

has been accomplished in that portion of Canada during the past year.

Mr. Hutchins was in the Klondike four or five years ago, and if he looked over the country at all he must know that there are very much more than 3,000 acres of so-called dredging ground. There is easily that extent of vacant ground in the flats of the Klondike valley alone, without counting the flats of its tributaries, such as Bonanza, Hunker and Bear Creeks, which will greatly extend these figures. Besides these areas there are extensive flats of gold-bearing gravel on Dominion Creek and its tributaries, which taken with those of the Klondike will raise the total number of acres to many times the area stated.

Part of this ground is acknowledged to be unfrozen, and therefore can be easily dredged. Mr. Hutchins, moreover, says in another place: "Were the alluvion of the Klondike Creeks unfrozen, dredging could be carried on at a large profit, for the other conditions are generally favorable to dredging. The gravel is fine, clean and of moderate depth. It generally rests on a favorable bed rock." But the text of his two elegiacs is contained in the sentence "the problem of dredging frozen ground is in a most discouraging state." One dredge is quoted as having given satisfactory returns, but three other powerful dredges from which returns were not available are stated to "have been very disappointing in return."

The dredge above spoken of is doubtless the large dredge which has been working for three seasons on the flats in the Klondike valley, near the mouth of Bear Creek. Nothing is said of the small Ridson dredge, which was working on and near Discovery claim on Bonanza Creek, and which has already extracted gold to the value of a million and a quarter dollars out of three worked-out mining claims.

The Bonanza basin dredge was working near the mouth of the Klondike River in 1906 with great success, as stated by Mr. McConnell, the Canadian Geologist, in the report of that year. But last year it was decided to alter this dredge, remove its steam boilers and machinery and replace them with electric motors. These alterations were not completed until the first of September, after which date it was operated with marked success until the 17th of October.

The three dredges referred to by Mr. Hutchins were located on the lower portion of the valley of Bonanza Creek. Nothing is known of the results obtained by them; but another dredge has been built near them by the same company that owns these three dredges, and it will be ready to begin operations next spring. Three more large dredges have also been built by the same company on Hunker Creek, and they too will be ready to begin work in the spring. These seven dredges are all to be operated from one central electric station, and it is yet much too early to say either that they have not or that they cannot be worked successfully.

Four other dredges also began operations on Forty Mile River, one in Canadian and three in American ter-

ritory, and, while no information has been made public as to the results so far obtained, even if they did not make much money this year it is but reasonable to give them a little time to become adapted to local conditions. It is well known that the Pioneer dredge of the Klondike, which finally proved so successful on Discovery Claim on Bonanza Creek, was at first an expensive experiment.

Besides the dredges above enumerated, which have been already installed, the N. A. T. & T. Company is preparing the ground in the valley of Miller Creek, in order to be able to put dredges on it in the near future, by stripping the moss and muck from off the gravel by the use of water under hydraulic pressure.

In this connection it would be interesting to know exactly where the thawing of ground by stripping it of its covering of moss and muck has proved a failure. For, in spite of Mr. Hutchins' statement, the exact reverse is the case, as was long ago shown by Messrs. McConnell and others who are thoroughly familiar with that country, and as may now be seen at many places in the Klondike. The thawing of gravel to a depth of 12 or 15 feet, such as seen in many of the open cuts which are often sunk to bed rocks in a very few weeks, cannot be correctly referred to as "progressive seasonal thawing," as Mr. Hutchins speaks of it.

Exactly what is meant by frozen gravel being below the level of "ground-water" is not clear, but the clean use of geological terms can hardly be looked for in an article where "Poverty Bar," which is a distinct terrace, is spoken of as a peneplain. For this latter term, which means a base-levelled plain of erosion, is about as far removed from a terrace as two physiographic features can be.

In regard to the length of the season for work the extraordinary statement is made that the average night temperature on the first of May and on the 15th of October is fifteen below zero F. People who believe this statement will doubtless be prepared to believe that the country is too cold either to mine or to live in.

No papers are more interesting to miners or investors in mines than careful reviews of the work of the year, and consequently none can do more harm than such papers as these, filled with inaccurate statements and backed by the name of a great mining paper such as the *Engineering and Mining Journal*.

CANADIAN SILVER.

The shipment of a quarter of a million ounces of bar silver from the Trail refinery of the Consolidated Mining & Smelting Company to the Canadian Mint at Ottawa is a significant event.

Remembering the reports, industriously circulated some months ago, to the effect that no silver of sufficient purity for use in the Mint was produced in Canada, it is gratifying to note that the Trail silver is 999 fine. Thus,