

ore; the miners' names being various, viz.: "black jack," "false lead," and "false galena." It is commonly known, however, as zinc blende, found mostly in masses of indistinct crystals, having smooth surfaces of cleavage, of dodecahedral form. Hardness, 3.5 to 4; specific gravity, about 4. When pure sulphide of zinc is white, in the form of powder, or nearly colorless in small cleavage pieces, showing an adamantine lustre. When associated with iron, which is common, the crystals are yellow, or take the various shades of brown to black. The lighter kinds have sometimes a greenish tinge. Lustre, resinous, which enables one to identify all the common kinds; streak, white, pale yellow or brownish, which becomes deeper the darker the color of the mass. Manganese and cadmium may also be found in association. Zinc blende is among the commonest of metallic compounds and is found generally in galena or pyrite.

Zinc in the form of metal does not occur in Nature. Its physical properties place it somewhat near the imperfect metal antimony. In the Arts it fills a most important place. Sheet iron is protected from rusting by being coated with zinc, which is termed galvanizing, and in this respect its usefulness can hardly be overestimated. Zinc is also the negative metal used in almost all forms of the chemical electric battery, the metal, in fact, at the expense of which the electric current is obtained; zinc plates are used for etching illustrations by the photo-engraving process. Zinc white (oxide) is used as a paint, with copper it makes brass, and is also used in the production of German silver. Metallic zinc which comes from the furnace in ingots is termed Spelter.

*To be continued.*

#### THE MINT.

In the palmy days of the Cariboo Goldfields, which the old Forty-niner still dreams about, and which are so rich in reminiscences that the old digger is rejuvenated when he can have his yarn with one, going back to those days when the yellow metal was only valued for the amount of fun he could knock out of it. Gold was then as plentiful in the Cariboo as it now is in the Klondike.

New Westminster was at that time the Capital of the Colony, the sappers and miners which were stationed there made the trunk roads of the mainland and did all the surveying.

A mint was also established there, which ended its career after the excitement was over. To-day conditions are different; a mint in a country which produces precious metals to the extent this country does, is just as necessary as elevators to a wheat producing district. British Columbia is a big metal producer, and the Pacific portion of the Dominion output of gold for last year was something over \$20,000,000; nearly all of which found its way to the United States, where the market is, as, like wheat or anything else, it goes to the best exchange.

The establishment of a mint is imperative, and the only way by which the producer can be protected is through an institution of this kind. The gold buying mediums, outside of a Government mint, have been making a big profit out of the miner up till now. In the future the State must protect him.

The English Mint is a State institution and charges no seignorage for coining gold, and, though supposed to coin exclusively for the Bank of England, any person can have his gold bullion coined into an equal

weight in sovereigns. The Bank of England is compelled to purchase all gold tendered to it, at the fixed price of £3 17s. 9d. an ounce.

However, on both silver and copper money a seignorage is charged, ten per cent. on silver when its price is 5s. per ounce. No less than 100 per cent. is the seignorage charged on copper coinage on the average price of copper.

The profits from the seignorage is placed to the credit of the Consolidated Fund for the Reduction of the National Debt.

Both Sydney and Melbourne, Australia, have mints for coining gold sovereigns.

In coining the Standard Gold contains 11-12ths of fine gold and 1-12th of alloy; or 22 parts pure gold alloyed with 2 parts copper or other metal.

It is obvious that all mints under the flag are established by the State, not as a source of direct profit, or for the benefit of any party, but essentially to attract and secure the metal and protect the interests of the producers, by adopting a standard which shall give the maximum advantage to bullion owners. This is a State policy and it must be ensured in its establishment in this country.

#### VOLUME OF NORTHERN FREIGHT.

*The Klondike Nugget*, of Dawson, after a review of the customs business in the North for the fiscal year just ended, wonders, in looking over the footings, what Dawson does with so much freight; why it is necessary and how it is consumed.

Since the opening of navigation last spring, there have come up the river from St. Michael, exclusive of barges and other small craft, 47 steamers laden with goods, which shows that the White Pass Railway cannot control the traffic. The freight cargoes coming up the river, which is an average of a fraction over 52 tons to the vessel. The crews registered with these vessels number 1,731, though it took a great many more hands to discharge the cargoes. The vessels coming from up the river, of course, have been much more numerous, but their carrying capacity has been much less. There have been 134 steamers down, with a total tonnage of 29,740. The movement of freight via Skagway will thus be seen to be slightly in excess of that coming by way of St. Michael, but these figures do not by any means represent the amount of goods received at Dawson up to the time of the close of navigation. How many scows have arrived, and what the total amount of their delivery has been are matters which can only be arrived at by estimate without going into an almost never ending search for figures, if it could be done at all accurately.

From the opening of navigation to date it can only be considered a conservative estimate to place the number of scows which have landed their cargoes in Dawson at 400. Supposing that the average load of these scows is said to be 15 tons, there is a total of 6,000 tons to be added to the movement of freight from up stream, making the total from that direction 55,740 tons, an excess of 11,194 tons over that received from the other way, and a sum total of the tons landed in Dawson during the season of 60,186.

Of course a large percentage of this freight is machinery, of which there has been the heaviest importation yet received. But even making due allowance for this, the amount represented in clothing, provisions, etc., seems very great.