

News from the Administration

The Day's Doings in Pretoria

(From the Rand Daily Mail)

"SOUTH AFRICA & OUTER WORLD"

DR. BROOKES STATES OUR PROBLEMS

IMPERIAL LINK

ITS GOOD AND HARM DISCUSSED

"No unbiased man can deny that South Africa has been greatly enriched by the stream of British colonisation, which has enlarged its outlook, accelerated its material progress, attacked and largely overcome its sleepy conservatism, and had linked it with the cultural life of the outside world," said Dr. E. H. Brookes, Dean of the Faculties of Commerce and Public Administration, Transvaal University College, in delivering a lecture on "South Africa and the Outer World" last night at the Y.M.C.A., Pretoria.

Careful examination was necessary, said Dr. Brookes, of the relationship between South Africa and the British Empire, which had had so marked an influence not only on the development of South African nationalism, but also on many other aspects of South African life. As there had been since Union a vigorous propaganda for the early secession of South Africa from the Empire, and as there was still a widespread antipathy to the Imperial connection, it was especially interesting to examine the good and bad points of that relationship.

It was first of all essential to look into history and to see what good and what harm our connection with the British Empire had wrought us since its inception in 1896. To a large extent, this was independent of the question whether the Imperial connection should be maintained to-day.

RESULTS OF IMPERIAL CONNECTION

British immigration and the English connection had first to be placed to the credit of the Imperial connection. No history of South Africa could be written which did not ring with British names. In the second place, relationship with the Empire had given us sound traditions of administration and finance. It had made the non-partisan Civil Service a fundamental part of our constitutional life, had bequeathed us "Civil Service tradition" of anonymous and loyal service, and had built up sound rules of public finance and public debt.

In the third place, if the Empire had held us to itself, it had served a useful purpose in preventing our absorption by other European countries, notably Germany. The latter would have been far less scrupulous in maintaining our autonomy and far more harsh in interfering with language, laws and traditions.

The oppression, which, under English rule, had frequently been the result of thoughtlessness, tactlessness and failure to see the other man's point of view, would, under the Government of some powers have been a systematic and ruthless policy. "I believe," declared Dr. Brookes, "that 19 out of 20 republicans in South Africa would say that if they had to be under outside rule, they would rather be under England."

The Empire had also given us its own free Parliamentary institutions, together with a long tradition of freedom of speech, of the press and of public meeting. It had set us a fine standard of justice and disinterestedness in dealing with the child races under our control.

THE REVERSE SIDE

If the reverse side of the question was taken into consideration it would be found that the connection had resulted in disunion and racialism. The Imperial connection had militated against national unity, and had retarded the foundation of a South African nation. The tie of "home," which the political relationship with the Empire tended to foster and perpetuate among English-speaking South Africans, and the double allegiance which resulted from such sentiments were powerful agents against the amalgamation of the two white races.

"If the Empire has protected us from other powers, it has brought us by virtue of our membership into difficult political situations," he stated, "which involved us in wars with which we as a people had nothing to do." The Great War, our participation in which provoked the rebellion of 1914, was the most striking illustration of this point.

The Empire had bequeathed to us the system of Cabinet Government and the party system. Party feeling had been one of the chief faults of the South African people in the past, and national unity based on non-party civic service had been our greatest need.

By its frequent acts of injustice to Dutch-speaking colonists, coupled with its systematic and unwavering justice towards the native races, the Empire had been responsible for creating in the minds of many South Africans a bitter feeling of hostility to and prejudice against the native races, thus enormously complicating our race problems."

SECESSION

With regard to secession it was commonly held that the protection of the Empire was still necessary to prevent our falling into less desirable hands, and, in particular, that we should be helpless, without the British Navy. This argument did not convince him.

It was difficult to see what country would take the field against us. Germany was likely to remain hors-de-combat for a long time; Italy and France would hardly be likely to enter upon expensive wars of aggrandisement, and as for the menace from Japan, it was unknown outside the propaganda of the Navy League.

Moreover, the League of Nations was not to be regarded lightly, and it would certainly not stand by and calmly watch the annexation of one of its member States by another.

It was quite true that immediate secession, carried by a small majority, would involve us in even greater national disunion, and all thoughts of such secession had to be resolutely put aside. If secession came, it would have to come with the common assent, active and passive, of both black and white; but to attempt, for this reason, to prevent secessionist propaganda was totally unjustifiable.

The most that could be expected of

South Africa, as far as our arguments had carried us, was a passive acquiescence in Imperial rule, which was bound to disappear later with the growth of national unity and national desire of a young nation to stand on its own legs as a sovereign independent State. If at any time imperialism became active, republicanism would become active too.

With regard to the future expansion of South Africa on the continent of Africa, it could only take place by South Africa remaining under British rule, if such expansion touched either British possessions or areas over which Britain had the right of pre-emption.

Personally, Dr. Brookes said he saw nothing to justify South Africa's active support of the Empire except the adoption of the expansionist policy.

UNION AND THE CONTINENT OF AFRICA

"Patriotic South Africans propose to absorb North-Western and North-Eastern Rhodesia, Nyasaland, the mandated territory of Tanganyika, Kenya and Uganda, and thus carrying their frontiers north of the Equator," proceeded Dr. Brookes. The purchase of Portuguese colonies was also advocated.

If expansion were to take place before the process of fusion between the two white races was complete in the Union, one could only picture the population of Greater South Africa as consisting of a great majority of anglicised English with a permanent intransigent and smaller Dutch minority in the Free State and parts of the Transvaal.

The native problem would also become enormously complicated by northern expansion, and another Indian problem in Kenya would have to be shouldered. In this case the parliamentary democracy of South Africa would also have to be considered. Unless it became a predominantly black State the Greater South Africa could never be governed on democratic lines. It would be good neither for Central Africa nor for us that Central Africa should be ruled by a little oligarchy of the South. To give up our democratic government in order to comprise Nyasaland and Angola within our boundaries seemed a substantial sacrifice for a doubtful advantage.

Patriotic South African as I am, I cannot honestly see how North Eastern Rhodesia or Kenya would benefit by the substitution of South African for British rule, said Dr. Brookes, and neither could he see what advantages South Africa stood to gain by the political absorption of these territories at all commensurate with the solid sacrifices which she would have to make. The maximum political expansion which he would advocate for South Africa was the absorption of the three immediately contiguous native territories, Basutoland, Bechuanaland, and Swaziland; the purchase of Delagoa Bay and possibly the incorporation of Southern Rhodesia.

CASE OF BASUTOLAND

One would not be surprised, however, if Basutoland remained permanently outside the Union, and only an exceedingly generous and sympathetic native policy could entice it. The admission of Southern Rhodesia was contemplated by the South Africa Act, and it was clearly more fitted for union with the South (where conditions were similar) than for union with the very different North. It was already geographically and economically part of the Union, and from the historical and sentimental standpoint it would seem proper for Rhodesians to realise the ideals of Rhodes and to bring all those areas for which he had laboured under one Government.

The adhesion of Rhodesia to the Union would, on the other hand, mean a great increase of native population, and this, reacting on the South African "fear complex," might conceivably modify South Africa's native policy in an undesirable direction. Rhodesia's present sentiments would also be a factor working against national unity inside the Union. Hatred of bilingualism and nationalism had been the chief factors in determining the Rhodesian referendum against the Union, and the admission of Southern Rhodesia would certainly retard the progress of national unity and would strengthen the Imperial tie.

Personally, Dr. Brookes said he would be in favour of receiving Rhodesia into the Union if she herself desired it and asked for it at an early date, otherwise not. As regards Delagoa Bay, if England could be persuaded to waive her rights of pre-emption, as she probably could, South Africa should try to secure it. He did not favour any further expansion. This should not prevent the economic and cultural penetration of the Union into Northern Africa, however, and doctors, dentists, lawyers and teachers could find employment in the northern colonies and protectorates. In that way South Africa could both serve civilisation and acquire legitimate gain without undertaking responsibility, which might be too heavy.

"It was strange, however," concluded Dr. Brookes, "that while Europe, Asia and America were well represented on the Council of the League of Nations, no African State had ever yet obtained a seat on that body. It ought to be the ambition of the Union as the most important autonomous African State to represent Africa on the Council."

(Applause.)

STORY OF SOUTH AFRICAN STEEL

VEREENIGING AND NEWCASTLE'S INDUSTRIAL DEVELOPMENTS

By MAJOR AUBREY BUTLER.

The year 1926 should be an eventful one for the steel industry in South Africa, for whereas steel has been produced in the Union from iron and steel scrap since 1913, the eagerly looked for production of pig iron from native ores at Newcastle this month should lay the foundation stone of what may become one of the most important industries in the country.

It has been obvious for some years that the accumulation of scrap could not last, and if the steel industry was to continue to be an asset to the country it was essential that the efforts of those connected with the industry should be focussed on the production of pig iron.

IN 1922 the Government, recognising the industry was one of vital importance to the country, passed the Iron and Steel Industry Encouragement Act by which a bounty was to be paid on pig iron and steel produced from native ores by works which had a capacity of 50,000 tons of each per annum. The bounty was to come into operation in 1924, and amounted to 15s. per ton on pig iron and 15s. per ton on steel. As the Act stands at present the bounty of 15s. operates until 1927, after which it is reduced by 2s. 6d. per ton per annum until it vanishes on March 31, 1932.

Unfortunately, the Act came into being at a time when the steel trade of the world was passing through the greatest slump the trade had ever experienced, with the result that the effort of the South African Government to stimulate the production of iron and steel did not meet with the notice it would have done in more normal times, nor did it act as an incentive to overseas financiers and manufacturers to establish the industry in the country.

Repeated efforts were made by the South African Iron and Steel Corporation, the Newcastle Iron and Steel Company, and the Union Steel Corporation (of South Africa), Limited, both collectively and severally, to raise the necessary capital, but it was not until the latter part of 1924, after protracted negotiations, that the Union Steel Corporation floated a debenture issue of £300,000 in London for the purpose of purchasing the Newcastle Company and bringing it to the producing stage, and also to erect a works at Vereeniging, adjacent to their present steel works and engineering works, for the purpose of manufacturing mild steel, galvanised, plain and barbed wire for fencing.

These products bid fair to become the forerunners of important developments in the iron and steel trade in South Africa and should help materially to solve the problem of not only absorbing but increasing the white population of the country.

NEWCASTLE PLANT.

The Newcastle plant will have a capacity of 60,000 tons of pig iron per annum. The ore field from which the blast furnace will draw its supply of iron ore, is situated at Prestwick, about five miles from Tayside on the Vryheid line in Natal, 50 miles from Newcastle. A line has been constructed by the Corporation from Tayside to the mine, and the ore will be loaded direct into hopper wagons provided by the Railway Administration and then conveyed to Newcastle. Contracts have been entered into for the supply of coke with the Coke Producers, Ltd., whose ovens are situated in the Vryheid district, and also with the Dun-gee Coal Co., of Waschbank. Both these supplies of coke compare very favourably with the coke produced overseas. The supplies of limestone will come from the Taungs district, the quality of which, in the opinion of the experts, is admirably suited for the production of iron.

Although at first sight the distances the ore, coke and limestone have to be transported may appear considerable, on the whole they are not unfavourable when compared with other steel producing countries. It is anticipated, however, that considerable concessions will be made in railway freights when the quantities to be transported are ascertained. A general reduction in railway freights is considerably overdue, and when any reduction in freights is made it would naturally help to cheapen the product of the blast furnace and reduce the selling price of the finished steel.

The site on which the plant is constructed has an abundant supply of water from the Incandu River. It comprises 250 acres of well-drained ground standing 30 feet above the river.

There is an excellent seam of clay running through the property, which is used for the manufacture of building bricks, and the plant is kept fully occupied in supplying the town of Newcastle, the Railway Administration and the surrounding neighbourhood.

PIONEER WORKS.

The Steel Works at Vereeniging, which is situated on the right bank of the Vaal River, was erected in 1912, and is the pioneer steel works in the country. It was constructed for the purpose of producing steel from steel scrap, of which there was a vast accumulation in the country, most of which was and is being supplied by the Railway Administration under a contract entered into with the Corporation and which terminates in 1929. Steel of the highest quality meeting the British standard specifications and other requirements is produced at these works, and has given general satisfaction to the consumers.

The Corporation was the first to produce shoes and dies in this country for the mines; and owing to the fact that these are now being produced by the

Witwatersrad Co-operative Smelting Co. and the Dunsward Co. as well, the importation of shoes and dies from overseas has practically ceased, and the requirements of the mines are supplied from steel manufactured in the Union. Gradually the local produce is taking the place of imported manufactured goods in other directions, such as rails, angles, rounds, flats, etc, and these will shortly be followed by the production of galvanised fencing wire, of which over 30,000 tons is imported annually.

The new wire works is being erected near the junction of the Vaal and Klip Rivers on the south side of the main line, a mile from Vereeniging station and two miles from the steel works, on one of the finest sites in the country. The buildings, which are being erected by the corporation, cover three acres, and will be capable, when fully equipped, of producing 20,000 tons of galvanised wire annually. The whole of the steel framework has been manufactured from steel produced at Vereeniging, the galvanised sheets for the roof, the special glass for lighting, and heavy steel girders for the cranes being the only parts of the building which have been imported. When completed, this works will be one of the most up-to-date works in the world and readily lends itself to further development as the trade expands. With its steel works, steel and iron foundries, engineering shops and wire industry, Vereeniging will be the most important industrial centre in the Union, besides being one of the most delightful inland pleasure resorts in the country, due to the magnificent stretch of river which naturally adds to the amenities of the worker.

With the steel industry definitely proved by the production of pig iron at Newcastle, rapid strides are expected in further developments, for there is no end to manufactures that are dependent on the industry.

FURTHER DEVELOPMENTS.

A factory for the manufacture of nuts and bolts has just been completed, and will draw its supplies from Vereeniging. Wire nails are already being manufactured in Johannesburg, and this branch of the industry lends itself to considerable development. Wire ropes for the mines are also being produced from imported rods, and there is no reason why the greater proportion of these rods cannot be produced from native material. The new rod mill at Vereeniging will be able to deal with the demand for rods and bars for ferro-concrete structure.

In any further developments one naturally turns to galvanised and black sheets, tubes, heavy rails and plates for the railways, and for these four lines nearly 100,000 tons of steel are required.

The steel trade is in its infancy, and when one realises that the industry in countries less favourably situated than South Africa has developed and added to the prosperity of the workers and to their country, everything augurs well for the future of the Union. No country can look with security to its future unless it has a well developed coal and steel industry. Cheap coal is the fundamental necessity for any industrial country, and South Africa is in the happy position of being able to produce coal as cheap, if not cheaper, than any other country, and if she continues she ought, in the not very distant future, to be able to take her place among the great exporting countries of the world.

No country can become great on agriculture alone. What South Africa needs more than anything else is a great increase in her white population, and her Government has done well to encourage industry in the way it has, for it is only an industrial South Africa that can absorb the surplus population and induce immigration.

RAILWAYS MUST HELP.

In the wake of steel follow innumerable industries directly and indirectly connected with the industry, and by granting a bounty on iron and steel, which in present circumstances will terminate in March, 1932, the Government must not imagine its labours in this direction have ended. Cheap steel will lead to a more rapid development of the country, and this can be materially assisted by the Railway Administration reducing their rates. High railway rates do not encourage industrialists, and the tendency should be to increase the volume of trade by encouraging the increase of industry. The cheaper an article is manufactured and sold the greater a trade will become, the more people will be employed, and it naturally follows the wealth of a country will be increased.

When one bears in mind that the steel works at Vereeniging only sold 1,800 tons in 1914 and to-day they are producing nearly 30,000 tons per annum under most adverse conditions, for no country is producing such a tonnage from scrap alone, one can realise what the enthusiasm of the men connected

with the industry has meant to the country.

With the advent of pig iron the situation will be improved. To-day the works consists of three Siemens' open hearth furnaces, and when the fourth furnace is completed the capacity of the plant will be 50,000 tons per annum.

Although it may be a disappointment to those who wished to see the industry established on a gigantic scale, that the negotiations for an outlay of over three millions failed, there is every reason to believe that an industry founded on the present scale is more likely to benefit the country as a whole. It stands to reason that in order to start a new industry on a big scale trained and skilled men would have to be imported, whereas now there is every indication the present surplus population will eventually be absorbed and the rising generation taught to become useful citizens skilled in new trades. One must not lose sight of the fact that in further developments the greater part of the new plants will be manufactured in this country and will not be imported.

The many engineering works throughout the country go to prove that South Africans are well fitted to become skilled workers. South Africa needs an outlet for her young men, and there is no more interesting industry than the steel industry, which only needs fostering in its infancy to become perhaps the greatest factor in the future of the Union.

25 YEARS' GROWTH

(Continued from preceding page.)

has increased by 262 per cent. and the value added by process of manufacture by 106 per cent. It is also interesting to note that in the last decade alone the amount of salaries and wages paid to Europeans has increased by 105 per cent., while salaries and wages paid to non-Europeans has increased by 143 per cent.

Between 1900 and the year of Union (1910), 1,573 additional factories became established, while development progressed so rapidly that in the succeeding seven years over 2,000 additional factories were founded. Since the war progress has been fairly rapid, and an average of something like 400 additional factories may be taken as the number added to the list each year thereafter.

The value of machinery and plant used in factories shows equally large and progressive increases, and it is interesting to note that 45 per cent. of the Union total is represented by the Transvaal province, largely owing, of course, to power plant for electric current supplied to the mines. The value of machinery and plant used in factories on the Witwatersrad for the production of heat, light and power amounts to no less than £7,276,994, out of a total of £29,588,104 for the whole Union.

In the last decade the gross value of factory production in the Union has nearly doubled itself, and now amounts to approximately £75,000,000. It is hardly to be expected that development in the future will be as rapid as it has been in the immediate past, but that we shall continue to progress steadily and, indeed, rapidly may be accepted not as an expression of blind optimism, but as a reasonable deduction from all the known factors. To what extent that progress develops (and also the rate of its progression) depends largely upon human effort, energy and mechanical efficiency.

The gross value of production for the Commonwealth of Australia is over £300,000,000, while that of New Zealand (relatively so much smaller than the Union of South Africa) is little behind our own. Thus, while we can claim to be fairly prosperous, our potentialities are much greater than our past achievements.

A COMMON AIM.

The American people are prosperous, but they have not been demoralised by prosperity, and they are working harder and more efficiently than ever before. In a report issued by Colonel the Honourable F. Vernon Willey, the president of the Federation of British Industries, and Mr. Guy Locock, the assistant director of that organisation, upon their recent visit to the United States it is stated that it is doubtful whether it is fully realised in Great Britain how overwhelmingly vast is the wealth of that great country to-day, and the most arresting revelation in the report is perhaps the efficiency and the energy of the American worker.

The volume of production in the United States has increased by 185 per cent. during the past quarter of a century, and, though the number of wage earners is only about 27 per cent. greater than it was, the installed primary power has been developed by no less than 236 per cent. These figures are arresting, for they clearly show that there is co-operation between employers and workers towards the common end of stimulating production, reducing costs and increasing both the profits on capital and the wages of labour. The American worker would seem to entertain no delusions as to the parity which must be maintained between output and wages, and the result is that both are high.

While, largely through abnormal circumstances and to the extreme industrial youth of the country, the value of our gross output has increased over 250 per cent. during the past 25 years, the number of wage earners has increased 100 per cent., which compares unfavourably with the rate of development in manufacturing efficiency in the United States.

In the Union of South Africa we have a vast territory of well nigh unlimited resources, and, while a study of our economic conditions justifies a thoroughly optimistic view of progress and development during the next 25 years, we must ever bear in mind that efficiency is more important than volume, and that it is the character of a nation's workers that makes for true national worth and wealth.

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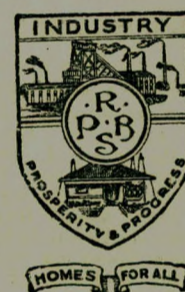
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PLATINUM: ITS STATISTICAL POSITION

THE NEED FOR CONTROL: MR. COR RISSIK'S CONCLUSIONS EXAMINED

By D. C. GREIG.

When the Government proclaimed platinum a precious metal it misled the public by giving it a status which it did not deserve. Far too much attention was paid to the purely legal side of the question and nothing at all to the economic consequences of bringing the metal within the scope of the Gold Law.

Superficially, with platinum standing at £25 per ounce, it looked good business to flitch from the owners of mineral rights, four-fifths of their property. Unfortunately for this country South African legal enactments do not override the law of supply and demand, and cannot increase or diminish the world's consumption of any commodity.

THE economic definition of a precious metal is one which, from its value and volume, is suitable for coinage. The only two metals which comply with the definition are gold and silver. In the case of the precious metals their statistical position is of no real importance, and mining ventures involving years of development may be entered into in the certain knowledge that when the producing stage is reached the product will have practically the same value as at the start of operations. It was this factor coupled with the unique formation of the Rand which warranted the expenditure of huge sums by the mining houses in opening up the deep levels, and made these ventures profitable even after allowing for heavy taxation, the penal and confiscatory clauses of the Gold Law, and many irksome mining regulations.

Soon after the discoveries of platinum had been made in Lydenburg Drs. Wagner and Mellor published a joint paper, and from the data supplied therein European geologists were satisfied that the metal existed in the Transvaal in appreciable quantities. The paper was purely a scientific one and did not deal with the commercial side, the only one in which the London market is interested. The market also accepted the findings of these eminent geologists and was, therefore, unaffected by the actual production at Onverwacht.

On the other hand, the statistical position of the metal as represented by Mr. Cor. Rissik in his series of articles in the Investors' Review, shook the confidence of speculators and induced heavy bear selling, particularly in T.C. Lands. I am interested in platinum mining and I saw that unless Mr. Rissik's figures could be upset we were living, as he described it, in a fool's paradise, and there was little hope of the new industry attaining important dimensions. I then started a separate inquiry which took months, with the result, I regret to say, merely to confirm in the main Mr. Rissik's calculations.

IMPERIAL INSTITUTE INQUIRY.

It is very difficult to get at the facts regarding platinum—everything seems to be enshrouded in mystery—and I would not have felt justified in publishing the result of my inquiry had it not been that its conclusions were confirmed by qualified investigators at the Imperial Institute.

In the hope that the Union Government, having proclaimed platinum a precious metal, must know something about it, I went to the High Commissioner, but found he knew nothing and I suppose, in the absence of contradiction from the mining houses interested, he accepted Mr. Rissik's statement on the statistical position as correct. However, Mr. Smit did me a great service in giving me a letter to Sir Richard Redmayne, the head of the Imperial Institute, asking that every assistance should be given me in my investigation. Immediately after presenting this letter Sir Richard set his intelligence department to work, and the result was a report, the first of its kind of an authoritative nature on the statistical position of platinum.

I asked Mr. Smit to send a copy to the Union Government, trusting that it would recognise the practical difficulties of applying the Gold Law to the platinum fields, and modify its legislation accordingly. I never received an acknowledgment of this report, but I was unjust in putting that down to discourtesy—it was due to a simple misunderstanding. I am debarred from publishing the report, but may quote ad lib., which comes to the same thing.

The chief thing to know about platinum is the present and future consumption. I cannot do better than quote verbatim from the report:—"To judge of the world's consumption of new platinum it is best, especially from the mine producer's point of view, to take the world's production of crude platinum as a guide, and to note that, with platinum at less than £10 per ounce in 1913, the world's output of crude platinum was less than 300,000oz.

THE WORLD'S DEMAND.

"Unless some new uses can be developed, or some old uses extended, it does not seem likely that the world will demand more than 200,000oz., with refined platinum at £20 or £25 per oz. If the price falls, the prospect of a falling demand for platinum for jewellery purposes has to be faced. This particular use, like that of precious stones generally, depends to some extent on the maintenance of a high price. On the contrary, a fall in price is likely to stimulate demand for dental, chemical, and electrical purposes.

"During the war, an active investigation of possible substitutes for platinum was carried on, and any estimate of the world's demand for platinum in the future should take into consideration the fact that, for many purposes, substitutes

are likely to be used so long as the prices that have ruled recently for platinum are maintained. On the whole, with platinum at £10 per oz. or more, it seems unlikely that the world's demand for the metal will exceed 300,000oz. annually. If it is desired to encourage consumption substantially beyond this figure, it rather looks as if this can only be done by making the metal much cheaper than £10 per oz."

In judging the effect which a fall in the price would have on consumption, one factor must be taken into account, that is, the indestructibility of platinum. Beyond the initial cost of installation there is little wear and tear in platinum compared with other metals. Chemical manufacturers have told me that after platinum sulphuric acid tanks had been in use for years the loss in weight was not appreciable.

The United States is the only country which publishes official statistics of consumption of platinum, and the figures for the year 1924 for the different industries are as follows:—

Industry.	Troy oz.
Chemical	10,507
Electrical	16,588
Dental	11,092
Jewellery	87,151
Miscellaneous	5,012
Total	130,350

Of this total about one-third comes from working "secondary" or scrap platinum, one-third as a by-product derived from refining nickel, copper, etc., and one-third, about 45,000oz., is imported. There are 15 platinum refiners in the United States, six in England, four in France, and three in Germany. It is important to bear in mind that the world does not depend upon any one firm or country for the refining of platinum.

WHAT WILL RUSSIA DO?

The United States produces annually about 85,000oz., Columbia about 50,000 oz., and the balance mainly comes from Russia. Russian agents in London simply pooh-pooh the idea of South Africa being a serious competitor. It is no good for the time being arguing on purely economic lines about Russia. Russia, just like South Africa, fails to recognise that economic laws are inexorable in their working, and even if the Russian Minister of Finance spoke the truth when he stated last October that he could not afford to sell platinum under £13 per oz., it does not mean that if the price falls below that figure production will cease or even be curtailed. The Scandinavian timber trade is suffering because Russia is selling timber under cost price. Russia must get foreign credits at all costs, and in discussing the question of the available supply of platinum that must be taken into account.

Early last century platinum was tested by Russia for coinage purposes, and, like other metals with the exception of gold and silver, was found unsuitable on account of its value and volume, and also because it was too easily counterfeited. Russia is still flirting with the metal and is using it as part collateral security for her currency. The Soviet State Bank holds about 190,000oz., valued at £12 per oz., against her note issues, and from the information I received about the quantities held elsewhere, some also on account of Russia, I should estimate the visible supply of platinum in Europe at 250,000oz., or 15 months' consumption. The Soviet Bank's holding increased from about 66,000oz. on January 1, 1925, to about 190,000oz. on January 1, 1926. The bank is reducing its holdings in foreign currencies and would not do so if platinum were a liquid asset.

The argument runs through Sir Richard Redmayne's report that a reduction in price would not necessarily increase the consumption, and that evidently is the opinion of the Soviet Government. One of its London agents told me that it was against Russian interests to force the sale of platinum as a fall in the price would not increase the demand, but would merely injure the backing to their note issue.

RESTRICTION THE ONLY REMEDY.

This article deals purely with the statistical position of the metal platinum, and therefore does not take into consideration the fact that the norite sulphides contain metals other than platinum. There is no good in disguising the fact that the statistical position is bad from a producer's point of view, but the statistical position of rubber was bad until the producers were forced to recognise the fact and take measures accordingly. Restriction of the output was necessary in the case of rubber, and it is equally necessary to the producers in the case of platinum.

A restrictive policy is impossible under the Gold Law. There is some sense in penalising a man who does not work his claims on the main reef, but

there is none in penalising a holder of platinum claims who may be acting in the general interest by not working them. If the world's annual consumption be taken at 200,000oz. refined, then producers of crude platinum must realise that half that consumption must be allotted to supplies derived from the refining of other metals and to the reworking of scrap platinum. No producers of crude platinum can compete with supplies from these two sources.

There is, in the ordinary sense, no market for platinum. It is not quoted on the bullion or any other metal market. I have never seen the price quoted in any London financial journal. The market such as it is, is controlled by a syndicate of platinum refiners in which X and Y, of London, have had a prominent interest, and are still interested. I did not see how the Transvaal producers could act independently of this syndicate, and I asked a member of it if the syndicate would make a firm offer for the Transvaal output for 1926 and 1927. I put the figure at 25,000oz. per annum. He said that provided 30 days' time for consideration were given a firm offer would be made.

A contract of this kind would only be possible if a syndicate were prepared to face the consequences of Russia flooding the market with platinum, and a private syndicate can only enter into agreements with the Soviet Government.

ECONOMIC IGNORANCE.

I have frequently pointed out the ignorance of elementary economics which prevails in this country. The Government should have inquired into the statistical position of platinum before proclaiming it a precious metal and bringing it under the Gold Law.

I received no support from the professional economists of the country when I challenged its wisdom on economic grounds for doing so. These economists never seem able to apply their knowledge to the solution of the problems of everyday life.

From time to time reports have been current in South Africa that the Continent, particularly Germany, was prepared to take unlimited quantities of platinum at £15 per oz. I read a statement by the chairman of one of the companies that a "factory" had made an offer of £15 for 200,000oz., which would mean that one concern was able to use 70,000oz. more than the total annual consumption of the United States. I have been told that the metal was to be used in the manufacture of artificial silk.

Britain is the largest producer of artificial silk, and I know that platinum is used in the machinery which makes the silk, but the estimate given me by competent judges of the quantity required by the silk trade was equal to one eighth of the demand for platinum by the jewellery trade. That would not be more than a few thousand ounces.

From the beginning I have never believed that a platinum proposition could stand heavy capitalisation, but that is obviously not the opinion of some of the Rand mining houses. Great weight must be attached to their opinions, and it is simply inconceivable that they would have assisted in the flotation of platinum companies with capitals running into millions without taking the elementary precaution of inquiring into the statistical position of the product which they proposed turning out in quantities commensurate with the capitals of the companies floated. Two of these houses—viz., the Johannesburg Consolidated and the Consolidated Goldfields—are, I believe, largely interested in the chief British platinum refinery, and they may have information which even the Imperial Institute is unable to get.

REFINERS HOLD THE KEY.

The refiners hold the key to the position. They have had years of experience in handling the metal, and the position so far as England and America are concerned is complicated by the fact that they are also the principal consumers. The part played by the refiner is very clearly stated by J. M. Hill, of the U.S. Geological Survey: "Only one native alloy of the platinum group is used in its original state. This is osmiridium, or, as it is known in the trade, "native iridium," which is used for pointing gold pens, because of its superior hardness. The value of "point osmiridium" depends more on uniformity of size of grain than on chemical composition.

"Crude platinum is useful only because it is the material which is chemically refined to give the pure metals, platinum, palladium, iridium, and osmium, and is therefore of interest only to the few refiners of platinum metals. Practically all the refiners are also makers of semi-finished and completed articles for all the consuming industries. They buy the crude metal, separate the various metals of the platinum group from one another, (Continued in next column.)

PLATINUM EXTRACTION

A FEW NOTES ON TECHNICAL CONSIDERATIONS

By OWEN LETCHER.

WITH the commencement of actual production in the Lydenburg district, platinum in the Transvaal has emerged from the state of mere speculation and has entered the field of industry. This is not to say that gambling in platinum stocks has ceased, or that there will not be many and difficult problems in connection with the recovery of platinum and its allied metals from their containing ores. This much can at any rate be stated, that already it has been demonstrated that platinum can be extracted from at least one important class of Transvaal ore body on a commercial basis, which is to say that the metallic content can be won and disposed of at a price which yields a substantial margin of profit.

Up to the present the technological aspect of platinum in the Transvaal that has been most debated is that relating to the geology of the deposits, their extent and mineralisation and the evidences which they present in support of the view that they will persist in depth. To date disclosures in actual shafts and in deeper boreholes tend to confirm the view that the large noritic and pyroxenitic ore bodies will continue in depth and without any appreciable diminution in metallic content for at least a few hundred and possibly several hundreds of feet. The hornblende dunite ore bodies such as are being opened up by the Transvaal Consolidated Land and Lydenburg Platinum Areas companies constitute a more uncertain and erratic undertaking, but at Onverwacht the continuity of the pipe or lense or whatever appellation may be applied to this "parsnip-shaped" ore body, has been proved to continue and maintain values down to a depth of 250 feet.

In so far as the norite and pyroxenite bodies are concerned the question of persistency in depth is of considerably less consequence than the problem of whether the world will be able to absorb all the platinum likely to be produced, at a price which will admit of more than one or two of the various platinum companies being able to make profits.

According to some students of the platinum position it is difficult to see how a consumption much in excess of 300,000 ounces per annum will be absorbed without such a lowering in price that only the richer undertakings favoured with exceptional mining facilities such as are connoted by great widths of ore body and with freedom from any very material metallurgical difficulties will survive. According to an authoritative statement one concern alone—the Potgietersrust Platinum Mines—will be able in the course of the next few years to produce such an output. The ore bodies of this undertaking are so wide that the question of permanency in depth can hardly enter into calculations for some years to come. In this respect the Potgietersrust Mines may be said to be on all fours with the great Union Miniere proposition in the Congo Belge, where such enormous ore bodies are

and from impurities, mix the pure metals into alloy suitable for the different industries, and fabricate the articles demanded. As a matter of fact, the ultimate consumer rarely knows whether he or she has real platinum or something of the same colour. So long as the piece of jewellery or apparatus looks and acts as platinum should, there is little question as to the purity of the metal."

From the information I got the syndicate holds very little platinum, it acts as agents for the big producers and controls the market by judicious feeding it. Transactions in the platinum metals are on a cash basis and it is impossible to get a firm offer to buy or sell that holds good for more than 48 hours. It does not matter to the refiners who the producers are, crude platinum must pass through their hands. They are chiefly concerned in finding new uses for the metals and widening the market for them.

I spent nearly a whole day in going through Messrs. Johnson and Matthey's works in London. They cover a large area in Hatton Garden and out west. Of course, only a small part of the works is devoted to platinum, but I was astonished at the variety and number of articles made from it. One got a good insight into that by standing as I did, at the back of the counter and listening to the demands of a stream of customers. I also saw the day's shipment to America. This firm was very courteous to me, but the partners will forgive me when I say that I got all the information I asked except that which was essential for my particular purpose.

The method used by the refiners in reducing platinum concentrates is a close secret; whether there is one or several processes used is unknown, and I fear that it is an impracticable suggestion that we should establish an independent refinery out here to deal with our concentrates. The best we could hope for would be for one of these refineries to open a branch in South Africa. Whatever the syndicate may do as regards the control of the market for refined

lying exposed either within 100 feet from the surface or else above ground level that the question whether the cuprififerous ores will retain their values in depth has thus far occasioned no anxiety whatever.

In such ore bodies development and mining charges should be relatively low and huge reserves of ore should be blocked out in a comparatively short space of time.

THE BIG PROBLEM.

The big technical problem of the moment which confronts the platinum industry is the recovery of platinum from oxidised norite. In respect of sulphidic norite no great difficulties are anticipated and it is, therefore, worthy of note that these norite lodes curiously enough reverse the problem which confronted metallurgists in the early days of the Witwatersand, when the treatment of sulphide ore occasioned the mining industry very great anxiety until the evolution of the cyanide process solved the difficulty.

Various methods, devices and processes are now on trial. Much is hoped for from an adaptation of the Minerals Separation process, combined with the electro-chemical methods. At any rate the result which will be secured from the Dwaars River plant, which will shortly come into commission, should enable one to determine with much more confidence than at present the value of the norite ore bodies. Two platinum-bearing districts which have not so far been touched on in this brief article call for some mention. The first of these is the Waterberg, the pioneer platinum field of the Transvaal. Although the first discovery of commercial importance of platinum was made here over two and a half years ago outputs are only now commencing.

There is now one and one only active company in this area, the Transvaal Platinum, Limited, where a pilot plant of 1,000 tons per month capacity is coming into commission. Values in these brecciated felsite ore bodies are extremely erratic, and it is not considered likely that the Waterberg district will compare in industrial importance with the other areas of the Transvaal.

There remains Rustenburg, and although this district is as yet more or less an unknown quantity it can be stated with a fair degree of assurance that over considerable stretches, at any rate, the lode widths and values are sufficiently good to warrant the assumption that one or two important propositions will arise out of this western bushveld area.

It is impossible to venture anything but mere guesses as to what the Transvaal's output of platinum may be for the present year. According to one calculation the province may produce as much as 18,000 ounces during this, the first year of its outputting activity, whilst next year the yield may be from 80,000 to 100,000 ounces, or say on an average 6,500 to 8,900 ounces per month. Whether the results secured taken in conjunction with the price of platinum, the Government's policy in relation to the new industry and the native labour supply, etc., will warrant the early expansion of pilot plants to secure such an output remains to be seen.

platinum there is evidently no restriction in the sale of concentrates. Producers may deal direct with refiners in Europe or America on the best terms they can get.

Practically we are faced in the marketing of platinum with the same difficulties as we are in the case of diamonds. Experience has taught us that a selling syndicate is essential if the best price is to be obtained for the later. The platinum market is much more restricted than the diamond, and the practical question is to get from the syndicate which controls platinum as big a quota of the world's consumption as possible. The problem of extracting the platinumoids from the sulphide ores is not solved, but we are getting nearer it, and when we do we shall be faced with another problem—how much capital may be safely invested in works producing a commodity for which there is a limited demand. I dislike the Government interfering in such matters, but under the Gold Law it is a potential producer and is deeply concerned in finding a workable solution of the various problems.

Time may show a big increase in the world's consumption of platinum, but in the meantime these platinum leases which the Government has created under the Gold Law are not only of no value to the Government, but are a serious obstacle in negotiating with the syndicate for a quota.

If the statistical position is as I have stated, it is obviously better for all parties to sell a given quantity of platinum at £20 than the same quantity at £10. A fair quota sold at the former price would mean profitable working on a moderate scale in Lydenburg, Potgietersrust and Rustenburg, but I can see nothing in it for anybody if there is to be unrestricted production.

Unrestricted production means war with Colombia and Russia and civil war in the Transvaal. The richest mine we have may survive the contest, but that won't help the country, which depends for its revenue on the tonnage treated, not on the ounces recovered.

The Platinum Problem in South Africa

In the following very opportune and important contribution to the discussion of the great platinum problem in South Africa, the problem, namely, of the marketing of the future platinum output of the country, Prof. Paul Kovaloff, who is recognised as one of the leading authorities in the world upon this particular matter, has given his views in a clear and cogent way. His knowledge of his subject, based on exclusive official data and the fullest information in his capacity as an official of the Russian Mining Department, will undoubtedly claim the serious attention of every one who is interested in the coming platinum industry of South Africa.

To the Editor, S.A. MINING AND ENGINEERING JOURNAL.

Dear Sir,—I have read with interest the article by D. C. Greig, "Platinum and its Statistical Position," which appeared in the Special Annual Supplement to "The Star" of 16th March. The importance of the economical aspect of the question, so ably presented by the author of this article, induces me to make a few remarks on the points on which I am bound to disagree with him entirely.

The abnormal situation of the platinum industry, from the producers' point of view, has stood out very prominently since the end of the last century in Russia, which, up to the revolution, was occupying an unique position as almost the sole producer of this metal. For various reasons, the consideration of which would occupy too much space, it happened that this country failed entirely to secure the benefits it should naturally have enjoyed by reason of this unique position.

In my country, as former Chief of the Branch of Gold and Platinum Mines of the Russian Mining Department, and later as Vice-Director of this Department, I naturally had to enter very closely into this aspect of the question, and I may say without hesitation that if South Africa will not learn the lessons, so clearly pointed out by the experience of Russia, and take corresponding measures **without delay**, the platinum producers will completely lose all power of control over the disposal of their product and will never get the full value for it.

For this reason, I can by no means endorse (and consider it very dangerous) the recommendation of Mr. D. C. Greig to the platinum producers in this country "to deal direct with the refiners of Europe or America on the best terms they can get," and to leave the control of the market for refined platinum to the refiners.

That is exactly the policy which led to the helpless position of the Russian platinum industry, on the one hand, and to the creation of a powerful organisation of the European refiners dominating the platinum market, on the other.

As is quite correctly stated by Mr. D. C. Greig, the key to the position is in the hands of a combine of platinum refiners, and this position, created by the inactivity of the Russian producers, was fully utilised by them. The power of market control enabled them, when it suited their purpose, to fix a level of prices independently of the relation of supply and demand, and pure speculation played a considerable part in determining what the market controllers received and what they paid to the producer.

The result was that the Russian platinum producers had to be content with whatever prices were allowed them by the European distributors. They were always working under conditions of uncertainty, which made impossible the framing of any estimates of revenue from their products. Up to the time of the Great War the producer in Russia was paid only for the platinum content in the product he marketed. All the other metals of the platinum group, most of which command a much higher price than platinum

itself, were not paid for at all. It was estimated that owing to this fact and to the always existing considerable difference between the prices of refined platinum and the prices paid to the producers for the crude platinum, the latter were losing at least 25 per cent. of the value of their product.

No efficient organisation for controlling the output in accordance with the demands of the world's market was possible under these conditions, as the producers were unable to deal directly with the actual consumers and consequently had no means of estimating the requirements of the outside market at any given moment.

There is no doubt that a similar position will arise in the South African platinum industry if the interested circles will pursue the policy of inactivity, recommended by Mr. D. C. Greig, and will not take, without any delay, effective measures in order to secure for this country an independent position in the platinum market.

In taking these measures the South African producers must face the fact that very strong opposition has to be expected from the organisation of European refiners. The experience of the Russian platinum industry has shown how many ingenious devices (including manipulation of platinum prices, acquiring interests in platinum mines, long contracts on the output, the opening of branches of European refineries in the producing countries, and even diplomatic intervention) may be adopted by the organisation of refiners to counteract the attempts of platinum producers to establish an independent position. The struggle undoubtedly will be bitter, but it must be won if South Africa desires to derive benefit from the important discoveries of the recent year. And any delay in taking the necessary measures only helps the European and American refiners to secure a firm footing in the South African platinum industry. If that were once achieved, the difficulties attendant on the efforts to obtain an independent position, which alone will ensure South Africa's welfare as a platinum producer, would be increased enormously.

As to the character of the measures which have to be taken to achieve the desired end, they are undoubtedly the following:—

(1) The establishment within the country of a refinery capable of dealing with the whole output and producing also platinum articles so that the work of refining and manufacturing a product which will meet the needs of the consumer and *would reach him directly* can be carried out in South Africa itself.

(2) The creation of a selling organisation dealing with the whole output of the above factory, and exercising also (preferably in collaboration with other platinum-producing countries) control of the platinum output, or at least of the amount annually released for the market.

Mr. D. C. Greig considers the idea of establishing in South Africa an independent refinery as an impracticable suggestion. I can by no means endorse this view, although I am by no means inclined to minimise the difficulties attendant on this enterprise. But in this case I must again refer to the Russian experience. Ten years ago Russia was in the same position, as far as the refining of platinum is concerned, as South Africa now is. At present Russia possesses an up-to-date refinery, having its own "secrets" of treating crude platinum, and is in quite an independent position on the platinum market. What has been achieved in Russia may be achieved in South Africa. It is true that the evolving of its own methods of refining platinum has to take some time (perhaps a number of years), which South Africa can hardly afford to spare in the circumstances, but undoubtedly some way may be found by which a platinum refinery in this country could be established in an appreciably shorter time than would be possible by following the normal course.—I am, etc.,

P. KOVALOFF.

A Visit to New State Areas

RESIDENT ENGINEERS INSPECT SURFACE EQUIPMENT—THE PIONEER ALL-SLIMING PLANT— INTERESTING FLOW-SHEET.

On Tuesday, the 16th March, the Mine Resident Engineers' Association were able, by the kindness of the management of the New State Areas, Ltd., to substitute a visit to the surface works of this mine for their usual monthly meeting. A goodly attendance, with Mr. A. Dickson at its head, was received by the manager, Mr. J. Richardson, the resident engineer, Mr. G. H. Keegan, and other officials. A very useful *resumé* of the plant and particularly of the reduction works flow-sheet had been prepared for the visitors and was distributed before a tour of the plant was begun. This forethought on the part of their hosts was much appreciated by members.

The first point of call was the workshops, which have of late been considerably extended and have lost their construction period air in favour of a trim tidiness which, it was noted, was evident throughout the surface equipment. Engineers believe that tidiness pays, and during the course of the afternoon there were few among the visitors who did not feel moved to admire and vocally to commend the policy in evidence at New State Areas. The point of interest in the workshops was the plumbers' section, where galvanised ventilating piping is being turned out in big quantities. The folding and swaging machines, it was interesting to note, have been built on the property.

The reduction works, the pioneer all-sliming undertaking of the Witwatersrand, was the next port of call, and, by virtue of the comparative novelty of the flow-sheet, the chief object of interest in the visit. The particulars circulated have not, we believe, been the subject of a paper or article thus far, and should prove of general interest to our readers. The circuit starts at the receiving bins of reinforced concrete, lined with rails, having a capacity of 1,300 tons. Into these the ore is delivered from 3 ft. 6 in. gauge bottom discharge hopper trucks, and out of them it is fed on to 4 x 36 in. feed belts, inclined at an angle of 19° and running at 80 ft. per minute, which convey the ore to the sorting and crusher house, dropping it over four grizzlies spaced $\frac{3}{4}$ in. and inclined at 40°. The oversize, after washing, is led on to 4 x 36 in. sorting belts running at 40 feet per minute. The washings from the tail of the sorting belt are passed through a de-watering trommel of 64-mesh, whence the oversize goes to the fines belts, and the undersize to the charging cone. The underflow from the latter passes to the tube mill circuit, while the overflow returns to the wash pump.

Sorting and Crushing.

About 17 per cent. of the tonnage is sorted out as waste. All reef above 5 ins. cube, approximately 10 per cent. of the tonnage crushed, is picked for tube mill pebbles. The rest of the ore passes to the crushers. In the original design crushing was in two stages, 30 in. x 18 in. Hadfield jaw crushers working in series with 36 in. Hecla Disc crushers. Since it has been found necessary to abstract all +5 in. material, very little work is thrown on the primary crushers, and it is now found possible to eliminate these from the circuit and do all the crushing in one stage in the Disc machines. These have a capacity of from 30 to 40 tons per hour, and require from 25 to 47.5 h.p. to drive them, according to the nature and rate of feed. The delivery to the crushers through bins is arranged with a crossover, so that any crushing unit can be isolated for repairs without interfering with the sorting operations. The dust from the disc crushers is exhausted by means of a 30 in. Sirocco fan, arranged in a separate annexe, with the necessary ducts to crushers and a dust separator. The waste rock from the sorting belts falls into a flat-bottomed concrete bin, whence it is drawn off into skips and hauled up the rock-dump at an angle of 17°.

Grading Analyses.

	+2in.	+1in.	+ $\frac{1}{2}$ in.	+60	+90	+200	-200
Crusher feed	58.2	37.7	2.0	2.1	—	—	—
Discharge from discs	—	15.8	28.6	46.1	3.2	1.6	4.7

The Tube Mills.

The tube mill bins, having a capacity of 2,800 tons, are served by a conveyor belt from the crusher station, 30 ins. wide, running at 200 f.p.m., with a maximum slope of 15°. This delivers *via* a cross belt on to a shuttle belt spanning the bins and arranged to deliver to any section as required. The outlet from each section is served by an adjustable mechanically-driven feeder, which regulates the flow of ore on to the tube feed belt. Pebbles join the circuit at this latter belt.

There are 13 x 20 ft. x 6 ft. 6 in. tube mills each equipped with a 250-h.p. motor, and of these 12 are at present running at 26 r.p.m., while the remaining one is the subject of experiments, and at the time of the visit had been pushed up to 29 r.p.m. The crushing capacity of the tube mill equipment has been proved to be at least 73,000 tons per month, and it is possible that further study of feeds and speeds may bring it to even over 75,000 tons.

Grading Analysis.

	+2in.	+1in.	+ $\frac{1}{2}$ in.	+60	+90	+200	-200
Feed ...	8.4	38.2	25.4	22.3	2.0	1.4	2.3
Final pulp .	—	—	—	—	1.2	16.0	82.8

The mills are lined with corrugated or rifled corrugated liners. The discharge, cleared of spent pebbles, is elevated by means of jet pump elevators, working at 70-75 lbs. pressure, to rake classifiers, five of which are 7 ft. x 18 ft., and eight are 8 ft. x 18 ft., all making 16 strokes per minute. The tonnage returned to the mills varies from four to six hundred per day, depending on the condition of the liners. The spent pebbles are discharged on to a 20 in. belt running the full length of the battery, which conveys them to a 24 in. disc crusher. Here they are cracked to about $\frac{1}{2}$ in., returning by a further 20 in. belt to the main mill conveyor, and thence to bins.

Reduction.

The main pulp stream is discharged to one of eight reinforced concrete collectors, each 76 ft. x 12 ft. x 5 ft. cone, equivalent to 70 ft. x 12 ft. circular steel tanks. Crushing takes place in a weak cyanide solution, and the overflow from the collectors passes to one of the three reinforced concrete storage tanks, whence it is returned to the mill by a 10 in. centrifugal pump.

Cyanide Strengths.

	Cyanide.	Alkali (caustic soda).
Crushing004—005	.018—02
Brown agitation .	.01	.02 — 024
Precipitation01	.02 — 024

The pulp from collectors is pumped to Brown vats, six of 22 ft. x 45 ft., which when filled to 44 ft. at 1.43 Sp. Gr. contain 250 tons of dry slime. Two 10 in. transfer pumps are provided, one being a stand by, driven by 150-h.p. motors, and fitted with hydraulic valves arranged so that pulp may be delivered from collectors to Brown vats or from Brown vats to stock pulp tank. The latter, 70 ft. x 12 ft., is constantly stirred to prevent settling. The pulp passes by gravity to the Butters hoppers, 24 in number, built of reinforced concrete, and each containing 24 standard leaves. In the event of stock pulp being held up for lengthy repairs, a system has been introduced by means of which pulp can be pumped direct to hoppers from Browns, and at end of load excess pulp can be pumped back to Browns. This method restricts tonnage by about 200 tons per day, but prevents a complete hold-up. The

The Outlook

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Round the Empire

THE postponement of the Imperial Conference for a fortnight in the autumn is unfortunate, but in view of the Canadian election, it is inevitable. It is important that Canada, as the senior Dominion, should be represented; and perhaps particularly important that it should be represented at the forthcoming Conference, in view of the present political difficulties in that country.

* * * *

THE programme of the Conference as it stands at present is obviously provisional, and other matters will be added during the two months before it assembles. But it seems clear that whatever subjects appear on the agenda, the real burden of the Conference, both in public and in those private conversations which are even more important, will be the foreign policy of the Empire—that is to say, the relations of Britain to the Empire and Europe.

* * * *

IT is, of course, quite useless to pretend that there is no difference of opinion in this matter; and as useless to suggest that a simple either/or will resolve those differences. Britain is geographically part of Europe; politically part of the Empire. She cannot "clear out of Europe" if she would; the policy of isolation is impossible. The utmost she can do is to minimise her commitments, and to recognise that even as part of Europe, the Empire is more important to her than the Continent.

* * * *

IT was because she departed, or seemed to depart from that attitude, that the Locarno Pact was adversely criticised. Its promise of peace was obtained at too heavy a cost, for it committed Britain to war with France or Germany in the event of any conflict. The historical policy of the defence of Belgium is one thing; the pledge to defend the Rhine is another. Whether it is

necessary to our own security—a matter on which many good judges are extremely dubious—is not at the moment being argued; it is certainly not a matter in which the Dominions can take any direct interest.

* * * *

THE foreign policy favoured by the Dominions is not, however, all of a piece. Canada favours simple isolation so far as Europe is concerned, but close and direct relations with the United States. Australia and New Zealand have no direct interest in European affairs, but a very direct concern with Asiatic policy, as Singapore attests—a matter which is of no particular concern to Canada at the moment.

* * * *

SOUTH AFRICA, on the other hand, has closer economic if not political relations with the Continent than either Canada or Australia; while Holland bulks larger in the Boer mentality than France in that of the French-Canadian. South Africa, too, is interested in the development of the East Africa Colonies, the retention of the African mandates, and the maintenance of the Cape-Cairo route through Kenya and Tanganyika. It is in the very nature of the problem that South African policy, which tends to increasing autonomy within the Union, cannot ignore the greater world without.

* * * *

THESE facts, being of the essence of the situation, cannot be ignored either by the Dominions or ourselves. A self-sufficing Empire living in political and economic isolation from the rest of the world may or may not be a satisfactory ideal. There is no need to argue the question; for it is, in fact, an impossible ideal. We need to discuss the whole field of Empire foreign policy with a frank recognition that these divergencies of opinion exist, but also with the equally frank recognition that they are compatible with an ultimate common measure of agreement.

EMPIRE foreign policy must in some sort be a compromise, but that is a very different thing from its being a thing of shreds and patches, or of each unit going its own way regardless of the interests and opinions of other units—as has sometimes seemed to be the case in these post-war years. It is precisely here that the Imperial Conference can do valuable work this autumn. What we seek is the maximum of security for all combined with the minimum of responsibility for each—a difficult but not impossible goal.

* * * *

THE Ross Institute, which was opened by the Prince of Wales last month, is both in name and in deed a memorial to Sir Ronald Ross, who is, happily, still with us and still capable of scientific work. It is a memorial of the only kind worth having—the commemoration of a noble achievement for the benefit of humanity, which carries with it the promise of equally good work in the future.

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THE tropics have taken frightful toll of European and native life in the past, and for centuries this was accepted in fatalistic spirit, almost as the inevitable price of man's first disobedience, as though it were the will of God, a fiat at once inscrutable but irrevocable. Sir Ronald Ross's great work in discovering the cause and cure of malaria dealt the first shattering blow at that absurd and pessimistic belief, and since then much has been done to make many tropical countries habitable.

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BUT very much remains to be done; we are still only beginning the work of tropical sanitation and preventive medicine. It must necessarily take time, for what we have to do is to combat the passive frame of mind which tolerates disease, as well as disease itself. Sir Ronald Ross has had experience of both, and has fought both, in India and Africa. He was the pioneer; it is now the business of tropical administrators to aid medicine and medical men on the spot to transform and tame the tropics for civilisation.

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THE second Conference of Delegates of the unofficial European communities of the East African Territories will take place in August at Livingstone, Northern Rhodesia. The first meeting of this kind was held last year at Tukuyu, Tanganyika; it was convened by Lord Delamere, and proved a signal success and a notable advance in the co-ordination of the countries represented. These unofficial conferences provide an excellent opportunity for bringing the settlers of the various British Dependencies together, and will become a serious factor in East African political life; they form an important counterpart to the Governors' Conferences, and facilitate harmonious co-operation between the official and unofficial sections of the white community. The lack of knowledge prevalent in each of the East African territories regarding its neighbours, due chiefly to the scarcity of railway com-

munications and all-weather roads, has in the past led to misunderstandings and has retarded co-ordination.

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THE potential importance of the East African Dependencies to British trade is emphasised in the interim report of the committee, appointed by Mr. Amery, to advise him on the allocation of the £10,000,000 East Africa Guaranteed Loan. The committee declare that the opening up of territories with such great potentialities for producing raw materials and consuming British manufactured goods must react favourably on the trade position in England. East Africa will welcome the recommendation that research work should be given every encouragement and that money from the funds at the disposal of the Empire Marketing Committee should be made available for this purpose.

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THE figures Mr. Amery quoted in the House as an illustration of the growth of the East African Dependencies are highly satisfactory. The advance made in Tanganyika is particularly striking. In 1921-22 the deficit on administering this war-devastated country amounted to over £500,000; in 1923-25 a surplus of nearly £200,000 was realised. The territory has not only been in a position steadily to develop its services, but to pay interest to the Treasury on its accumulated debt. Its revenue for 1924-25 has risen to over £1,500,000 and is estimated for the present year at £2,113,000.

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THE statement made by Mr. Amery that the £10,000,000 Transport Loan will not, as recommended by the Ormsby-Gore Commission, be free of interest for five years, will be a disappointment to the East African territories. A heavy burden will be imposed on these young countries if they have to pay interest on the Loan during the construction period of the projected railways. This modification in the terms of the Loan will probably mean that only railway schemes which can be expected to pay their way in the immediate future will be considered at the present time.

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IT was a grateful thought that prompted Peers and Members of the House of Commons to subscribe to provide a Speaker's Chair for the new Parliament House of the Commonwealth of Australia. The chair, which has been on view at Westminster, is a replica of the Chair in the House of Commons, and is being taken out to Australia by the delegation of the Empire Parliamentary Association. Lord Salisbury is to head the delegation and present the Chair, and all parties are represented in the group selected to accompany him. The exchange of visits by representatives of the Parliaments within the Empire deserves to be encouraged by all who have the real interests of the Empire at heart. Personal contact will do more than a shipload of official despatches to cement the Empire.

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