

needed for other essential goods. Now, however, that important sources of gums and resins in Malaya have been temporarily lost to the enemy, Congo resources may be more fully utilized as stocks fall off.

#### GROUND-NUTS

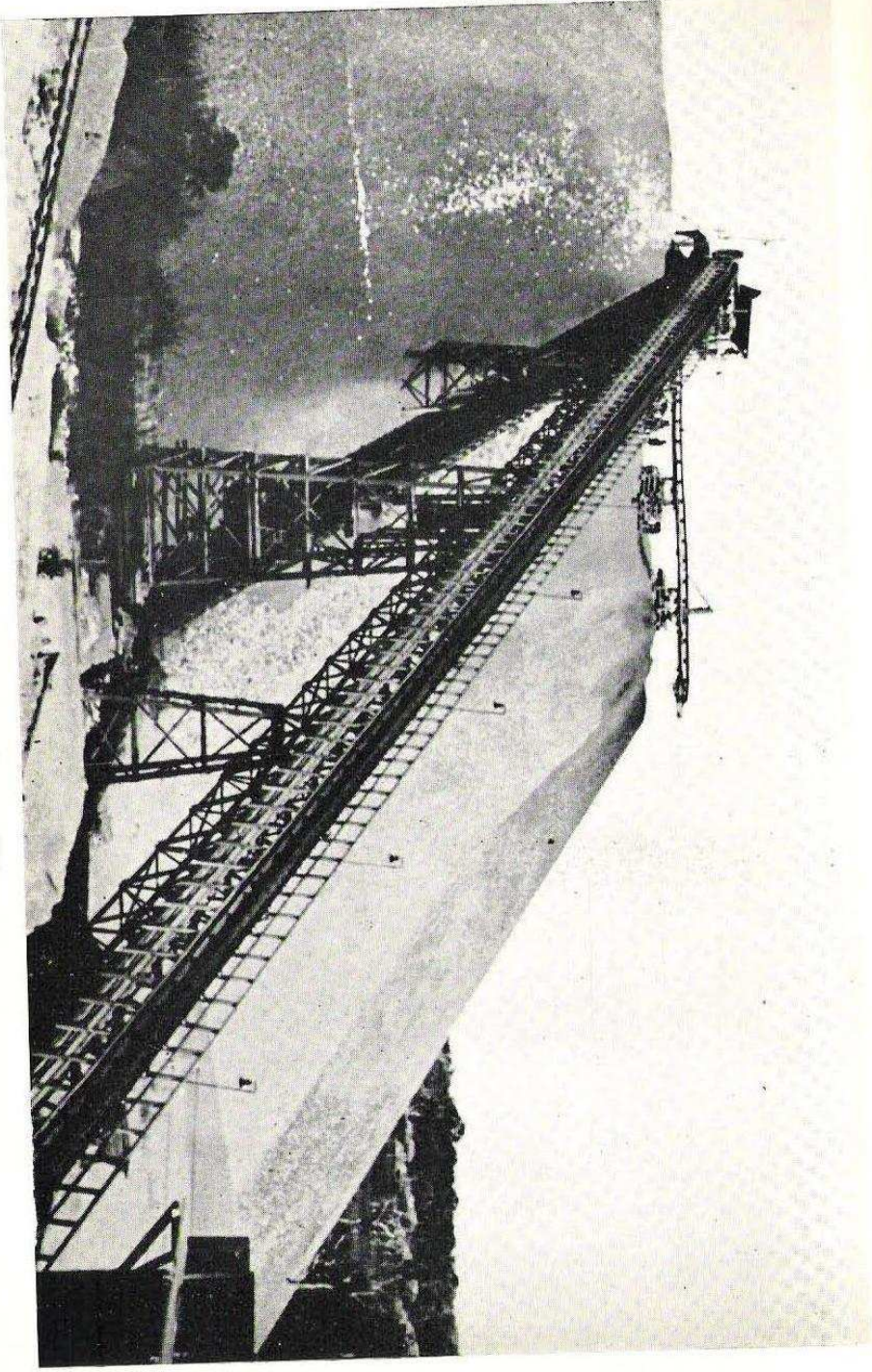
Not everyone who has chewed "peanuts" or "monkey-nuts," as ground-nuts are popularly called, realises that they are a valuable industrial commodity, of which every part down to the husk has its uses.

The nuts are first crushed in two series of cold presses, and the oil drawn off goes to make margarine and substitutes for olive oil. A further hot pressing gives fats for soap factories, and what remains is still good for cattle-feeding cake. Finally, chemical treatment of the husks will give glucose, acetic acid, and other useful by-products, or where no plant is available for this they make a good fuel for heating the presses.

Exports in 1939 amounted to 5,850 tons, and in 1938 to 7,600 tons. Now that Burma is lost, China is almost inaccessible, and communications with India, the main source, are strained, Great Britain is to import whatever quantities the Congo can spare, as already mentioned. As pre-war exports were far below the amount of the normal crop, which has been estimated at 80,000 tons, we may hope that these shipments will be enough to keep margarine production at a reasonable level.

#### PALM KERNELS AND PALM OIL

The red and yellow plum-size fruits of the tall, straight palm tree grow in great bunches, a thousand or more together. They have much the same uses as ground-nuts: the higher-quality oil, usually extracted from the



*Part of the plant of the tin mines at Kolumquevee.*

kernel only, is made into margarine, whilst other qualities derived from the pulp serve for soap factories and the like. In the soap-making process, glycerine is also obtained from the oil. As is well known, this is vitally important in war for making explosives such as nitro-glycerine and cordite.

Some of the fruit is gathered by natives in virgin forest and sold to trading stations, but better results are shown by thinning out natural palm groves and keeping them clear of undergrowth. A still heavier crop, lower cropping and transport costs, and a finer quality of oil are given by cultivated plantations, regularly manured, which were beginning to oust all primitive methods before the war. Now that Far Eastern countries producing some hundreds of thousands of tons of palm fruit and oil annually are in Japanese hands, the Governor of the Congo has appealed for every method to be pressed into service to keep up Allied supplies.

From 1935 to 1938 the acreage of plantations of oil palms in bearing rose from 43,000 to 70,000. In the same years, the area of young plantations not yet bearing fruit was 50,000 and 57,000 acres respectively.

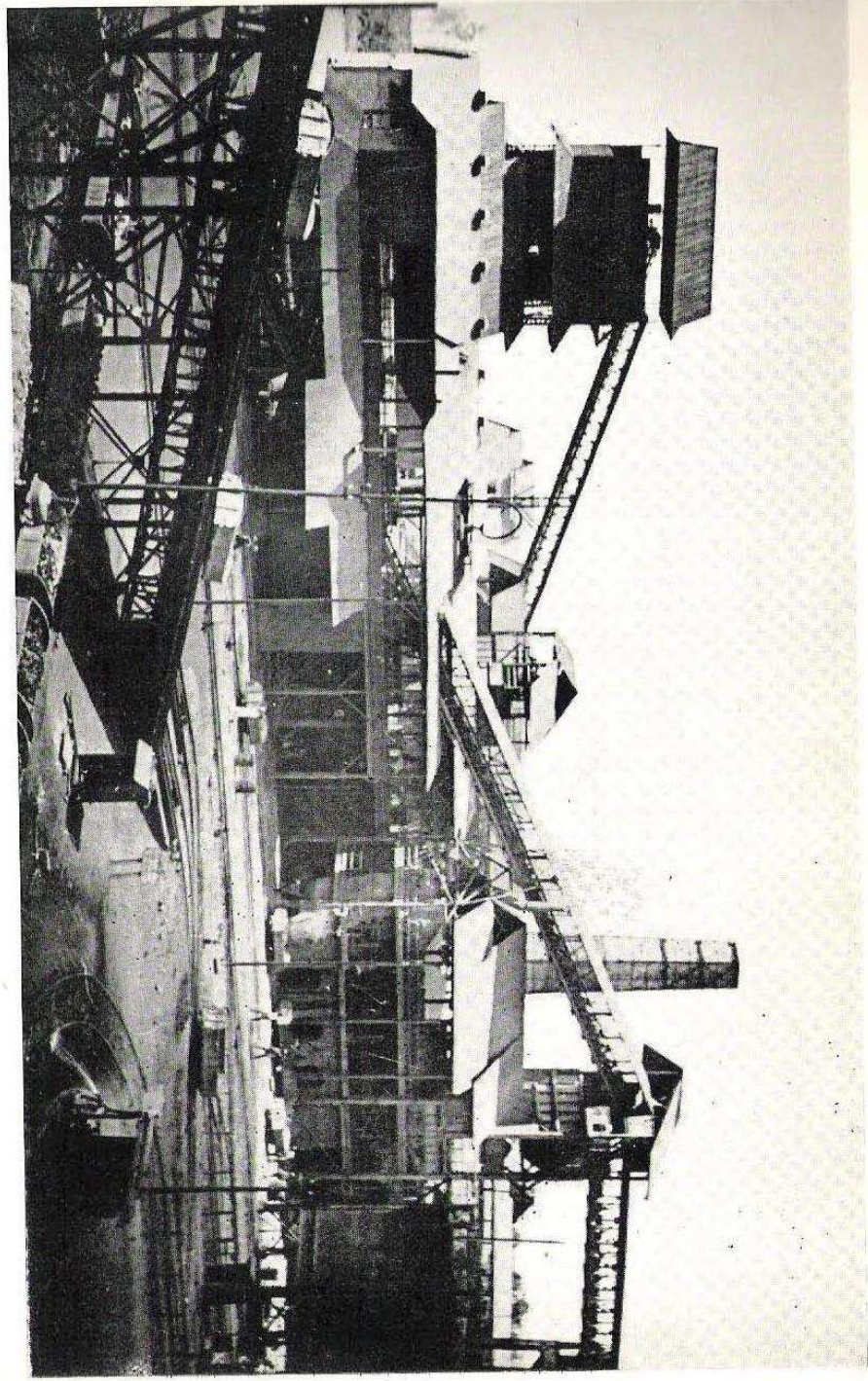
In 1938 there were in addition 60,000 acres of improved natural groves in use. Over 74,000 tons of oil were produced in all, 18,000 tons being from plantations or improved groves and 56,000 from wild fruit.

Exports of palm kernels in 1937-8-9 were 96,000, 89,000, and 83,000 tons respectively. It is expected that even after meeting the needs of the Union of South Africa and the Congo itself, at least 50,000 tons a year will be available for Great Britain.

### SUGAR

In the 1938-39 and 1939-40 seasons, Congo production amounted respectively to 16,961 and 16,169 metric tons

*A copper refinery of the Union Minière at Elisabethville.*



Sugar can of course be used as a source of glycerine for explosives, if supplies of vegetable oils fall short.

#### COFFEE

Nearly 160,000 acres are planted with coffee, and about 25,000 tons a year can be produced, or thirty to forty times the small quantity that used to come from the Dutch East Indies.

#### JUTE SUBSTITUTES

Urena Lobata and Punga are grown by natives of the Congo on their own plantations, covering some 23,000 acres. These plants give fibres closely resembling jute, and can be used to make sandbags, ropes, hawsers etc. in the same way. About 8,000 tons a year can be produced.

This amount, though small in comparison with the 190,000 tons per annum normally imported from India, is likely to be a welcome asset under present conditions, as shown by the Order which came into force in Great Britain on the 20th July, 1942, making it an offence to throw away or destroy any rope or string.

The exact quantity of coffee and of jute substitutes to be sent to England under the Agreement of June 1942 has been left to be fixed in the light of developments.

### CONGO PRODUCTS NOT COVERED BY THE ANGLO-BELGIAN AGREEMENTS

Our survey of the Financial Agreement and the two Purchase Agreements gave a first glimpse of the products that the Congo can contribute to the war effort, but there are very many others which for one reason or another were not

(raw value). In 1940-41 it was down to 15,422 tons, owing to an unusually dry season.

This output is small in comparison with a world total of 18 to 20 million metric tons yearly, but it has been carefully controlled in view of international agreements, and there seems no reason why it could not be rapidly expanded, if need be, to make good the loss of sugar plantations in the Pacific war zone. In fact, exports were multiplied four times over the years 1932-37, and rose by 50 per cent. from 1936 to 1937. According to the last figures to hand, the chief producing company, the Compagnie Sucrière Congolaise (capital 60 million francs) had only about 8,000 acres under sugar, out of a concession nine or ten times that area. It takes rather more than a year for new canes to come into bearing. The Compagnie Sucrière has very up-to-date equipment, including an extensive network of light railways to bring the canes straight from field to factory. Once the trucks have been filled with sugar-cane by the plantation labourers, the whole process of unloading, crushing, drawing off the liquid sugar, refining, crystallizing and packing is carried out by modern machinery.

Up to the present, although the British Government promised to consider the Congo as a source of sugar in the first Purchase Agreement, they have not yet called for any supplies, no doubt because the United Kingdom's food needs could be adequately met by other means, with a more economical use of shipping. In accordance with the policy announced by Monsieur Ryckmans, the Congo makes no complaint of this, but has set about finding other uses for the sugar. More sugar foods are being given to the Congolese labourers, who prize them and will work the more readily for the war effort, and new markets have been found in Rhodesia, British West Africa, and Free-French Equatorial Africa, incidentally relieving the strain on other supply-lines of these colonies.

Economic Warfare has been at equal pains to intercept. A constant supply is needed by armament factories for drilling and milling machines. In the form of fine wire-drawing dies, they are also vital to the radio and electrical industry. Everything has, therefore, been done to increase the Congo output of diamonds, which was 4,926,000 carats in 1937, 7,206,000 in 1938, and 8,361,000 in 1939. In 1940 it was brought up to 10,900,000 carats, a notable achievement in face of the handicaps of that year, representing 80 per cent. of world output by weight. It may be revealed that the work of the diamond mines in 1941 was still more successful, though the figure is not for publication. Antwerp was the great centre for cutting and mounting both industrial and gem stones, and the sudden loss of this town paralysed the market for some months, during which production largely accumulated in idle stocks in the Congo. In June 1941, however, agreements were made under which the whole of the Congo output of diamonds is sent to London for sale and distribution. In fact, all diamonds except British Guiana and Brazilian, or over 90 per cent., are now sold through one central organisation.

With the exception of a few hundred carats, the whole Congo output is due to the Société Internationale Forestière et Minière ("Forminière" for short) and its associated companies.

#### MANGANESE

*Manganese* is again a product of the Union Minière du Haut Katanga, mentioned above under the heading of "Copper." It is of prime importance in war for producing high-duty ferro-alloys. Output of ore was 27,000 tons in 1937 and 8,000 in 1938. The Union Minière's *Cobalt* has also been referred to above. Other minerals of which this vast undertaking has practically a monopoly in the Congo are lead, zinc, palladium, and radio-active ores.

covered by the Agreements, often because supplies are sufficiently ensured by private enterprise. In some cases, of course, other sources, more economic or nearer at hand, have so far proved adequate. In other cases shipping space could not be spared, or South Africa needed the whole supply available in the Congo. With the spreading and intensification of the war since December 1941, the following resources may also be of vital importance to the Allied cause.

#### OTHER MINES

The country is particularly rich in minerals, and mining is the principal industry. The commercial value of mining output in 1937 has been estimated at 2,370 million francs (£16½ million at the rate of exchange then ruling), against 1,530 million francs in 1936. In 1938 there were 71 gold mines, 57 diamond, 29 tin, 10 copper, and also cobalt, coal, iron, radium and salt mines. Many of the mines chiefly producing these minerals also extract smaller but very valuable quantities of rare-earth metals and other scarce substances which are essential in war, to form heavy-duty steel alloys, for example, and for the manufacture of radio components used in military communication and in radiolocation.

The Congo is the world's leading producer of industrial diamonds, radium and cobalt, and, as mentioned above in connection with the Anglo-Belgian Agreements, holds second place for tin, fifth for copper, and twelfth for gold.

#### DIAMONDS

More than four-fifths of the Congo output consists of industrial diamonds. These are a key requirement of modern warfare, which the Nazis have continually striven to obtain from South America by air, and the Ministry of

*Lead*.—4,625 tons were produced from Congo ore in 1938. Large supplies are needed for covering electric cables, for small-arms ammunition, and for the plates of accumulators. Besides their well-known uses in petrol engines and in radio, which are at the heart of mechanised warfare, accumulators provide the motive power of submarines when under water. Over 850,000 metric tons of lead per annum can be produced in the United States and the British Empire. This, however, is only about equal to peacetime consumption in the U.S.A. and United Kingdom alone. In spite of the fact that a further 200,000 tons a year from Mexico is no doubt largely available to the Allies, and that only about 80,000 tons are lost through the fall of Burma, a shortage is beginning to be felt in England. This is evident from the drastic restrictions just placed on the use of lead in buildings (July 1942), which totally forbid the use of lead in most kinds of plumbing, rainwater pipes, gutters, cisterns and damp-proof courses. The shortage is perhaps due to the difficulty of bringing lead from Australia, the source of about half the Empire output, while the struggle with Japan is at its height. Under these conditions a contribution from the Congo, even if only of four or five thousand tons, should be very helpful.

## ZINC

*Zinc* is of course a constituent of brass, of which shell and cartridge cases are made. Production of concentrates in the Congo was 11,251 tons in 1938. In that year 8,279 tons of spelter were smelted from Congo concentrates, out of world production of 1,589,000 tons. About half the world's output comes from the American continent, the United States being the largest producer. It may therefore not be necessary to draw on the Congo zinc mines, and will probably be preferable to devote all energies to other metals.

*Palladium* is used to make accurate, permanent graduation scales for scientific instruments, and is more than ever needed in wartime. In 1937, 389 kilogrammes were produced from Congo ore.

## RADIO-ACTIVE ORES

In 1937, 1,052 tons were exported. The average annual *Radium* production from these ores amounted in peacetime to 15 grammes, but unfortunately there is no plant in the Congo itself capable of extracting the radium. This process was carried out at Olen, near Antwerp.

Many other Congo mining industries were in the same difficulty. The steps taken to overcome it are, of course, to some extent secret at present, but it may be stated that these ores are being shipped to the United States, which imported 1,071 long tons of uranium ore from the Congo in 1940, valued at over 2 million dollars.

## PLATINUM

*Platinum* was in great demand during the first World War as a catalyst for speeding the process of manufacturing sulphuric acid and nitric acid, which are the base of most high explosives, including gun cotton, t.n.t., nitroglycerine and cordite.

This use is now declining, owing to the discovery that fused silica will serve the same purpose, but platinum is still indispensable for contact points in electrical apparatus, for laboratory vessels and astronomical instruments, and in the construction of pyrometers used in controlling various steel processes. Its importance in wartime is therefore obvious. It is mined in the Congo by the Comité National du Kivu, the Mines d'Or de Kindu, and once again the Union Minière du Haut Katanga. In recent years, from 50 to

100 kilogrammes of the metal have been produced annually from the Union Minière's ores alone.

#### SILVER

Production in the Congo in 1938 amounted to 97,091 kilogrammes of fine silver, plus 23 kilogrammes from the adjacent Belgian-mandated territory of Ruanda-Urundi. Expressed in ounces, this would be roughly  $3\frac{1}{2}$  million, on a world production of 263 million fine ounces.

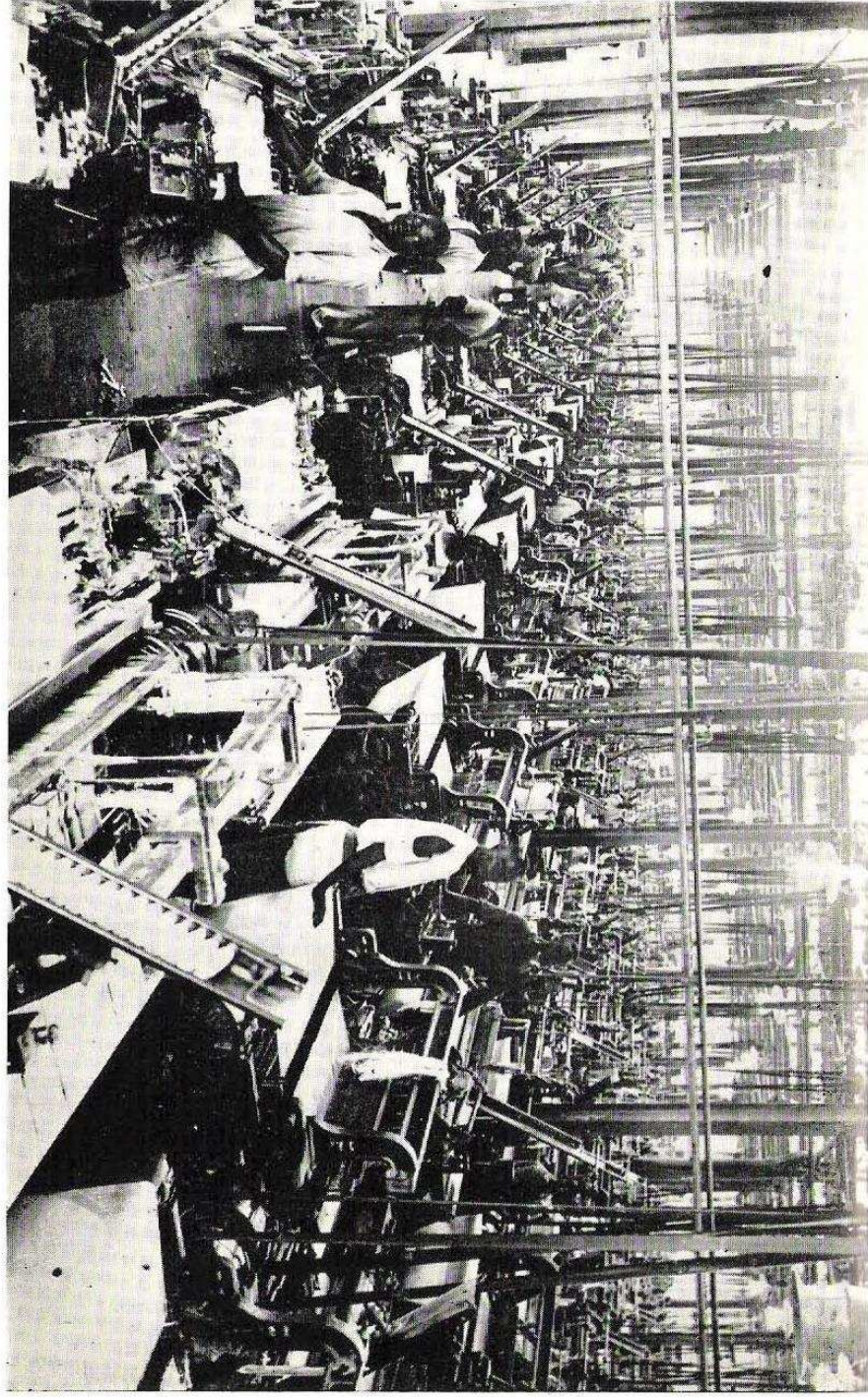
Now that faith in gold as the only possible basis for sound finance has been shaken, silver is less than ever valued as a backing for currency. In the United States the New Deal bimetalist law has not been repealed, but it is beginning to be nullified in practice. Mr. Morgenthau has been allowed to deliver silver from Treasury stocks for making "bus bars", the heavy connecting rods linking up units of electrical plant in various industries, which are usually made of copper. We may expect that the tendency to put silver to industrial uses will increase, and that Congo silver will be pressed into service in the same way, or more probably to replace tin in solders and bearing metals.

#### RARE-EARTH METALS

*Niobium* (or *Columbium*) and *Tantalum* are widely used for the filaments of electric lamps. They are mined by the Société Minière du Maniema, and by the "Géomines" company at Manono. About 130 tons of tantalum were produced in 1938.

The alloy-steel industry is trying to cut down the consumption of tungsten (see p. 27) by using sintered carbides of tungsten and tantalum.

In 1937 the "Minetai" company produced  $7\frac{1}{2}$  tons of columbite (mixed niobium-titanium ore). Of this ore, 61 tons were exported in 1939.



Leopoldville Textile Factories Company—a weaving shed.



A company has now been formed with the object of manufacturing three million boxes of matches a year. They have an option on the machinery needed, and will have State help in the form of duty-free imports and special terms for rail and river freight in the Congo. Two species of tree found in the Colony but not yet put to any commercial use are suitable for making matches—the baobab and the pokopoko.

Trials are also being made of local timber and papyrus from the tropical swamps in the manufacture of pulp. It is hoped to supply pulp to South Africa, as well as to a packing-paper factory now being erected in Léopoldville.

Finally, some of the weapons for the Colonial Army are now manufactured on the spot.

#### ANIMAL AND VEGETABLE WEALTH NOT COVERED BY THE ANGLO-BELGIAN AGREEMENTS

The chief wealth of the Congo, after the mines, lies of course in its crops and animal life.

Several hundred tons of hides and skins, and from a few tons up to two hundred tons of ivory, according to the state of the market, are exported in a year.

The following vegetable products not already mentioned in connection with the Anglo-Belgian Agreements are

exported at the rate of more than a thousand tons per annum : Timber (47,000 tons in 1939), maize (20,000 tons in 1939), cattle-feed cakes (3,000 tons in 1939), raw cocoa, fresh fruit, rice, tapioca flour, cottonseed oil and sesame. The total production of most of these is unrecorded, but in 1938 it was certainly higher than the following :

Rice	•	•	•	•	46,000 metric tons
Maize	•	•	•	•	68,000
Tapioca flour	•	•	•	•	33,000

43

The chemicals are produced by the Société Générale Industrielle et Chimique du Katanga ("Sogéchim"). Their works at Jadotville include a sulphuric-acid plant with a capacity of 30,000 tons yearly, and also produce fatty acids (3,000 tons annual capacity in 1936), sodium chlorate, caustic soda, and hydrochloric acid.

By working at full pressure, this company should be able to supply all the mining explosives needed in the Congo, and possibly part of the ammunition for the colonial army as well, thus releasing valuable shipping space for other goods. Small quantities of chemicals are supplied to other parts of Africa, but they are mainly for local consumption.

The textile industry is making an important and direct contribution to the war effort by providing uniform material, bandages, dressings, cotton-wool, sheeting, and tent canvas for the Belgian Colonial Army and Free French Forces, which are not only garrisoning their own territories but have played a full part in the Abyssinian and Libyan campaigns. For this purpose the only mill, which is at Léopoldville, has been extended, and has been made almost self-sufficient by setting up machine-shops to cast, finish and repair loom parts. Both mills and machine-shops are to be further enlarged to cope with a growing demand for

military equipment from British colonies in Africa also. The piece-goods are sent to workshops in Free French territory to be made up.

In peacetime the only other secondary industries in the Congo are those concerned with preparatory treatment of raw materials (cotton ginning, extraction of oil from seeds and kernels, etc.), or small works catering for purely local needs.

New secondary industries are beginning to make their appearance under the pressure of war. Essentials which are now almost unobtainable are paper, wood-pulp and matches, formerly imported from Belgium, Scandinavia and Japan.

42



Development of these natural resources often progresses at a great rate, giving good prospects of rapid action to replace sources of supply closed by the war in the Pacific. Thus from 1936 to 1937 alone output of timber doubled and the maize crop trebled. In 1939 maize was a principal export from French Indo-China to this country, and timber from Thailand.

The area of forest being worked for timber in 1938 was 250,000 acres, which produced over 2 million cubic feet of logs and nearly half a million cubic feet of sawn wood. Natural reserves are practically inexhaustible, the area mentioned being less than one-tenth of 1 per cent. of the vast forest regions of the Congo. Nevertheless, a far-sighted afforestation policy is in force.

The only obstacle to increasing the timber supplies is that where customers require seasoned wood or sawn scantling sizes it is difficult to expand the kiln-drying plant and the sawmills quickly enough. In 1941 equipment was insufficient to cope with the demand from the Union of South Africa alone. Some supplies were received in return from the Union's factories, but these do not manufacture the flamed tubing used in drying-kilns, which has to be brought from Europe or America. In spite of all such difficulties the "Agriflor" company (Société Agricole et Forestière du Mayumbe) have gone ahead with extensions to their plant, and the position is improving.

### AFRICA CONGO CO-OPERATION WITH SOUTH

There are regular sailings between Boma and Capetown, and special arrangements have been made for transporting timber across the Union by rail, with very satisfactory results. In the Congo itself, a great deal of timber is still carried by elephants. The Congo provides the Union with timber, palm oil, cocoa beans and bananas, and receives South African manufactured goods in return.

### POTENTIAL RESOURCES OF THE CONGO IN A LONG WAR

So far we have spoken only of resources already being worked on a fairly extensive commercial scale. Potential wealth must also be taken into account in the balance-sheet of Allied war resources, even where it can only be tapped by costly and difficult means calling for a long-range programme of development. The need for heroic expedients and the possibility of a long war have been greatly increased by the Pacific conflict, and no likely source of vital supplies must be overlooked.

In the vegetable kingdom, the potentialities of the Congo are almost unlimited. At different altitudes and in different latitudes the most astonishing variety is or can be grown. Few are the useful plants that have not been raised in the Congo either for local use or experimentally. Everything from the wheat and vegetables of temperate zones to the exotic pineapple is part of the local food supply.

### SELF-SUFFICIENCY IN FOOD

To decrease the call on imported canned goods from Europe and the U.S.A., a great effort has been made to improve supplies of fresh food. By co-operative methods of

that in the following year, the Congo will be able to supply all Africa with quinine to combat malaria.

#### SOYA

*Soya*, a product of Japan with a hundred uses, grows very readily in the Congo and will yield 2½ tons per acre in European hands, or about half that amount under native cultivation with primitive methods. It enters into margarine, chocolate, sauces, other composite foods, vegetable casein, glue, artificial textiles, cattle feed and varnish.

#### TUNG OIL

*Tung oil*, also called China Wood oil, can be replaced by copal for many purposes, but if necessary the oil itself can also be produced in the Congo. This is already being done on a small scale.

Tung oil is used in heat-proof varnishes, quick-drying enamels, brake-bands, and insulating materials for the electrical industry, among many other things. One chief source of this oil was Hong Kong, lost for the time being to the enemy, and the other China, whose communications with her Allies are now precarious.

#### GRAPHITE

*Graphite*, an indispensable high-speed lubricant, was mainly imported from Germany, Italy, Norway, Japan and Madagascar. The recovery of the last source will give us back about a quarter of the normal peacetime supplies of 16,000 tons per annum, but the route to be traversed is much longer than from the Congo. It will no doubt be necessary to investigate the Congo deposits thoroughly without delay. Concessions have been granted to two companies, but un-

production and transport, the amount of garden and dairy produce sent from the Kivu district to the equatorial zone was increased from 20 tons per month in 1941 to 60 tons per month early in 1942.

#### REAL SILK

Plans were set going in 1938 to provide 1,500 natives with their own mulberry plantations, and huts for breeding silkworms. It is very fortunate that these efforts are now beginning to give results, for silk is essential in modern warfare, and the principal suppliers were, of course, China and Japan. It is used in manufacturing parachutes, parachute flares, insulated wire for radio windings, and for many other important purposes.

In the latter half of 1941, 1½ tons of cocoons were brought in, and in view of the broad basis laid down for this new industry four years ago, it is hoped that this figure can soon be multiplied twenty times over.

Parachutes woven from Congo silk are already being used by the R.A.F.

The silk is of such high quality that first-grade "gut" for surgical stitching can be produced. In 1941, over 200,000 lengths of this were made, and 1 million is the target set for the current year (1942).

#### QUININE

Cinchona bark, the raw material of quinine, is grown on 1,500 acres by the Synamnac Company, and four years ago subsidies of several hundred pounds were granted to extend plantations of this vital medicinal plant in various districts. Quinine is being extracted locally. During 1943, new groves will yield bark, and the Congo will be able to meet all its own needs without calling on Allied supplies strained by the loss of the usual source, Java. Further, it is expected

fortunately reports on quality so far received are not very encouraging. Oil has been found on the shores of Lakes Edward and Albert and in the Mayumbe region, but has apparently not given sufficiently plain promise of returns to tempt capital. Possibly in view of the loss of at least 50 million gallons a year normally obtained from the East Indies and Malaya, it will be worth while to make trial borings in the Congo.

## GENERAL ECONOMIC TRENDS

### STATE REGULATION OF TRADE AND INDUSTRY

In spite of the vastly different economic structures of the tropical, colonial Congo and of highly industrialised England, the general trend of economic development during the war and the economic problems arising have been alike in several respects.

As in England and elsewhere, the war has brought with it a great increase in Government regulation of industry and trade, facilitated no doubt in the Congo by the wide personal powers of the Governor-General, which are similar to those of the head of a British Crown Colony, and by the fact that there was already a certain amount of "mixed economy," that is to say enterprises in which the Government held at least a half-share of the capital and had nominal, though not always effective, control.

As in England, too, there is a tendency to regard some of the new spheres of State or semi-State control as the basis of a post-war economic policy. Again, there has been the same controversy between public and some official opinion on the one side, and Army headquarters on the other, as to what proportions

of man-power should be, firstly, in the fighting line and, secondly, in production to keep the line supplied and equipped.

This controversy has been all the more acute in the Belgian case, because after the fall of the homeland the Army was necessarily small, and because Congo production comprises vital basic materials of first importance to the Allied war economy as a whole. There was thus a tendency on the one side to regard civilian production as unquestionably more important than the small army could possibly be, and on the other to make it a point of honour to whip up as large a new army as possible from all available sources, of which the Congo must naturally be the first.

Whatever the truth of the matter, it must be acknowledged that all protagonists had solely in view the furtherance of the Allied cause.

The services of Belgian Embassies, Legations, and Consulates in all the free countries of the world have now been enlisted in an intensive campaign to register and recruit new technical staff for Congo industry. We may hope that this will shortly solve the problem and begin to send output of strategic materials up to new heights.

### GOVERNMENT CONTROL OF QUALITY

#### *Uniform High-grade Supplies for British War Factories*

Government intervention in the Congo has been of the most varied kinds.

First there is control of quality, prohibiting export of inferior produce and preventing any misuse of trade terms such as "Copal Lac," which have come to be regarded as a guarantee of high quality. This is only an extension of a principle accepted in the Congo long before the war. For more than ten years it has been illegal, for example, to export adulterated rubber, or plantation rubber containing

*Government Action to Improve Quality and Promote Sales*

A Coffee Office has been set up to improve quality and increase sales. It is run by a Committee consisting of eight Government officials (mostly agricultural research experts) together with four representatives of the growers. All those genuinely connected with the coffee business may be members of the Office. No coffee may be exported without a licence from the Office, which may impose any condition it wishes, subject to the right of any aggrieved party to appeal to the Governor-General.

The organisation of these "Offices" is of some interest. The object is in each case to improve quality and output and to increase sales of some wild or cultivated product. The Offices so far set up have been given powers to actually engage in trade and industry, which would probably have been jealously denied to such a semi-State advisory and development body in most countries. Apparently there was some apprehension on this point in the Congo too, for the general Legislative Order of 15th October, 1940, which lays down the status of all such Offices, prohibits them from trading or engaging in industry unless expressly authorised to do so.

They are financed by Government loans or subsidies, which may, however, be recouped by taxes imposed for the purpose on the trade concerned, and collected by the Office itself.

The Offices have power to forbid exports of poor-quality goods. They may also administer funds for combating plant diseases or pests, and grant bonuses to members for excellence of quality or packing.

There is also a *Pyrethrum Office*, *pyrethrum* being a plant (feverfew) of which the flowers are used in making insecticides.

more than 15 per cent. in all by weight of water, non-coagulated latex, stickage, and vegetable impurities.

There is now a tendency, however, for this kind of control to widen into a virtual prohibition of new enterprise in certain fields, an innovation which would be open to stern criticism from the late-surviving but very vocal economists of the strict *laissez-faire* school. The same virtual prohibition occurs in England, in a hundred-and-one trades where it is impossible to open a new business because supply quotas are only granted on the basis of a percentage of pre-war turnover.

The following are some of the quality controls set up since 1939, which help to ensure a uniform supply of first-grade goods for England's war factories and for some of the essential consumer-goods industries of the Union of South Africa, including the furniture industry.

Logs of limba wood may only be exported if they come up to standard length and girth, and are practically free from clefts, irregularities, wormholes, etc.

Sawn wood must be clean-cut on the square, and of at least the length stated. It may be longer, unless consisting of packing-case boards or other work calling for correct sizes. Planed or finished work must also be of exactly the correct size, and there must again be practically no clefts, wormholes, sapwood, etc. Further, no export consignment is allowed to go forward without a signed declaration showing whether the wood is seasoned, kiln-dried, or chemically treated. The same Order lays down the names to be applied to various species of Congo timber.

Decoricated ground-nuts are inspected by the Customs at the frontiers, and may not be exported unless they are uniform in colour, are free from insects and mould, and contain less than 8 per cent. humidity. There are also limits of 2 per cent. for foreign substances, 15 per cent. for considerably damaged nuts, and 30 per cent. for slightly damaged ones.

bonus for oil exported to Great Britain which shows less than 5.2 per cent. acidity, less than .5 per cent. water, and slight traces only of any impurity.

Exports to Great Britain, U.S.A., the Rhodésias and the Union of South Africa may only be made by firms which exported at least 250 tons of their own oil in 1939, or plantations of selected palms producing that amount; or by syndicates of exporters who jointly fulfil these conditions. Maize exports from the chief maize-growing provinces may only be made through the Syndicat d'Initiative des Exportateurs du Lomami-Kasai, which is empowered to fix minimum prices to be paid to the native growers.

A Copal Commission, consisting of a nominee of the Governor-General and four representatives of the trade, allots quotas licences for exports of this gum. Only persons who exported 150 tons or more in 1939, or groups of persons who jointly did so, may now engage in the trade. The use of the terms "Copal du Lac Léopold II" or "Copal Lac" is restricted to traders around the lake and in certain well-defined neighbouring districts, who have long made it a rule to refuse to buy any but scraped, washed and sorted gum from the native collectors. All other Congo copal must be described as "Copal Equateur."

### EXPORT POOLS

Next there is compulsory pooling of produce to enforce the most effective use of labour, transport, etc., and to ensure a still closer control over the quality and flow of exports than is given by the Offices and Commission. The Export Pools, or "Groupements," were formed on the initiative of the chief firms concerned, but where some traders did not think it to their interest to join the Pool, the Governor-General has given the schemes official backing and made membership obligatory.

This Office collects a tax for inspecting pyrethrum flowers before export. Inspection is compulsory, and no flowers may be shipped unless they contain at least 1.2 per cent. of pyrethrine and come up to various other standards of quality.

### PRODUCE COMMISSIONS

#### *Price-fixing and Control of Exports*

For several other products there are bodies known as Commissions which from the overseas buyer's point of view have much the same satisfactory influence on quality as the Produce Offices, but have sometimes wider and sometimes narrower powers.

The Urena and Punga (jute substitutes) Commission, for example, fixes minimum export prices. Like the Offices, this Commission controls quality of exports and charges a tax upon inspection, to recoup expenses. It is similarly formed of both Government officials and representatives of the trade.

Fine, silky jute-type fibres, or long ones, must be sorted out from inferior or short ones. A maximum of 10 per cent. humidity is allowed, and no foreign substance whatever.

The Palm Kernel Commission, on the other hand, amounts to little more than a Government contract to two large firms to purchase from natives or middlemen the whole of the kernels to be supplied to the British Government.

The Palm Oil Commission licenses exports of this product, and does not allow any oil registering over 8.5 per cent. of free fatty acid to pass, unless on some special grounds. In order to reserve shipping space for the best-quality oils, export is subject to a quota based on 1939 figures, except in the case of oil from cultivated plantations of selected palms, which may be shipped without limit.

A bonus of 20 francs per ton is paid for each decreasing degree of acidity below 8.5 per cent., and a further special

Consequently there is also some direct control of mining production, to ensure that plant and skilled staff are promptly switched from one industry or mine to another as war developments or local circumstances require. We have already seen that war policy first called for a production drive in the gold mines, but that after the Pacific losses and the full alliance with America, tin suddenly became far more important.

Such turns in the situation will now be swiftly met by exercising the powers of the Direction de la Production Minière de Guerre (War Mining Production Board), commonly known as D.P.M.G.

The Board can transfer engineers to whatever work becomes most urgent for the purposes of war, and can order that plant and machinery be used in common by two or more producers if need be.

Monsieur Liénart, a Provincial Commissioner of the Congo, has been appointed head of the Board, and will be assisted by a technical adviser and secretarial staff. He has authority to call on the services not only of all the technical experts on the Congo Government staff, but also of the employees of private companies and semi-private bodies such as the Upper Congo-Great Lakes Railway, the Katanga Special Committee, and the Kivu National Committee.

Monsieur Liénart has declared that all private interests must take second place; total participation in the war until final victory comes before all else.

#### LABOUR LEGISLATION

*Key Men must Remain at their Posts*

A measure similar to the Essential Work Orders in England is the decree of the Governor-General ordering a state of "Civilian Mobilisation." Under this, practically

Thus ground-nuts may only be sold through a Pool managed by the Syndicat d'Initiative des Exportateurs du Lomami-Kasai.

There is also a Rubber Export Pool, and a Cotton Pool organised by the Léopoldville Cotton Growers' Committee.

#### *Analogy with Export Groups in England*

Like the Export Groups in England, these Pools are viewed in some circles not merely as a wartime expedient to economise labour and transport temporarily while the national interest imperatively demands it, but as the embryo of a new, rational system of post-war overseas trade.

Monsieur Jennes, Economic Adviser to the Belgian

Ministry of the Colonies, has had the courage to pronounce unequivocally in their favour, and hopes to see pools for all Congo produce, which would organise all sales abroad, the producer having nothing more to do than produce of his best and deliver to the Pool. The Pool would have a standard contract, long-term price agreements, standardized packing, and carefully graded goods. Each Pool would, moreover, have a single selling agency in each buying centre, in place of a number of competing small commission agents each pushing the wares of one company.

It has been suggested that the Pools should also become joint buying agencies, to provide producers with tools and other equipment and supplies obtained in bulk direct from the manufacturers.

#### CONTROL OF MINING OUTPUT

It is extremely difficult for England and America to spare much plant and to ship it safely to the Congo at present; also, the small supply of skilled supervisors and technicians in the Colony has been depleted by the demands of the Belgian Army.

all expiring contracts of employment will be automatically extended for the duration of the war.

Also for the duration of the war, all male adult able-bodied natives can be compelled to work sixty days a year in growing, harvesting, or gathering war produce, in addition to the sixty days' service on roads or native-owned plantations which may already be required of them under peacetime legislation (decree of 5th December, 1933). Wages are, of course, paid for any compulsory service of this kind.

### CONCLUSION: TOTAL WAR

It is fair to conclude from all these facts that the Belgian Congo's organisation for the struggle against Nazism merits the name of total war, all energies and resources in every sphere being directed to the one end of speedy Allied victory.

In the words of the Governor-General in his broadcast on the Belgian National Day this year (1942):

“Since the 10th May 1940, since Germany invaded Belgium, the Congo has done nothing else but make war, and lives only for victory. The Congo makes war both in the field of battle and on the job. In spite of having given the best of our men to the Army, in spite of the gaps made by death, sickness, and necessary leave, we are producing and delivering more successfully than ever all that the Allies ask, whatever can increase their strength, whatever can strike a blow at the enemy.

“In the hour of victory we shall restore to our Sovereign the flag entrusted to us, free, proud, and unsullied.”