No. 892,914. PATENTED JULY 7, 1908.

N. J. SWEENEY.

AUTOMATIC BUCKET DUMP.

APPLICATION FILED APR. 3, 1908.

2 SHEETS—SHEET 1.

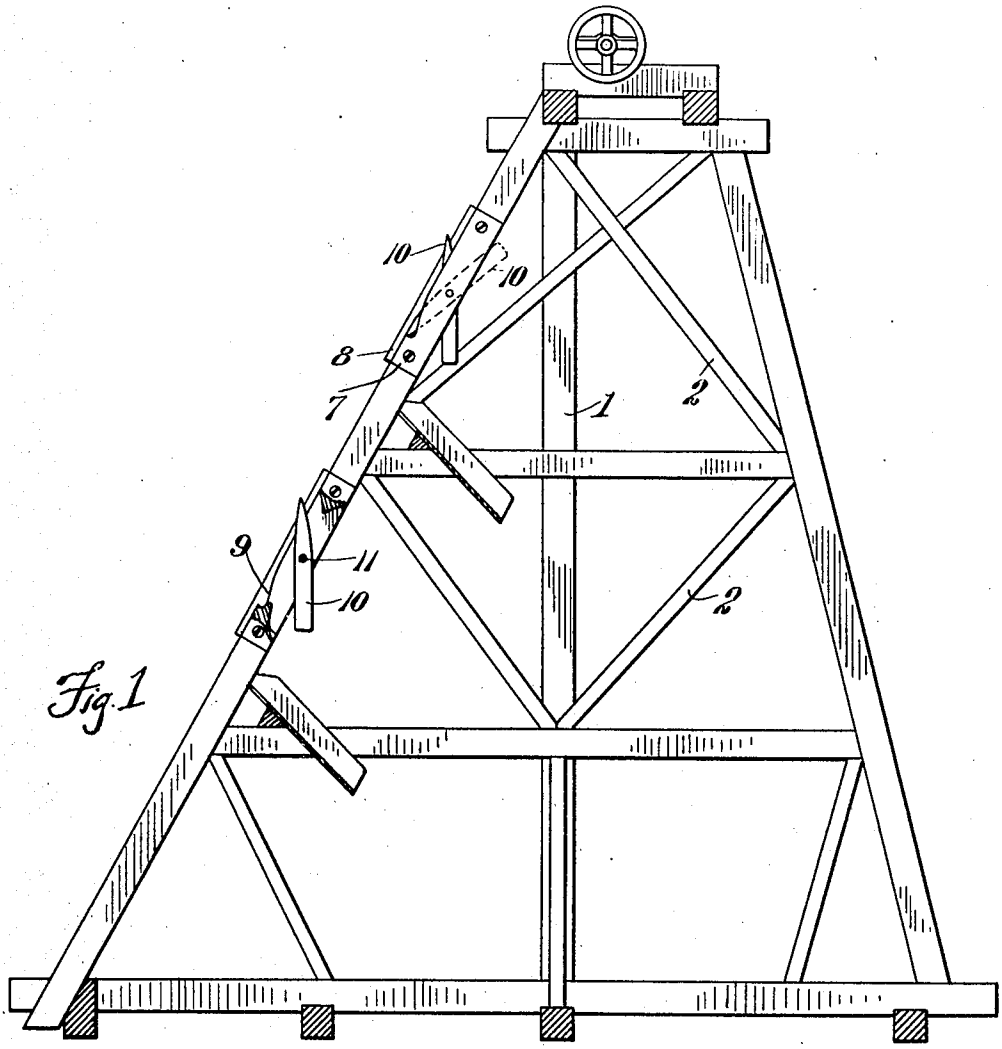


Fig. 1

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2 SHEETS—SHEET 2.

Fig. 2.

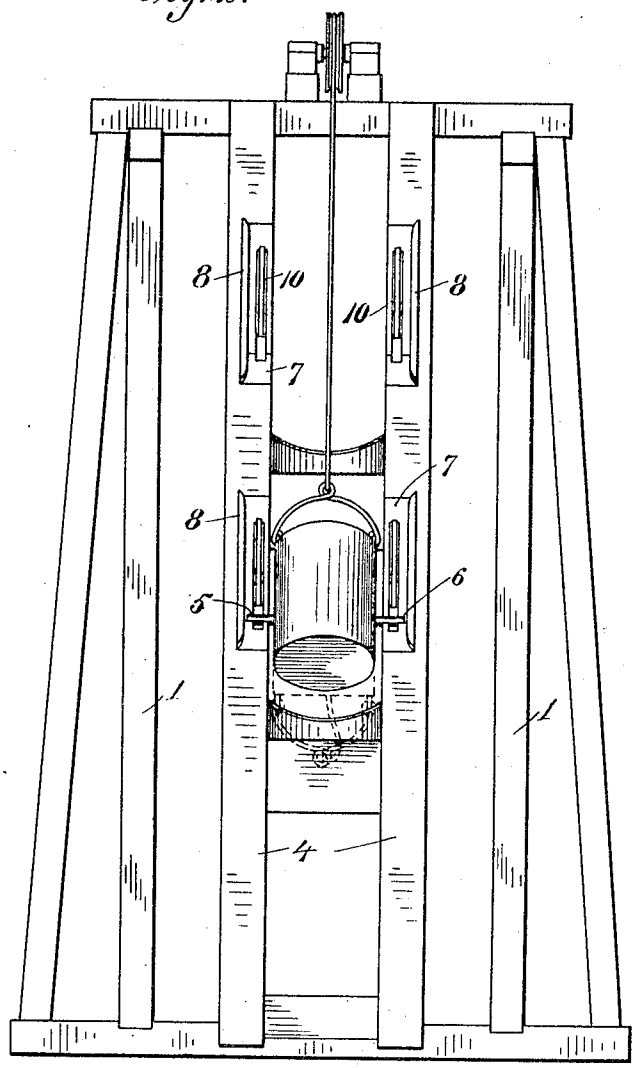
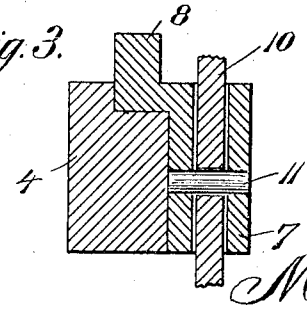


Fig. 3.



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UNITED STATES PATENT OFFICE.

NICHOLAS JAMES SWEENEY, OF SAN FRANCISCO, CALIFORNIA.

AUTOMATIC BUCKET-DUMP.

No. 892,914. Specification of Letters Patent. Patented July 7, 1908.

Application filed April 3, 1908. Serial No. 425,022.

To all whom it may concern:

Be it known that I, NICHOLAS JAMES SWEENEY, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Automatic Bucket-Dump, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

This invention relates to an automatic bucket dump that is used for the purpose of handling ore or rock from a mine shaft, or from any place where the ore or rock is to be placed in an ore bin of any kind.

An object of the invention is to provide a bucket that will be dumped without attention to the bucket itself on the part of the engineer, more than to hoist the bucket to the desired place, then the rope is slacked off and the bucket dumps its charge of ore, the return to the mine being made without any change of the track, by simply pulling the bucket up the incline a short distance to place above a pair of catches which cause the trunnions of the bucket to pass over the dump catches.

In the drawings, in which the same numeral is applied to the same part throughout, Figure 1 is a view of the gallows frame from the front, Fig. 2 is a sectional view of the gallows frame showing the tripping device, and Fig. 3 is a detail view of the tripping device which is mortised into the side rails of the frame.

The gallows frame may be of any kind that is wished, that shown in the drawings being a common form. It is provided with the vertical members 1 and diagonal braces 2, the rails 4 acting both as a portion of the gallows frame and as the rails for the bucket to run on. The bucket has the trunnions 5 and 6 at about one third of its height, said trunnions being on diametrically opposite sides of the same.

The casting which forms the dumping device is shown at 7 and is provided with the elevated rail 8, the depression 9, and the gravity slide 10, said slide being pivoted to the casting at 11. This slide is heavier at one end than the other and when the light end is caught by the trunnions of the descending bucket trunnion the bucket turns it down and the top of the slide member has the same shape as the top of the rail, thus allowing the bucket to slide on down into the shaft of the mine. As soon as the bucket has passed down below the slide the latter turns back so that to dump the bucket on the next trip all that is necessary is to bring the bucket up to the notches in the side rails, slacking off the rope to allow the bucket to turn over.

There may be as many of the dumping devices on the gallows frame as may be necessary, as where there is a large amount of water to be hoisted, it is often necessary to have a tank at the head of the shaft, then above that may be any number of ore bins, two of the dumping devices being illustrated in the drawings.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is as follows:

1. In a bucket dump, a gallows frame, rails adapted to support a mine bucket, a dumping device supported by the rails and comprising a casting having a notch therein, and a pivoted slide adapted to pass the bucket over the notch when the same has been turned downwardly by the bucket trunnions.

2. In a bucket dump, a gallows frame, rails adapted to support a mine bucket, a dumping device supported by the rails and having a notch adapted to hold the bucket trunnions, and a slide adapted to pass the bucket over the notch when the bucket trunnions have caught the same.

In testimony whereof I have set my hand this 25th day of March A. D. 1908, in the presence of the two subscribed witnesses.

NICHOLAS JAMES SWEENEY.

Witnesses:

W. T. HESS,

C. P. GRIFFIN.