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# THE ORE.-BIN

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## INDEX OF GEOLOGIC MAPS ISSUED

An 8 $\frac{1}{2}$ x11 inch index map with the title "Published Geological Maps in Oregon" has recently been issued by the State Department of Geology and Mineral Industries. A complete bibliography is given on the back. Maps from a total of 41 different publications cover over half the area of the state, although only about a sixth of the state has been covered in detail, the rest being of reconnaissance accuracy.

This index, which is of value to anyone seeking published information on the geology of a certain area in the state is on sale for 5 cents at the State office, 702 Woodlark Building, Portland.

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The Oregonian of March 30th gave pertinent facts concerning the Defense Commission's recent activities in various metal categories. Some of the items were given as follows:

**Aluminum:** Defense Commissioner Henderson fixed maximum prices on scrap aluminum and secondary ingots. An allocation formula must be followed by producers, fabricators and secondary smelters. The measure went far beyond controls imposed a month ago. Henderson said price ceilings were found necessary in part because of failure of primary production to meet demands.

**Copper:** Defense authorities prepared to allocate supplies for April delivery. Additions to domestic production were expected to forestall possibility of a shortage. About 30,000 tons of foreign metal were expected to arrive, and there were reports that 20,000 tons destined for France might be added to the total.

**Tungsten:** A shipment valued at \$3,000,000, one of the largest in recent months, arrived at New York. The ore weighed 1900 tons, or 20 percent of the quota set for 1941 defense needs. The office of production management established a general priorities system.

**Quicksilver:** Leon Henderson charged the current price of \$180 for a 76-pound flask was too high and said domestic production plus imports exceeded demand.

**Lead:** The price was lifted \$2 a ton to a basis of 5.85-5.90 cents, highest since September, 1937. Buying continued at a fast clip and major sellers dipped into foreign supplies of pig lead.

**Zinc:** One of the most severe shortages in all metals prevailed. Henderson predicted a price ceiling for scrap.

**Steel and Iron:** Steel quarters heard a pig iron shortage was in prospect despite active production. Labor problems overshadowed other factors but demand and production continued at record rates.

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## OUR RELATIONS WITH THE LATIN AMERICAS

by Earl K. Nixon

(continued from March 1941 number)

Now what do we think of the Latin American countries and peoples? By and large, we do not know much about their people, and we do not think we care a great deal about their countries - South America, at least. We understand it is unsanitary, that there are mosquitoes and lizards, that the servants and local officials are tricky, that they have revolutions, and that "Oh, it's terribly hot down there". The answer, of course, is, "Yes and no - depending".

As to sanitation, I seem to have heard a rumor that citizens of Portland, Oregon, U.S.A., are not in the habit of lying down on their bellies and drinking their fills out of the Willamette River, either, although I have drunk my fill many times out of the Orinoco River in South America. As for mosquitoes, I've lost more blood in a month doing geologic work in Wisconsin and Upper Michigan or in a week in Alaska or the Yukon, than I did in two years living in the Orinoco jungle - and that is known for its mosquitoes. As for tricky servants and local officials and revolutions, I sometimes think they are pikers down there compared with Huey Long, Prendergast of Kansas City, the Kelly-Nash outfit of Chicago, "Pretty Boy" Floyd and some of the riots and rackets we have in this country. I understand that there have been times when \$5,000 would put on a beautiful "revolution" in some Latin America - that is, a "revolution" as classified and described with lurid abandon and banner headlines by Yankee newspapers - whereas in the U.S., \$5,000 would hardly pay for the rubbing out of a tinfoil racketeer who don't even rate the title of "Public Enemy No. umty-umth".

I happened to be in Venezuela during one of those so-called revolutions. The newspapers, of course, played it up - there wasn't anything else just then to play up. They sent a "gunboat" up toward San Fernando de Apure. The gunboat as I recall resembled a big Portland harbor tug and carried a platoon of soldiers. On the fourteenth day in late afternoon, someone noted the "gunboat" steaming back down the 3-mile wide river out of the setting sun. All the flags were waving. From that we knew that the enemy had been conquered and the revolution put down. Cheers went up as the hilarious soldiers disembarked and paraded up the Avenida. The next day was declared a holiday in the city (the largest within hundreds of miles within the republic). I got the story. After 10 days of heat on the river and steaming against the swift current, the food began to get a little low. They must be in enemy territory - they surely had come far enough. Suddenly an Indian family, three or four men, a couple of women, and two or three children, all in a big dugout canoe were seen cutting across the river a bit upstream. The gunboat gave chase, finally fired a volley. A man and a woman were killed, according to my informant, the others escaped. That would teach them to respect the government. Anyway, it was quite a "revolution" - in the United States. The U.S. newspapers reported that things were reported. After reading some of the worse write-ups, one could almost smell the smoke of battle and hear the gurgle of blood from well-slit throats. Bushwah!!!

Now what do they think of us? They have, at least until recently, harbored considerable suspicion and resentment of us. Why? Well, here briefly are some of the reasons.

1. North American corporations operating in South America and Mexico have been rather arrogant in some cases. They have been in the habit of having pretty much their own way, even in this country. In the Latin Americas, they could push

around the peons - they were used to that - but when it came to the minority or wealthy, ruling class, it hurt. The latter are dignified and sensitive. Resentment toward us was the result.

2. It appears that the U.S. State Department at times has brought pressure to bear on the Presidentes or ruling families to gain certain ends or to favor certain industrial interests. That also has been the basis of resentment.

3. Goods of U.S. manufacture imported into the Latin Americas usually cost considerably more than corresponding items made in Europe or elsewhere. Our costs are higher because our living standards are higher and our laboring classes are higher paid. The quality and style of our goods are usually better, and are preferred, but how these people hate to pay the price. The condition is sometimes construed as an affront to them. They are <sup>not</sup> concerned with how many bathtubs or radios per capita we have; they are concerned with the cost to them of a good axe or hoe or auto tire.

4. The masses in some of the Latin American countries may be said to have been kept down at times by the minority ruling classes or families that more or less control the elections. There have been well-known instances of U.S. banking houses putting millions into some of the ruling hands in order to maintain the regime. That, according to the protectors of the peon classes, has had the effect of keeping the latter down - of making the poor people poorer and the rich people richer - and they resent it. I do not think any of that is going on now, but it has been a cause of resentment in the past.

So human and cultural relations between the U.S. and the Latin Americas are not on a basis of full understanding, unfortunately.

Now what about political and commercial relations? First, what about the Monroe Doctrine? Contrary to what you may think, the Monroe Doctrine has not been so popular in the Latin Americas. Why? Because sometimes our methods, at other times our motives, and frequently our sincerity have been subject to doubt. Some of our acts have looked quite different to one on the other side of the Rio Grande or the Isthmus than to the rank and file of us who live here.

Recall that the Monroe Doctrine came about mainly as a result of suspicion of possible action by Russia in the Bering Sea area, and because of the ideas of the Holy Alliance and Spain in South America. President Monroe, in 1823, stated his famous doctrine that the United States would henceforth not allow European or other foreign powers to establish colonies in or meddle in the affairs of the Western Hemisphere countries. This magnanimous edict seems to have carried the added implication that the United States out of sheer modesty and righteousness was prepared to play big brother-defender for the Latin Americas, and had no idea of increasing its sphere of influence, adding territory, or otherwise of embarrassing or complicating the existence of the Latin Americas. Anyway, that is the way they seemed to have accepted the Monroe Doctrine. They were tickled pink - at least, they were at first. Later, some of the Little-Red-Ridinghood-republics had some reason for thinking they were living in the same forest with a big bad wolf. Let us look at the record.

Take the Panama Canal zone. Theodore Roosevelt grabbed that back about 1902. I think it actually took him about three days - the real maneuver. Did you ever read the details of how it happened? You should. It's great stuff. The republic of Colombia hasn't got over it yet.



And Teddy Roosevelt's famous "corollary" to the Monroe Doctrine .. a question of our taking over certain police powers in the Caribbean area, though I don't recall that the area to be affected<sup>was</sup> so carefully stated. Under the corollary we sent marines to Nicaragua, Haiti, Santo Domingo, etc. - and never pulled them all out until 1935.

And there was the Spanish American war. We got all hot and bothered about atrocities being perpetrated in Cuba. The newspapers fanned the fire. I think they even poured a little gasoline on it. Anyway we got worked up to such a pitch that we just had to have blood. We sent our battle wagons around the Horn. The dear old battleship Oregon, now resting down near the Hawthorne Bridge, was one of those that went. The battleship Maine sank in Havana harbor. No one could ever explain how it happened - whether it was an accident or an enemy mine, but so far as we were concerned it was enemy foul play. You know the end as well as I: we came out of the war not only with Cuba and Puerto Rico, but also with the Philippine Islands 10,000 miles away - over in the East Indies. Did that look like we didn't want any more territory?

And even farther back, how about the Mexican War? That wasn't too long after the Monroe Doctrine was announced. Some Yankee settlers and others settled on grants of land from the Mexican Government in territory that is now Texas. In a few years the settlers got together and decided they wanted to be admitted to the Union. We later admitted them - 1845. Mexico hit the ceiling and we went to war - 1847-1848. We wound up, as you probably recall, with much of California, Arizona, New Mexico, and what is now Texas. We paid Mexico \$15,000,000 whether she liked it or not. Presumably that cleared our conscience. But did our action agree with the spirit of the Monroe Doctrine? And didn't England colonize British Honduras without interference from us?

Now I agree with you that all these acts were doubtless for the good of humanity, all of them - from our viewpoint - well justified in the light of present conditions and knowledge, but some of them surely looked mighty queer to the citizens living on the other side of the Rio Grande and beyond the Isthmus. Can you blame them for having been suspicious at times of the Simon pureness of our motives?

And then there were the Pan-American conferences. At the first one in Washington in 1889 James G. Blaine, then Secretary of State, was frank enough to say that his idea was to improve our trade relations with the Latin Americas. We have been pretty much on a Dollar Diplomacy basis ever since. Not too much has been accomplished at those Pan-American conferences. This last summer at Havana, Argentina, the most important country in South America just now, came near taking her ball and glove and going home. And in the Lima conference of 1938, Alf Landon tried to ring the Monroe Doctrine into the picture and almost wrecked the party. The conferences have been great places for the exchange of information, platitudes, and noble sentiments, but not so much with real meat in it has come from the conferences.

Since the depression of 1930 and 1931, our trade relations with the Latin Americas have changed for the better. The collapse of our foreign and European trade caused us to appreciate more our Latin American markets. Another reason for our appreciation of our Southern markets was the fear of losing them through trade penetration by the totalitarian states.

President Roosevelt's Good Neighbor policy has borne a considerable amount of fruit. Of course, we have planted a considerable number of golden plums in

Latin American soil. I am inclined to believe, at that, that the soil down there may be apt ultimately to be just as fertile for growing things like dividends, as the soil in our own Kentucky. However, I do not think that too much can be expected of the Good Neighbor policy in a short length of time. We have had too many years of Dollar Diplomacy. We cannot in one golden gesture atone for decades of suspicion. I can say from personal observation that the present feeling of the thinking class in at least a part of South America is very favorable to the present administration.

What is the difficulty with trade between the United States and the Latin American countries? In a sentence: We cannot absorb their surplus commodities in our regular trade channels. Why? Because, first, we produce - with the exceptions of tin, coffee, and bananas - the same products they do; and second, we refuse to let their surpluses - cotton, copper, meats, etc., come freely into this country (except over high tariff barriers) to embarrass our higher paid labor and reduce its standard of living. Vigilant pressure groups in the United States see that our laboring class is protected. Yet, the Latin Americas can't buy our manufactured goods unless they can establish credits with us through sale of their raw materials. Argentina can't buy our automobiles unless we buy her wheat and meat and hides. And obviously, as a Latin American country's currency depreciates it becomes increasingly difficult for her to establish gold credits in the United States. Instead of it requiring a thousand bags of coffee to buy a U.S. motor truck, say, it may take two thousand bags. There has been little change in the cost of producing coffee, but the product only realizes, say, half as much as before. It doesn't make so much difference to the peon or laboring class. He lives off the country, earns little, spends little, owns little, has neither debts nor credits. But to the landowner or planter, the man who supports labor, who pays the taxes to the government, who produces and ships the hides, cotton, wine, or what, - the depreciation of currency is painful. He is the fellow who has to buy the truck, the auto tire, the gasoline engine, the corrugated iron, the barbed wire, the galvanized pipe, etcetera, all made in a foreign country. He pays through the nose - if he buys from us or any country whose currency is at par. I happened to be in Port-of-Spain, Trinidad (an English colony) on the day early in 1932 that England went off the gold standard. A friend of mine in charge of a large wholesale hardware and equipment establishment, came puffing into his office and said to me, "Well, I have just come from the cable office. I cancelled somewhat more than \$100,000.00 worth of orders for merchandise in the United States". A few months later he took me through the establishment and showed me rooms and shelves of merchandise filled with goods from England, Czechoslovakia, and Japan, that had replaced goods formerly purchased from such firms as General Electric and Westinghouse, Fairbanks-Morse, etc., in the United States. This time, my friend said to me, "This stuff (referring to his stocks of non-U.S. goods) is rather junky, items are not uniform - nor is quality, but the trade just can't pay the premium for U.S. merchandise".

Last summer while driving with a Peruvian Government official across a relatively new steel bridge in the outskirts of Lima, I remarked, "This bridge is a credit to any city. Was it built by an engineer from the States?"

The official replied, "No, I'm sorry. We called for bids on materials and construction and a German firm's bid was 25% lower than any bids by U.S. firms".

Is it any wonder that we cannot compete with European countries that have depreciated currencies and totalitarian methods of production? No collective bargaining there; labor is told what it shall do and what wage it shall receive.

Then what will be the situation when the present world conflict is over and the fight for world trade and commerce becomes a free-for-all? Will we get any of it? What will foreign countries buy from us? Only the things that they can absolutely not get along without - unless our living standard comes down.

What expedients have been taken in recent years to improve our trade relations with the Latin Americas? Several:

1. Loans by our Reconstruction Finance Corporation to industries in South America.
2. Trade Act of 1934. The Reciprocal Trade treaties.
3. Inter-American Financial and Economic Advisory Commission.
4. The Inter-American Bank.
5. The Import-Export Bank.
6. The Pan-American Marketing Cartel - under consideration.

There seems to be little point in going into detail regarding the expedients named above. The acts of the RFC, the Trade Treaties, and the Import-Export Bank have got some results so far as the Latin Americas are concerned. The marketing cartel, for several reasons, probably would not be successful. However, the promulgation per se of the expedients mentioned above has had a leavening influence on the recent attitudes of the governments of some of the Latin Americas.

What about Nazi Germany's and Facist Italy's standings in the Latin Americas? There are certain spots, particularly in Brazil, Argentina, Uruguay, Paraguay, and perhaps Mexico, where pro-German or pro-Italian feeling is very strong, but as to the persons or groups that are leaders of the countries themselves, I believe the feeling is much more friendly toward the United States at the present time, than it is toward any European country. Reasons? Fear by the leaders or groups in question of the commercial and political effects of totalitarian infiltration; and the effect of our Good Neighbor policy. True, the U.S. is subsidizing some of the Latin republics with gold . . . something that no European country is doing.

Some of the South American countries have had sour experiences bartering with Germany and Italy. Argentine raw materials were traded for German marks, exchangeable only for goods of German manufacture or origin. German machinery mainly was taken in exchange. Much of it turned out to be of "export" grade - sub-standard, and now, due to war conditions, parts cannot be obtained. I discussed with the Commandante of a large military aviation training school in one of the southern republics, the matter of a substantial number of Italian military aircraft his government had purchased. (The planes were out of commission). I learned that none of the planes had come up to - or closely approached - speed representations, that none of them had gone more than about half of the guaranteed time before engine overhaul was necessary, that repair parts and replacements had not been shipped from Italy even when that was possible, and that now the Commandante was just "stuck" with the planes.

Brazil and Argentina - and perhaps other countries - have quantities of German marks on their hands, and a rather bad taste in their mouths. This in spite of Germany's offering nearly two dollars for one, - that is, two of her depreciated currency.

What conclusions shall we draw from all these ideas? The writer is prone to draw the following:



1. The Latin American people have in the past been somewhat suspicious and also resentful of us and our motives; they are now beginning to change their opinions.

2. Their countries are mainly rich in natural resources, but undeveloped.

3. They (now) are principally capable of producing raw materials, and these at low cost <sup>because</sup> of their lower standard of living.

4. We can never trade for their surplus commodities unless they reduce the cost to us - which is virtually impossible, or unless we lower our tariffs and trade barriers - which is improbable.

5. If Germany gains control of the Atlantic she will effect trade penetration in South America that will be very difficult or impossible for us to over-balance without conflict.

6. If Germany does effect trade penetration (and trade penetration and commercial control will certainly be accompanied by political control) all our investments in the Latin Americas will be lost and our future safety will be jeopardized - unless we fight back. (I don't think that we will see our investments go without a scrap).

7. The South American republics seem plainly to be playing the United States off against the Axis Powers. Why shouldn't they? It's good business from their viewpoint. Every Nazi outbreak in Uruguay is apt to be worth a 10-million dollar loan to that or some nearby country.

8. The southern countries aren't fooling us at all. We understand their strategy but we still think they are a good gamble. If the war in Europe breaks right for us, we are on the ground floor - we hope - as regards valuable trade; if it breaks wrong, it still have been a good "ride" nevertheless.

9. Times do change though. Wall Street used to loan money - your money - to the Latin republics; now they have to borrow their money - your money - from the Federal government. Last year, Senhor Aranha, Brazilian Foreign Minister, talked the Administration out of sixty-nine million dollars by telling a story about Nazi penetration in Brazil. Personally, I believe the yarn, and think the money was better spent thus than it would have been, say, in completing the ship canal across the state of Florida with WPA labor.

10. - and this is mainly a comedy of inconsistencies - the United States and England are the two remaining important democracies. We swear by the democratic system. Yet, based on results we have seen in Poland, France, Denmark, etc., the dictatorships can sometimes accomplish what the democracies can't. (I don't need to tell you that Churchill is virtually as powerful in England as Hitler is in Germany. But we'll take the English brand of "dictatorship", w'ot?) Then, the least we can say is that democracy is surely on trial. Now... coming across the Atlantic, democracy, at least off the record, is somewhat of a laughing stock in much of South America. And their "dictator-republic" systems are laughed at and frowned on equally by us. Now our very own administration in Washington is subsidizing and maintaining these very ruling families, rulers, and systems that basically we disapprove of. But we personally at least the great majority of us (including myself in this regard) agree thoroughly with the U.S. foreign policy in the Latin Americas.

It's all a hell of a mess, isn't it? I think the world is cockeyed!

Well, what are the answers as regards Our Relations with the Latin Americas? In my humble opinion, the answers are as follows:

1. We must increase substantially our human and cultural relations, and ease off slightly on the gold subsidies. You may buy a man's soul with gold, but he will not respect you.



2. We must offer more personal services, especially of a technical nature, to the Latin American countries. Let us lead them soundly in general principles, but let them work out the details. In that way they will save their faces.

3. Let us help them with industrial methods so they can stand on their own feet and use up their own raw materials. As their industries and payrolls increase their desire and necessity for foreign subsidies decrease.

4. Let us deflate some of the pressure groups who are misleading us in regard to some foreign commodities, such as the Argentine corned beef matter.

5. Let organizations, societies, industrial groups and universities - as well as the government itself - send representatives - many more than at present - to the Latin Americas, to promote in a modest and easy-going way, a better understanding between the two peoples. When they really understand us, they will have faith in us.

As someone, who is smarter than I, has said, "A man or a country that is really busy with its own peaceful affairs, is too busy to make war on someone else".

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#### CLEARING HOUSE

H. Stein, 530 Golden Gate Ave., San Francisco, wishes to acquire a deposit of chalk.

Hayes Schermerhorn, 3611 SE Division St., Portland, Oregon, wishes to sell his gold property on Upper Forest Creek, Jackson County. There are two unpatented mining claims, area 40 acres. It is stated that 250 feet of tunnel shows vein  $2\frac{1}{2}$  feet to 3 feet wide which pans free gold. Also property contains about 150,000 yards of placer gravel containing \$1.00 and up per yard. Price \$4000; one half interest \$2,000.

H. L. Marsh, care of C. C. Buck, Jacksonville, Oregon, wishes to sell operating fully equipped hydraulic gold property, consisting of 140 acres, located in Upper Applegate district. Cash or terms.

Minor Blythe, 1003 West 35th St., Los Angeles, would be interested in securing deposit of chalk.

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#### OREGON NONMETALLICS USED IN 1940 CONTRACTS

During 1940 major Oregon contracts awarded, involving the use of nonmetallics of the State in construction, amounted to over \$6,950,000. These contracts were for highway construction and for dam, levee and jetty work. The figure does not include building construction or contracts for bridges and approaches. The total was compiled from statistics published in the Feb. 15th issue of Mining and Contracting Review of Salt Lake City.

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## NOTES ON METALS IN FOREIGN COUNTRIES

Mineral Trade Notes, issued monthly by the U.S. Bureau of Mines, gives information on current items relating to the mineral industry in various countries. In the issue of February 20th consular reports give illuminating side lights on the condition of the industry in several countries. Some of the items are given below.

## FRANCE

Stocks and seizure of nonferrous metals. -- It is reported that the Groupement d'Importation et de Répartition des Métaux, which was at Bordeaux at the time of the German invasion, was able to effect the reshipment of 85,000 tons of copper, zinc, lead, and nickel then in customs or warehouses at Bordeaux. These reshipments were made to Great Britain, Morocco, and the United States. Of this total about 75,000 tons was copper. Between 25,000 and 30,000 tons of copper was seized by the Germans at the ports of Bordeaux, Saint-Nazaire/Coueron, and Havre. At the time of the German invasion stocks at nonferrous plants were respected as the property of the French industrialists, but since then numerous requisitions on these stocks have been made by the German authorities. At a plant at Vitry, near Paris, 1800 of the 2400 tons on hand were requisitioned; 11,000 tons from a plant on the Normandy coast and the entire reserve from a plant in the east were taken. The French smelting industry is now faced with the following problems: (1) Supplies from abroad cannot be received because of the British blockade; (2) no further supplies can be received from the Groupement d'Importation et de Répartition des Métaux, as the stocks of this organization were seized as war booty upon the signing of the terms of the armistice; and (3) the progressive reduction of the stocks at the plants through German requisition. It is estimated that reserves on hand will permit production on a very reduced scale to continue only for 2 or 3 months.

No data are obtainable with regard to existing stocks of nonferrous metals in the unoccupied zone, but, with the exception of aluminum they are believed to be very small. It is probable that the temporary restriction on aluminum production to 100 percent of the 1938 output will be raised in view of the need for replacing other metals, particularly copper, with aluminum. It is understood that the Germans have been negotiating with Pechiney, the French aluminum trust, for delivery of 25,000 to 30,000 tons of aluminum.

An estimated 30,000 tons of unrequisitioned copper is in the hands of importers, dealers, or at plants. The normal annual peace-time consumption of France is 120,000 tons, and at full-time operations the reserves on hand will last only 3 months; but under the restricted schedule of 25 percent of the 1938 basis it will last much longer. Unseized copper scrap at French arsenals is estimated at 50,000 tons. Copper cannot be obtained from the French-owned Bor mine in Yugoslavia because the Germans, in an agreement with the Yugoslav Government, have placed German commissaires at the mine, and the entire monthly output of 3,500 to 4,000 tons is being sent to Germany. German interests are reported endeavoring to obtain control of the stock of this company.

## YUGOSLAVIA

The British-owned Trepca mine in Yugoslavia, with an annual output of

(continued on page 49)

**METALLIC MINERAL PRODUCTION STATISTICS**  
(compiled from Engineering and Mining Journal, and U.S.B.M. Minerals Yearbook 1940)

Metal	Domestic Production 1939	Domestic Production 1940	World Production 1939	World Production 1940	Domestic Imports 1939	Domestic Exports 1939	Average Unit Price 1940	Market Price Mch. 1941
Gold	5,611,000 ounces (incl. Philippines)	5,883,000 ounces	39,697,000 ounces	41,936,000 ounces	x	x	\$35.00 per oz.	\$35.00 per oz.
Silver	57,808,000 ounces	66,500,000 ounces	258,917,744 ounces	277,500,000 ounces	x	x	\$0.71 0.3477 per oz.	\$0.71 0.3475 per oz.
Copper	728,320 sh. tons	923,354 sh. tons	2,382,641 sh. tons	2,650,000 sh. tons	336,287 sh. tons	427,517 sh. tons	\$0.11296 per lb.	\$0.125 per lb.
Lead	420,427 sh. tons	460,000 sh. tons	1,898,968 sh. tons	x	86,883 sh. tons	74,392 sh. tons	\$0.05179 per lb.	\$0.0575 per lb.
Zinc	538,198 sh. tons	643,386 sh. tons	1,849,712 sh. tons	x	36,100 sh. tons	14,360 sh. tons	\$0.06335 per lb.	\$0.0725 per lb.
Tin	34	x	183,900 lg. tons	233,100 lg. tons	70,102 lg. tons	1,997 lg. tons	\$0.49827 per lb.	\$0.515 per lb.
Mercury	18,633 flasks	36,000 flasks	x	x	3,499 flasks	1,208 flasks	\$176.865 per flask	\$176-\$178 per flask
Antimony	2,031 sh. tons	x	35,300 met. tons	x	10,894(1) sh. tons	58 sh. tons	\$0.14 per lb.	\$0.165 per lb.
Manganese	29,307 lg. tons	40,000 lg. tons	x	6,000,000 long tons (est.)	627,131 lg. tons (2)	-	\$0.56 per long ton unit 46% to 55%	\$0.45 to 0.56 per long ton unit for 46%-55%
Chromite	3,614 lg. tons	x	1,125,000 metric tons (in 1938)	x	317,511 lg. tons (3)	-	x	\$34-\$36 per long ton
Tungsten	3,603 sh. tons 60%	4,600 sh. tons 60%	37,718	x	1,372 sh. tons (4)	-	x	\$23-\$24 per unit WO <sub>3</sub>
Arsenic as As <sub>2</sub> O <sub>3</sub>	22,341 sh. tons	x	55,700 (in 1936)	x	14,674(5) sh. tons	3,200 sh. tons	\$0.03 per lb.	\$0.035 per lb.
Bismuth	(6)	x	In excess of 3,000,000 lbs.	(7)	182,840 lbs. (8)	x	\$ x	\$1.25 per lb.
Cadmium	5,090,000 lbs.	6,800,000 lbs. (est.)	4,200,000 lbs. in '37	x	309,874 lbs. (9)	52,149	x	\$0.80 per lb.

Cobalt	-	x	6,000 metric tons (est.)	x	Ore 611,083 Metal 2,130,296 Salts 757,308 lbs.	x	x	\$1.50 per lb.
Nickel	394 sh. tons	x	127,000 sh. tons (in 1938)(10)	x	64,795	x	\$0.35 per lb.	\$0.35 per lb.
Magnesium	10,650,121 lbs.	12,500,000 lbs. (11)	32,800 met. tons	x	66 lbs.	x	\$0.27	\$0.27
Molybdenum	15,162 sh. tons	x	16,500 sh. tons	x	13 sh. tons	21,777 sh. tons	x	\$0.45 per lb. MoS <sub>2</sub> contained in 90% conc.
Aluminum	163,545 sh. tons	x	713,600 sh. tons (est.)	x	9,290 sh. tons (12)	36,609 sh. tons	x	\$0.17 per lb.
Vanadium	992 (13) sh. tons	1,250 sh. tons	2,816 met. tons	x	1,066 sh. tons	-	x	\$0.275 per lb. contained V <sub>2</sub> O <sub>5</sub>
Beryllium	x	100-150 sh. tons beryl	x	x	459 sh. tons beryl	-	x	\$30-\$35 per ton beryl of 10-12% BeO
Platinum Metals	35,060 oz.	x	537,000 oz. in 1938	x	306,627 oz. (14)	50,370 oz.	x	Platinum \$36 Palladium \$24 Iridium \$275 per oz.

x Figures not available.

- (1) Imports of 14,167 tons for first 11 months 1940.
- (2) " 1,443,225 long tons for first 11 months 1940.
- (3) " 582,399 " "
- (4) " 7,000 short tons "
- (5) " 9,520 " "
- (6) Domestic consumption in 1939 estimated at 500,000 lbs.
- (7) World consumption in 1939 estimated at 2,500,000 lbs.
- (8) From Peru - Gain of 98% over 1938 imports.
- (9) Imports of 27,491 lbs. for 11 months 1940
- (10) Figures for 1939 and 1940 not available, but 1940 production in Canada greatest in history.
- (11) Estimated that production will be more than doubled in 1941.
- (12) Exports of 6,300 tons first 11 months 1940.
- (13) Vanadium contained in products shipped.
- (14) 166,075 oz. imported first 11 months 1940.  
1 metric ton = 1000 kgm. = 2,204.6 lbs.  
1 long ton = 2240 lbs.



35,000 tons of lead and 10,000 to 15,000 tons of zinc, has also been the subject of an agreement between the German and Yugoslav Governments for the delivery to Germany of the major portion of its product, thus depriving France of this source of supply for its lead and zinc ore. (First Secretary of Embassy Maynard B. Barnes, Paris, Oct. 26, 1940).

#### FINLAND

The undersecretary to the Ministry of Economic Warfare stated on November 19, 1940, that the nickel mine at Petsamo was being kept under careful observation, that the mine was not producing, and that there was no reason to believe that any Finnish nickel has been reaching Germany. The Financial Times (London) of November 20 stated that arrangements were being made to sell the entire nickel output of the Petsamo mine to Soviet Russia. (Asst. Commercial Attache James Somerville, London, Dec. 3, 1940).

#### ITALY

Requisitioning of iron fences and railings has been extended to include all iron, steel, tin, and tin-plated scrap, and articles out of use containing these materials, in excess of 200 kilograms per person. It is obligatory to declare such scrap or articles to the local podesta (mayor) who will notify the Endirot (Scrap Distribution Institute). Government measures for requisitioning copper scrap are more severe, with only negligible exemptions allowed to private individuals and only slightly more elastic exemptions to industries able to prove the need of retaining copper recipients or machine parts. The sale of copper recipients has been strictly forbidden for the duration of the war except to the Endirot. (Consular Clerk Raymond Hall, Milan, Dec. 6, 1940).

The Cogne Co. is building a new plant for the manufacture of metallic magnesium from local dolomite to be used in special alloys. The capital of this concern is reported to have been raised to 250,000,000 lire. (Consular Clerk Raymond Hall, Milan, Dec. 6, 1940).

Gold production has progressed from a few dozen kilograms annually to a total of 240 kilograms in the last fiscal year. (Note: 1 kilogram = \$1125 @ \$35 an ounce).

#### GERMANY

A new and promising use recently developed in Germany for nitrogen is as an alloying element in the manufacture of special stainless and acid-resisting steels. The use of nitrogen in chromium-manganese steel stabilizes the austenite and gives the steel better processing properties. It also can be used in a ratio of 0.1 percent in place of the 3 to 4 percent of nickel in chrome-nickel steels without affecting their quality. Through the addition of nitrogen in steels with, for example, 18 percent chromium and 3 to 4 percent nickel, or with 25 percent chromium and 4 percent nickel, entirely new industrial materials have been created that possess the same mechanical and chemical properties as the well-known chrome-nickel steels. The use of chromium in recent years as an alloying element in stainless steels greatly reduced the consumption of nickel formerly required for the manufacture of these steels. The use of nitrogen as an alloying element will further lessen Germany's dependence on imported nickel. (Consul Sydney B. Redecker, Frankfort-on-Main, Dec. 7, 1940).

Recently conducted researches have established that losses of iron due to corrosion in Germany and the world are not as great as formerly believed. Studies conducted by the Reich Railways and private iron and steel companies show that such losses of iron due to rust amount to only about 125,000 metric tons annually, or 1/2 percent of Germany's current production. Iron losses due to rusting of water pipes are negligible in Germany and are said not to exceed 2400 tons annually. Previous estimates have placed the world's losses of iron and steel due to corrosion at 46 million metric tons annually with a total loss of 718 million tons during the period 1890 to 1923. The data now available show that these estimates exceeded the actual rust losses more than 35-fold. These earlier data gave Germany's losses in warm water and refrigerator installations at more than 100,000 tons annually, whereas actual losses do not exceed 2 1/2 percent of this amount. (Consul Sydney B. Redecker, Frankfort-on-Main, Dec.2, 1940).

#### STRAITS SETTLEMENTS

During the first half of 1940 exports of refined tin from Penang were 32,779 tons to the United Kingdom, Europe, and the United States, compared with 14,709 tons for the same period in 1939. Total exports of tin from Penang to all destinations totaled 36,186 tons, compared with 17,715 tons for the first half of 1939. The price of refined tin at the beginning of 1940 was S\$125.62 1/2 (US\$59.04) per picul. This price was maintained until the middle of May, when it reached S\$135.25 (US\$63.57), advancing to S\$146.75 (US\$68.97) on June 14, the high for the first half of the year. Thereafter it took a downward trend closing June 29 at S\$129.50 (US\$60.86). The lowest price was S\$118.00 (US\$55.46) on April 1, 1940. The average price during the period was S\$127.42 (US\$59.89) compared with S\$111.15 (US\$52.24) during the first half of 1939.

The International Tin Restriction Scheme remained in operation throughout the period, and the standard tonnages of the Signatory Countries were as follows:

	<u>Long tons per annum</u>
Belgian Congo	13,200
Bolivia	46,490
French Indo-China	3,000
Malaya	77,335
Netherland India	39,055
Nigeria	10,890
Thailand	18,500
Total	208,470

(Note: In Penang 1 picul = 142.6 lb. or 64.96 kg.)  
In Dutch East Indies 1 picul = 136.16 lb.)

## YUBA BECKER-HOPKINS DREDGE

A new type of mining dredge known as Becker-Hopkins, is of considerable interest because of its adaptability in working shallow properties, in limited areas, or in narrow canyons where it would be impracticable to operate bucket-line dredges or other types of equipment to advantage.

Becker-Hopkins dredges are "single bucket" excavators mounted on a self-contained floating unit. The digging unit consists of a bucket built integral with a sluice-type boom, which conveys the dredged material from the bucket to the screen. The dredge operates from a fixed position on the pond surface, being moored by bow and stern lines. The bucket is dropped vertically at the rear end of the well and a cut made horizontally by pulling the bucket forward into and through the material being dredged. The boom being telescoping, extends in length automatically, permitting the horizontal bottom cut. When the bucket reaches a point under the bow of the dredge, a latch is released and the bucket is elevated radially to a point where the dredged material slides down the sluice-type boom, evenly distributed to the screen. A patented device provides for a large volume of water, which is discharged into the dredged material in the elevated bucket, aiding the downward movement. This is an important feature, and contributes much to the success of this method of dredging.

Large boulders can be successfully dislodged and in many cases put through the screen and disposed of over the stacker. Boulders too large for the bucket can be brought to the surface readily and cast aside by use of a tractor, usually available on dredging properties. The ready control, which the operator has of the sluice-type boom, makes it possible for him to lower a large boulder into the screen gently; this avoids wear which might result from dropping heavy boulders at high speeds. Control of the slope of the boom also prevents heavy intermittent overloading of the screen; even distribution being assured because the movement of dredged material down the boom can be accelerated or retarded easily.

Each cut follows the previous cut, until the desired depth has been reached. The horizontal cutting action and ease with which the bucket is controlled makes it possible to clean bedrock thoroughly. The dredge can be moved to any desired digging position on the pond by use of the sidelines, and from its new position the digging cycle starts again.

A 1-cu.yd. dredge weighing about 90 tons is reported to have a capacity of about 2000 yards a day. Operating cost is estimated to be under 9¢ a cubic yard. Price for an electrically operated dredge is \$45,000 f.o.b. cars shipping point.

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An article, Gold Dredging in Southwestern Oregon, by Ray C. Treasher, field geologist of the Department, is in the March issue of the Engineering and Mining Journal. Condensed descriptions of various dredge operations are given and the article is illustrated by a map and several photographs.

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