

Star ships more credit must be given than the figures show as the shipments are mostly concentrated ore.

The shipments of the Slocan then from the 1st January to the 1st of April, are:—

The Payne.....	3,120%
Last Chance.....	920
Reco.....	200
Treasure Vault.....	111
Ivanhoe.....	60
Ajax.....	40
Sovereign.....	20
Trade Dollar.....	18
Sapphire.....	18
Madison.....	12

Total for Sandon.....4,519%

Three Forks—	984%
Queen Bess.....	640%
Idaho.....	62
Monitor.....	15
Wild Goose.....	15

Total for Three Forks.....1,702

Whitewater—	750
Whitewater.....	335%
Jackson.....	30
Bell.....	11
Wellington.....	11

Total for Whitewater.....1,126%

McGulgan—	290%
Rambler.....	80
Dardanelles.....	48
Great Western.....	48

Total for McGulgan.....418%

Slocan Lake Points—	300
The Bosun.....	20
Marion (N. D.).....	580
From Silverton—	320
Wakedield.....	120
Vancouver.....	60
Comstock.....	3
Emily Edith.....	3
Fidelity.....	3

Total from lake points.....1,403

THE ORE SHIPMENTS.

The ore shipments from the Rossland Camp for the week ending May 6th, and for the year to date, are as follows:—

	Week.	Year.
Le Roi.....	1,795	25,530
War Eagle.....	1,697	10,437
Iron Mask.....	13	760
Evening Star.....		36
Deer Park.....		13
Total tons.....	3,510	36,781

PNEUMATIC CYANIDE WILL REVOLUTIONIZE TREATMENT OF ORE.

A new process for the treatment of ores has just been discovered in the United States, known as the Pneumatic Cyanide system. It is so easily understood, and does not require an expert or chemist to appreciate it, for every mining man has had some experience with compressed air, and most of them know something of the cyanide process, and understand that oxygen is absorbed in a solution of cyanide of potassium in order to form a new compound called cyanogen, which is the true solvent of the gold. Just at the time when it seemed as if improvement in the cyanide process was at a standstill, the pneumatic process comes forward with

a method, so simple, it is a wonder it was not thought of before. It is simply the introduction or strong currents of compressed air into the bottom of the leaching vats which force their way up bubbling and boiling through the mass of crushed ore and cyanide solution, and thus furnish both the oxygen and agitation needed for the rapid and thorough extraction of the gold. This process only requires a few hours, while the old fashioned way took several days.—"Mining Record," Denver, Colo.

TO THAW THE FROZEN EARTH IN KLONDIKE.

Machines at a Premium in Alaska Mining Camps.

Probably the most lucrative business in Dawson, with the exception of mining, is the leasing of thawing machines to work claims in the principal districts. L. E. Miller, the inventor and monopolist of Klondike thawing machines, who has the very comfortable income of at least \$250 per day, is at the Hotel Seattle. Placer claims do not bother him, for he has quite a bonanza of his own. From the ten machines which he took to Dawson last year he is rapidly becoming rich. In another year the income of his mines and machines will make him one of the wealthy men of the Klondike.

Miller, who has wandered over Montana, Colorado, California and other Western states as an engineer in mines, is a practical mining man with a shrewd business turn of mind. He saw an opportunity and he grasped it while others were groping blindly in the dark. The occasion and the man had collided and as a consequence many mines are producing much more than by the old hand process of thawing; others are working that could not be worked at all without the machines.

There are claim owners in the Klondike country whose lays team with gold and who are, with the aid of Miller's machines, rapidly becoming millionaires. Without them they would work along drearily thawing the hard, frozen ground with cordwood fires in the old pioneer way. They would ultimately become wealthy, for they would ultimately work their claims.

With the machines the process is rapid and the bank accounts grow the faster. It is said that the machines do four times as much work as was done by hand and at less expense. It is said that T. S. Lippy has \$40,000 in the dump on El Dorado No. 16, taken out during the Summer, Fall and Winter with one of Miller's machines. Frank Phiscator, of Michigan, an old friend of Miller, is said to have taken out \$200,000 in dirt, to be washed out next Summer. Dr. P. D. Carver, of Chicago, who owns four claims on Gold Hill, off No. 2, El Dorado, is said to have \$100,000 in the dump. And so the tale of wealth runs. Without machines the wealth these men have in sight, or the far larger share of it, would still be in the ground.

There are only eleven machines at work in the Klondike country. The vast number of other claims as rich

as those fortunate enough to have machines are still worked by the primitive method. Wood is burned to thaw the frozen ground before it can be removed. The owners are praying for thawing machines. They have tried all kinds of devices. Some mines are not being worked at all. So deep have they gone into the earth that thawing by open fire, where 90 per cent. of the heat is lost, has become impracticable. And these are rich claims, too, but their development must await the advent of more machines or better devices for conquering the frozen earth.

Machines in Dawson are said to be worth almost their weight in gold. Miller is alive to the situation, for he has come out with the express purpose of taking in a larger number. He is on his way to San Francisco, where he will have constructed fifty machines. These he will rush in on the first steamer that goes down the Yukon after the opening of navigation. He will make improvements over the machine now in use at Dawson, and he refused to describe them for he has not yet made application for patents. He is now awaiting the arrival of Colonel James H. Lewis, who has attended to securing the patents at Washington. Until his arrival and the forwarding of the application he will vigilantly guard his secrets.

COPPER.

The world's copper production in 1898 was 424,126 tons, of which the United States furnished 234,271 tons. In 1882 the world's production was 181,622 tons, and that of the United States 40,470 tons, Chile then being first with 42,909 tons. The world's gain in the interval has been 242,504 tons, and that of the United States 193,801 tons, or about four-fifths of the total. Chile has fallen off to 24,850 tons, and several minor producers have fallen back. Japan has come in as a producer with 25,175 tons, and gains have been made in Spain and Portugal, Germany, Australasia, Mexico and Canada, but the gain and proportion of the United States continue to grow, and we have larger reserves of undeveloped fields to draw on than all the other producing countries combined, so that we shall probably keep on gaining both in amount and in proportion to the output of the whole world. In the meantime, the uses of copper have been so multiplied in number, and so increased in importance that the price has risen 50 per cent., in spite of increased production, and there is every evidence that the world's demands will continue to grow faster than the world's production, and prices be maintained and advanced, considered from a long pull standpoint.—"Financial Record," N. Y.

The Pacific cable is now an assured fact—from B. C. to Australia. The Imperial Government has decided to subsidize it, such subsidy being subject to criticism by the London "Times," which thinks the Government should have joined on the same terms as Canada and the other colonies, and thus share in any profits should the cable be a success.