seventh edition. Pages 630. [Edward Arnold & Co.] 21 sh.

Dr. Robert Hutchison's book has a proud record. It has been in existence for thirty two years and in that time has passed through six editions. The first edition which appeared in 1900 contained the lectures delivered to students of the London Hospital. Each succeeding edition kept pace with the increasing knowledge of the subject of dietetics. In this, the seventh edition, Dr. Hutchison has secured the co-operation of Prof. V. H. Mottram, who has assisted in the revision and re-writing of this edition. The first three chapters of the book devoted to the nature, nutritive constituents and relative values of foods, the amount required in health, and the influence of various conditions on amount of food required have been mainly written by Prof. Mottram. In the main body of the book are discussed such common foodstuffs as

milk, fish, eggs, bread, vegetables, nuts, sugar, tea, coffee, cocoa, alcohol and wines etc. The nutritive value and methods of preparation of some of these foods are also given. A separate chapter is devoted to the cooking of foods. Other interesting chapters are those describing the principles of feeding in infancy and childhood, the principles of feeding in disease, artificial foods and artificial feeding.

The scope of this work is extensive. It is useful to the student, to the general practitioner and consultant. It will enable them to impart to their patients correct ideas of "Foods and Diets." It can also be used by the laymen interested in and desirous of acquiring some correct knowledge of foods. The exhaustive and illustrative diagrams will enable even a layman to follow the book intelligently. We congratulate the authors on the excellence of their work and heartily recommend it to everyone.

Combined Text book of Obstetrics and Gynaecology.—By J. M. Mauro Kerr, M.D., F.R.F.P. & S., F.C.O.G.; J. Haig Ferguson, M.D., L.L.D., F.R.C.S., F.R.C.P., F.C.O.G., F.R.S.; James Young, D.S.O., M.D., F.R.C.S., F.C.O.G., and James Hendry, M.B.E., M.A., B.Sc., M.B., F.R.F.P. & S., F.C.O.G., with contributions from Charles McNeil, M.A., M.D. and J. Duncan White, M.B. C.B., D.M.R.E., 1933. Second edition, 1100 pages with 497 illustrations and X-Ray plates. [E. S. Livingstone, Edinburgh.] Publishers: Messrs. Butterworth & Co., (India) Ltd., 6, Hastings Street, P. O. Box, 251, Calcutta. Price Rs. 26/4/-

This volume is an attempt to correlate more closely Obstetrics and Gynaecology. The authors are of opinion, and we think rightly too, that a combined text book on these two subjects will impress the medical student with the importance of a thorough knowledge of obstetrics, and with the fact that a great majority of ailments encountered in Gynaecological practice are the result of infections and injuries contracted during parturition. This second edition has been completely revised and re-written. Three special chapters have been introduced in this edition, one dealing with the "Problems of Maternal Mortality" and two specialists on "The Infant in its first month" and "Radiology." In a book that is very well written it is difficult to pick out chapters but we will still mention for special commendation, the chapters on 'Differential diagnosis of Pregnancy,' "The Toxaemias of Pregnancy"

"Haemorrhages in the early and late months of pregnancy," "Disorders of the newly born," "Diseases of the ovaries," "Pelvic inflammations," etc. A few chapters are devoted to a description of some of the operations in Gynaecology. The last chapter on "Radiology in Obstetrics and Gynaecology" written by Dr. J. Duncan White, deserves special mention. The book is profusely illustrated and is very well got up. We have no hesitation in saying that it is one of the best books on Obstetrics and Gynaecology. We heartily recommend it to every student and general practitioner.

Preparations & Inventions

B. R. B. Cod Liver Oil and Malt Ext., Comp., Blupurul, Eyesol, Ringosol, Camphosol, Maltexol, Speenal, Antexmol, etc., are some of the preparations manufactured by Messrs. Beli Ram & Brothers, wholesale chemists and druggists, 304, Princess Street, Bombay 2. The respective ingredients and diseases they are said to cure are given in their advertisement on page 4 of the November issue. They are worth a trial by the profession.

Thio-Calcin, is said to be a specific for incipient phthisis, tuberculosis, lung troubles, hacking cough, etc. It is available at all Chemists.

"Interstitial".—Manufactured by Messrs. J. O. N. Institute, Italy. Sole Agents for India: Messrs. Gopal & Co., 10, T. P. Koil St., Triplicane, Madras.

"Interstitial", the complete testicular extract of the germinal gland and the Interstitial gland, is issued in the form of injections for hypodermic use, and is claimed to be a very useful product in cases of Neurasthenia, cases of early senility, nervous breakdown etc. It is a painless, non-toxic preparation of high therapeutic efficacy.



Here is the cure that Diabetic sufferers have long wished for—one that contains all those essential elements now revealed as missing in all other treatments, one that does not cause complications during treatment, and one that needs no constant medical attendance.

It is PAN-MELITUS that contains all the active principles of the Pancreas and more—the latest outcome of further researches and study into the shortcomings of Insulin and other treatments. Physicians assert it is a definite advance over Insulin Injections, in that it restores the damaged pancreas to normal working and rebuilds the digestive and metabolic processes, where all others have failed.

Sugar in the urine disappears, blood-sugar is lowered and the patient gradually picks up health, strength and vitality.

30,000 DOCTORS' First Choice this: Get a bottle of 100 pills from your nearest dealer. The results with the first bottle will amaze you.

Dr. H. H. J. Scudder, D.B. L. Hospital, Ferretopore Cantt. writes that she is cured of Diabetes, and adds "I suffered for two years. I had a very big appetite, nothing satisfied me. I suffered from thirst and passed large quantities of urine. I suffered fatigue. Since taking PAN-MELITUS pills, my urine is sugar free now and the above symptoms have disappeared."

Pan-Melitus



No other rational remedy provides such an instantaneous cure for Piles as RECTO-SEROL, the never-failing cure,—no matter whether Abscess, Fissures etc. have formed. It actually enters the home of disease germs, its powerful ingredients acting directly on the knots are quickly absorbed. Almost at once all agonizing pain, itching, burning, bleeding etc. stop, the piles begin to gradually shrink and often disappear permanently.

Read what Mr. S. M. Husain, State Collieries, Umari, reports: "I was suffering from Piles and Fissure for the last 5 years and was to undergo operation, when Dr. M. Umar of Delhi recommended RECTO-SEROL. I got 3 tubes from him, two of which have been used. I have no pain no trouble now."

CONTINENTAL DRUG CO OF INDIA
COMMISSARIAT BLDG, WORNBY RD, FORT, P.O. BOX 996, BOMBAY
TEL. ADD. "CONDRUGCO" ALLIEDS

When writing to advertisers, please mention the "Antiseptic."

MANAGERS NOTICE.

Complaints are often received about non-receipt of copies long after the usual date of arrival to destination. Copies often become out of stock then. It may not be possible to send copies a second time free or even on payment of cost. Non-receipt of copies should therefore be intimated then and there at least within ten days, after the due date. The cause for non-receipt will then be enquired into and if it is found that the mistake does not lie in the Office, and if copies are available, a second copy will be sent charging the cost thereof to subscribers' account. The trouble is chiefly due to intimation regarding change of address not being communicated in time or being received just after the journal was despatched. Subscribers must make their own arrangements to receive their copies in such cases. Further, subscribers are informed that copies are allowed to be posted by the Post Office only twice a week (i.e.) on Wednesdays & Fridays.

As postal rates have increased, the management is compelled to restrict correspondence to the lowest possible minimum and it is hoped that subscribers will earnestly co-operate with it in the matter.

Manager,
"ANTISEPTIC."

ULCERINE (REGD.)

Absolutely free from Mercury.
Copper etc.

No operation. No bandage. No dressing.

A sovereign remedy for all sorts of Boils, Sores, Sinuses, Gangrenes, Sore Finger, Carbuncles, Piles, Fistula, Necrosis, Burns, Cuts and Foul Ulcers, Ottorrhoea, Ozina, etc. It may also be taken internally as the best Blood Purifier, relieves pains of poisonous boils and ulcers magically in a day on application. Ulcerine plays a miracle in syphilis and operated sores.

Ask for free booklet.

Re. 1-4 per bottle, Postage extra.

CURE your EYE

Diseases any kind—Glaucoma, Cataract, redness, granular lids, styte, etc., without knife by our safe remedy of nature LOTUS HONEY (Coconut Brand) 1 dram Rs. 2-8, 2 drams Rs. 4.

Ask for free particulars from:—

NEW FORMULA CO., Kandi Bengal, India.
Telegram:—"Ulcer," Kandi.

Agent:—

Sri Krishnan Bros., P. T. Box 166, Madras.
J. Tirath & Co., Bunder Road, Karachi.
Dadha & Co., Park Town, Madras.
Dey Bros., 220, Mogul Street, Rangoon.

Established 1908.

The most widely circulated Medical Journal in India, Burma and the Far East, having a circulation of 4,000 copies every month.

THE Indian Medical Journal.

THE OFFICIAL ORGAN OF THE
ALL-INDIA MEDICAL LICENTIATES'
ASSOCIATION.

A Record of Medicine, Surgery, Public
Health and Medical News, Indian and Foreign.

EDITED BY

Raj Sahab Dr. P. C. ROY, B.M.O.
Marwari Hindu Hospital & Member
Bengal Medical Council.

Published monthly at Calcutta by the
All-India Medical Licentiates' Association.

Annual Subscription Rs. 6.
Bonafide Medical Students Rs. 3.

To members of A. I. M. L. Association Free.
(To pay only Rs. 4 Annual Subscription with
Rs. 2. Admission Fee on Enlistment.)

For rates etc., write to:—

Manager,
143, Harrison Road, Calcutta.

When writing to advertisers please mention the "Antiseptic."

Hundred Thousand Deaths

The reports published by the Health
Depots in India show that several
thousands die of

MALARIA

Every year there are horrible news of the
severe destruction by this terrible disease
inspite of all the preventive means by
the Health Depot Local Governments
and its treatment by QUININE.

Should it not therefore be necessary for
every man to think earnestly and find out
some better successful means to fight
out the cause of MALARIA and destroy
the poisonous effect of insect called
"ANOPHELES"

QUININE cannot absolutely hold the
monopoly of its treatment. It is not enter-
tained warmly due to its bitter taste and
unpleasant effect such as buzzing in the
ear, deafness, nausea, trembling of the
hands and palpitation and giddiness.
THEREFORE the Scientists were in
search of such remedy which can be taken
both therapeutically & Prophylacti-
cally with no after effect.

It was for Dr. Richard Weiss to place
before the Medical World his wonderful
preparation called

SANOQUIN

which is cholic acid Quinine derivative.
The combination of Quinine with Cholic
Acid salt stimulate the digestive and mo-
tory functions of the Intestine and have
intensive action on secretion which is
most important in the treatment of MA-
LARIA. The Combination has also
made it possible to pass through stomach
unaltered and to pass into resorption.

Sanoquin has an immediate effect in all
forms of MALARIA and produces no
ill effects.

It is of a sweetish taste and can be taken
by feeble and anaemic patients.

One tablet of sanoquin a day will keep
the Malaria away.

Guarantee:—If any patient suffering
from Malaria is not cured by using
"sanoquin" according to the directions
the full amount will be refunded.

Beware of imitation or old stock
FRESH STOCK bottles bear the Gold
Green Label of our name slip and
Green band

Write for Illustrated Booklet SANO-
QUIN and all about Malaria.

Sole distributors For India:—

MADAN TRADING CO.,

Viriline Depot:—INDIAN AGENCY,

1st Floor, 185, Princess Street, Bombay. 2.

TUBERCULOSIS.

&

Its Cure by Santuben Treatment

1. Santuben introduced by Professor
Dr. Wolff Eisner and manufactured
in the pharmaceutical laboratory of Dr.
Richard Weiss Ph. D., M.A., F.C.S.
Berlin, has been approved and acknow-
ledged to be a CURATIVE TREAT-
MENT OF TUBERCULOSIS includ-
ing Catarrh.

2. The treatment consists of an applica-
tion of a special Tuberculin ointment
to be rubbed once a week and of a
Guaiacol Silicum tablets for oral use.
Santuben is a most successful weapon
against T. B. and its timely use has
saved thousands of patients from the
lingering malady and death.

3. What the Doctors say:—

Dr. Lt. Col. F.E. Cunter D.S.O.R.A.M.A.
(Retd.) Principal Medical Officer writes;
No one is dissatisfied with Santuben
which has come to stay in my practice
and I am so convinced to its efficacy
that I am gradually giving up injections
in its form.

Prof. Dr. Besredker Paris:—France will
now take up the cutaneous treatment of
T. B. i.e. Santuben Treatment.

Capt. Dr. Late I.M.S.
Bombay states; he has tried Santuben
in many cases with great success; so he
has taken up this treatment in his
practice.

Dr. I.C Dispensary
small Sample sent has been found
effective Please send ½ box per V.P.P.

Capt. Dr. M.B.B.S. Dist
Hissar. The first ½ box sent by you
has done good to the patient. Tempera-
ture has come down and the coughing
is certainly less. Please send ½ box more.

Dr. M.B.B.S. Gowalia
Tank, Bombay, states:—He is greatly
pleased with the results of Santuben.

The above testimonials represent only a
few of the numerous medical expert opi-
nions in regard to Santuben treatment.

Complete literature will be sent
on demand.

Sole distributors:—

MADAN TRADING CO.,

185, Princess Street, Bombay.

When writing to advertisers, please mention the "Antiseptic."

5th Edition 1930. Revised and enlarged.

TRIPATHI'S "REFERENCE BOOK"

For the Young Medical Practitioner.

(Six Parts in one volume, Cloth bound, over 920 pages, Price Rs. 5 net.)

Sanctioned for the use of the Medical Institutions under the Government of Bombay and Bengal, and in the Provinces of Bihar and Orissa, Burma, Baluchistan, Delhi, Central Provinces and Berar, and several leading Native States of India. Highly praised by the eminent Members of the Medical Profession, and the Medical press and widely circulated all over India, Lower Burma, Ceylon, British East Africa Straits Settlements, and Federated Malay States.

The Indian Medical Gazette, Calcutta—This book is quite up to the standard of similar books intended as brief *Vade Mecum* helps to the Student and young Practitioner.

The Indian Medical Journal, Bombay—We heartily congratulate M. Tripathi for presenting this book to the profession for ready daily reference.

The Burma Medical Times, Rangoon—The name of Dr. M. H. Tripathi, is almost becoming a household name among busy Medical Practitioners and Senior Medical students as a result of his laborious undertaking and tiresome task in successfully bringing out a Reference Book for the Young Medical Practitioner.

The Antiseptic, Madras—The book is specially useful to students preparing for their Final Examination and we heartily commend the book.

The Practical Medicine, Delhi—We congratulate Dr. Tripathi for presenting to the Medical Practitioners in India, a useful handy work for daily reference.

The Surgeon General with the Govt. of Bombay—Desires to commend the book to the notice of the Medical Officers in charge of the Civil Hospitals and Dispensaries.

The Surgeon General with the Govt. of Bengal—The book seems a good and useful one and is likely to serve Sub-Assistant Surgeons at out-lying dispensaries as a ready reference book for diagnosis and treatment.

The Hon'ble Col. W. H. B. Robinson, C.B., I.M.S.—(Inspector-General of Civil Hospitals, Central-Provinces)—I recommend the book for use of out-lying dispensaries if Dispensary Funds can afford it.

The Hon'ble Col. H. Hendley, M.D., I.M.S.—(Inspector-General of Civil Hospitals, Punjab)—I think the book is quite a useful one for its purpose.

The Hon'ble Col. C. Mactaggart, C.I.E., M.B., I.M.S.—(Inspector-General of Civil Hospitals, United Provinces)—I have no doubt that it will prove useful to Medical Practitioners of the class you mention, and to Medical Students.

Col. F. J. Drury, M.B., I.M.S.—(Inspector-General of Civil Hospitals Bihar and Orissa)—It appears to the undersigned to be a very useful book for reference and is likely to prove valuable to both Practitioners and Students.

Col. P.C.H. Strickland, I.M.S.—(Inspector-General of Civil Hospitals, Burma)—Likely to serve Sub-Assistant Surgeons at out-lying Dispensaries as a ready reference.

Col. R. C. MacWatt, C.I.E., M.B., I.M.S.—(Inspector-General of Civil Hospitals, Punjab)—Appears to be a useful compendium and *aid memoire* for those who require it.

Lt. Col. Sir J.R. Roberts, K.T., C.I.E., I.M.S.—(Surgeon to His Excellency the Viceroy)—It is most excellent and useful publication and I am sure will become very popular. You deserve great credit for having compiled, such a good "*Vade Mecum*."

TRIPATHI'S GUIDE

To the Young Medical Jurist.

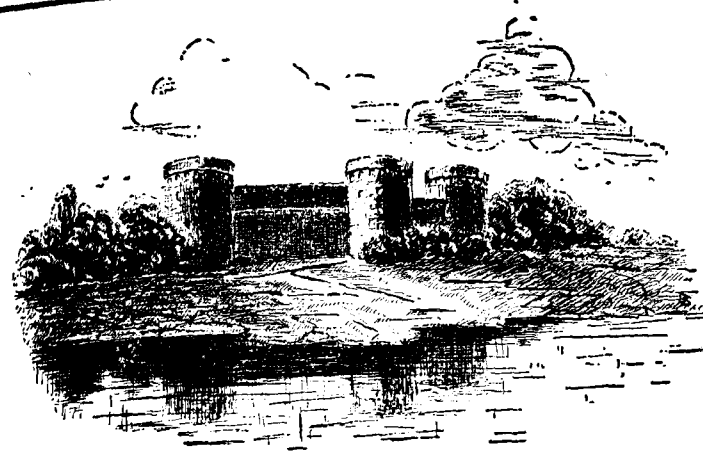
(Cloth-bound, 432 pages, Price Rs. 3, postage extra.)

Chiefly intended for the use of the Senior Medico preparing for the qualifying Examination in Jurisprudence and Toxicology, the Rising Medical Novitiate, and the growing Legal Practitioner, to serve as a guide on matters of medico-legal interest regarding a variety of crimes of everyday occurrence, and highly praised by the Medical and Legal Men and the Medical Press.

To be had from—**Manishanker H. Tripathi,**

Senior-Grade Sub-Assistant Surgeon, Jamnagar, Kathiawar

1933]



A Stronghold

IN THE TREATMENT of the Pneumonias, in order to lessen toxæmia and to reinforce the patient's power of resistance, the use of Antiphlogistine serves as an appropriate adjunct.

Its symptomatic effects are manifested by

- Early relief from pain
- Improved heart action
- Relief of dyspnoea
- General soothing of the patient with induction of sleep.

Antiphlogistine often proves a stronghold when other methods fail.

R

ANTIPHLOGISTINE for Pneumonia

Sample and literature on request

THE DENVER CHEMICAL MANUFACTURING COMPANY
163 VARICK STREET NEW YORK, N. Y.

Agents in India:—

MULLER & PHIPPS (India) Ltd., P. Box 773, BOMBAY.

YOGA BOOKS

BY SHRI YOGENDRA
Founder of Yoga Institutes
in India and America.

YOGA PERSONAL HYGIENE:—"This is the only authentic and practical treatise on the secret practices of Yoga." *Daily Mail*. "No printed book can ever teach the real Yoga, but here the author imparts in a clear and popular way all the practical information on Yoga." *Theosophist*. "A monumental work on the Yogic Physical culture." *Justice*. Prefaced by J. W. Fox, M.D. pp. 327, 31 illus. Rs. 10.

RHYTHMIC EXERCISES:—A new scheme of Physical Culture based upon the harmony of breath and physical movements." *Book Review*. Fifth Thousand. pp. 78, with 19 illus. Rs. 1.

BREATHING METHODS:—"An ideal book on deep breathing and control of breath." *Health*. With 10 different methods of breathing known to Orientalists. Pp. 74 with 8 illus. Rs. 1.

WAY TO LIVE:—"Here is health in a nutshell. It teaches how to care for the important organs of the body." *Modern Living*. Pp. 96, with 11 illus. Rs. 1.

MEMORABILIA:—"These 600 practical thoughts on everything worth considering in life are shrewd, incisive and highly provoking." *Modern Review*. "It is a book that can thrill and shake your whole existence." *Justice*. Pp. 118. Rs. 2.

YOGA ANNUAL 1933. Send Rs. 4 for a copy.

Stockists:—The Manager, **HEALTH**, 323, Thambu Chetty Street, G. T., Madras.

THE Calcutta Medical Journal

SPECIAL NUMBERS

ON

EPIDEMIC DROPSY

Embodying valuable and illustrated papers read and discussions held on the subject by experts at six clinical meetings of the Calcutta Medical Club being the January and February, 1933, issues of the Journal.

Price Rs. 2. for 2 issues.

Subscription Rs. 5 per annum

Inclusive of postage.

Sample copy free on application.

Apply to the Manager,

CALCUTTA MEDICAL JOURNAL,

62, Bowbazar Street (2nd Floor.) Calcutta

INDIAN MEDICAL RECORD

SPECIAL NUMBERS

Are all that could be desired, containing up-to-date information on the subjects treated therein. No Medical man should be without these which are indispensable to them as ready reference book:—

- | | | |
|-----------------------------|----------------------------|-------|
| 1. Venereal Diseases Number | November, 1927. | Rs. 1 |
| 2. Special Tuberculosis " | December, 1920 | Rs. 2 |
| 3. " " " | July 1925 | Rs. 2 |
| 4. Special Kala-Azar " | in 2 Vols. | |
| | August and September, 1923 | Rs. 3 |
| 5. Special Leprosy Number | September, 1926 | Rs. 2 |
| 6. Golden Jubilee " | February, 1930. | Rs. 2 |

The six series together, Rs. 8; Postage Extra.

COMBINED OFFER: The annual subscription of the INDIAN MEDICAL RECORD is Rs. 7-8 but those remitting their advance subscription, period of subscription, commencing any month, shall have the Journal for one year and all the above numbers for Rs. 12-8 only.

Please write to the Manager,

INDIAN MEDICAL RECORD,

2, Horokumar Tagore Square, Calcutta.

Phone: 1090 Cal. Tele: "TROPICAL" Cal.

When writing to advertisers please mention the "Antiseptic"

The Standard Book on Indian Medical Jurisprudence.

EIGHTH EDITION

With 3 Plates and over 100 Photographic and other Illustrations.

Lyon's Medical Jurisprudence in India

WITH ILLUSTRATIVE CASES

BY

L. A. WADDELL, C.B., C.I.E., L.L.D., F.L.S., M.B.

With Special Chapters by Lt.Col. T. F. OWENS and OTHERS.

Crown 4 to. Cloth, Price Rs. 7-8.

ON THE DYSENTERIES OF INDIA

WITH A CHAPTER ON SPRUE

BY

Lt-Col. H. W. ACTON, I.M.S., & Lt-Col. R. KNOWLES, I.M.S.

THACKER'S, :: P. O. BOX 54, :: CALCUTTA.

IT PAYS TO ADVERTISE

IN THE

INDIAN AND EASTERN DRUGGIST

Published exclusively for the chemical, drug and allied trades throughout India and the East: :: ::

Subscription rate 6 Rs. per annum post Free. The news and literary articles have special interest for the Medical Profession. :: :: ::

Specimen copy and advertising rates on application to:

The Advertising Manager,

INDIAN & EASTERN DRUGGIST,

35, Gordon Square,

LONDON. W. C. 1, ENGLAND.

When writing to advertisers, please mention the "Antiseptic."

The experience of forty years confirms its value in Phthisis

Angier's Emulsion pacifies the irritable stomach and intestines, and renders them docile, receptive, and retentive of food and medicine. It relieves the symptoms of digestive disturbance which are almost constantly present in Phthisis, and which constitute an insuperable barrier to proper nourishment and medication.

Angier's Emulsion facilitates, hastens and completes the processes of digestion and assimilation, so that the patient is enabled to take sufficient nourishing food. It is a strengthener and vitaliser to the body, fortifying its disease-resisting powers by increasing the absorption of nutrient material, and it acts as an antibacillary agent, inhibiting the growth of disease-producing bacteria and their toxins.

Angier's Emulsion has a specific palliative influence on the symptoms of Phthisis—fever, night-sweats, cough,

expectoration, and exhaustion are ameliorated, and the life of the patient made more comfortable, more free from distressing symptoms. In most cases of Phthisis the use of Angier's Emulsion obviates the necessity of administering depressing and narcotising cough sedatives.

Angier's Emulsion is the most palatable of all emulsions, and is easily tolerated by delicate stomachs. It has no deleterious influence upon any function of the body, and it is taken by the patient with pleasure. In the advanced stage of Phthisis, the agreeable, soothing qualities of the Emulsion are especially appreciated, and invariably afford much relief to the sufferer.

Angier's Emulsion should always be specified when prescribing petroleum emulsion, otherwise some disappointing imitation made with ordinary petroleum may be supplied.

Free Samples to the
Medical Profession.

ANGIER'S EMULSION

THE ORIGINAL AND STANDARD EMULSION OF PETROLEUM

MARTIN & HARRIS, LTD., ROWLETTE BUILDING, PRINSEP STREET, CALCUTTA
Proprietors—THE ANGIER CHEMICAL COMPANY, LTD.

When writing to advertisers, please mention the "Antiseptic."

PUMILET

A palatable soothing lozenge

Containing the valuable active principle of Pine and other ingredients having emollient and soothing effect on the lung tissue.



PUMILET

relieves the hacking cough of sore throat, pharyngitis and laryngitis.

PUMILET

allays congestion, soreness and inflammation of the bronchii and lung tissue.

PUMILET

gives prompt relief in Bronchitis, Asthma, Quinsy, Influenza and Whooping Cough.

PUMILET

is absolutely free from opium and other narcotics and sedatives.

Available in Phials of 40 tablets.

SAMPLE ON REQUEST

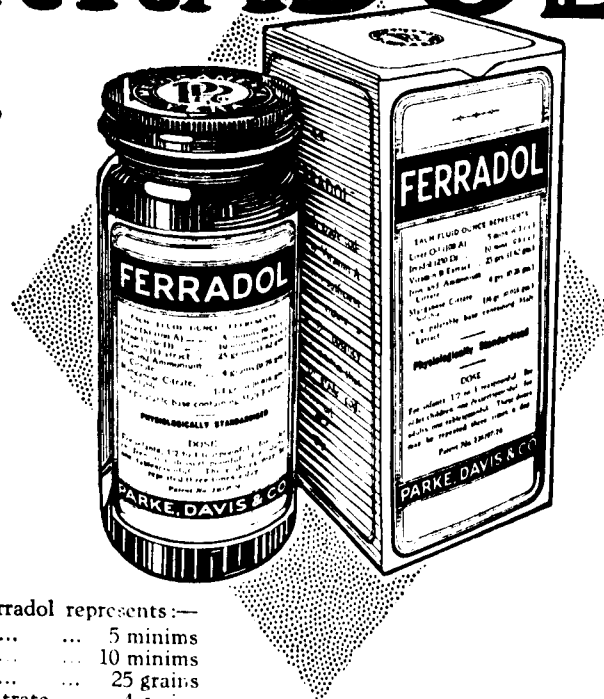
BENGAL CHEMICAL & PHARMACEUTICAL WORKS LD.

31, Chittaranjan Avenue (South)

CALCUTTA.

FERRADOL

*A Palatable
Diastatic
Malt Tonic*



Each fluid ounce of Ferradol represents:—
 Liver Oil (100 A) ... 5 minims
 Irradol (250 D) ... 10 minims
 Vitamin B Extract ... 25 grains
 Iron and Ammonium Citrate ... 4 grains
 Manganese Citrate, Soluble ... 1/4 grain
 In a palatable base containing Malt Extract.

FERRADOL contains as much vitamins A and D as cod-liver oil, a rich supply of vitamin B and adequate prophylactic doses of manganese and iron.

This combination is possessed of definite tonic properties and is especially indicated during convalescence from acute disease, during pregnancy and as an auxiliary to the infant dietary. In addition to providing the vitamins A, B and D this preparation affords the hæmatinic effect of the iron aided by that of manganese which renders it of value in secondary anæmia.

Supplied in 1-lb. glass jars.



PARKE, DAVIS & CO
 BOMBAY, INDIA