W. G. WOOD.
STEAM SHOVEL BUCKET.
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INVENTOR

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WEYERHAUSEN PAPER CO., PHOTO-LITHO WASHINGTON, D.C.
STEAM-SHOVEL BUCKET.

1,287,165.


To all whom it may concern:

Be it known that I, WILLIAM G. WOOD, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Steam-Shovel Buckets, of which the following is a specification.

The object of the present invention is to provide means for positively expelling the contents of a bucket of a steam shovel, dredge or excavator therefrom having a door, which while under the control of the operator of the steam shovel, will operate automatically with the opening of the door of the bucket.

In the accompanying drawing, the figure is a broken side view of a steam shovel bucket equipped with my improved means.

Referring to the drawing, 1 indicates a beam, to which is secured in the ordinary manner a steam shovel bucket 2. Secured upon said beam are standards 3, two only being shown, between which is pivotally attached the rear end of a cylinder 4, having a piston therein, to the outer end of the rod 6 of which is pivotally attached extension 7 from an ejector 8, pivoted, as shown at 9, between arms 11, extending rearwardly from the bucket 2, and counterbalanced to any degree desired by weights 10. Said ejector 8 is provided with transverse bars 12. To the swinging door 13 of the bucket is pivotally attached, as shown at 14, one end of a rod 16 of which the outer end is slotted, as shown at 17, to engage a pin 18 upon the beam 1.

To said rod is pivoted, as shown at 19, one end of a link 21 of which the other end is pivoted to a lever 22 fulcrumed upon the beam 1, to which lever 22 is pivotally attached one end of a link 23, the other end of which is attached to a rod 24 of a slide valve 25 in a valve chest 26, said valve chest being connected with a pipe 27, for supplying steam to the cylinder 4.

It results from this construction that, when the door of the bucket is swung open, the ejector 8 is retracted downwardly upon its pivot, striking the top of the contents of the dipper and expelling said contents therefrom.

I claim:

1. In combination with a bucket of a steam shovel, dredge, or excavator, and having a door, an ejector for ejecting the material from the bucket, means, movable with the bucket, and automatically operated by the opening of the bucket door, for actuating said ejector, and means for energizing said movable means from a distance.

2. In combination with a bucket of a steam shovel, dredge, or excavator having a door and an open side opposite thereto, an ejector pivoted to the bucket adjacent to said open side, for ejecting the material from the bucket, means, movable with the bucket, and automatically operated by the opening of the bucket door, for actuating said ejector, and means for energizing said movable means from a distance.

W. G. WOOD.