Commonwealth TODAY

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SPECIAL SCIENCE SECTION

Medical Research in Britain

Calf kidney cells, magnified about 3,400 times, are shown infected by influenza "A" virus at the National Institute for Medical Research. The orange colour indicates a later stage of infection.

Commonwealth **TODAY**

Presenting the Commonwealth to the Commonwealth

NUMBER NINETY-FOUR

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ACKNOWLEDGMENTS. Photographs: Front Cover: Colour photograph by M. R. Young, National Institute for Medical Research, London. Pages 10, 11: Canada official (1), Australia official (1), New Zealand official (1); 13: Ghana official (3); 16, 17: Colour photographs by courtesy of Shell-B.P. News; 18, 19: Hong Kong official (4); 20, 21: Canada official (5); 27: map by courtesy of "West Africa" magazine, London. The United Africa Co. Ltd. (1); 31: Kenya official (3). Back Cover: Colour photographs, Crown Copyright (2).

PREPARED FOR THE
BRITISH INFORMATION SERVICES
BY THE
CENTRAL OFFICE OF INFORMATION

PRINTED IN ENGLAND FOR
HER MAJESTY'S STATIONERY OFFICE
BY SAMUEL STEPHEN LTD., LONDON

Speaking of the Commonwealth

IN THIS issue of the magazine, in which several pages have been devoted to the achievements of science and the part science plays in our lives, it is appropriate to note the special value of the Commonwealth in facilitating the very many day-to-day consultations carried out between government departments, and also the exchanges of technical information—information which must be used as efficiently as any other raw material, if it is to give good results.

The peoples of the evolving Commonwealth are joined together in a host of common interests, professionally and culturally, in business, sport and almost every sort of human activity. This close network of common interests is made no more apparent than in the holding, usually in London, of a large number of periodical meetings and conferences.

* * *

Recently some 2,200 chemists, physicists and engineers from 45 countries, including overseas Commonwealth countries, met in London for the third Congress of the European Federation of Chemical Engineering. The delegates were welcomed by Britain's Minister for Science, Lord Hailsham, who said he was gratified that this third congress should be held in Britain. He hoped and believed that this was a compliment to Britain's achievement in the field of chemical engineering, in which we find a source of legitimate national pride.

* * *

Another international conference attended by representatives from more than 40 countries, including representatives from Commonwealth organisations, was one on Educational Building. It was organised by the United Kingdom National Commission for the United Nations Educational, Scientific and Cultural Organisation in association with U.N.E.S.C.O. itself.

Lack of money is not the only handicap to educational building in some countries. There is also a shortage of professional advisers, with increasing demands being made on their skill and experience. The training of local people in design, in controlling building costs, and in planning programmes, were considered by the delegates as possible functions of a series of suggested regional centres to be set up in Asia, Africa, and other places, so that knowledge of developments in building schools, colleges and other centres of education would be available to all.

* * *

Civil engineering problems, particularly in the developing countries, were studied at a London conference held at the Institute of Civil Engineers. About 150 delegates attended from 30 countries, including Canada, Australia, Ceylon, Ghana, Malaya, Nigeria, Northern and Southern Rhodesia, Tanganyika, Nyasaland, Bechuanaland, Gambia, the West Indies, British Guiana, Malta, British Honduras, Bahamas, Bermuda, Hong Kong, North Borneo and Sarawak.

The subjects discussed included making the best use of roads, air and rail transport and harbour developments.

* * *

Almost every Commonwealth country was represented at the Eighth British Commonwealth Forestry Conference in Kenya, when great areas of forest land in East Africa came under the scrutiny of forestry experts. The conference, which was presided over by Mr. T. S. Tewa, Tanganyika's Minister for Lands, Forests and Wild Life, lasted a month. In addition to touring forest areas, the delegates attended technical discussions in Nairobi.

* * *

Teachers of science from the Commonwealth overseas took advantage of a series of special courses organised by the British Council in Britain. The teachers compared ideas and during their tours studied the latest methods in teaching science and mathematics in British schools and other educational establishments.

* * *

Finally, on a non-scientific note, Commonwealth Parliamentarians gathered again in London at the invitation of the U.K. Branch of the Commonwealth Parliamentary Association. Members from 19 Commonwealth parliaments met and toured England, Northern Ireland and Scotland. The Secretary of State for Commonwealth Relations, Mr. Duncan Sandys, opened the first session, and leading members of the British Government and the Opposition took part in all the discussions.

This year's Chairman of the Commonwealth Parliamentary Association, Mr. R. A. Njoku, Nigeria's Federal Minister of Transport, has been touring the Commonwealth. He visited Aden, India, Ceylon, Singapore, New Zealand, Australia, Fiji and Canada before coming to London. He then went on to Ghana, Sierra Leone and the Gambia.

He said at a London press conference that many people he had met on his tour had wondered what would become of the Commonwealth as new countries emerged in Africa and Asia. "My impression," he said, "is that these countries will strengthen the Commonwealth. I believe that the Commonwealth is able and will continue to be able to play a very important role in the world."

"GO by HOVERBUS"

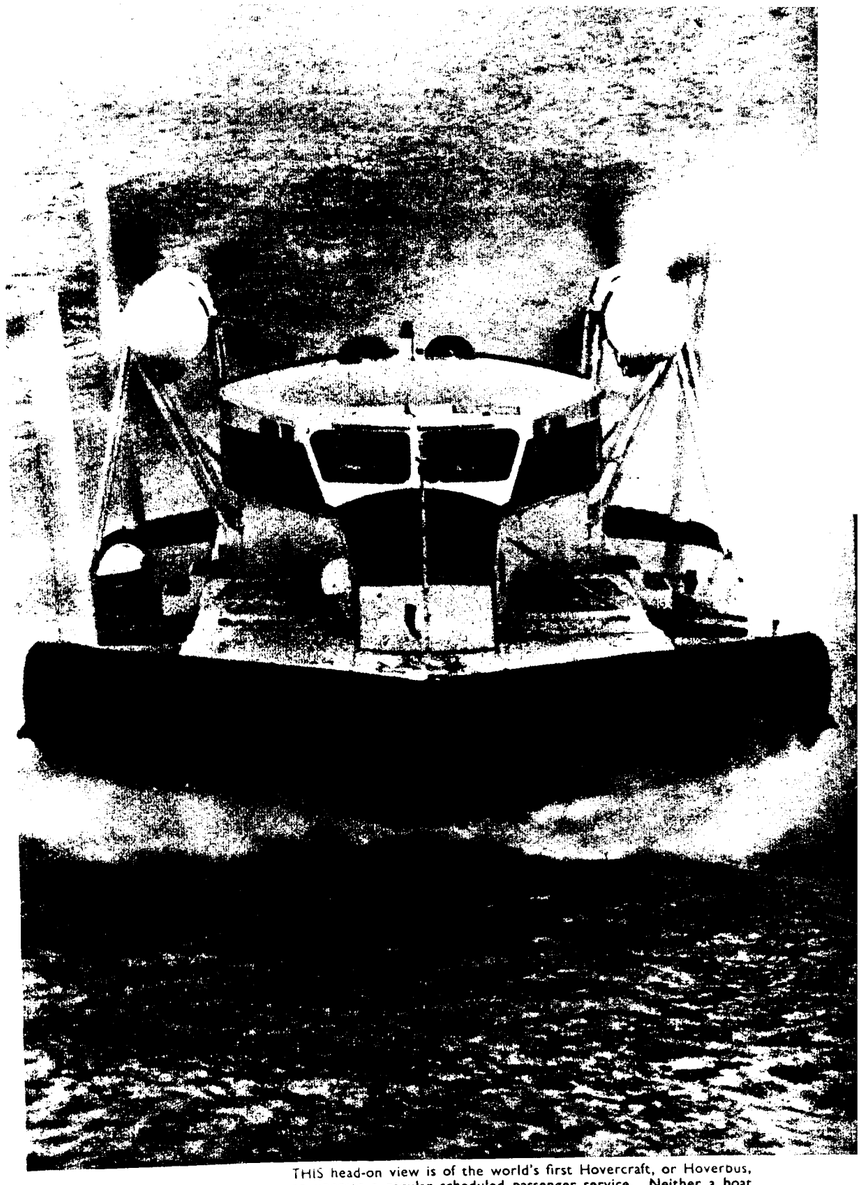
THE world's first scheduled commercial service by Hovercraft has been provided by the VA-3 (Vickers-Armstrongs) machine pictured on the right.

All seats in the 24-seater, 11-ton Hovercraft were booked weeks ahead for the first round trips between Rhyl, a holiday resort in Wales, and Wallasey in Cheshire, England. The passengers were delighted, describing the experience as "a curious mixture of flying and sailing" as the craft skimmed along on a cushion of air. The noise from the four gas turbine engines was little louder than the noise in the cabin of a Vickers Viscount airliner.

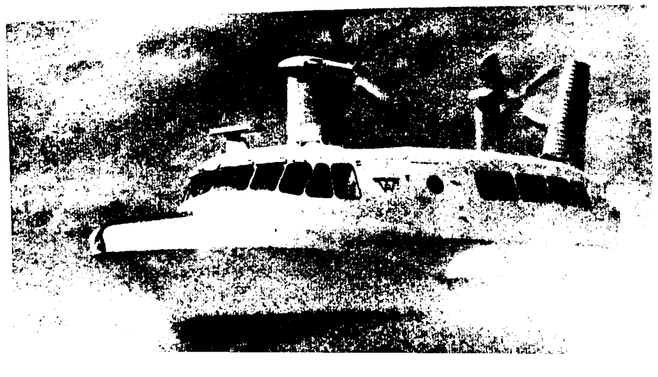
Another, even larger, passenger Hovercraft, the SRN-2 (below), has been built by Westland Aircraft. Its chief designer was Mr. R. Stanton Jones of Saunders-Roe.

The SRN-2—developed from the three-year-old SRN-1, the world's first Hovercraft—weighs 25 tons and is powered by four Blackburn Nimbus gas turbine engines of 700 h.p. each. The craft is 65 feet long and 30 foot across at its widest. It can carry up to 75 passengers and baggage or eight tons of freight. The range is 260 nautical miles and it can reach speeds approaching 80 knots.

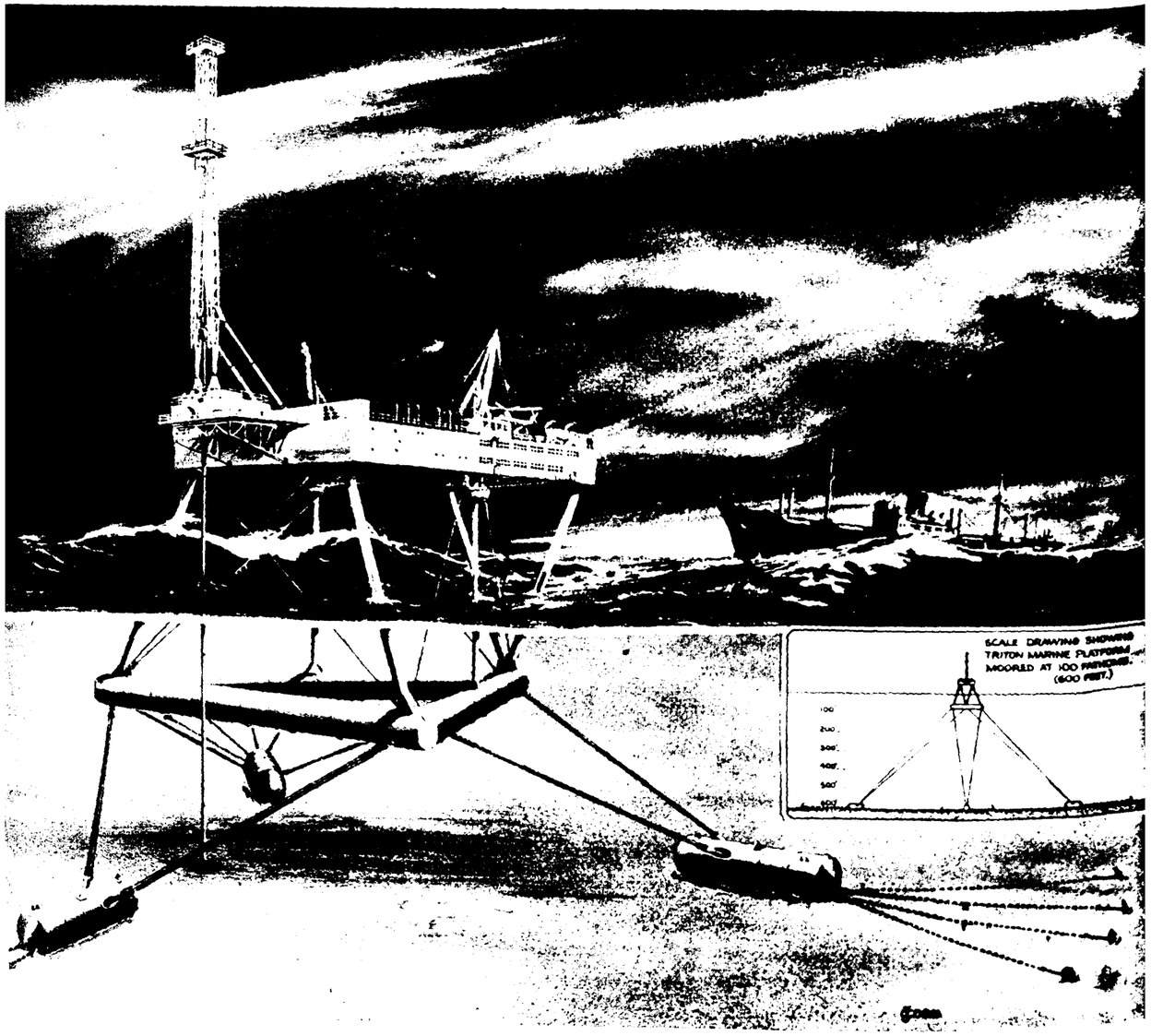
Another version of the Hovercraft is in hand. Carrying 120 passengers and weighing 37½ tons, it will offer more economical service on potential civil routes as well as behaving better in rough water.



THIS head-on view is of the world's first Hovercraft, or Hoverbus, to operate a regular scheduled passenger service. Neither a boat nor an aircraft, it skims on a cushion of air.



AN even larger Hovercraft (right) undergoing trials near the Isle of Wight, where it was made. It can carry up to 75 passengers at high speeds.



THE NEW TYPE of marine platform shown in this artist's impression has been developed by a British company for use as an oil-drilling platform in deep water, or as an offshore terminal for ships and helicopters. It neither floats on the surface of the sea nor stands on the sea bed, but incorporates an anchored buoyancy tank—a system which provides stability even in the worst of storms.

SCIENTIFIC RESEARCH IN BRITAIN

By ROY HERBERT,
Industrial Editor, the "New Scientist"

NEAR London Airport, at Feltham, is the largest ship model testing tank in Europe. It is a quarter of a mile long and it is used for finding out how ships will behave in all kinds of weather. At one end of it is a wavemaker which can displace 40 tons of water and so reproduce the sea conditions necessary for the scientists to get reliable information on the performance to be expected from actual ships at sea. The tank is part of the Ship Hydrodynamics Laboratory, which itself is a part of Britain's National Physical Laboratory.

Undergoing trials in the tank recently was a model which was not a ship at all. It was a new design for a working platform for deep-sea operation. This model in the ship tank remained stable in the equivalent of a wind of 120 knots and waves 50 ft. high, weather that only the worst of storms produces. Its performance means that it could be used for oil drilling and other jobs in far deeper water than is possible now. The platform is being developed by two British firms—Intercontinental Marine Development Ltd., and Cammell Laird and Co.—and its testing illustrates the co-operation that exists in research in Britain between industry and Government scientists.

In the organisation of British research, the Government plays a large part. The Office of the Minister for Science is the co-ordinating body, but because it carries out no actual research work it is less well known than the Government departments that do, and among these probably the most familiar is the Department of Scientific and Industrial Research (D.S.I.R.) which has been in existence since the first world war.

Building Research

Most of its own laboratories are grouped around London, though one of the biggest, the National Engineering Laboratory, is in Scotland. There are fifteen of them altogether, and though most of their work is not spectacular, it is important to the social and economic life of Britain. An obvious example of the work of D.S.I.R. is the Zebra crossing for pedestrians, which has been adopted in many other countries the world over. Typical of its research (and of the unexpected results that it may have) are some experiments recently carried out at the Building Research Station, at Watford. Radio waves are partly absorbed by moisture and, based on this fact, a meter was made by the Station to measure the amount of water in brickwork. The scientists noticed that there was a small increase in the temperature of the brickwork because of the absorption of energy from the radio waves. This gave rise to the idea that building materials might be broken up by radio waves, and the Station has gone on to crack a concrete slab 5 ft. square and 9 in. thick by applying a radio beam to it. Developments from these experiments may make the nerve-fraying pneumatic drill a thing of the past. D.S.I.R. laboratories are concerned with almost every aspect of British life, from the freezing of fish to the properties of metals, and from the removal of oil from the beaches

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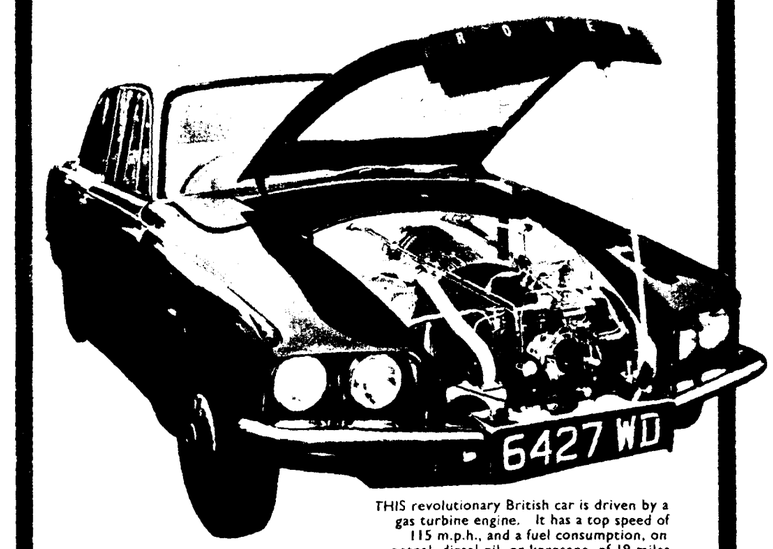
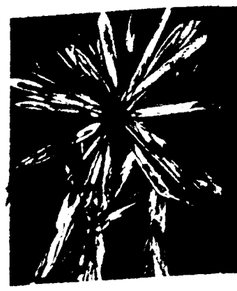
THE VICKERS VC 10, Britain's latest jet airliner, makes its maiden flight Powered by four Rolls-Royce Conway engines mounted near the tail, the VC 10 will carry up to 151 passengers at speeds of up to 600 m.p.h. It is a fine product of British aeronautical research.



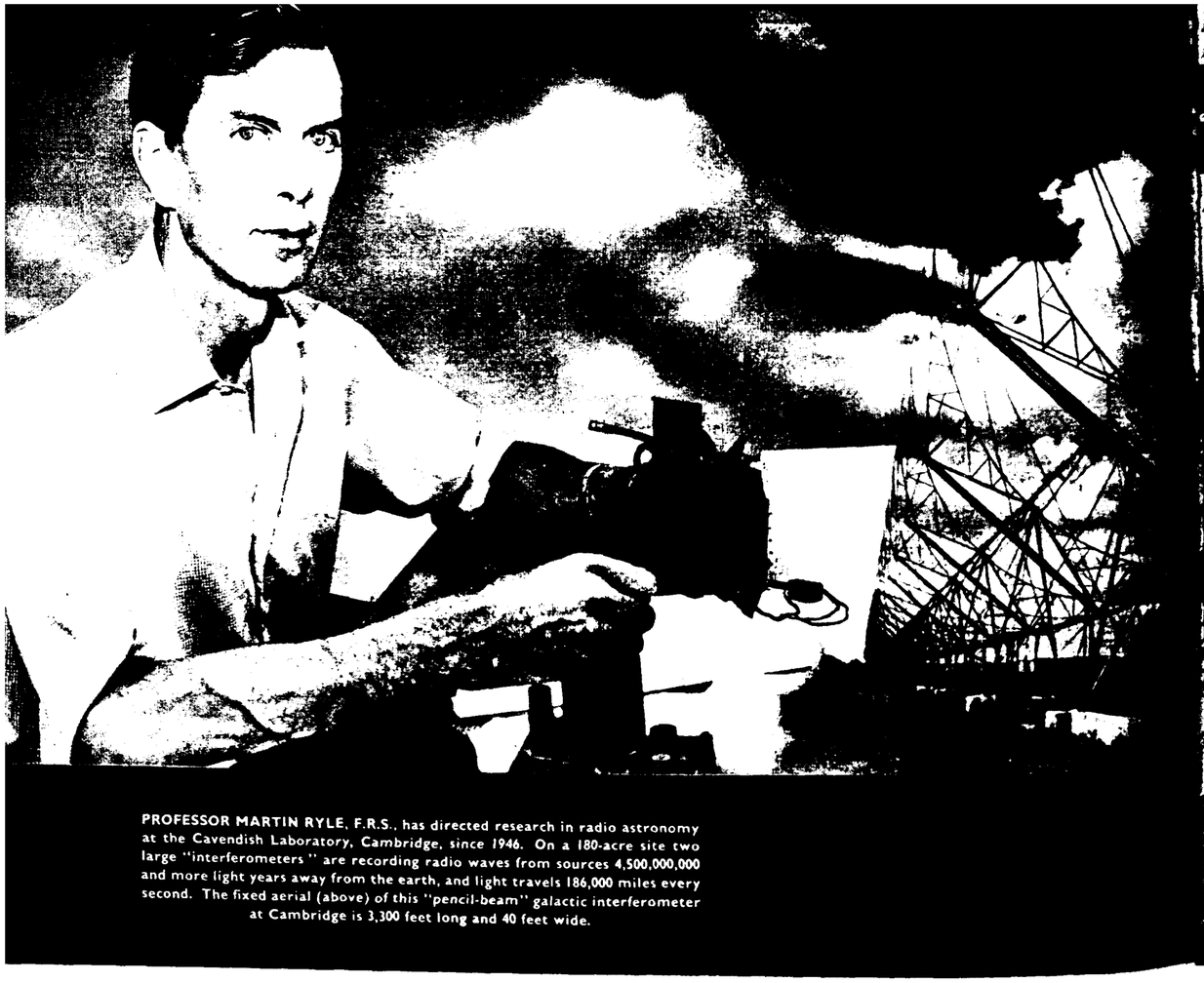
THIS revolutionary British car is driven by a gas turbine engine. It has a top speed of 115 m.p.h., and a fuel consumption, on petrol, diesel oil, or kerosene, of 19 miles per gallon at 50 m.p.h.

BRITAIN leads the world in jet engine design. The ultra-light Rolls-Royce engine, bottom right, will be used by vertical-take-off aircraft.



Through the Microscope . . .

NOT A FLOWER (left), but the structure of crystalline penicillin. Microscopical examination plays a vital part in medical research, such as virus research (front cover). In one recent development British medical scientists have now found a "multiple vaccine" which gives protection against polio, diphtheria, whooping cough and tetanus with one injection.



PROFESSOR MARTIN RYLE, F.R.S., has directed research in radio astronomy at the Cavendish Laboratory, Cambridge, since 1946. On a 180-acre site two large "interferometers" are recording radio waves from sources 4,500,000,000 and more light years away from the earth, and light travels 186,000 miles every second. The fixed aerial (above) of this "pencil-beam" galactic interferometer at Cambridge is 3,300 feet long and 40 feet wide.

SCIENTIFIC RESEARCH IN BRITAIN

of holiday resorts to observing the British satellite in space.

A good deal of money is spent by the Government on the Research Associations, who get their funds from industry's contributions and from D.S.I.R. They are organisations that do research on behalf of their members. Advances made by these associations are bound to be on a narrow front, but some of them can be major steps forward. For example, a bread-making process developed by one R.A. has cut down the time needed to process bread to less than half and increased the yield of loaves from the dough. At another, a way has been found to cure rubber extrusions continuously instead of cutting them to length and curing them in batches. The technique is important, especially to the car industry. Another continuous process achieved by a research association is that of laundering flat articles, such as sheets and tablecloths. A prototype machine, which can work at high speed, fed by dirty linen at one end and delivering clean and pressed articles at the other, was given its first showing at a recent exhibition in London. There are over fifty R.A.s and their number is likely to increase.

D.S.I.R.'s encouragement of research in universities is best exemplified by an announcement of a grant to a team of research workers at Birmingham University. Hydrocarbons are the basis of the complex synthetic chemical industry, producing plastics, new textile materials and so on. The team at Birmingham has succeeded in finding a method of replacing the hydrogen in these substances by fluorine. This means that millions of new compounds are possible and may be the first step along the way to another industry as big as the hydrocarbon one is now. The substances which will be made could have exciting properties and they range from textiles to medicines.

Infected with Colds

The Medical Research Council receives money voted by Parliament and applies it in many fields of work, including the effects of radiation on body cells and the techniques of psychiatry. Some of its problems are both commonplace and baffling, such as trying to discover the virus responsible for the common cold and how to combat it. Near Salisbury, it has a special unit to which volunteers go to be infected with colds, but although much work has been done, the solution appears to be a long way off. Perhaps its most interesting work is being done on virus research, and particularly on the role of Interferon in recovery from virus infections. Tests which are being carried out will show whether Interferon, which is a protein produced in the infected cell, is an effective cure.

Interferon is produced early in the course of virus infection, unlike an antibody, which is produced when recovery is well on the way, and it is active against a whole range of viruses instead of one or a specific group. Much more needs to be known about the structure of viruses and the M.R.C. is carrying out an extensive programme of work on them.

A most important question is the relation between the structure of viruses and their function. For example, the form of the influenza virus may be something to do with its ability to develop many different strains. It is only in the last five years that the structure of viruses has been revealed by improved techniques in electron microscopes, and there is an enormous amount of knowledge yet to be discovered.

Research on viruses also forms part of the work which the Agricultural Research Council supports at many establishments in Britain. The A.R.C. is the third important Government body in research and dates from 1931. One of the institutes which receives grants from the A.R.C.—Rothamsted—has an international reputation for its contributions to knowledge of plant viruses. Under the Council's aegis comes work on animal diseases, the breeding of plants, the protection of stored foods from insect attack, and so on, and its expenditure runs at over £5 million a year.

Established under an Act of Parliament, but not a Government department, is the National Research Development Corporation. It does two jobs, exploiting inventions that spring from publicly supported research and the development of inventions that it thinks ought to be encouraged, no matter where they come from. It was the N.R.D.C.'s support that played a large part in the successful growth of a computer industry in Britain and which has culminated in the building of the most powerful computer in the world, the "Atlas", now under construction at Manchester University by the University and Ferranti's.

Atomic Experiments

Another exciting development which owes much to the N.R.D.C. is the Hovercraft, which moves over the surface of the water or the land on a cushion of air, a principle which is being used in many forms of craft and which has already been the basis of a suggested plan for a high-speed railway system between London and Scotland.

An industry which is a perfect example of what research may lead to is atomic energy. Britain's Atomic Energy Authority is financed by Government money, but, like the N.R.D.C., it is not a Government department. The Authority maintains the large research establishment at Harwell and a great deal of the work is concerned with the problems met with in developing new forms of reactor, as well as the uses of radioactive isotopes in industry, medicine and agricultural science. Its biggest experiment is the Dounreay Fast Reactor, on the north coast of Scotland. This uses a different system from the atomic power stations that are being built in Britain (two of which are now in operation and supplying power to the grid) and the heart of the reactor, called the core, can be made much smaller because of this. Dounreay also possesses the capability of breeding more fuel than it consumes in generating heat and, after a period of teething troubles, now looks an extremely promising development which could alter the whole power situation in

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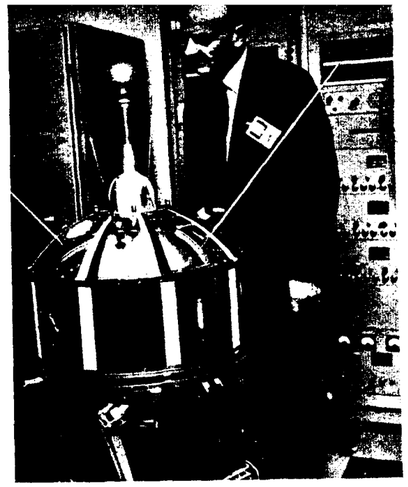
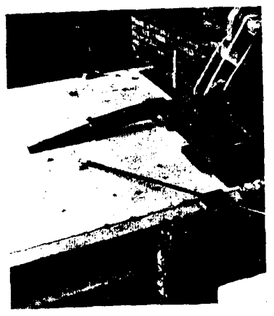
AN 8,000,000-volt "linear accelerator" at Hammersmith Hospital, London, aims electrons at a tumour in a man's body. Atomic energy is increasingly applied to medicine.



THE CHAIRMAN of the British National Space Research Committee, Professor Sir Harrie Massey, with the satellite which was launched into space packed with British instruments.

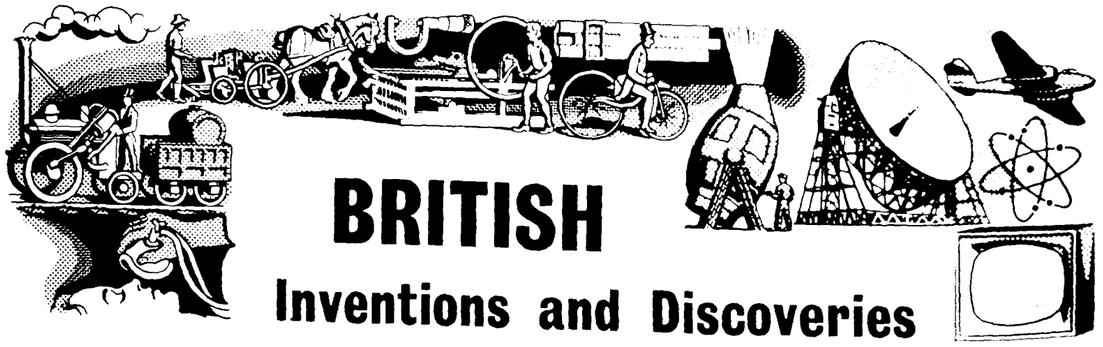
DELICATE work—preparing a radioactive source with a micrometer pipette—at the Isotope School of the Atomic Energy Research Establishment.

THIS heat pump developed by Britain's Electrical Research Association can recover valuable heat from the refrigeration equipment of dairy farms.



A CONCRETE slab 5 ft. square and 9 inches thick being cracked by the application of a radio beam at a Building Research Station near London.

USING an ultrasonic probe, it is now possible to estimate accurately the proportion of lean meat to fat on a pig, hitherto a matter of guesswork.



BRITISH
Inventions and Discoveries

For more than three hundred years British scientists and inventors have written an extraordinary chapter in the story of human progress. Here is a list of just a few of the very many major inventions and discoveries.

In the seventeenth century **Sir Isaac Newton,** mathematician, physicist, and astronomer, evolved the theory of gravitation.

Sir Isaac Newton—gravitation.

Robert Boyle (Boyle's Law) was hailed as "the Father of Chemistry".

Edmund Halley, mathematician and astronomer, mapped the heavens and observed the comet which bears his name.

Robert Hooke's inventions included an air pump, the spirit level, marine barometer, and the balance-spring for watches.

John Napier devised logarithms.

Edmund Gunter and **William Oughtred** developed the slide rule.

William Gascoigne perfected the cross-hair sight and micrometer screw.

Leonard Digges devised the theodolite.

In the eighteenth century British inventors ushered in the machine age.

Abraham Darby pioneered the use of coke for smelting iron.

Robert Maudsley, with his screw-cutting lathe, and **Joseph Whitworth** (the screw micrometer) laid the foundations of production engineering.

Jethro Tull invented a seed drill.

Andrew Meikle, a Scot, built the prototype of the modern thresher.

James Watt—the steam engine.

James Watt pioneered the steam engine.

James Hargreaves and **Richard Arkwright,** with their spinning machines, and **Edmund Cartwright,** with his power loom, revolutionised spinning and weaving.

John Harrison's chronometer provided yet another aid to navigation.

In the nineteenth century the machine age was consolidated and expanded.

Richard Trevithick, "Father of the Railways", adapted Watt's steam engine to hauling coal from the pits in Wales and put the first passenger steam engine on the roads.

George Stephenson designed the famous "Rocket" railway engine.

Henry Bessemer revolutionised steel making.

Lord Kelvin—the compass.

James Smith constructed the first mechanical reaper.

Joseph Aspden, and others, developed modern cement—a purely British invention.

Kirkpatrick Macmillan built the first true bicycle.

R. W. Thomson invented the pneumatic tyre, which was improved and patented by **J. B. Dunlop.**

Lord Kelvin, and others, devised the compass as an accurate instrument.

William Henry Perkin discovered the first aniline dye.

D. E. Hughes sent out the first radio signals.

And, in the medical field . . .

Sir Humphry Davy, better known for his miner's safety lamp, suggested the use of nitrous oxide to spare people pain.

Dr. Edward Jenner pointed the way to vaccination and inoculation for diseases such as smallpox.

Lord Lister introduced antiseptics.

In the twentieth century the pace of invention and discovery in Britain has, if anything, increased.

Sir Robert Watson-Watt—radar

J. L. Baird pioneered television.

Thomson and **Rutherford, Cockcroft** and **Walton,** exposed the mysteries of the atom.

Air Commodore Sir Frank Whittle invented the jet turbine engine.

Sir Alexander Fleming discovered penicillin.

Sir Robert Watson-Watt pioneered radar.

It is a continuing story . . . the final chapter may never be written.

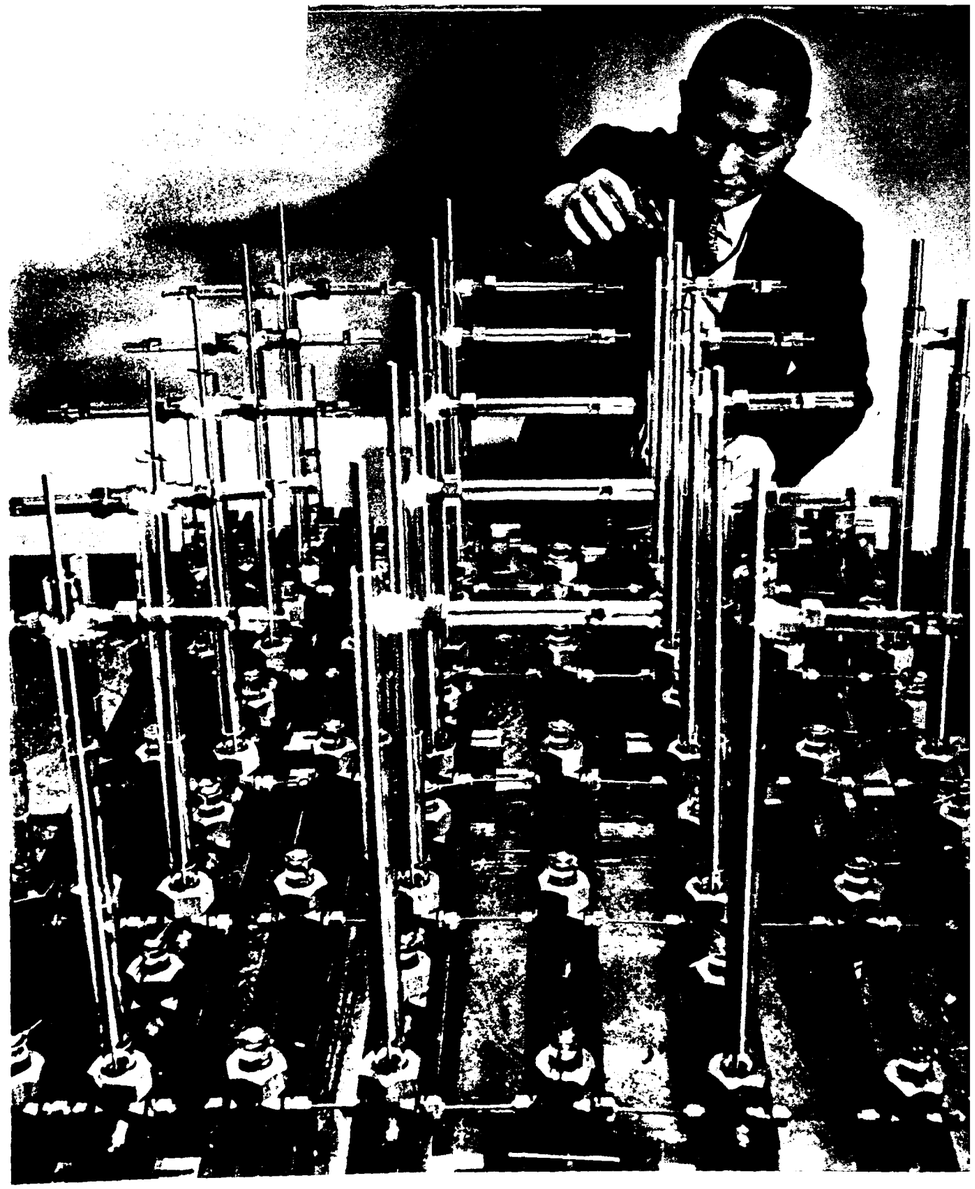
SCIENTIFIC RESEARCH IN BRITAIN

Britain, producing electricity at a cheaper price than it can be produced from coal or oil.

There is little doubt that the most celebrated research projects at British universities have been those working on the young science of radio astronomy. The dish of the present Jodrell Bank radiotelescope became familiar to thousands of people at the beginning of space flight, but this instrument, which belongs to Manchester University, is far from being the only radiotelescope in the country and more are to join them. At the end of last year plans were announced for four more radiotelescopes: another for Jodrell Bank, one for the Post Office and another for the Radio Research Station, the fourth to be built for Cambridge University.

These immense instruments are, of course, the things that catch the eye, and an article as short as this can make no attempt to summarise the hundreds of researches that are in progress in university laboratories. Neither can it give more than the sketchiest outline of research carried out by the industrial firms in Britain, the most spectacular products of which are aircraft, such as the VC 10, which recently took off on its maiden flight. One of this aircraft's chief merits is that it can use runways a thousand feet or so shorter than those needed by other big jets.

Some other projects on which many firms are working may be just as important, or even more so, but they are not spectacular. These include the development of solid circuits, lumps of semiconductor material which can function as the elements of a conventional circuit and all of which can be contained in a component half an inch long and a quarter wide, and as thin as an ice-cream wafer. A technique of promise in industry is the shaping of sheet metal by explosive force rather than drawing or stretching. Chemical explosives, sudden electric heating or strong magnetic fields can be used and all of these methods are being investigated. Other research of potential importance is being carried out in magneto-hydrodynamics, which is the generation of electricity by the movement of a stream of gas through a magnetic field. These are random examples of the sort of research that industry does in its own laboratories, where, according to a recent report, a high percentage of fundamental work is also carried on.



THIS is a computing machine developed by Dr. Shen Po'Shun, of Hong Kong, for assessing temperatures in molten aluminium. He constructed it as part of his Ph.D. thesis in Mechanical Engineering at the Imperial College of Science and Technology.

SCIENTIFIC CO-OPERATION IN THE COMMONWEALTH

STUDENTS watch an expert at work at the London School of Hygiene and Tropical Medicine.

THE heads of natural research organisations in the Commonwealth will soon (in November) be gathering in New Delhi, India, for the meeting of the British Commonwealth Scientific Committee. This meeting is an example of the many opportunities that are open to Commonwealth scientists to exchange views, discuss scientific progress and co-operation and focus greater attention on the areas in urgent need of scientific know-how and research.

When the Committee last met in Britain in 1960 it stressed that "with so many new fields of research developing, such as the exploration of space, it is doubly important not to lose sight of those things which are essential to improved standards of living". Such a practical and realistic approach has for long been a major asset in Commonwealth scientific co-operation.

Among the practical suggestions made at the last conference were for the Warren Spring Laboratory of Britain's Department of Scientific and Industrial Research (D.S.I.R.) to be the centre for the exchange of information on mineral processing, and for closer all-round

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SCIENTIFIC CO-OPERATION IN THE COMMONWEALTH—*continued*

collaboration in the translation of foreign language scientific and technical literature.

The Delhi Conference will have three major terms of reference: first, to follow up recommendations and decisions of conferences, and to initiate action where appropriate; second, to consider the best means of ensuring the fullest collaboration between the civil government scientific organisations of the Commonwealth; and, third, to offer advice on the organisation of research and the development of research laboratories to any particular country which may request it.

It was little more than a century ago that nearly all Commonwealth scientific activity was confined to Britain. Not until the first overseas universities were started in the nineteenth century did fundamental research spread overseas.

The first interchange between Commonwealth scientists occurred at a time when nearly all the professors in Commonwealth universities came from universities in Britain and were anxious to keep in touch with developments at home. Their exchanges of letters with colleagues in Britain, their overseas visits arranged privately, heralded an era when co-operation and consultation between scientists and scientific bodies of the Commonwealth began to grow steadily in scope and effectiveness.

The Learned Societies

Today there is not a scientist, engaged on any important research anywhere in the Commonwealth, who need remain unaware of activities in his own field in the other countries. If it is desirable for him to travel, meet other scientists, attend scientific conferences, or acquire published scientific papers from any part of the Commonwealth, the machinery exists to help him. The Governments in the countries of the Commonwealth also co-operate and share their experience in science education, and supply one another with essential scientific equipment. Science thus marches on in a great co-operative effort.

Britain's learned societies—chief among them the Royal Society of London, the Royal Society of Arts, the Royal Institution, and the British Association for the Advancement of Science—played their part, along with the universities, in fostering co-operation in science long before governments showed the great practical interest which is now being taken. They established friendly links with overseas institutions, such as the Royal Society of Canada—which dates from the 1880s—and India's oldest learned society, the Asiatic Society of Bengal. They encouraged the founding of new learned societies overseas. These included the Australian Academy of Science, which was granted its Charter by H.M. the Queen in Canberra in 1954; the Royal Society of New Zealand; the Pakistan and Ceylon Associations for the Advancement of Science; and the Rhodesia Scientific Association.

As the scope and intensity of scientific effort increased, national governments became involved. At first government support was given mainly to research into medicine and the primary industries, such as agriculture. Under the influence of two world wars, however, government-sponsored research spread to defence and, finally, to a host of secondary industries.

A STUDENT from Sierra Leone looks down a microscope at the London School of Hygiene and Tropical Medicine, where she is studying for her Diploma. The School is a part of London University.

The pattern of research differs in different countries, but in general it is organised in three ways: in government establishments, such as the various centres in Britain of the Department of Scientific and Industrial Research; in the laboratories of the universities, and independent organisations, many of which receive government grants; and in laboratories run by private industry, where much important research is carried on.

Scientific co-operation has kept pace with these developments: the informal contacts between individuals continue, but the scientific age has called for a more complex, permanent machinery of co-operation.

Each of the independent Commonwealth countries maintains in London a scientific liaison officer. He is attached to the British Commonwealth Scientific Liaison Offices in London, an organisation which has functioned in one building since 1948 and which was described by H.R.H. the Duke of Edinburgh as "without any doubt the most lively force in Commonwealth scientific co-operation". These officers maintain contact among themselves and oil the grooves of co-operation between the scientific organisations of the various countries.

One of the achievements of the Offices has been the maintenance of a Commonwealth index of translations into English of published scientific papers, reports and journal articles. This means that if a research worker anywhere wants to know what, in his field of study, has been published in other languages, the index is available to help him.

In much the same way the Commonwealth Agricultural Bureaux act as clearing houses of information and intelligence centres for scientists and research workers in agriculture and forestry. The organisation has developed from the Entomological Research Committee ("Tropical Africa"), which was formed in 1909 with headquarters at the Natural History Museum in London. Four years later the Imperial Bureau of Entomology was established. It was managed by a committee representing the Commonwealth and was, in fact, the prototype of the institutes and bureaux of today.

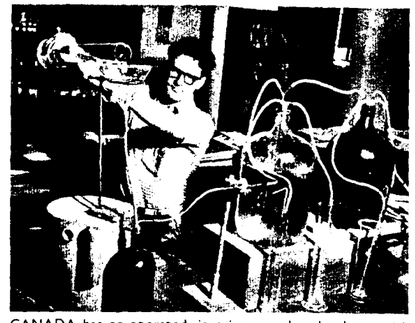
Each bureau in the modern organisation is located at an appropriate research institute. For example, the Commonwealth Mycological Institute is at Kew, the Commonwealth Bureau of Animal Breeding and Genetics is in Edinburgh, and the Commonwealth Bureau of Forestry is at Oxford. There are thirteen of these specialised bureaux, and all except the Bureau of Biological Control, which is in Ottawa, Canada, are situated in Britain.

This is how the bureaux do their job of facilitating co-operation in agriculture:

They are administered by an Executive Council, which has one representative from each of the contributing Commonwealth countries. Close touch is maintained between the countries and individual bureaux by a system of "official correspondents", each country nominating a scientist who specialises in a bureau's subject, to act in this capacity. To provide a similar link in the administration, there is a liaison officer in each country.

The institutes and bureaux collect their information by the constant scrutiny of scientific literature in all languages. The information is classified, and the essence of it is published in the indexed abstract journal which each bureau issues. The Commonwealth Agricultural Bureaux also hold conferences for the study of special problems of Commonwealth interest. Every five years they hold a Review Conference to consider the work and usefulness of the organisation, which has indeed proved an essential component in the scientific development of Commonwealth agriculture.

IN NEW ZEALAND, where he is studying under the Colombo Plan, Mr. Inayatullah Khan (left, above) of Pakistan makes notes about a rectifier which provides current for cables serving trolleybuses.



CANADA has co-operated, in science and technology, with many Commonwealth countries. *Above:* A Canadian expert carries out paddy research in the Federation of Malaya.

AUSTRALIA has made big scientific advances. *Right:* A television camera, developed at Melbourne University, explores a man's throat and lungs.

A BRITISH specialist in radio chemistry handles radioactive material via a "glove box" (left) at the Trombay Atomic Energy Establishment, India. *Above:* Inche Abdullah Bin Omar, from Johore Bahru, Malaya, checks radar apparatus in Britain.

RADIOGRAPHER Mr. Joseph Nalpan (left) prepares a young patient for X-ray in Singapore. He was trained in Melbourne and Glasgow.

The training of scientists and technicians in other countries of the Commonwealth is another important aspect of co-operation. A proportion of the research workers at British, Canadian, and Australian universities, and at many Government and private industrial laboratories, are science graduates from India, Pakistan, Ceylon, Malaya, and the independent countries of Africa. Students study overseas under the auspices of the Colombo Plan, the British Council, the Nuffield Foundation, the Rutherford Memorial Scheme, the Commonwealth Scholarship and Fellowship Plan, and similar organisations, and some study privately.

Overseas trainees and trained specialists are at work in the laboratories of many of the establishments of Britain's Department of Scientific and Industrial Research, which carry out research that is applicable to problems of everyday life and development in the Commonwealth.

For example, the Hydraulics Research Station of the D.S.I.R. has done research on the use of radioactive trace techniques in Bombay Harbour; on harbour reclamation and water supply in Hong Kong; on the Teraranga harbour development in New Zealand; the Mangla Dam in Pakistan, and the Kainji Dam in Nigeria. The projects of

Continued overleaf ▶

JAMAICA'S INDEPENDENCE CELEBRATIONS

See pages four and five

H.R.H. PRINCESS MARGARET, as Special Representative of H.M. the Queen, is seen here on her arrival at the entrance to Gordon House, Kingston, Jamaica, for the State Opening of the Jamaican Parliament.

A FIREWORKS display delighted the crowds after midnight to celebrate Jamaica's Independence on 6th August, 1962. A few minutes before Guards of Honour saluted the Jamaican Flag and the National Anthem was played.

JAMAICAN children enjoying their dance of thes—one of the many colourful special entertainments provided for Princess Margaret and the other distinguished visitors.

STANDING for the National Anthem (right) at The Pavilion, Charles Square, Montego Bay. The group, with Princess Margaret and her husband, the Earl of Snowdon, includes the Prime Minister of Jamaica, Sir Alexander Bustamante; the Governor-General, Sir Kenneth Blackburne; Lady Blackburne; and the Mayor and Mayoress of Montego Bay.

Left: Some of the young Jamaicans who lined the streets to greet the arrival of the Royal party.

An Act of Faith

Coventry Cathedral is Reborn

ON THE night of 14th November, 1940, high explosive and incendiary bombs raining down on Coventry, the large industrial city in the Midlands of England, destroyed the town centre and with it the centuries old cathedral church of St. Michael. Next day the then Provost of Coventry, the Very Rev. R. T. Howard, stood amid the ruins and said : " We shall rebuild ". On the 25th of May, 1962, the new cathedral church of St. Michael was consecrated in the presence of H.M. the Queen and a congregation of nearly 2,000, which included representatives from many Commonwealth and foreign countries.

The rebuilding of Coventry Cathedral was an act of faith, something which all men, regardless of race, can understand and support. Many countries made contributions to the building, and many artists and skilled artisans gave of their best to build and illuminate this new House of God. If Coventry Cathedral, because of its lavish use of modern materials and techniques, is unlike the other great historic cathedrals of Britain, yet it is allied to them in dignity, beauty, and grandeur of conception.

The architect is Sir Basil Spence, whose design was chosen in 1950 from 219 other designs submitted. It won him a prize of £2,000 and the commission for a work which was to cost, in cold figures, £1,350,000 ; in terms of effort and dedication, a work beyond price.

Sir Basil has written : " When I first visited Coventry with the competition conditions in October 1950, the old cathedral burnt open by fire-bombs seemed to say in a gentle voice, ' I am the Sacrifice ; build now for the future—the Resurrection.' And so it happened. The idea was born in the first five minutes and has never changed. . . . Within the next 24 hours I completed the first plan, which is remarkably like the final one completed 12 years later."

The cathedral, faced with pink sandstone, has little ornamentation on the walls except for a massive and imposing sculpture by the late Sir Jacob Epstein. It weighs four tons and depicts St. Michael looking down in triumph on the chained Devil.

This symbolic masterpiece hangs beside the entrance porch, which itself provides a symbolic link by reason of its situation between the ruins of the old cathedral and the nave of the new. From the gutted old cathedral it is possible to look across the porch, through a huge glass screen which forms an entire wall of the new cathedral, and along the nave to the altar. Alternatively, from inside the new cathedral icy-white saints and angels, delicately etched on the glass wall by artist John Hutton, seem to float in the clouds, keeping watch and ward over the ruins. The wall contributes much to the atmosphere of airiness and light.

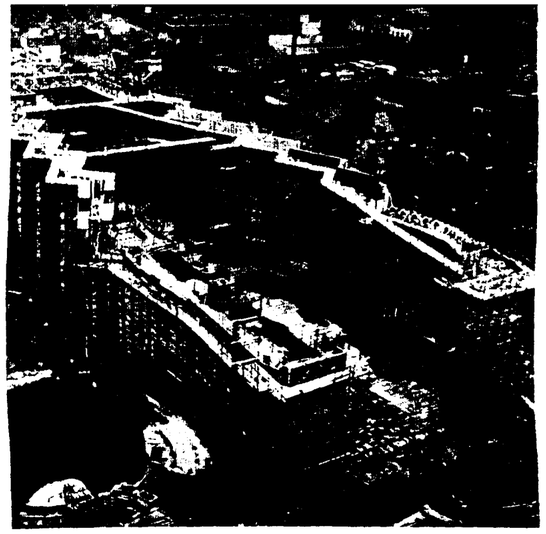
Inside, seen from the entrance, the dominant theme of the cathedral is still simplicity. The ten pale grey, angled walls of the nave are bare except for a simple rectangular Tablet of the Word on each. From hidden sources, however, multi-coloured light suffuses the cathedral and draws the eye beyond the altar to the far wall, which is covered by a tapestry the size of a tennis court ; designed by the painter, Graham Sutherland, it is entitled " Christ in Majesty ".

From the altar, looking back down the nave, the source of the light is dramatically apparent. It is provided by ten narrow stained glass windows, 70 feet high, in the jogs of the saw-toothed walls. Perhaps the most spectacular feature of all is the baptistery window, designed by John Piper, which contains more than 2,000 square feet of glass in reds and blues and greens, culminating in a " sunburst " of gold.

Coventry Cathedral reflects new attitudes to worship, as well as new ideas in artistry and craftsmanship. It incorporates a Chapel of Unity as a place of worship for all the denominations of the Christian Church. Drama is considered an integral part of worship, and plays, operatic performances, and orchestral concerts, will be given frequently within the hallowed walls.

Coventry intends to foster the arts and reach out to the working people. Here is a cathedral, and a living religion, for today and tomorrow.

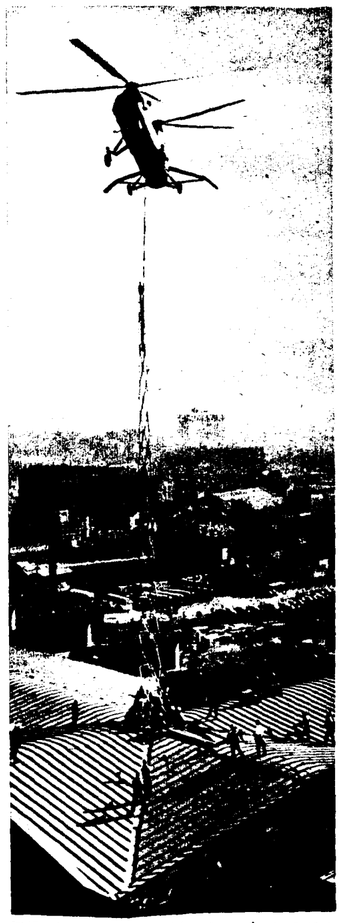
MODERN materials and techniques have gone into the new cathedral. The picture above shows organ pipes ; the polished marble flooring ; the elegant pulpit ; part of the wooden roof ; and the triangular stars which lead the eye along the choir stalls to the huge Sutherland tapestry.



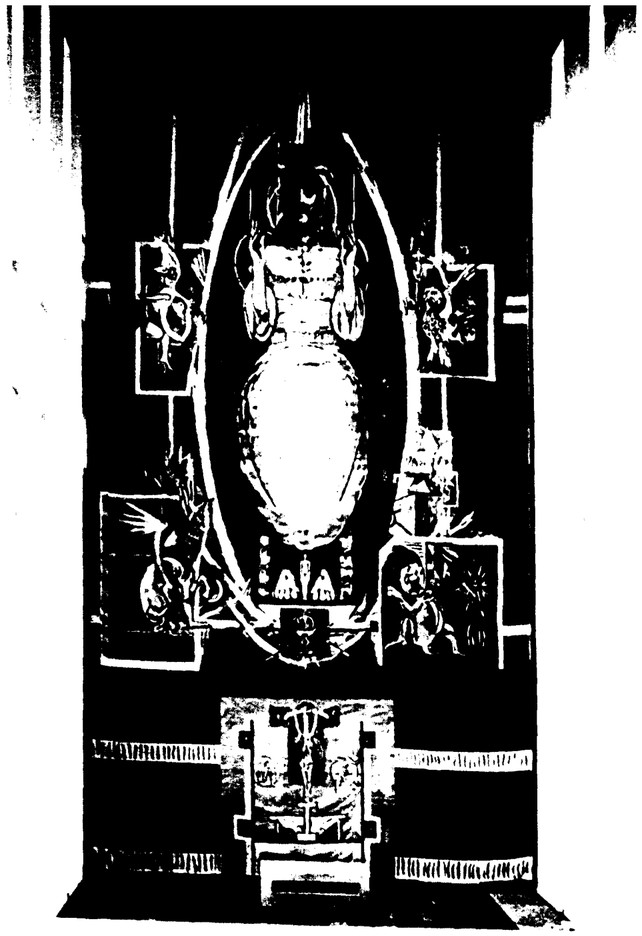
THE cathedral under construction, showing its great size and the " staggered " arrangement of the outer walls. The huge curved baptistery window is already in place (bottom right). This photograph was taken from the tower of the ruined old cathedral, one of the stone gargoyles of which can be seen (bottom left).

H.M. THE QUEEN leaving Coventry Cathedral with the Bishop of Coventry, Dr. C. K. N. Bardsley (above), after attending the Consecration Service (right). Many Commonwealth countries were represented.

SIR BASIL SPENCE, the architect, surveys his masterpiece. His design for the cathedral was chosen in 1950 from 219 designs submitted by architects.



THE finishing touch (above). A twin-rotor " Belvedere " helicopter of the R.A.F. gently lowers a 78-foot metal lattice spire on to a base plate one yard square, on the roof of the cathedral.



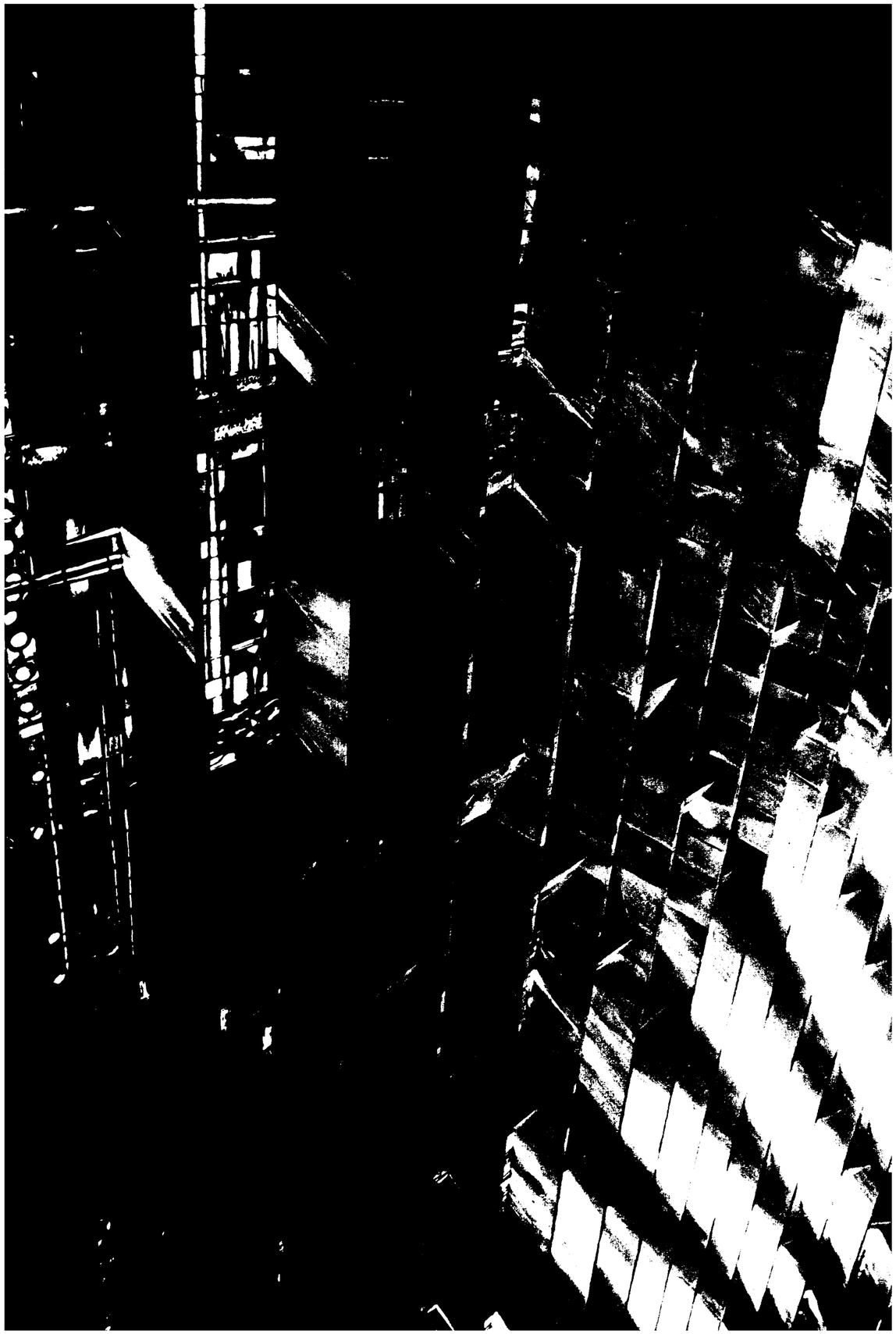
THE huge tapestry, "Christ in Majesty", designed by the painter, Graham Sutherland, covers an entire wall. It is guaranteed to last 500 years.

Coventry Cathedral

IN THE industrial city of Coventry the rebuilt cathedral church of St. Michael, consecrated in May 1962 in the presence of Her Majesty the Queen, symbolises mankind's faith. It was in 1940 that Coventry, flattened by enemy bombs, lost her cathedral. The new cathedral, combining as it does all that is best in modern techniques and artistry, stands comparison with any great church in the world. Sir Basil Spence, the Cathedral's architect, has likened it to "a plain jewel casket with many jewels inside". On these pages are shown just a few of the jewels, in tapestry, stained glass, and sculpture, which adorn the Church of St. Michael.

ST. MICHAEL triumphs over the Devil, a sculpture by Sir Jacob Epstein, and (below, right) a ceramic angel framed by a wrought-iron Crown of Thorns. This was designed by the architect, Sir Basil Spence

A DETAIL (above) from a glass wall delicately etched with saints and angels by John Hutton. *Right:* The magnificent baptistery window, by John Piper, contains 190 separate lights.



MR. STRIPED HORSE

Hong Kong's Symbol of Road Safety

DESIGNING a road safety poster at a Hong Kong school. Children between the ages of eight and eleven also learn about road safety by staging simple plays.

A CARTOON character who stands for safety on the roads has become a top favourite—and even something of a hero—with Hong Kong's 660,000 school children. Those in Chinese schools call him "Baan Ma Sinsang"—Mr. Striped Horse. Their counterparts in English-language classes know him as Mr. Zebra.

For the Hong Kong traffic police Mr. Zebra is the symbol of a continuing campaign to halt the rising toll of fatalities on the Colony's roads.

A problem in almost every country, road safety is complicated by some frightening facts in Hong Kong. The Colony has an exceptionally heavy traffic density—over 55,000 vehicles on 500 miles of roads. This works out at nearly 110 vehicles to every road mile over the Colony as a whole, compared with 30 a mile in Britain and 20 a mile in the United States. Hong Kong's traffic problem is allied with a growing population problem. Vehicles are increasing by 7,000 a year; people by about 110,000 a year.

In 1961 there were 14,906 traffic accidents, resulting in 209 deaths and serious injury to 1,939 persons; among the dead were 64 children, of whom 34 were under seven years of age.

To get road safety slogans across, traffic officers co-operate with the Hong Kong Education Department on an increasingly wide variety of classroom projects that place the emphasis on learning by seeing and doing.

Children between five and seven are taught to recognise—often in both Chinese and English—such simple written commands as "stop at the kerb", "cross quickly" and "green light—go". They run, skip or walk until the teacher holds up a command for them to carry out without any hesitation.

Classes are encouraged to make their own placards. Traffic safety themes are included in reading and writing lessons, and a favourite subject for handwork classes is the making of Mr. Zebra cut-outs and models. Class talks are also popular, with youngsters telling their schoolmates "how the policewoman helped me across the street" or "why I must not play between cars". Simple games are played to show them how to use pedestrian crossings, with a boy or girl chosen as Mr. Zebra or Miss Zebra. Children are also shown how to make puppets, which they manipulate in simple playlets having a traffic safety theme.

Those between eight and eleven learn about road safety by staging simple plays, competing in poster and essay competitions, and seeing films. Some schools have made detailed street maps of Hong Kong, showing the worst accident spots. A complete traffic layout, with children driving pedal cars and tricycles, is used at other schools.

Traffic police officers visit schools to give talks on road safety and an exhibition organised each year by the police attracts nearly 100,000 visitors, most of them children. *Kaifongs*, which are the Chinese equivalent of good neighbour associations, use their considerable influence to back the safety campaign.

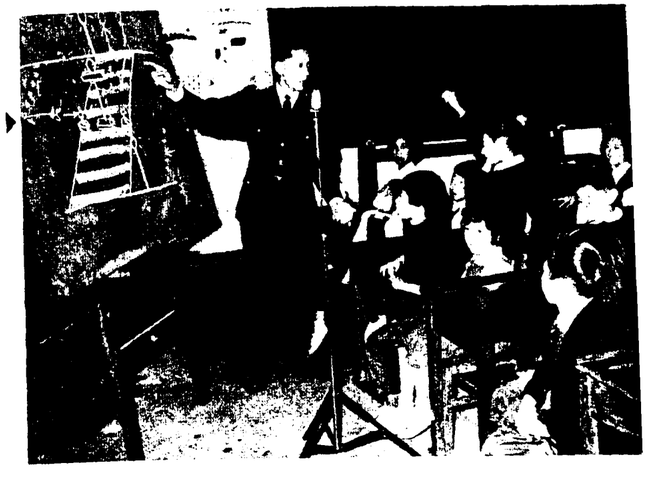
Said a teacher who has been closely connected with road safety work in Hong Kong: "Training given to very young children will stay with them for the rest of their lives. But the emphasis must at all times be laid on active, dynamic instruction, not on dreary lessons or recitals of traffic laws."

STEWART CLYDE

A HONG KONG street corner—on Nathan Road, Kowloon. There is no "rush hour", for the volume of traffic and pedestrians as seen here usually continues for most of the day, and even after dark there is no let up until after 10 p.m.

LEARNING the rules of the road on a traffic layout set up at a school in Kowloon. Lessons for children in Hong Kong's safety campaign emphasise learning by seeing and doing.

SCHOOLGIRLS making Mr. Zebra puppets, which they will manipulate in playlets having a road safety theme.



A POLICE officer lecturing Chinese school children on road safety. Traffic officers co-operate with the Hong Kong Education Department on an increasingly wide variety of classroom projects

H.R.H. THE DUKE OF EDINBURGH meets members at a plenary session. In a 26-day programme meetings were held across Canada.

Making the Most of Industrial Growth

Three Hundred Student-Guests at the Second Commonwealth Study Conference in Canada

WORKING and living for nearly a month in Canada in an atmosphere of investigation, study and discussion, were 300 men and women from thirty-five Commonwealth countries and territories. They were members of H.R.H. the Duke of Edinburgh's Second Commonwealth Study Conference.

Like the first Study Conference, also held under the Presidency of the Duke of Edinburgh in Oxford in 1956, this one was an outstanding success. The theme of the Conference was the Human Consequences of the Changing Industrial Environment in the Commonwealth. This is what the Duke of Edinburgh said about the purpose of the 1962 Conference when he addressed the Canadian War Correspondents' Association at a dinner in London in May 1960 :

" For generations communities have simply grown and developed naturally or remained static, but since the advent of industry as the main wealth-producing element to human existence, man has had to create communities and to plan their development.

" The purpose of this Conference is simply to help some of the people who might one day have this responsibility for planning and developing these communities to exercise it to the general benefit of humanity. I am particularly delighted that the Conference is going to be in Canada because Canada has a wonderful variety of industrial communities and each has some lessons to teach."

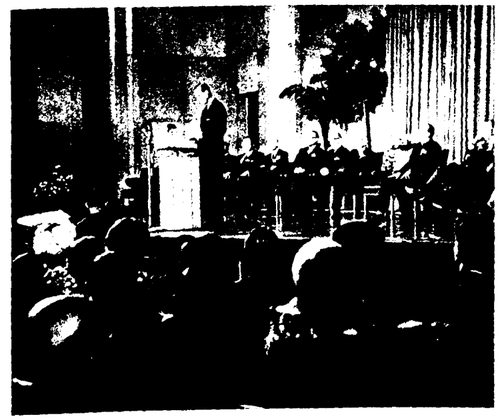
No resolutions were passed at this Conference. The members attended not as delegates representing a particular industry, group or country, but as student-guests invited by their hosts to take part in discussion and a study of various aspects of the Canadian industrial scene.

All the men and women invited were chosen because of their interest in this subject and because they belong to an age group which will ensure that they have a long period of leadership before them. The chief benefits which the members derived from the Conference came from their exchanges of ideas during the attention they gave to selected study topics, and during the joint inquiry carried out on study tour programmes. There was also an immense amount of mutual goodwill and understanding. Much of this resulted from the discussions of ideas and problems which each member faces in his own country ; and the suggestions, support and criticism made and received were well calculated to keep alive the interest of members in the consequences of industrial change during their own work and leisure.

The human problems resulting from change and growth in Canada are to be found to a greater or lesser extent in every other part of the Commonwealth. Looking at the consequences of industrialisation as it affects groups of people, the Conference paid special attention to its effects on the older worker, the family, youth, and the immigrant or minority group. Another concern of the

THE Duke welcomes each of the 300 members of the Commonwealth, and is seen here shaking hands with Mr. M. E. Jallow, Bathurst, Gambia. In the foreground : Mr. Henry Kanu Offonry, Nigeria.

WITH members of the *Conference Council. L. to r.* : Mr. R. M. Fowler, Chairman of the Programme and Documents Committee; the Rt. Hon. Vincent Massey, former Governor-General of Canada and Chairman of the Conference ; Mr. E. P. Taylor, Honorary Treasurer; and the Duke of Edinburgh.



AT an impressive ceremony held in the auditorium of the University of Montreal, Prince Philip is addressing members at the opening session. Seated behind him are the Canadian officials of the Conference Council who were instrumental in organising the Conference.

Conference was the relationship between industry and community in terms of welfare and participation, community planning and housing, recreation and leisure, and education.

Groups of members—twenty groups of fifteen members each—visited industrial communities or regions to take part in planned programmes of visits and talks. After the tour assignments the whole Conference travelled westwards on a 2,500-mile journey from Toronto to Vancouver.

This journey was made in two special air-conditioned trains of the trans-continental railways. Each train had space and facilities for group meetings, for secretarial work and a travelling library.

Stops for visits *en route* were made at Honnepayne, Winnipeg, Saskatoon, Edmonton, and one train stopped at Banff and the other at Jasper before going on to Vancouver where, after five days of sessions, the Conference ended.

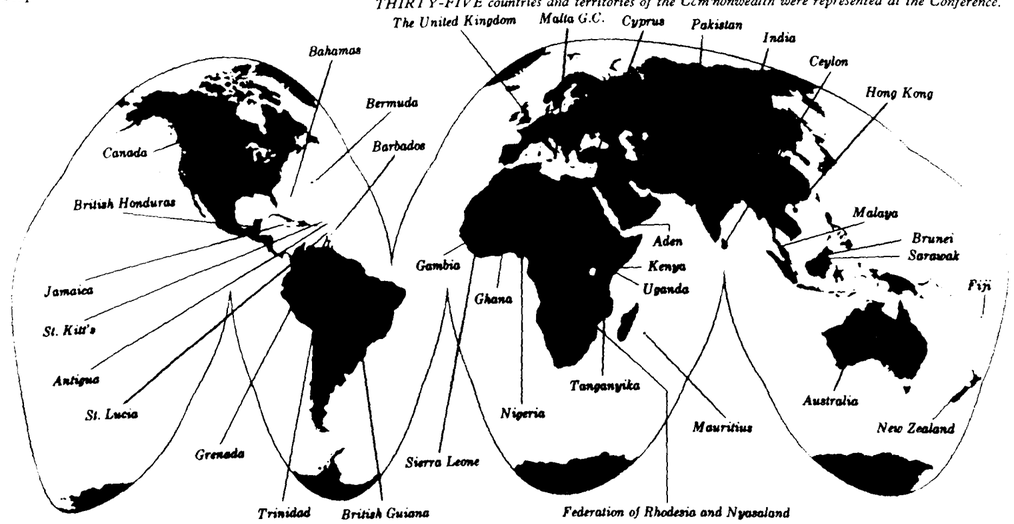
During this final period members were able to put in order and proportion their findings and reflections. Through a series of reporting sessions they brought to the attention of the whole Conference the ideas which, in their view, called for wider consideration. They were thus able to relate personal and group experiences to the Conference theme.

Many a whole-hearted tribute was paid by members to the consideration and forethought of the Conference planners. The plans were made by a Steering Committee under the Chairmanship of the Rt. Hon. Vincent Massey, former Governor-General of Canada, and five sub-committees which, with the Conference staff, was governed by a Council of ninety members representing industry and labour in Canada.

The Duke of Edinburgh was President of the Conference Council, and as Conference President he presided over planning meetings, took an active part in the development of the programmes, met Conference members and gave addresses on several occasions throughout the 26-day period.

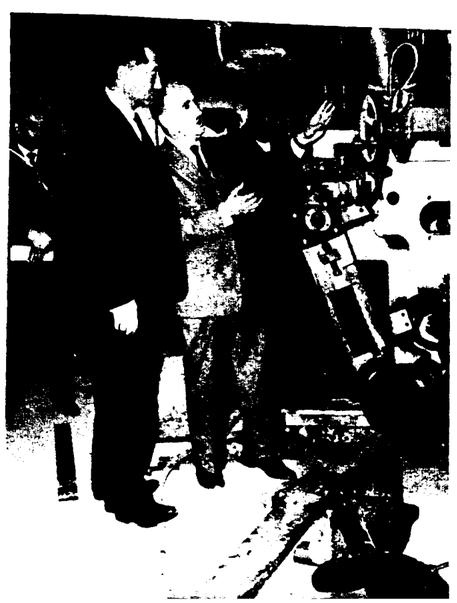
Funds for the cost of the whole Conference, including accommodation, travel and subsistence, were raised wholly from voluntary sources in Canadian industrial life.

THIRTY-FIVE countries and territories of the Commonwealth were represented at the Conference.



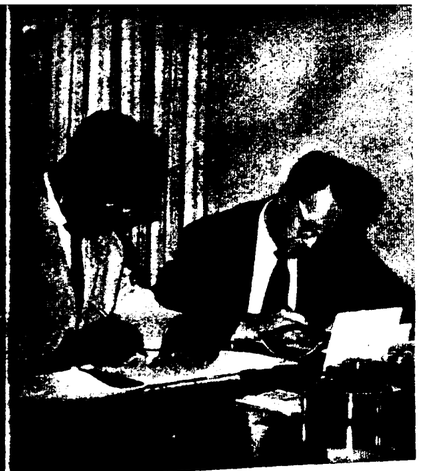
PEOPLE
AND EVENTS

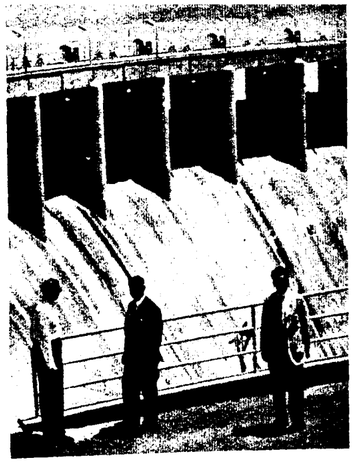
THE Hon. R. A. Njoku, Chairman of the General Council of the Commonwealth Parliamentary Association and Minister of Transport, Government of Nigeria, recently visited New Zealand. Before attending a Parliamentary luncheon in his honour he called on the Prime Minister of New Zealand, Mr. K. J. Holyoake, and is seen here signing the visitors' book. *Standing (l. to r.)* are his private secretary, Mr. D. A. W. Nwaogu; the Speaker of the New Zealand House of Representatives, the Hon. R. M. Algie; the Secretary-General of the Commonwealth Parliamentary Association, Mr. R. V. Vanderfelt; and Mr. Holyoake. To mark the independence of Nigeria the New Zealand Government presented a set of dispatch boxes and letter racks to the Nigerian Government. The official presentation was made by the Prime Minister at a Parliamentary luncheon in honour of Mr. Njoku's visit. The gift follows a similar presentation made to Ghana on the attainment of independence and will be repeated for Sierra Leone and Tanganyika.



◀ HIS Highness the Mahrajkumar of Sikkim spent two weeks touring Britain as the guest of the Commonwealth Relations Office. Accompanying His Highness was Dr. M. M. Rasaily, Conservator of Forests, Sikkim. The visitors are seen here at the works of a road-making machinery company in Kent. Mr. J. Davies, the Works Manager, is explaining to His Highness the gear system of a Paver-Grader. Dr. Rasaily is on the left.

AN agreement between the British and Sierra Leonean Governments for a Commonwealth Assistance Loan of £3,500,000 was recently signed in Freetown, Sierra Leone. The loan will be used to pay for goods and services from Britain for purposes of general development. It is repayable over 25 years, starting in 1965. Here the agreement is being signed in the Secretariat, Freetown, by Mr. Albert Margai, Sierra Leone's Minister of Finance (centre) and Mr. Norman Aspin, the Acting British High Commissioner. On left is Mr. John Taylor, the Financial Secretary in the Ministry of Finance.





◀ THE Secretary of State for Commonwealth Relations, and Secretary of State for the Colonies, Mr. Duncan Sandys, found time in the middle of a busy programme of discussions with members of the Pakistan Government during his visit to Rawalpindi, to visit the site of Pakistan's future capital. He is seen here (left) with the British High Commissioner in Pakistan, Sir Morrice James (centre), inspecting the newly completed Rawal Dam. The new capital will stand on the shores of the lake formed by the dam waters.

RE-HOUSING in Mauritius. ▶ Part of the Government Housing Scheme at Vallee des Pretres, on the outskirts of Port Louis, capital of Mauritius. Some 20,000 cyclone-resistant houses are to be built for the benefit of those made homeless by two cyclones which worked havoc in Mauritius in 1960. Over 750 houses have already been completed.

MR. JUSTICE H. J. LIGHTFOOT-BOSTON became the second Sierra Leonean to act as Governor-General of Sierra Leone, the first being Chief Justice Salako Benka-Coker. Here the Hon. H. J. Lightfoot-Boston is seen recording his signature after the swearing-in ceremony. Looking on from right to left are Sir Milton Margai, the Prime Minister of Sierra Leone, Lady Dorman, Mrs. Lightfoot-Boston, and Sir Maurice Dorman, who had been Governor and later Governor-General of Sierra Leone for the past six years. Sir Maurice left the same day for Britain prior to taking up his appointment as Governor of Malta.

HIS Highness Kabiyesi Oba Ademuagun Adesida II, Deji of Akure, and his wife, Her Highness Adebola Adesida, Eyesorun of Akure, Western Nigeria, spent a month in Britain as guests of the Commonwealth Relations Office. They are seen here with the Provost of Coventry Cathedral, the Very Reverend Harold Williams, during a visit to the Cathedral. They are looking at the font, a rough boulder from a hillside at Bethlehem.

DR. ERIC WILLIAMS, Premier of Trinidad and Tobago, was host at an official reception given by his Government in London—a pleasant social break from the conference table where Independence for Trinidad and Tobago was discussed. Here Dr. Williams (left) chats with Mrs. Reginald Maudling. Mr. Maudling, who was then Colonial Secretary and is now Britain's Chancellor of the Exchequer, is talking with the Commissioner, Sir Learie Constantine, and Lady Constantine.

A TEAM of skin-divers of the British Forces Combined Services Sub-Aqua Club recently spent a week-end exploring the sea-bed off Lara Point, west Cyprus, and discovered pottery of the Roman, Hellenistic and Byzantine periods. They were accompanied by the Custodian of Antiquities for the district, Mr. Takis Herodotus, who took away the most interesting pieces for examination by the Cyprus Department of Antiquities. Seen here with some of the objects recovered off Lara Point are, *l. to r.*: Group Captain Lee, S.A.C. Jarrel, Major Hoile, Flying Officer Godbart, Squadron Leader Houghton, Mr. Herodotus, and Chief Technician Stobbart, R.A.F. The survey proved that the Point had been used for centuries as an anchorage for shipping, for in addition to the ancient anchors, iron anchors were seen, appearing to date to the days of sail.

COMMONWEALTH PROFILE

MARGERY PERHAM, C.B.E.

WHEN a woman presides at the High Table of an Oxford College, when she rivals eminent dons with the power of her intellect, and gives the most influential series of lectures in the B.B.C.'s year the 1961 Reith Lectures), more than one male eyebrow is raised in respectful surprise.

It would be wrong, however, to think of Miss Margery Freda Perham, C.B.E., as an embattled leader of women storming male strongholds. She is not consciously a feminist but assumed long ago, as of right, many of the privileges of men. Her keen mind was applied to what became an absorbing interest in her life, what she herself termed " my lifelong love affair with Africa ", and established her as an equal in a man's world. If she sometimes irritates male colleagues by her appeals to their better feelings, or occasionally displays what they consider to be a " typically female " lack of logic, they do not deny her status as an intellectual " heavyweight ", or her reputation as a leading authority on Africa.

Romantic Africa . . .

Miss Perham was introduced to her beloved continent in 1922 when she visited her sister, the wife of a District Commissioner in Somaliland, and trekked along the Ethiopian frontier. The country—the adventure—made an indelible impression ; the immediate result was a romantic novel, *Major Dane's Garden*, which is more dear to her than her latest monumental work, the biography of her friend, Lord Lugard. But the romantic attitude could not long survive in so practical a person. She says : " I don't think that Africa now has any romance."

Her change of attitude is not so much a disenchantment as a realisation, enforced by study and experience, of the reality of Africa and its problems. After her Somaliland trip she was, for five years, Fellow and tutor at her old College, St. Hugh's, Oxford, in charge of students in Modern History and Modern Greats. Then Lord Lothian, who was Secretary of the Rhodes Trust, offered her a Travelling Fellowship which enabled her to visit the U.S.A., Hawaii, Samoa, New Zealand and Australia.

She ended up in South Africa where she received two cables. One was from Lord Lothian, offering to renew her Fellowship for another year; the other was from her College saying that her leave could not be extended. " I never hesitated for one moment," she recalls, " and sent at once two cables—' Accept '; ' Resign '."

She explored Africa widely—first West Africa, where she was the first white woman to enter the closed areas of Northern Nigeria; then, with the help of a Rockefeller Travelling Fellowship, East Africa and the Sudan. If she had been a man she might easily have joined the Colonial Service and become a senior Governor; as it was, she contented herself with mastering the subject of colonial administration academically at a time when few bothered to study it.

In 1935 she was appointed Research Lecturer in Colonial Administration at Oxford University, and in 1939 became the first official Fellow of Nuffield College. In 1945, when an Institute of Colonial (now Commonwealth) Studies was founded, she became its first Director, having much to do with the training of probationers for the Colonial Service and with directing the studies of senior officers on refresher courses. Africans who studied with her at Oxford, at various periods, include Eliud Mathu, who became the first African member of the Kenya Executive Council; Mekki Abbas, the Sudanese who headed the Economic Commission for Africa; and Tom Mboya of Kenya.

In addition to her work at Oxford, Miss Perham has served on many committees and public bodies, including the Executive Committee of the Inter-University Council on Higher Education Overseas, and the Colonial Social Science Research Council. Her books include *Native Administration in Nigeria* (1937), *The Government of Ethiopia* (1948), and her two-part biography of Lord Lugard (1956 and 1960), which is " one of the great biographies of this century ".

There are, also, her many letters to *The Times* newspaper in which she has surveyed the changing African scene and presented her own points of view. " I have never believed," she has said, " in talking over a desk. A man will listen and then do nothing. Much better to write to *The Times* first."

She foresaw long before the war " quite a long period in which the British Government would transfer power with an ordered sequence of events ". Like others, she was not prepared, she admits, for the speed with which African demands for independence would develop; but she accepted the situation, like everything else, realistically. " The time has not come," she said in the last of her Reith Lectures on *The Colonial Reckoning*, " to ask from Africans their recognition of our goodwill, still less their gratitude. Their present mood is to give up being grateful, or humble, or afraid, or ashamed, or even impressed. . . . They are determined to be something quite new. Africans! "

What now, for this remarkable woman ? At the age of 67 she remains a striking, energetic figure, with clear skin and fine dark eyes. She lives with her sister—the Somaliland one—in comfortable rooms in Nuffield, and regrets the rush and the bustle of life. " In Oxford," she said, " we hardly have time to speak to each other."

The future she has mapped for herself includes her retirement to a cosy cottage on the Berkshire Downs—a cottage, without a telephone, where perhaps she can fulfil her ambition of writing a play about Saxon England. " I look forward enormously," she said, " to the freedom to do some serious thinking and quiet writing."

Books

THE COMMONWEALTH CHALLENGE, by Derek Ingram (George Allen & Unwin Ltd., 30s.), is a sequel to an earlier book by the same author, *Partners in Adventure*, which Lord Home, when he was Secretary of State for Commonwealth Relations, described as " an extremely valuable contribution to thought on this great and challenging subject ".

His new book, which has a preface by Alhaji the Rt. Hon. Sir Abubakar Tafawa Balewa, Prime Minister of Nigeria, describes the process whereby Commonwealth has evolved from Empire, what it has achieved so far, and how it can develop in the future. Most of the chapters are introduced by quotations from Commonwealth leaders. Here are three of them :

" In an uneasy world the Commonwealth represents an island of sanity where even the most deep-rooted differences can be discussed without rancour, and where disagreements do not immediately produce violent words and threats "—Sir Ahamadu Bello, Premier of the Northern Region of Nigeria, in Kaduna, 11th October, 1960.

" We have made our choice. That choice is with the Commonwealth—and it is irrevocable. We will either float or sink with our British friends and the great Commonwealth which their leadership has inspired "—Tunku Abdul Rahman, Prime Minister of Malaya, in London, 22nd December, 1956.

" The concept of an expanding Commonwealth in which peoples emerging from a dependent status become equal partners by their own free choice . . . may well prove to be one of the greatest developments in the course of human progress "—Mr. Harold Macmillan, Britain's Prime Minister, in New Zealand, 28th January, 1958.

Mr. Ingram writes on these topics, and many others, with a lively style and an obviously deeply held belief that the Commonwealth is an institution well worth preserving. In a fast-moving world any book about the Commonwealth is apt to be out of date, in some respects, before it is published. This book is highly topical—it includes a chapter on The Common Market—but is none the worse for that.

* * *

Details of thousands of research projects in progress in Britain's universities, university colleges and associated institutions, are given in a publication—*Scientific Research in British Universities and Colleges*, 1961-62—which has been issued by the Department of Scientific and Industrial Research. It is available through the Stationery Office, price £1 12s. 6d.

For the first time, information is given on research projects in colleges of advanced technology, national colleges and regional technical colleges in Britain. The nature of the projects is described in sufficient detail to indicate the scope of the research done by the various science departments and teams of investigators.

Books in Brief

Here are four excellent new textbooks, aimed at specialists, published by the Oxford University Press :

An Introduction to Surgery for Dental Students

(21s.) by R. P. Jepson, F.R.C.S., and B. N. Catchpole, F.R.C.S., is concerned mainly with a description of the diseases affecting the various regions of the head and neck of which the Dental Surgeon is expected to have some knowledge.

A Course in Applied Mathematics

(70s.) by Derek F. Lawden, M.A., Professor of Mathematics at the University of Canterbury, New Zealand, assumes that the reader has completed an Intermediate Course of mechanics and is studying for a First Degree, with Applied Mathematics as a principal subject.

Introduction to Biochemistry

(27s. 6d.) by E. O'F. Walsh, B.Sc., Ph.D., F.P.S., F.R.I.C., is intended primarily for students of biology, medicine and allied sciences, but will have some appeal to all who are interested in the science of life.

Introduction to Animal Parasitology

(37s. 6d.) by J. D. Smyth, M.A., Sc.D., which is written with authority by a scientist who has long specialised in the physiology of parasitism.

TRADE WINDS
Commonwealth Industrial Notes

First orders for the V.C.10, Britain's latest jet airliner which is now undergoing trials, include 42 ordered by the British Overseas Airways Corporation, five for R.A.F. Transport Command, and three for Ghana Airways. Air India has also shown an interest in the aircraft.

* * *

The British firm of Associated Electrical Industries Ltd. is to supply two motor-driven air compressors to India for use in the Aeronautical Laboratory Wind Tunnel Centre, Bangalore. They will each supply 10,000 cubic feet of air a minute. The value of the order, is about £120,000.

* * *

The firm of Taylor Woodrow (Canada) Ltd., an offshoot of a British construction company, has been awarded a £2,500,000 contract to build a new shopping centre on an 80-acre site in Toronto, Canada.

* * *

A complete television station has been ordered by the Sierra Leone Government, from the British Pye Group, to provide entertainment and educational programmes in the Freetown area.

* * *

The famous bridge-building firm of Dorman Long & Co. Ltd. is to build a £250,000 access road bridge at the Mangla Dam, in Pakistan.

* * *

Australia's demand for petroleum has more than doubled in the last ten years and capital invested in the industry exceeds £A386,000,000.

* * *

Hong Kong in 1961 imported British goods worth £47,500,000.

* * *

Experiments carried out at Britain's Tropical Products Institute may lead to a new industry in West Africa, making particle board out of groundnut shells.

* * *

Four diesel-hydraulic breakdown cranes worth £95,000 are being made by a north of England firm for use on Queensland Railways, Australia.

Stamp Corner
AUSTRALIA

A CHARMING portrait of Queen Elizabeth II forms the design of the new Australian 2d. stamp which has replaced the previous 2d. stamp portraying Queen Elizabeth the Queen Mother.

Issued at the same time was a 1s. 2d. stamp depicting one of the world's strangest animals, the thylacine or Tasmanian tiger. In general appearance the thylacine resembles a wolf but it has stripes like those of a tiger ; it can hop like a kangaroo, barks like a dog and, being a marsupial, carries its young in a pouch. To see a thylacine open its mouth, say Australian naturalists, is an awe-inspiring sight, for when wide open its jaws form a straight line !

The thylacine was at one time thought to be extinct, but in recent years small numbers have been sighted in the mountains and rain forests of Western Tasmania. The new 1s. 2d. stamp is one of several designed by Miss Eileen Mayo and depicting Australian wild animals. Kangaroos, the platypus and the banded ant-eater appear on other values.

A new 5d. stamp pays tribute to Dame Nellie Melba, known as " Australia's Queen of Song ", and one of the greatest singers of all time. The daughter of a Scottish contractor, David Mitchell, Nellie first learned to sing and play the piano in Melbourne, her native city, from which she coined her stage name.

During the first world war her concerts raised over £60,000 for the Red Cross and she was created a Dame of the British Empire. In 1927, four years before she died in Sydney, she sang the National Anthem at the opening of Parliament House, Canberra.

Blue in colour, the new stamp shows the marble bust of Melba by Sir Bertram Mackennal which is now in the National Gallery of Victoria. The design also incorporates her autograph.

C. W. HILL.

Commonwealth **TODAY**

First of a NEW series of Geographical studies

This is the first of a series of eight geographical studies drawn from various areas of the Commonwealth. They are intended—as an experiment—to interest young readers in the geography of Commonwealth countries and may well be found of use to teachers of geography in the classroom. Other subjects we expect to cover in this series include a desert area, an island, a monsoon area, a continental interior, a heavy rainfall area, a lake, a village.

UNTIL the nineteenth century Europeans knew little about the interior of West Africa beyond the coast. They heard stories of a great river, the Niger, with rich cities on its banks. They knew of the legendary Timbuktu and the mythical Mountains of Kong. But where this river started and flowed were unknown. Some said that the river went east to join the Nile or to evaporate in a vast lake; others said it flowed west into the Atlantic. The connection between the Oil Rivers—well known through the trade in Palm Oil—and the Niger was not suspected.

"Majestic Niger"

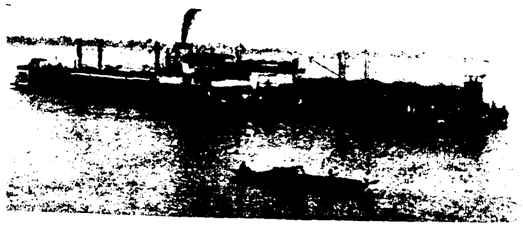
In 1795 Mungo Park, a young Scottish doctor, sent out by the African Association to explore the Niger, landed at the Gambia and disappeared into the interior. After many adventures, which he described in his book "Travels in Africa", he reached the river on 20th July, 1796. He saw, as he described in his book, "with infinite pleasure the great object of my mission; the long-sought-for majestic Niger, glittering to the morning sun, as broad as the Thames at Westminster, and flowing slowly *to the eastward*".

Mungo Park followed the Niger for a short distance to find out what he could of its course before returning to England. But there was still much doubt about where the river flowed and in 1805 Park returned to decide the question. He believed that the Niger and the Congo were the same river. Many of the members of this expedition died as a result of illness and the attacks of bandits. Mungo Park reached the Niger again and, in a schooner made from two canoes, started to explore. During his voyage of nearly 2,000 miles his ship was frequently attacked. But each man was armed with fifteen loaded muskets and they managed to drive off their attackers until they reached the rapids above Bussa. There they were ambushed and during the attack the schooner struck a rock and sank. All the members of the expedition were either drowned or killed by their assailants on the banks.

In the years that followed other travellers tried to reach and explore the Niger. Its true course remained hidden until 1830. In that year Richard Lander and his brother, John, reached Bussa overland. On their way down the river to its mouth they were captured by African warriors, but managed to escape and reach the sea. The course of the Niger was thus settled beyond doubt.

The way was now open for the river and the interior to be fully explored. The development of the steamboat which could sail independently of the currents and the wind, made the river route comparatively easy. In 1832 the steamships *Quorra* and the *Alburkah* entered the river to trade and explore.

Exploration and trade were for long hindered by the ravages of tropical diseases, particularly malaria, which killed many of the explorers. One of the earliest and most successful expeditions of that time was that of Dr. W. B. Baikie, R.N. He commanded the s.s. *Pleiad* which sailed up the Niger and Benue in 1854. Dr. Baikie insisted on giving each member of his party daily doses of quinine, a measure which proved so effective that after a voyage lasting 118 days, the *Pleiad* returned without the loss of a single life.



THE CANOE, a traditional means of transport on the Niger, is used for carrying passengers and foodstuffs to the markets and villages along the river. The movement of bulk cargoes is handled by large transport fleets which carry 179,000 tons of cargo annually on the Niger and 78,000 tons on the Benue. Operating from the Delta ports of Port Harcourt (population 72,000), Warri and Burutu, these fleets trade up the river as far as Jebba, 566 miles from the sea. In the picture (above) a canoe and one of the river craft belonging to Niger River Transport pass near Onitsha.

The Niger varies in size according to the season. Navigation by the big barges is confined to a short period when the river is in flood. A complex organisation is needed to ensure that the maximum quantity of goods is moved in the limited time available.

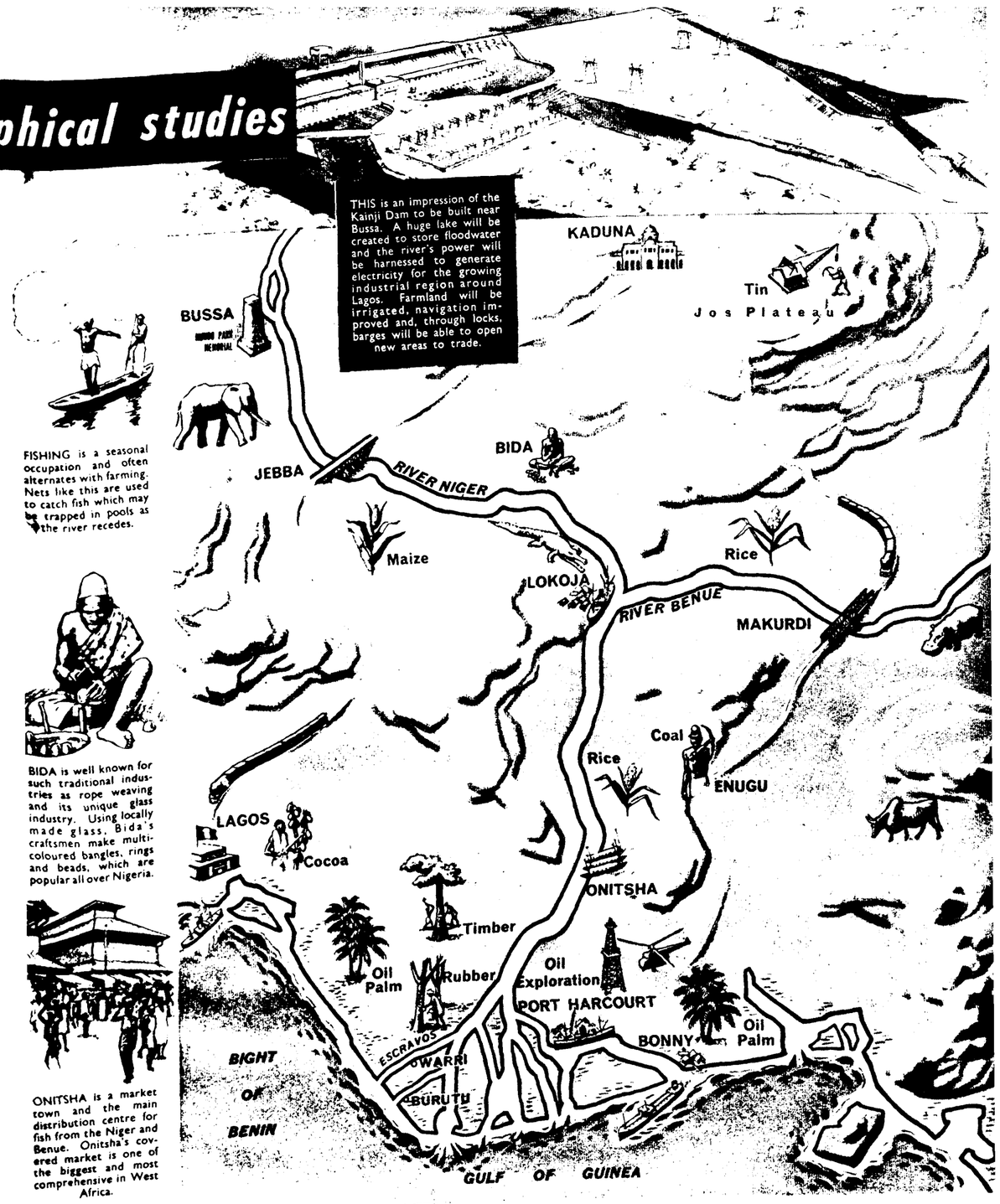
Flat bottomed barges, used to avoid running aground on constantly shifting mud-banks, wait downstream; when the river rises they hurry upstream, unloading salt, cement and general merchandise at riverside stations and picking up cargoes of groundnuts, palm produce and tin ore. The season of great activity ends as suddenly as it begins.

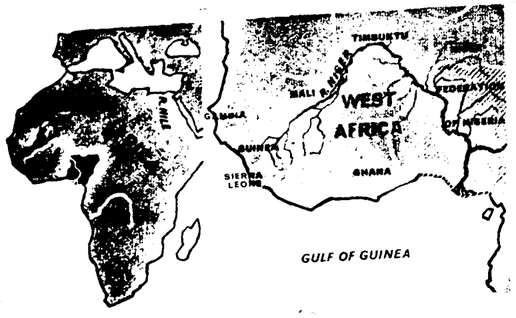
A RIVER STUDY

The River Niger—its Course in Nigeria

THE DELTA covers an area of 14,000 square miles (the size of Holland), and the mouths and creeks of the Niger break the mangrove coastline for 180 miles. The picture shows the muddy Niger meandering through its Delta near Port Harcourt.

Mud, deposited by the river, forms bars across the entrances to the Delta ports, and hinders the expansion of river traffic. At Escravos a breakwater is being built to stop sediment piling up, and a gap is being dredged through the bar to allow fully laden ships to pass in and out. At Bonny, the bar has already been dredged, so that 18,000-ton tankers can enter to load with oil piped from the nearby oilfields.





THE NIGER is the third longest river in Africa—2,600 miles long compared with the 4,160-mile-long Nile and the 3,000-mile-long Congo. Rising 150 miles from the sea on the border of Sierra Leone and French Guinea, it runs in a vast curve for over 1,000 miles to the thornlands of the southern Sahara Desert before turning towards the sea. For 767 miles the Niger flows through Nigeria and is an important means of communication between the Delta ports and Nigeria's expanding regions of production. With the Benue, the river system is the longest uninterrupted waterway into the interior of Africa.

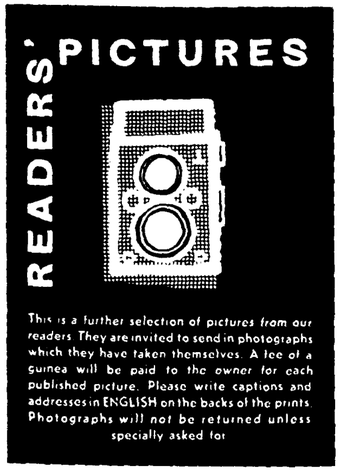
This sketch-map is not to scale: Onitsha is 232 miles, Lokoja 362 miles and Makurdi 510 miles from the sea.

DRUM-BEAT. Wakamba drummers beat out a rhythm for tribal dances.

From E. R. Earl, P.O. Box 1861, Mombasa, Kenya.

CLASSMATE. A triple shot of a school friend.

From Kamal Kumar, 17 Bazar Lane, Babar Road, New Delhi, India.



This is a further selection of pictures from our readers. They are invited to send in photographs which they have taken themselves. A fee of a guinea will be paid to the owner for each published picture. Please write captions and addresses in ENGLISH on the backs of the prints. Photographs will not be returned unless specially asked for.

SEEING DOUBLE. Clever use of the camera for this photograph.

From Loh Beng, 561 Jelutong Road, Penang, Malaya.

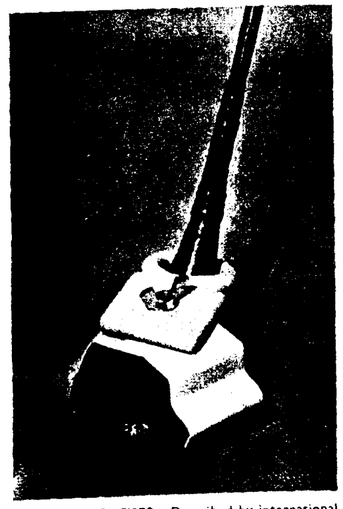
GOOD FRIENDS. Baby Jim with his pet and faithful friend, Susie.

From M. A. Walker, 7A Bass Street, Brookfields, Freetown, Sierra Leone.

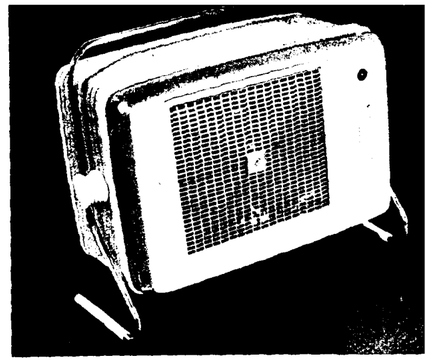
CASTING A NET. Fishing in the Padma river, East Pakistan.

From Reazuddin Ahmed, P.O. Box 430, Chittagong, East Pakistan.

EZERASE is the name given by the British manufacturers to this new type of paper. In the manufacturing process, a special solution is applied to the surface of a rag content bond, producing a paper with built-in resistance to abrasion. The special surface of the paper permits typing errors to be quickly and cleanly erased with any ordinary rubber, making it particularly suitable for work where evidence of erasure is undesirable.



GOLFING EXERCISER. Described by international golfing champion Dai Rees as "the most useful gadget of its kind which I have seen", this exerciser is designed to fit any golf club. Developed by a British company to increase the weight of the golf club head during swing practice, it corrects the line of swing and improves the "follow through". Other advantages claimed include the strengthening of the wrist and arm muscles without tension.

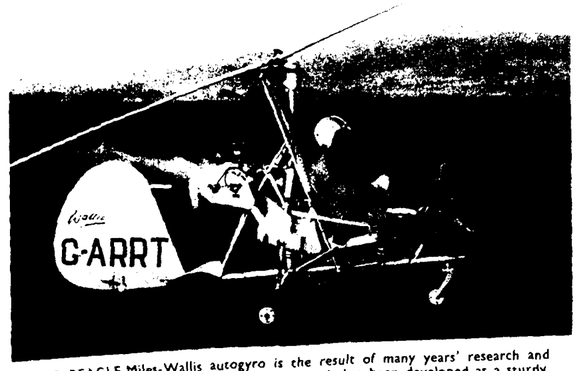


AIR CONDITIONER. In addition to purifying the air, this air conditioner will heat a room, or will cool it on warm summer days. A fan incorporated in the appliance draws the air, in the first instance, through a filter of plastic foam material which filters off dust; the air then passes through an activated carbon filter which absorbs all objectionable odours, discharging only purified air into a room. Providing fresh, healthy air, either hot or cool, its British makers suggest it would be of particular value to sufferers of asthma and chest ailments.

NEW MESH FAN. Simple, efficient and inexpensive is this mesh fan developed by a British firm of heat pump and refrigeration engineers. A light cylinder of mesh, or expanded metal is used instead of the impeller blades normally used on centrifugal fans. The small inclined faces of metal, around the diamond-shaped apertures of expanded metal, form a series of shallow, scooping blades. When rotated the blades shift air through the fan more efficiently and with less noise than the normal blades. The fan will be found of value for nearly every air-moving application.

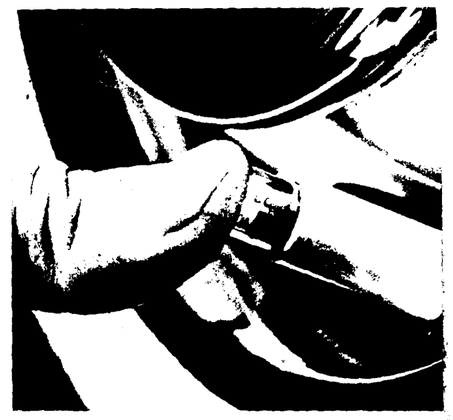
NEW IDEAS

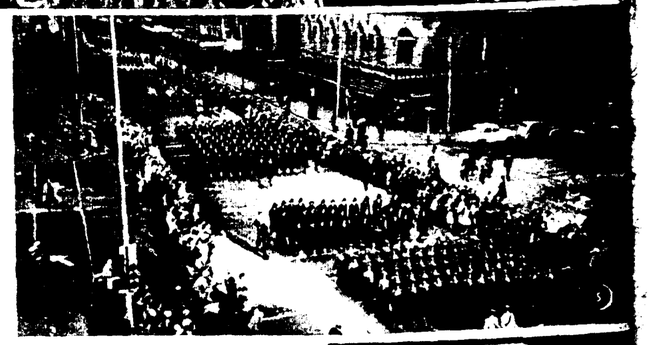
SINGLE-SEATER AUTOGYRO



THE BEAGLE-Miles-Wallis autogyro is the result of many years' research and experiment. Incorporating many new ideas, it has been developed as a sturdy, simple-to-fly, easy-to-maintain and inexpensive method of air transport. Among the many uses of this aircraft are: dispatch service, photography, light cable laying, agricultural use, fishing and whaling observations, surveys, road traffic control and the inspection of power lines, boundary fences and pipe lines. It is light in construction—empty weight, 200 lb.—is 9 ft. 6 in. long, 6 ft. 1 in. high, and can be easily stored. The designer, Wing Commander K. H. Wallis, R.A.F., is one of the foremost experts in the autogyro field.

PI-METERS. Of British manufacture, these pressure gauges are fitted, without tools, to tyres in a few seconds. Tough and unaffected by weather or road conditions they need no maintenance. As the weight of each one is only ¼ oz. they do not affect wheel balance, and at the touch of the button give instant and regular tyre check. They are sold in sets of two or four.





COMMONWEALTH YOUTH SUNDAY IN LONDON

1 *Walking away from Westminster Abbey, London, after the Youth Sunday service, are Miss Enid Durant, British Guiana, and Mr. Norman Lynch, Barbados.*

2 *Girls from six Commonwealth countries—from (l. to r.) Jamaica, New Zealand, Australia, Uganda, Trinidad, and Britain—talk together.*

3 *Looking at a map of London with Margery Lee, from Trinidad, are Messrs. W. Debra Asiedi-Anton, and R. M. S. Appiah, all from Ghana.*

4 *The Lord Mayor of London, Sir Frederick Hoare, and Lady Hoare at Westminster Abbey.*

5 *Over to Melbourne, Australia, where this view taken from the Town Hall shows some of the 12,000 young people who took part in a Youth Sunday parade.*

6 *Little Miss Marcelle Newbury, from India, was with Mr. Otis Afiari, a Nigerian accountancy student, when this picture was taken.*

7 *The Rev. Joseph Au, of Hong Kong, pauses for the camera before going in for the Westminster Abbey service.*

8 *Miss Janet Coombs, from Cambridge, England, chats with two young men from the Mauritius Islands—Mr. Francis Newaj (left) and Mr. Bacar Mohideen.*

9 *This group of students consists (l. to r.) of Mr. S. U. Ofomata, Nigeria ; Miss Doretta Singh, India ; Miss M. Blumeris, S. Rhodesia ; Miss Pat Andrews, Britain ; Mr. R. M. S. Appiah, Ghana ; and Mr. Souri Abibua, Nigeria.*

AT THE twenty-fifth annual observance of Commonwealth Youth Sunday in Westminster Abbey, London, groups of young people from all over the Commonwealth worshipped together and heard a message from H.M. the Queen read to them in their own language. In Britain many cities and towns held special services, and similar observances of Youth Sunday took place in nearly all parts of the Commonwealth overseas.

In Australia over 80 cities and towns observed the day at churches and town halls. More than 12,000 young people marched through the streets of Melbourne, capital city of Victoria, and the salute was taken outside the town hall by the Governor of the State, Sir Dallas Brooks. A message of loyalty, written by an Australian schoolboy, was chosen by the Governor General of Australia, Viscount De L'Isle, V.C., for forwarding to H.M. the Queen.

The service in London, at Westminster Abbey—the central symbol of observances throughout the Commonwealth—was attended by H.R.H. the Princess Royal ; Sir Frederick Hoare, Lord Mayor of London, and Lady Hoare ; and the Mayor of Westminster, Councillor J. L. C. Dribble ; together with representatives of Commonwealth countries and some 700 young people drawn from youth organisations and schools in London and the Home Counties. The Rev. Philip Potter, of the West Indies, was chosen to preach the sermon.

Learning in English in Kenya

Revolutionary "Peak Course" for African and Asian Primary Pupils

SIX-YEAR-OLD Kamau was slightly out of breath, but proud and happy, as he completed a circuit of the classroom, watched by his form-mates.

"What are you doing, Kamau ?" asked the teacher.

"I am *running* round the class."

This was said in English. Three months before Kamau and his fellow African pupils could not speak a word of English. Now they know most words in everyday school use. For they do not learn English as a language, as a child in Britain might learn French ; they do their lessons *in* English.

This system is part of the "Peak Course" for the introduction of English as a teaching medium in African and Asian primary schools in Kenya. It means that a child begins to speak English on his first day at school, and since the accent is on learning through doing, he enjoys it.

First in the Commonwealth

The term Peak is derived from "Preliminary Education East Africa, Kenya", and as its symbol it uses Mount Kenya to denote the peak of attainment.

This innovation in Kenya is the first on such a scale in the Commonwealth. From a modest beginning in 1957 it has now spread to include 80 per cent of all Asian primary schools and 80 Standard One classes in primary schools.

The Peak Course is the product of a section of the Kenya Education Department known as the Special Centre, which was established in 1957 in an attempt to remedy the weak spot in secondary education—the English of African and Asian students. The Centre began work under Mr. G. E. Perren, a former lecturer at Siriba Training College, and now adviser in linguistics to the British Council in London. When he left, the work continued under Mr. Charles O'Hagen, from Ashford, Middlesex, assisted by a small team of experts.

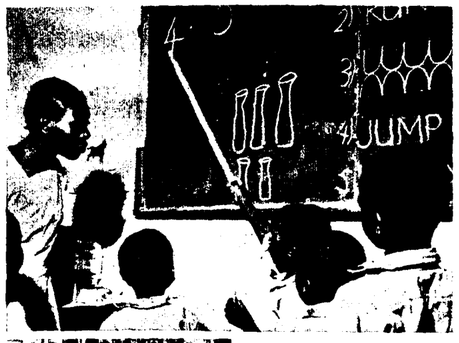
Started in Nairobi

Twenty-five Asian teachers were trained in the new methods and in 1958 a pilot scheme started in eight Government schools in Nairobi, involving some 700 children. So successful was this that the scheme soon spread to other towns and eventually to country districts throughout Kenya. After three years the number of classes had increased from 25 to 230 and the number of pupils to 8,500.

Encouraged by this success the Centre planned the larger task of introducing the Peak Course into those African schools which wanted it. It started in 1961 with one class at Pumwani, Nairobi. Results exceeded all expectations.

Now there are 41 English-stream classes in Nairobi, 25 in Mombasa and 14 others throughout the country.

IN an African school, pupils answer in English when distinguishing shapes and colours. The pupil first learns to name familiar objects in the room and to speak simple sentences. Then comes description, when shapes, sizes and colours are learned. Once these are known comparison is possible. At the end of the first term the six-year-old has no difficulty in saying, "The green ball is bigger than the red ball", or "I am drawing a line on the blackboard".



LEARNING to recognise numbers by means of drawings. The combination of learning through doing and expressing the result in colloquial English helps to make learning a pleasurable adventure.

THE teacher is using model animals to help the children increase their vocabulary. New words and sentence-patterns are introduced to keep pace with the mental growth of the children in a class.

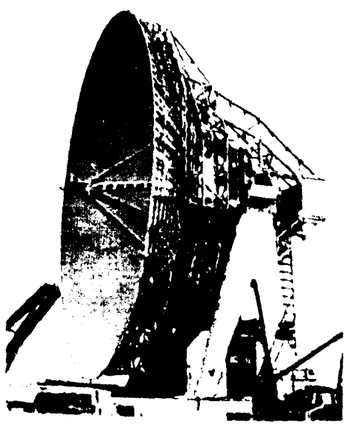
A CONTROL room (above) at Britain's Satellite Communications Research Station, Goonhilly Down, which was built in less than a year and cost about £7

Satellite Communications

AT 1 a.m. on the 11th July, 1962, technicians concentrating on an array of electronic instruments at Goonhilly Down, in the south-western corner of England, made a moment of history. Final adjustments—and then, dimly on a television screen, there took shape the figure of a man. It was of Mr. F. R. Kappel, chairman of the board of the American Telephone and Telegraph Company, and was seen by thousands of television viewers in Britain. It was the first television picture to be received "live" in Britain from America.

Relayed via a space satellite circling the earth, the first picture was imperfectly received, but the next morning, after technical adjustments, another transmission was received loud and clear. The British Post Office engineers, in their turn, transmitted a picture which was received in America. On the 17th July, the first colour television picture was sent, via the satellite, from Goonhilly to America. Then, on 23rd July, the first transatlantic TV programmes proper were watched by 200,000,000 people.

The research station at Goonhilly was built by British industry, using all-British equipment with the exception of a single valve, in co-operation with the General Post Office, to explore the possibilities of all forms of communications by satellite. Another exciting moment came on the morning of the 14th July when Sir Ronald German, the Director General of Britain's Post Office, picked up the telephone in his London flat



A CLOSER view of the steerable dish aerial at Goonhilly. This aerial, which is 85 feet in diameter, can be kept focused on a space satellite with pin-point accuracy. On the 11th July, 1962, it picked up the first television picture to be sent "live" from America

and spoke direct to an official in New
His voice was carried not by the n
telephone cable under the ocean, bu
beamed to the satellite thousands of
away for onward transmission. "Th
ception," Sir Ronald said after his co
sation, "was marvellous."

"Marvellous" is the right word.
experiments, which are still going on, a
which Britain and the rest of the Com
wealth have so vital an interest, may
within ten years to a world-wide sa
telecommunications system. It may soo
possible to telephone Accra from Lo
or Delhi from Melbourne, or watch a B
"live" television programme in Karac

Delegates to the Commonwealth
ference on Satellite Communications, he
London earlier in 1962, recognised that
commercial satellite system should ser
many countries as possible. This is the
and the Commonwealth intends to ke
the forefront of development in this fiel

Commonwealth TODAY

Presenting the Commonwealth to the Commonwealth

NUMBER NINETY-FIVE

CONTENTS

ACKNOWLEDGMENTS. Photographs: Front Cover, colour photograph by Adolf Morath and by courtesy of the Rhodesian Selection Trust Group of Companies. Page 7, Malayan official (1); 8, 9, Pakistan official (4); 10, 11, Kenya official (1), East Africa High Commission (4); 14–17, black and white and colour photographs, Adolf Morath and by courtesy of the Rhodesian Selection Trust Group of Companies; 24, 25, Kenya official (4), British Red Cross Society (2); 30, New Zealand official (5). Back Cover, colour photographs, Crown Copyright.

PREPARED FOR THE
BRITISH INFORMATION SERVICES
BY THE
CENTRAL OFFICE OF INFORMATION

PRINTED IN ENGLAND FOR
HER MAJESTY'S STATIONERY OFFICE
BY SAMUEL STEPHEN LTD., LONDON

Speaking of the Commonwealth

THE Royal Commonwealth Society continues to expand. With the enthusiastic support of the Prime Minister of the Federation of Malaya, Tunku Abdul Rahman, a branch has been formed in Kuala Lumpur, the Malayan capital. A branch has also been formed in the Nigerian Federal Territory of Lagos, which is the first branch to be formed in any of the newly independent countries in Africa. Another new branch has been opened in Winnipeg, Manitoba, Canada.

Lord Boyd, the Chairman of Council of the Society, has also announced that facilities for firms trading with the Commonwealth have been improved. Monthly seminars are held for business executives visiting Commonwealth countries, and firms can now apply for joint membership of the Society with the Federation of Commonwealth Chambers of Commerce.

* * *

The following extract recently appeared in *Malayan Bulletin*. In a message of greeting to the Royal Society of St. George in Wellington, New Zealand, Tunku Abdul Rahman, the Prime Minister of the Federation, said:

"Malaya and its people will do all they can to make the Commonwealth a living force for good of man in the name of peace, fairness and justice. . . . Our idea of the Commonwealth is that it is a free association of nations pledged to work together with a common purpose for the common good of all, and in this troubled world to show by example what can be done to ensure peace and happiness.

"Malaya is proud indeed to be linked with the Commonwealth and our nation and people will do all we can to make the Commonwealth a living force for the good of man in the name of peace, fairness and justice. The close ties of affection and understanding between Malaya and New Zealand are a splendid example of the intimate friendship and accord which come about so naturally between the member countries of the Commonwealth."

* * *

Readers of *Commonwealth Today* interested in worth-while books will no doubt welcome suggestions for the selection thereof. On our Books pages—26 and 27 of this issue—we reproduce a talk given by Dr. V. S. Jha, Director of the Commonwealth Education Liaison Unit, when he opened in London an exhibition of British books. In the display were the books, over 300 of them, which are listed in a new catalogue which has been prepared for the English Language Book Society by Britain's National Book League.

This select catalogue, copies of which are being made available through British Information posts and British Council centres, consists of a basic list, entitled "Books from Britain". The basic list has a supplement for Asia (about 50 titles) and another for Africa (about 60 titles), entitled, respectively, "Books from Britain for Asia" and "Books from Britain for Africa".

The idea behind the scheme is to help readers by placing before them a sample of representative British books from the 150,000 at present available. As the introduction to the catalogue says, they are "works of general interest to readers overseas, with a bias towards recent scientific books for the non-specialist and practical books".

There is no fiction, and only a comparatively few children's books have been included. The books, listed with a brief descriptive note on each, were selected by the National Book League with the help of outside experts and after discussion with members of the Committee dealing with the Low Priced Books Scheme—references to which have already been made in previous issues of the magazine. If these catalogues are found useful to readers in the Commonwealth and elsewhere, others may be produced; for each year some 24,000 new books and new editions are published in Britain.

* * *

Under a scheme administered by the British Council to assist the development of public libraries in certain dependent territories and newly independent Commonwealth countries, £175,000 has been spent on ten projects in seven countries.

Aid has included financing of buildings, provision of books, equipment and mobile libraries, and the training of library staff, in Nigeria, Sierra Leone, the Gambia, Uganda, Tanganyika, Kenya and Fiji.

* * *

A scheme for mutual assistance on law revision has been generally welcomed by all Commonwealth countries including the dependent territories. The purpose of the scheme is to spread information on new developments of special interest in law and particularly in law revision; to arrange for assistance between Commonwealth countries in the preparation of legislation or the study of legal problems.

The scheme will be operated by the British Institute of International and Comparative Law in London, of which Lord Denning, the Master of the Rolls, is Chairman of the Council of Management.

Tribute to General Lord Freyberg, V.C.

THE bronze bust of Lt.-General Lord Freyberg, seen here with the sculptor, Mr. Oscar Nemon. It will be on view at New Zealand House.

NEW ZEALANDERS in Britain commissioned this sculpture of Lt.-General Lord Freyberg, their General Officer Commanding in the last war and Governor-General of New Zealand during the seven years after. It was presented to him by the New Zealand High Commissioner in Britain, the Hon. T. L. Macdonald, at a ceremony at the Guildhall, London.

The bust is the work of Mr. Oscar Nemon, of Oxford (left), who has portrayed in sculpture H.M. the Queen, Sir Winston Churchill, and Field-Marshal Viscount Montgomery, among others.

Sir Winston, in his message expressing his regret at not being able to attend the ceremony, recalled his 50 years of friendship with the General who, since 1953, has been Deputy Constable and Lieutenant-Governor of Windsor Castle. Sir Winston's description of the General as a "salamander" was immortalised in Lord Freyberg's coat-of-arms which is on either side supported by fire-spitting salamanders.

Lord Freyberg was born in London in 1889. His is one of the most impressive records of military service. In the first world war he was wounded nine times, mentioned in dispatches six times; was awarded the D.S.O. (1915), two bars in 1918 and third bar in 1945; and won the V.C. in 1916. During the second world war, apart from being G.O.C. to the New Zealand Forces, he was Commander-in-Chief of Allied Forces in Crete, 1941.

JAMAICAN INDEPENDENCE

As a newly independent sovereign nation—whose association with Britain began over 300 years ago—Jamaica has been warmly welcomed as an equal partner with Britain and the 12 other independent sovereign States in the Commonwealth. This 4,411-square-mile island in the Caribbean, with its population of 1,638,000, entered the final stage of independence with a high degree of political maturity and has also had for several years past a rate of economic growth surpassed by few countries in the world.

" Out of many, one people ", is the motto chosen by the Jamaicans. Sir Alexander Bustamante, Jamaica's Prime Minister, referred to this sense of unity in his Independence message to Jamaicans, both at home and overseas, when he said:

" All of us should be proud of the example of racial harmony which we have set for the rest of the world. We have come a long way together. As a sovereign people we shall make new friends, new alliances. But we shall never forget our friends; nor shall we forget the lessons they have taught us."

Faith in Future

Speaking of the " difficult tasks and heavy responsibilities ahead of us ", Sir Alexander Bustamante expressed faith in the Jamaicans' response " to the challenge of this new era on which we now enter".

" Independence," he said, " means the opportunity to us to frame our own destiny and the need to rely on ourselves in so doing. It does not mean a licence to do as we like. It means work and more work."

In Jamaica and in Commonwealth countries overseas, particularly in Britain, joy was rightly unconfined during the independence celebrations. H.R.H. Princess Margaret, who is no stranger to the West Indies, represented H.M. Queen Elizabeth II at the celebrations. Accompanied by her husband, Lord Snowdon, Princess Margaret spent a busy week in the island.

Bells and Bonfires

Independence was hailed at midnight on August 5th by the ringing of the bells in all the churches and schools in the 4,000 villages of Jamaica. Beacons and bonfires were lit on the hills and mountain tops and fireworks were everywhere. The hub of the night's celebrations was the new national stadium built for the Ninth Central American and Caribbean Games, which opened on the following Saturday.

At the stadium Princess Margaret, Lord Snowdon, Princess Alice, Chancellor of the University of the West Indies, representatives of Commonwealth and foreign countries and other distinguished guests, saw a big parade, and the Union Jack was lowered and the new Jamaican flag hoisted.

Later in the day the Governor, Sir Kenneth Blackburne, was sworn in as Jamaica's first Governor-General, and the highlight on the following day was the State Opening of Jamaica's first Parliament by Princess Margaret.

The speech from the Throne, read by Princess Margaret, reviewed in general terms Jamaica's new role as an independent member of the Commonwealth and the " comprehensive development plan " which was being prepared. Princess Margaret also read a personal message from the Queen, concluding, " I pray that God will bless and keep your country in all the years that lie ahead ".

HAPPY FACES, songs and sunshine. H.R.H. Princess Margaret, representing H.M. the Queen in Jamaica, smiles back at a group of children as she moves on her way through Jamaica during the celebrations there.

INSPECTING a Guard of Honour of the 1st Battalion The Jamaica Regiment (Commander: Captain R. K. Barnes). Jamaica's new Defence Force was also prominent in a big parade at the new national stadium.

CELEBRATIONS all over Britain included a thanksgiving service at Westminster Abbey, London. Here Mr. Reginald Maudling, Britain's Chancellor of the Exchequer (left), is leaving the Abbey with Mr. Ivo de Souza, Jamaica's Acting High Commissioner, and his wife.

MEETING Church dignitaries before attending a Service at Spanish Town Cathedral. Afterwards Princess Margaret and Lord Snowdon signed the Church Register.

A JAMAICAN CHOIR at a special service in a North London church. Commemorative services were held in cathedrals and churches all over Britain.

An Attractive and Workable Project

Malaysia

FIVE Asian territories, including the independent Commonwealth country of the Federation of Malaya, propose to come together in the Federation of Malaysia. The federation is to consist of Malaya, the State of Singapore, Sarawak, North Borneo and Brunei.

The creation of Malaysia would bring many economic advantages. One of its greatest assets would be the combined skill of its ten million people working to a common purpose in a common homeland of some 129,500 square miles.

The area has been endowed by nature with such important commodities as tin, oil and timber and Malaya is the world's largest producer of natural rubber. About 80 per cent of Malaysia comprises extensive jungle-covered areas and though much of the land is mountainous a vast natural potential is still untapped.

The Governments of Malaya and Britain have agreed in principle that the proposed Federation of Malaysia should come into being by 31st August, 1963, Malaya's National Day. They intend to conclude a formal agreement within the next six months after constitutional arrangements and safeguards for North Borneo and Sarawak have been worked out by an inter-Governmental Committee (Malaya, Britain, North Borneo and Sarawak) under the Chairmanship of Britain's Minister of State for Colonial Affairs, the Marquess of Lansdowne.

The unanimous view that a Federation of Malaysia was in the best interests of North Borneo and Sarawak was reached by a joint British-Malayan Commission of Enquiry, under the Chairmanship of Lord Cobbold. The constitution of the new Federation will, it is expected, be based on the constitution of the Federation of Malaya; to ensure the smoothest possible introduction of the Federation, there will be a transitional period during which a number of Federal powers will be delegated to North Borneo and Sarawak.

The Prime Minister of Malaya, Tunku Abdul Rahman, first raised the question of Malaysia as a matter of practical politics in a speech he made to the Foreign Correspondents' Association in Singapore on 27th May, 1961. He said:

" Malaya today as a nation realises that she cannot stand alone and in isolation. Outside of international politics the national politics must be broad-based. Sooner or later she should have an understanding with Britain and the peoples of the territories of Singapore, Borneo, Brunei and Sarawak. It is premature for me to say how this closer understanding can be brought about, but it is inevitable that we should look ahead to this objective and think of a plan whereby these territories can be brought

THE PRIME MINISTER of the Federation of Malaya, Tunku Abdul Rahman, arriving in London for talks on the proposed Federation.

MALAYSIA MEETING IN LONDON. Britain's Prime Minister, Mr. Harold Macmillan (second from left), with the Prime Minister of the Federation of Malaya, Tunku Abdul Rahman (left), Britain's Secretary of State for Commonwealth Relations and Secretary of State for the Colonies, Mr. Duncan Sandys, and (right) the Prime Minister of Singapore, Mr. Lee Kuan Yew.

closer together in political and economic co-operation . . ."

A week later the Prime Minister of Singapore, Mr. Lee Kuan Yew, and the Deputy Prime Minister, Dr. Toh Chin Chye, expressed favourable reactions to the Tunku's speech.

Here are some of the events of the Malaysia diary:

23rd August, 1961: The Prime Ministers of Malaya and Singapore reached agreement in principle on proposals for a merger between Malaya and Singapore.

14th September, 1961: The Prime Ministers of Malaya and Singapore reached agreement to set up a Working Party to work out details of the merger of the two territories.

10th October, 1961: It was announced from Admiralty House that the British Government welcomed the Tunku's constructive proposals which would bring about Malaysia.

18th October, 1961: A motion was passed in the Malayan Parliament agreeing in principle to the Malaysia concept.

24th October, 1961: The Annual Conference of Chiefs of North Borneo voted without dissent in favour of the Malaysia plan.

11th November, 1961: Agreement was reached between the Malayan and Singapore Governments on the merger of Malaya and Singapore.

22nd November, 1961: After discussions in London the Malayan and the British Prime Ministers issued a joint statement expressing the conviction of their two Governments that Malaysia was a "desirable aim", but that before coming to a final decision it was necessary to ascertain the views of the peoples of North Borneo and Sarawak regarding Malaysia by means of an Anglo-Malayan Commission of Enquiry. The statement referred to agreement on certain arrangements about defence matters, and noted with satisfaction the merger agreement between Singapore and Malaya; the views of the Sultan of Brunei were to be sought.

5th December, 1961: His Highness the Sultan of Brunei, addressing the State Legislative Council, expressed general support for the concept of Malaysia.

6th December, 1961: The Singapore Legislative Assembly passed a motion supporting the agreement of 11th November between the Malayan and the Singapore Governments for a merger of the two territories.

4th January, 1962: The Government of Sarawak published a Paper on Malaysia, intended to explain in simple terms the meaning and implications of the plan.

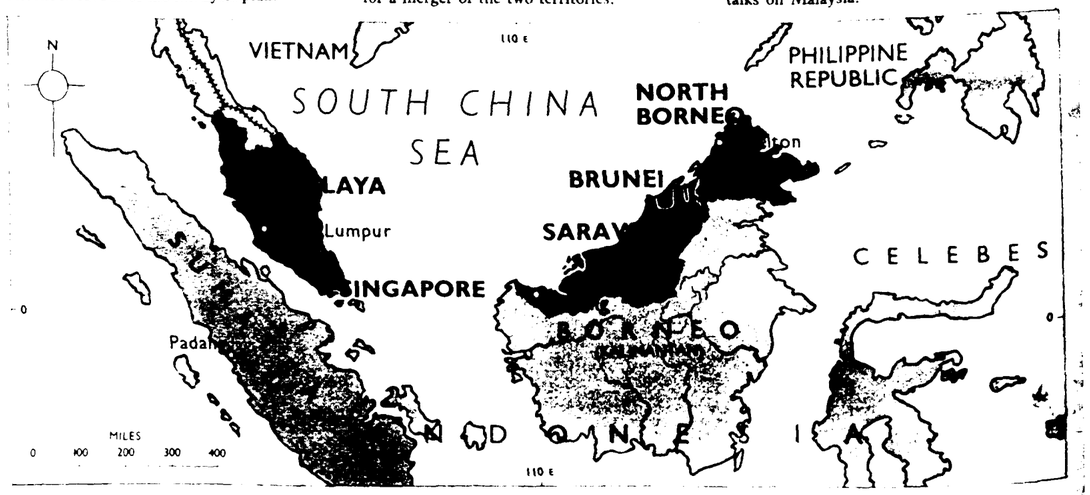
16th January, 1962: The Malayan and the British Governments announced the appointments to the Commission of Enquiry, under the Chairmanship of Lord Cobbold.

31st January, 1962: The Government of North Borneo published a Paper on Malaysia similar to that issued earlier by the Sarawak Government.

16th July, 1962: The Malayan Prime Minister arrived in London for discussions with the British Prime Minister on the Malaysia plan.

1st August, 1962: Publication of the report of the Cobbold Commission of Enquiry. After discussion in London between the British and Malayan Governments a joint statement was issued announcing the decision in principle of the two Governments to bring Malaysia into being by 31st August, 1963.

12th August, 1962: Britain's Minister of State for Colonial Affairs, the Marquess of Lansdowne, left London for Singapore for talks on Malaysia.



1st September, 1962: In a referendum, more than 70 per cent of Singapore's voters approved of the Singapore Government's proposals for a merger with the Federation of Malaya as part of the proposed grouping of Singapore, Malaya and the Borneo territories within the new State of Malaysia.

The territories which are to merge into the State of Malaysia share the same geographical characteristics of a hot-wet equatorial climate, where the crop yields are abundant, the soil rich in mineral wealth, and much of the terrain is covered with jungle.

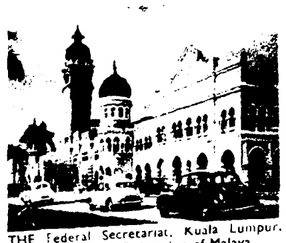
Reviewing the progress towards Malaysia earlier this year, Mr. Lee Kuan Yew, the Prime Minister of Singapore, said:

"We have been discussing what Malaysia will mean in terms of economic development, more roads, bridges, schools, hospitals and the other amenities of a modern, civilised community. For ultimately that surely is what Malaysia is intended to achieve for us all, that through the combination and co-operation of all our resources and talent, we shall raise our level of economic development and the standard of living of our people in our five territories. . . ."

The Prime Minister of Malaya, in a speech on 15th August, 1962, in the House of Representatives, Kuala Lumpur, said that his ambition was "not Mighty Malaysia but Happy Malaysia. How we can bring this about will need to be worked out in detail by the experts concerned and there will no doubt be many and competing claims on our limited resources of money and manpower. But what we have together, we shall share together, to build a prosperous, united and happy nation. The Malaysia plan belongs to all the peoples of Malaysia and together we shall strive towards our common ideals. . . .

"I am grateful to the British Government," Tunku Abdul Rahman added, "for showing so much understanding in the matter which enabled the parties to overcome difficulties from time to time, for these are inevitable in any negotiations. But we have overcome them in a spirit of compromise and goodwill because we know that the Malaysia plan is in the best interest of all the peoples of the States which will form the new Federation."

Some Facts about the Five Territories



THE Federal Secretariat, Kuala Lumpur, capital of the Federation of Malaya.

THE FEDERATION OF MALAYA is about 465 miles long and about 200 miles across at its widest. Down the middle of the peninsula runs a backbone of mountains, on the eastern slopes of which the jungle is supreme. The western half is highly developed. This half of the country has one of the finest road networks in Asia. Malaya is one of the world's biggest producers of rubber. What looks at first like endless jungle to the airline passenger who flies from Penang to Singapore reveals pattern and design on a second look. These are the rubber estates.

Malaya is also one of the world's principal tin producers. Rice, copra, palm oil, and pineapple are important crops. Timber is a significant export. Industries are fast growing up around the town and cities, notably Kuala Lumpur. The people consist of some 3,200,000 Malays, 2,500,000 Chinese, and 700,000 Indians and Pakistanis, and 150,000 others.

Malaya's development funds have in recent years been used to increase fuel, power, water supplies and communications and to improve housing, education, health and social services. A second five-year plan was announced in February 1961.

IN KUCHING, the capital of Sarawak. The Secretariat buildings are in the middle distance.

YOU can fly in three hours from Singapore to Kuching. On the streets of the town can be seen Malays, Dayaks and Chinese. The Dayaks are in a majority among the population, which, according to the 1960 census, was 744,529. The Colony is almost as big as the Federation of Malaya. The whole economy of Sarawak depends on primary production. Agriculture is nearly all carried on by peasant proprietors or their tenants working on smallholdings. Chief crops are rice, rubber, sago, pepper and coconuts. The Rejang is the longest and most important of the rivers, which are the highways of Sarawak. The most important industrial installation is the oil refinery at Lutong near Miri. A development plan for 1959-63 was approved in August 1959. Expenditure—about 38.7 million Malayan dollars—is financed from local revenue and surplus balances, rubber cess and loan funds, and C.D. and W. grants from Britain.

TIMBER from North Borneo's forests. Some 80 per cent of the total area of the Colony is under forest.

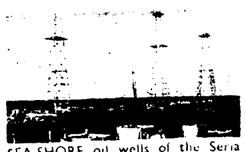
NORTH BORNEO is nearly 30,000 square miles in area, or roughly the size of Ireland. The population is about 450,000, of whom over 100,000 are Chinese. Of the various indigenous communities the most numerous are the Kadazans. The main crops are rubber, coconuts, rice (for local consumption), Manila hemp and tobacco, and their cultivation occupies the majority of the people. Timber is another important export. The chief ports of North Borneo are Jesselton, the capital, and Sandakan, situated on a fine bay on the east coast; it is from Sandakan that much of the timber is shipped. There are three civil airports, the largest being on the 35-square-mile island of Labuan—in the South China Sea—which was incorporated into the Colony in 1945.

THE Victoria Memorial Hall and Government Buildings, Singapore.

SINGAPORE is at the southern tip of the Malaya Peninsula and at the crossroads of South-East Asia. Singapore island itself is 224.5 square miles in area and the 40-odd adjacent islets make up an additional 15 square miles. Here is one of the world's greatest ports — the largest port in South-East Asia, being used by over 60 major shipping lines covering services to every part of the world. It is not only a great bunkering port, it is also one of the largest storing, blending and distributing oil centres in existence.

In 1819, when Singapore was established as a trading station by Sir Stamford Raffles, there were about 150 inhabitants. The population now is over 1,700,000, the principal groups being Chinese, 75 per cent; Malay, 13.6 per cent, and Indian, 8.6 per cent. Singapore was granted representative institutions in 1948 and, in 1959, became an internally self-governing State. The Head of State is H.E. The Yang di-Pertuan Negara, Inche Yusof bin Ishak.

Singapore's climate is tropical, with copious rainfall, high humidity and uniform temperature. There is no well-defined wet or dry season. Average annual rainfall is 95 inches. The city of Singapore—the only town—is built largely on land reclaimed from swamp or sea.



SEA-SHORE oil wells of the Seria Field in Brunei. The oil goes for refining to Lutong in Sarawak.

BRUNEI, a protected State, ruled by an hereditary Sultan, is 2,226 square miles in area. The Sultan, His Highness Sir Omar Ali Saifuddin, is the supreme executive authority in the State. Britain is responsible for Brunei's defence and external affairs, and the British High Commissioner advises the Sultan on these matters as well as on internal security. Brunei is an oil State. Oil exports are about 5,000,000 tons annually. Revenue derived from mining rents and royalties has enabled the State to undertake an ambitious programme. Apart from oil the economy depends on rubber, subsistence agriculture, fishing and the collection of forest produce. About half the population of 84,000 (1960 census) are Malays; Chinese make up 26 per cent, and the Dayaks are the largest of the indigenous tribes.

SOME of the 200 cadets at Petaro College are seen (above) eating in the Mess. In a Public School atmosphere, young Sindhis receive a thorough education, and are encouraged to serve Pakistan in responsible positions.

A CLASS on the edge of the desert. Urdu, English, mathematics, physics, and chemistry, are compulsory subjects for all students. Social Studies are taken up to Matriculation standard.

PAKISTAN'S COLLEGE IN THE DESERT

THE DRUM and bugle band at Petaro College (above) is formed from juniors and plays at ceremonies.

THE CADETS are inspected (below) by an Air Commodore of the Pakistan Air Force.

IN January 1959, Pakistan's Minister for Education, Mr. Halibur Rahman, who is now the Minister of National Reconstruction and Information, laid the corner stone of a Cadet College on the site of a deserted airstrip about twenty miles from the town of Hyderabad.

As far as the eye could see stretched a barren, rocky desert, with piles of rubble indicating a derelict hangar, watch tower, or store. Two miles away was the small village of Petaro, and beyond the village a crescent of trees outlined a curve of the Indus river.

Here, in this waste land, a proposal first made by the President of Pakistan, Field-Marshal Mohammad Ayub Khan, was to become an established fact. The President proposed that a Public School should be set up on the lines of the Cadet College already functioning in the Punjab. Its purpose would be to give leadership training to Sindhis—to encourage them to serve their country in responsible positions in any walk of life, including the Armed Forces.

The problems of building a township—a modern oasis in the desert—were immense. Water was pumped from the Indus to the College campus, a distance of three miles, where it was filtered, pumped again to a water tower, and then fed to the freshly planted gardens and playing fields. Electricity was brought all the way from Hyderabad.

The necessary buildings were speedily designed and constructed. They included the main College building, staff quarters and two boarding houses, a hospital, mosque, market, laundry, college farm buildings, post office, swimming pool, primary school, and various club houses. Today about 680 people, including 200 cadets, are living and working here.

Cadets enter the College between the ages of 12 and 14; they take a three-year course to Matriculation (G.C.E. O level) and then carry on for two more years to Intermediate Science (G.C.E. A level).

Compulsory subjects at all levels are Urdu, English, mathematics, physics and chemistry. Social Studies is compulsory up to Matriculation, embracing history, geography, and civics. The young cadets "adopt" local villages and assist in activities such as the teaching of Urdu to adults, conducting a census, and so on.

Skills and Confidence

Practical and physical training is strongly emphasised from the moment a new boy arrives. Junior boys work at agriculture, carpentry and building construction, and one of these subjects is chosen as an optional Matriculation subject. Apart from giving the cadets new skills, and greater self-confidence, this training has the practical advantage, from the College's point of view, of providing a nucleus of semi-skilled boys who, when they become Seniors, can work on the campus mending furniture, maintaining the buildings, and helping to produce food.

Military training is kept to a minimum of marching, map reading and rifle shooting. The junior boys, with their pipes, drums and bugles, make up the College Band, provide the music for ceremonial occasions, and sound Reveille and Retreat each day.

Organised games include boxing, hockey, cricket, soccer, basketball, tennis, badminton, and athletics. It is difficult, because of the remoteness of Petaro, to arrange regular matches with other teams, but once a year there is an Inter-Services Schools Sports Tournament which includes, in the evenings, amateur dramatics, debating, and other indoor competitions.

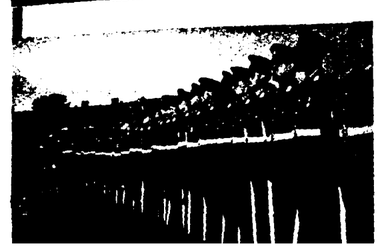
In 1961 Petaro, the youngest of Pakistan's six schools of this nature, won the shooting, brains trust and chess competitions. They were also runners-up in athletics.

Scouting is one of the most important extra-curricular activities. There is a Petaro Scout Troop, a Squadron of Air Scouts, and a Division of Sea Scouts, all of whom meet regularly in term time and attend camps in the holidays, going as far afield as Chittagong or Colombo.

As an experiment a scheme called "The Code of Honour" has been adopted by the College. The object is to persuade all members of the Cadet community by the pressure of their own public opinion to behave honourably at all times. The scheme is administered entirely by the boys, and is proving very successful.

It is by such modern means that the College in the desert is producing young men of whom Pakistan can feel proud.

Commissioning of Commonwealth Officers



THESE pictures were taken at the Mons Officer Cadet School, Aldershot, England—at one of the more impressive ceremonies in the military calendar: the commissioning parade.

Officer Cadets—not only from Britain, but also from Ghana, the Federation of Nigeria, Tanganyika, Uganda, Kenya, and Gibraltar—received their commissions as officers prior to joining regiments in their own countries. They were complimented by the Inspecting Officer, General Sir Gerald Lathbury, K.C.B., D.S.O., M.B.E., who is Quartermaster General to the Forces, on their smartness and the excellence of their drill. The General said that he was specially happy to attend this ceremony as he himself had served in both West and East Africa.

He inspected the parade (see the photograph below left) accompanied by the School Commandant, Brigadier P. W. G. Pope, D.S.O., M.C. Later he presented the British Empire Medal (B.E.M.) on behalf of Her Majesty the Queen to Officer Cadet M. Kiptoo (top left), who was awarded it for services while serving as a Staff Sergeant with the King's African Rifles, and the band of the Grenadier Guards then played the Quick March of the King's African Rifles, "Tu Funge Safari".

The long-term task of the Mons Officer Cadet School is to provide the British Regular Army with officers on Short Service Commission, and to train the cadets of many overseas countries which see in British military traditions and institutions an ideal training ground. Commonwealth officers who watched the commissioning parade included Brigadier J. T. U. Agui-Irons, who is Military Adviser to the High Commissioner for Nigeria, in London. After the parade he spoke (in heavy rain; see the picture on the right) with some of the newly commissioned young officers from Africa.

DELEGATES to the Eighth Commonwealth Forestry Conference at the Sambret Estate Catchment Experiment at Kericho, in Kenya. In the foreground is Sir Henry Beresford-Peirse, Director-General, the British Forestry Commission.

Tropical Forestry

Well-attended Commonwealth Conference in East Africa

REPRESENTATIVES of the forest authorities and the timber interests of the Commonwealth met in Kenya recently for the Eighth Commonwealth Forestry Conference. Among the countries represented were Australia, Canada, Cyprus, India, Malaya, Mauritius, New Zealand, Nigeria, Northern and Southern Rhodesia and Nyasaland, Tanganyika, Trinidad and Tobago, Uganda, Zanzibar and Britain, and included the United States.

This was the first time the conference, which is held periodically—usually at five-yearly intervals—had met in East Africa. The delegates heard reports on the progress made in forestry in various parts of the Commonwealth during the period since the previous conference; they listened to the reading of prepared papers and discussed questions of forestry policy and protection, and other means of promoting the better management and utilisation of forests.

The great value of such a conference lies in the exchanges of knowledge and discussion on the application of different techniques: for each of the delegates was concerned with the problems of proper land usage, which is related to a country's natural resources and economic policy.

Just before the main conference began the delegates went on short tours of Kenya, Tanganyika and Uganda, and after attending plenary sessions in Nairobi they went, in two parties, on their main tours.

FELLING a cedar tree on Mount Kenya. Delegates were given a good idea of Kenya's reafforestation schemes.

TOURING DELEGATES applaud after Mr. Ismail bin Haji Ali, Conservator of Forests, Malaya, plants a tree with a commemorative plaque at the Londiani Forestry School, Kenya.

They saw much of Kenya's extensive reafforestation programme and visited the site of a water catchment experiment in the Kericho district. In the Mount Kenya area they saw something of the precautions taken to reduce as far as possible damage caused by big game, particularly elephant and buffalo, to soft wood plantations. A night was spent at the famous Tree Tops Hotel, from which it is possible to study big game at close quarters.

In Tanganyika a group of delegates visited the grassland afforestation projects of the Southern Highlands Region, where exotic pines are being planted. All the delegates were later given the opportunity of seeing an experiment to measure water storage in the soil under different forms of land use. They spent a few days in the Western Region seeing the dry savannah woodland which contains Tanganyika's well-known Muninga tree, a source of valuable export timber.

All the delegates visited the Northern and Tanga Regions and saw Tanganyika's well-known Forestry Training School. They visited the research laboratory and workshops at Moshi and saw silvicultural research work in both Regions. Social activities were not lacking: one Australian delegate caught his first rainbow trout, and most of the delegates did the climb from Bismarck Hut on Kilimanjaro to the grasslands above the forest line.

In Uganda the pre-conference tour took delegates to the savannah woodlands where problems of grazing control are being studied and research is being carried out at establishing quick-growing timber plantations. During the main tour delegates were shown aspects of management problems and the silvicultural techniques employed. The delegates also visited the Uganda Forest School, the Forest Department Utilisation Section and a modern plywood plant and sawmills at Jinja.

Tropical forestry is a highly specialised subject, and the forestry experts at this Commonwealth conference welcomed the opportunity of meeting together in East Africa to discuss many aspects of their main problem, which is to bring about conditions that will benefit, directly or indirectly, their respective national forest policies.

MR. C. SWABEY (left) Chairman of the Conference and Forestry Adviser, Department of Technical Co-operation, Britain, with Mr. A. L. Poole, Director-General, New Zealand Forest Service.

THE HON. ALHAJI TEWA, Minister of Lands, Forests and Wildlife, Tanganyika, opens the Conference in Nairobi. Seated on his right is the Governor of Kenya, Sir Patrick Renison, and on his left the Governor-General of Tanganyika, Sir Richard Turnbull.

A MAHOGANY LOG in the Budongo Forest, north west Uganda, is being pulled away on the first stage of its journey to the sawmills.

CELEBRATING Tongans carry meat and fruit for the great feast they later enjoyed. Chalked on the little board in the foreground is the number of pigs (1,300) they prepared for the meal.

PRINCE TUNGI, the Premier of Tonga, with Sir Kenneth Maddocks and Lady Maddocks. Sir Kenneth attended the celebrations as Britain's Chief Commissioner to Tonga.

THE FRIENDLY ISLANDS

Tonga has been Celebrating the Anniversary of 100 years of Emancipation and the Establishment of a Constitutional Monarchy

THE people of Tonga have been celebrating the 100th anniversary of their emancipation and the establishment of a Constitutional Monarchy. Queen Salote Tupou of Tonga took a prominent part in the celebrations, with her son and heir, Crown Prince Tungi, who is also the Prime Minister of Tonga.

An impressive figure, Queen Salote endeared herself to many thousands of people in Britain when she attended the Coronation of H.M. Queen Elizabeth II. She is the daughter of King George Tupou II and great-great-granddaughter of King George Tupou I, one of the great figures in the Pacific area.

Tonga has an interesting history. Its ancient kings are listed back to the tenth century and there is evidence that they possessed overlordship over a vast area of Polynesia. When Captain James Cook visited the islands during his famous voyage in 1777, he gave the name of Friendly Island to Lifuka, the island which he had first discovered. The name was later applied to the whole group.

Both Captain Cook and Abel Tasman—who discovered Tongatapu in 1643—were struck by the peaceful conditions of the islands. But within a few years of Cook's departure the country was involved in a savage civil war, which was finally quelled by King George Tupou, who established suzerainty over Tonga and unified what had until then been a loose alliance of a number of islands in the group under several accepted chiefs.

During King George's long reign (1845-93) he made treaties with France, Germany, the United States of America and Britain, all of whom recognised his sovereignty and independence. Under his code of 1862 all Tongans, chiefs and commoners alike, were subject to the law of the land; the people were set free from forced labour and compulsory contributions to the chiefs, and were given complete control over their own property. A parliamentary government was set up and a land system unique in the Pacific was introduced. Under this law every male who reaches the taxable age of 16 is entitled to 8¼ acres of planting land and a small allotment for his dwelling.

Tonga is an agricultural country and semi-tropical. The most important export crops are copra and bananas. There are no mines or factories. The Tongans—population at the end of 1957 was 59,627—also grow mainly for their own consumption sweet potatoes, yams, tapioca, groundnuts, rice, maize, sugar cane, pineapples, melons, mangoes and citrus fruits. There is scarcely any recruitment of labour in this country of peasant proprietors; where labour is needed it is obtained by the spontaneous offer of services. There are no trade unions.

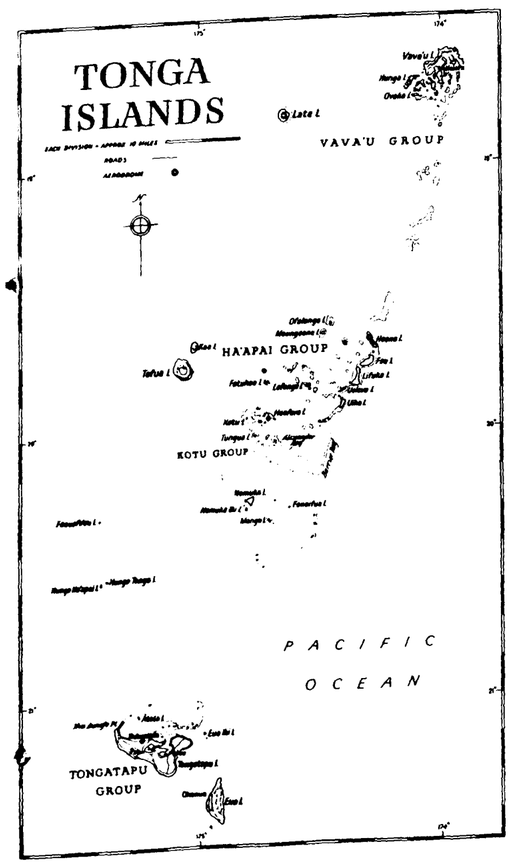
Tongans get free medical and dental treatment. Primary education is free and compulsory between the ages of 6 and 14 years. Secondary education is well developed. Many scholarship holders study in New Zealand, where Queen Salote studied at the Auckland Diocesan High School. The Queen is head of the Free Wesleyan Church of Tonga.

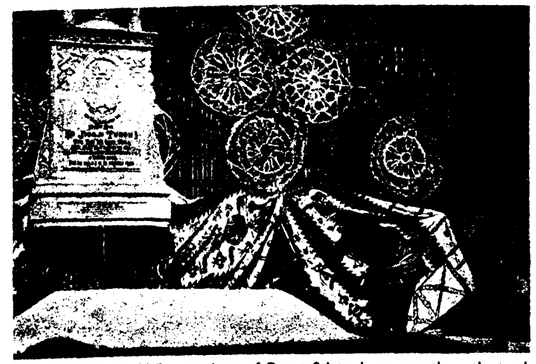
Tonga has its own currency—£ equals 16 shillings sterling—and about 60 per cent of the revenue is derived from Customs duty. There is no public debt. The country has its own stamp issue and British weights and measures are standard. The languages are Tongan and English. There are no newspapers, but the Government issues a daily news-sheet which is distributed free.

In 1958 Tonga signed a Treaty of Friendship with Britain. By the previous Treaty of Friendship and Protection of 1900 Tonga became a British Protected State while remaining self-governing. In 1952 the responsibilities of the British High Commissioner for the Western Pacific in respect of the Kingdom of Tonga were transferred to the Governor of Fiji.

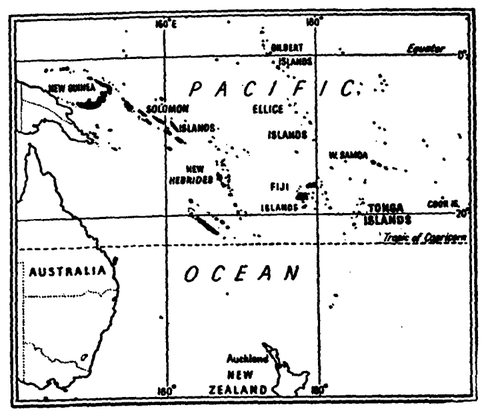
QUEEN SALOTE of Tonga with Sir Kenneth Maddocks, Governor of Fiji, and Lady Maddocks, at a wreath laying ceremony at the Royal Tombs.

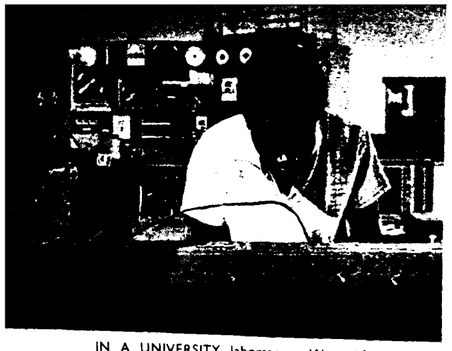
SOME of the crowds who converged on the capital in Tongatapu Island for the celebrations. More than 15,000 of them attended some of the main events.





PRINCE TUIPELEHAKE, second son of Queen Salote, lays a wreath on the tomb of King George I of Tonga. He and his twin brother, Prince Tungi, were married in a double wedding ceremony in 1947.





IN A UNIVERSITY laboratory, West Africa, where valuable training is provided for tomorrow's leaders. The University of Ghana, for example, is one of the most up-to-date in West Africa; the buildings alone cost nearly £10,000,000.

'AFRICAN AWAKENING'

FOR twelve months a film unit on location in West Africa took shots in colour of many facets of life in Ghana, the Federation of Nigeria, and Sierra Leone, with the full co-operation of the respective governments. The film was made not from the familiar *standpoint* of an outside observer looking in, but presented instead the point of view of an inside observer casting a discerning eye at his continent and its position in the world. The miles of film exposed in the making of the picture was processed and cut to a final running time of 38 colourful minutes. When the film had its première, in the three countries simultaneously, the essence of West Africa, and West African aspirations, was there for all to see.

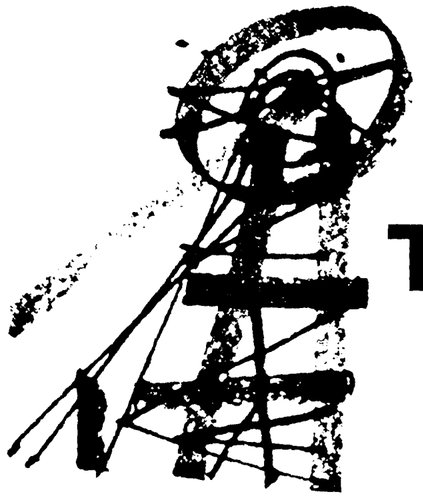
Reproduced here are a few still photographs taken from the colour film. Its theme is set by an African voice declaiming a brief extract from the Ghanaian writer Efua Sutherland: "We have acquired too many confusions from history. . . . Our task is to reassess our views and our values, for only then can we choose a clear direction."

The direction in which West Africa is moving, as shown in the film, is inexorably towards more and better education, more technical skills, and a fuller place in the modern world. The University College at Freetown, Sierra Leone; Africans studying in Britain; agriculture as the basis of national wealth; the need for modern transport systems (including some dramatic and original sequences taken on the river Niger); and the personal stories of living Africans—a Ghanaian general manager, an airline pilot, an oilman, a wharf superintendent, and a trade union representative—are some of the many aspects and images which make up the film.

Commissioned by the United Africa Company, this film is a worthy successor to others commissioned by the same company and which have been acclaimed in the past, notably "The Oil Rivers", "Twilight Forest", "Traders in Leather" and "Surfboats of Accra".

IN SIERRA LEONE, inside a modern maternity hospital, another picture from the film "African Awakening".

IN NIGERIA, a young student in a University library. The film also looks at formal higher education in all its breadth and African importance.



The Copperbelt

of Northern Rhodesia

INDUSTRY in the heart of Africa. An aerial view of the surface plant at Mufulira. Beyond the chimneys of the refinery are the neat rows of mineworkers' dwellings.

FACTS ABOUT THE PHOTOGRAPHER

THE PHOTOGRAPHS on these and the next two pages were taken by Mr. Adolf Morath, a British photographer who has travelled widely in the Commonwealth for some of the world's leading industrial concerns.

Morath delights in recording the moment when molten metal slides from a steelworks furnace, but equally he loves to capture the sweat on the brow of the steelworker. While doing full justice to the techniques of copper mining, he does not forget the dignity of the African miner, such as the man on the front cover of this issue. Some of his enlarged colour prints of men who earn their living by hard physical work have something of the texture and the quality of Old Masters.

He is a perfectionist. During his assignment in Northern Rhodesia for the Rhodesian Selection Trust Group of Companies, he had with him four cameras and 30 boxes of equipment, worth perhaps £2,000. He photographed the Group's three mines, the refinery at Ndola, general Copperbelt scenes, prospecting operations in the bush, Kariba, Rhodesia Railways trains carrying copper to the ports, and loading scenes at the docks in Beira, using nearly 6,000 large flash bulbs in the process.

His "shooting" platforms ranged from the tops of headframes, water towers, and rocks, to light aircraft, launches, and on one occasion the coal heap in the tender of a locomotive. Every few days he sent back to London the fruits of his work for processing by his expert colour technician, Miss Charlotte Marx

Born in Wallasey, Cheshire, in 1905, Morath was a keen photographer at the age of 12. He explored his boyhood world with a box camera and improvised a dark room in a coal shed behind his home. When he was 17 he had 12 of his transparencies chosen for exhibition in London by the Royal Photographic Society. He became a free-lance Press photographer, then opened a studio in Liverpool where he specialised in portraiture. He set himself up in London ten years ago and has never looked back. He was awarded the Hood Medal for 1961 by the Royal Photographic Society.

PHOTOGRAPHED BY ADOLF MORATH

UNDER the soil of Northern Rhodesia lies an estimated 763,000,000 tons of copper ore, capable of yielding 27,000,000 tons of copper. The average price of the metal today is about £230 a ton; so, by any reckoning, Northern Rhodesia is not poor in resources.

The first prospecting for copper, in the region of what is now the African Copperbelt, was undertaken by Europeans towards the end of the nineteenth century; it was not until the 1920s, however, that large-scale exploration began.

The Northern Rhodesian copper industry today is run by two mining groups—the Rhodesian Selection Trust Group of Companies (R.S.T.) and the Anglo-American Group, each of which has three major mines. Copper has attracted a large population (400,000 people) to what was a sparsely populated area; in 1961 it accounted for 79 per cent of Northern Rhodesia's export revenue. Vast amounts of capital are invested in this industry which has brought increasing prosperity to Africans and Europeans alike.

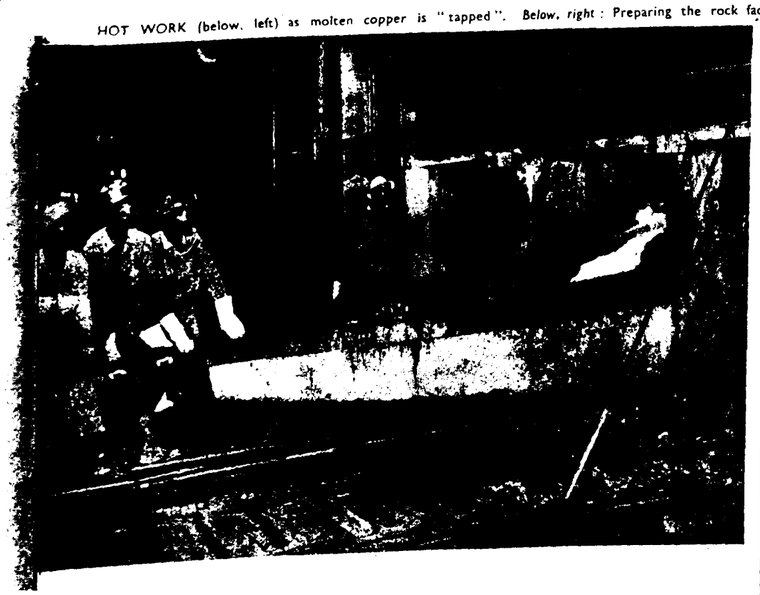
Mr. Adolf Morath was assigned to cover the R.S.T. group of mines, of which the first to be developed was the Roan Antelope mine. It started production in 1931 and is still probably the largest underground copper mine in the Commonwealth considering the amounts of ore hoisted and its mileage of underground workings. Twenty-four shafts have been sunk and about 900 miles of underground workings have been driven at this mine, which has a capacity of between 85,000 and 90,000 tons of copper a year. The ore is crushed, floated, smelted and refined into "wirebars", which are shipped to the markets of the world.

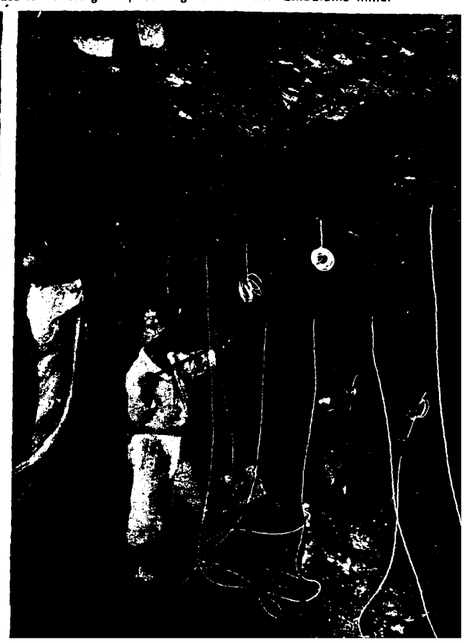
The Mufulira mine, 26 miles to the north-east of Kitwe, is now producing more copper than Roan Antelope. A new western extension has brought its capacity to 150,000 tons a year. The third R.S.T. mine, which was opened in 1956, is Chibuluma, a small mine by Copperbelt standards, with a capacity of 20,000 tons a year; a fourth, Chambishi, is being developed.

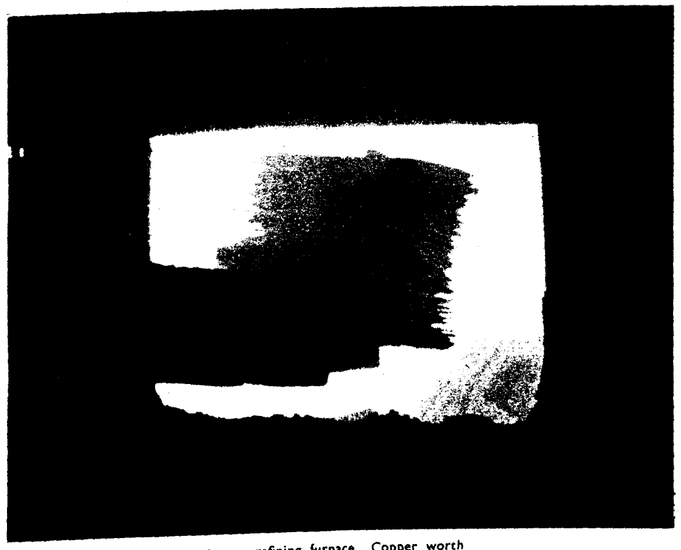
Nchanga, Nkana, and Bancroft are the other mines in Northern Rhodesia. These Copperbelt mines, together with the processing plant and associated townships, consumed 1,836 million kWh of electricity in 1961, just over half of which came by the grid from Kariba.

IS THERE copper here? A geologist, Nigel Bailey, with an African helper, examines a rock outcrop.

HOT WORK (below, left) as molten copper is "tapped". *Below, right*: Preparing the rock face for blasting deep underground at the Chibuluma mine.

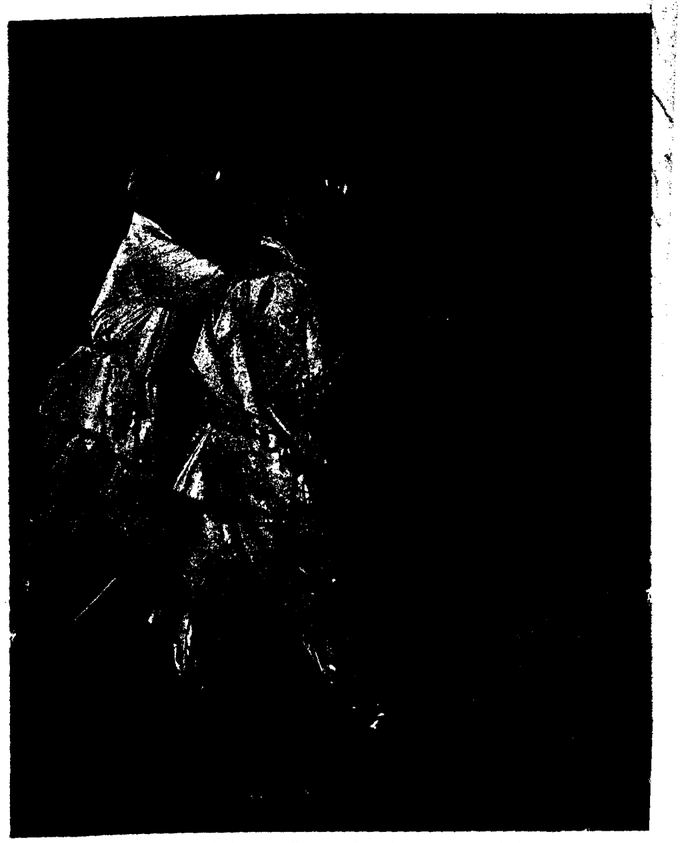






CHARGING copper cathodes into a refining furnace. Copper worth £119,000,000 was produced in the Northern Rhodesia Copperbelt in 1961.

MUFULIRA minehead and buildings, by night. This mine, which was discovered in 1923, is one of six. It began production in 1933.



TWO copper miners, Marco Andre and Philomon Marashva, carry out drilling operations at Chibuluma mine. The safety chains are a part of the miners' equipment—especially necessary when drilling is done from elevated platforms.

PROSPECTING in the Rhodesian bush never ends, though methods change. Above: A helicopter over a radio-metric survey team.

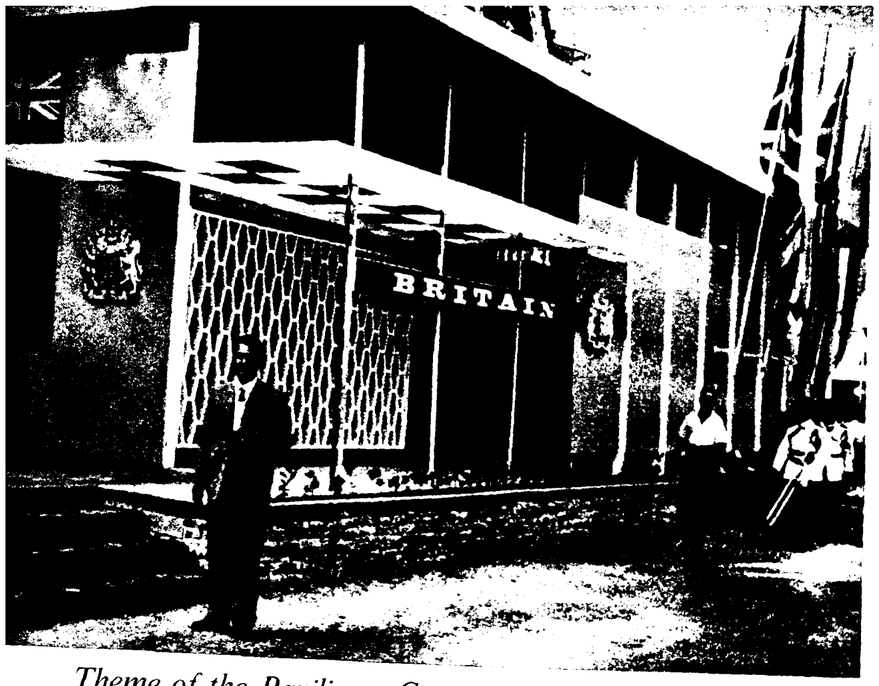
COPPER is one of the essential raw materials. Copper for kettles, cables, pipes, offices and houses, cars and ocean liners. . . .

The Copperbelt of Northern Rhodesia produces, mainly for Commonwealth consumption, copper which in 1961 was sold for £119,000,000. The six large mines in the region are sited on an orefield capable of yielding 27,000,000 tons of copper, or 24 per cent of the world's known reserves of the mineral. Power for the copper industry is supplied from the great hydro-electric station at Kariba. The finished copper is transported by rail for 1,500 miles to the port of Beira, for shipment overseas to the markets of the world.

It was 30 years ago that large-scale copper mining started in Rhodesia—at the Roan Antelope mine in 1931. Now the Copperbelt—a strip of country 75 miles long by 25 miles wide—is the cradle of most of Northern Rhodesia's wealth. About 400,000 people live in the region, and enjoy comparatively high living standards. In place of the old ant hills and forest trees Mr. Adolf Morath, the London photographer, found a thriving industry, when he visited the Copperbelt to take the pictures on these pages.

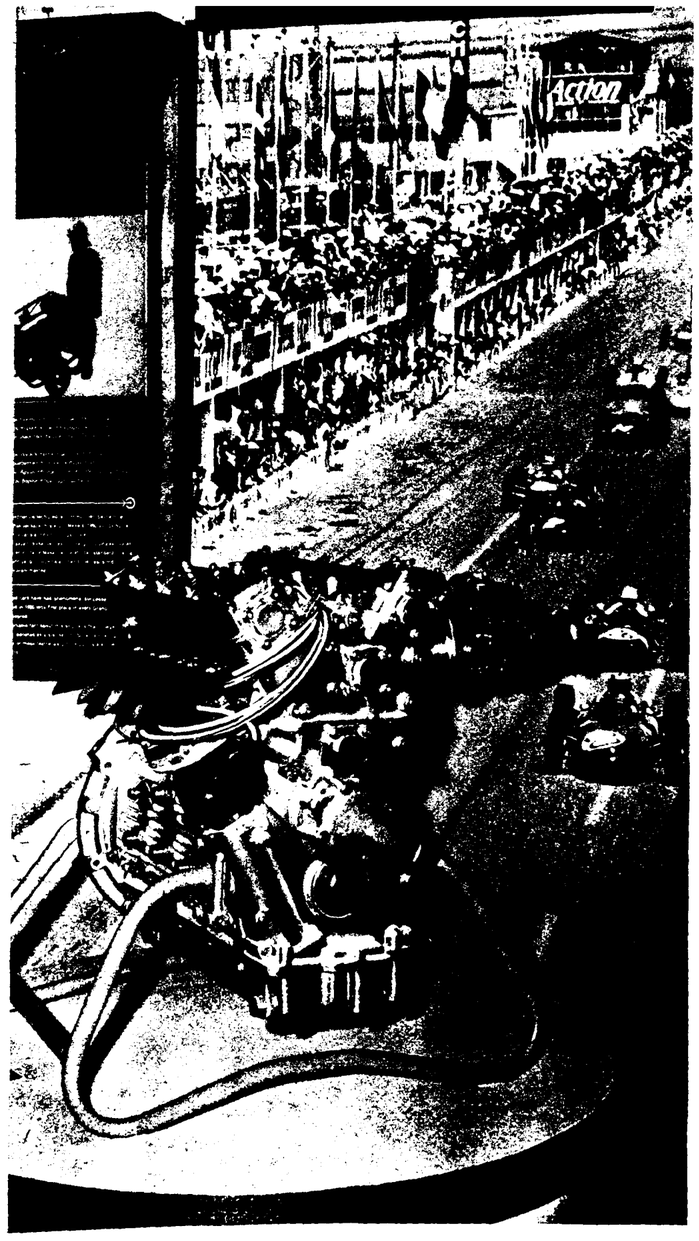
A MINERALOGIST examines ore-bearing rock. Rhodesia has about 24 per cent of the world's known copper reserves.

MOLTEN copper is "tapped" (right) from the smelter at Mufulira. The capacity of the mine is 150,000 tons a year.



THE FIRST official British Pavilion ever to be erected at the Cyprus International Trade Fair. It was produced for the Commonwealth Relations Office by the Exhibitions Division of the Central Office of Information, and it presented many a British development on the theme of Communications.

WHEN President Makarios of Cyprus visited the British Pavilion (above) the then Parliamentary Under-Secretary of State for Commonwealth Relations, Mr. Bernard Braine, M.P., presented him (below) with a dinner service.



Theme of the Pavilion—Communications in the Service of Man

BRITAIN 'ON SHOW' IN CYPRUS

THE growing importance of the Cyprus International Trade Fair is shown by the fact that in 1962 there were nine national pavilions at the attractive site beneath the ramparts of Nicosia city walls. Britain had a pavilion at the Fair for the first time.

The Fair was opened by President Makarios, who was welcomed to the British Pavilion by the then Parliamentary Under-Secretary of State for Commonwealth Relations, Mr. Bernard Braine, M.P., and the Acting High Commissioner in Cyprus, Mr. Ivor Porter.

The President was particularly interested in a striking model of a sea water distillation plant which gave an impression of the actual project, costing £1,000,000, which is to be built by Britain in Cyprus at Dhekelia and will produce 350,000 gallons of fresh water a day. While the water will be utilised by the Forces, it is hoped that the plant will alleviate the water problems in the surrounding area.

Speaking at the inauguration of the Fair, Mr. Braine said that the presence of the British Pavilion was a measure of the importance which the British Government attached to its relations with Cyprus, and the trade which flowed between the two countries. He spoke of Cyprus's imaginative development programme, and said he was delighted that Britain was making her contribution in the form of money and technical knowledge in a wide variety of projects. Such projects led to greater production and increased trade, and in Britain they valued the business done with Cyprus. They had recently taken great pleasure in welcoming a Cyprus Trade Delegation to London.

Economics, Mr. Braine pointed out, was not everything. Britain and Cyprus belonged to a world-wide association of great importance to all mankind—a Commonwealth which bridged so many gulfs dividing the peoples of the earth. "The world today," said Mr. Braine, "is faced by a series of challenges. Can its many peoples really live together? Can its different systems work together? Can we use God's gift in the discoveries of science for the cause of human progress or must they be devoted to destructive purposes?

"The plain fact," he added, "is that the Commonwealth must be an example to the world. This is a challenge that we cannot but accept; and I come here, therefore, as a confirmed believer in the good that the Commonwealth can do in the world, and therefore in the strengthening of the bonds of friendship and understanding between my country and yours."

Britain's Pavilion, designed to tell the story of Communications in the Service of Mankind, offered a number of special attractions to Cyprus, which itself has been an important communications centre down the centuries.

At the entrance to the Pavilion was a large modern sailing cruiser, the *Fairey Fulmar*, and alongside was a tower with a flashing beacon used at harbours and airports throughout the world. Inside, all was movement and colour. A large illuminated map showed the world-wide spread of cable and wireless routes. "True Motion" radar, an important British development, was illustrated by means of an animated model of Dover Harbour, and there was radio and electronic equipment on display.

BRITISH Night at the Fair, and the R.A.F. Pipe Band, in Highland rig, paraded proudly past the British Pavilion.

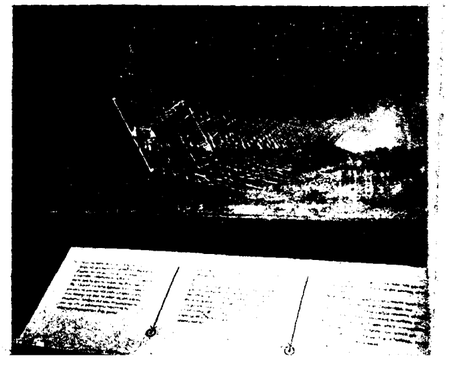
THE EXHIBIT above demonstrated the working of the disc brake, which was developed in Britain. *Right:* A Coventry Climax racing car engine backed by a photograph of the start of a race.

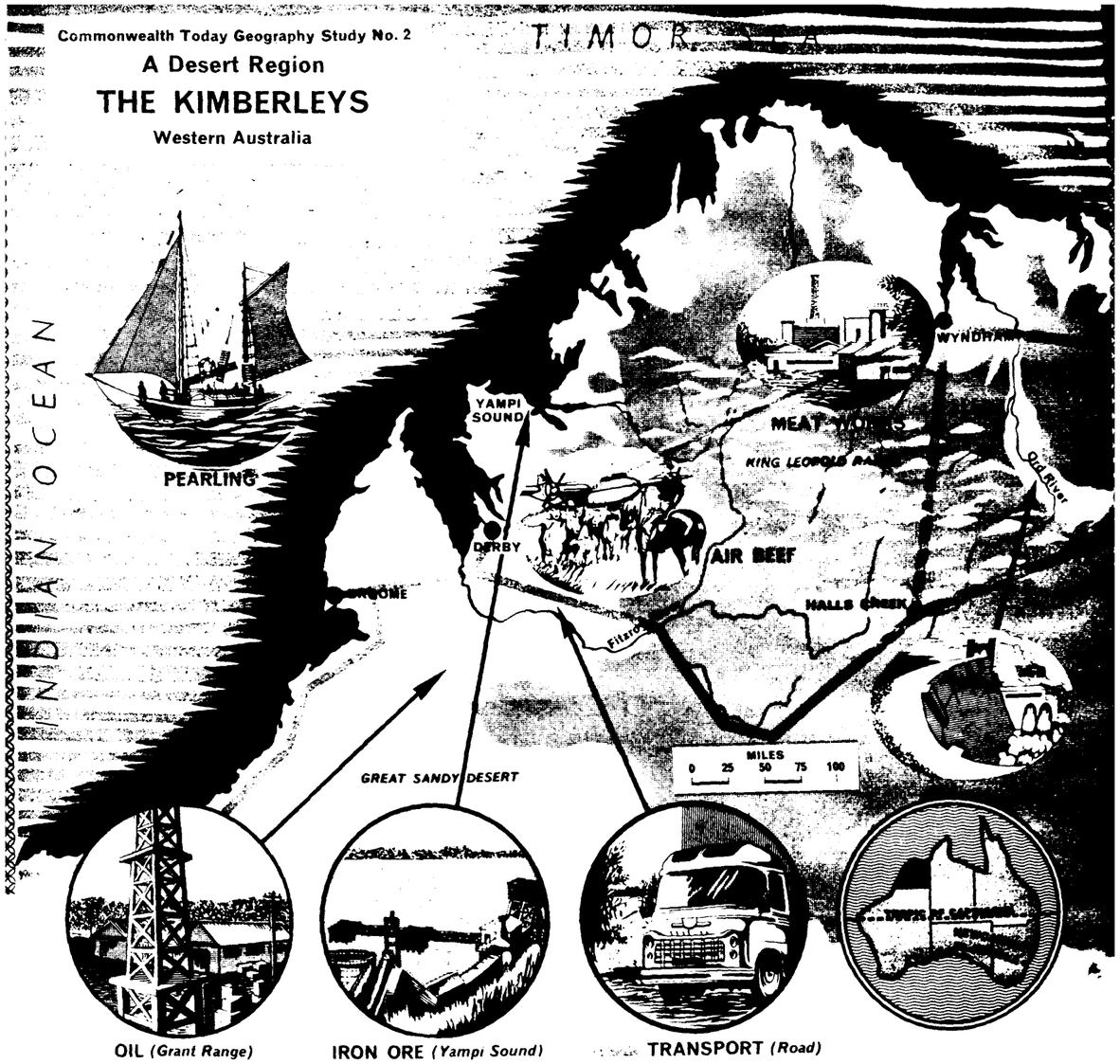
Britain has a leading place in the development of automatic aircraft landing systems, and a large display showed how an automatic landing is achieved. A colour film showed how the Hawker P1127 vertical-take-off aircraft can hover and even fly backwards, and a working model illustrated the operations of the "variable wing" Vickers Swallow aircraft, another outstanding British research project.

Other achievements displayed in model form included Britain's new thermal power station at West Burton—the largest in Europe; and a 25-ton version of the original Hovercraft. One of the big attractions at the Pavilion was television, enabling visitors to see themselves on a screen.

Distinguished visitors to the Pavilion included the Cyprus Minister of Commerce and Industry, Mr. A. Araouzos. There was also a British Night at the Fair when the Vice-President of Cyprus, Dr. F. Kutchuk, was the guest of honour at a reception given by the Acting High Commissioner.

RADIO telescopes play a vital part in satellite communications. *Below:* A model of the Cambridge telescope used to probe the secrets of the Universe.





Area : 120,000 square miles.
Population : 4,000.
Occupations : Beef farming, meat processing, iron ore mining, pearl fishing, agriculture and agricultural research, mineral prospecting (including oil) and gold mining.

THE KIMBERLEYS is a region of wide plains and rocky mountains. The most important occupations are cattle raising, mining and agriculture—industries which employ few people yet make a big contribution to the region's wealth. Most of the Kimberleys's supplies are brought in and its products sent out by ship, and the main towns are important harbours. Rainfall is heavy along the coast, but scanty inland. The Great Sandy Desert, to the south, is virtually uninhabited.

The Kimberleys, with immense expanses of hardy grasses, is one of Australia's main cattle grazing regions. The cattle are bred on huge " stations " and moved to fattening lands either " on the hoof " or in long road trains which can carry 80 head 300 miles in a day. An Air-Beef scheme has been operating from Glenroy since 1949. The beef is chilled and boned and then flown to the packing stations at Derby and Wyndham for export.

Cockatoo and Koolan Islands are two of the largest high-grade iron ore deposits in Western Australia. It is hoped to increase production to 2,000,000 tons annually. The ore is shipped 3,000 miles to the iron and steel plants at Newcastle and Port Kembla.

A pearl fishing fleet is centred at Broome. The luggers, with a crew of eight or nine, take about three days to reach the pearl beds. In 1960 over 560 tons of pearl shell were produced. Broome is also well known for its " Cockeye Bobs "—ferocious storms which cause havoc in the typhoon season.

There are no railways in the Kimberleys, but there are fast air services, and modern heavy haulage trucks serve the scattered pastoral and mining settlements. Mining is dependent on road transport and to assist the beef industry a road development scheme is planned.

The Ord and Fitzroy, two of Australia's big rivers, often become raging torrents in the short wet season ; their deep rocky gorges are well suited to dam building. On the Ord—which in the wet season pours 450,000,000,000 gallons of water into the sea—a dam is to be built. It will provide water and power for agricultural development over a wide area. The Kimberleys Agricultural Research Station has shown that rice, cotton and linseed can be grown and rice-growing for export to Asia could become important.

Correction The former French Guinea, mentioned on Page 27 of Commonwealth Today No. 94, is wrongly named; for, since October 1958, Guinea has been an Independent Sovereign State.

SIR LEARIE CONSTANTINE

THE year was 1928. The occasion, a match at Lords—headquarters of cricket—between the West Indies touring cricket team and Middlesex, one of England's stronger county sides.

In their first innings Middlesex scored 352 runs and Hendren, a great batsman, hit 100 not out. West Indies replied with 230 runs, 86 from the bat of a dynamic Trinidadian named Learie Constantine.

In the Middlesex second innings Constantine, who had been moved from his normal fielding position, at gully or cover-point, to field at first-slip, dropped a possible catch from the mighty Hendren. The mistake could cost the West Indies dear—and Constantine knew it.

He reacted in typical fashion, playing like a demon. Bowling at his fastest, which was very fast indeed, he took seven Middlesex wickets for 57 runs. The county was out for 136. West Indies now needed 259 runs to win, and in his second innings Constantine slammed 103 of them in 60 minutes, including two 6s and twelve 4s, to help his side to victory.

Altogether, during that 1928 tour of England, the man who was to become the first Trinidad and Tobago High Commissioner in Britain made 1,381 runs (an average of 34.52 an innings) and took 107 wickets. It is as a fieldsman, however—" Electric Heels, the fastest thing on any cricket field," as they called him—that his cricketing days will be remembered. Because of his speed (as a youth he could run 100 yards in little more than 11 seconds), his catching ability, and his accuracy at throwing down wickets, few batsmen dared chance the hasty shot or " steal " a run.

Sir Learie Constantine, as he now is, was born in Trinidad in September 1901. His father, Lebrun Constantine, was a member of the first West Indies team to visit England, and organised regular cricket practice, for his family of four sons and one daughter, in the yard behind their home. If young Learie dropped a catch his father would box his ears—harsh medicine, but probably no player has taken more " impossible " catches in first-class cricket than Trinidad's High Commissioner.

He became a lawyer's clerk at 18 and a Civil Servant at 22 ; but his heart was in cricket, which he played with the obvious intention of making the biggest hit, bowling the fastest ball, and holding the craziest catch, possible to mortal man. On one of his visits to Australia (he also played cricket in New Zealand, India, and Ceylon) he became the only player ever to hit a ball from Eddie Gilbert, the last of the great aboriginal fast bowlers, clean out of the Brisbane cricket ground ; and Gilbert used to bowl so fast and hard that he once knocked the bat out of Don Bradman's hands.

In 1929 Constantine turned professional with Nelson, a club in the Lancashire League, where he revelled in the aggressive play demanded by one-day cricket. Though based in England, he continued to play for the West Indies in Test matches, and in 1935 captained the side on the final day when, for the first time, the islands won the rubber against an M.C.C. touring team. He retired from competitive cricket in 1949 to read Law at the Middle Temple, but in 1952 he went to Ceylon to train cricket coaches. In 1960 he was made an Honorary Life Member of Marylebone Cricket Club (the famous M.C.C.), which set the seal on his cricketing career.

During the war he worked for Nelson Corporation, lectured to the Forces, to Rotary Clubs and schools, and in 1945 was awarded the M.B.E. for his work as Welfare Officer in the Ministry of Labour and National Service. He has written five books on cricket, and broadcast many times for the B.B.C. He was called to the Bar in December 1954.

The same year he returned to Trinidad, and two years later was elected to the Legislative Council and appointed Minister of Works and Transport, taking his place in the Cabinet.

In 1959 he went to Canberra, Australia, to attend the Commonwealth Parliamentary Association conference, and in 1961 he visited India with the Premier of Trinidad and Tobago, who described him as " Trinidad's greatest ambassador". In 1962 he received a Knighthood from Her Majesty the Queen and acted as adviser to his Government at the Trinidad and Tobago Independence Conference at Marlborough House. He became High Commissioner officially on the 31st of August, 1962, when Trinidad achieved her independence.

Sir Learie and Lady Constantine have one daughter, who is married. The High Commissioner lives modestly in London, gets up at 6.0 a.m., is first at the office and works methodically through the day. He tells the story of a young man who applied for a job in diplomacy and listed his qualifications. The interviewer listened politely and then asked an unexpected question : " How's your stomach ? "

Sir Learie's stomach is fine—strong enough to survive without a qualm the many official dinners and cocktail parties which are an extension of a High Commissioner's busy official life. Always superbly fit, he does not smoke, and did not taste alcohol until he was 42.

Today, in his sixties, Sir Learie plays cricket (for West Indies Wanderers, a team made up of West Indians in London) and more firmly than ever believes that cricket is one of the great links which bind the Commonwealth together. " If a West Indian lands in Australia now," he says, " he is assured of a great welcome if only because of the huge success of the last West Indies cricket tour."

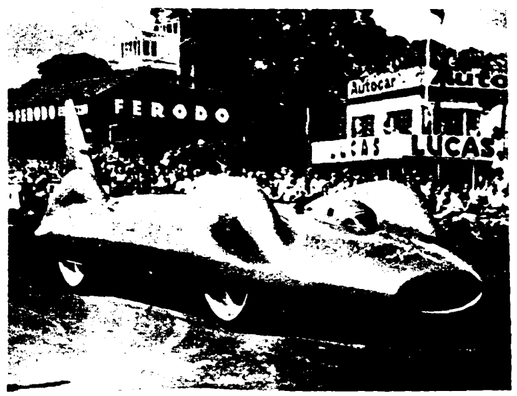
Sir Learie himself has made friends wherever he has travelled in the Commonwealth. There could not be a more popular figure among the ranks of Commonwealth High Commissioners in London.

PEOPLE AND EVENTS

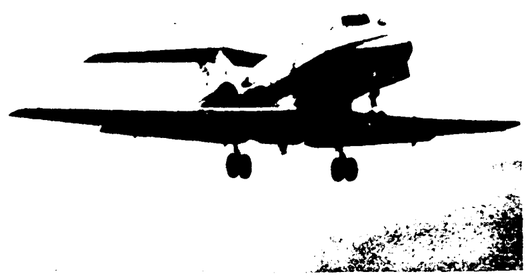
AIR CHIEF MARSHAL Sir Denis Barnett (left) being presented to the President of Cyprus by the British Acting High Commissioner, Mr. Ivor Porter, at the Presidential Palace in Nicosia. Sir Denis had newly arrived in Cyprus to take up his appointment as administrator of the British Sovereign Base Areas.

DELEGATES in Britain for the International Educational Building Conference are seen here during a tour of Britain's Building Research Station, near Watford. The purpose of the Conference was to discuss how best to share among the countries of the world the limited resources, professional and technical, and the administrative skills available for educational building. Delegates saw educational buildings in Cambridge, Oxford, Hertford and Nottingham.

MR. IFTIKHAR ALI (right), Deputy High Commissioner for Pakistan in Britain, is examining one of a set of stationary air compressors being produced in Britain for Pakistan's giant Mangla Dam project. With him is Mr. J. R. Bingham, Managing Director of the factory in Greenock, Scotland. Under a £180,000 contract, the Greenock firm is supplying 25 large compressors and ten smaller models, as well as 14 of the type shown here. Nearly all the machines have been shipped to Pakistan.

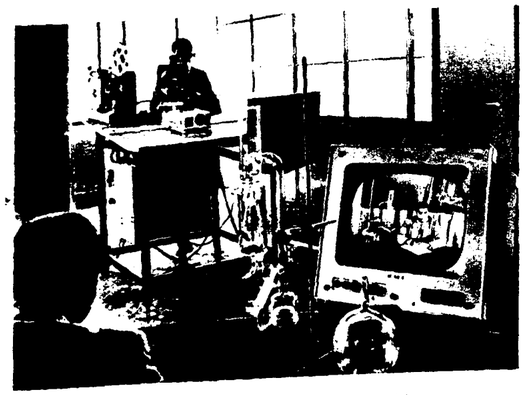


DONALD CAMPBELL'S "Bluebird"—the car in which he plans to make an attempt on the world land speed record at Lake Eyre, Australia, during 1963—is moving round the Goodwood Racing Course, Sussex, England, where it was on view to the public for the first time. Campbell hopes to attain a speed well in excess of 400 miles an hour with this gas turbine engined car to beat the existing record of 394 miles an hour established by Britain's John Cobb in 1947.



BRITAIN'S newest aircraft for businessmen, the DH.125 de Havilland jet-powered Executive, on its maiden flight at Hatfield, Hertfordshire. This mini-airliner, nicknamed a "flying office", is powered by two Bristol Siddeley Viper 20 engines of 3,000 lb. static thrust. It will cost about £150,000 to buy and offers boardroom, office or lounge fittings, plus crew and luggage space while travelling at a speed of about eight miles a minute.

MEMBERS OF PARLIAMENT from Sierra Leone spent four weeks in Britain as the guests of the Commonwealth Relations Office. In the party were the Hon. A. H. Kabia, Parliamentary Secretary, Ministry of External Affairs; Mr. M. Kpaka, J.P., Member of Parliament for Pujehun East, and Mr. B. S. Massaquoi, J.P., Member of Parliament for Kenema Town. The Parliamentarians are seen here at Britain's Tropical Products Institute in conversation with (left) Mr. L. H. Greenwood-Barton and Dr. W. D. Raymond.



A NEW low-cost television station, which can be operated by one man and can transmit programmes up to five miles, has been designed by a British company to help solve a teaching problem. Nigeria is the first Commonwealth country to use this new equipment. Other countries have shown a great deal of interest in this station, which will enable a lecturer, helped by the operator, to teach a large number of students by means of closed-circuit television and, at the same time, to reach more students in outlying schools by means of a low-power television transmitter. The whole equipment can be carried in a small aircraft and installed in a school classroom. A 50-foot aerial mast is included and can be erected quickly and easily without a concrete base.

SURROUNDED by other underwater swimmers, the British frogman Simon Paterson (nearest camera) comes ashore at Dover after swimming the English Channel from France to England under water, and beating the time set up by the American, Fred Baldasare, two weeks previously. Paterson made the crossing from Calais in 13 hours 50 minutes compared with Baldasare's time of 18 hours and one minute.

SOME of the pipers and drummers of India's 2nd Battalion The Sikh Regiment, who took part in the Edinburgh Military Tattoo, are seen here beside the Mills Battery on the ramparts of Edinburgh Castle. In the centre of the picture is the spire of Tolbooth Church, and to the left, the crown of St. Giles's Cathedral. The Argyll Tower (right) partly obscures the slopes of Arthur's Seat beyond.

RHODESIAN Youth Leaders spent a month in Britain as guests of the Commonwealth Relations Office. The party consisted of Mr. Philip Torera Mpedzisi, Industrial Relations Assistant, Bulawayo; Mr. Ngoni Male, Probation Officer; Mr. Ernest Mashave, Social Welfare Worker, Salisbury; and Mr. Pravin Magan, Youth Mayor of Salisbury. Here, at the British Scouters Training Centre, Gilwell Park, Chingford, Mr. Mpedzisi is giving a Rhodesian Scout Badge to a Boy Scout in exchange for a badge of his own Troop.

Mainly for Women

ASSORTED TOPICS AND EVENTS

AFRICAN GIRLS TAKE WINGS

Training as Stewardesses for East African Airways

MISS LYDIA AMUKOWA *is the first Kenya African to be trained as an air stewardess. Hers is an exacting job but also a rewarding one.*

EAST AFRICAN AIRWAYS' *trainee stewardesses. They have plenty of opportunities to get used to the types of aircraft they will fly in. Here a group of them have been looking over a Comet.*

THE first African girls to train as air stewardesses for East African Airways recently completed their course at Nairobi Airport, Kenya. Now they are flying on the scheduled air routes, gaining experience as assistants to fully fledged stewards and stewardesses. Two of the African girls are already fully qualified after " in-flights " training and have received their "wings".

It was in October 1961 that the first African girls were recruited by the airline, along with a number of European and Asian girls. Competition for such jobs is keen.

Fifty-five girls, mainly Europeans and Asians, are at present flying with East African Airways. Turnover is high. On an average, girls leave after two years, usually to get married, which means that about 25 recruits are needed each year. These replacements are usually trained in small groups of from six to ten, but with expansion of services larger numbers are needed. On the last course there were 22 girls, seven of them Africans.

Qualifications for an airline stewardess depend on a combination of personality, education and appearance. Girls must preferably be between 21 and 27, able to speak fluent English, with a School Certificate standard of education. Extra languages are an asset, so is a knowledge of catering, First Aid or nursing. Girls have to be of medium build, attractive appearance and personality, and are expected to be good " mixers".

Their ground course, depending on aptitude, can last up to six months, during which the girls learn how to prepare meals and serve drinks and how to approach passengers. They study First Aid and midwifery. Immigration, Customs and currency regulations must be learned and both aircraft and passenger documents understood. Emergency drill is an important part of the training. International law requires the stewardess to hold a certificate covering every type of aircraft she flies in, and a check must be made every six months.

Training flights are given during this ground training period, and here, perhaps, one or two girls who cannot overcome air sickness may have to drop out. When ground training is finished, and examinations passed, in-flight training begins in earnest.

Girls are put on the duty roster, flying regularly under the supervision of experienced staff. The trainee starts on internal flights and gradually progresses to the longer overseas routes. Speed of promotion depends on the individual, but the ambition of each trainee is to get her wings as soon as possible and two of the African girls have already done so. After gaining their wings the girls can rise from Stewardess Grade III to Stewardess Grade I at the top.

Uniforms are provided—a smart navy suit for " winter " and a light blue linen dress for tropical wear. Asian stewardesses on the Aden-Karachi-Bombay route wear blue and gold saris.

FOR EMERGENCIES, *extra oxygen is available on the Comet. Miss L. Semakula, of Uganda, applies the mask to a " patient." Miss D. Guram.*

SERVING *meals in an aircraft needs practice. Miss Anita Cathless serves fellow-trainee, Miss Katie Khursigara.*

Princess in Peterlee

Nurse Kabajumba from Uganda is Completing her Training in England

AN African Princess, training as a midwife, is helping to bring into the world many of the babies born in Peterlee, a new town in North-East England. The Royal visitor is twenty-three-year-old Nurse Ruth Kabajumba, whose father is Ruler of Bunyoro, in Uganda.

Interested in nursing since childhood, Nurse Kabajumba left her father's kingdom in 1959 to study in Britain. Early last year she qualified as a State Registered Nurse at London's Edgware Hospital, where she also took the first part of her midwifery training. Since then she has been taking Part Two of her midwifery course at Peterlee where, for the first three months, she was at the Thorpe Maternity Hospital, which is also where she lives.

She has now started district work. Accompanying a qualified midwife on calls, she has become a most welcome visitor to homes in that area. " I have found myself really at home here ", said Nurse Kabajumba. " People are very friendly, and I am enjoying living and working here a great deal ". Nurse Kabajumba's thoughts are now turning to the end of this year, when she plans to return to her home in Uganda to take up maternity work there.

Peterlee is one of two new towns in North-East England. In an area forming one of the most important parts of the Durham coalfield, it is situated between the shipbuilding and industrial areas of the rivers Tees and Wear.

Named after a famous coal miners' leader, Peter Lee, Peterlee provides homes for the coalmining communities. It has a population of nearly 14,000 and its birthrate, at 42 per 1,000 of the population, is about three times the national average.

THE NEW ARRIVAL, *Susan, daughter of Mrs. Elizabeth Holmes (above) was the sixth baby delivered by Nurse Kabajumba in the town of Peterlee, England.*

NURSE RUTH KABAJUMBA, *daughter of the Ruler of Bunyoro, Uganda, is a popular figure as she goes on her rounds as a district midwife.*

Holiday Hotel for the Disabled

Successful British Red Cross Venture

AN empty house in Dorset, borrowed furniture, a band of enthusiastic Red Cross workers and 12 patients. This was the start of a scheme which, in 1954, was organised by the Dorset Branch of the British Red Cross Society to provide holidays for the disabled. Since then the Dorset scheme has expanded.

Men and women who normally cannot leave their homes, whose chances of spending even a day at the seaside are indeed remote, can now enjoy a real holiday. Last year, for the first time, the whole of a 200-bed hotel was taken over for one week, the hotel management having made a substantial reduction on the normal charge.

Situated in beautiful surroundings at Bowleaze Cove, near Weymouth, the hotel has 100 beds on the ground floor, thus enabling severely disabled cases to be catered for. The entire cost of this venture was borne by the Dorset Branch. The Red Cross Branches of Berkshire, Buckinghamshire, Hertfordshire and Somerset, sent patients and also staff to help look after them. Altogether there were 28 Red Cross helpers, including three State Registered Nurses, staying in the hotel and taking it in turn to do night duty.

This year the Dorset Branch made provision for 400 disabled people at their Holiday Hotel ; they arrived in two groups of 200 and with only 24 hours between the turnover. One organiser remarked : " We just had time to dash home and wash our uniforms ".

This holiday scheme has now become a recognised event in the Weymouth area ; many local residents visit the hotel each day, taking patients for car drives and then back to their homes for tea ; and local taxi drivers also helped to provide free transport on outings for the day.

MISS DOROTHY ADAMS, *a Somerset V.A.D., and Mrs. Attryde from Dorset, help to hoist Anne, a holidaymaker, back into her chair after she has returned from a car ride.*

A WELCOME *cup of coffee for some of the holidaymakers served by Red Cross helpers, Miss Dorothy Adams and Mrs. Wilson, a State Registered Nurse. Altogether 28 Red Cross helpers were there to look after the disabled.*

Books

Asia's Hunger for Books

The Importance of Low-Priced Books from Britain

THE vital importance of good, cheap books—particularly textbooks—to satisfy the thirst for knowledge which is common to all the developing countries of the Commonwealth was stressed by Dr. V. S. Jha at a " Books from Britain " exhibition in London, which attracted hundreds of visitors.

Dr. Jha spoke as the Director of the Commonwealth Education Liaison Unit and as a former Vice-Chancellor of Banaras University. " You are all aware ", he told his audience at the opening of the exhibition, " of that excellent scheme of the British Government which is now known throughout the world as their ' Low-Priced Books Scheme '. The scheme is especially designed among other things to help the millions of students in certain Asian countries whose justifiable ambition for higher education is chilled by poverty. The plain fact is that neither Asian students nor, on the whole, Asian libraries can afford the books they need. The books have been selected by an independent committee under the distinguished chairmanship of Mr. A. L. P. Norrington, Vice-Chancellor of Oxford University. About one hundred titles have so far been

AT the exhibition of " Books from Britain," opened at the National Book League, London, by Dr. V. S. Jha, Director of the Commonwealth Education Liaison Unit and former Vice-Chancellor, Banaras University, India. Here Dr. Jha (left) is with Mrs. John McMillan and Mr. John Grey Murray.

issued, particularly in the fields of science, technology, economics, and aids to the study of English. More than a million books have already been delivered or are in production. The books are being marketed at approximately one-third of their price in the United Kingdom. Similar plans are under consideration to meet the needs of the emergent African countries, where Mr. Norrington himself is at this moment engaged in carrying out a survey of the situation. "

The British Government's Book Export Scheme, Dr. Jha said, " is very ably administered by the Central Office of Information, and the British Council assists in this process, over and above the other friendly services which it renders in the Asian and the African countries.

" One cannot but admire ", Dr. Jha continued, " the co-operation and understanding which exist in the United Kingdom between Government Departments, private organisations, publishers, printers and other agencies. In particular, the manner in which the Government scheme has secured the co-operation of the great publishing houses fills one with hope for the future.

" The English Language Book Society, a voluntary association of interested publishers —and a typical by-product of this typical British process—has, with the help of the National Book League produced the catalogue of ' Books from Britain ' for overseas which you see displayed here. Three very attractive editions will be found in the exhibition. One is especially directed to the needs of the Asian countries, another to those of Africa and a third is a catalogue for general use. These catalogues are of great value because the books listed in them are very carefully selected and serve a well-designed purpose. They are also of enormous value because of their excellent bibliographical and editorial features. Miss Shawyer of the National Book League who has been responsible for the detailed work has done it exceedingly well and one cannot be too grateful to her.

" The low-priced books are especially designed, to date, for the needs of India, Pakistan, Ceylon, Nepal and Afghanistan. The general series which you will find in the exhibition is to serve the needs—in alphabetical order—of Afghanistan, Brunei, Burma, Ceylon, Hong Kong, India, Indonesia, Malaya, Nepal, North Borneo, Pakistan, Sarawak, Singapore, Thailand and Vietnam.

" Perhaps I have been asked to open this exhibition because I can from first-hand knowledge and experience tell the British public what this scheme means to those at the receiving end : to the people to whom this noble aid is directed. I was Vice-Chancellor at Banaras when the scheme was being worked out, and I was kept in the picture through the courtesy of the then Chairman of the Indian University Grants Commission, Dr. C. D. Deshmukh. I have known the hunger for books : the savage rage which an ambitious young intellectual feels when penury keeps him away from books —the food of his intelligence.

" In my University I had to organise a ' Book Bank ' that would make available expensive textbooks to the keen young people. A certain number of copies of each book was kept in the Bank which operated almost round the clock. Students came at an appointed time to read the textbooks which they had booked in advance. These were make-shift arrangements. There can be no substitute for having one's own textbook. The prices of some of the scientific and technical textbooks were so high that a couple of textbooks would cover an Indian student's monthly bill of board, lodging and tuition fees.

" The aid that Britain offers has to be viewed against this background. To give but one illustration—an engineering textbook. The annual sale of the book in India at the British price used to be a few hundred copies. When it became available at the cheap price the demand was for twenty thousand copies. No wonder that more than a million copies of the Low-Priced Books which you see here are now in the pipeline—and let it be understood these will meet no more than a fraction of the need.

" Education advances with giant strides in Asia and Africa. A new spirit has been awakened. People will starve to secure education for their children. They deny themselves the normal amenities of life—even some of the basic needs—to keep their sons and daughters in college.

" To take the case of India alone—between 1946 and 1947 and 1960 and 1961, the number of children in primary schools has risen from 14.1 to 34.3 million ; in secondary schools from 870,000 to 2.91 million ; in the University from 256,000 to over a million. In the technical institutions the intake during the period has risen from 6,610 to 39,000 and will be 57,000 in 1965. There are twelve postgraduate technological institutions and twenty-six national research laboratories—there were none in 1946. This expansion cannot be sustained without textbooks. Expansion will be in vain unless it is supported by an adequate supply of cheap and good textbooks.

" A very distinguished—non-British—diplomat told me once that the British people do not appreciate how very grateful some of the countries feel towards them. If I was asked to support this view I could give several instances of assistance in the field of education ; but the scheme for the supply of textbooks would have natural priority. This form of assistance goes straight to him or her who most needs it—the young student. He or she knows where it comes from. The students understand what it means. They are grateful to the British Government and people. It is this understanding that will be the element which in the last analysis will provide the basis for a more peaceful and a happier world ".

TRADE WINDS
Commonwealth Industrial Notes

Canada is now producing three-quarters of the free world's nickel, most of which is used in steel production. In 1960 she produced 194,000 metric tons of the metal. World production was 319,000 metric tons.

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The Maseru Power Station in Basutoland is being enlarged and re-equipped to meet the growing demand for power and to allow a start to be made in the electrification of rural centres close to Maseru.

• • •

A British cable company is to supply the whole of the cable-laying machinery and cable handling gear for a new icebreaker-cable ship to be built by Canadian Vickers Ltd. of Montreal.

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The British construction firm of Taylor Woodrow (Overseas) Ltd. has been awarded a £1,200,000 contract to construct the new Port of Spain " B " thermal power station, Trinidad, for the Trinidad and Tobago Electricity Commission.

• • •

Twenty diesel railcars are being built by the Metropolitan-Cammell Carriage & Wagon Co. for the Jamaican Railway Corporation.

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An Australian combine harvester manufacturer has ordered more than 700 diesel engines from the British Perkins Group of companies.

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Iron ore mechanical handling equipment worth £332,000 is being supplied to Sierra Leone by a British firm, for use at the Marampa Mine of the Sierra Leone Development Co. Ltd.

• • •

The Crown Agents have placed an order valued at £164,000, on behalf of the Hong Kong Government, for electrical plant for pumping stations to be used in a scheme for overcoming the water shortage on the island.

An English firm has announced the production of a machine which is claimed to be the first fully automatic tester for electronic components to be developed in Europe. Applied to production lines, it could make a big difference to the price of computers, radio sets, TV, and other electronic units.

• • •

West Pakistan Road Transport Board has ordered 54 diesel-engined buses, with chassis, from A.E.C. Ltd., of Southall, Middlesex. The chassis will be assembled in Lahore and fitted with locally built double-deck bodies.

• • •

The Indian Railway Board has placed an additional order worth more than £250,000 with the firm of British Insulated Callender's Cables. It is for the supply and installation of overhead equipment for railway electrification to a point about 30 miles north of Calcutta, and follows the £1,000,000 order given to the company for electrification in and around Calcutta itself.

• • •

New Army barracks costing more than £500,000 are being built at Enugu, in Eastern Nigeria, by a British firm for the Federal Public Works Department.

• • •

Mauritius Harbour Authority has ordered a fifth diesel grab dredging crane from Priestman Brothers, of Hull, to speed up deepening work at Port Louis Harbour.

• • •

Britain's Mitchell Engineering Group Ltd. has been awarded a £2,750,000 contract, by the Southern Electric Authority of Queensland, for the supply and erection of three boilers and structural steelwork for Swanbank Power Station, near Brisbane. Arrangements are being made to manufacture much of the plant in Australia.

SWAHILI POETRY

LYNDON HARRIES

AFRICAN POETRY

" If you copy it out
This poem, and think over it,
You will find it like a jewel,
That is why I have made you a present of it ".

(FROM A POEM BY AN AFRICAN WOMAN WRITTEN FOR HER DAUGHTER)

EVERY Commonwealth country has its poets, but not all sit with pen and paper to write their verse for others to read. In Africa poetry is expressed, not on the printed page, but in work-songs, serenades, lullabies and praise-songs. The Swahili people of the East African coast are the only African people to have had a long tradition of written poetry belonging to the period before the coming of the white man in the nineteenth century.

A book entitled *Swahili Poetry* (Oxford at The Clarendon Press, 45s.) provides for the first time a complete survey of the different kinds of poetry written by Swahili poets since the middle of the eighteenth century.

The author, Dr. Lyndon Harries, of the School of Oriental and African Studies, University of London, includes, with the Swahili version, an English translation of each poem, thus enabling readers of other countries to appreciate the merits of this African contribution to one of the most important of the civilised arts. For the Swahili tradition of poetry, even though it derives from Arabia, is truly African. The Swahili poets borrowed the practice of writing poetry from the Arabs, then they used the pen to write in rhyming verse about African life and thought. Today poems are published in the East African press about contemporary events, expressing modern thoughts about vital issues like independence, peace, and, of course, love.

The Swahili poems in this book, however, were first written by hand in an adapted form of the Arabic script. The manuscripts were privately owned and circulated within the kinship group. Dr. Harries had first to transliterate the poems into roman script, a difficult task, but worth the labour because it was thought that these poems are deserving of a much wider audience than was originally intended. There are comparatively few aspects of African traditional life that can be shared by non-Africans. All the more reason, then, to welcome this book which must result in a deeper respect by non-Africans for the African past. It may come as a surprise, even to some African readers of this book, to know that the art of versification was so highly developed among the Swahili people of the East African coast as long as 300 years ago.

The early poetry was meant to be sung. Long heroic poems, partly based on fact, partly fictitious, told stories of bravery. Public recital ensured that the ordinary man or woman would become familiar with the brave deeds of their religious heroes. Other poems were of a more private nature ; they were meant as instruction for the younger members of the community on social behaviour and religious practice. One of the best-known poems of this type was written by a Swahili woman called Mwana Kupona in 1858. In her own words :

" And the reason for composing this
Is not poesy nor minstrelsy,
I have a young innocent child
And I wish to instruct her."

Many of the earlier poems are connected with the legendary Swahili hero, Liyongo. The poem of Liyongo used often to be sung at religious festivals and then the people would get very much excited and cry like children when his death was related, and particularly at the point where his mother finds him dead.

In the nineteenth century Swahili poems were written about contemporary events and every facet of life on the East African coast is exemplified in these short poems. It is this universal quality which makes the poetry of the East African coast a matter of the greatest interest to the other peoples of the Commonwealth.

Stamp Corner
Australian Antarctic Territory

THE ownership of territories in Antarctica, the last of the world's continents to be explored, has not yet been finally settled but among the nations claiming jurisdiction over these barren, ice-bound lands, Australia is likely to have an important share, for much of the modern exploration of Antarctica has been carried out by Australians or by Australian-sponsored expeditions.

A recent 5d. stamp issued for use in the Australian Antarctic Territory portrays Sir Douglas Mawson, a Yorkshireman, who went to Australia as a boy and later became an Antarctic explorer. His first visit to the Great White South was as a physicist with Sir Ernest Shackleton's British expedition of 1907-1909. During this expedition Mawson, with Dr. Allistair Forbes Mackay and Professor Edgeworth David, made the first ascent of the 13,350-foot volcano Mount Erebus. The same party shortly afterwards became the first men to reach the South Magnetic Pole. Another Australian Antarctic Territory stamp reproduces a photograph of the three explorers with the Union Jack which they hoisted at the Magnetic Pole at 3.30 p.m. on 16th January, 1909.

Mawson returned to Antarctica in 1911-1914 as the leader of his own expedition and was knighted for his achievements. He was in Antarctica again in 1929-1931 and acted as adviser for later expeditions until his death in Adelaide in 1958 at the age of 76.

Another flag-hoisting ceremony forms part of the design of the 2s. stamp in the Australian Antarctic Territory series. It shows three members of an Australian expedition, Mr. Peter Shaw, meteorologist, Dr. Arthur Gwynn, ornithologist, and Mr. Phillip Law, Director of the Antarctic Division of the Australian Department of External Affairs, with the Australian flag hoisted when they made a temporary landing in the Vestfold Hills during March 1954.

Another stamp in the series portrays what might be considered as the original inhabitants of Antarctica. They are Emperor penguins with one of their quaint chicks.

C. W. HILL.

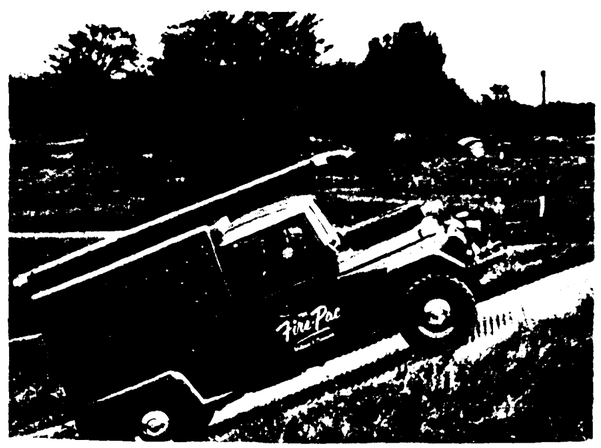
Alarm Clock—Developed to provide deaf people with a reliable means of awakening, this alarm clock is called the "Calfaflash". Electrically operated, it wakens the sleeper by causing the bedside light to flash on and off intermittently. The two leads from the clock are connected up to the main current and the bedside lamp; the alarm is then set in the normal way and at the appointed time the light starts flashing on and off. The use of a 60-watt lamp is recommended, otherwise no special apparatus is necessary for this British-made alarm.

NEW IDEAS

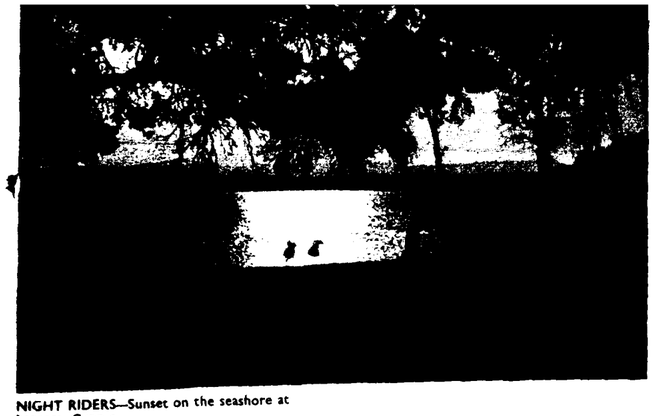
Bottle Opener—This palm-size bottle opener is very simple to operate. The stainless steel needle is pushed through the cork and by pressing the lever in the body of the appliance the cork is eased out whole; no mess, no struggle, and no shreds of cork. Hidden in the body is a bulb of compressed carbon dioxide (harmless to drinks) which, when released, forces out the cork. Finished in polished aluminium, the British makers state, it is designed for opening conventionally shaped wine-bottles only.

Coal Tar Tape—This protective tape consists of plasticised coal tar pitch compound applied to an open weave synthetic fabric. It develops a strong bond to a steel surface, and maintains a coating of high electrical resistance when kept indefinitely in a corrosive environment. For this reason it is most suitable for the protection of buried pipes and cables; pipes in corrosive atmospheric conditions; underwater pipes, tie bars, jetty piling and other steel structures. British manufactured, it has a high degree of resistance to mineral, vegetable and animal oils and fats.

Pneumatic Pliers—British manufactured, these pneumatic pliers have been designed to cut down operator fatigue on all kinds of tedious, repetitive, cutting and trimming operations. A light touch only is needed, instead of the muscle power necessary with ordinary pliers. They are of special interest to electricians.



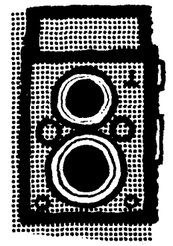
Compact Fire Tender—Anglo-Canadian co-operation went into the production of this compact fire tender. Known as the "Fire-Pac" it has been designed to meet the needs of isolated communities where the services of larger fire trucks is uneconomical. Powered by a four-cylinder engine and having a four-wheel drive, it can move with ease and speed through the roughest country. The weather-sealed compartments in the body contain a complete range of fire-fighting equipment, including several hundred feet of hose.



NIGHT RIDERS—Sunset on the seashore at Larnaca, Cyprus.

From Jacovos G. Jacovides, P.O. Box 543, Nicosia, Cyprus.

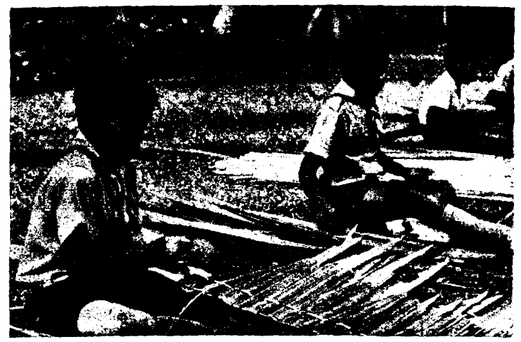
READERS' PICTURES



This is a further selection of pictures from our readers. They are invited to send in photographs which they have taken themselves. A fee of a guinea will be paid to the owner for each published picture. Please write captions and addresses in ENGLISH on the backs of the prints. Photographs will not be returned unless specially asked for.

VILLAGE LIFE—Dwelling houses of the people of Pong Tamale, in the northern part of Ghana.

From B. O. Laryea, P.O. Box 177, Accra, Ghana.



SCOUTING—Boy Scouts in Butterworth, Malaya, making "atap" a kind of roofing made from the leaves of a type of palm tree.

From Arshad H. Abdullah, 77 Bagan Ajam, Sg. Dua, P. Wellesley, Federation of Malaya.

BURMESE BEAUTY—A Burmese girl w... her musical instrument known as a "Sau...

From Brahm Dev, P.O. Box 66, Astley Hall, Dehra Dun, India.

IN MEMORIAM—Memorial to John Hanning Speke, discoverer of the source of the Nile, Jinja; Uganda.

From Hari Tanna, P.O. Box 341, Jinja, Uganda.

ADORNED—A girl from the Kulu Valley, India, displaying her fine jewellery.

From Anil Mitra, 1-A Abinash Mitra Lane, Calcutta-6, India.

MR. TAN JIN SIEW, a teacher from Victoria School, Singapore, is seen here doing research work in a stream in the Waitakere Ranges, Auckland, New Zealand, to further his knowledge of the May fly nymph, the subject of his thesis for a Master of Science degree in zoology. The fly, extremely small, is found in running water and has only about three days of adult life.

MISS SUSILANINGSIH, from Indonesia, stands among sweet-scented lilies in a garden in Wellington, New Zealand. "Sri", as she is known to fellow-students, is at Canterbury Agricultural College, Lincoln, where she is studying for a Bachelor of Agricultural Science degree—a three-year course.

COLOMBO PLAN STUDENTS IN NEW ZEALAND

MR. THOMAS T. OOMMEN, a secondary school teacher from Malacca, Malaya, is working on a thesis on the New Zealand lizard or gecko to complete his Master of Science degree, the examination for which he will sit at Canterbury University, Christchurch. Very little is known about New Zealand geckos, their behaviour, population and life cycle. Mr. Oommen believes his will be the first complete study to be made of the New Zealand specimens.

MR. PAUL OKORO, a teacher from Enitona High School, Eastern Nigeria, is studying in New Zealand under the sponsorship of the Special Commonwealth Aid to Africa Plan. He is working for a Bachelor of Agricultural Science degree at Canterbury Agricultural College, Lincoln. With him is a New Zealand fellow-student, Mr. N. D. Hart. Four other Africans, from Tanganyika, are also studying at the college for agricultural diplomas under S.C.A.A.P. They are Messrs. J. Malya, R. Shirima, S. Mmari, and R. Rwasa.

MISS LE THI NGOC HA, from South Vietnam, who has never before had the pleasure of picking roses, picks to her heart's content in a Wellington garden, New Zealand. Miss Ha is a full-time student at the Victoria University, where she is taking a Bachelor of Science course in biochemistry.

DURING an Asian Music Circle reception at the India High Commission, London. *L. to r.*: The well-known ballerina, Miss Beryl Grey, who is a Vice-President of the Asian Music Circle; Dr. N. S. Junankar, Educational Counsellor, India High Commission; Mrs. Angadi, wife of the Director of the Asian Music Circle; and Indrani, a celebrated Indian dancer.

Asian Music Circle

IN 1953 Mr. Ayana Deva Angadi, B.A., an Indian author, journalist, and lecturer on international affairs, founded, with its headquarters in London, the Asian Music Circle. The chief aim of the organisation from the outset was to foster the appreciation and study of the music and dances of all Asian countries, in Britain and elsewhere in Europe.

The distinguished violinist, Yehudi Menuhin, accepted the Presidency of the Circle and spoke of its success in a UNESCO Radio broadcast. Mrs. Vijaya Lakshmi Pandit, when High Commissioner for India in London, gave the enterprise her best wishes. Ram Gopal, the Indian dancer, expressed his "grateful thanks for the great pleasure and joy it was for me to appear for the Asian Music Circle". And the Director of the Royal Ballet School in London, Arnold L. Haskell, wrote to Mr. Angadi: "The Asian Music Circle is doing the work of a number of Governments in spreading knowledge and goodwill. Long may it flourish".

The Circle organises concerts, lecture recitals, seminars, gramophone meetings, and classes for teaching classical and folk dances, singing, and the playing of eastern instruments. It presents to a wide audience musicians and dancers from Asia, and through its National Sections abroad, tries to help Western artistes who wish to visit Asian countries. Afghanistan, Burma, Ceylon, China, India, Indonesia, Iran, Israel, Japan, Malaya, Pakistan, Persia, the Philippines, Thailand, Tibet, and the United Arab Republic, are some of the countries whose culture has been expressed in this way.

Mr. Angadi, the Founder and Director, is a man with widespread interests. He is a University Extension Lecturer, Tutor of the Workers' Educational Association, Member of the P.E.N., Royal Institute of International Affairs, has given lectures all over the world, and written several books well received by the critics.

His wife has been the chairman of the Hampstead Artists Council in north London for several years; the eldest of his three sons, Shankar Daniel, recently won a scholarship to Cambridge University, and his youngest son, Darien, aged 13, has a remarkably fine treble voice and a large repertoire of songs. He is a leading singer in the London Boy Singers Choir, has made solo records of Elizabethan songs and has broadcast English and Italian songs for the B.B.C.

Dominic Ashoka, and the girl of the family, nine-year-old Chandrika, complete a remarkable family—Indians in England who, by the precept and example of Mr. Angadi, and the success of his Asian Music Circle, are forging links of understanding between the musical arts of east and west.

DARIEN ANGADI, son of Mr. Angadi, founder of the Asian Music Circle. Darien has made a name for himself as a singer—in opera, at concerts, on radio and television. In the background is a painting of him by his mother, Mrs. Angadi.

DURING a recital of classical dances of India by Indrani and her group. *L. to r.*: Mr. Angadi; Miss Abidah Yousuf; Mr. Peter Pears, the well-known singer; Mrs. Angadi; Begum Yousuf (with her son on her left); Indrani; Miss Chandrika Angadi; the Countess of Harewood, a Vice-President of the Asian Music Circle; and Lieutenant-General Mohammed Yousuf, High Commissioner for Pakistan in Britain.

JAMAICA'S INDEPENDENCE CELEBRATIONS

See pages four and five

H.R.H. PRINCESS MARGARET, as Special Representative of H.M. the Queen, is seen here on her arrival at the entrance to Gordon House, Kingston, Jamaica, for the State Opening of the Jamaican Parliament.

A FIREWORKS display delighted the crowds after midnight to celebrate Jamaica's Independence on 6th August, 1962. A few minutes before Guards of Honour saluted the Jamaican Flag and the National Anthem was played.

JAMAICAN children enjoying their dance of thes—one of the many colourful special entertainments provided for Princess Margaret and the other distinguished visitors.

STANDING for the National Anthem (right) at The Pavilion, Charles Square, Montego Bay. The group, with Princess Margaret and her husband, the Earl of Snowdon, includes the Prime Minister of Jamaica, Sir Alexander Bustamante; the Governor-General, Sir Kenneth Blackburne; Lady Blackburne; and the Mayor and Mayoress of Montego Bay.

Left: Some of the young Jamaicans who lined the streets to greet the arrival of the Royal party.