

J. C. Evans,

Scraper.

No. 102,102.

Patented Apr. 19, 1870.

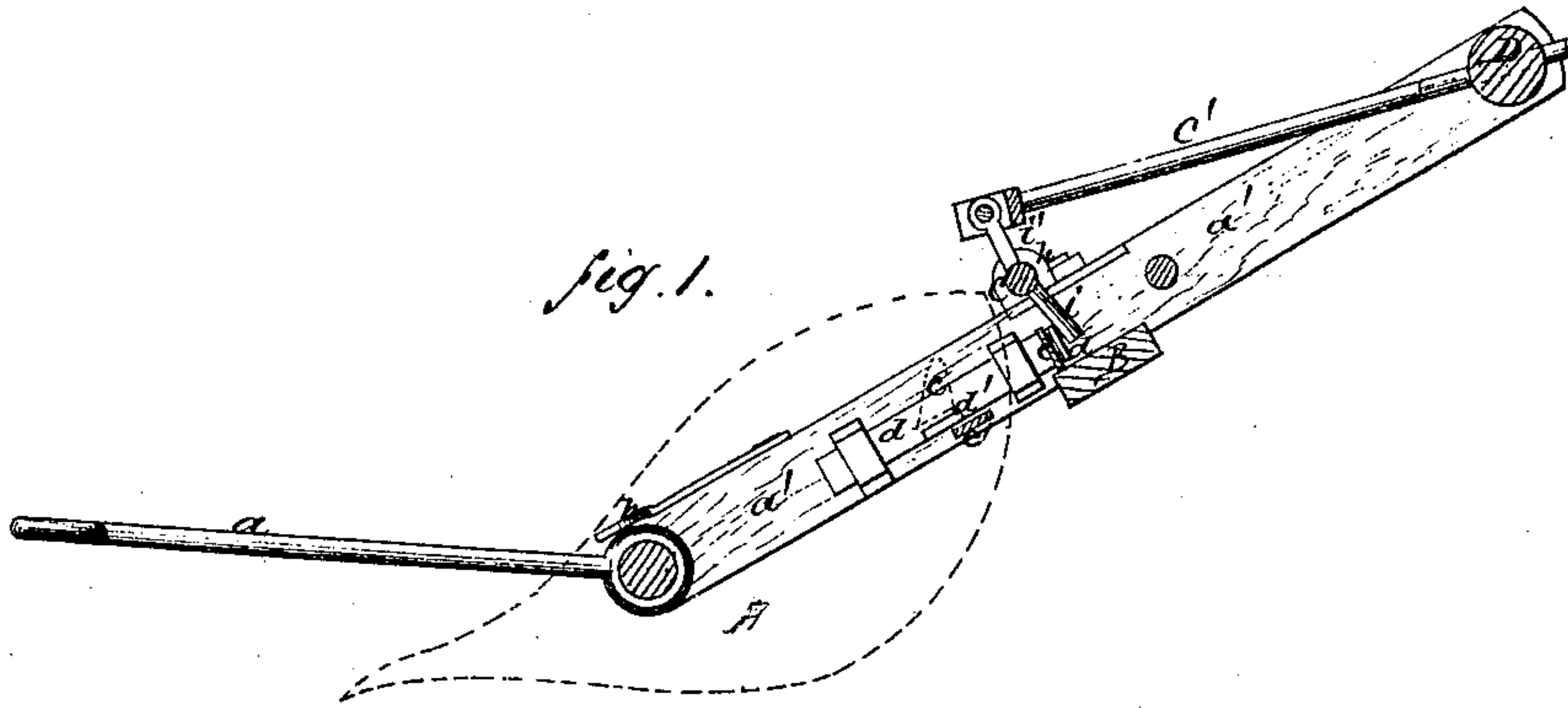
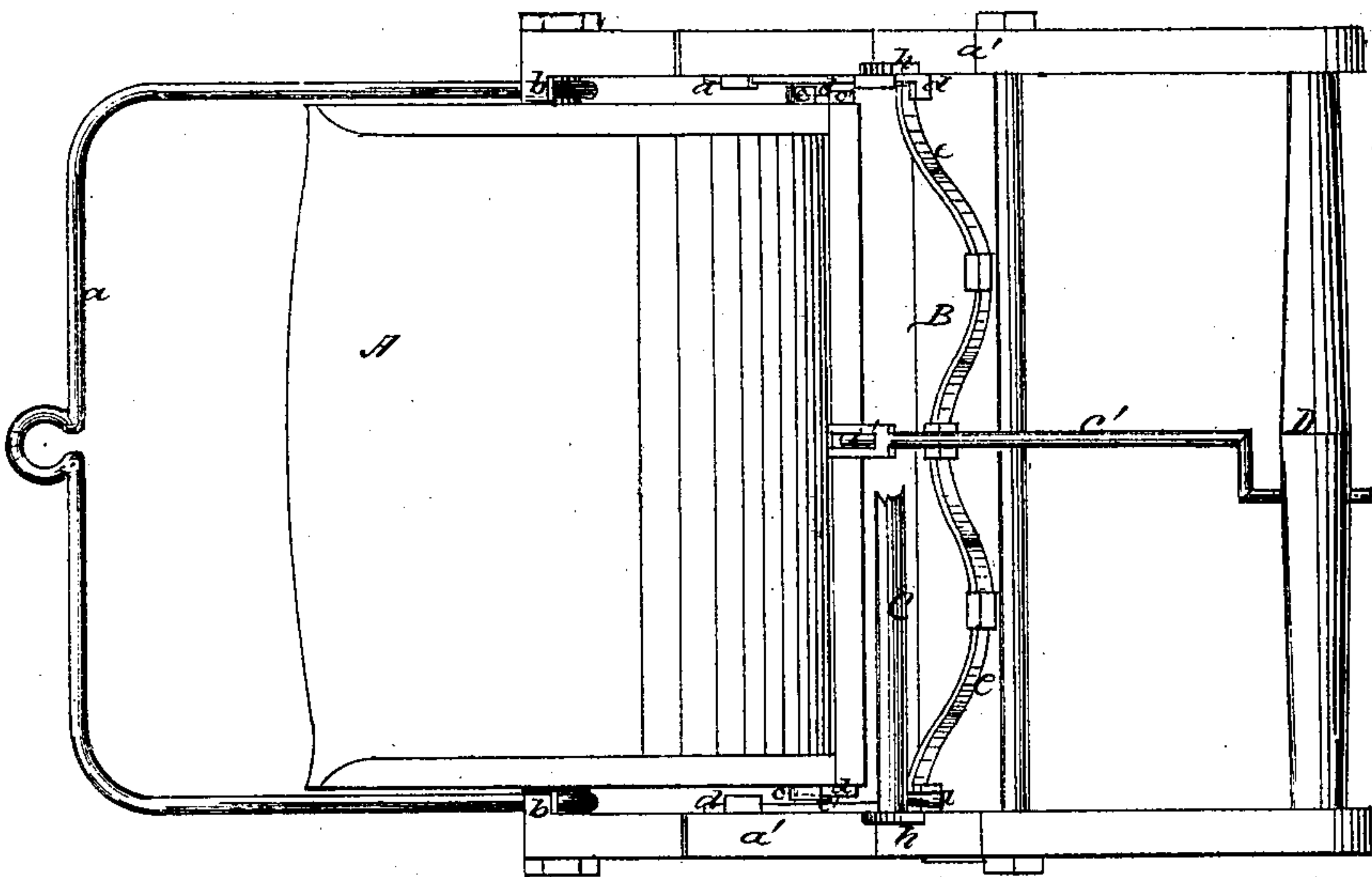


fig. 2.



Witnesses:

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United States Patent Office.

JAMES C. EVANS, OF DELAWARE, OHIO.

Letters Patent No. 102,102, dated April 19, 1870

IMPROVEMENT IN ROAD-SCRAPERS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JAMES C. EVANS, of the city and county of Delaware and State of Ohio, have invented a new and useful Improvement in Road-Scrapers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a plan view; and

Figure 2 is a transverse vertical section at one side of the scraper.

This invention relates to divers improvements in revolving or self-dumping scrapers, all tending to increase the efficiency of the machine.

Said improvements consist more especially in the apparatus for locking and unlocking the scraper-box, and for preventing the machine from falling over upon the team when the scraper is filled and not unlocked.

In the drawings—

A is the scraper, made with a rocker bottom, so that, when it is filled and is carrying its load to the place of deposit, but a limited portion of its surface is in contact with the ground.

The scraper is connected by trunnions in the usual manner with the extremities of the side-pieces *a' a'* of the inclosing-frame.

Between the pieces *a'* and the sides of the scraper the ends of the bail *a*, by which the machine is drawn, are pivoted upon the trunnions, and metal lips, *b*, fastened in any suitable manner upon the upper surfaces of the side-pieces *a'*, and projecting inward sufficiently to overlap the ends of the bail, serve to prevent the scraper and frame from tipping over upon the team when the scraper has become loaded full, and, through the inattention of the operator, is not unlocked.

The lips *b* then come in contact with the bail, and arrest the rotation of the scraper and frame, upon the edge of the former as a pivot, when these parts have arrived at a nearly vertical position.

To the outside of the ends of the scraper are attached by screws, near the upper corners, projections *c c'*, two to each end of the scraper, one above the other, with a space between them.

The projections *c* are wedge-shaped, so that, after the load has been dumped and the scraper revolved nearly round to its place again, the front sides of the wedge-shaped projections may come in contact with pins *d'*, extending toward the scrapers from bolts *d*, sliding in suitable guide-ways on the inner sides of the pieces *a'*, and force said sliding bolts forward until the wedge-shaped projections have cleared the pins

d'. When this is done the sliding bolts *d* are drawn backward so far that the pins *d'* enter the spaces between the projections *c* and *c'*, and thus lock the scraper, preventing it from revolving in either direction.

The sliding bolts *d* are thus retracted by means of semi-elliptic springs, *e*, secured upon the upper side of the cross-bar B, the ends of which springs bear upon arms projecting inward from the extremities of the bolts *d*, and tend to keep said bolts always drawn backward.

C is a metal rod extending between lugs, *h h*, extending upward from the side-pieces *a'*, the rod being pivoted in said lugs.

Arms, *i i*, project downward from the rod C, one near each end of the latter, and in such position that said arms may be turned against the arms that project inward from the rear extremities of the sliding bolts *d*.

A third arm, *i'*, extends upward from the center of the rod C, and to the upper end of this arm is jointed the front extremity of the draw-bar C', which passes through the rear cross-bar D of the frame.

On drawing the bar C' to the rear, its arms *i* press the sliding bolts *d* forward until the pins *d'* of the bolts emerge from between the projections *c* and *c'* on the ends of the scraper, and leave the latter free to revolve. This is done when the scraper is full, and, on unlocking it in this manner, the weight of its contents cause it to revolve and dump its load. When thus inverted, the spike *k*, that projects upward from the rear side of the scraper, catches in the ground, and causes the scraper to turn again on its trunnions, and reset itself by the action of the wedge-shaped projection *c* on the pins *d'*, in the manner before explained.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The draw-bar C' and the rod C provided with the arms *i i i*, in combination with the sliding bolts *d* provided with the pins *d'*, the springs *e*, and projections *c c'*, substantially as and for the purpose set forth.

2. The side-pieces *a'*, when provided with the lips *b* and combined with the bail *a*, in the manner described, and for the purpose of preventing the tipping of the frame and scraper over upon the team when the scraper is filled and not unlocked.

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Witnesses:

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