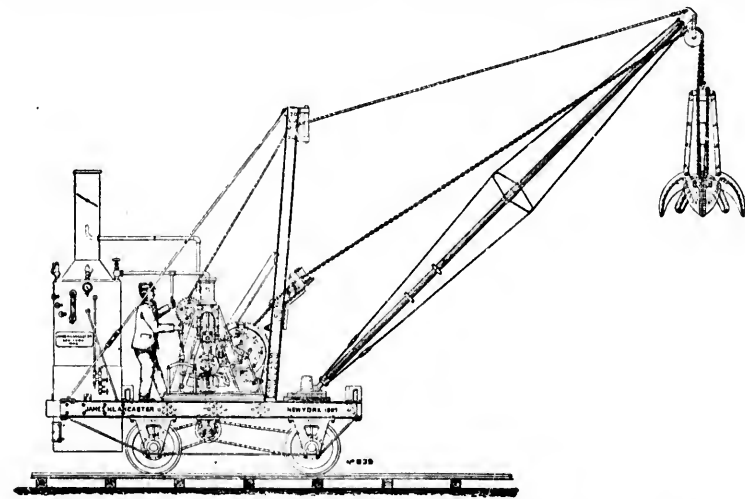


PLACER AND QUARTZ WORKING METHODS.

Considerable attention and painstaking research has for years past been given to the subject of working ores and placer ground for obtaining therefrom the free gold and concentrates at the lowest possible cost. Necessarily mechanical means have been resorted to and with more or less success. Prominently among the active and successful men devoting their energies in this direction is J. H. Lancaster, 123 Liberty Street, New York, who for years past has done more than any other concern in the perfection and introduction of successful machinery for handling placers and reducing and treating ores of all kinds. On another page is described the



"Lancaster" hand power placer apparatus and above is illustrated a steam power placer digging machine which more rapidly furnishes the gold bearing gravel to the sluicing apparatus. This latter is built in sizes to correspond with the capacity of the automatic digger; power for same is transmitted to the sluicing apparatus thus saving manual labor.

The "Lancaster" Drilling and Frost Thawing Apparatus for working the hard frozen ground in Alaska is a most important adjunct to the above machine. It drills deep holes and supplies steam and hot water thereto for thawing out the frost and thus loosening and making the gravel and sand beds more readily workable. The outfit fills every requirement for the rapid, economical and successful working of the placer material found in the Arctic regions as well as that found in the warmer climates.