THE CRUDE RUBBER SUPPLY: AN INTERNATIONAL PROBLEM

By Harry N. Whitford

UNTIL a comparatively short time ago the United States was dependent for its crude rubber supplies on wild sources, located mainly in South and Central America and in Africa. For a number of years the annual production of wild rubber ranged around 60,000 tons. Then about the year 1870 certain far-sighted Englishmen began to see the possibilities of producing Brazilian rubber in their Eastern colonies; and in 1876 young trees, propagated in Kew Gardens, London, from seeds collected in Brazil by Sir Henry Wickham, were sent to Ceylon, India and Malaya. It was some years, however, before planters took any interest in this cultivation and it was not until 1907 that exports of plantation rubber reached 1,000 tons annually.

These exports gradually increased, as the result of planting which had taken place some years before when planters began to seek crops to replace coffee, sugar, and other products which had had disappointing results. By 1910 7,000 tons were exported; in 1911, 14,000 tons; in 1912, 30,000 tons; and in 1913, over 50,000 tons. From this date forward the predominant position of plantation rubber was assured; and supplies of wild rubber showed a gradual decline in the face of Eastern competition.

Thus in the course of a few years America's dependence on rubber shifted from the American continent to Asia.

SOME STATISTICS REGARDING THE INDUSTRY

The world's export of rubber in the year 1923 was valued at $240,000,000, of which the United States imported $185,000,000 worth, or 77 percent of the total.

Ninety-five percent of the rubber used today comes from plantations located in one geographical region—southeastern Asia and the neighboring islands—and in districts under the control of Great Britain, Holland and France. In all, some 4,200,000 acres are planted with Para rubber. Of these 69 percent are located in the British possessions, 53 percent being in British Malaya, 10½ percent in Ceylon, and the remainder in southern India, Burma, British North Borneo and Sarawak. The Dutch

East Indies contain 29 percent of the total acreage, of which the island of Sumatra has 17 percent and Java 9½ percent; the remainder lies in Dutch Borneo. The French possession of Indo-China has a planted area equal to 2 percent of the total.

Turning to a consideration of the method of control, we find that there are two main classes of plantations, viz., European and Asiatic. The so-called European plantations constitute 2,800,000 acres. This is two-thirds of the whole and represents a total capital investment of $750,000,000, divided as follows among the different nationals interested:

	Capital Invested
Great Britain	$489,000,000
Netherlands	130,000,000
Japan	40,000,000
United States	32,000,000
France and Belgium	27,000,000
Other European	47,000,000

The estates represented by this large investment are as a rule highly organized; in general they practice intensive methods of cultivation, are well equipped with factories, buildings for the European and native staff, hospitals and roads, and have the direct or indirect assistance of scientific experts to look after the welfare of the planted stock and to improve this stock so as to get greater yields per acre.

The Asiatic or native plantations cover some 1,400,000 acres, the largest areas being found in British Malaya and Sumatra. In British Malaya they are controlled by the indigenous native population and immigrant Chinese; in the Dutch East Indies by Javanese and a few Chinese. The individual units in these plantations vary in size from a garden plot of a few trees to an area of something under 25 acres (in a majority of cases), though some few contain 100 acres or more. These small plantings are as a rule strictly family affairs, with no capital invested other than the labor of the owner and his family and perhaps of a few retainers who might be under his control. Generally speaking, primitive methods are used in caring for these plantations; the rubber that reaches the local primary markets from them is poorly prepared, containing a large percentage of moisture, and is washed and dried before being shipped to the consuming markets of the world.

These are the main facts which must form a background for any discussion of the international problems that have arisen in recent years, mainly out of the attempt the British have made to raise the price of rubber by restricting exports from the territories under their control.

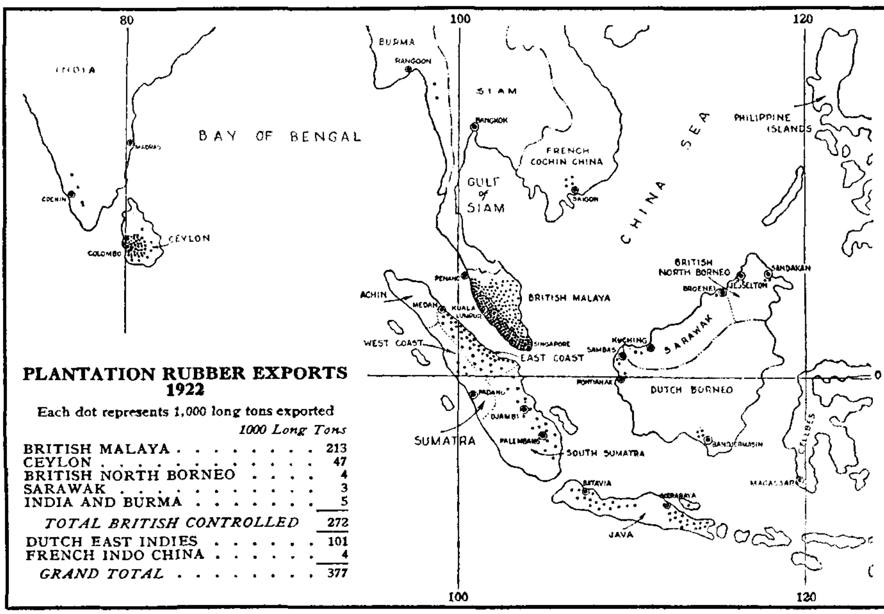
PROJECTS FOR ARTIFICIAL CONTROL OF OUTPUT

Until the year 1920 the price of rubber was sufficiently high —despite the gradual decline from the level of 1910—to yield profits handsome enough to stimulate capital to invest in new plantations. From 1906 to 1920, on the average 250,000 acres were planted each year. During this time there was no year in which the acreage planted fell below 100,000 and even in 1921 more than this amount was set out. Since it takes from four to six years for a rubber plantation to become tappable, the industry as a whole did not realize that the plantation area was becoming so large that the production would exceed the demand.

For ten years previous to the war the average London yearly price of rubber was 5 s. 6 d. At no time did it fall below 3 s. and one year it registered as high as 12 s. 9 d. During the war it averaged 2 s. 6 d., and never dropped much below 2 s. For the five years since the war, the average price has been about 1 s. 4 d. For the years 1919-20 it was 2 s. and in the latter year registered as low as 10 d. This price, the lowest to date, so alarmed the plantation owners that the Council of the Rubber Growers' Association, in London, met to consider possible remedies for the situation. Production of crude rubber was continuing to increase and the 1920 crop was exceeding that of 1919 in spite of the prevailing adverse conditions in the consuming markets and in spite of the declining output of wild rubber, especially from areas outside of Brazil.

The result of the deliberations of the Council of the Association was a plan calling for the voluntary restriction of output. This plan stipulated a reduction of output by twenty-five percent for a period of one year, beginning November 1, 1920. The Association also invited non-member planters to adopt the same restriction plan. About ninety percent of the members agreed to the proposal, but amongst the non-member growers the policy was not welcomed. This was particularly true of the Chinese and other native plantation owners who had a very low cost of production. Since the Association controlled only one-third of the total British-owned plantation area it was evident that a policy of non-coöperation on the part of non-members would destroy any restrictive plan; and although an effort was made to continue the operation of the plan, the idea in general soon proved a failure.

The discouraging situation of the industry continued, however, and became even more critical in 1921. While prices continued to decline, reaching a new low level of 8 d., the London stocks of rubber increased to over 70,000 tons. It was proposed that a controlling company, to be known as the Rubber Producers' Corporation, be organized for the purpose of exerting effective



Prepared by the Department of Commerce, Washington

control over output. As this plan lacked the necessary support the British Colonial Office, which had so far maintained a policy of "hands off," became interested in October, 1921, to the extent of appointing a committee to study the question and suggest necessary remedies.

In the meantime, due to the material increase in industrial activity and the general confidence in an eventual satisfactory outcome of the raw rubber situation, the market began to respond favorably; more takings were in evidence and were reflected in slight price increases. At the end of December, 1921, rubber closed at 10¾ d. per pound as contrasted with the low level of 8 d. in June. The committee appointed by the British Government was now ready to make its report; and while duly impressed with the gravity of the situation, it firmly refused to favor the adoption by the Government of any restriction plan unless it was with the support and coöperation of the Dutch Government. The report was issued early in 1922. Coupled as it was with the knowledge of the failure of the voluntary restrictive plan of the Growers' Association, it let the bottom out of the rubber market again, with the result that a new decline started; and in August, when the Dutch Government officially stated its unfavorable attitude to a restriction plan, the price of rubber reached its lowest figure—6¾ d.

But by now the worst of the crisis was over. Activity in the American automobile and tire industries was increasing. Business was becoming normal. In fact, with the increased development of manufacturing industries the consumption requirements under full working conditions indicated that the natural law of supply and demand would, within a reasonable time, raise the price to such a level that any artificial methods to stimulate the market would not be necessary. The large surplus stocks, it should be noted, had been gradually decreasing during 1922.

In the face of these encouraging signs the special rubber committee of the British Colonial Office nevertheless presented a supplementary report on October 2, 1922, in which they reversed their previous judgment and strongly urged an immediate scheme of government intervention and control to be put into effect in Ceylon and British Malaya.

BRITISH GOVERNMENT CONTROL AND ITS RESULTS

The Act resulting from these findings, known as the Stevenson Restriction Act, provided for a "standard production" for each rubber estate based on the actual output of that estate for the year ending October 31, 1920, plus an allowance for production from new areas. A certain percentage of the total standard production was allocated for exportation in each quarter, depending on the average price of rubber during the preceding quarter. For the first quarter period of the operation exportation was set at 60 percent of the total standard production. An average price of from 1 s. 3 d. to 1 s. 6 d. during a stated quarter would bring about an additional release of 5 percent, or 65 percent of the standard production; an average price of 1s. 6 d. to 1 s. 9 d.

would result in a 10 percent release. Inversely, if the price should average less than 1 s. per pound during a three months' period, a reduction of the percentage of release by 5 percent was provided for the following quarter.

It was the Stevenson Restriction Act that forcibly brought to the attention of the American public our dependence on foreign sources for our supplies of so important a commodity as crude rubber. To be sure, manufacturing concerns in the United States using the product had been long aware of this; but it took a regulation of a foreign power that interfered with the law of supply and demand to awaken general interest in the matter. As a result Congress was induced to appropriate funds to investigate the crude rubber situation and the situation of other commodities under foreign control.

Restriction has now been in force eighteen months. Before the Stevenson Act went into effect the price of rubber was on the up grade, due to increased demand in the United States, and it is believed by many that a level of at least 1 s. (the present price) would have been maintained had restrictive measures not been applied, though advocates of the measure will not admit this. The psychological effect of the measure was to force the price up to as high as 1 s. 6 d., and for 1923 an average level of a little below 1 s. 3 d. was maintained, which met the expectations of the moderate advocates of the measures.

There have been two unforeseen happenings, however, which have lessened the effects of restriction. For one thing, the adoption of restrictive measures advertised to the world that there is at present a potential over-supply of rubber. Consequently users of the product do not fear a shortage, with the result that they do not feel the necessity of carrying such large stocks as formerly.

The higher prices, moreover, stimulated the production of rubber in the Dutch East Indies. Especially was this true of the holdings of the native planters. In fact, the increased supply of rubber coming from these holdings during the year 1923 just about offset the reduction in the British colonies due to restriction. This has precipitated another international controversy—this time between the Dutch and the British. The British planters claim that the Dutch are reaping the full benefits of their restriction measures without carrying any of the burdens. The Dutch reply that the holdings of the British and

Dutch in Sumatra and Java have adopted more conservative methods, and that the slight increase of rubber that has come from the districts where these holdings are located can be accounted for by new areas coming into bearing. They state that the problem of controlling the output of the native holdings is too great for them to undertake, and that they believe in any case that the problem should be met by economic and not legislative measures. Up to the time of writing, the Colonial Office in Holland has resisted firmly all efforts of the British to induce the adoption of restrictive measures in the Dutch East Indies.

THE DANGERS OF CONTROL

It cannot be said that a London price of 1 s. 3 d., which the moderate advocates of restriction hoped to maintain, is an unfair one. Neither can it be stated that there is a disposition on the part of the present British leaders of the rubber plantation industry to abuse their power of control at the expense of American consumers. The potential output now exceeds the demand.

But the demand is expected to increase rapidly during the next few years, and the power represented by centralized control over a large part of the planted area is a factor which American industry cannot afford to neglect. We have no certainty that the American consumer will be treated with the same degree of consideration when the market is moving against him as is shown him when it is moving against the producers. It was such a danger (in so far as crude rubber is concerned) that the Secretary of Commerce foresaw when he advocated an amendment to the Webb-Pomerene Act to grant legislative sanction to a combination of buyers of foreign-controlled commodities. Such a combination—used only in case of necessity—might be expected to offset, to a degree at least, conditions arising through any abuse of the power to restrict the output of rubber. The international results of the announcement of this move are seen in efforts of the British rubber growers to bring about a sellers' organization better to control the price of rubber. Incidentally, it may be stated that there is no legislative act in Great Britain against the organization of a selling combination.

STEPS TO MEET POSSIBLE DANGERS

It is less the present supply of crude rubber than the future supply that should concern consumers in America.

A crude rubber survey of the region where 95 percent of the crude rubber we consume is produced shows that by 1930 the planted area will have a capacity to contribute about 600,000 tons annually. The world consumed 430,000 tons of rubber in 1923. An investigation into the future world demand for rubber, undertaken by the Rubber Association of America, indicates that by 1930 consumption will exceed production. That a shortage of crude rubber is likely to be felt by 1928 is indicated by a comparison of the prospective production and consumption for the next few years. It is a picture which cannot be looked upon with complacency.

It will be clear from the foregoing that there are two distinct problems involved: (1) monopoly control of a basic raw material, and (2) a shortage in that raw material developing within a few years. To meet these problems there are two courses open: (1) new planting, and (2) an extension of America's present holdings in the East.

Nothing in the way of new planting now will have any effect upon the situation during the next seven or eight years, for it takes from four to six years to bring rubber into bearing, and it is ten years or more before the tree approximates its full yield. New planting, therefore, is to be considered rather as a means of protecting our supplies in the more distant future.

A survey of the Philippines and of Latin American countries shows that there are large areas in these regions where the physical conditions, such as soil, climate, etc., are as good as those in that part of the East where the plantation industry is now centered. But unfortunately an important adverse factor to consider is labor. With methods of planting as they are, wages alone amount to 40 percent of the cost of bringing an acre of rubber into bearing, and 40 percent of the cost incurred on a plantation in harvesting the crop. The British, French and Dutch possessions in the East have not only a large labor force to draw upon but the great additional advantage of low wages. Labor in these countries cost; about one-half of what it does in the Philippines, and from one-fourth to one-third of what it does in Central and South Americas and if large scale operations were undertaken this differential might be still more marked.

The findings of a recent field party sent out by the Department of Commerce show that in the Philippines sufficient labor exists outside the region where the climate is favorable to rubber production, and that there are no insurmountable difficulties in the way of mobilizing and transferring this labor. But existing laws and the present political situation are not favorable to large-scale production. In the Latin American republics investigated there is a shortage of labor. No production of rubber on a large scale is possible in them without resorting to imported labor, which can be obtained cheaply only in China. While the difficulties of obtaining this class of labor are probably not insurmountable, the proceeding would involve, first, negotiations on the part of the Latin American governments with the country from which the labor was to be obtained, and, second, the possible attitude that the United States might take toward such an immigration into Latin America.

Other questions involving more general policies also arise. We have to consider, for example, our national defense, especially as concerns the protection of our lines of transport in the remote contingency of war; again, we must consider the trend of social and political conditions in the East; thirdly, there is the question of the desirability of having our risks more widely scattered and of not being dependent upon one geographical region.

The survey referred to shows nothing at present that justifies us in taking an alarming view concerning these factors, but it is felt that they present sufficient justification for seriously considering experimental work in new districts, and perhaps along rather different lines than those in vogue in the East.

SOUTH AFRICA BEFORE THE ELECTIONS

By Cyril Campbell

LIKE other countries, the Union of South Africa has suffered from the universal trade depression. Dependent during many years on Great Britain for some of the commonest necessities of life, she during the war was forced by the German submarine campaign's menace to sea communications to rely on her own resources. Consequently many new industries were opened up. South African products, such as wool, were sold at unheard of prices; indeed, to put the matter plainly, the close of the war saw the Union more prosperous than at the beginning. But now she is feeling the pinch. The prices of her usual pre-war exports have dropped practically to normal, while her new manufactures are not yet of sufficiently good quality to compete in the open markets of the world; the banks, which were inclined to be over-liberal at one time, have been obliged, owing to certain disastrous speculations, to curtail their credit and call in bills; and altogether it may be said that there is less loose cash circulating in the Union today than in 1917. Every month business leaders remark that the worst is over and predict that an improvement will soon be apparent. But it seems we have not yet reached zero, nor is the reason hard to seek. As long as Europe is in its present unsettled state, so long will there be financial instability in South Africa.

This, however, is not a reasoning that appeals to the general public. They blame the government. And it is from this and no other cause that South Africa is facing a political crisis regarding which much misinformation is being sent broadcast either by interested parties or by those ignorant of the real state of affairs.

The splendid self-immolation of the Unionist Party[1] some two years ago, when it allowed itself to be absorbed in the South African Party in order to make the secession question a clear issue at the polls, enabled Smuts to gain a clear majority of 22 over the two remaining parties, and it seemed then as if his government was assured of its normal four-year term of office with full opportunity to introduce much-needed social legislation.

Of the Prime Minister himself there is little need to speak. His features and his work are familiar to the world; but in no

[1]Representing the ultra-British element and the big financial interests on the Rand.