No. 642,171. Patented Jan. 30, 1900.

M. M. SUPPES.

ELEVATOR BUCKET.

(Application filed Nov. 7, 1899.)

(No Model.)

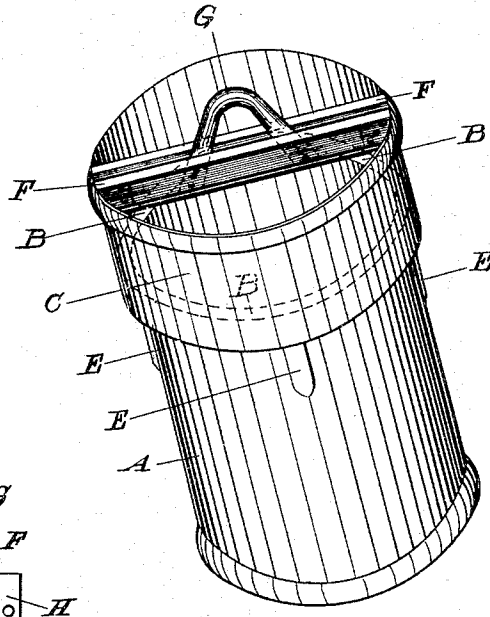


Fig. 1

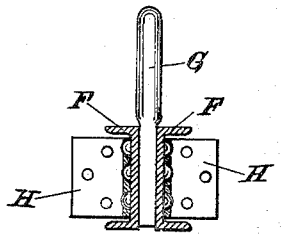


Fig. 3

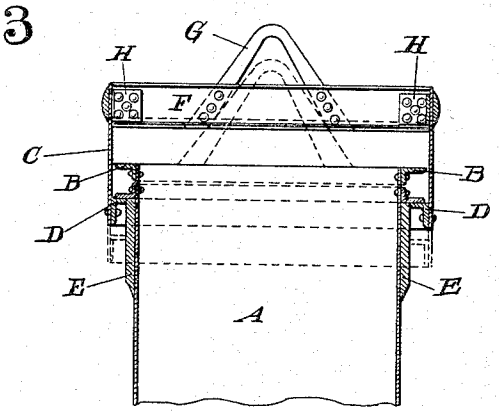


Fig. 2

WITNESSES:

INVENTOR

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BY

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UNITED STATES PATENT OFFICE.

MAXIMILIAN M. SUPPES, OF ELYRIA, OHIO.

ELEVATOR-BUCKET.

SPECIFICATION forming part of Letters Patent No. 642,171, dated January 30, 1900.

Application filed November 7, 1899. Serial No. 736,178. (No model.)

To all whom it may concern:

Be it known that I, MAXIMILIAN M. SUPPES, of Elyria, in the county of Lorain and State of Ohio, have invented a new and useful Improvement in Elevator-Buckets, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to elevator-buckets of that class which are employed in hoisting coal and other material to some elevated point and then dumping the same. These buckets are frequently used where it is necessary to raise them directly over the heads of workmen employed below, and as ordinarily constructed this is a dangerous practice by reason of the liability that lumps of coal or other material with which the buckets are loaded will fall over the upper edge of the bucket and strike the workmen. The buckets being hastily loaded and oftentimes raised rapidly to a considerable height, accidents of this kind are very liable to, and do in many instances, occur with serious or fatal results.

The object of my invention is to provide means of simple character which will effectually prevent accidents of this kind by making it impossible for the material loaded in the bucket to fall or spill over its edges; and with this end in view my invention consists in providing the bucket with an extension telescopically engaging its upper portion and forming a guard-flange when the bucket is elevated, which extends considerably above the contents of the bucket.

My invention also consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view illustrating my invention; Fig. 2, a vertical section through the upper portion of the same, and Fig. 3 is a detail view.

A designates the bucket proper, which may in general be of any well-known or suitable construction. Around the upper edge of the bucket I place an exterior rim B, and over this rim I telescope an open-end cylinder-section C, which when in the raised position shown in Fig. 2 forms an extension of the bucket-body. Within the lower end portion of this extension is an inwardly-projecting flange D, which is adapted to engage with the under side of the rim B, as shown. Secured to the bucket-body are vertical guiding-ribs E, which are engaged by the flange D. Extending diametrically across the upper portion of the extension C is a bar F, to which is secured a loop or bail G for engagement with the hook of the hoist-chain.

As in practice the buckets are usually designed to carry a load of several tons weight, the rim B, flange D, and bar F require to be strong and firmly secured to the parts which carry them. In the construction illustrated said rim and flange are formed by angle-pieces securely riveted, respectively, to the bucket and extension.

The bar F is shown as composed of two channel-plates, between which the ends of the loop or bail G are securely riveted, (see Fig. 3,) and which are secured at their ends by angle-plates H. This construction is a very simple and durable one; but it is not essential to my invention.

The operation will be readily understood. When the bucket is being filled, it rests on the ground or some other support, with the hoist-chain slack. The extension C slides down on the bucket-body by gravity to the position shown by the dotted lines in Fig. 2. As soon, however, as the bucket is raised the extension is lifted on the bucket until the flange D engages the rim B. In this position it extends considerably above the top of the contents of the bucket, although the latter may be filled considerably above its upper edge and forms a guard which effectually prevents such contents from falling as the bucket is elevated.

I do not wish to limit myself to the particular construction which I have herein shown and described, as various changes may be made in the mechanical details without departing from the spirit and scope of my invention.

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

1. An elevator-bucket having a guard extension telescopically engaging its upper portion, substantially as described.

2. An elevator-bucket having a guard extension telescopically engaging its upper portion, and means for effecting a lifting engagement between said extension and the bucket, substantially as described.

3. An elevator-bucket having a cylindric open-end guard telescopically engaging its upper portion and having a lifting connection therewith, and a hoisting bail or loop on said guard, substantially as described.

4. An elevator-bucket, having a cylindric open-end guard telescoping its upper portion, and means for connecting a hoist-chain to said extension, substantially as described.

5. The combination with an elevator-bucket having an exterior rim at its upper portion, of a cylindrical guard extension telescoping the upper portion of said bucket and having an internal bottom flange for engagement with the said rim, and means for connecting a hoist-chain to said extension, substantially as described.

6. The combination with an elevator-bucket and angle-plates secured to its upper portion and forming a surrounding rim, of a cylindric open-end guard extension telescoping the upper portion of said bucket, an angle-plate secured within its lower portion for engagement with the said rim, and means for connecting a hoist-chain to the said extension, substantially as described.

7. The combination with an elevator-bucket, of a cylindric open-end guard extension telescoping the bucket and having a lifting engagement therewith, a cross-bar secured across the upper end of said extension, and a loop secured to said cross-bar, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

MAXIMILIAN M. SUPPES.

Witnesses:

FRED W. WATERMAN,

D. W. LAWRENCE.