

Commonwealth **TODAY**



an pot-seller happily carrying her wares to market.

**COMMONWEALTH PARLIAMENTARIANS CONFER IN DELHI
CANADIAN TRADE MISSION TO BRITAIN • THE CITY OF HONG KONG
A COMMONWEALTH NATION IN THE MAKING**

**No.
57**

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TRADEWINDS

Commonwealth Industrial Notes

The Nigeria Cement Company's new £21 million cement factory was formally opened at Nkalagu, in Eastern Nigeria, by the Governor-General of the Federation, Sir James Robertson, in the presence of the Regional Premier, Dr. Nnamdi Azikiwe. The factory, which is expected to produce over 100,000 tons of cement a year, will supply over one-fifth of the country's cement requirements. Altogether 175,000 £1 shares of the company have been set aside for Nigerians.

Mr. J. A. Mackintosh, the Managing Director of the Company, stated that the factory's guaranteed production of 300 tons of cement a day was the maximum production for a factory of its size anywhere in the world. The cement they produced, he said, was of the highest possible quality.

Value of goods exported from Britain in 1957 was nearly 5 per cent higher than in 1956, reaching a figure of £3,325 millions. Re-exports from Britain were valued at £134 millions.

The Indian State Railways have placed a contract with a British engineering concern to supply 27 diesel and steam cranes. This is part of new development plans for the Railways and the order followed a recent tour of India by the firm's managing director.

Kenya's Meat Commission concluded negotiations with the United Kingdom for co-operation in operating a meat canning factory at Athi River, near Nairobi. The factory was to begin operation early in 1958, starting with an output of about 7,000 cans of corned beef a day.

The Sierra Leone Fisheries Development and Research Unit is carrying out an experiment in fish marking as part of its research programme. The aim of the experiment is to determine the migration of edible species of fish, and to estimate the stock in the sea available for fishing. The fish will be marked with coloured buttons attached closely to their sides, or with plastic labels attached to their backs. It is hoped that the fish marked in this manner will be caught by fishermen around the coast of Sierra Leone.

A new flour mill for Pakistan, capable of milling some 130 tons of wheat every 24 hours, is being built in Britain. The mill will be sited in the industrial area of Lhandi, 15 miles from Karachi, for the Aftab Flour Mills.

One of the largest exhibits in the British Industries Pavilion at the Brussels Universal and International Exhibition, which opened in April, is devoted to wool textiles. This industry, which goes back to medieval times, will be the oldest in the exhibition. Nearly 30,000 square feet of glass has gone into the construction of the Pavilion itself. Most of this is polished glass which forms the walls of the steel building.

Low operating costs of the new Vickers Vanguard jet prop airliner are shown in a detailed evaluation which demonstrates that this aircraft has larger profit-making capabilities than any medium range civil aircraft in the history of commercial aviation. The profit potential springs from low operating costs and large passenger freight capacity, the manufacturer claims. On a 200-mile flight with 93 passengers, their baggage, 400 lb. of mail and a full load of freight, the Vanguard has a potential 96 per cent profit.

Ghana's first ocean-going vessel, the s.s. Volta River, drew thousands of Ghanaians who witnessed the unfurling of the red, gold and green tricolour of Ghana as the ship berthed at Takoradi. On this occasion the Prime Minister, Dr. Nkrumah, was formally inaugurating the new Government-sponsored Black Star Shipping Line, and was the first to inspect the vessel after the ceremony. Four other ships are on charter to the Line.

Following the installation of two 30,000 kW transformers in Cape Town in 1956, the Cape Town Corporation have placed orders for a further five large transformers with the same United Kingdom manufacturers.

Canadian engineers have solved one of the most difficult of the engineering problems connected with the St. Lawrence Seaway scheme, which is now entering its final phase. This involved lifting the big Jacques Cartier bridge which connects Montreal Island with the south side of the St. Lawrence River. In its original form the bridge provided only 40 feet of clearance and it was realised that it would become an obstacle to the big ocean-going ships from the Atlantic which will be able to use the Seaway as far as the Great Lakes in the centre of the continent. In order to give the 120 feet clearance which will be necessary for the ships of this size that will use the new channel, the bridge had to be raised eighty feet at its southern end.

COMMONWEALTH STAMP CORNER

ZANZIBAR

MUCH of the popularity which the stamps of Zanzibar enjoy among collectors is certainly due to their handsome and dignified portraits of the Sultan, Seyyid Khalifa bin Harub, K.C.M.G., K.B.E., who succeeded to the throne in 1911. Since then his portrait has appeared on many issues, some of which also depict picturesque scenes on "the Isle of Cloves".

The dynasty of Al Bu'said, of which the Sultan is a descendant, has ruled over Zanzibar and Muscat since 1744, and to celebrate the bicentenary four special stamps were issued in 1944. Their design depicted a graceful Arab dhow with a map of the Indian Ocean as a background, the twin sultanates of Muscat and Zanzibar being marked thereon.

The Sultan's 75th birthday in 1954 was the occasion for another set of stamps bearing his portrait and in 1957 a complete new series of fifteen pictorial stamps made its appearance. Among the designs is one which represents the chief source of Zanzibar's prosperity, for it shows a spray of cloves. These are the dried, unopened flower-buds of the clove-tree and Zanzibar, with the neighbouring island of Pemba, provides more than three-quarters of the world's supply. Another stamp in the new series, the 40-cents value, depicts the minaret of the Mosque at Malindi, and other designs show the Sultan's state barge, sailing canoes, and a map of the East African coast.

Apart from the fine engraving and beautiful

colours of Zanzibar's stamps, another attraction lies in its postal history. The first post office in Zanzibar was opened in 1875 and as it was under the control of the Bombay Post Office, Indian stamps were sold there for over twenty years. The amount of mail was not large, however, and collectors of Zanzibar stamps always examine carefully any early Indian issues which come their way in order to see if they bear the postmark "Zanzibar" as evidence that they were used on the island.

Other scarce stamps are those of Germany which were used in the German postal agency opened at Zanzibar in 1890 and closed a year later. A French post office was also established at the same time, but it was open for fifteen years and its stamps, French issues overprinted "Zanzibar", are easier to find.

C. W. HILL.



IN PAKISTAN Mr. Macmillan and his wife, both heavily garlanded, were presented with a sheep as a token of welcome by tribesmen in the Khyber Pass.



IN INDIA the Prime Minister is garlanded by a woman municipal councillor during a civic reception held in his honour at the Red Fort, Delhi.

Mr. MACMILLAN'S COMMONWEALTH TOUR

Britain's Prime Minister Begins with Visits to India, Pakistan and Ceylon

MR. HAROLD MACMILLAN, the Prime Minister of the United Kingdom, with his wife Lady Dorothy, left London early in January for a goodwill tour of the Commonwealth.

His journey included India, Pakistan, Ceylon, Singapore, New Zealand and Australia, and was the first ever made to any of these countries by a United Kingdom Prime Minister while in office. He was greeted everywhere with the utmost enthusiasm and goodwill.

The Prime Minister's tour was one of a series of overseas visits made by British ministers to meet their colleagues in the capitals of the Commonwealth. His purpose was, in his own words, "to see something for myself of the life and peoples of the Commonwealth, their problems and the way in which they view the momentous events which are taking place in the world around us. . . . I shall also be able to bring to the British people the sense of friendship and affection which I felt everywhere I went."

IN CEYLON Mr. Macmillan is seen with Mr. Bandaranaike, the Ceylon Prime Minister, who greeted him on his arrival at the airport.



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COMMONWEALTH TODAY
in which the magazine
TODAY
is incorporated

PHOTOGRAPHS—Front Cover: G. Singh, Bombay. Page 3, Pakistan official (1); 4, 5, India official (2); Pakistan official (1); 8, 9, New Zealand official; 10, 11, British Broadcasting Corporation (5); 12, 13, Kenya official; 14, 15, The West Indies official (2); 16, 17, Anne Bolt, London; 19, Nigeria official; 20, 21, Pakistan official; 22, Ghana official; 23, Ceylon official; 24, 25, Australia official (1); Singapore official (1); Nigeria official (1); Ghana official (1); 26, 27, Australia official; 28, 29, Hong Kong official. Back Cover: Crown copyright.

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THE SILKEN BOND OF COMMONWEALTH

India, Pakistan and Ceylon were Hosts to the Commonwealth Parliamentary Conference

"We all belong to the Commonwealth, and we are held together, not by any coercive apparatus, but by the free will of all the component parts. And this conference, by the way in which it conducts its proceedings, and the methods and the procedure which it follows, shows the way in which if the world were to fashion its own affairs, we would be in a much happier world than we are in today . . .

"I feel that it would be a bad day for us and for others too, if anything were to happen which would in any way weaken the bond which subsists between the different countries of this Commonwealth. That bond, as I have said, is not based on force. It is a silken bond which is invisible, but none the less strong."

The President of India.

THE first Commonwealth Parliamentary Association Conference ever to be held in Asia took place in Delhi in December 1957, and demonstrated more vigorously than ever before the formidable strength of what the Ceylon Prime Minister called "this extraordinary, perhaps unique association of nations".

Over 100 Parliamentarians of many different races, political parties and creeds, from some 50 Commonwealth Parliaments, gathered together to exchange views on a wide variety of problems and topics which are of interest to them all.

Dr. Rajendra Prasad, the President of India, made the inaugural speech, and following him, speaker after speaker rose to echo his praise of the Commonwealth and of the principles for which the Commonwealth stands. Mr. Chundrigar, the Prime Minister of Pakistan, in a message read by a member of his delegation, welcomed the delegates to the Indo-Pakistan subcontinent and spoke of the fidelity to democratic principles which was, he said, the cementing link of the Commonwealth.

Mr. Nehru, the Indian Prime Minister, added his tribute, and as the audience applauded each speech there was a sense of the greatness of the Commonwealth and of the unity underlying its diversity. In robes of green and yellow the representative of Ghana—the new West African Commonwealth member—made his contribution, and he was followed by the Nigerian delegate and by the leader of the Malayan delegation.

The first meeting of the Conference was held in the circular central hall of the Indian Parliament. Subsequent meetings were held in the splendid new conference hall in Delhi which was built for Unesco the previous year.



MR. NEHRU, the Indian Prime Minister, addressing the Conference, spoke of the friendly way in which Commonwealth countries could meet and confer.



AFRICAN DELEGATES included the representatives of Rhodesia and of the regions of Nigeria. There were also representatives from Ghana and from Malaya, both new and full members of the Commonwealth.



LEADER of the U.K. delegation, Mr. Heathcoat Amory. Seated beside him is Mr. Hugh Gaitskell, Leader of the Opposition in the U.K. Parliament.



PARLIAMENTARY DELEGATES who visited Pakistan are seen examining some of the modern machinery at a new biscuit factory in Karachi, the Federal Capital, before proceeding to the Commonwealth Conference in Delhi.



PRESIDENT OF INDIA (walking with stick) arrives in procession to the inauguration ceremony. In front of him are the Vice-President, Dr. Radhakrishnan (in white) with the Speaker of the Indian Parliament, Mr. Ananthasayanam Ayyangar.

Mr. Bandaranaike, the Ceylon Prime Minister, addresses the Conference

'A WAY OF LIFE'

Mr. S. W. R. D. Bandaranaike, the Prime Minister of Ceylon, speaking at the Conference, said: "The Commonwealth countries have certain things of common interest. That, in my opinion, can make a valuable contribution in shaping the civilisation of this new age. The tradition of democratic parliamentary government is, in fact, almost a way of life. It is in reality the true middle way today between the two extremes that we see both on the right and on the left."

It was the common tradition of parliamentary democracy, he said, that held the Commonwealth together. Although its forms might change in the future, the essentials—free elections, sovereignty of Parliament, independence of the judiciary, and impartial administration—would go down in history as the British people's great contribution to human welfare.

BRITISH BUSINESS PLAYS HOST TO CANADA



SPECIAL TRAIN, hauled at this point by the famous "Deltic" locomotive, carried the Canadian businessmen on their tour of Britain. In this picture at Manchester are the Canadian High Commissioner, Mr. George Drew, shaking hands with Sir Harry Pilkington, a leading British industrialist; Mr. James Duncan, deputy leader of the Mission; and Lord Rochdale, Chairman of the Regional Reception Committee for the Mission.

"We came, we saw, we have been conquered. You have impressed us with your modern factories, your skill, your ingenuity, your adaptability."



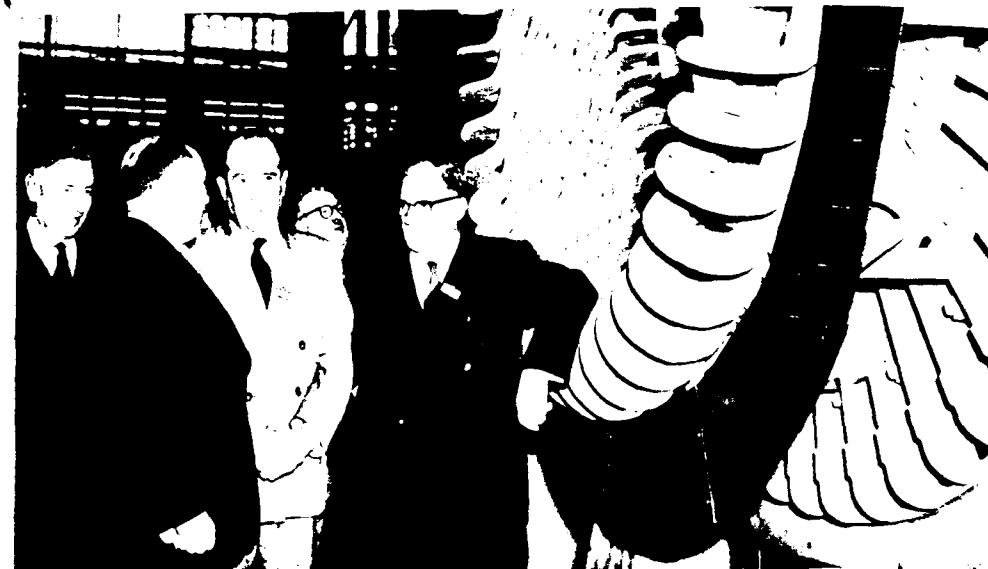
H.R.H. THE DUKE OF EDINBURGH greeting Mr. Gordon Churchill, Canadian Minister of Trade and Commerce, who was leader of the Mission, when they met at a luncheon given by the Canadian Chamber of Commerce in London.

THAT was how the Canadian Trade and Commerce Minister, Mr. Gordon Churchill, summed up the four weeks' tour of Britain made by the Trade Mission of which he was leader. "You have shown us a nation bursting with new ideas," he said. "You have shown us a nation alive with vigour and greatly conscious of the part that Commonwealth trade can play in this great family of nations of ours."

For nearly a month the 57 high-ranking Canadian industrialists who made up the Mission travelled across England in their special luxury train—nicknamed "The Maple Leaf Special"—seeing at first hand how Britain is moving forward into the new atomic and electronic age.

Their job was twofold: To see something of the capacity of British industry, and its technological progress, and to invite British manufacturers to compete for a larger share of the Canadian market. The Mission arose out of the long-term proposal of Mr. Diefenbaker, the Canadian Prime Minister, to divert some 15 per cent—about 625 million dollars—of Canada's purchases from the United States to Britain. On both these objectives the Mission was an outstanding success. As one party, or in small groups, members visited some hundreds of industrial establishments and interviewed representatives of many hundreds more. The interest they aroused wherever they went was enormous.

They also saw Britain at work—from white-coated scientists of the great atomic energy establishments at Harwell and Calder Hall to



CANADIANS B. B. Gattie and J. R. Ouimet (on right in the picture) inspect a turbo-alternator during their visit to the General Electric Company, Birmingham. On right: At the Bristol Aeroplane Company's factory the Mission saw a "Bloodhound" Guided Missile and (in the background) Britannia airliners.

steel-workers in Wales and lace-makers in Nottingham. Everywhere they went, their verdict was the same: "British skill and British know-how are second to none".

They toured the gigantic works of the Steel Company of Wales at Margam, where over 20,000 workers produce one-third of Britain's sheet steel and two-thirds of her tinplate by continuous rolling mill techniques which are the most advanced in the world. They saw the gleamingly modern "garden factory" of British Nylon Spinners set in the rolling green hills of Pontypool.

While some members of the team clambered over piles of steel girders and mounds of rivets to watch shipwrights at work in the Clyde shipbuilding yards—where the famous liners *Queen Mary* and *Queen Elizabeth* were built—others tested the seats and strolled around the cabins of the fast new Britannia turbo-prop airliner, which is now flying on regular scheduled services around the world.

At the Birmingham works of the General Electric Company they were shown a new type of turbo-alternator that is only half the size of conventional electricity generators of the same power output. In Manchester they saw the Mercury "Electric Brain", a new type of electronic machine which can solve problems of design and research in minutes.

Apart from the high standards of production and high quality of the goods being made in Britain today, perhaps the biggest impression was made on the Canadians by the genuinely warm and friendly relations existing between workers and management.

The Mission members gathered in London to meet representatives of the firms they had not found time to visit on their tour. They had aroused so much enthusiasm that there was no time to meet everyone interested. A series of "Brains Trust" panels were set up in the Board of Trade offices, London, where groups of the Mission answered questions from British industrialists.

MILE-LONG steel rolling mill at the great steel factory of Margam, in Wales, is inspected by the Mission. This is one of the biggest and most modern steel manufacturing plants in the world.



WIDE RANGE of the Canadians' interest was shown by their visits (left) to the Cotton and Textile Exhibition in Manchester and (on right) to the Calder Hall Atomic Power Station, where a technician is seen being questioned by Mission members James Duncan and Lloyd Jasper. With the two Canadians, in the centre, is Sir William Rootes, who is the Chairman of Britain's Dollar Exports Council.



Twenty-fifth Anniversary of the B.B.C.'s Short-Wave Services

By J. B. CLARK, C.B.E., Director of External Broadcasting, B.B.C.

ALTHOUGH every birthday has its own significance, a 25th anniversary can seem somewhat pale by contrast with a coming of age a few years earlier. Perhaps it is a sign of maturity that one is tempted to regard this particular occasion as one for more sober assessment, in retrospect and prospect, than for mere celebration.

The evolution during the past 25 years of the present complex pattern of the B.B.C.'s External Services, from the Empire Service which began on 19th December, 1932, is itself eloquent of changes in the conception of Commonwealth and world relationships in the second quarter of the twentieth century. What started, fairly simply, in the use of broadcasting as a means of communication to, and between, the peoples of the Commonwealth—with English as the sole language employed for ten hours daily—has for the last 20 years been a multi-lingual operation, using between 40 and 50 different languages in daily transmissions.

The B.B.C.'s External Services, amounting to about eighty hours every day, are heard throughout the world. This is longer than the output of all the domestic sound and television services added together and includes the transmission of some 48,000 news bulletins and 50,000 talks (including press reviews in the course of the year. Many of the B.B.C. programmes are re-broadcast by local broadcasting organisations. In addition, recorded programmes, for television as well as sound, are sent to many parts of the world for transmission over local networks. An English-by-Radio service distributes English lessons in thirty-two languages and has an audience numbering several millions reached by direct broadcast from London and by recorded broadcasts from local stations.

The main programme in English, heard on short wave throughout the Commonwealth is the General Overseas Service which is on the air for 21 hours a day with a complete programme-service, from regular news bulletins to sport and light entertainment.

The general purpose of the B.B.C., in all its broadcasts to listeners within the Commonwealth and in other lands is to form a friendly link of information, culture and entertainment; to give news of world-wide importance as it is known in Britain; to show what Britain is thinking about the news; and to reflect the British way of life.

Experience and events of the past year demonstrate the challenge to which all who are concerned with the operation have an



ABDI DUALEH of Radio Somali takes part in a B.B.C. Somali programme. The B.B.C. External Services are broadcast daily in fifty languages.

opportunity to respond. It is possible to refer only to some of the more significant events in a year which for external broadcasting has been full of major incidents. Towards the end of the 24th year, the national uprisings in Poland and Hungary presented special problems for the Services to those two countries.

History has already shown that the Hungarian revolt against Communism was the more deep-rooted. During the short period in which the free voice of democracy reigned in a country which has again been subjugated, encouraging tribute was paid by many Hungarian spokesmen to the efficacy of the B.B.C.'s Hungarian Service throughout the years in which their voices had been silenced.



INTERIOR of the original station from which the Empire Service, prototype of the complex External Services of today, was first transmitted.

it was a stimulating revelation of a result which had been hoped for but of which there was no earlier proof. It was significant also that true reports of events in Hungary which were being given to the world in all transmissions including the B.B.C.'s Russian Service, prompted the resumption by the U.S.S.R. of the massive jamming of the Service, which was clear of this malicious interference from April to October 1956.

In the midst of this crisis in the satellite countries, the troubles in the Middle East and the Suez operations supervened. The burden which they placed on the B.B.C.'s Arabic Service can be imagined, and many aspects of the broadcasting activities at that time are widely known. Incidentally, the Arabic is the pioneer of the B.B.C.'s foreign language services and the 20th anniversary of its start was marked in January 1958. In brief, as a direct consequence of these events in the Middle East the Arabic Service achieved what it had needed for many years—a medium-wave transmitting outlet in the Eastern Mediterranean. The B.B.C.'s daily output in Arabic was also increased and since April 1957 has amounted to 9½ hours daily, thus providing by far the greatest output in any of the languages other than English.

Soon after the most critical stage of events in Eastern Europe and the Middle East had passed, the B.B.C. was called upon to start regular services for the first time in three languages of the African continent, audiences in which had previously been addressed only in English, French, Arabic and Afrikaans. Towards the end of the year plans were being made to put these African services in Hausa, Swahili and Somali on a daily basis.

The maturity of 25 years of growth does not mean complacency, and in the years ahead there is a greater challenge than ever to continue the job more and more effectively. While the first transmitters installed in December 1932 are still in regular operation, active preparation has been made for the modernisation and replacement of these and other installations during the next decade.



CHIEF KOLA BALOGUN, the Minister of Research and Information for Nigeria, with Mr. J. B. Clark, Director of External Broadcasting at the B.B.C., London, and author of the article on these pages.

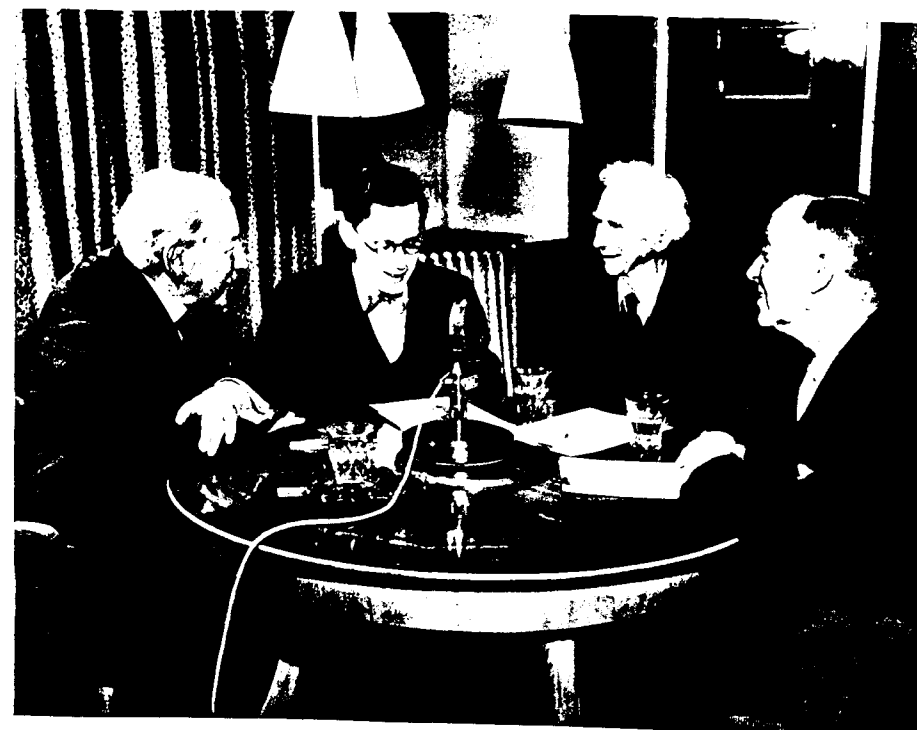
25 YEARS OF ROYAL BROADCASTS



FIRST of the now traditional Royal Christmas broadcasts was made by King George V in 1932 (left). Twenty-five years later, in 1957, H.M. the Queen also made radio history when her broadcast to the Commonwealth was televised for the first time. In it she referred particularly to Ghana and Malaya as new nations to join "our brotherhood". "I believe", Her Majesty added, "that together we can set an example to the world."



DRUMS of many shapes and sizes bring East Africa to London. They are played by students from Uganda in the "Commonwealth Club" programme.



DISCUSSION group in the "London Forum" programme. L. to r.: Lord Samuel, Hugh Trevor Roper and Bertrand Russell, with Chairman Norman Fisher.

MALAYANS IN NEW ZEALAND

Colombo Plan Students are making the most of their visit



ORGANIC CHEMISTRY is being studied by Miss Lim Lum Leng, a Chinese girl from Kuala Lumpur, Malaya, who is a student at the University of Otago, Dunedin, New Zealand. She is studying for a Bachelor of Science degree under the Colombo Plan.



COLOMBO PLAN STUDENTS ALL. Tan Jin Siew, Lim Chin Chee, Kenneth Martinus, Lim Siak Kim, Lim Kee Suan and Ng Fook Kar, teachers from Singapore, seen outside the Otago University before attending lectures.

AMONG the many Malaysians studying in New Zealand under the Colombo Plan are eight men and two women taking a commercial teachers' course at the Christchurch Technical College. Along with other Colombo Plan students in the country they are delighted with their change of environment and are making the most of their stay by studying hard and joining in the many social and sporting activities open to them. They recently spent a very pleasant winter, and have expressed their appreciation of the friendliness and hospitality extended to them by the New Zealanders.

One of the group, B. W. Fernandez, teacher at the English College, Johore, has been making his mark in the sports world. He won the pole vault at Victoria University College Inter-faculty Sports, and is now playing hockey for Victoria University College. Another Malayan, Wong Ah Wah, a supervisor at the Sultan Abdul Hamid College, Alor Star, has been chosen president and spokesman for the group, and Miss Charlotte Loh is secretary. The men were found accommodation at the Colombo Plan Hostel and with private families, and the girls are at the Helen Lowrie Hall for University students.

Another Malayan Colombo Plan trainee, 25-year-old Abdul Ghani bin Kadim, a woodwork teacher at the Trade School, Johore, was chosen to coach young New Zealanders in badminton, a game in which Ghani excels.

He is also the only Asian member of a group of eight boys and girls who have formed a tramping club. Several of the other Asian students have also done some



MARQUETRY inlay pictures of coloured woods—is the hobby of Percy Pavanaris, Colombo Plan student from Kuala Lumpur, who is studying woodwork at the Technical College, Christchurch, New Zealand.

exciting rock climbing. "We usually go out at week-ends," said one young Malayan. "Recently we went to Arthur's Pass and climbed a peak of about 6,000 feet. It was the first time I had seen snow; I was surprised how hot it was tramping and we all peeled off our jerseys. Being in the snow was a great experience for nearly all of us. This fascinating study trip I am on would have been impossible for me to undertake without the facilities offered by the Colombo Plan scheme."

During the Colombo Plan's six-year period ending March 1957, the New Zealand Government had approved capital allocations amounting to £4,799,638 for specific projects in countries covered by the Plan,

and had also provided assistance through the Plan's Technical Co-operation Scheme. By the end of this period there were 206 trainees in New Zealand from Colombo Plan countries; and, during the last year, 156 students arrived there from 11 countries and territories in South and South-East Asia, including 43 from the Federation of Malaya and nine from Singapore.

In Kuala Lumpur Mr. T. L. Macdonald, the New Zealand Minister of External Affairs, said that New Zealand would grant independent Malaya £250,000 for a Colombo Plan project. It had been suggested, he said, that the money might be devoted to establishing an agricultural college in the University of Malaya.



THESE MALAYANS, including two women, are taking a year's course of commercial teaching at the Technical College in Wellington, the New Zealand capital, under the Colombo Plan. They are doing speed typing.



WITH THEIR INSTRUCTOR, Mr. B. W. Potter, are the group of commercial students from Malaya who are studying in Wellington. Their training will extend their knowledge of shorthand, book-keeping and other commercial crafts.



ASIAN and New Zealand students of Otago University enjoy themselves at a game of snooker during a leisure hour at Arana Hall, where some of them also live. The Asian students are studying for their degrees under the Colombo Plan.



TEACHER Abdul Ghani bin Kadim, of the Technical Trade School, Johore, Malaya (centre), is one of the happy and popular Asian members of the Teachers' Training College Association Football team, Christchurch.

Sharks Ashore!

NEW IMPETUS FOR AN ANCIENT TRADE

INTREPID shark fishers of Kenya have been plying their trade along the coast since this kind of fishing was introduced by Arab traders many centuries ago. Today, with the help and advice of the Fish Division of the Kenya Game Department, their ancient craft is being developed into a most successful new commercial venture, the value of the latest year's production for which figures are available being around £13,500.

Shark fishing takes place along the whole of the coast, but the most productive region has been found between Malindi and the Somalia frontier, which lies to the north.

The great increase in the production of this vigorous industry is due largely to the use of nets made of nylon, which are gradually replacing the home-made nets of cotton previously in use. Many new types of fishing gear are also being tried out, and research into new methods continues all the time.

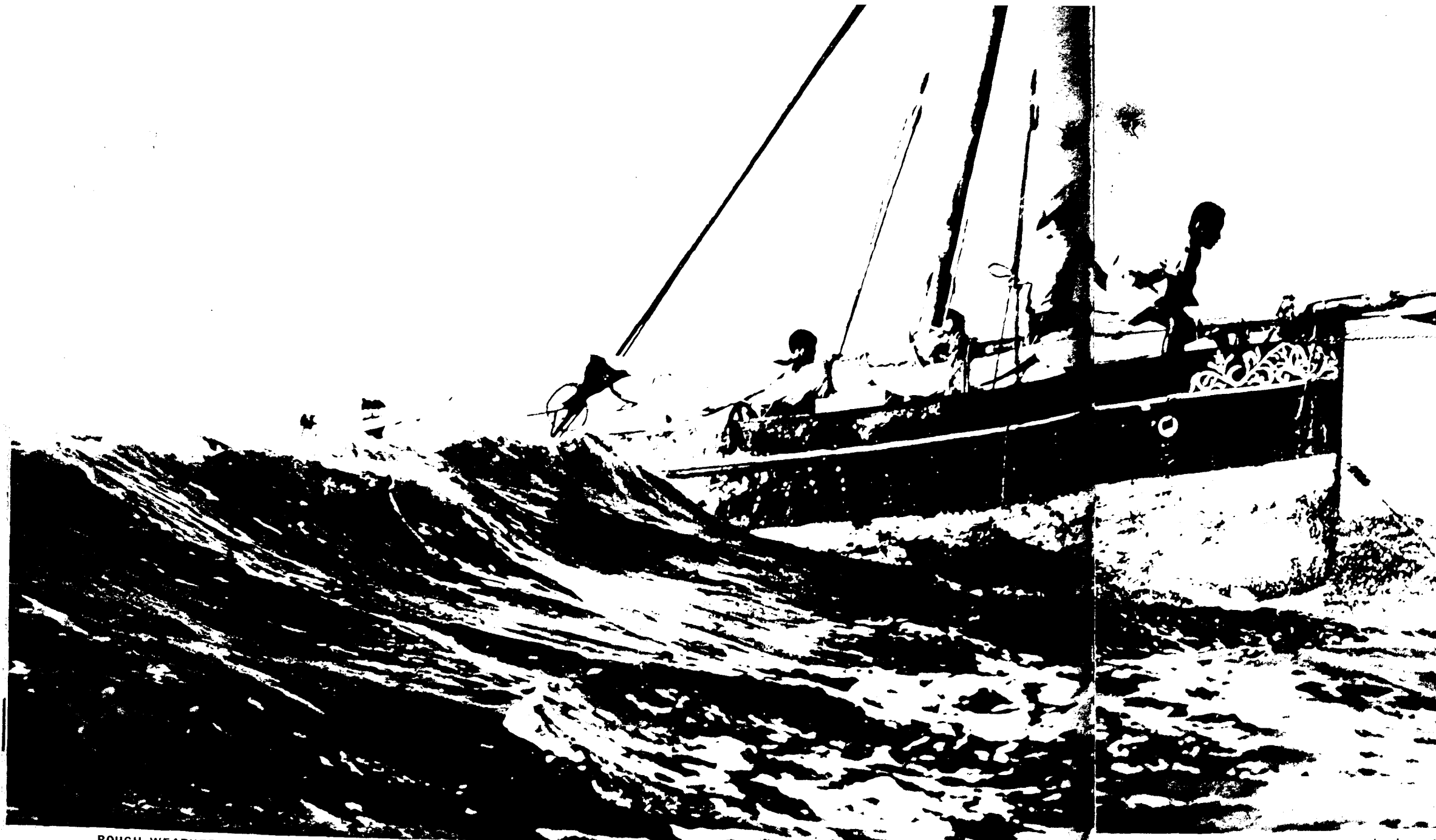
The vastly superior strength of the nylon net has been found to have many advantages. Water does not make it rot, and it is practically invisible when immersed in the sea. The latest nylon nets are coloured blue-grey,

to make them even more difficult for the fish to see. They are 300 ft. long and cost about £100.

Fishing boats, too, are the subject of research by the Kenya Game Department. In order to find out whether boats equipped with engines are better for this kind of work, Government motor boats go out to fish alongside local craft. On one of these trips, a Government boat caught 58 fish, of which 34 were sharks from three to eight feet long.

Many kinds of sharks are caught off the Kenya coast. Most of them are of the hammerhead and tiger shark varieties, but occasionally huge whale sharks are caught, and one of these holds the record for the biggest fish caught by net off Malindi. It weighed 3,500 lb.

There are no waste products in the shark industry, for practically every part of the fish can be used. The flesh is salted and dried, oil is extracted from the liver, soup and a kind of thread are produced from the fins, while the skin makes an excellent leather and even the teeth can be utilised as ornaments. The remnants are turned into fish meal—a valuable fertiliser.



ROUGH WEATHER with seas of this size call for expert seamanship by the shark fishermen of the Kenya coast. New equipment now being tried out by fishermen include motor-powered boats and nylon nets.



AUCTION SALES of the shark meat are held every week at Malindi. Bidding is brisk and the demand outstrips supply. On right: A big hammerhead shark being weighed on landing.



SHARK MEAT, dried in the sun and salted, makes a useful protein food. The liver, fins, skin and teeth of the fish are also put to a variety of uses.



SAW FISH landed by the fishermen was unable to break through their strong new nylon nets. It measured 9 ft. from nose to tail. Other big fish landed in these nets included two giant manta rays, weighing about 2,000 lb. each, and a whale shark—a monster that turned the scales at 3,500 lb. and set up a record.



OATH OF ALLEGIANCE is taken by Lord Hailes, first Governor-General of the new Federation of The West Indies, during the Swearing-in ceremony which took



SPEECH of welcome by Mr. Bradshaw, Minister of Trade for St. Kitts-Nevis and Anguilla.

A Commonwealth Nation in the making

LORD HAILES IS FIRST GOVERNOR-GENERAL OF THE WEST INDIES FEDERATION

A NEW unit of the Commonwealth was born in January this year when the Governor-General of The West Indies assumed office in Trinidad, the seat of the Federal Government of The West Indies, and the Federation came into being. As special representative of H.M. the Queen, H.R.H. Princess Margaret will inaugurate the Federal Legislature on the 22nd of April, after the first federal elections in March. This will not be the first visit of the Princess to the Caribbean Sea, across which the Federation islands stretch. Her Royal Highness made an extensive and highly successful tour of the region early in 1955, gaining a special place in West Indian affections. Now she returns to set the seal to a decade of intensive post-war effort and to start these ancient British territories on a novel and stimulating journey.

Federation has a long history among the West Indian islands, but plans for the project which is now being launched were first debated among representatives of the islands in 1947. Representatives from British Guiana on the South American continent, and British Honduras in Central America, were also

GIRL GUIDES are introduced to Lady Hailes, wife of the Governor-General, during a ceremony of welcome. Behind her is Lord Hailes, with Mr. Keshall, Assistant Colony Scout Commissioner, Trinidad.

present at that first conference held at Montego Bay, famous tourist resort in Jamaica. These two mainland colonies, however, decided on a wait-and-see attitude, and the Federation at its inception will comprise all the British West Indian islands except for the Virgin Islands.

A principal object of Federation has always been to give the territories a realistic foundation for self-government in accordance with H.M. Government's policy towards its overseas dependencies. While the Federation will begin under the Colonial Office, the ultimate

goal is full membership of the Commonwealth. The Federal Constitution is due for review within five years, and it is confidently expected in the islands that the final move to independence within the Commonwealth will be taken then.

Political development in the individual territories has been rapid since the end of World War II. Adult suffrage and representative institutions have been introduced throughout the area. The day-to-day responsibility for internal affairs in most territories, has for some time now rested, in

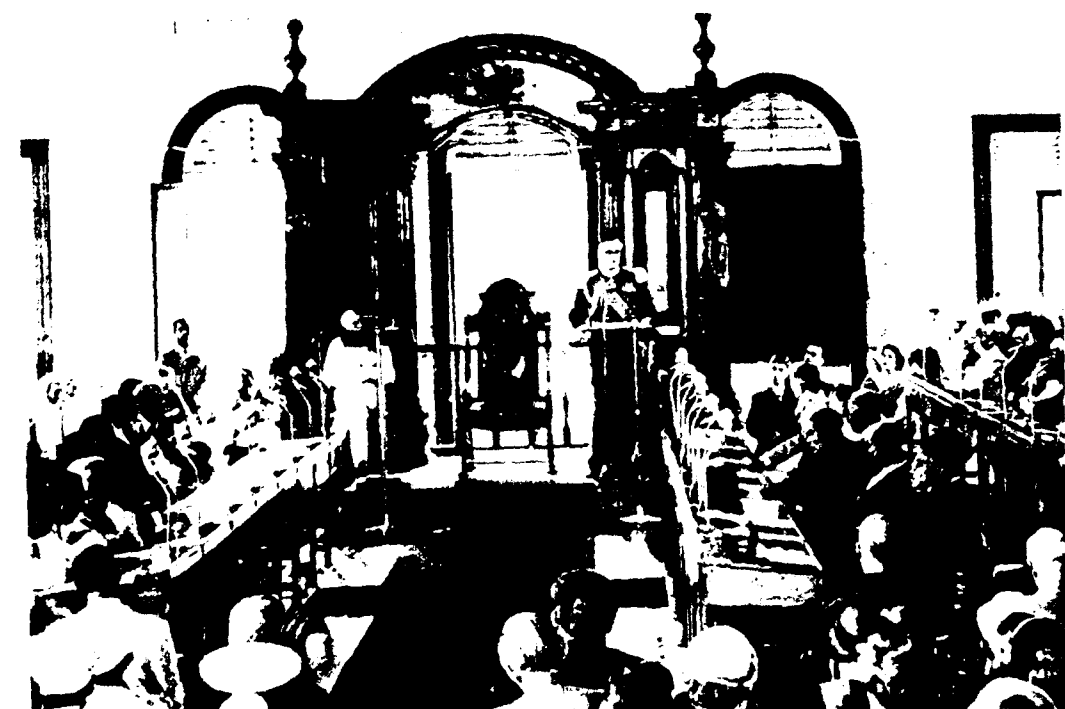


practice, with elected Ministers. Very recently, Jamaica was granted a Cabinet system of government. Trinidad and Barbados should soon experience a similar constitutional advance. West Indians have taken to the exercise of their domestic rights with alacrity and a sober sense of responsibility, party politics having become a lively feature of the local scene.

The major immediate problem is economic. The islands are all heavily populated and the high rate of natural increase shows as yet no sign of slackening. West Indians have always gone abroad to seek their living. The post-war wave of emigration to the United Kingdom is only the latest phase of this activity. The local governments, however, are making strenuous attempts to strengthen their economies, and they have received substantial assistance from the United Kingdom through Colonial Development and Welfare funds and investment from the Colonial Development Corporation and private sources.

It is estimated that over the last decade £20 million has gone to the British Caribbean from C. D. & W. funds and that capital approved for investment by the Colonial Development Corporation amounts to another £8-9 million. The United Kingdom Government will contribute up to £1 million to the building of the Federal capital. In addition, grants in aid of administration, which will continue to be payable during the first ten years of the Federation, and grants for special purposes such as hurricane relief have been received by the smaller islands to the extent of some £8 million during the past ten years.

The West Indies economy has been traditionally based on agriculture with such export crops as sugar, bananas, cocoa and citrus predominating. The present aim is to diversify the economy as much as possible by encouraging other types of agricultural



REPRESENTATIVE GATHERING in the Legislative Council Chamber, Trinidad, is addressed by the Governor-General. He spoke of the honour he felt in serving such a multi-racial community.

production, including that for home consumption and by attracting private investment for secondary industries and for utilising mineral sources such as bauxite in Jamaica. Oil production has long been a mainstay of the Trinidad economy. Much attention is being paid to the development of tourism. Transport between the islands has been the subject of close study. Local and trunk air services link the islands, and the provision of adequate sea communications is steadily pursued.

The establishment in 1948 of a University College of The West Indies on Jamaica soil gave a great stimulus to regional education and research. Side by side with this development, public interest in artistic endeavour has grown. Today, novelists, painters and

poets, actors and dancers are rapidly building a local culture, while West Indian cricketers, athletes and boxers maintain an older reputation in their chosen fields.

It is an exciting prospect that opens before these historic British dependencies as they turn the pages rapidly over to a new chapter in their island story. Whatever hard work and careful planning can do to ensure the Federation's success has been done. No one doubts that difficulties lie ahead, but the British peoples of the Caribbean have a long experience of difficult conditions and they know that this major venture of theirs will carry the good wishes and command the ready support of all the countries of the Commonwealth.

CHARLES H. ARCHIBALD.

Caribbean Carnival



MAGNIFICENT HEAD-DRESS with an American Indian theme consists of many thousands of coloured beads and feathers. Making it took several months.

TRINIDAD is a small island, seven miles off the coast of Venezuela, with a population of not quite a million, but it has one of the most famous carnivals in the world, and certainly one of the happiest. This fiesta inaugurates the solemn 40-day fast of Lent, which is observed most meticulously in Roman Catholic countries. The word carnival comes from the Latin *Carnem Levare*, meaning literally the "putting away of flesh", and signifying the beginning of a fast. In French-speaking countries it is also called *Mardi Gras* or "Fat Tuesday", the day on which all the edible fats in the house were used up before the beginning of Lent.

Carnival in Trinidad has a logical history. When the British finally took the island from the Spaniards in 1797, they promised that the customs and religions of the local people should be honoured, and this promise has been carefully honoured. The people of Trinidad are of many religious faiths, but they all join with their Roman Catholic neighbours to celebrate this festival.

Preparations for the February Carnival are well under way by the previous September. The festival is not merely a gathering of individual revellers, for the great feature of the four days of dancing are the Groups, which may be up to 900 strong. The Groups

can be either neighbourhood units—a whole street will get together and dress up as American sailors or as Indian warriors—or sports clubs who organise their own tableaux, such as "the Battle of Alamein" or "the Gods of Olympus".

The carnival starts on Saturday in a mild and gentle manner—parties in friends' houses, family reunions and public dances. Sunday is Children's Day, and the Children's Carnival parties are among the prettiest sidelights of the whole festival. On Sunday evening an audience of some 8,000 watch the selection of the Carnival Queen and Carnival King, which takes place on a huge platform



VIKING WARRIOR wears a horned helmet and hanks of artificial blue hair. With over 400 "Vikings" on the island the shops ran out of these enormous plaits of hair. On left: Dressed as a redskin warrior was this little girl, so young she could hardly stand.

erected at the racecourse. The Carnival King is the chief Calypso singer, and a dozen or so renowned for their wit and talent at improvisation, compete with calypsos they have written themselves.

At dawn on Monday the Mayor of Port of Spain opens "Ol' Mas'", a masquerade peculiar to Trinidad. For this you can wear last year's carnival costumes or just anything that comes handy, but you also usually wear a mask or blacken your face, so that you will go unrecognised. In days gone by this was a fine opportunity for settling old scores, and a good deal of rough horse-play went on. Today, the most lethal weapons in use are bags of soot or handfuls of flour.

By nine o'clock, the streets and squares are deserted. The dancers have not gone home to rest and eat, as one might suppose, but to change into their magnificent new costumes, and by eleven the streets are again noisy with bands and gay with dancers. People dance round and through the town right up to the Savannah, where the various groups are judged for prizes. Dancing goes on through the night and all next day.

Much fun is added to the carnival by the various side shows. Someone, perhaps, will impersonate a local well-known character, or play the part of a deep-sea diver; some carry trays with ingenious home-made toys; trios of brigands give recitations; devils, called "Jab-Jabs", crack their whips, while acrobats tumble and stilt-walkers stalk above the heads of the crowd. All this gaiety and colour whirls through the streets until midnight on Tuesday, when the drums fall silent and the festival is over for another year.

CARNIVAL PROCESSION, a riot of colour and noisy goodwill, makes its way down Frederick Street, the main shopping centre of Port of Spain.





LEADING ATHLETES of the calibre of K. L. Norris and F. D. Sando (right) will compete in the track events at Cardiff Arms Park (above).

Wales Prepares for the Commonwealth Games



SOPHIA GARDENS PAVILION, where the boxing and wrestling events of the Games will take place.

THE SIXTH British Empire and Commonwealth Games open on 18th July, 1958, in Cardiff, which is the capital city of the tiny country of Wales, in the western part of Great Britain. For the period of a month, 1,200 athletes from nearly 40 countries will be competing together—and at the same time enjoying the traditional warmth of welcome from the people of Wales. Her Majesty the Queen and the Duke of Edinburgh will be present at the closing ceremony.

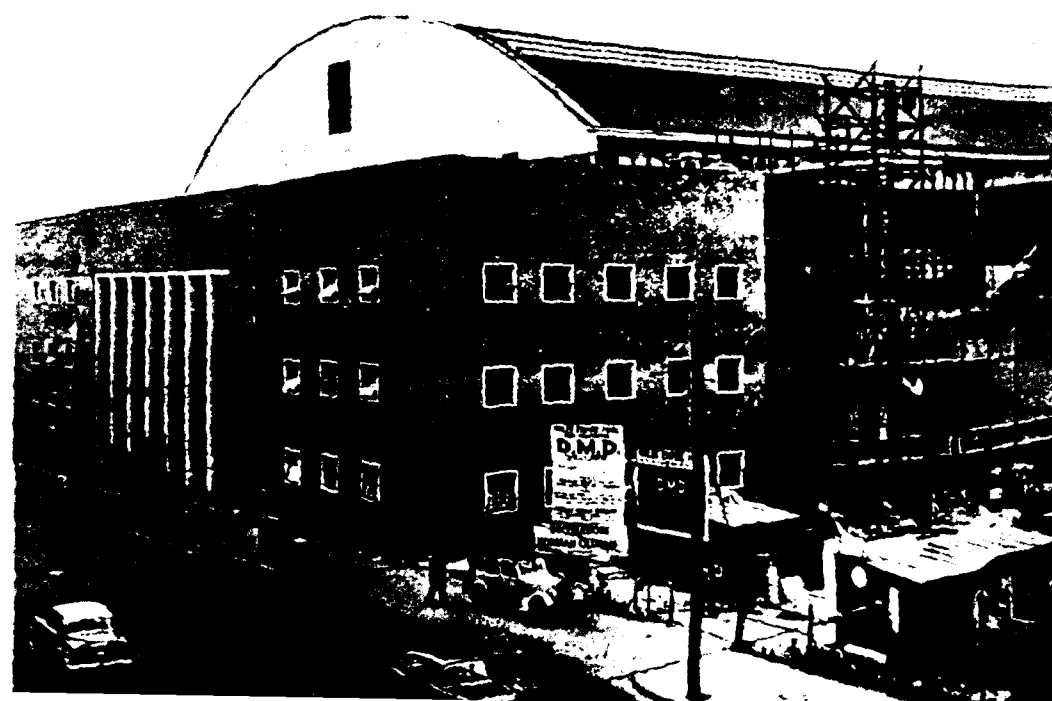
Main attraction of the Games will be the Field and Track events, which will take place at the famous Cardiff Arms Park, scene of many Rugby football encounters between Welsh and Commonwealth teams. Near the Park a massive new swimming pool has been

built at the cost of £650,000, with seating for 2,300 people.

The Maindy Stadium, also close by, will be the scene of the cycling events and is said to have one of the fastest cycle tracks in the world. Boxing and wrestling will take place at Sophia Gardens, while weight-lifting will be at the Barry Memorial Hall, a war-time victim of fire, but now completely and splendidly rebuilt.

Though Cardiff is able to offer excellent and compact facilities for most of the events, she can offer no stretch of water suitable for the rowing, and this is to take place on Lake Padarn, in the mountainous Snowdonia country of North Wales.

The Empire Games will be the principal event of the 1958 Festival of Wales, a time of great historical celebrations, of music and dancing, sport and pageantry, and a landmark in the history of this kind and lively country.



New Empire Pool at Cardiff, especially built for the swimming and diving.



CLASSROOM lectures by a police officer ensure that trainees are familiar with traffic regulations and road signs before taking a vehicle on the road.



A GOOD DRIVER must understand how to keep different types of engines in running order. Here a group of trainees learn "what goes on under the bonnet" of one of the school's four demonstration vehicles. The demonstrator (centre) is Mr. A. Y. Solomon, an ex-Army driving instructor.

KADUNA'S DRIVING SCHOOL

Northern Nigerian Government Sets Standard of Road Safety

KADUNA, the capital of the Northern Region of Nigeria, has a driving school which is believed to be the only one of its kind in the Federation. This school was set up in 1932 to produce good drivers for government service, at the instigation of the Premier of the Region, Alhaji Ahmadu, Sardauna of Sokoto, when he was the North's Minister of Works.

Since then the school has expanded to include members of the Native Authority staff among its pupils as well as private individuals. New permanent quarters are being built on the Kaduna-Zaria road, with lecture rooms and accommodation for instructors. There are also demonstration vehicles with different types of petrol and

diesel engines, and two "static trainers"—vehicles without engines, which are used in the early stages of driving instruction.

There is no lack of prospective pupils, and in fact requests for admission to the course have so far exceeded expectations as to constitute a major problem. The school can take forty trainees on each two-month course, and aims to produce 72 experienced drivers each year. Candidates are subjected to a series of tests, and only those of real aptitude are accepted. Trainees must also be indigenous Northerners and physically fit.

Instruction is divided into two phases: the first with the static trainers, and the second on moving vehicles on the school's driving ground, which covers about four

square miles and is laid out with crossroads, dips and bends, and marked with road signs. In the classroom the trainee is taught the Highway Code and learns about traffic regulations and how to keep a log book.

Finally he goes out for practice drives on the highways and in the town. At the end of his two months' course he takes a standard government test and receives a driving licence. Then, after six months' driving, he returns to the school for a final test, which qualifies him for his coveted certificate.

Instructors say that the Northerner learns quickly. There is no doubt that the driving school in Kaduna is playing a great part in achieving road safety in the Northern Province.



"STATIC TRAINERS", without engines, are used in the early stages of training to familiarise new pupils with controls in the driving cabin.



SUCCESSFUL trainee, who has completed the course and gained his certificate, is congratulated by his instructor and smiling fellow-students. The school aims to produce 72 experienced drivers each year.

Women's Education in Pakistan

THE steady advance of education is opening up new horizons for the women of Pakistan today. Educational establishments for women were started in this region seventy years ago. Today, new schools and colleges offer opportunities at all levels from primary education to postgraduate university courses, and already a majority of the annual academic honours are won by women students.

Several co-educational colleges exist in Pakistan today, but the principle of segregation of the sexes is strongly maintained by many families and for this reason most girls prefer to enter schools kept exclusively for women. The demand for the education of young girls is greatest at the primary school level, and the number attending these schools has doubled in the last five years. Fewer girls continue their education through the secondary school, but the number of both schools and students is steadily increasing, particularly in the towns and cities. The introduction of domestic science as a compulsory subject has helped to demonstrate the practical help that schooling can give to the wives and mothers of the future.

Postgraduate courses at the universities are co-educational and an increasing number of women attend them each year. Generally, the subjects chosen are those which offer the most practical opportunities after graduation. Arts, sciences and medical faculties are crowded to capacity by women students who hope to become teachers, chemists or doctors. For women of scientific interests medicine is the first choice, and the demand for entrance into medical colleges remains consistently large. There are two medical colleges in Pakistan exclusively for women.

The teaching profession, however, claims the largest number of Pakistani women students and there is plenty of scope for their services. The Government has organised several training colleges to meet the heavy demand for trained teachers, parti-



GIRL STUDENTS at the University of Dacca, capital of East Pakistan. Pakistan's universities are now turning out an increasing number of women graduates every year.

cularly at secondary and high school level and at primary level in country districts. Women teachers in urban areas easily find employment in Government or private schools and colleges. Within their profession they enjoy the same facilities and scale of pay as their male colleagues. Women are also employed as Schools Inspectors and in the Department of Education.

Training schools for nurses, who are urgently needed in Pakistan, have been opened in all the big towns. The standard of entrance to these schools has now been raised by the

Government, and a nursing college offering a two-year postgraduate course has been opened in Karachi.

Better educational facilities for the women of Pakistan is also qualifying them for work in other branches of science. They have become biologists, chemistry technicians in industry, physicists, entomologists and experts in textile production. And there are many women civil servants in Government departments. Pakistan's women are working hard to fit themselves for a vital role in the progress of their nation.



UNDERGRADUATES on a Dacca college lawn. In the sunshine of Pakistan, classes, group discussions and similar activities can often be held in the open air.

PAINTINGS of consistently high standard are produced by girl students who are being taught at the School of Art in Lahore, capital of West Pakistan and one of the country's cultural centres.

CHEMISTRY STUDENT in a Pakistan college. Pakistani women graduates are serving their country as physicists, chemists, entomologists and as experts in textile production.



FIRST-YEAR CHEMISTRY CLASS in a college laboratory. Many Pakistani girls of scientific bent choose medicine as a career and competition for places in the medical colleges is intense.



AMATEUR DRAMATICS play an important and lively role in the social activities of the women's colleges. Here, under the direction of their own producer, the girls are rehearsing a play on the college stage. Music and dancing are other popular recreations.



NETBALL MATCH between teams of college girls in Karachi. Pakistani girls are to be seen in increasing numbers on the country's playing fields.





FIVE-WEEK-OLD PIGLETS being fed by a worker at the Pong-Tamale headquarters of Ghana's Department of Animal Health. Herds of pedigree pigs of the big Essex variety are bred there for sale to Ghanaian farmers.



TECHNICIANS in the Department's laboratories preparing vaccines for use against animal diseases. Such modern techniques have resulted in great advances being made in improving the health of the nation's livestock.

INCREASING GHANA'S MEAT SUPPLY

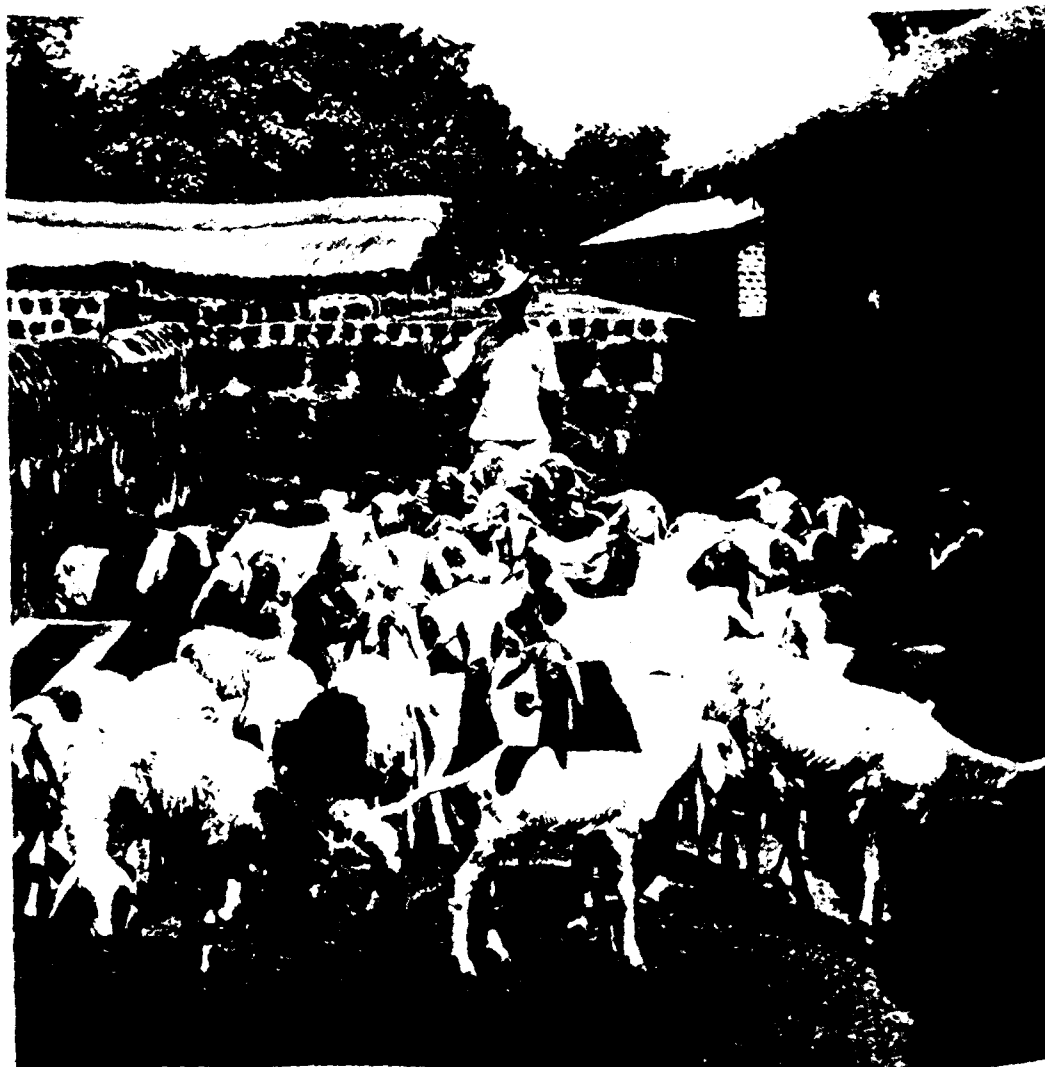
GHANA today has five times as many cattle as in 1930. This substantial increase is the result of the fine work done during the past 25 years by the Department of Animal Health on the control of cattle disease and the improvement of stock.

The Department has its headquarters at Pong-Tamale in the Northern Region, with branch offices in other parts of the country. Its officers maintain strict control of imported trade animals, particularly cattle, and inoculate locally owned animals against diseases such as rinderpest, bovine pleuro-pneumonia and trypanosomiasis.

Vaccines are prepared in the laboratories at Pong-Tamale. Rinderpest vaccine is prepared from rabbits, which are resistant to the disease. When the disease is artificially transmitted from one rabbit to another the germs become weak, and it is then possible to use blood taken from infected rabbits to vaccinate cattle.

Measures against the deadly trypanosomiasis disease centre on the work of killing the tsetse flies in which the germs that cause it grow and develop. Where tsetse fly infection is still heavy, steps are taken to introduce a more resistant type of cattle.

Food and water for cattle are often in short supply during the dry season, and this lowers the reproduction rate. Ghana's Departments of Animal Health and of Agriculture and Rural Water Development have been working together to solve this problem by the provision of all-the-year-round water supplies and the collection of fodder at the end of the wet season for use in the dry.



LOCAL SHEEP are also reared for experimental purposes at Pong-Tamale. Experts are constantly seeking better ways of improving the breed. Herds of pedigree livestock are kept for sale to local farmers.

Ceylon's New Paper Factory

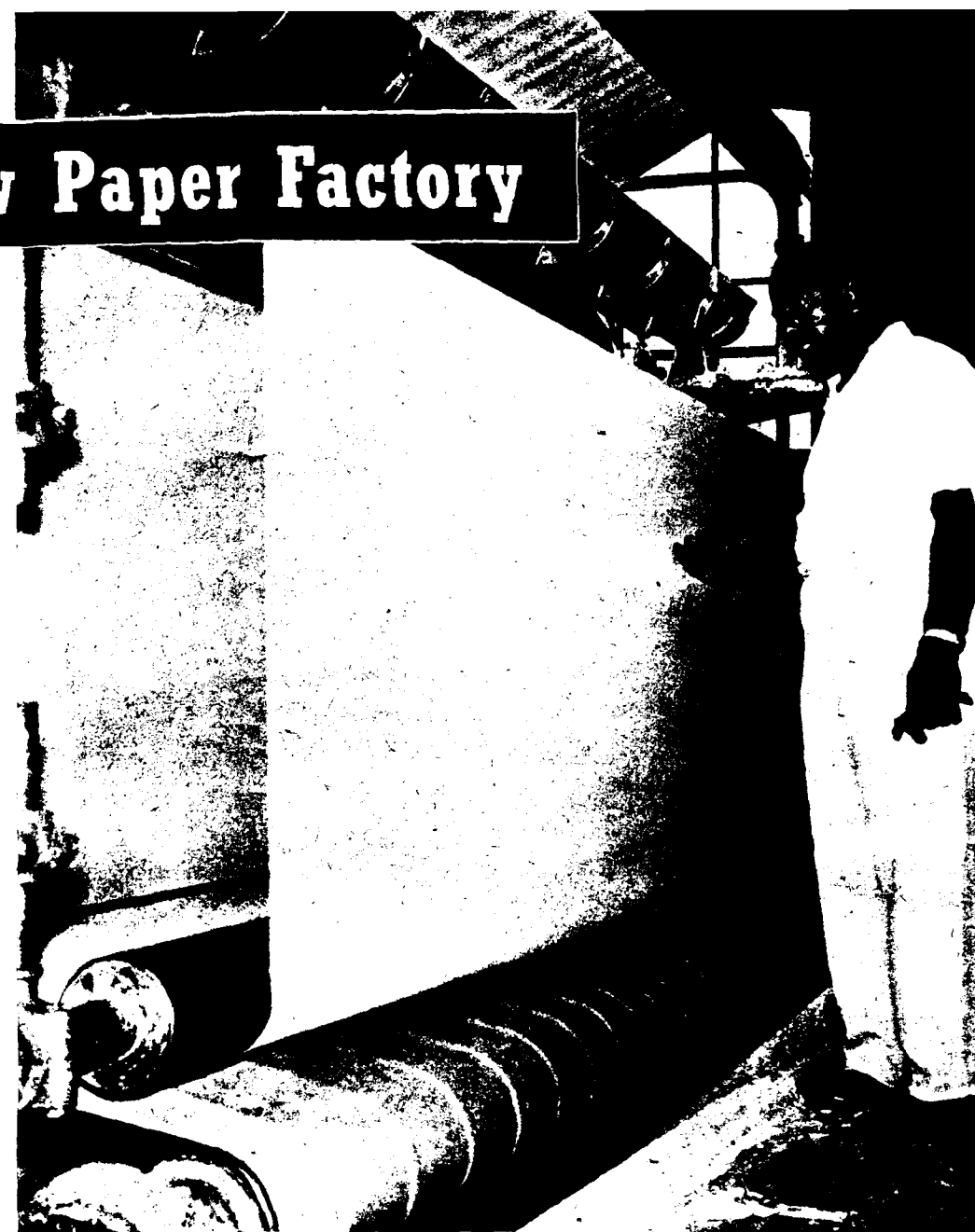
CEYLON is now able to produce one-third of her own paper requirements. A new paper factory at Valaichenai, in the Eastern Province, has started production. Its huge machines are working round the clock producing from 12 to 15 tons of finished paper every day, and they have a capacity of 4,000 tons a year.

Administered by the State-sponsored Eastern Paper Mills Corporation, the factory is situated on a 300 acre site, and 102 houses for the staff have been built on an adjoining site of another 100 acres. Some wood pulp is imported from abroad to improve the quality of the paper, but most of the raw materials are provided by straw and "illuk" (a kind of tall grass) grown locally.

At least two years will pass before the new factory will have stabilised itself, for the manufacture of paper is a craft of great delicacy. The factory is therefore still in an experimental stage, but eventually 30 to 40 tons of straw or illuk will be required every day. An illuk farm extending for 1,000 acres has been opened at Punanai, about 15 miles away, and this is expected to produce 4,000 tons a year. In addition, abundant sources of straw have been discovered locally, and it is believed that 5,000 tons of this will be available every year.

The factory operates in three sections: a Pulp Section, under the supervision of Mr. S. S. Silva, the Chief Chemist; a Paper Section, under Mr. R. P. Singham, Paper Technologist; and an Engineering Section under Mr. K. Nadarajah. In addition there is a Welfare Section with ambulance room and a trained nurse in attendance; a Fire and Watchman service; and a well-equipped laboratory for testing raw materials as well as the processing itself and the finished products.

Great quantities of water are required for the manufacture of paper, and in planning the Valaichenai factory care was taken not to use water sources which were urgently needed for agricultural irrigation. The problem was solved by raising the level of a lake and building a channel six miles long to bring this new source of water to the



INSPECTING the finished product at Valaichenai paper factory, which can produce 4,000 tons of paper annually. It is administered by the State-sponsored Eastern Paper Mills Corporation.

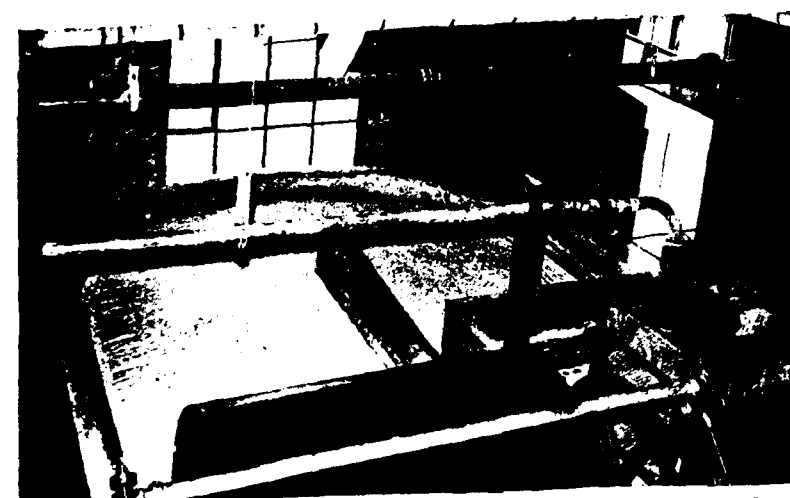
factory, where 1½ million gallons are used for manufacturing every 24 hours.

Wrapping paper, printing paper and writing paper are the three grades being produced at the Valaichenai factory at present. It is not economical to manufacture the kind of paper needed for newspapers, since this requires large quantities of wood pulp, which is not available in Ceylon.

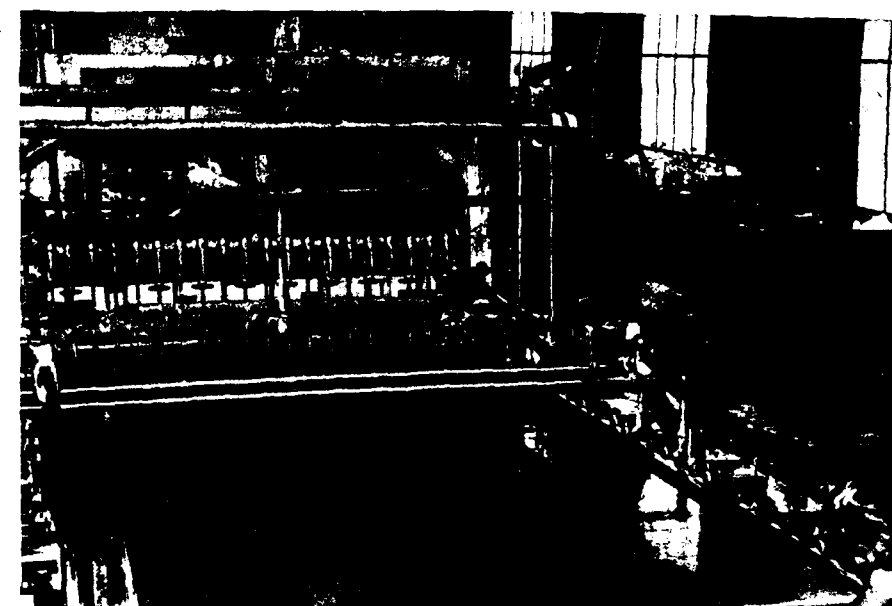
Wednesday of every week is Visitors' Day, when parties of school children and tourists are shown the various processes of paper making. They see how the pulp, moving from the Pulp to the Paper Section has the water

extracted so that rolls of paper come out at the other end. The pulp consists of 99.5 per cent water and only 0.5 per cent fibre.

At present, the Ceylon Government makes use of all paper manufactured at Valaichenai. The improved appearance of the Government's Gazette, for instance, is due to the use of the new paper, while Valaichenai products are also used for examination papers and many other official documents. Once the experimental stage is concluded the factory will enter the commercial field, and as the demand increases it is hoped that other factories will be opened, eventually providing for the entire needs of Ceylon.



BLEACHING equipment, in which the pulp is whitened. Pulp is made from grass or straw, with the addition of some imported wood pulp. On right: Early stage of paper manufacture. Great quantities of water are used.



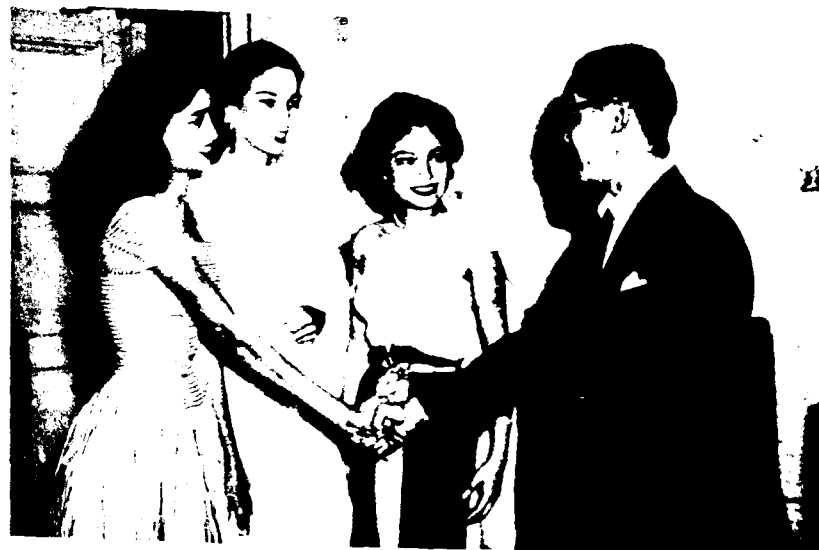
PEOPLE

Pictures and stories of the people
of the Commonwealth and their activities



GEYLONESE PRESIDENT OF OXFORD UNION

Lalithe Athulathmudali, a law student at Jesus College, Oxford, has made University history as the first Ceylonese to be elected President of the Oxford Union Society, an office filled by undergraduates who almost invariably achieve national or international fame. He is the second Ceylonese undergraduate to have served in one of the high offices of the Union, the other being Mr. S. W. R. D. Bandaranaike, Prime Minister of Ceylon. Lalithe is following the profession of his father, Mr. D. D. Athulathmudali, a well-known Colombo barrister who was for five years a member of the State Council.



SINGAPORE UNION OF JOURNALISTS' BALL

Greeted by Singapore's Chief Minister, Mr. Lim Yew Hock, is the Singapore Union of Journalists' "Queen for a day" Miss Fay Siebel (left), who won the title at the Union's Press Ball. Next to Miss Siebel are Mrs. Barbara Narayanan and Miss Pat Yong Thoi Thai, runners-up in the contest. Miss Siebel was awarded an aircraft trip from Singapore to Hong Kong and back as part of her prize.



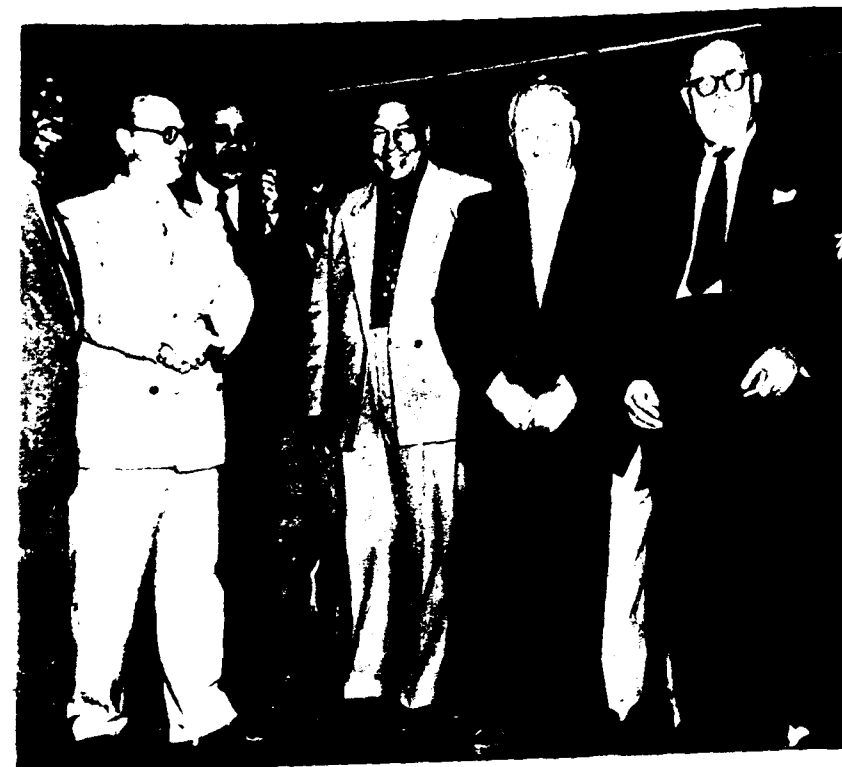
INDIAN HIGH COMMISSIONER IN GHANA

India's first High Commissioner to Ghana, Mr. B. K. Kapur (left), is seen here at Government House, Osu, when he called on the Prime Minister, Dr. Kwame Nkrumah, to show him his letters of credence before presenting them to the Acting Governor-General, Sir Arku Korsah. Mr. Kapur, who is 48 years old, was previously Indian Ambassador to the Netherlands. He was educated at Government College, Lahore, and at the Royal Military College, Sandhurst, England. He is a keen golfer.



RECEPTION FOR NEW GOVERNOR OF NORTHERN NIGERIA

The Premier of the Northern Region of the Federation of Nigeria, Alhaji Ahmadu, the Sardauna of Sokoto, held an evening reception on the lawns of Lugard Hall, Kaduna, in honour of the new Governor, Sir Gawain Bell, on the evening of his installation ceremony. This picture shows Sir Gawain and Lady Bell (left) chatting with their host. In the centre is Mr. A. C. MacKellar, private secretary to the Governor.



BRITISH T.U.C. SECRETARY IN TRINIDAD

When Sir Vincent Tewson, the General Secretary of the Trades Union Congress in the United Kingdom, recently visited San Fernando in Trinidad he performed an act which he said was "symbolic of unity". He joined hands with four local Union leaders, two from the Trinidad and Tobago Federation of Trade Unions and two from the Trinidad and Tobago Trades Union Council, which were uniting on that day to form one overall body, the Trinidad and Tobago National Trades Union Congress.

Sir Vincent conveyed to them the good wishes of the eight million members of the U.K. Trades Union Congress and of the International Confederation of Free Trade Unions with 75 million members in 57 countries. This, he said, was not only an era of Constitutional development in The West Indies but it was also a new era in human relations.

This picture shows (left to right): Mr. Frank Walcott of Barbados; Sir Vincent Tewson; Mr. Quintin O'Connor, a trustee of the new organisation; Mr. John Rojas, the new President of the combined unions; Mr. Lloyd Haskins, an American representative; and Mr. Martin Pounder, a representative of the British T.U.C. who was in Trinidad to assist in the organisation of Trade Unions.



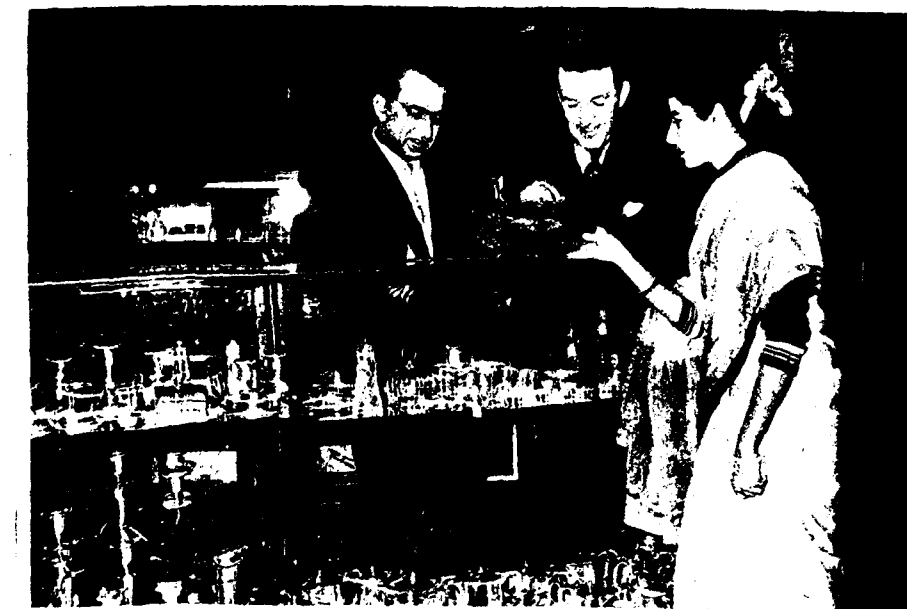
AUSTRALIAN DANCER IN BRITAIN

Eileen Cramer from Sydney, Australia, is seen here making masks for dances which she is performing in England with a fellow Australian, Clare Lancaster. Both girls were baller dancers in Australia and they have a repertoire of dances in which elaborate costumes and masks are used.



SOUTH AFRICAN JOURNALIST IN SCOTLAND

Mr. G. Reilly of the *Rand Daily Mail* and *Sunday Times*, Johannesburg, visited Scotland as a guest of the Commonwealth Relations Office. During a busy five days he was able to see one of the new towns in Scotland, a hospital, and a coal-mine. He also visited the Engineering Research Laboratory of the Department of Scientific and Industrial Research at East Kilbride, where he is seen (right) with Mr. J. B. Franklin of the Department, who is showing him some of the laboratory's equipment.



PAKISTAN EDITOR VISITS SHEFFIELD

Mr. M. M. Sayeed of Karachi (left), the Chief News Editor of the Central News Organisation, Radio Pakistan, was photographed with Mrs. Sayeed when they paid a visit to a firm of goldsmiths and cutlers at Sheffield, the English town renowned for this kind of craftsmanship. They are examining a piece of fine silver-plate which was specially made for an overseas customer. Mr. Sayeed, who came to the United Kingdom as a guest of the Commonwealth Relations Office, was also able to watch the manufacture of motor-cars, textile machinery and electrical equipment during his tour.

Handwritten notes and stamps at the bottom right of the page, including "V.M. 1248", "48-57", and a circular stamp with the number "12378".

URANIUM IN SOUTH AUSTRALIA

Developing an Important Industry

URANIUM—the raw material of the world's atomic industries—may mean even greater wealth for Australia than the fabulous gold discoveries of just over a century ago.

Gold brought to Australia a big influx of new population and set in train profound economic changes. So, ultimately, may uranium, but the scientific dawn of the uranium industry bears little resemblance to the gold rushes of the last century. Today, Government prospectors seek out uranium deposits with the aid of instruments in aircraft flying at 1,000 feet, and modern large-scale mining techniques are backed by careful scientific research. Large areas of the country are geologically favourable for the occurrence of uranium. Only a fraction of them has been investigated. Even so, the total Australian output of uranium oxide will reach 1,000 tons a year by 1959.

One uranium mining town is Radium Hill, 290 miles north-east of Adelaide in South Australia, where uranium oxide is produced by a highly efficient enterprise established with a £6,750,000 capital outlay. Radium Hill is predominantly a family town with

a well-developed community life. At least half its population of 879 are the wives and children of the mine workers themselves. Their homes are all-electric and each has a refrigerator. There is a school, and a Government retail store. Fresh food is brought by train three times a week, and a plane calls twice a week, circling overhead while the "roo patrol" clears away any wild kangaroos that may be wandering about on the airfield. The Radium Hill Social Club, whose president is a pneumatic drill operator, runs an open air cinema, a recreation hall, a canteen, a billiards room, a library, a civic hall and a swimming pool.

Only continued exploratory drilling will show how extensive are the uranium deposits but, so far, operations indicate that the Radium Hill area is destined to become one of the world's important sources of uranium. Today, the output of uranium oxide is approximately 450,000 lb. a year. The whole output is sold to the Combined Development Agency of the United States and the United Kingdom, which advanced part of the capital for the establishment of the industry. The Agency will continue to take the entire pro-

duction until 1962. Other major uranium deposits in Australia, chiefly at Rum Jungle in the Northern Territory and Mary Kathleen in Western Queensland, can be exploited by surface mining. At Radium Hill the bulk of the ore is in three main veins, dipping at angles of 30 to 70 degrees and averaging 4 ft. in width, and has to be mined by conventional underground mining methods.

Mine-head buildings—the crushing machinery, laboratories, power station and administrative offices—are clustered around the steel headworks about two miles from the town itself. The mine has been developed under the direction of a young New Zealand mining engineer, Mr. T. A. Rodgers. Its main shaft is 850 ft. deep and this is now being taken down to 1,300 ft.

Ore is hauled up the main shaft to the headworks, tipped into bins, and fed into a crushing machine to begin the series of production processes designed to remove waste ore and so to reduce the bulk that has to be carried to the extraction plant at Port Pirie, 202 miles away, where the railway provides a link with the nearest port.

The extraction plant at Port Pirie, built on a site reclaimed from tidal marshlands, has been in production since 1955, and operates continuously seven days a week. Years of research and development work in the Department of Mines laboratories went to finding the most suitable extraction methods for the complex uranium ore. There are three main stages: dissolving the uranium-bearing mineral, the separation of the liquor carrying the uranium, and the separation and purification of the uranium oxide itself.

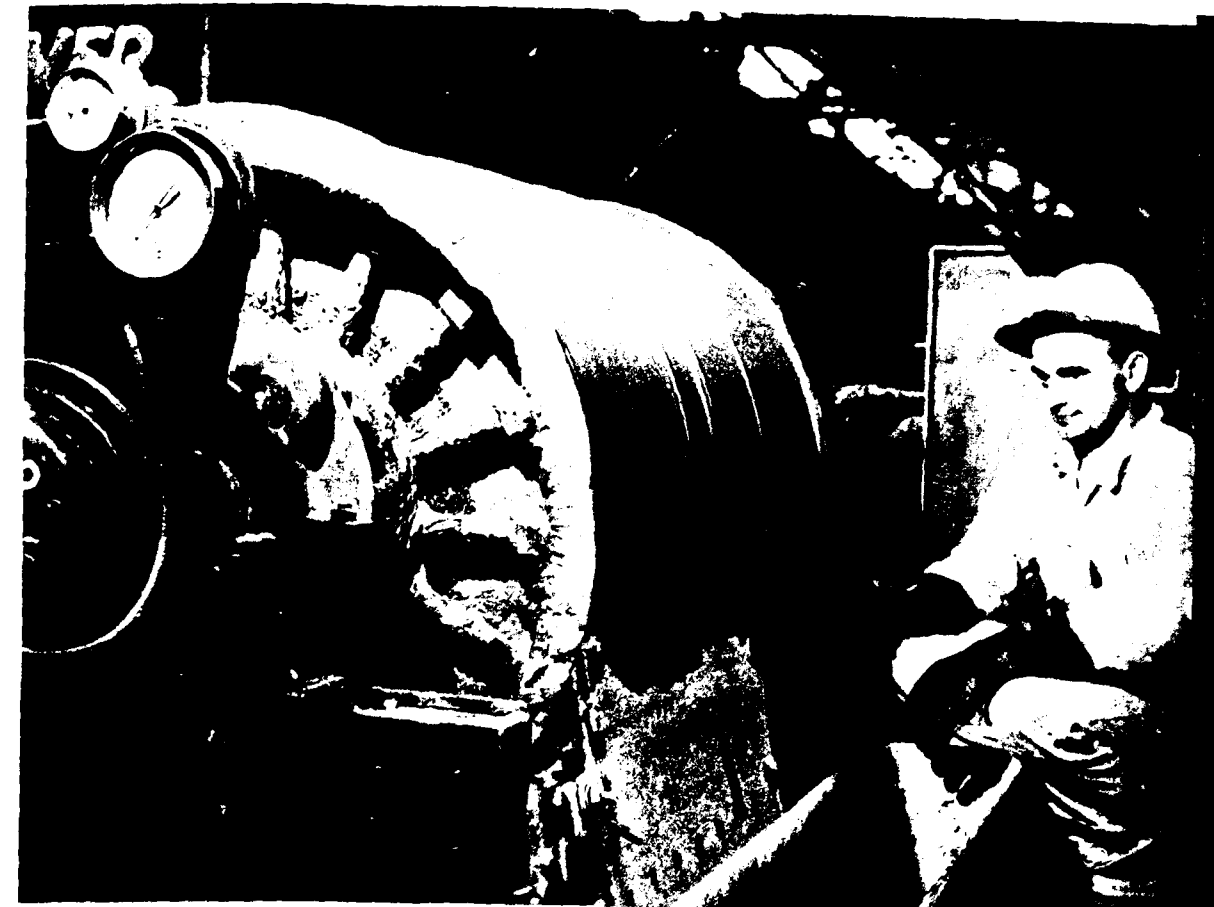
Drying the Uranium

After purification, the moist yellow uranium oxide powder travels on a stainless steel belt through a dryer in a temperature of 500 degrees Fahrenheit. It is then discharged down a chute into 500 lb. drums ready for shipment. Samples are taken at every stage for laboratory testing.

Uranium oxide is the most usual form in which the material leaves mining establishments. A further, difficult process, involving the erection of costly plant, is to convert this into rods of pure uranium metal. At present no machinery exists in Australia which can do this, but atomic energy authorities consider that they must have such equipment in the near future.

Lacking oil and adequate coal of its own, the state of South Australia sees the successful development of its uranium industry as a stride towards the erection of an atomic power station, using South Australian uranium. Already the South Australian Government is sending technical staff to atomic energy training establishments in Britain in preparation for the time when their own atomic plant will be installed.

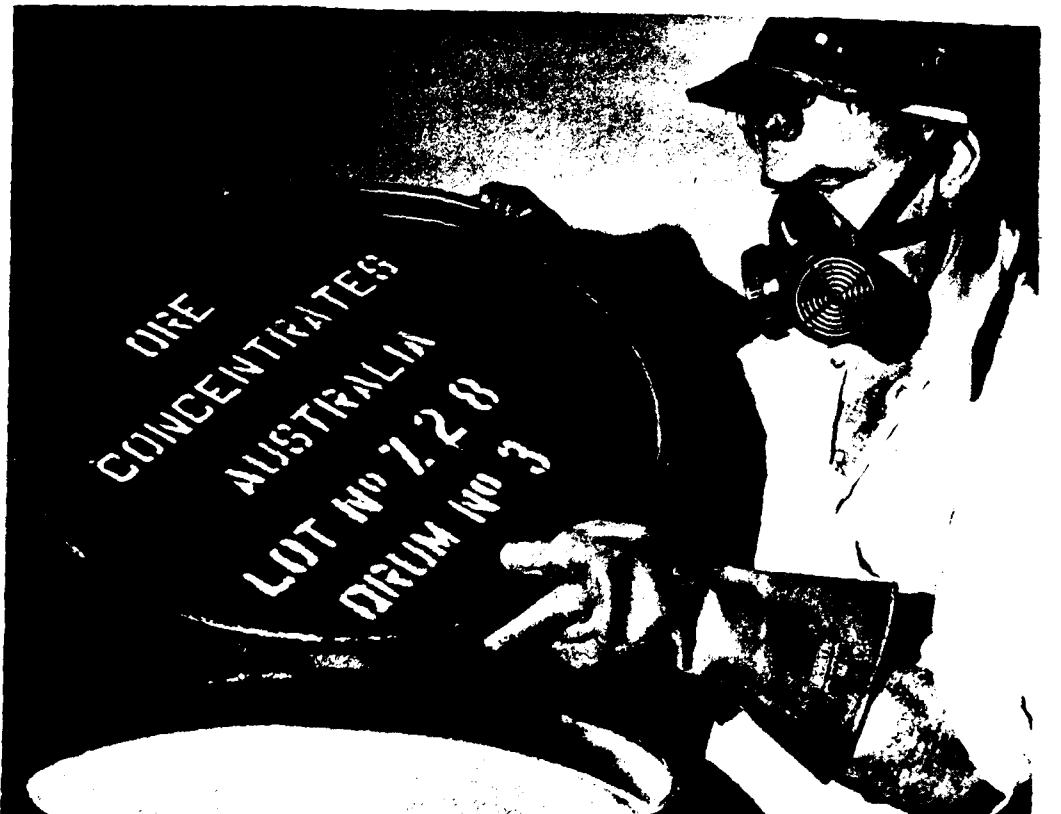
URANIUM OXIDE is sealed into 500 lb. drums for shipment after the processes of separation, purification and drying at 500 degrees Fahrenheit.



RUBBER-LINED tanks packed with synthetic resin beads which attract and hold the uranium are used in this specialised section of the Port Pirie plant. The method of extraction is the result of years of research work.



PORT PIRIE extraction plant, built on reclaimed land on Spencer Gulf by the South Australia Mines Department at a cost of £1,500,000. It operates throughout the week and has an annual output of 450,000 lb. of uranium oxide.



HEAD FRAME tops the main shaft at Radium Hill mine, which is being deepened to 1,300 feet. Preliminary treatment at the mine to reduce the extraction of waste produces a black charcoal concentrate of high uranium content which is transported to the Port Pirie extraction plant.

BORING shot holes in the uranium vein at the 700 ft. level. Tunnels have been dug from the main shaft at seven levels, and all of them are regularly tested with geiger counters.



The Vigour and Versatility of Hong Kong

Resettlement Schemes Bring New Trade and Industries

ALTHOUGH it is but a tiny spot on the map, Hong Kong has the distinction of being one of the world's most densely populated areas. The city also holds a key position in world trade.

Once it was a desolate rocky area, ceded to Britain by China in 1841; today the Colony supports over 2.5 million people—a population larger than New Zealand's—in an area with a theoretical capacity of only 1.2 million. And out of a total 391 square miles there are only 62 which are not too steep or swampy for building purposes.

Hong Kong was originally established as a place from which merchants could trade in security with China. Round her large and almost land-locked natural harbour warehouses were built, while shipping, financial and insurance services grew up, making the Colony a major port and banking centre.

Within Hong Kong's borders, men of all religions have always been able to worship as they please, and the mainly Chinese population has maintained its own customs,

sciences and arts. Hong Kong has long provided sanctuary for refugees from across her borders, whether they were fleeing from the Revolution of 1912, from Japanese invaders, or, more recently, from political upheavals in China. Between 1945 and 1956 alone, some 700,000 of them sought shelter in the Colony.

Hong Kong's versatility and vigour are evident in the way she tackles the enormous problems of providing for her people. Because of controls over the export of strategic goods from the Western world, and because of China's own economic policy, the traditional trade with China has had to be replaced by trade with other countries. At the same time, there has been an industrial revolution, made possible partly by harnessing the surplus labour, the new techniques and the capital that some of the political refugees brought with them.

In addition to the traditional shipbuilding and repairing industries which appeared with the development of Hong Kong, there came into being many factories and workshops producing, from imported raw materials, such goods as rubber and canvas footwear, paints,

flashlights, batteries and bulbs, enamelware and vacuum flasks. Over 3,300 of these factories now employ some 147,000 people, compared with 1,160 employing 60,000 in 1948. At least half the total population of Hong Kong is now dependent in some way on industry. Nor have the Colony's natural resources, such as they are, been neglected. By helping the fishermen to mechanise their boats, and by improving irrigation, the produce of sea and soil is being increased.

To erect buildings in Hong Kong one must first hack out a site in the steep rocky hills, or reclaim land from sea or swamp. This has not only been a handicap to industry, but has also thrown into relief the grave difficulty of providing housing. Few immigrants can find or afford accommodation, and many thousands of refugees live in pathetic and densely packed shacks built of tin, cardboard, sacking and any other material available at little or no cost, in grossly unhealthy and inflammable conditions. Government resettlement in specially built bungalows and multi-storey blocks had reduced their number by over 205,000 by 1957, and schemes for resettling a further

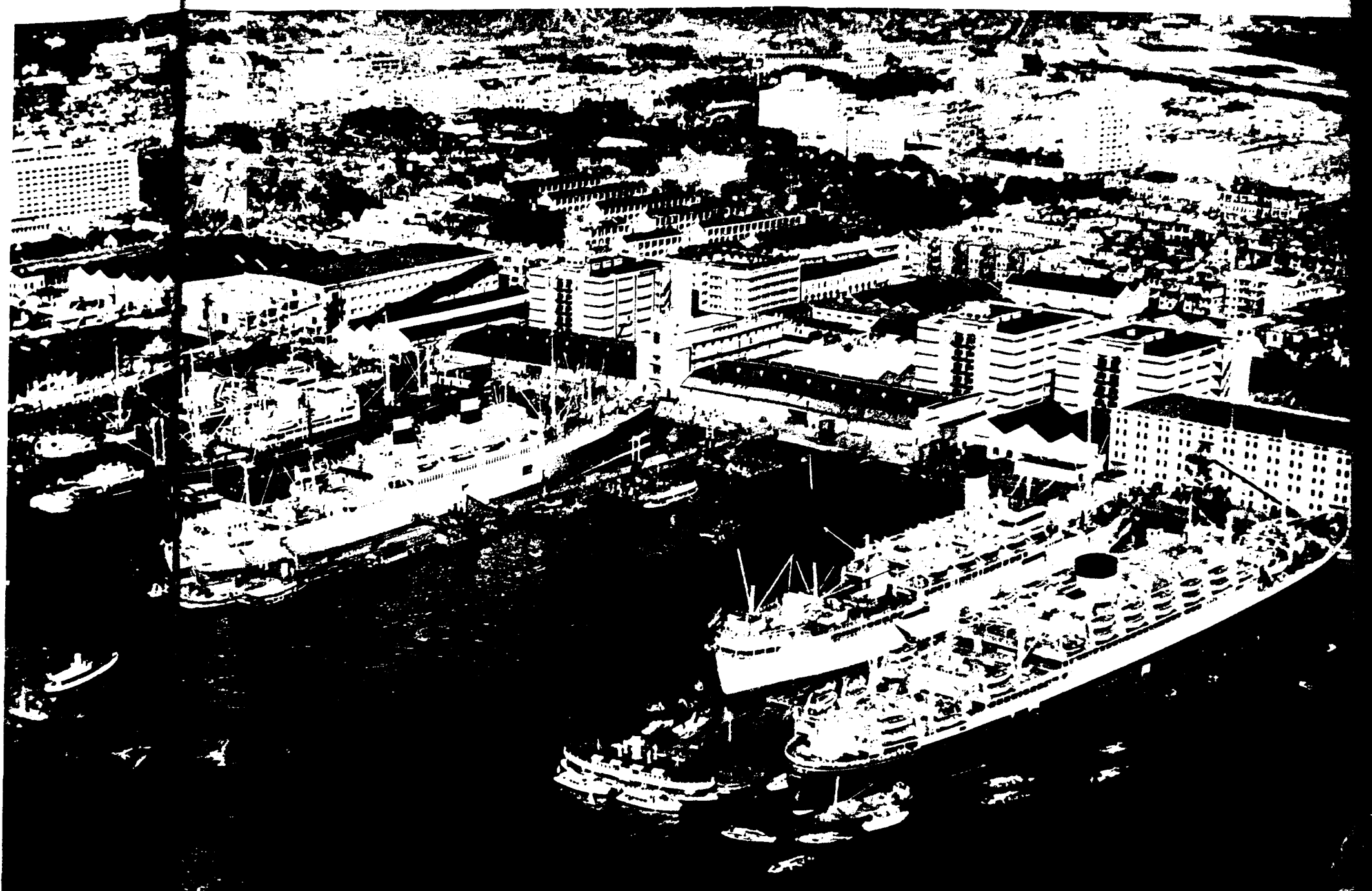


IVORY CARVERS pursue their ancient skill in many Hong Kong workrooms. At least five years' apprenticeship is required for this delicate craft.

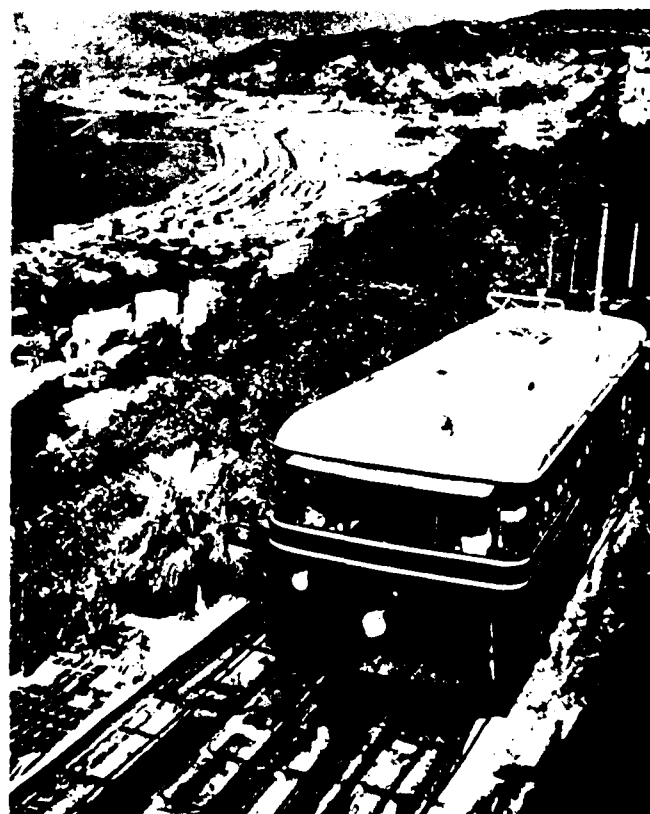
85,000 were in hand. But the provision of land for this purpose, as well as for industry, and finding the means to create social services for these people are among Hong Kong's most pressing difficulties. In overcoming the loss of trade with China, and in accepting refugees, the Colony has both suffered and been enriched. Communist China can directly see here the philosophy and practices of the free world.

MODERN air-conditioned blocks of flats and apartment houses such as this are being built everywhere in Hong Kong, visible evidence of the vigour with which her housing problems are being tackled.

KOWLOON WHARF, Hong Kong, can accommodate half a dozen big ocean-going ships. The spacious warehouses that line the waterfront are equipped for the storage of every kind of cargo.



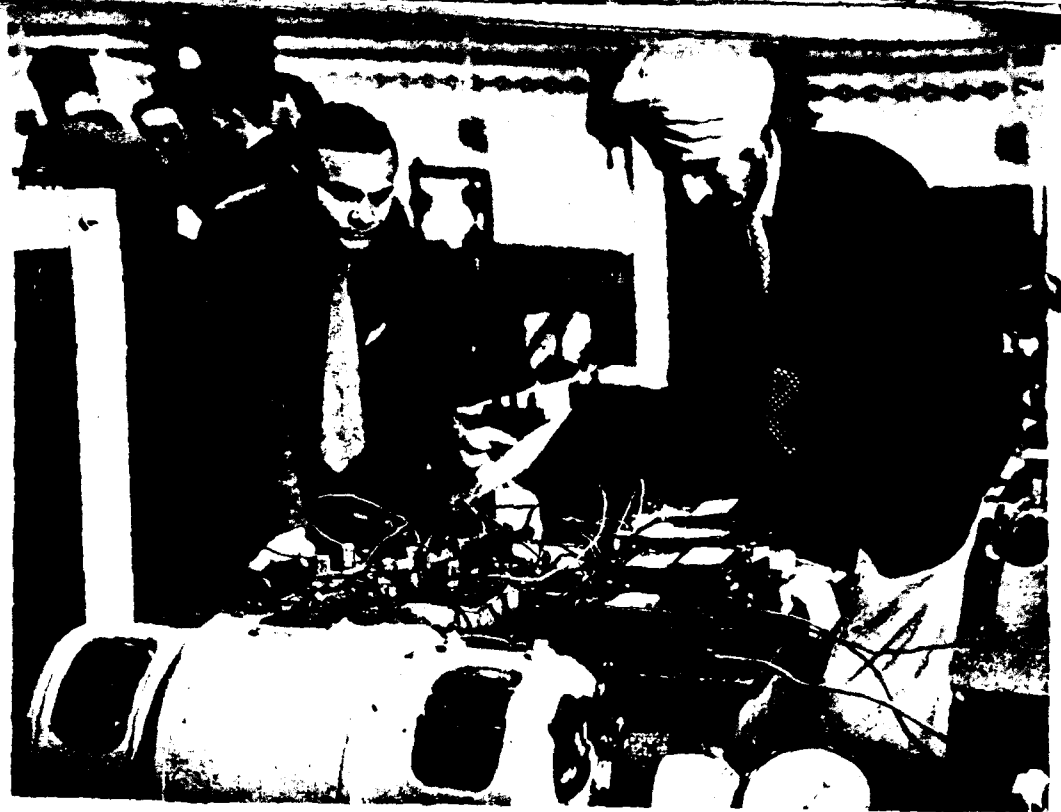
WITH STEPS rising steeply upwards, with overhanging balconies and crowded street-vendors' stalls, old streets like this in the Victoria district make a sharp contrast with the city's latest buildings.



VICTORIA PEAK, reached by cable-car railway, provides a panoramic view of the city. Hong Kong is one of the world's most densely populated areas, hemmed in by sea, swamp and rocky hills.



THREE students who have travelled half across the globe to study in Glasgow. Above: Yong Eng Low, from Singapore. On right: Amitava Chaudhuri and Raj Pal Singh (wearing turban), both from India.



Technical Training in Scotland

Commonwealth Students at a Famous Glasgow College

THE Royal College of Science and Technology in Glasgow is a name that links Scotland with many countries of the Commonwealth. Founded in the eighteenth century, the College has become one of the greatest technical institutions in the world with more than 5,000 day and evening students, many of them from overseas.

Typical of these is Mohammed Arif Qureshi, one of eleven students from Pakistan, who is a 28-year-old assistant engineer employed by the West Punjab Works Department and a graduate of the Punjab University. He heard that a unique course for qualified engineers had recently been established at the College, and thought that this would be particularly useful training to add to his qualifications. Now he is one of a seven-man international group, studying Environmental Control Engineering and Resource Utilisation. Other members of the group come from Malaya, Uganda, Brazil, the U.S.A., Northern Rhodesia, and there is one Scottish student.

Students from India form the largest group from the East. There are more than



COLOMBO PLAN student Cedric Koch of Ceylon is one of the College's 3,500 evening students. He is seen here in the workshop of a Clyde shipyard.



GRADUATE Mohammed Arif Qureshi of Pakistan pauses by the notice-board where posters announcing many college activities are displayed.

ninety of them, a happy and popular College group. One noticeable example is the tall athletic Raj Pal Singh from Chandigarh, a graduate and enthusiastic tennis player, who is completing the first year of his electrical engineering course, and whose father was a graduate of Glasgow University.

One man who still finds the Scottish winter rather cold is 20-year-old Yong Eng Low from Singapore, a keen badminton player who is in the first year of his architectural course. His uncle studied medicine in Edinburgh and he had heard a great deal

about the training colleges of Scotland. When the spring sunshine returns, Yong Eng Low hopes to travel about the countryside to see something of its historic towns and castles.

When the classes for the day have ended, work still goes on in the College. Some experiments in the laboratories must be kept going, research continues, and, during week nights, about 3,500 evening students come in for part-time instruction. Among these is Cedric Koch from Colombo, Ceylon, a 42-year-old employee of the Colombo Port Commission. He has been working for the past two years in a famous Clyde shipyard as a Colombo Plan trainee. In the evenings he studies hydro-mechanics, workshop organisation and industrial history at the College for his Higher National Certificate.

The common link for these overseas students, and for many thousands of others, is the Glasgow College. They have all found a warm welcome among Scottish students as well as from their instructors, and have discovered that the warmth of Scottish hospitality more than compensates for the chill of the northern winter.

PART of the building that houses Glasgow's Royal College of Science and Technology, one of the world's greatest technical institutions. A new £5 million extension adjoins it. The staff numbers over 500.



WATER SCOOTER designed in Britain has a hull made of reinforced glass fibre, with moulded blocks of expanded polystyrene to increase buoyancy. It is powered by a 75 c.c. petrol engine and capable of a speed of 5 to 6 miles an hour.



ELECTRIC HAIR DRYER for ladies designed by a London firm incorporates a sleeve and hood to carry warm, dry air from the machine to the hair with the minimum of wastage and the greatest possible convenience for the user. Called the "Fair Lady", this dryer is supplied in many colours and weighs only 1½ lb.



"THE POODLE BRUSH" is the name given to this triple-headed duster for the slats of venetian blinds, which are becoming increasingly popular in many countries. The brush cleans six surfaces at a time and is made of soft goat-hair which will not scratch the delicate finishes of some venetian blinds. Rubber buffers and sleeves cover the metal parts.



FASHION FOR SPACE

This volunteer at the Royal Air Force Institute of Aviation Medicine in England is trying out a new system of temperature control for the head. Delicate instruments are recording the temperatures inside his mouth, on his upper lip, cheeks, temple and head. This is part of research work leading to the design of pressure suits and cabins which will ultimately make it possible for human beings to live in space, far above the earth, where they must be protected from extremes of heat and cold.



LIFE-SAVING BABY COT, completely enclosed, self-inflating and with its own self-erecting hood and canopy affords protection for babies involved in aircraft or shipping accidents. Holes in the top allow ventilation but keep out the water. On left: The child, wrapped in its blanket, is securely tied into the cot before it enters the water.

Commonwealth TODAY

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British Textiles in Canada

Worsted cloths made in Yorkshire are examined by Mr. W. A. Cook in the showroom of his clothing shop in Toronto,

Rear Admiral R. D. Kestel, Flag Officer
Fleet, from his old flagship I.N.S. Delhi
Navy's newly acquired cruiser I.N.S. Mysore.
Navy's flagship was formerly H.M.S. Nigeria.

Country Doctor of Law degree in Canada
when is the Vice-Chancellor, Sir John Metcalfe

No.
58

Commonwealth TODAY

Incorporating TODAY

NUMBER FIFTY-EIGHT

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TRADEWINDS Commonwealth Industrial Notes

The International Nickel Company of Canada is to develop, over the next three or four years, two new mines which together will constitute the biggest nickel-producing operation in the world, apart from those at Sudbury, Manitoba. The new mines are in the Mystery-Moak Lake area in North Manitoba and will be known as the Thompson and the Moak Mines. They are about 400 miles north of Winnipeg and 950 miles north-west of Sudbury. Initial production is expected in 1960; the plans include a large power plant at Grand Rapid on the Nelson River.

Sydney's University of Technology is to become the University of New South Wales—the second university in that State. It is the largest institution in Australia for the training of technologists, scientists and engineers.

Australia's first plant to manufacture tin-plate was opened at Port Kembla, New South Wales, recently. The plant, built at a cost of £8 million, will produce 72,000 tons of tin-plate a year—about 60 per cent of Australia's requirements. Another tin-plating plant is now to be built at a cost of £10 million. It is expected that in six or seven years' time this may supply not only all Australia but all New Zealand's tin-plate as well.

An important New Zealand industrial development will begin with the mining of coal from the bottom of Lake Kimihia, near Huntly. It is believed that this undertaking will make coal-mining history. A £120,000 cutter suction dredge will be used to take two 30-ft. thick slices off the overburden under the lake. Mounted on a pontoon the dredge will have a 24-in. diameter propeller cutter at the end of a long shaft. This will be lowered into the silt and the churned up solids and water will be pumped away by pipe.

U.K. Locos for India. Twelve 3,000 h.p., 111-ton electric locomotives have been ordered by India's Railway Board, New Delhi, from English Electric Co. Ltd., London, for the Howrah-Burdwan electrification project. These will be the first 3,000-volt electric locomotives in India.

Three teams of Indian experts on planning have been visiting Ceylon to advise the Government on planning. They include statisticians, economists, and members of the staff of the Planning Commission of India who have experience in handling India's Five Year Plan.

A new production record was established in 1957 by India's cotton-textile industry. In cloth production during the year was 1,000 million yards compared with 22 million in 1956, but yarn production rose by 100 per cent.

Karnaphuli Paper Mill, East Pakistan, to produce the entire requirements of its indigenous raw materials during 1959-60. In the current financial year the mill has imported more than 5 per cent of the total production from abroad. In the previous year it imported 50 per cent.

Pakistani Chemicals. A sulphuric acid plant, output 10 tons of commercial grade, 98 per cent purity acid a day, has gone into production at Karnaphuli Paper Mill, East Pakistan.

About 11,000 tons of plastic goods are being produced every year in Pakistan. The industry, which did not exist at the time of independence, now has about 90 factories.

Ceylon's Milk Board has ordered a butter-making plant from a United Kingdom firm. This will supply all local demands. Imports of butter—chiefly from Australia—were valued at Rs. 4.6 million in 1956.

Equipment worth £1,700, sent by the United Kingdom under the Colombo Plan, was installed in Rangoon University's Geology Department.

A Survey Team sent out from Canada under the Colombo Plan terms is being entrusted with making of a comprehensive survey of Burma's highways. Canada is also supplying a number of diesel shunters, of Canadian manufacture, for Burma's railway marshalling yards.

COMMONWEALTH STAMP CORNER

CEYLON

THE early stamps of Ceylon have always been popular with philatelists and, in 1938, a collection of them was sold at a London auction for £12,750. Today the same collection, if it could be re-formed, would be worth several times that amount. Some of the first designs were, in fact, a strange mixture: for the portrait of Queen Victoria which was their central feature had been engraved originally for use on stamps of the Ionian Islands, then a British possession, and the frame for the portrait was that used for early Tasmanian stamps, with the inscriptions amended.

It was not until 1935 that Ceylon issued its first pictorial stamps. They showed views of the island's beautiful scenery and historic buildings. Among the designs, which were used again in 1938 for the first George VI issue, was one showing the famous mountain Samantakuta, also known as Sri Pada or Adam's Peak, a famous place of pilgrimage.

When Ceylon's new constitution was introduced in 1947, four special stamps were issued on the occasion. Among their designs was a view of Adam's Peak and one of the Parliament building in Colombo. Interesting as these designs were, they represented only nine per cent of the total production of Ceylon, and a book, pen and ink designs, which represent the laws of the island, were included in all the stamps of this series.

On 4th February, 1958, Ceylon issued a new independent nation with

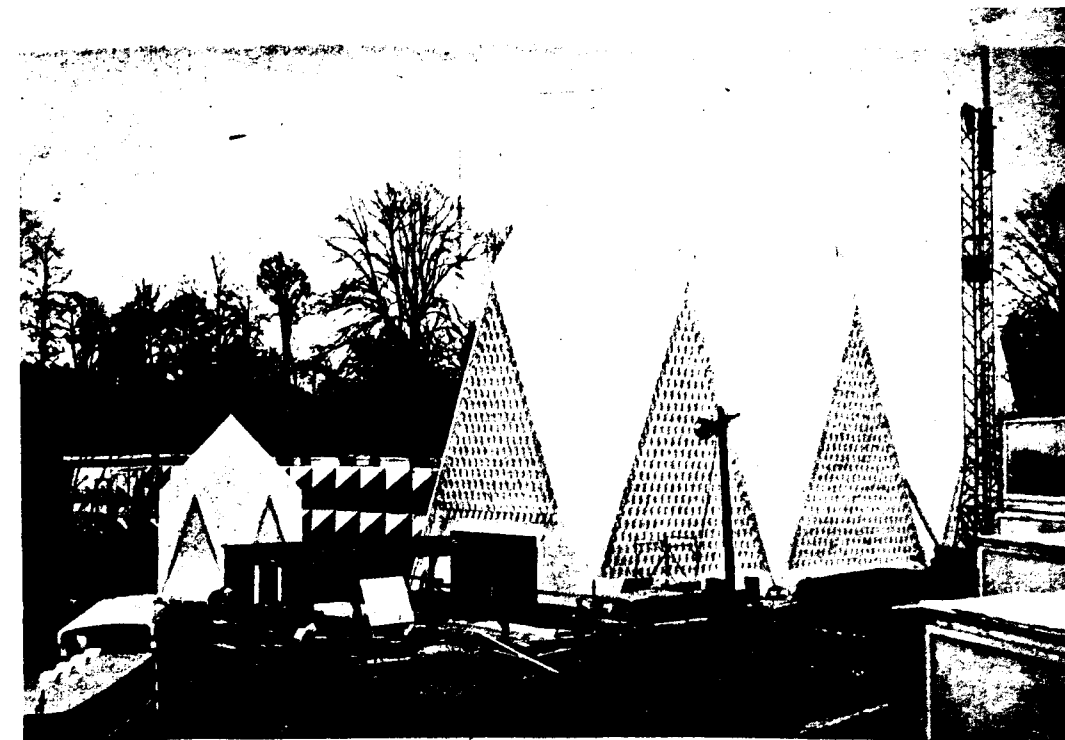
and a year later four stamps commemorated the anniversary. On two of them appeared a portrait of Mr. D. S. Senanayake, P.C., Prime Minister of Ceylon, and on the other two the

British Textiles in Canada

Worsted cloths made in Yorkshire are examined by Mr. W. A. Cook in the showroom of his clothing shop in Toronto,

REVOLUTIONARY system of wheel suspension with no springs, torsion bars, fluids or gases is the feature of this new British all-purpose 4-wheel-drive vehicle, the "Gipsy". It is especially suitable for agricultural and other heavy work.

Portrait of Rear Admiral R. D. Kestel, Flag Officer, Indian Fleet, from his old flagship I.N.S. Delhi. The Navy's newly acquired cruiser I.N.S. Mysore, which was formerly H.M.S. Nigeria.



BRITISH GOVERNMENT PAVILION at the 1958 Brussels Universal and International Exhibition includes the Crystalline Hall (right) and visitors' lounge, seen here before completion. The Exhibition (April 17th to October 19th) will provide 46 nations with a shop window, focusing attention on their achievements in all kinds of crafts and sciences.

Near and Far

NEW ZEALAND High Commission in London is soon to have a new home in the heart of the city's West End. In this aerial photograph of the Capital, a model of the new building (centre), not yet constructed, has been ingeniously superimposed on existing buildings.



AROUND THE COMMONWEALTH TODAY

MORE AMBITIOUS—MORE EXCITING—A UNIQUE INFLUENCE FOR PEACE

The People of the Commonwealth Gave a Warm Welcome to the U.K. Prime Minister and Lady Dorothy Macmillan on their Recent 35,000-mile Tour.

ONE of the most exciting and stimulating experiences of my life" was how the Prime Minister of the United Kingdom, Mr. Harold Macmillan, described the 35,000-mile Commonwealth Tour which he undertook in January-February 1958. Travelling an average of 900 miles a day, he stopped at 16 different places—in India, Pakistan, Ceylon, Malaya, New Zealand and Australia. A few months earlier Mr. Macmillan had also paid a short visit to Canada. He was accompanied on the tour by Lady Dorothy Macmillan and a small official staff, including Sir Norman Brook, Secretary of the Cabinet.

Mr. Macmillan described his purpose as "To see, to listen and to learn". In each capital informal and private talks took place on subjects ranging from economics and trade to the great issues of international politics.

"I expected to have—and I did have—valuable talks with my fellow Prime Ministers and with their Ministerial colleagues", said Mr. Macmillan. "What I had

perhaps not fully expected was the warmth of the popular welcome I was accorded everywhere." This was indeed a striking feature of the tour. Not only in great cities but also in wayside towns and villages the people gave their visitor an enthusiastic welcome. There were frequent informal and unscheduled stops to enable the Prime Minister to chat and shake hands with people in the crowds, and he made many impromptu speeches in addition to 30 speeches on more formal occasions.

Mr. Macmillan frequently spoke on the theme of the new Commonwealth and its role in an age of international cleavage and tension.

The last ten years, he said, had seen immense changes in the fabric of the Commonwealth. To an association of countries with a common racial origin there had been added new members of different histories, different backgrounds, different races and different creeds. Last year the Commonwealth welcomed Ghana and Malaya into its councils. These changes were evolutionary in character, and a natural development of the

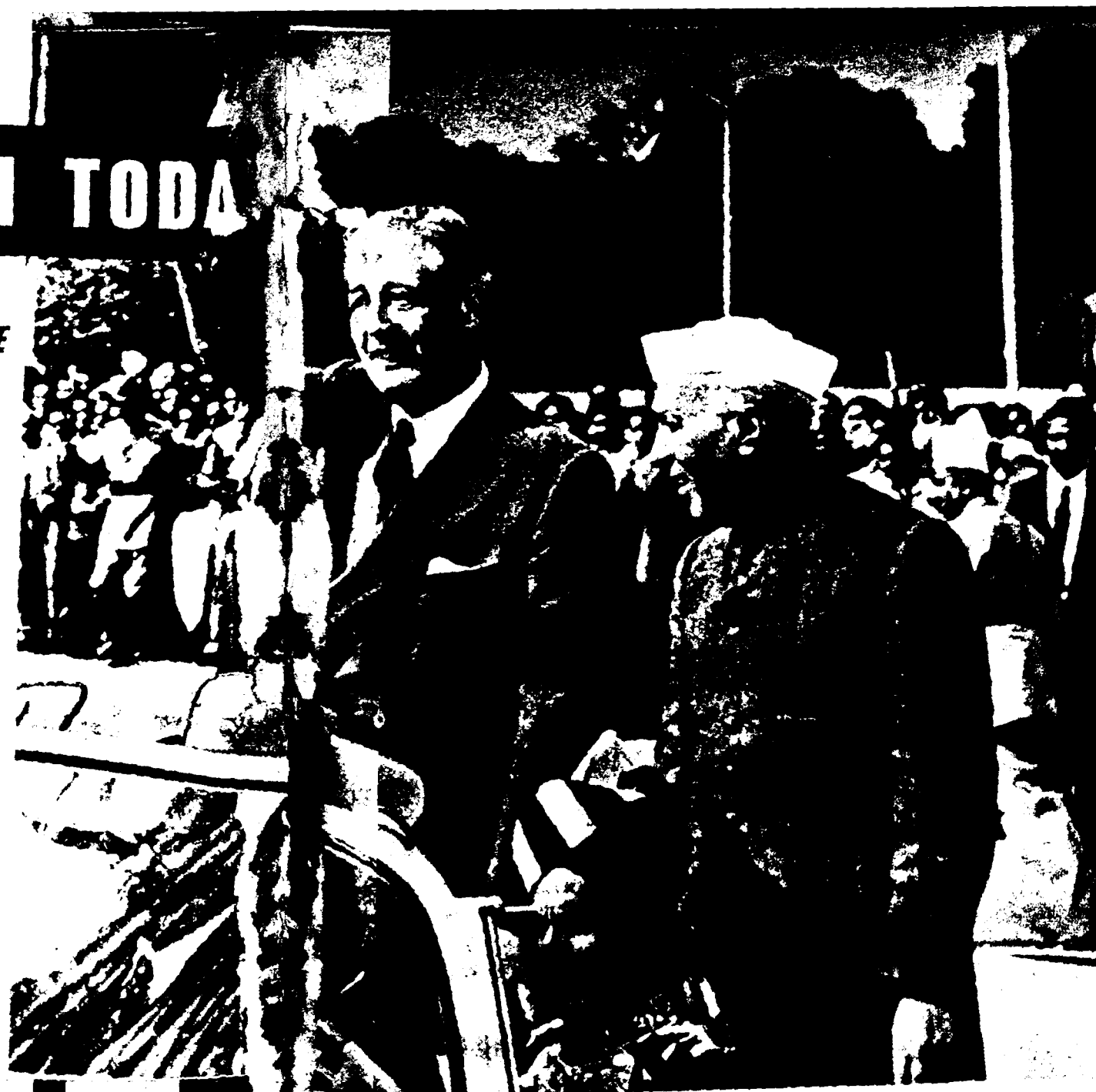
policy of the U.K. Government to lead her dependencies towards self-government.

"The new Commonwealth is something different from the old—something more ambitious and in a way more exciting. In a free association of independent peoples there is room for disagreement on this point or that. But our unity in the Commonwealth is strong because it is founded on the things we all ultimately believe in—the freedom of the individual under the law; the spirit of give and take in our Parliamentary institutions; and above all a belief that the machinery of the State exists to be the servant, not the master, of its citizens and to open up a wider and fuller life for the individual."

Because of its belief in these principles, the Commonwealth exerted "a unique influence in the great moral struggles which divide the world today".

"We live in difficult days. We face great dangers", Mr. Macmillan said on another occasion. "But, if these can be averted, the benefits of modern science offer boundless opportunities for improving the lot of mankind throughout the world. By working together—and only by working together—we can defend what we have and grasp these opportunities. We in the Commonwealth have learned over the years that the principle and practice of co-operation brings mutual advantage to us all. We shall continue to go forward in that spirit and if we can

(continued overleaf)



LADY DOROTHY, wife of the U.K. Prime Minister, listens eagerly to Mr. Nehru at a banquet he gave in honour of the visitors. In his speech, Mr. Nehru spoke of the relations between India and Britain as "a pattern from which perhaps others might profit."

WITH MR. NEHRU, the Indian Prime Minister, Mr. Macmillan waves to the welcoming crowds as they drive through the streets of New Delhi.



MAYOR OF SINGAPORE, Mr. Ong Eng Guan, with Mr. Macmillan when he visited Singapore on his way home from Australia. Mr. Macmillan also stopped at Singapore on his outward journey.

ESSEX, Mr. Macmillan with General Iskander Mirza (extreme left) and Mrs. Mirza (extreme right) at a reception in London. The Prime Minister is second from left.



IN SYDNEY, Australia, Mr. Macmillan gives a Press conference at the airport soon after his arrival. Below: With Australian Prime Minister, Mr. R. G. Menzies (right) Mr. Macmillan arrives at Federal Parliament House, Canberra.



1900 WOLSELEY examined by Mr. Macmillan was a participant in the Vintage Car Rally held during the Festival Week of Dunedin, New Zealand, which Mr. Macmillan declared open.



LADY DOROTHY examining an album of pictures of her visit to Ceylon presented to her by Mr. Bandaranaike, the Ceylon Prime Minister (holding the album), and Mrs. Bandaranaike. Right: Mr. Macmillan at a roadside village on his way to Kandy, in Ceylon.



TRAVEL RUGS with the coat-of-arms of Wellington, New Zealand, are presented to Mr. Macmillan and his wife by the Mayor, Mr. F. J. Kitts.



IN TASMANIA, island state of Australia, Mr. Macmillan attended the Royal Hobart Regatta, where he is seen with Master Warden Turner of the Hobart Marine Board.

succeed in spreading it among the free peoples of the world we may still succeed in winning the prize of enduring peace and prosperity."

Economic problems figured prominently in the Prime Minister's speeches. In particular he spoke of the need for capital. Britain, he pointed out, despite the severe drain on her resources in two world wars, had continued to be the main supplier of investment capital to the Commonwealth countries. Since the war she had been investing private and Government funds at the rate of £200 million annually. Some four-fifths or more of the total overseas investment in India, Pakistan and Ceylon had come from Britain. In Australia and New Zealand the proportions were two-thirds and three-quarters respectively.

But today, the Prime Minister pointed out, there was a world shortage of capital.

Britain would continue to do her utmost to provide capital, Mr. Macmillan said, but it was important that countries needing capital should offer conditions and prospects attractive to capital. The Prime Minister welcomed American investment in the Commonwealth countries. Other countries had also become great owners of capital, he said, and the more they lent abroad the better it would be. "It is an illusion to believe that the wealth of one country can be built upon the poverty of the rest. The wealth of any country is built upon the increase in the total prosperity of the whole world."



GEOTHERMAL PROJECT at Wairakei, New Zealand, where natural underground steam is being harnessed, was inspected by the Prime Minister, who is seen here with the Project Engineer, Mr. A. Fooks.

Training in Canada

An Increasing Number of Asians are Studying
in Canada under the Colombo Plan

UNDER the Technical Co-operation Scheme of the Colombo Plan, 712 fellows and scholars have received training in Canada. Their fields of study cover a wide range, including agriculture and mechanical farming, engineering, pharmacy, medicine and nursing, railways, highway and bridge construction and public finance. An offer of training facilities to fellows and scholars from Laos, Viet Nam and Cambodia has been made on an expanded scale because of the bilingual facilities available. The total spent by Canada on technical assistance since the beginning of the Colombo Plan (1950) amounts to over four million Canadian dollars.

The founder members of the Technical Co-operation Scheme are the United Kingdom (with its dependencies—apart from Hong Kong—in South and South-East Asia), Canada, Australia, New Zealand, India, Pakistan, Ceylon, and Malaya.

They have been joined by all the South and South-East Asian countries—other than China—and by Japan and the United States of America. The United States assistance is

channeled through its own aid programmes.

Operating alongside the Technical Co-operation Scheme in providing assistance are the United Nations and its specialised agencies. The United Kingdom territories in the area also receive assistance through other arrangements, such as the U.K. Colonial Development and Welfare Acts and the specialised services of the U.K. Colonial Office.

The Colombo Plan Technical Co-operation Scheme provides a framework for the exchange of technical assistance between participating countries. Activities are co-ordinated by a Council for Technical Co-operation, which is composed of representatives from member Governments. Its successive presidents have been drawn from Ceylon, India, Pakistan and Indonesia.

The Council is assisted by a Bureau, in Colombo, and its successive directors have come from the U.K., Australia, Canada and New Zealand. The Bureau maintains records of aid requested and received and advises member countries on any point of difficulty.



PAKISTANI technician Muhammad Munir, who has completed a Colombo Plan study course of aerial survey and mapping techniques employed in Canada, is supervised by Mr. A. M. Floyd at Surveys and Map branch of the Department of Mines and Technical Survey, Ottawa. In the background is Mr. Abdus Sattar,

seen operating a mapping machine under the supervision of another Colombo Plan trainee from Pakistan.



INDIAN NURSE Miss Pratima Hajra, who was studying under the Colombo Plan at the McGill University School of Graduate Studies, Montreal, is seen with a patient at the Queen Mary Veteran Hospital.

FIRST BURMESE to receive training in Canada under the Colombo Plan was U. Than Gywe (left), seen here with U. Maung Maung Win receiving instruction in the use of a timber press by Mr. D. E. Kenney at the Forest Products Laboratory, Ottawa.



DISCUSSING X-ray films with Dr. MacDonal at the Royal Victoria Hospital, Montreal, is Indonesian radiologist Dr. Leim Pok Djien. He was taking a postgraduate training course under the Colombo Plan.

A Photographic Tour of the Rhodesias

By S. D. JOUHAR, F.R.P.S., F.P.S.A.



Dr. Jouhar, who was born in 1901 in what is now Pakistan, came to the U.K. over 30 years ago and has lived here ever since. He is a busy medical practitioner whose chief hobby is photography. His name is well known in international photographic circles.

For nearly 20 years he has acted as judge for national and international exhibitions, including those of the Royal Photographic Society of Great Britain and the London Salon of Photography. A Fellow of the Royal, he is also a Member of the Council, and Chairman (1954-55) of the Pictorial Group. In addition he is a Member of the London Salon and Fellow of the Photographic Society of America and has provided many one-man shows for the major societies, as well as exhibiting regularly in all the more important exhibitions in U.K. and overseas, winning more than 100 trophies and certificates.

He is the author of a profusely illustrated book entitled "Jouhar on 35 mm. Picture Making", published by the Fountain Press, price 30 shillings.

PRIME MINISTER Sir Roy Welensky (second from right) with Dr. S. D. Jouhar at the opening of the Congress.

DURING the months of July-August 1957, I was invited as a guest of honour to the fourth Congress of the Photographic Society of South Africa to act as one of the Selectors of prints and colour-slides in connection with the Second Photographic Society of South Africa's International Salon of Photography.

This cultural event was organised by the Northern Rhodesian Photographic Association and took place at Livingstone, Northern Rhodesia. After a comfortable flight from London to Ndola in Northern Rhodesia, I was met by some of the N.R.P.A. (Northern Rhodesian Photographic Association) and P.S.S.A. Executives including Dr. Kin Bensusan (past President of P.S.S.A.) and Mr. Andrew Hayward (Chairman of N.R.P.A.). They took me in hand and, indeed, very nicely looked after me during the following extremely enjoyable six weeks' tour of various photographic organisations of the Central African Federation.

A variety of mainly pictorial photographic prints and transparencies had come from all over the world, mainly from Commonwealth countries. There were also many entries from Austria, U.S.A., China, Czechoslovakia, Finland, France, Hungary, Mexico, Portugal, and Russia. Out of a total of over a thousand entries, 215 were finally chosen for the Exhibition. Such severe pruning resulted in a very high standard of photographic work, both from the technical as well as the pictorial points of view. The variety of subject-matter—portraits, landscapes, architectural, table-top studies and so on—proved to be remarkably refreshing, especially when the Exhibition was viewed as a whole. The standard of work achieved by the Rhodesian and South African photographers compared most favourably with the best that reached us from other parts of the world.

Such was the encouraging attitude of the officials towards organised photography in the Federation that no less a person than Sir Roy Welensky, the Prime Minister of the Federation, travelled from Salisbury to Livingstone to officiate at the opening of the Exhibition, and later he attended the Congress Banquet at the Victoria Falls Hotel.



RAINBOW over the Victoria Falls, near Livingstone, where the popular photographic Congress was held. This picture of one of the most spectacular waterfalls in the world was taken by Dr. Jouhar.



PHOTOGRAPHING the Victoria Falls, Dr. Jouhar is seen using a reflex camera. He is celebrated as an exponent of 35 mm. photography. Right: Camera enthusiasts are boarding a launch for a photographic excursion on the Zambezi River.



The choice of Livingstone—with its flowering trees and bright gardens—as a venue for the International Exhibition and Congress was most appropriate. It afforded an opportunity to keen photographers to exercise their skill in capturing the scenic splendour of the country around. In addition to the 300-acre Game Park, the main attraction within easy reach was the world-famous Victoria Falls, a beautiful and awe-inspiring sight, proving a veritable paradise for the camera enthusiasts.

It is not generally known that there are at least a dozen or more amateur photographic and cine clubs and societies successfully functioning all over the Federation. The writer, apart from speaking at the Congress, had the privilege of addressing a number of the more important societies during his tour. These included the Roan Antelope Camera Club, Lusaka Photographic Society's Cine Club, Mashonaland Photographic Society, Mufulira Camera Club, Nkana-Kitwe Photographic Society and Bancroft Camera Club, Nchanga Photographic Society and Ndola Photographic Society. All the members appeared to take their photography very seriously. I had very full and attentive audiences; the number of questions asked and the discussions that followed each lecture were clear evidence of the keen interest generally displayed by the rank and file.

One of the social highlights during my brief but pleasant stay at Livingstone was a barbecue party and motor-launch trip up and down the mighty Zambezi River. Everybody thoroughly enjoyed not only the succulent steak roasted on an open charcoal fire but also the subsequent trip we made to explore the banks of the river. This excursion proved very fruitful from a scenic and photographic point of view. Cameras, both cine and still, clicked all around and I dare say that miles of filmstock must have been used up!

To give me a quick survey of their interesting country, my hosts, Mr. and Mrs. A. Hayward of Luanshya, organised a motor tour of the Federation. We were able to cover some 2,500 miles in ten days. During this hectic trip we could stay for only two nights at the well-organised camps in the Wankie Game Reserve—the vast animal and



DR. K. BENSUSAN, past President of the Photographic Society of South Africa, was one of Dr. Jouhar's hosts. He is seen with a friendly crow in the Wankie Game Reserve, Southern Rhodesia.

bird sanctuary in Southern Rhodesia, where all manner of wild life abounds unmolested in their natural habitat. Elaborate care is rightly taken by the authorities to protect and preserve the wild animals and birds; shooting, trapping or disturbing the game are strictly prohibited in that area. "Shooting" with a camera, however, is permitted, and it was a thrilling experience to stalk and photograph all sorts of wild animals—lions, elephants, giraffes, wart-hogs and deer—from the comparative safety and comfort of a slowly advancing, enclosed car.

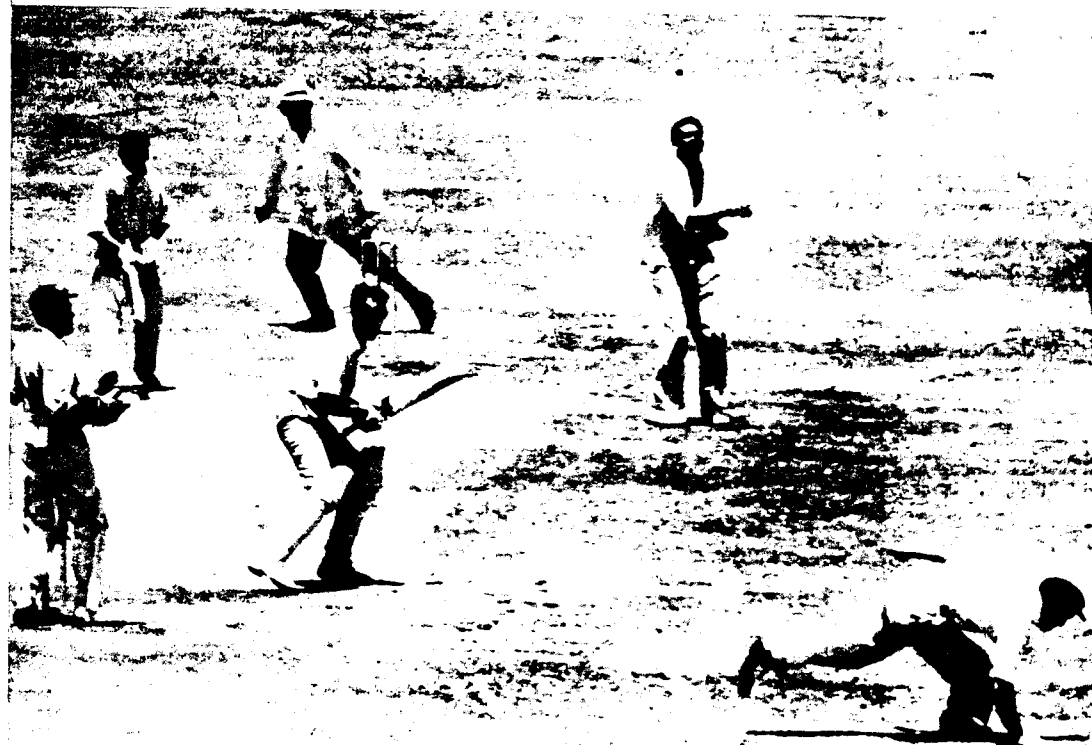
During the motor tour, some of the main towns of the Federation, such as Bulawayo, Gwelo, Que Que (fascinating names!) were also taken in our stride. Wherever I went, I was favourably impressed by the tremendous social and industrial progress that is rapidly going on out there. Striking buildings, hotels and factories appeared to be springing up everywhere, especially around the copper-mining and industrial centre.

The people I came across appeared to be full of enthusiasm about the bright future of the Federation. Much, I learned, had been achieved in a comparatively short time; but the country is so vast and so rich with potentialities that there is no doubt that there is still much to be done. The industrial and agricultural expansion is a part of the Commonwealth.



PARTY to welcome Dr. Jouhar (seated) was held by the delegates. Over a thousand photographs from many countries were entered for the Exhibition.

Cricket in the Commonwealth



JOHN WAITE, who partnered Jack McGlew in South Africa's big stand during the second Test against Australia in Durban, snicks a ball from Richie Benaud past Bob Simpson in the slips.



"LOVELY CRICKET" IN THE WEST INDIES

IN most Commonwealth countries cricket is an interest and a pleasant pastime; in The West Indies it is almost a passion. In every town and village you will see small boys at play: their bat may be a bit of rail fence and their ball a bundle of oddments, but their manner of batting, bowling and fielding is full of style, elegance and a kind of bubbling enthusiasm.

Boys like these have grown up into such colourful heroes of pre-war cricket as George Headley and Learie N. Constantine, now a member of the Trinidad Legislative Council and once the most dynamic of all West Indian cricketers, acrobatic fieldsmen, colossal hitters, and bowler of terrific speed. His father, too, was a fine cricketer.

The love of cricket shows itself in the gay, excited crowds who, at times of Test or inter-Colony matches, throng such beautiful island grounds as Kensington Oval, Bridgetown, Barbados; and Sabina Park, Kingston, Jamaica. Now that so many West Indians live in England, companies of effervescent laughing spectators bring additional colour to the English grounds.

Of the main West Indian territories, all have produced fine cricketers: Jamaica, George Headley and A. L. Valentine; Trinidad, the Constantines, father and son, J. B. Stollmeyer and Sonny Ramadhin, Christiani and Piraudeau; and Barbados, John Goddard, the magical "three W's", Worrell, Walcott and Weekes, and Garfield Sobers, the undoubted hero of the moment.

Touring sides visited England from the turn of the century and Test match status was granted in 1928, but the true peak of West Indian cricket came in 1950 when their visiting team overwhelmed England's best. Triumph was due to the keen captaincy of Goddard, the inspired

batting of the "three W's", and above all the spin bowling, celebrated in the best known of all Calypsos, of "those little pals of mine, Ramadhin and Valentine".

In their visit of 1957 under the same captain and displaying the same stars, the West Indies were less fortunate. Not all the W's found their form at once and the bowling lacked its old, devastating sting. Moreover, they found England armed at all points, with their strongest side for years. Nevertheless, English people saw two young cricketers who may carry West Indian cricket to even greater heights: Garfield Sobers, the tall, graceful left-hander who recently against visitors from Pakistan passed Sir Leonard Hutton's Test record (1938) of 364 by one run; and O. G. (Collie) Smith, a stocky, broad-chested all-rounder, who scored centuries in his first Tests, both at home and in England. West Indian cricket has had its ups and downs, but no other part of the Commonwealth is likely to produce cricket which gives more sparkle, gaiety and sheer enjoyment.

AUSTRALIA'S TRIUMPH IN SOUTH AFRICA

By J. C. Vlok, Cricket Writer, Pretoria News

NEVER before has a visiting Australian cricket team scored such a complete triumph in South Africa as did this side led by youthful Ian Craig.

The vital statistics of this Australian tour of South Africa are as brief as they are illuminating. The tourists won three out of the five Test matches, the remaining two being drawn; and they did not suffer a single defeat in any of their other matches. Some of these were won with consummate ease.

It is true that the visitors came dangerously close to defeat on a few occasions but it was then that their splendid fighting qualities asserted themselves. This flexible, resilient combination, whose prospects in South Africa were described—even by some Australian sports writers—as "hopeless", did as well as any of their predecessors statistically.

They not only triumphed over the pessimistic Australian critics, but they also put out of countenance those complacent South African critics who contemplated celebrating a victory that was never to be. The Australians, by their very approach to the game, by their predilection for aggression, and their obvious distaste for safety-first methods, set South African batsmen an example which, if followed, would do much to improve the game in South Africa and elsewhere.

It would be wrong to single out for praise the individual players who were outstanding without due regard to the background of sound captaincy and superb team spirit. Against that background, all-rounders Richie Benaud, Alan Davidson and the dependable Ken Mackay grew in stature as the tour progressed. Benaud and Davidson took 55 Test wickets between them, made runs when runs were wanted and Mackay was the sheet-anchor in all instances when squalls threatened the Australian craft.

It is generally conceded in South Africa that this unsung team of Australians, despite some individual failures, was a much more dangerous combination than that of Peter May's England team which toured South Africa a year ago. Not only does their record confirm this view but it is also supported by the manner in which this record was compiled. Throughout the whole tour the Australians never waited for circumstances. They created them.

LEAPING HIGH to accept a throw-in is Franz Alexander, Captain of the West Indies side, but the throwing bad and Pakistani Waqar Hassan reaches home safe.

AUSTRALIAN Alan Davidson gets a touch to a ball from the South African pace bowler Peter Heine and is caught by wicket-keeper John Waite.



WEST INDIAN Garfield Sobers who, in the third Test against Pakistan at Kingston, beat Sir Leonard Hutton's world record (364) with 365 not out.



PAKISTAN'S PRODIGY Hanif Mohammad, who, in the first Test at Bridgetown, scored 337 runs—the highest score in a Test in the West Indies, at that time.

THE NATIONAL SPORT OF PAKISTAN

by Rumi M. Khan

PAKISTAN, the "babe" of the Commonwealth cricket family, reached Test match maturity in less than ten years. Pakistan's recent tour of The West Indies has confirmed the fact that her successes against England, Australia and India were no flukes. Sportsmen in every corner of the Commonwealth are indeed delighted that "the miracle of Pakistan" covers not only economic and political progress but cricket, too, and that the Pakistanis are among the most devoted subjects of King Willow.

It need occasion no surprise—for the land that is now Pakistan has cradled notable cricketers for more than half a century. Many figured in the Test teams of pre-Partition India. Their names spring readily to mind—those magnificent all-rounders Nazir Khan, Wazir Ali, Jehangir Khan, Amir Ilahi, Naomal Jeomal; that mighty fast bowler, Mohammed Nisar; that grand wicket-keeper-batsman Dilawar Husain, and a great many more.

Today, we have a young prodigy like Hanif Mohammad, Pakistan's opening batsman, who joined the ranks of cricket immortals with a marathon innings of 337, lasting 16 hours 13 minutes in the first Test against the West Indies at Bridgetown. The feat was achieved in the face of overwhelming odds.

But Pakistan's cricket does not consist of Hanif alone. In the contemporary team we have a judicious blending of seasoned Test "veterans" and inspired "novices". Their skipper, Abdul Hafiz Kardar, has a background of many years of cricket with Oxford University, Warwickshire and All-India Test Teams. A clever tactician, a level-headed leader and a superb all-rounder, Kardar has been the chief architect of Pakistan's cricket triumphs.

Then there is the loyal teamwork of his players. What better support could any cricket captain

desire than that given by, for example, Fazal Mahmood, Imtiaz Ahmed, Khan Mohammad, Alimuddin, Shujauddin, Wazir Mohammed and all the others? Fazal's 12 wickets for 99 runs in the Oval Test in 1954 helped largely to give Pakistan a victory over England—the first overseas team to gain such a success on the occasion of a first tour. This outstanding achievement won him the silver cup for the best individual performance of the year in English cricket, but he valued far more the thought that it had also gained honour for his country.

How has all this success been brought about? The answer is that Pakistan has adopted cricket as her national sport. The spirit of cricket, as taught to her by generations of English sojourners in her land, appealed to the manly souls of her own people. Moreover, from the outset, in 1948, Pakistan organised the game on traditional English lines, setting up her own Board of Control and local cricket associations. Colleges, clubs and armed services have centred their main sporting activities on cricket.

Rich and poor support the game everywhere, and the Government fosters it generously. There are cricket "camps" where promising young players are coached and their game improved beyond recognition, and where selected touring teams are given a final polish. Through the organisation known as the Pakistan Eaglets, scores of teenage players have spent months playing and learning good cricket in England each summer, and many of these are Test players.

The Pakistanis are due to tour Australia and England in the near future. They will be cordially welcomed, for by their skill, their grand team spirit and their exemplary sportsmanship they have proved to be worthy and attractive exponents of what I might call the greatest of all games.



PEOPLE

Pictures and stories of the people of the Commonwealth and their activities



GUEST OF CANADIAN TRADE MISSION

The Lord Mayor of Coventry, England, Alderman Mrs. Pearl Hyde (above), has been visiting Canada at the invitation of Mr. James Duncan, deputy leader of the Canadian Trade Mission which recently toured Britain. The Coventry City Council looks upon this visit as "a very fine gesture and a tribute to the Lord Mayor and to Coventry", and hopes that the visit will benefit trade between the two countries. Mr. Duncan was, until 1956, president and chairman of the board of Massey-Harris-Ferguson Ltd., which has a big tractor plant in Coventry. He is now Chairman of the Hydro-Electric Power Co. of Ontario, and an organiser of the Dollar-Sterling Trade Council.

BLIND LEADER ON WORLD TRIP

On a round-the-world trip is Mr. John Wilson, O.B.E., blind director of the Commonwealth Society for the Blind. Here with Mr. Wilson, who is seen examining a Braille map, is Mr. O. G. Forster of the Commonwealth Relations Office. Mr. Wilson has been visiting organisations for the blind in India, Pakistan, Ceylon, Malaya, Singapore, Hong Kong, the Philippines, Australia, New Zealand, Canada and the U.S.A. During the last three years he visited every British African territory. In West Africa the Society's work has included research into the dreaded river blindness. The Commonwealth Society for the Blind, formerly known as the Empire Society for the Blind, is now, by gracious consent of H.M. the Queen, known as the Royal Commonwealth Society for the Blind.



TRAINING YOUNG GHANAIA BOXERS

Mr. John William Roy, who coached the British Olympic team with great success in 1956, has been appointed adviser and coach to the Ghana Amateur Boxing Association. Mr. Roy is seen (left) giving a few useful hints to boxer Jimmy Lewis of Liverpool. Mr. Roy will travel widely, giving instruction and demonstrations to young Ghanaian boxers. He is organising their training facilities to help them to take part in the Empire Games, which are being held at Cardiff, South Wales, in July. Mr. Roy, aged 48, recently left the Royal Air Force after regular service. At the Melbourne Games his seven starters won five medals—two gold, one silver and two bronze.



CEYLONESE FOOD TECHNOLOGIST IN AUSTRALIA

Mrs. D. R. Perera, of Colombo, seen here with Prof. F. Reuter of the New South Wales University of Technology, recently completed a year's intensive study in food technology in Australia. She is the first holder of the Australian Women Graduates' Association fellowship. Formerly Irangani Agalwatta, Mrs. Perera married only six weeks before going to Australia; her husband is a lawyer in the Attorney-General's Department in Colombo. Mrs. Perera's 12-month fellowship, worth £A600, is available only to women graduates from South and South-East Asia, and one of the conditions is that the holders must travel throughout Australia. Her field of study was food preservation, content analysis and microbiology.



AFRICAN STUDENTS AT ATOMIC EXHIBITION

Mr. William Young of Sierra Leone (left) and Mr. Mamman Sule of Ankpa, Nigeria, who are both studying at Durham University, were among overseas students who helped to conduct parties of school children around an atomic energy exhibition held at King's College, Newcastle upon Tyne, north-east England. Mr. Young has been at the College for three years on a scholarship course in physics and mathematics, and Mr. Sule is in the third year of a scholarship course on civil engineering. The exhibition, "The Atom, 1958", showed by means of models and diagrams the many peaceful uses of atomic energy now being developed in Britain.

PAKISTANI CLERGYMAN STUDYING IN U.K.

The Reverend Khurshid Alam, a minister from Narowal, is the first Pakistani clergyman to come to Britain to study parochial life. In 1957 the Episcopal Senate of the Anglican Church of India, Pakistan, Burma and Ceylon selected Mr. Alam for a year's training in the parochial and social side of English church life. He is the fourth clergyman to visit the U.K. under the scheme, all the others being Indian. Since his arrival Mr. Alam has lived with several vicars in the Durham Diocese, and has given many talks to local organisations.



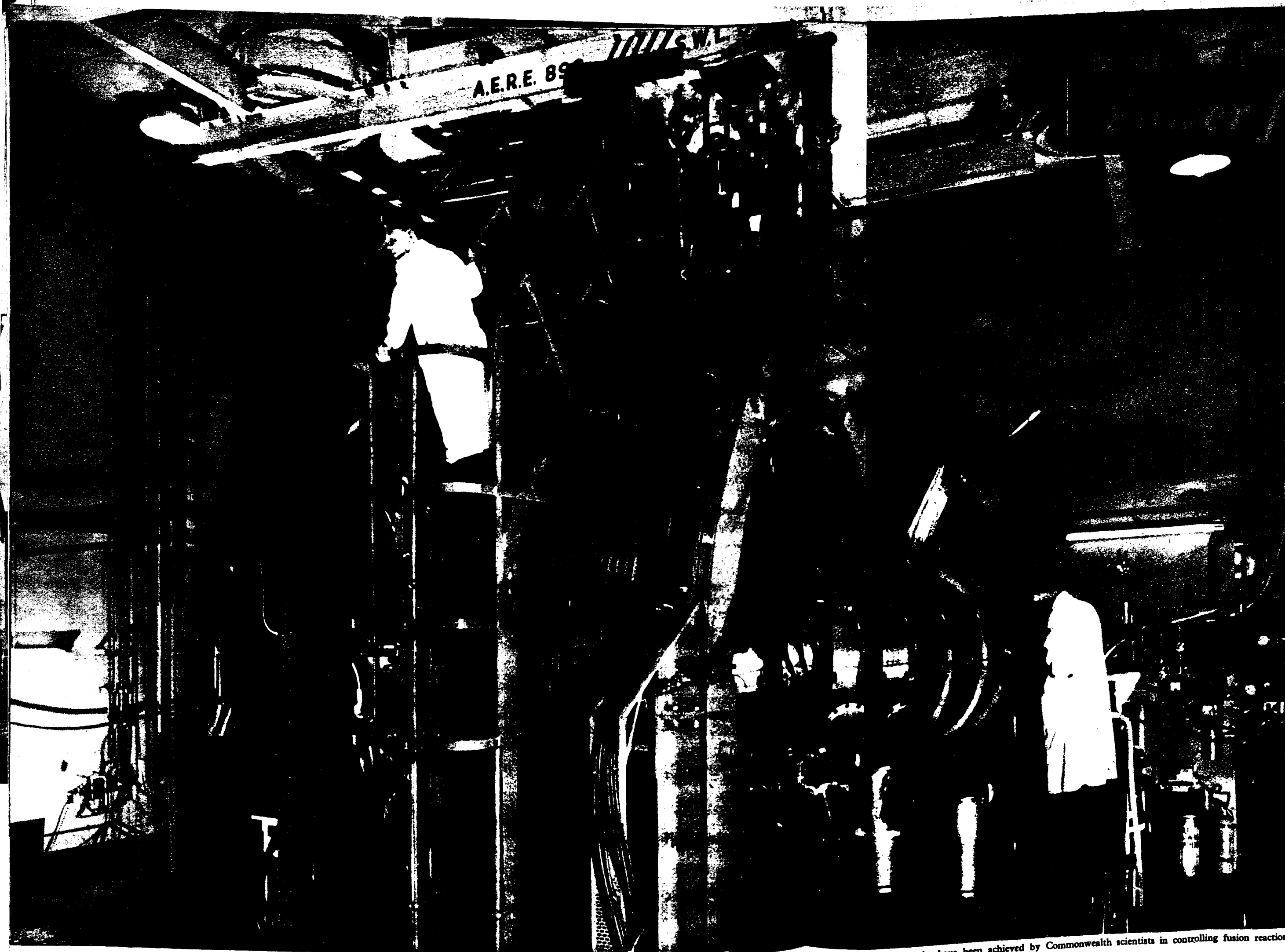
THIRTY YEARS IN UNIFORM

Head Messenger Mwendapole Kajilo, in his uniform of blue with red piping and the maximum of four good conduct stripes, salutes for the last time as he completes a record that few men can equal in the service of the Northern Rhodesia Government. When he joined, thirty years ago, Lusaka was little more than a railway halt, and the District Headquarters were at Chilanga, where Mwendapole came from. The messenger service in the North came into being in the last century. The duties include the carrying of messages to chiefs, reporting crimes, interpreting, making roads and bridges and, generally, acting as guide and philosopher to young members of the Provincial Administration. At a ceremony at Lusaka recently Mwendapole's friends—including the Commissioner—subscribed to buy him a farewell gift, which included two metal trunks and a hunting knife.



AUSTRALIAN GIFT FOR H.M. THE QUEEN MOTHER

Putting the final touches to a superb piece of craftsmanship, a diamond and ruby brooch, is Mr. Joseph Mann, seen here in his workshop in Melbourne. The brooch was commissioned by the Federal Government and presented, on behalf of the Australian people, by the Australian Prime Minister, Mr. R. G. Menzies, to H.M. Queen Elizabeth the Queen Mother when she visited Canberra recently. The brooch which portrays the Australian hibiscus contains 364 pure white diamonds and 36 rubies in a platinum base. Mr. Mann, a naturalised immigrant from Hungary, also made the magnificent "Wattle Spray" diamond brooch which was presented to H.M. Queen Elizabeth II during her 1954 Australian tour.



Commonwealth Scientists Combine to Produce the Great Scientific Achievement of Zeta

NATURAL atomic power, which heats the Sun (15 million degrees centigrade at the centre), is produced by the fusion (joining) of atomic nuclei. The opposite process, nuclear fission (splitting), has been developed into a practical artificial power source, and from Britain's Calder Hall is feeding energy into the nation's grid.

Britain's team of scientists have been able to produce a baby sun in Zeta—which is by far the largest and most successful of all experimental thermo-nuclear machines. Temperatures of 5,000,000 degrees centigrade have been created in Zeta and neutrons, which almost certainly come from the thermo-nuclear fusion of deuterium—a heavy hydrogen gas—have been detected flying away from the machine.

It may be possible to obtain electric power from a thermo-nuclear reactor without having a steam cycle and turbo-generators. This would be revolutionary, and this is where Sceptre III, the smaller apparatus at the research laboratories of Associated Electrical Industries (A.E.I.) at Aldermaston Court, Berkshire, becomes interesting. In this much smaller "doughnut", or aluminium tube, of Sceptre III, temperatures of 4,000,000 degrees centigrade with resultant fusion, have been achieved. If, on the direct-supply electricity principle, a unit as small as this could function, then the power-hungry countries might hope for packaged fusion reactors. We can now, for the first time, be almost sure that thermo-nuclear power will one day be a reality—perhaps in 20 or 30 years' time.

Fuel from the Sea

Zeta is pointing the way to the eventual development of immense power and unlimited fuel from the sea. Success in this project is of the greatest long-term material importance to mankind, for it will ensure world power supplies for perhaps a thousand million years at roughly a thousand times the present energy consumption rate. Such a source of energy is vastly greater than any hitherto available source; even reserves of uranium and other fissile materials which could be used in fission-based power programmes might become seriously depleted during the next century or two if some estimates of the power consumption a hundred years from now prove valid.

There is no reason to believe, however, that the fusion process will prove any easier, cheaper or simpler to harness than atomic fission has been. How long it will take to bridge the gap between a successful laboratory experiment and a working commercial power station is another story. What can

(Continued overleaf)

EPOCH-MAKING British achievement. The apparatus, Zeta—zero energy thermo-nuclear assembly, at the Atomic Energy Research Establishment, Harwell, where spectacular research results have been achieved by Commonwealth scientists in controlling fusion reaction.

WHY HEAVY HYDROGEN?

A hydrogen atom has a single positively charged particle balanced by one electron. One in every 5,000 atoms is

deuterium or heavy hydrogen. This has a second, uncharged particle in its nucleus.

Nuclei repel each other but the presence of the second uncharged particle in the deuterium atom weakens this repulsion and is the starting point for fusion.

THE FUSION PROCESS

Extreme heat causes . . .

collisions among deuterons

which fuse into . . . helium

releases a neutron and

three million electron volts of energy

Power from Fusion

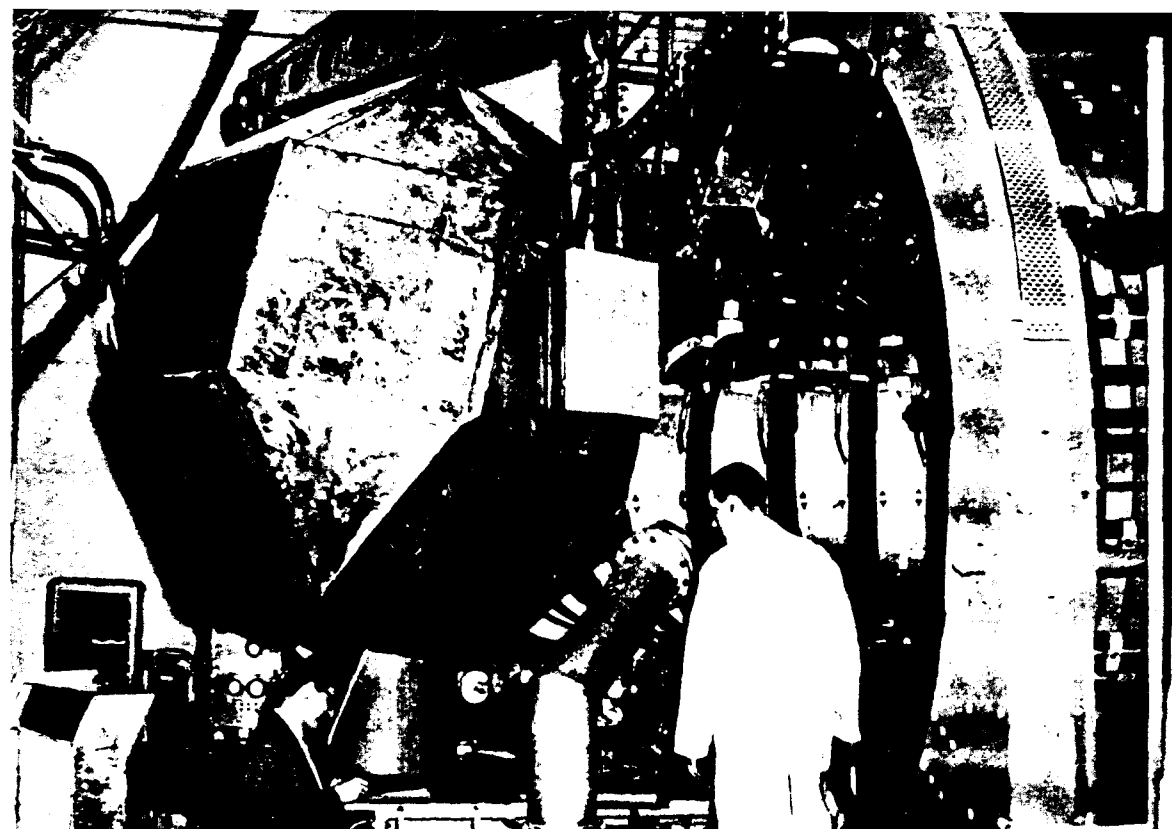
sensibly be said at this stage is something about the way the scientists go about it and about the fitting of a fusion power system into an existing electricity network.

Fusion can be said to be an unnatural process compared with fission, which involves the break-up of large, heavy, already rather unstable atoms. There is a natural pre-disposition for some atoms to break up; and a natural reluctance for them to combine. The technical problem lies in overcoming the strong natural revulsion of the nucleus of one atom for the nucleus of another. The key to the fusion process thus rests on bringing atoms, or rather their nuclei, sufficiently close for them to fuse together into a slightly larger atom. Extraordinary effort is needed to overcome the electrical repulsion of one atom for another. The only workable approach so far is to imitate the Sun and create temperatures of 100 million degrees and for preference, 1,000 million degrees. Incidentally, there is no such problem in an H-bomb where fusion is started by the intense heat of a fission explosion, but that is hardly controlled energy. Fusion will start at temperatures from a million degrees upwards, and it will only happen at a fast enough rate to present a useful source of power when temperatures are brought nearer the 100 million degree mark.

Fabulous Temperatures

Having decided that great heat is the environment in which fusion occurs, scientists have to find methods of raising and, even more difficult, of holding, these fabulous temperatures. One of the difficulties is to stop heat from being lost and so preventing the build-up of the temperature inside the container to a level that will sustain fusion.

Between 1948 when research into fusion first began and the summer of 1957, scientists at Harwell managed to reach temperatures of 200,000 degrees centigrade. The hydrogen atoms used for fusion are in the form of a gas. If an electric current is put through the gas, scientists can create what they call a "pinch" effect. This means that the gas collects in a denser column down the centre of the container without touching the walls and so subjects it to the full effect of the high temperature. When a container is in the form of a tube joined at its two ends—the



IN ZETA'S laboratories, Harwell. The large box is a directional neutron detector used to scan the torus to determine whether Zeta is in fact producing "thermo-nuclear neutrons"—the fusion of the atoms of deuterium resulting from the increased speed of their random motion as they are heated.

torus—the current exerts its maximum effect on the gas.

However, the "pinch" effect is not a neat and tidy phenomenon. One of the vital tricks in controlling fusion lies in knowing just how to apply a magnetic field to the gas column in a way that irons out its instabilities and makes it flow smoothly. The next stage in the research is to raise the temperature of the gas very much higher and hold it for a longer time. This must be done before more energy is produced in a Zeta-type reactor than is fed into it.

Experiments on these lines have demonstrated that Harwell's scientists have mastered the difficult tricks of controlling the gas column and raising and keeping high temperatures. This is the knowledge that other countries are seeking, and it is the basis for the current belief that Britain leads the world in the control of fusion.

Referring to the next stages with Zeta, Sir John Cockcroft, until recently Director of Research at Harwell, says: "We intend to increase the current circulating in Zeta by the provision of more condensers; the

temperatures should then rise substantially. If and when we reach a temperature of 25 million degrees (far surpassing the Sun's central temperature), the number of neutrons per pulse should increase at least ten thousand times. Even then the amount of energy produced in Zeta would be small compared with the energy input.

"In order to break even, we will have to produce temperatures of at least 100 million degrees in deuterium gas and about 40 million degrees in a mixture of deuterium and tritium. So while we are experimenting with Zeta, improving it and studying its performance, we will be designing and building its successor which will aim at achieving the break-even point.

"It would be difficult", he adds, "for us with our limited vision to see far enough ahead to say whether and when the final goal can be achieved. Our experiments with Zeta are only the first milestone along what may be a longish road, and we cannot see the end of the road. We are, however, going forward with optimism and enthusiasm into this great new field of scientific research."

SOME OF THE HARWELL WORKERS



Dr. Basil F. Schonland, well-known South African scientist, Director of A.E.R.E., Harwell, in succession to Sir John Cockcroft; became Deputy Director in 1954.



Dr. P. C. Thonemann, born and educated in Australia—Melbourne University, and at Oxford—is director of this specialised work on ionised gases at Harwell.



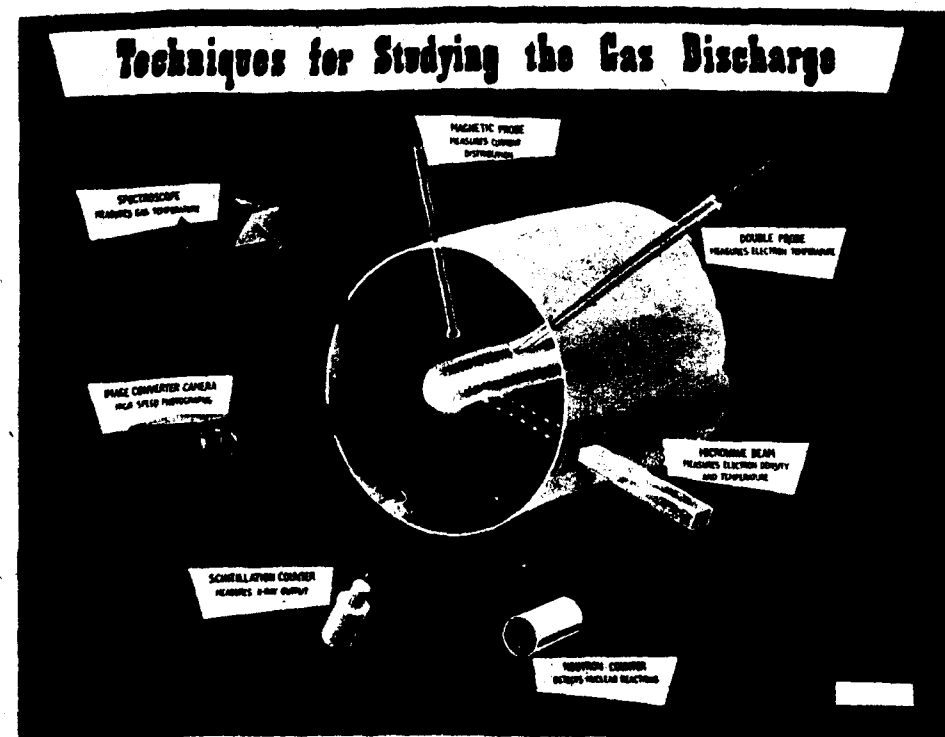
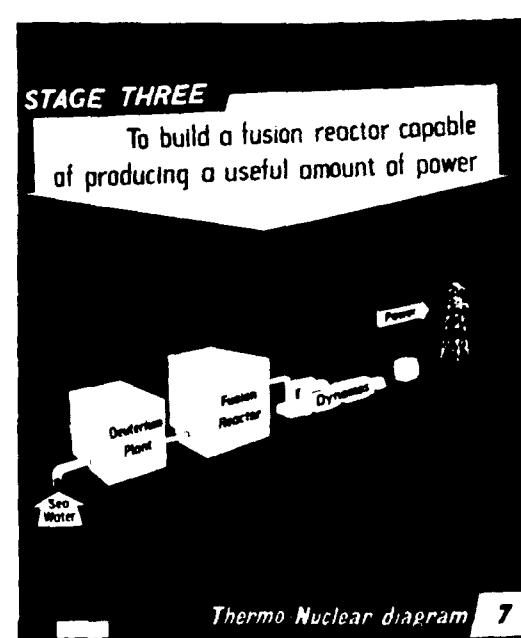
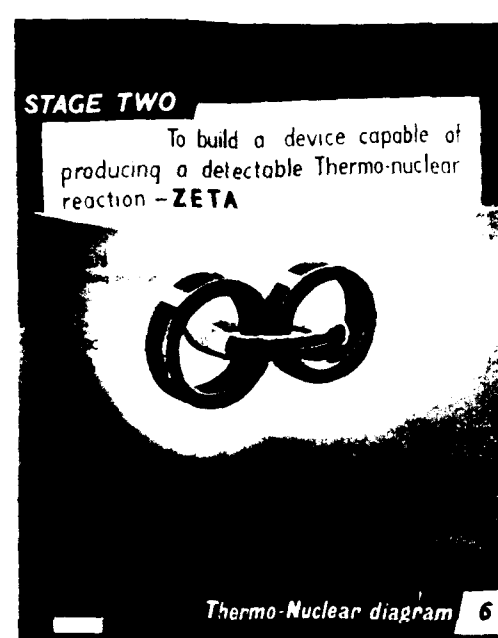
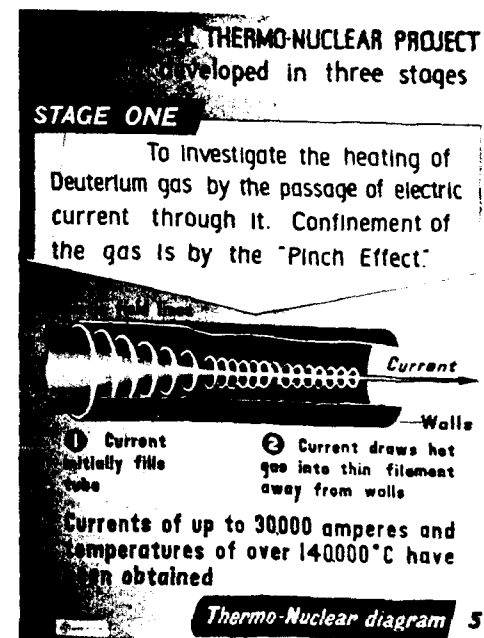
Dr. W. B. Thompson, awarded high academic honours at Canada's universities; he was appointed to a Harwell Research Fellowship while he was working at Canada's atomic energy plant.



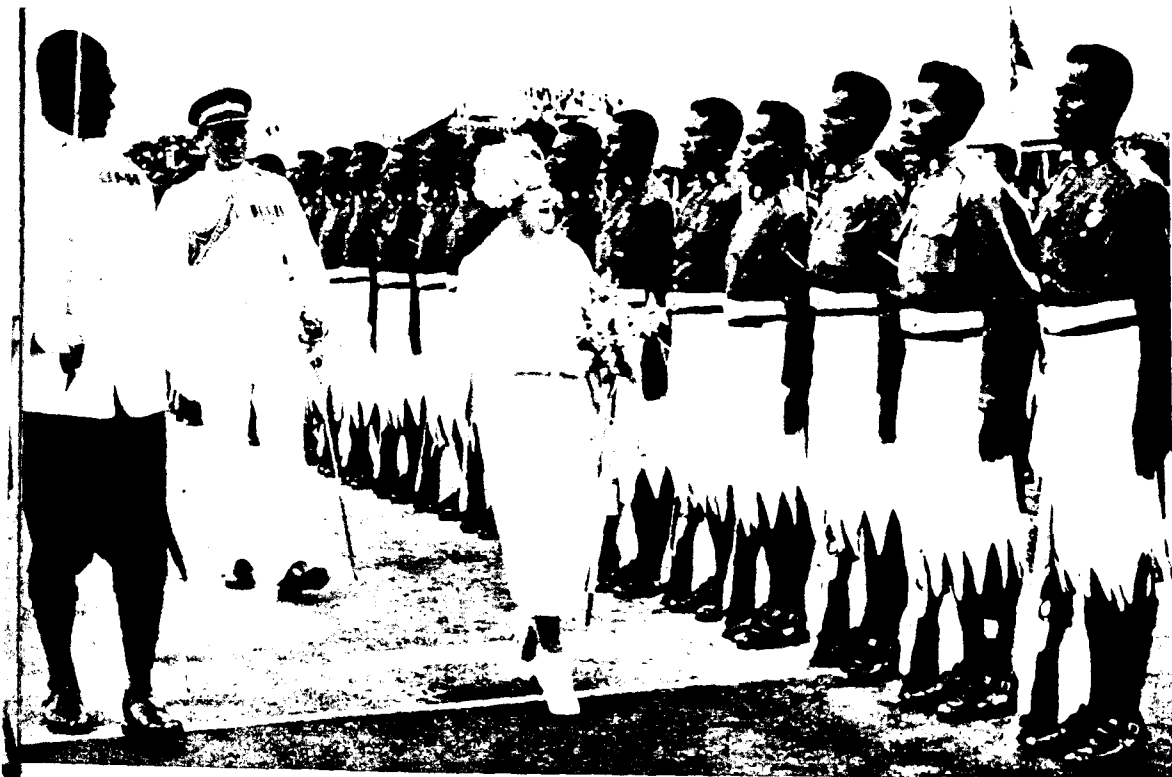
Mr. R. S. Pease, Leader of the Zeta team. He joined A.E.R.E. Harwell in 1947 and has worked on Controlled Thermo-nuclear Reactions since 1955.



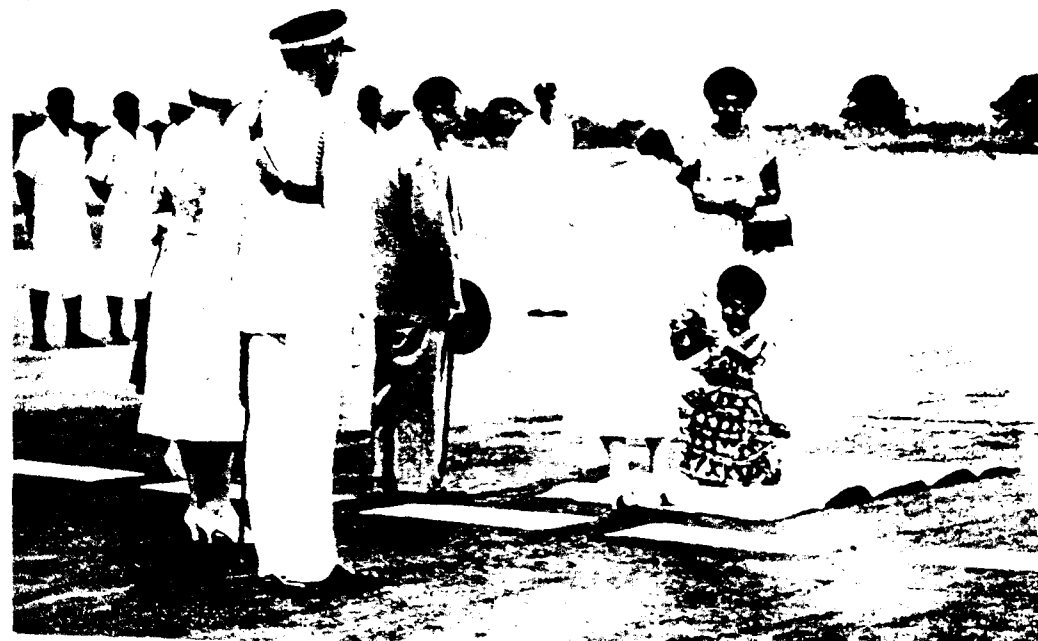
A HARWELL SCIENTIST (above) watching the neutron counter—determining the source of the neutron emission. Below, left: a model showing how hot gases travel inside the torus. The strip in the centre of the torus is hot gas pinched by the current of electricity.



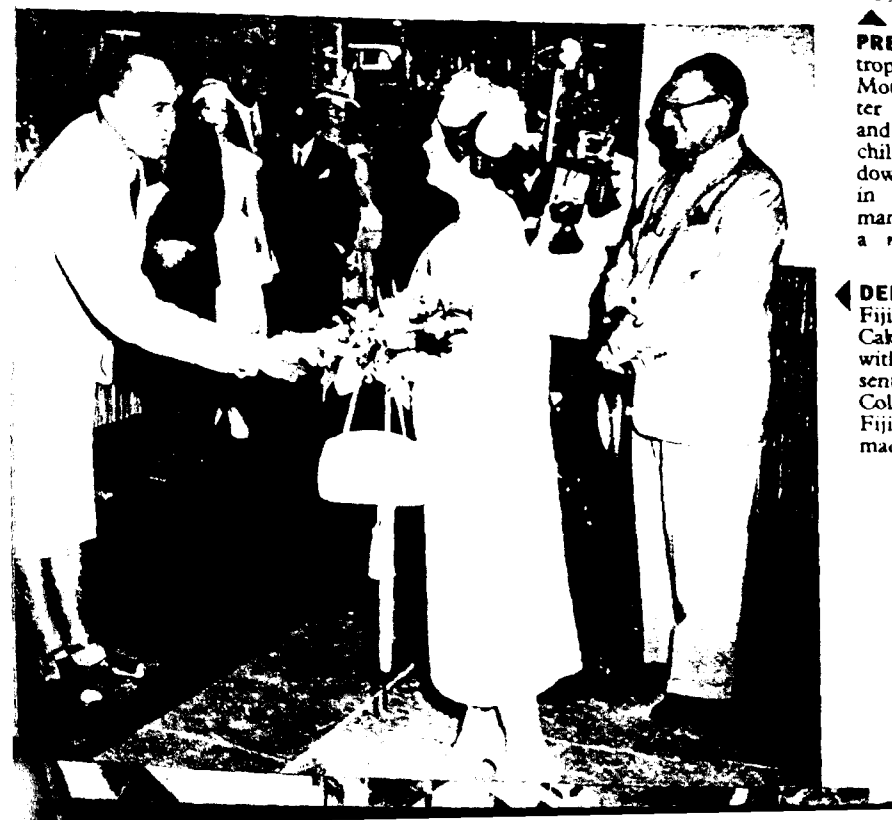
Queen Elizabeth the Queen Mother in Fiji



FIJIAN GUARD OF HONOUR is inspected by H.M. the Queen Mother. The men are dressed in scarlet tunics, white *sulus* and sandals. The officer escorting Her Majesty (extreme left) is Captain Maitonga.



PRESENTING a bouquet of tropical flowers to the Queen Mother is Adi Ateca, daughter of Ratu K.K.T. Mara and Adi Lala (behind the child). Adi Ateca then sat down and clapped hands in the traditional Fijian manner. She is wearing a *masi*, or tapa cloth.



DEPUTY SECRETARY for Fijian Affairs, Ratu E. T. Cakobau, shaking hands with Her Majesty. Also present was Mr. P. McDonald, Colonial Secretary for the Fijian Government, who made the introductions.

HER MAJESTY Queen Elizabeth the Queen Mother, on her way to New Zealand and Australia, paid a brief visit to Fiji—her second visit to the Colony.

At Nadi Airport she was given a rousing welcome by a large multi-racial crowd. H.E. the Governor of Fiji, Sir Ronald Garvey, greeted the Queen Mother, who was presented with a bouquet of flowers by Adi Ateca, the small daughter of a Fijian chief.

Many prominent people were presented to Her Majesty in the terminal building after she inspected a Guard of Honour of the Fijian Military Forces. The Queen Mother was then driven seventeen miles to the town of Lautoka. There she rested at the Governor's *bure* (Fijian thatched house) after her 54-hour air trip from London.

Later in the afternoon she attended the colourful Fijian ceremonies of welcome at Churchill Park, Lautoka. Over 7,000 people of many races, gathered at the park to witness these ceremonies. They began with the *galowaga*—the ceremony of welcome to a lady of high rank—performed by fifty Fijian ladies of high rank from the chief's island of Bau. Then came the traditional presentation of *tabua* (whaletooth) and the *yaqona* (kava) ceremony, in which the Queen Mother drank a cup of the ceremonial beverage.

The Queen Mother and her party spent the night at the Governor's house and, early the following day, drove around Lautoka township. Later, at Nadi Airport, Her Majesty inspected a Fiji Police Guard of Honour before she left by air for New Zealand.



TRADITIONAL Fijian ceremonial duty of accepting and acknowledging gifts is performed on behalf of the Queen Mother by her *matanivanua*, or herald.

British Teenagers Tour Ghana

THREE boys and three girls from Grammar Schools in Birmingham, England, recently completed a goodwill and sight-seeing tour of Ghana under a Cadbury Ghana Scholarship scheme.

Their itinerary was carefully drawn up to give them the opportunity of meeting all classes of people in Ghana, from the village child to the Prime Minister. They saw the old Ghana—cocoa plantations, villages, markets, and castles, and the new Ghana in the form of expanding social services, vigorous industries, schools, colleges, Tema Harbour and the University College.

On arrival by air in Accra the group presented a message of greeting from the U.K. Minister of Education to Mr. C. T. Nylander, Ghana's Minister of Education, who had a talk with them in his office after conducting them round the other Ministries. They visited Accra's National Museum, the Community Centre, Achimota School, the University College, and Government House, Osu. There they called on the Prime Minister, Dr. Kwame Nkrumah, who had lively discussions with them. The party presented him with a gift.

The students went sight-seeing in Ashanti, accompanied by Mr. T. A. Insull, Editor of the *Bourneville Works Magazine*. At the Komongo Gold Mines Ltd., they were shown round the production plant where they saw the processes of gold mining. At the assay office the party was presented with pieces of gold-bearing rock.

At Kumasi they called on Otumfuo, the Asantehene, and visited, among other places, the Asante Cultural Centre, Kumasi Fort, and



AT GOVERNMENT HOUSE, Osu, the students presented a gift to the Prime Minister, Dr. Kwame Nkrumah. They also conveyed a message of greeting to the Ghana Minister of Education, Mr. C. T. Nylander.

the Central Market. They also visited Ahwiaa, a village six miles from Kumasi, where they watched tribal drumming and dancing.

At Winneba, in southern Ghana, they inspected a Cadbury and Fry Cocoa shed and saw the grading and storage of cocoa. They tasted palm wine, a beverage of the palm tree, for the first time. One of them said "it tasted like strawberry". They saw the plucking, breaking and fermentation of cocoa at Asuokaw, and at the West African

Cocoa Research Institute, Tafo, the party saw cocoa grown and the measures taken to control diseases of the plant. In Takoradi Harbour they saw, from a crane, how cocoa beans were loaded for export.

These teenagers enjoyed themselves immensely, living in what was for them a new world. On leaving each of them carried souvenirs, including bows and arrows, spears, daggers, straw-hats, bananas, pineapples, mats, and pods of cocoa.

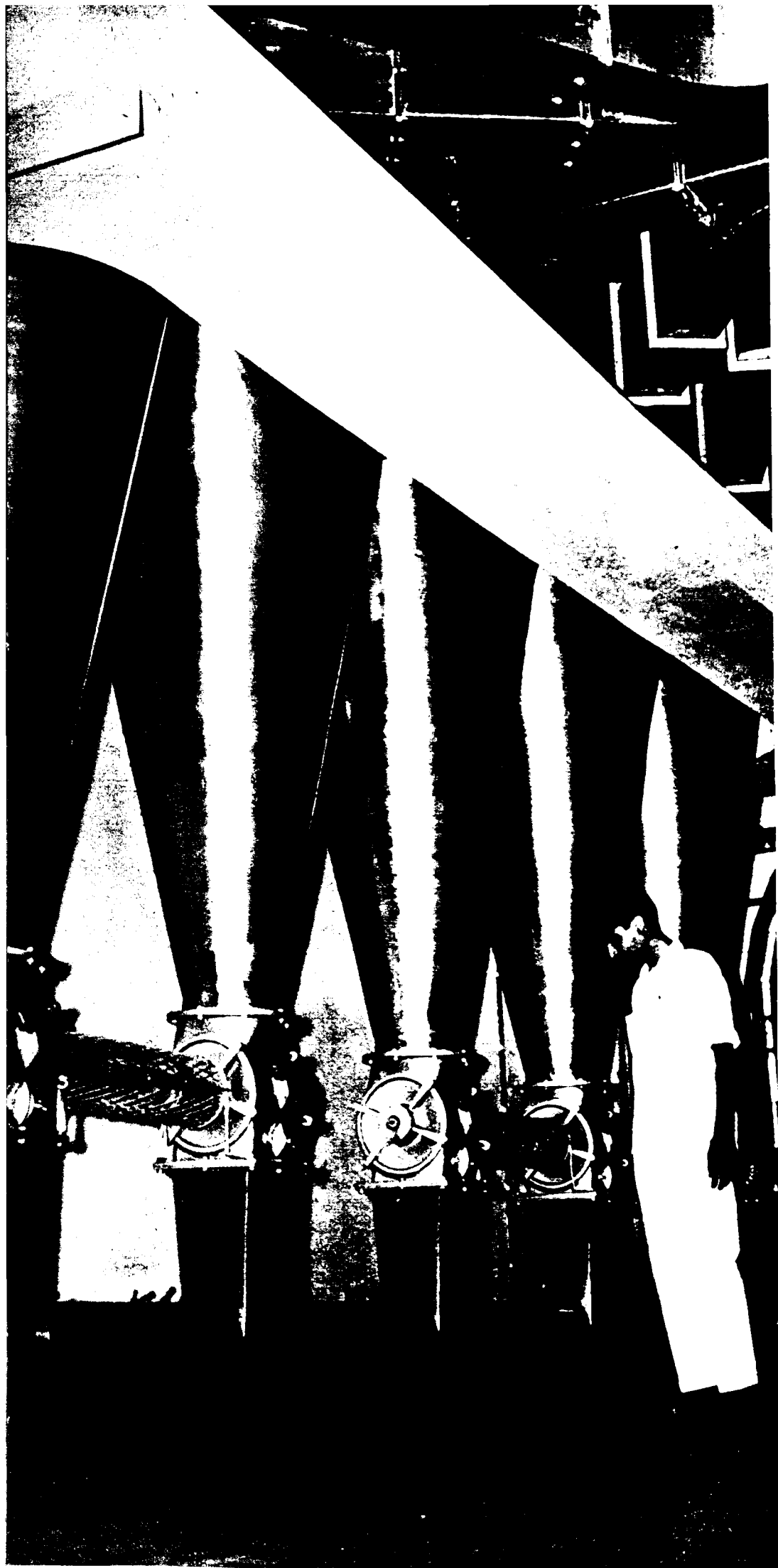


ACHIMOTA SCHOOL-GIRLS chatting with the three British schoolgirls whom they entertained to tea at the Achimota School, in Accra.

SOUVENIRS of Ghana are carried by the three girls—Margaret Osborne (16), Christine Plevin (17), and Margaret Cave (18), on their departure by air for England.

STORAGE and grading of cocoa, Ghana's most valuable crop, is explained to the students during their visit to a Cadbury and Fry Cocoa shed in southern Ghana.





POWDERED MILK is produced by these huge steel cones in the dairy factory at Anand. Under the Colombo Plan, New Zealand contributed some £20,000 for this important project, providing the latest kind of equipment for making butter and casein, and for containing the milk.

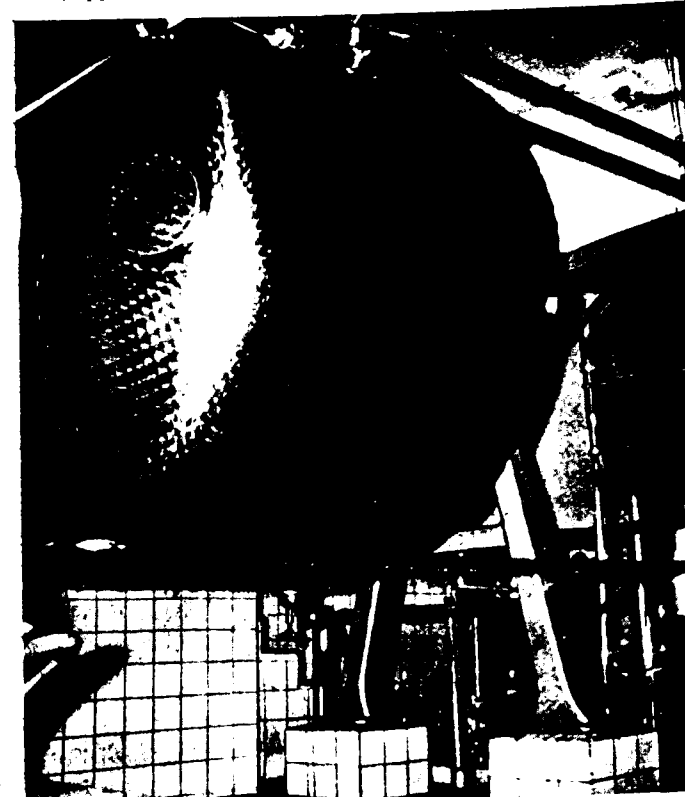
PASTEURISING DRUM in which the milk is sterilised by heat treatment. Absolute cleanliness ensures that the milk is untainted by germs.



MAIN BUILDINGS of the Anand dairy. The Kaira project, of which this is the centre, is a model one and will have a profound influence on Indian dairy farming.



WAGON-LOADS of pasteurised milk are sent every day to the city of Bombay, some 266 miles away. The factory is equipped to deal with about 30,000 lb. of milk daily.



MORE MILK FOR BOMBAY

Helped by the New Zealand Government under the Colombo Plan, the Kaira Project in Bombay State is the basis of a New Rural Prosperity

FARMERS from sixty-four villages in the Kaira District of Bombay State have joined together in a new project which may well have a far-reaching effect on the development of the dairy-farming industry in India.

The Kaira District Co-operative Milk Producers Union provides for the collection of milk from an area of 600 square miles. It already has a membership of 20,482 farmers and is growing rapidly. Plans are in hand to increase the number of village Milk Producers' Societies in the next five years to 150, with a membership of 50,000.

At the Headquarters, at Anand, a new dairy factory has been set up with up-to-date equipment provided by the New Zealand Government under the Colombo Plan. At present 30,000 lb. of pasteurised milk are being sent daily from Anand for the city of Bombay, but the factory has been designed to handle three times this amount.

Improving the herds

With the development of this scheme farmers are learning better ways of keeping cattle. Concrete sheds are being built to help in cleaner milk production, and diesel pumping sets have been installed in thirty of the villages to ensure a good water supply.

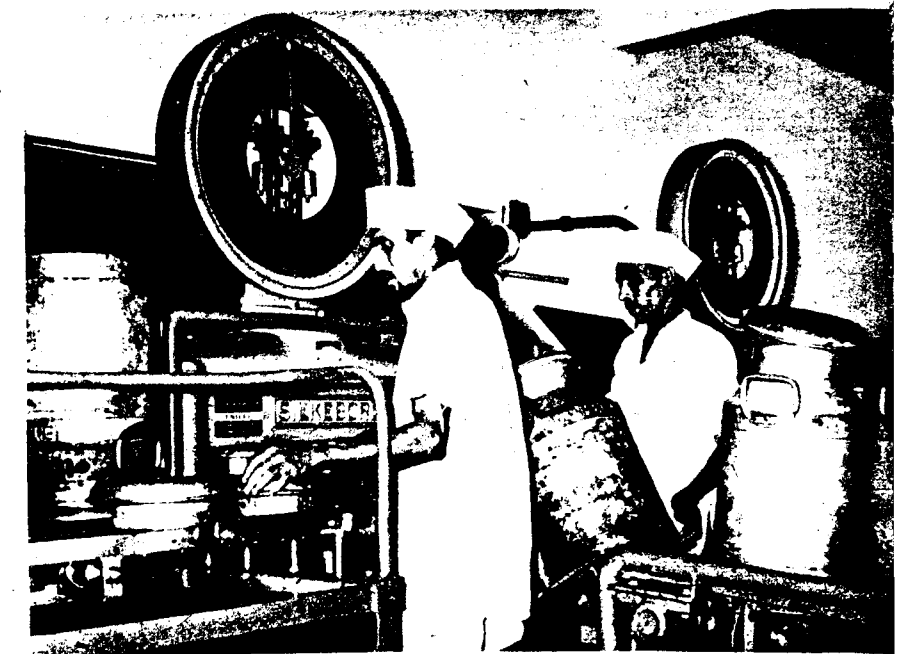
Each of the sixty-four Village Societies has been provided with milk testing equipment, chemicals and glassware. Two mobile veterinary dispensaries tour the district and give free treatment and advice. Artificial insemination is being employed to improve the breed of cattle.

The Kaira Project has cost over Rs. 40 lakhs (£300,000), over half of which has been contributed by the Union Government, and a quarter by the Government of Bombay State. Some of the dairy equipment has been given by U.N.I.C.E.F. (United Nations Children's Fund) in return for which the Union Government has undertaken to provide free milk to children and expectant mothers in the area. The remainder of the equipment, as well as technical and expert help, has been given by the Government of New Zealand under the Colombo Plan. Under the Plan, too, arrangements have been made for many Indian students to go to New Zealand for training in dairying.

At the opening of the project at Anand, a message from the then New Zealand Prime Minister, Mr. S. G. Holland, was read. He said: "I am happy to convey the good wishes of the New Zealand Government for the success of this venture, and I look forward to the continued strengthening of the cordial relations between our two countries through the friendly association of the Colombo Plan."

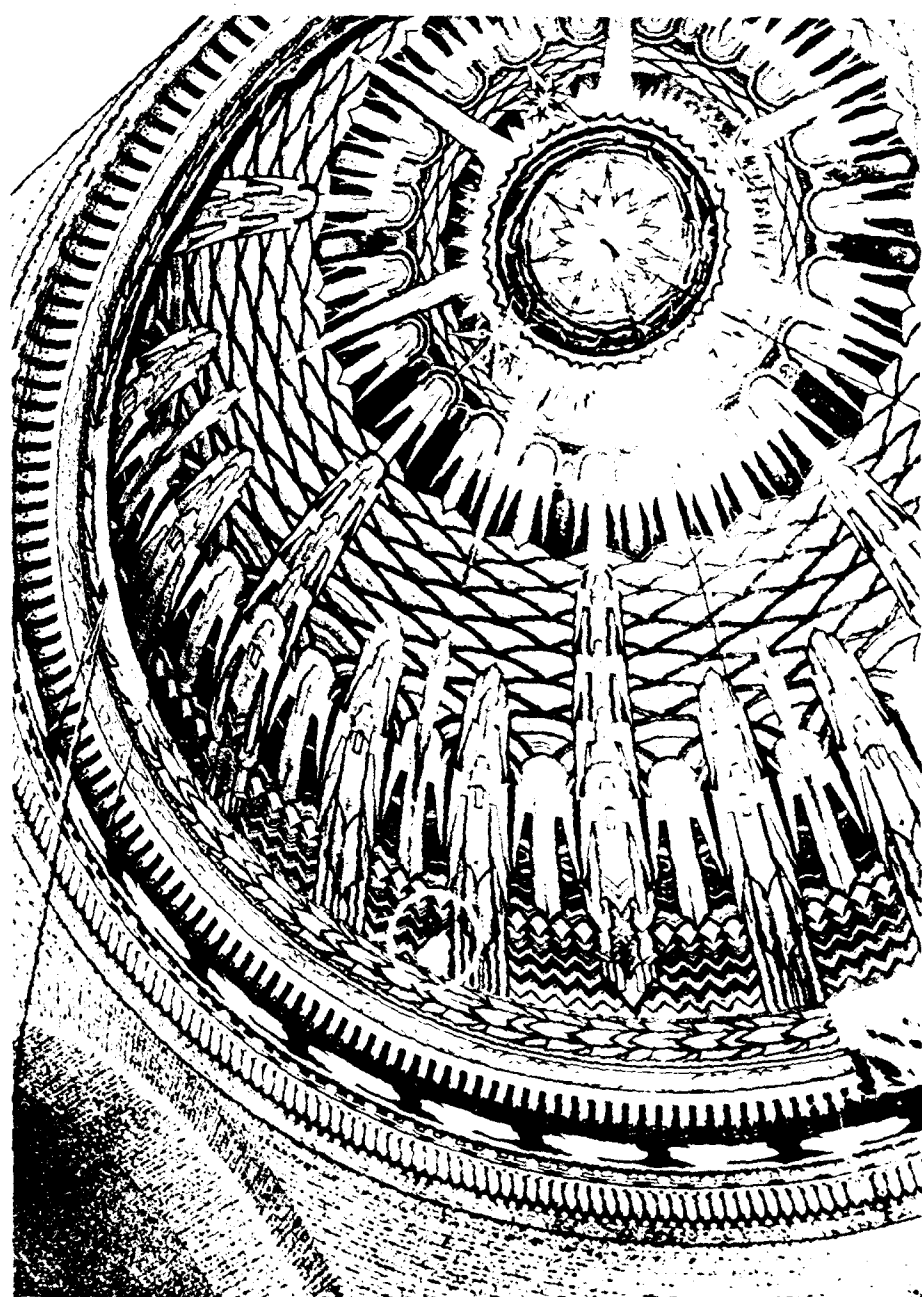
R. J. CHINWALLA.

WEIGHT of the milk is first accurately determined on these scales before it is taken away for processing. The Anand factory is the first in India to manufacture condensed milk, milk powder, and milk foods.



BUTTER IN BULK before going to the plant where it is wrapped and packed for dispatch to Bombay. Out in the surrounding countryside, vigorous measures are being taken to improve the quality, quantity and cleanliness of milk produced in the villages.





DIRECTOR of the Memorial, Major J. McGrath (centre) with Mr. Napier Waller (right) the Melbourne artist who designed the Memorial and Mr. Aldo Rossi, who was Mr. Waller's collaborator in the project

INTERIOR OF THE DOME with artist Aldo Rossi (encircled) who affixed the six million pieces of glass forming the mosaic. Spirits of the dead are shown as bird-like forms rising to a central sun.

AUSTRALIAN WAR MEMORIAL

New Venetian Glass Mosaic in Canberra's Hall of Memory

MANY hundreds of Australians paid special visits to Australia's famous War Memorial in Canberra to watch the new mammoth mosaic taking shape in the Memorial's new Hall of Memory. The mosaic was completed early in 1958.

The painstaking task of affixing more than 6,000,000 pieces of Venetian glass mosaic to the 13,000 square feet of walls and dome was begun in February 1955. The only comparable glass mosaic in the world is at St. Mark's Cathedral in Venice, which dates back more than 400 years.

The new mosaic is the work of one-armed Melbourne artist, Mr. Napier Waller, and an Italian artist and artisan, Mr. Aldo Rossi. Mr. Waller prepared the design sketches, glued the mosaic pieces to a paper-backed pattern and sent them to Canberra in carefully numbered and tabulated sections. Mr. Rossi laid the pieces in position on the walls and dome to a master plan.

"It was much like fitting a giant jigsaw puzzle together", said Mr. Waller. The cost of the mosaic, nearly £100,000, is being met from the sale of War Memorial publications.

Mr. Waller—who lost his right arm during World War I—was also responsible for the stained glass windows in the Hall of Memory commemorating those who fell in that War. An 18-ft. high bronze figure of a Serviceman is also being installed in the Hall. A plaster model by Mr. Raymond Ewers, of Melbourne, will be sent to Italy for casting in bronze.

DETAIL of one of the four main mosaic panels. Mr. Napier Waller is putting the finishing touches to the figure of an airman. The other three panels commemorate those who served in the Army, Navy and Women's Services.

Four main mosaic panels around the walls of the Hall commemorate those who served in the Army, Navy, Air Force and Women's Services. Around the cornice is a flight of black swans surmounted by a wreath of wattle leaves in a metallic golden background. In the dome which rise 80 feet from the ground, raised hands symbolically surrender the spirits of the dead to the heavens. The spirits are represented by bird-like forms rising to a central sun which is superimposed on the Southern Cross.

More than 300,000 visitors from all parts of the world are expected to visit the memorial this year.



PAKISTANIS IN THE U.K.



AT THE MINISTRY of Labour and National Service, London, Matiur Rahman shakes hands with Mr. J. C. Wilson, Assistant Under-Secretary at the Ministry. In the centre is Mr. G. Murtaza.

Trade Union Leaders Praise Britain's Labour Relations

Two Pakistani Trade Unionists recently spent four weeks touring the United Kingdom as guests of the Commonwealth Relations Office and the Ministry of Labour and National Service. They are typical of the many overseas visitors who come to Britain, not for specialised training, but to make the most of a short visit by studying British philosophy and practice in their particular fields of interest.

One of the visitors was Mr. G. Murtaza, President of the United Council of the Association of Civil Employees in Pakistan; Secretary of the All-Pakistan Posts and Telegraph Union; Vice-President of the East Pakistan Federation of Labour, and Executive Member of the All-Pakistan Confederation of Labour. The other was Mr. Matiur Rahman, Vice-President of the Pakistan Petroleum Workers' Federation; Member of the Working Committee of the East Pakistan Federation of Labour, and Executive Member, All-Pakistan Confederation of Labour.

Mr. Rahman said that he thought the chief factor in the successful working of British trade unions was they were not divided

amongst themselves; the Trades Union Congress was looked upon by all the workers as representative of the trade union movement.

Both Pakistanis said that they were impressed by the fact that there was no difference between the workers in government departments and those in private enterprise industries—they had political freedom and equal rights with other citizens.

Speaking of labour-employer relations, they both referred to the great South Wales steelworks at Ebbw Vale where, they pointed out, there were 32 union branches, and not one major strike had occurred. They considered this a tribute to the British processes of negotiation which were an example to all engaged in industry.

"What we have seen", these Trade Union leaders declared, "will be of infinite value to us in our work of building up the trade union organisation in Pakistan. The ideas we have collected and the literature we have gathered should be invaluable to the pay inquiry commission now examining the conditions of work and the civil and trade union rights of government departments in Pakistan."



MEMBER OF PARLIAMENT for Harrogate, Mr. J. E. Ramsden, is seen with the two Pakistani Trade Unionists outside the Houses of Parliament which they toured during their stay in London.

Mr. Murtaza added: "We are now in a position to discuss the possible application of British methods in Pakistan labour disputes and in stabilising the trade union organisations in our own country."

They were grateful, they said, for the very friendly reception they had received everywhere in Britain. Their carefully planned tours had been immediately amended whenever they had expressed a wish to see more of anything in which they showed a special interest.

"One thing in particular we noticed with approval", said Mr. Rahman, "and that is the very satisfactory arrangements made for welfare, both by government departments and private industry. We were also very impressed by the cordial relationship existing between management and workers, both in and outside places of work, and we noted with care the provisions for such benefits as minimum guaranteed wages, and the excellent national health and social insurance schemes."

"To us, such organisation showed the existence of a real democracy at work, encouraging, incidentally, a high degree of patriotism. . . . In fact, the entire trade union movement in Britain—the relations between management and labour, the social services, and the forward spirit exemplified by attention given to general welfare—forms an excellent pattern which we might profitably study in Pakistan."

JUNIOR CLASSROOM at the Hareclive Mixed School was visited by the Pakistanis during their tour of one of the new housing estates in Bristol.



NETBALL GAME in progress at the Knox College sports ground. The girls are Audrey Lyn, Lois Gordon, Gloria Wiggan and Shirley Nam. For the boys, a fine football field is provided.



MODELLING and other handicrafts are taught in addition to the conventional three "Rs". The school also has a Home Farm where the children learn husbandry.



JUNIOR BOYS making their beds are Nerio Romano, Venezuela (right), Frank and Cyril Farquharson, Scotland.

School in the Caribbean

Academic and Practical Work Provides a Many-sided Education

BY ANNE BOLT

IN MOST of the Caribbean the climate is tropical and humid, so it is pleasant to find a school in the mountains of Jamaica. The school, Knox College, is nearly 3,000 feet above sea level, near the village of Spaldings in the Mocho Mountains.

Knox College takes boys and girls from the age of four until they pass the General Certificate of Education. It is a private school, with a non-profit-making foundation, and modest funds. In 1945 the Presbyterian Church of Jamaica decided that the island's

most urgent need was for more educational facilities. Some funds were granted from the parent church in Scotland, and the Jamaican Education Board had the faith and wisdom to give a grant while the project was still in its infancy.

In 1946 work began on a 36-acre site. A young Jamaican elder of the church, David Bent, gave up an excellent business job to devote his technical abilities to building the school. The work was done without the help of a contractor. Mr. Bent, as bursar, bought

the materials and engaged the workmen; being a builder himself, he worked side by side with them. All building regulations were observed and union rates were paid, and the first buildings were completed in record time. The system of direct labour proved a success. Local workers developed a personal pride in Knox College and, in their spare time, helped to teach unskilled labourers and further improve the site.

The College was officially opened in 1947 with only 20 pupils. During the ten years



SENIOR CLASS under Mr. Langton-Robertson. The school is proud of the high standard achieved in General Certificate of Education examinations.

since then the school has grown so rapidly that it is expected that there will soon be more than 400 pupils. The original school-house has been enlarged and there are now separate buildings for the dining-room, workshops and laboratories. Three hostels have been built, each with a staff flat, prefects' rooms, dormitories and showers.

There are separate dormitories for the different groups and each dormitory has its own "supervisor". There are also a music room and an open-air theatre. Knox College has a Junior School, with Preparatory and Seniors sections. Today there are 109 day-scholars and 152 boarders. The children are of many races. They come from Canada, Haiti, the Cayman Isles, Aruba and, so far has the fame of this school spread, that there are not a few Venezuelans to add to the pleasantly cosmopolitan atmosphere.

The emphasis in Knox College is not on formal lessons alone, but on training the youngsters to become good citizens. There is

a fine football field levelled off from the side of a mountain, a netball ground for the girls, a tennis court, and a cricket pitch for what may well be called the national game.

The staff of twenty-two include English, Scots and Jamaican teachers. Lewis Davidson, the headmaster, was born in Glasgow. He has honours degrees in philosophy and psychology; he is a Presbyterian and was ordained in Jamaica in 1946. Formerly he worked at Woolmers, the well-known school for boys in Kingston, capital of Jamaica. George Scott, M.A., a Jamaican, who was on the staff of Knox College for several years, recently returned from Scotland with an honours degree from St. Andrews University, and has now been appointed Headmaster of the Junior School.

Lewis Davidson planned the school from the beginning. He finds that the Home Farm is of absorbing interest to the pupils. Not only can they learn a measure of husbandry and enjoy picking and eating their own

oranges and looking after animals, but the work helps to keep down school fees. Recently they started rearing pigs, and Headmaster Davidson, with typical Scots practicality, has just become a licensed butcher.

The school bookshop, open to outsiders, is a great attraction for the pupils who buy their stationery there and enjoy browsing among the books. The Printing Shop contributes to the general fund. With its six full-time employees, it does the printing for the school itself and also does the printing for many schools and churches in Jamaica. With the help of a carpentry master, the boys built their own workshop. They not only make their own school furniture, but also sell furniture to the public.

The school aims to be as self-supporting as possible. Even the smallest boys make their own beds; every loaf of bread is home-baked. All this work done by willing hands helps to keep fees at a reasonable level in these days of rising costs.



IN THE PRINTING SHOP of the school the headmaster, Mr. Lewis Davidson, helps three of his senior pupils to remedy a small mechanical defect in the machine. Right: Boys take their turn in the "serve yourself" dining-room. The girls have their meals first.



OIL FROM NIGERIA

TWENTY-ONE YEARS OF DETERMINED EXPLORATION

THE first cargo—9,000 tons—of crude oil from Nigeria was recently shipped from Port Harcourt. The oil, from two test fields—at Oloibiri in the Niger Delta and at Afam—is the first fruit of a search which began 21 years ago and has so far cost more than £27 million.

The Nigerians hope that the export of this oil will be the beginning of a new oil era. Experts on the spot, while sharing in these natural hopes, realise that the existence of a commercial field has not yet been proved; in the light of hard-earned exploration experience they counsel patience. Only after the test production programme is in full swing and the capabilities known, will it become clear whether Nigeria can, in the next three to five years, take her place as a member of the oil-producing countries of the Commonwealth.

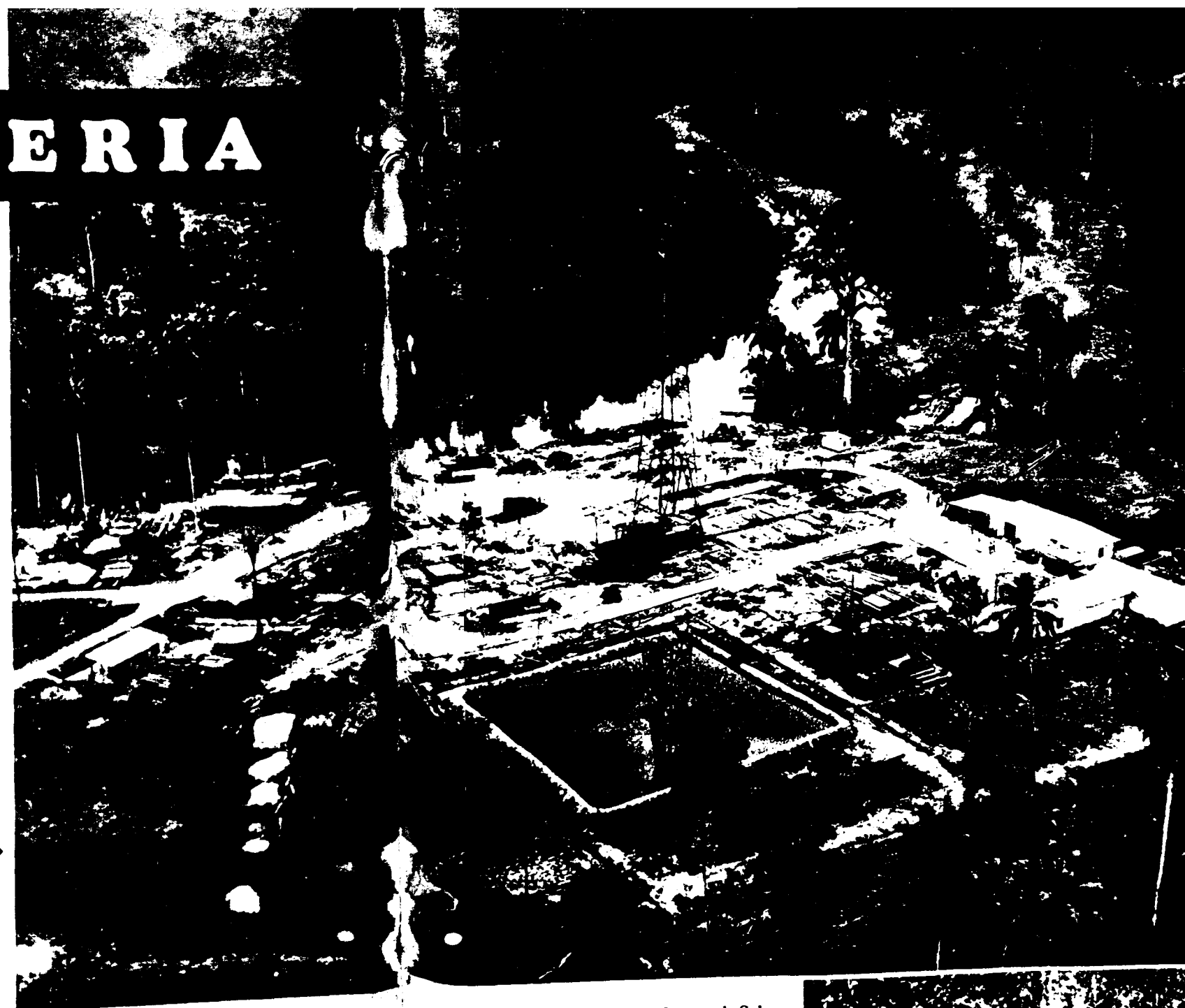
It was twenty-one years ago last February that a handful of geologists, now belonging to the Shell-B.P. Petroleum Development Company of Nigeria Ltd., pitched their

first camp deep in the Nigerian bush. The first geologists moved all over Nigeria, taking in the whole of the sedimentary areas from Lagos in the West to Yola in the East, and from Calabar in the South to Sokoto in the North.

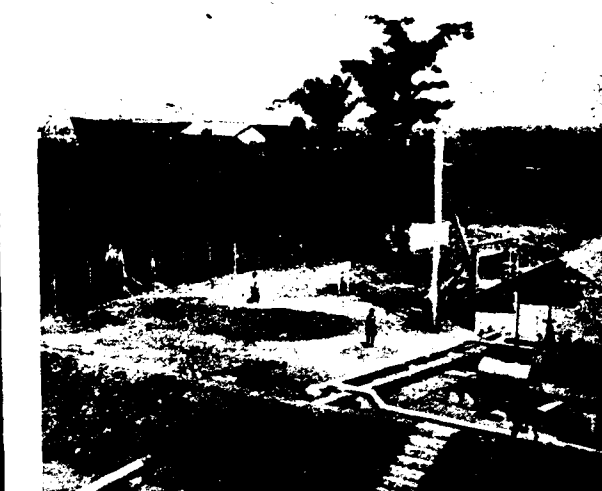
One of the first tasks was to map the Niger Delta accurately. Because of trying climatic conditions the work took five years—1948 to 1953—to complete. The first deep-test well was "spudded in" in 1951 at Ihuo, ten miles from Owerri, the present technical and administrative headquarters, 69 miles north of Port Harcourt. It reached a depth of 11,000 feet before being abandoned. A disappointing "curtain raiser", perhaps, but not unexpected in the tantalising business of looking for oil.

The most promising shows of oil have been made in Eastern Nigeria, where the climate and communications are perhaps at their most difficult and in terrain some four to five degrees north of the Equator. The oil company has drilled nineteen exploration wells and has discovered three oil-

FIRST OIL-FIELD in Nigeria has been established here. This picture, showing the heavily forested countryside in which the operations are conducted, is an aerial view of the river transport unloading point, offices, and No. 2 location at Oloibiri.



SAMPLES of rock and soil cuttings from all the drilling locations are stored in small bags at the geology department at Owerri.

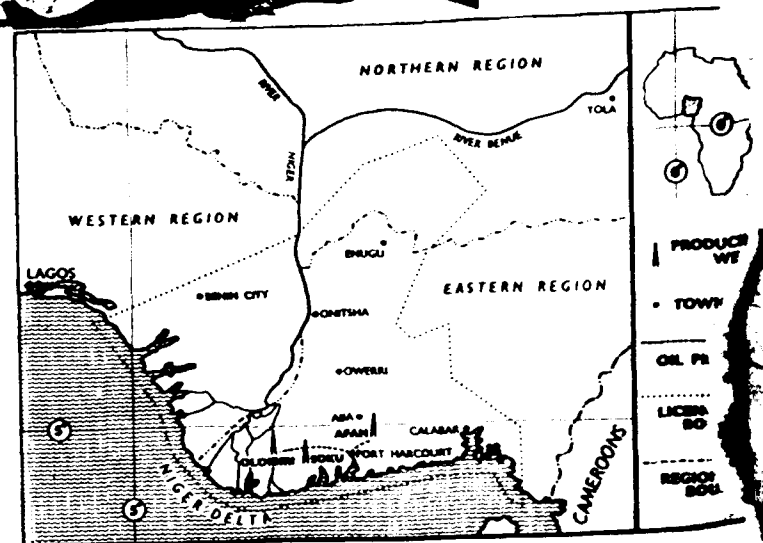


PUMPING STATION, Port Harcourt. In the background can be seen the tanker Hemifusus waiting for her cargo of oil.



FLOATING tender, designed to help in drilling for oil in the tidal mangrove swamps of the River Niger's delta, was towed by sea from Europe. The tender is equipped with a derrick for landing st. ge. Together with ancillary equipment, it cost £1,300,000.

PRIME MINISTER of the Federation of Nigeria, Alhaji Abubakar Tafawa Balewa, greeting Captain G. A. C. Nelson, Master of the tanker Hemifusus which carried the first shipment of crude oil from Nigeria. During a ceremony attended by a distinguished gathering, the Prime Minister started machinery which pumped the oil into the tanker.



bearing regions—Oloibiri, Afam and Soku.

Oloibiri is in the heart of the sprawling mangrove swamps and humid Niger Delta region which extends for 9,000 square miles. It is so cut off from Port Harcourt that a journey of only 45 miles due west takes up to 36 hours by road and river-craft. Helicopters now do the journey in 30 minutes in a series of daily flights, carrying men, equipment and stores.

The second potential field is at Afam, in Owerri Province, also in the Eastern Region. The third oil strike, at Soku, is in the swamps of the Niger Delta, and is the seventeenth exploration well drilled in the country. Appraisals of these areas continue to be made, and oil from the testing of the Oloibiri and Afam wells is now arriving in Port Harcourt by barge and pipeline.

The search for oil in Nigeria retains, and for years will continue to retain, much of that pioneering spirit that prompted travellers in the last century to explore the hinterland of the African continent. Thanks to the skill and determination now being wholeheartedly applied there is no doubt that if there is oil in commercial quantities existing in Nigeria it will be found and used.

CONNECTING WIRES being laid through the rock will carry sound waves to a recording truck. A small explosive charge is then fired to measure by the sound the rock formations underground.





DR. ROBERT BIRLEY, the Headmaster of Eton College, with a group of the South African boys from St. Andrew's College, Grahamstown, who toured Britain.

South African Schoolboys on Tour



HOUSEMASTER of Eton, Mr. B. J. W. Hill, chats with some of the South African visitors. The boys also saw the universities of Oxford and Cambridge.

SIXTY-TWO South African schoolboys from St. Andrew's College, Grahamstown, recently spent a busy month in Britain. They broke up into two parties, each travelling in its own coach and following its own programme.

They visited historic places in and around London, went to the theatre, watched football games, explored Oxford, Cambridge and Edinburgh, visited well-known schools and colleges in several parts of the country, looked at aspects of British industry, and some even went down a coal mine.

The entire group made a short tour of the Continent before coming to England. They returned by air well pleased with their comfortable, educational tour, the programmes for which had been arranged for them by the Reverend S. W. Doggett, Secretary of the Protea Society, Wrekin College, Wellington, Shropshire.

This Society is made up of British schoolboys who went on a tour of East Africa and South Africa in 1950. The boys retained contact with about eleven of the schools which they visited out there, one of them being St. Andrew's College, Grahamstown. The South African group is the second Andean one to tour the U.K. in recent years. On each occasion the boys have paid their own expenses—though they have been, on many occasions, the guests of various English and Scottish schools.

The Protea Society was formed to promote understanding and good relations between Britain and the countries visited by the British schoolboys. Its members have sent, annually, gift books—to the value of about 50 shillings—to each of the Headmasters of the eleven schools with which the Society has been in close touch. The books are intended either for school libraries or for use as school prizes.

The sending of these books is looked upon by the Society as some expression of appreciation for the hospitality which had been received. Similarly, individual members from some of the schools in Africa have been given hospitality during visits to this country.

The Protea Society—which has no funds to finance schoolboy tours—shows its appreciation to the schools concerned by acting for them as agent in England and by organising tours such as the very successful one just completed.

Buildings From Sand

Construction Technique Gives Speed and Economy for Large Building Projects

A QUICK and economical method of building houses and other structures has been developed by a well-known British company, using a technique called Situfoam. Situfoam is a lightweight, aerated concrete made with cement and sand, which is literally poured into place on the actual building site.

Although Situfoam construction requires special plant and equipment, it is nevertheless a very economical proposition, especially where a large number of buildings need to be rapidly built. Among the advantages claimed for the system are the use of local basic materials; the employment of local labour, and a minimum of skilled tradesmen; no large concrete storage, and no double-handling of materials. It provides robust, well-insulated buildings that will resist the effects of sun, wind and rain, and the attacks of insects; it is extremely adaptable and the same plant equipment can be used again and again to produce a wide variety of structures.

Situfoam concrete is obtained by foaming a sand and cement mixture. The foam is produced by equipment using compressed air and a liquid compound, which is injected during the pouring process. This causes minute air bubbles to be suspended in the concrete until the

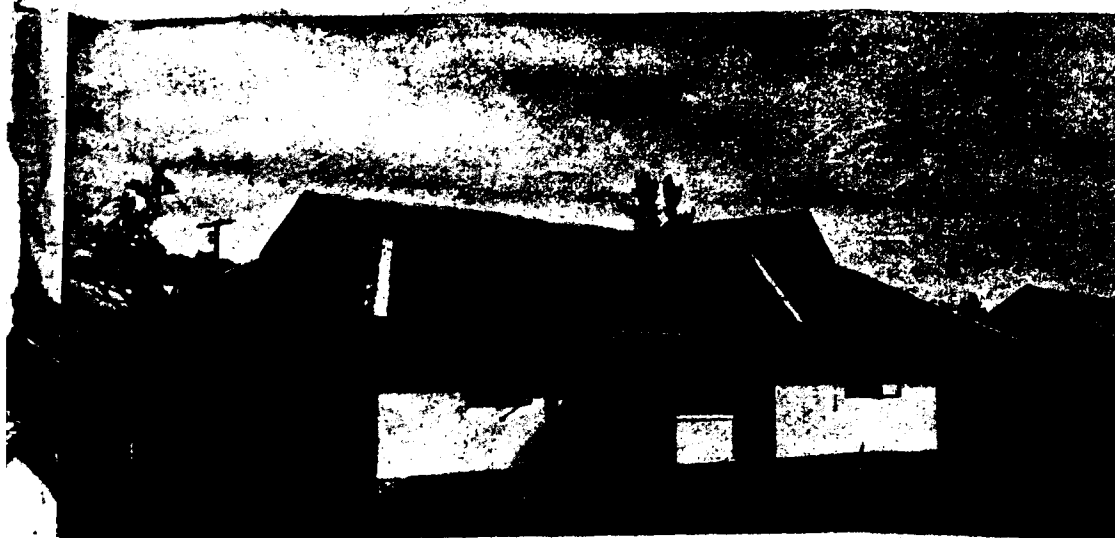
material is set. The result is a light concrete, with an insulation value superior to ordinary dense concrete or brickwork, and it is so fluid that it can be conveyed and placed in position by means of a pipe line.

The concrete is poured into specially designed formwork or moulds, giving the complete shape of the building required. The formwork is made of aluminium alloy, light and strong enough to withstand the pressures formed by the pouring of the Situfoam for a 10-ft. or 12-ft. wall in one operation. The concrete sets quickly; usually, the formwork can be removed the day after pouring. The formwork units are then cleaned, oiled and re-erected on the next foundation. This cycle of operations can be carried out so rapidly that the shell of a house with door and window openings, and all walls ready for decoration, can be completed in about two or three days.

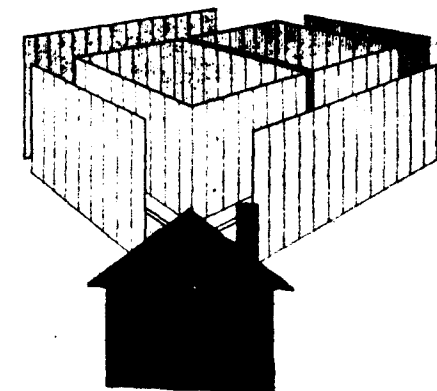
Hundreds of Situfoam houses have been built in Malaya, Borneo, Sumatra and in the Middle East. The company's world-wide organisation offers full services covering surveying, research, design, estimating and construction, and will prepare plans and estimates on the basis of outline sketches or submit detailed proposals for proposed housing programmes.



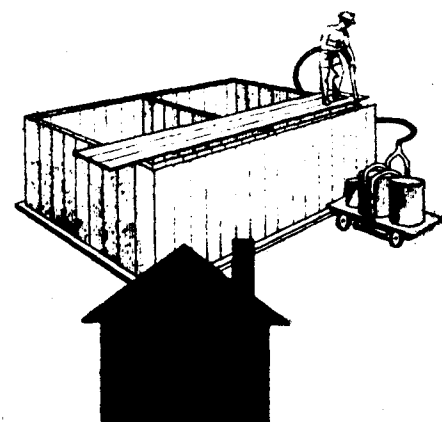
MINI-MARIAT building at Seria, Borneo, is an example of Situfoam used in conjunction with a reinforced concrete frame. Situfoam technique is well suited to tropical regions, where hundreds of such buildings have been built.



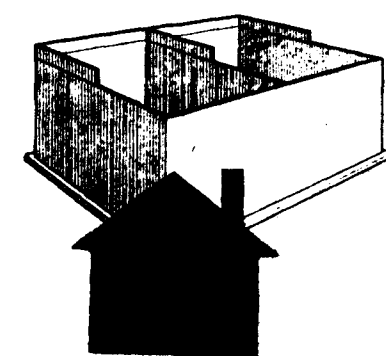
BUNGALOW in Borneo. It was built for the Regional Staff of the British Malayan Petroleum Company. The ventilated roof and the overhanging eaves are features commonly found in the Far East.



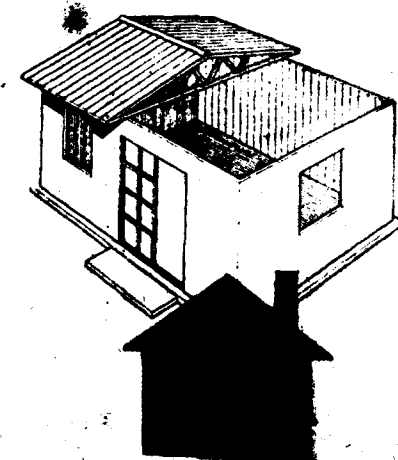
1 After the foundations have been laid, the specially designed Situfoam formwork is erected, giving the complete shape of the building required.



2 One man can control the outlet of the flexible hose with which the liquid Situfoam, supplied under pressure, is discharged into the formwork. It finds its way into all sections.



3 Under normal temperature conditions Situfoam is sufficiently set to enable the formwork to be removed the day after pouring. The formwork units are then re-erected on the next foundation.



4 Roof work and brickwork is commenced as soon as the formwork is removed. Doors are built in the walls. Final concrete work, such as floor or ceiling can be used for doors and windows.



AT NEW DELHI. The British Prime Minister, preceded by his wife, Lady Dorothy Macmillan, steps out of the Britannia airliner in New Delhi. They were greeted by Mr. Nehru, the Indian Prime Minister, accompanied by his daughter, Indira Gandhi.

FAITH IN OUR PARTNERSHIP

MR. HAROLD MACMILLAN, the U.K. Prime Minister, returned from his 35,000-mile tour with, as he has said, a sense of exhilaration and a new faith in the great and spontaneous association which we know as the Commonwealth. He saw vast populations of different colours and creeds all determined to maintain links which made up the Commonwealth reality; the links were such things as parliamentary, municipal and local governments, a free and democratic way of life and the rights of the individual. There was a constant give and take and mutual influencing among all the members of the Commonwealth; tolerance of dissent was recognised as fundamental for a democracy. The creation of a free and equal partnership—an evolutionary process—has underlined the basic unity of the association—a unity of infinite variety. As for the future, Mr. Macmillan pointed out the “influence of the Commonwealth for good in the world will depend very largely not on what we as members can get out of it but on what we are able to put into it”.

(See feature on pages 4-7)



PESHAWAR VISIT. Mr. Macmillan signs the Regiment's Visitors' Book at the Khyber Rifles Mess, Landi Kotal, Pakistan. With him are: Mr. Rashid Khan, Secretary Tribal Affairs; Mr. Arab Nur Mohanumad, Political Agent; and Brig. Sadiquallah Khan, Inspector-General, Frontier.