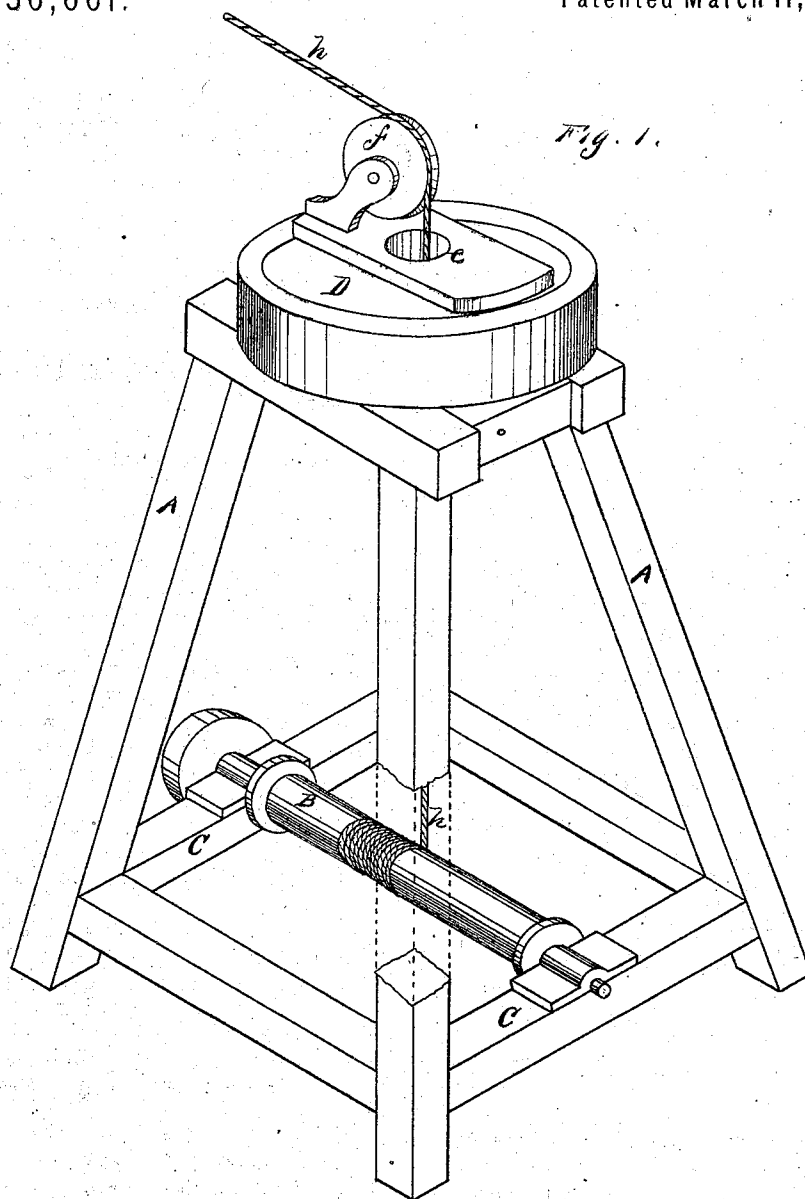


T. M. MARTIN.
Swivel Hoisting Apparatus for Mines.
 No. 136,661. Patented March 11, 1873.



Witnesses

J. L. Boone
C. M. Richardson

Inventor

Thomas M. Martin
per Dewey & Co
Attys

UNITED STATES PATENT OFFICE.

THOMAS M. MARTIN, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO HIMSELF AND ANDREW S. HALLIDIE, OF SAME PLACE.

IMPROVEMENT IN SWIVEL HOISTING APPARATUS FOR MINES.

Specification forming part of Letters Patent No. 136,661, dated March 11, 1873.

To all whom it may concern:

Be it known that I, THOMAS M. MARTIN, of San Francisco city and county, State of California, have invented a Swivel Hoisting Apparatus for Mines; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to a swiveling device by which the power of a single engine can be applied for hoisting ore out of two or more contiguous shafts or mines.

In order to illustrate and explain my invention, so that others will understand its construction and arrangement, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a perspective view of my machine.

A represents a suitable frame, across the lower end of which a drum or shaft, B, passes, bearing in the opposite timbers C C. Upon the top of the frame I construct a turn-table, D, through the center of which a hole, *e*, is left. A pulley, *f*, is fixed to the upper side of the turn-table at one side, so that by revolving the table the pulley can be forced in either direction. The frame A I locate at a convenient point near the shafts of two or more different mines, no matter what their relative positions may be. A rope, *h*, passes

around the drum B, thence up through the hole in the center of the turn-table, and over the pulley *f*, from whence it is carried to the shaft or incline up which the hoisting is to be done.

The power of the engine is applied to the shaft or drum B by means of a belt-gearing or other means, and the shaft revolved, thus hoisting the ore in the usual manner.

When it is desired to transfer the power to an adjacent shaft or incline the turn-table D is revolved until the pulley *f* is brought to the proper position, when the connection is made and the hoisting proceeded with, as above described.

By this means I am able to hoist ore from several shafts or inclines with one engine, thus avoiding the expense of providing an engine for each shaft which will be standing idle a great portion of the time.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The frame A, with its shaft or drum B, in combination with the turn-table D, with its pulley *f*, substantially as and for the purpose above described.

In witness whereof I hereunto set my hand and seal.

THOMAS M. MARTIN. [L. S.]

Witnesses:

WM. GILL MILLS,
O. H. O. HOFFMAN.