

(No Model.)

D. W. SMITH & J. K. HOPKINS.  
DIRT SCRAPER.

No. 461,174.

Patented Oct. 13, 1891.

Fig - 1 -

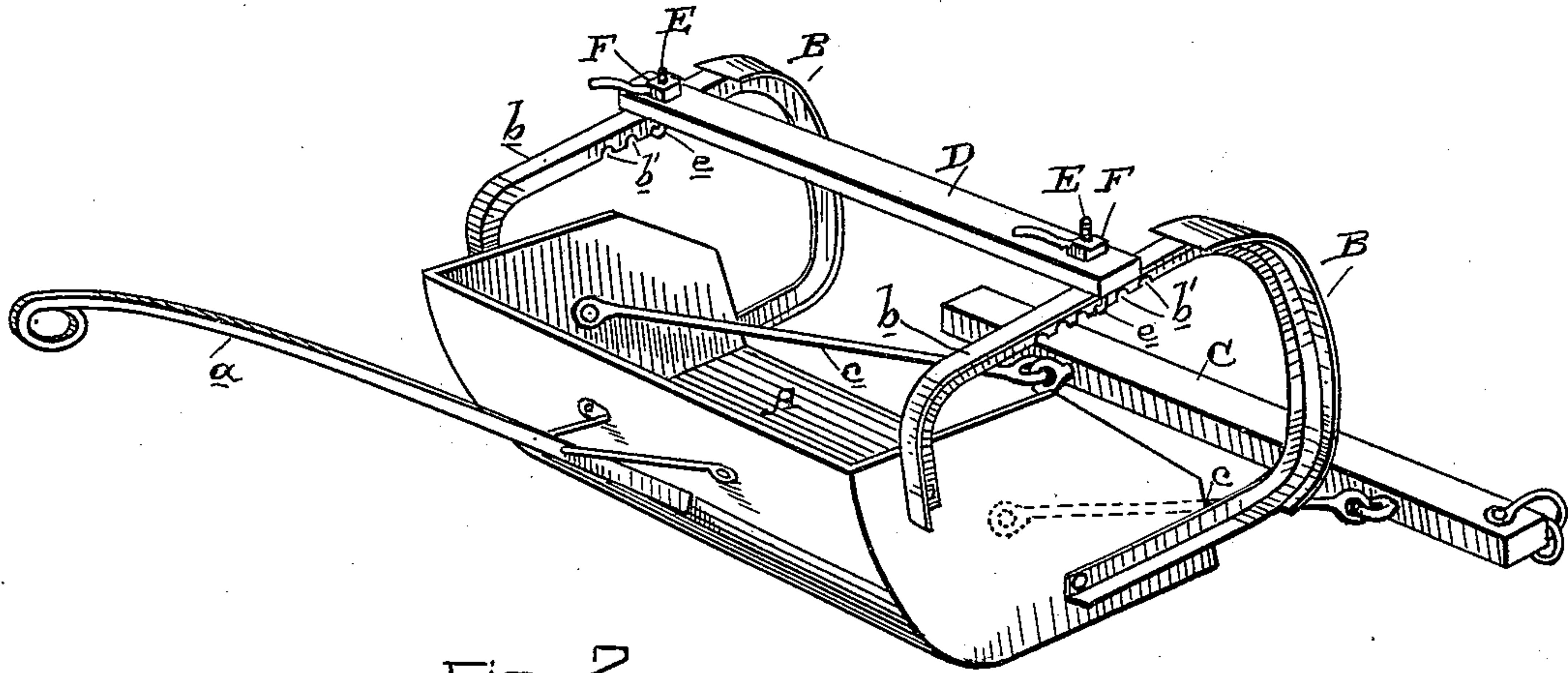


Fig-2

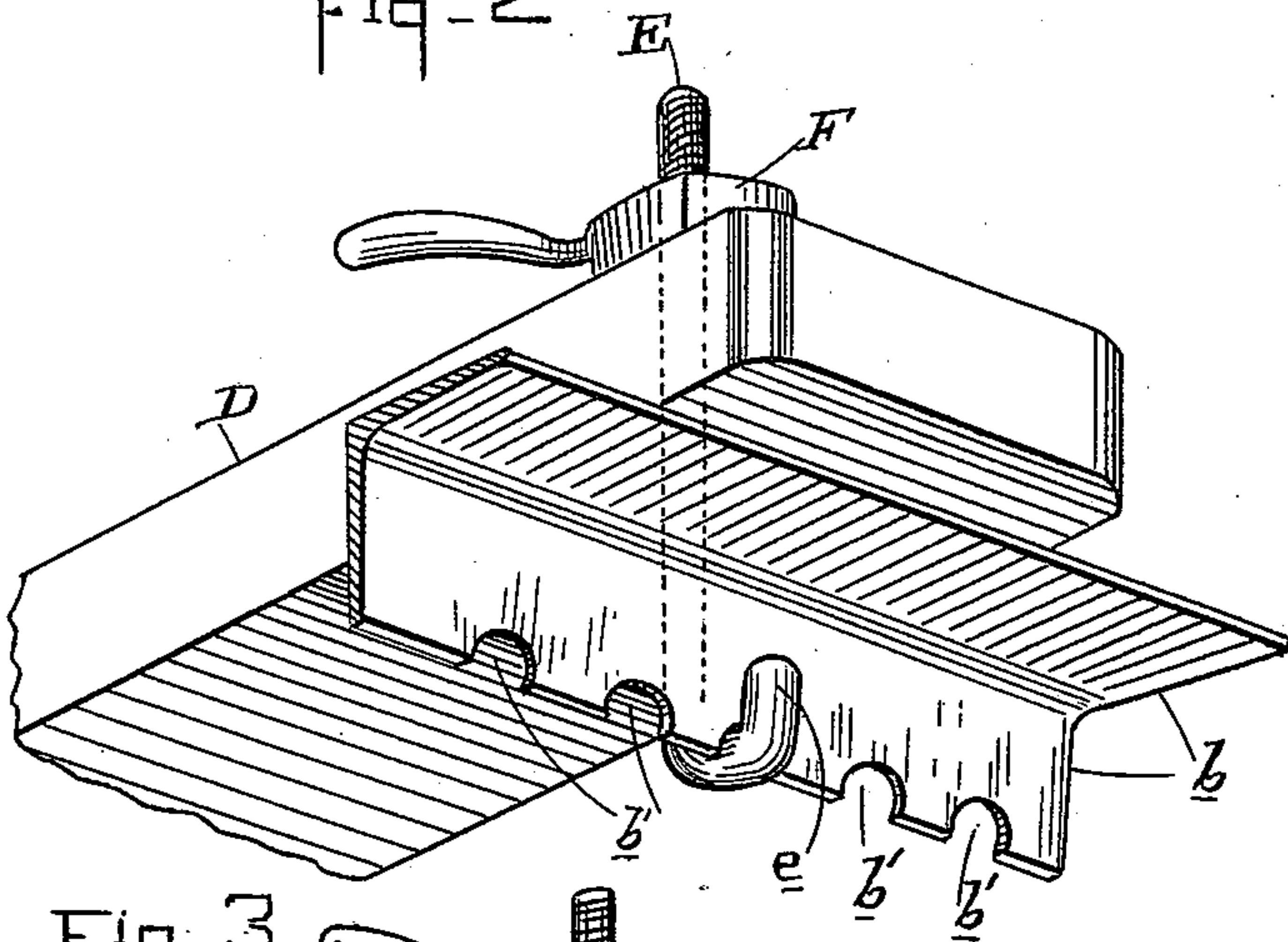
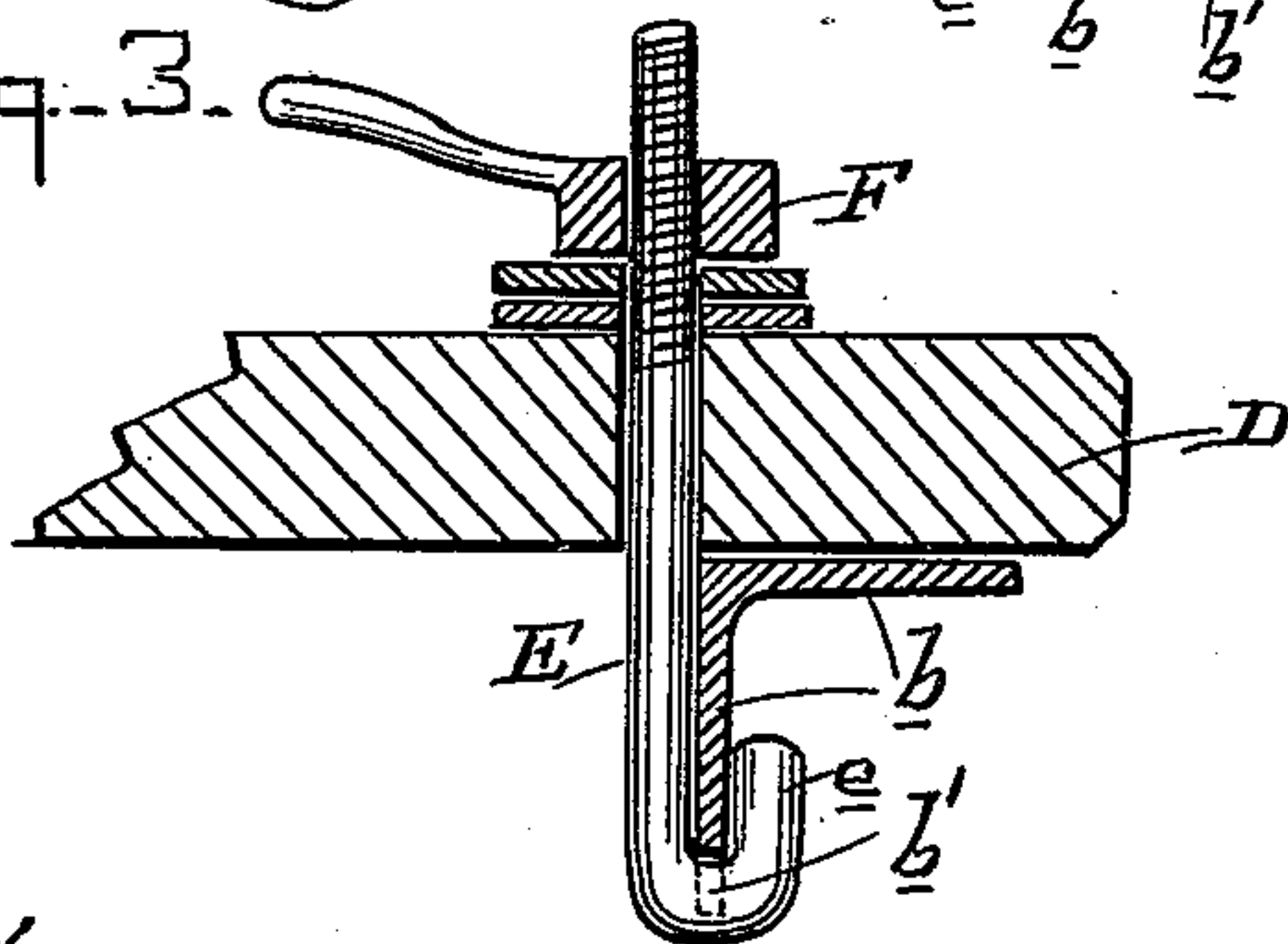


Fig-3.



Witnesses,  
J. A. Bayless

Inventors,  
Daniel W. Smith  
James K. Hopkins  
By Dewey & Co.  
attys



# UNITED STATES PATENT OFFICE.

DANIEL W. SMITH AND JAMES K. HOPKINS, OF FRESNO, CALIFORNIA,  
ASSIGNORS TO JAMES PORTEOUS, OF SAME PLACE.

## DIRT-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 461,174, dated October 13, 1891.

Application filed March 9, 1891. Serial No. 384,335. (No model.)

*To all whom it may concern:*

Be it known that we, DANIEL W. SMITH and JAMES K. HOPKINS, citizens of the United States, residing at Fresno, Fresno county, State of California, have invented an Improvement in Dirt-Scrapers; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to that class of dirt-scrapers in which the turning-bowl is provided with a stop-bar adapted to limit the dump of the bowl by contact with the draft-links.

Our invention consists in a novel improvement in the means for adjusting this stop-bar forward and back.

In this class of scrapers it is desirable to limit the dump of the bowl, both to regulate the discharge of earth therefrom and to keep the handle from falling too far forward. This limitation is effected by means of what is known as a "stop-bar," which extends across above the bowl, being secured at each end suitably, usually to the arms of the bowl. It is also desirable to provide for the adjustment forward and back of this bar in order to limit the dump of the bowl at different points, to regulate the distance of the bit from the ground, and thus govern the discharge of the dirt. This has heretofore been done by means of holes made in the arms on which the bar rests and bolts passing through the ends of the bar and adapted to fit in any of the holes on the arms, whereby the bar may be moved to and secured in different positions. These bolts become rusted very soon, and it is very difficult after the bar has been in place for any length of time to remove the bolts in order to adjust the bar. Another difficulty with this old form of connection is that the arms in which the holes are get bent and out of place, so that it is difficult to get the bolts out and to put them back again; also, as the bolts have to be wholly withdrawn from the holes each time, the threads become injured, materially affecting the life of the bolt.

The object of our invention is to provide a means for securing the stop-bar to the arms of such a character that said bar can be readily loosened and moved to adjust it at different places.

Referring to the accompanying drawings for a more complete explanation of our invention, Figure 1 is a perspective view of a dirt-scaper, showing our improvement. Fig. 2 is a perspective view, from below, of one end of the stop-bar and a portion of one of the arms *b*, showing the connection. Fig. 3 is a sectional view of same.

A is the bowl of the scraper, having a handle *a* and runners B, of which *b* are the arms upon which the stop-bar rests. This bowl is connected with the drag-bar C by means of pivoted links *c*. When in operation, the bowl takes the dirt and carries it along until it has reached the place at which it is to be dumped. Then the handle *a* is lifted and the bowl is turned over onto its runners. Upon the arms *b* of the runners, and extending across the whole top of the bowl, is the stop-bar D, which, when the bowl is turned, comes in contact with the links *c* and limits the movement of the bowl and also limits the movement of the handle, so that it is not thrown forward in the way of the horses. As heretofore mentioned, this stop-bar is adjustable forward and back on its bearing-arms *b* to vary the dump of the bowl, and this adjustment has heretofore been effected by means of bolts passing through holes in the arms and bar. Instead of this connection we have the following: In the under side of the bearing-arms *b* are made several notches *b'*. E is a bolt having a hook *e* on its lower end, which is adapted to fit in any of the notches of the arms *b*. This bolt passes upwardly through the stop-bar and receives a tail-nut F upon its upper end. Now by loosening this tail-nut the hook-bolt may be readily dropped far enough to relieve its hook from the notch in which it is placed, and the stop-bar may then be moved on the arms to the position desired. The hook-bolt is then raised into a fresh notch and is held firmly in said notch by setting down the tail-nut again. These means overcome all the difficulties of the old bolt connection heretofore described, are easily operated, and there is no trouble when the hook-bolt is loosened to move the stop-bar to any position desired.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a dirt-scraper, the adjustable stop-bar and the means for securing it where adjusted, consisting of the arms on which it rests, having a series of notches, the hook-bolts fitting  
5 said notches and passing through the bar, and the nut on the upper end of the bolts, substantially as herein described.

2. In a scraper, the stop-bar of the turning-bowl and the draft-links with which it comes  
10 in contact, in combination with the bearing-arms on which the bar rests, said arms having a series of notches, the bolts with hooked lower ends engaging said notches and passing up through the stop-bar, and a nut on the  
15 upper end of the bolts for tightening them and holding the stop-bar, substantially as herein described.

3. In a scraper, the turning-bowl, the draft-links, the runners of the bowl, and the adjustable stop-bar, in combination with the  
20 arms of the runners, having a series of notches, the bolts with hooked lower ends engaging said notches and passing up through the stop-bar, and the tail-nuts on the upper  
25 ends of the bolts for tightening them and holding the stop-bar, substantially as herein described.

In witness whereof we have hereunto set our hands.

DANIEL W. SMITH.  
JAMES K. HOPKINS.

Witnesses:

S. C. ST. JOHN,  
W. J. KITTRELL.