

(No Model.)

2 Sheets—Sheet 1.

R. M. & W. H. BROOKS.

J. M. BROOKS, Administrator of R. M. BROOKS, Deceased.

WHEELED SCOOP.

No. 463,571.

Patented Nov. 17, 1891.

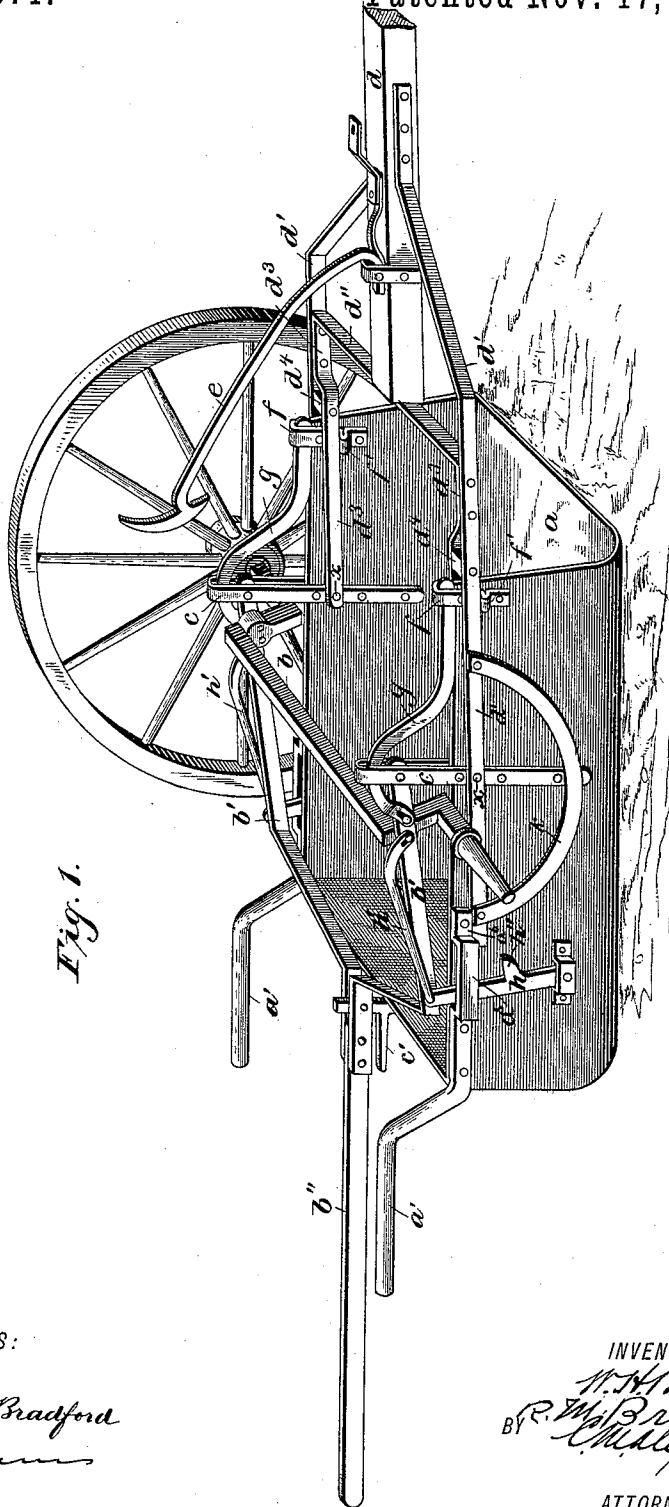


Fig. 1.

WITNESSES:

Edwin L. Bradford
C. O. Davis

INVENTORS:

R. M. Brooks &
W. H. Brooks
By C. M. Leffert

ATTORNEY.

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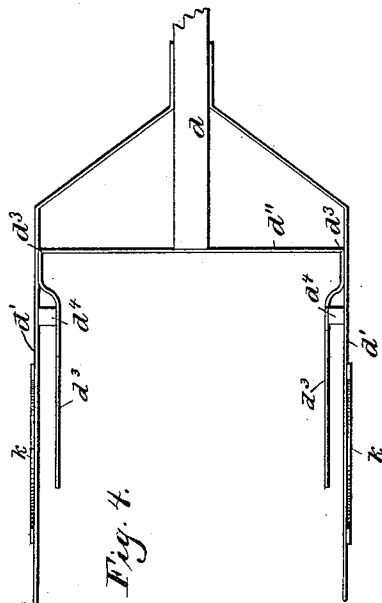


Fig. 4.

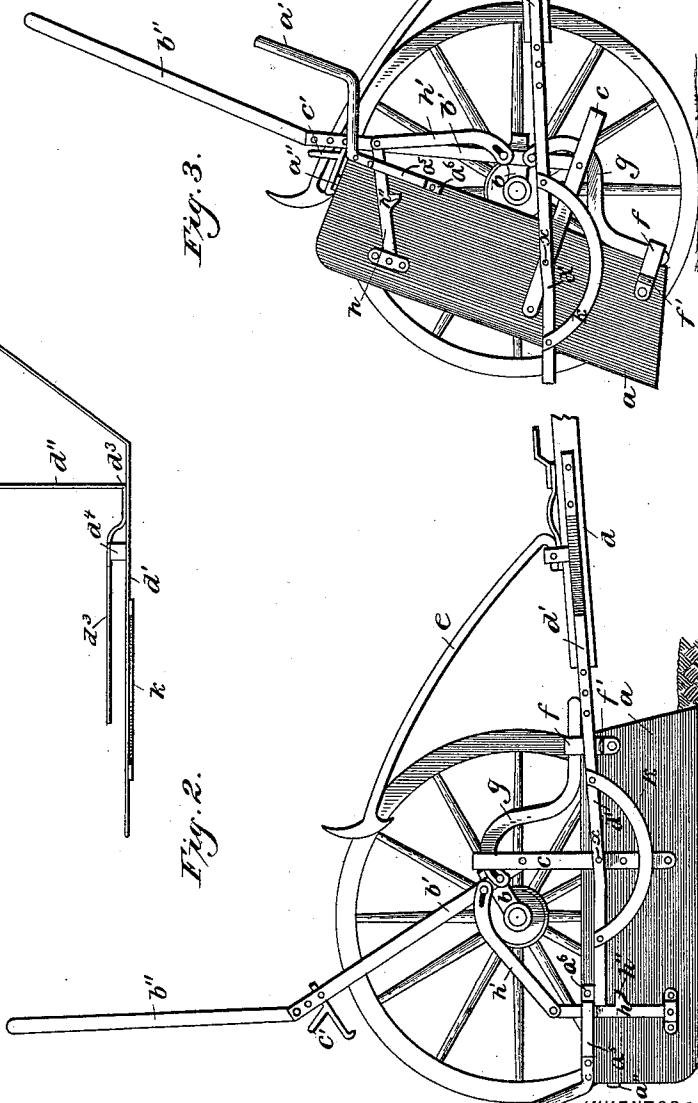


Fig. 3.

Fig. 2.

WITNESSES:

Edwin L. Bradford
Ed Davis

INVENTORS:

R. M. Brooks
W. H. Brooks
BY Charles Alexander

ATTORNEY.

UNITED STATES PATENT OFFICE.

RHODOM M. BROOKS AND WILLIAM H. BROOKS, OF MOLENA, GEORGIA; J. M. BROOKS ADMINISTRATOR OF SAID RHODOM M. BROOKS, DECEASED.

WHEELED SCOOP.

SPECIFICATION forming part of Letters Patent No. 463,571, dated November 17, 1891.

Application filed January 26, 1891. Serial No. 379,083. (No model.)

To all whom it may concern:

Be it known that we, RHODOM M. BROOKS and WILLIAM H. BROOKS, citizens of the United States, residing at Molena, in the county of Pike and State of Georgia, have invented certain new and useful Improvements in Wheeled Scoops, of which the following is a specification, reference being had therein to the accompanying drawings.

10 Figure 1 is a perspective view of our improved machine with the scoop in an elevated position ready for transportation, one of the wheels being removed for better illustration; Fig. 2, a side elevation of the same, the scoop or bowl being shown in a lowered position ready for work; Fig. 3, a similar view of the machine with the bowl or scoop in a dumping position, and Fig. 4 a plan view of the tongue and hounds or draft-irons.

20 The invention has particular reference to that class of self-loading wheeled scrapers wherein the scraper or scoop is lowered for work and raised for transportation by simply rocking an arched axle supported on transportation-wheels, the wheels being usually raised entirely off the ground when the scoop is lowered for work, as will more fully hereinafter appear.

30 The especial object of the present invention is to provide such machines with extremely simple and effective means for positively and automatically locking the scraper to the hounds or draft-bars of the tongue when the scraper is lowered for work, whereby all vibration and tilting of the scraper while at work is obviated and the machine is rendered simpler and less liable to injury than the machines now on the market, as will presently appear.

40 We will now describe one manner of carrying our invention into practice; but as the details of construction may be readily varied by one skilled in the art without departing from the spirit of our invention we do not wish to be understood as limiting ourselves in this respect.

50 In the drawings, *a* designates the scoop or scraper, which is of the usual or any approved construction, and which is provided with the usual rearwardly-extending side handles *a'* and the usual lug or catch *a''* on its rear.

The scraper is swung under an arched or bowed axle *b*, mounted upon suitable transporting-wheels. The bifurcated parallel operating-arms *b'* of the rearwardly-extending operating-lever *b''* are rigidly bolted to the ends of the arch of the axle and extended a short distance forward of their point of attachment thereto. The forward end of each of these arms *b'* is pivotally secured between the upper connected ends of a pair of straps or standards *c*, the lower ends of these straps or loops embracing the vertical sides of the scraper and being rigidly bolted or riveted thereto. A depending latch *c'* is pivoted to the lever *b''* and adapted to engage the lug *a''* on the rear end of the scraper when the latter is raised from the ground for transportation.

70 The tongue *d* is provided with the hounds or draft-bars *d'*, which extend rearwardly on the outside of the sides of the scoop and are pivotally connected thereto by bolts *x*, that pass through the standards and the sides of the scoop. A transverse brace *d''* is bolted to the end of the pole and has its outer ends bent rearwardly and riveted to the hounds *d'*. The rear portions of the arms *d'*, being again separated from the hounds, extend back parallel with the same inside of the respective sides of the scoop and are pivotally connected thereto by the horizontal bolts *x*, that connect the hounds and loops, the arms *d'* thereby also serving as draft-bars. A block *d¹* may be inserted and bolted between each pair of draft-bars *d'* just forward of the front edge of the scoop to separate them sufficiently to embrace the sides of the scoop.

85 An upwardly and rearwardly extending spring-hook *e* of the usual construction is secured to the rear end of the tongue and is adapted to automatically engage the catch *a''*, secured on the rear end of the scoop, when the scoop is inverted in dumping, as shown in Fig. 3.

95 Rigidly bolted to the upper edge of each of the sides of the scoop near its forward end is a strong loop *f*, the lower ends of the loops embracing the edges of the scoop and their upper looped ends extending up between the respective draft-bars and terminating a short distance above the upper edges of the sides

of the scoop. These loops have formed upon their opposite sides outwardly-projecting lugs f' , upon which rest the draft-bars, thereby preventing the forward end of the scoop tilting upward when filled or while working. Pivotaly connected to each of the operating levers or arms b' , preferably at the point of its attachment to the bow of the axle and by the same bolt, is a rod or locking-bolt g , these bolts extending forward and passing through the upper ends of the loops c and f , and, being directly over and resting on the upper edges of the sides of the scoop, they terminate at their forward ends just behind the blocks d^4 , inserted between the draft-bars when the scoop is elevated, and when the scoop is lowered they extend across the tops of the blocks d^4 , thus locking them in position. The outer draft-bars d' are extended rearwardly beyond their pivotal points and terminate just in front of vertical levers h , pivoted at their lower ends to the sides of the scoop and pivotaly connected at their upper ends by means of links or rods h' to the operating-arms b' at the point of connection of the latter to the axle. These levers h are provided on their front edges with projections h'' , which are adapted to engage under the rear ends of the draft-rods d' when the scoop is lowered and the levers h are moved forward, and thereby confine the draft-rods between them and the forward ends a^5 of the handles a' , the forward ends of the handles being extended for this purpose. The handles a' are bent outwardly at their point of attachment to the sides of the scoop, so as to form loops or slots a^5 for the levers h to work back and forth in, as shown in Fig. 1.

The pivotal rods h' and g are slotted at their points of attachment to the operating-levers, and their pivotal bolts are passed loosely through these slots, thereby allowing the said rods a slight movement independent of the axle and connected parts. This independent movement is useful, in that it permits the operator by means of the operating-levers a' to oscillate or work the scoop a little should it become caught while in operation without disengaging the bolt g or the locking-lever h , as is evident.

A bowed brace k is welded or bolted to the draft-rods d' to assist in bracing and strengthening them, these braces connecting the rearward extensions of the outer draft-bars d' to the main portions thereof in front of their pivotal points.

In Fig. 1 the scoop is shown in an elevated position as it appears when filled and ready for transportation to the dumping-place. In this position the latch c' engages under the catch a'' in the rear end of the scoop and the sliding bolt g and lug h'' are drawn back, so as to be free of the draft-bars. When the machine reaches the dumping-ground, the operator has simply to raise the rear end of lever b'' sufficiently to depress the forward end of the scoop far enough to engage the ground,

whereupon the forward movement of the machine will cause the scoop to be inverted in the usual manner to the position shown in Fig. 3, in which position it will be held by the spring-hook e , as shown. After it is thus dumped the machine in its inverted position is hauled back to its work. To bring the parts back to the position shown in Fig. 1, the operator releases the hook e and then pulls back on the handle or lever b'' or one of the side handles a' , which throws the scoop back to the desired position.

To lower the scoop to its working position, as shown in Fig. 2, the operator simply releases the latch c' , whereupon the scoop will fall to the ground by its own weight, the operating-lever being drawn up to the inclined position shown and the axle being usually rocked forward sufficiently to raise the wheels off the ground. The act of lowering the scoop, as will be perceived, pushes the sliding rods or bolts g forward over the blocks d^4 and the upper edges of the connected draft-bars and draws the lever h far enough forward to engage its lug h'' under the rear ends of the outside draft-bars, thus effectually and positively locking the draft-bars to the scoop. This means for locking the draft-bars to the scoop when in working position is advantageous over the old devices now in use, in that it is less liable to injury and derangement and is very strong and positive, serving to prevent all undue vibration of the scoop and to hold it positively to its work.

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

1. The combination, with an arched axle and wheels journaled thereon, of the operating levers or arms bolted to the axle, a scoop under the axle, standards connecting the sides of the scoop to the forward ends of the said arms or levers, draft-bars pivotaly connected to the sides of the scoop, loops secured to the forward edges of the scoop, and sliding bolts connected to the levers and passed through the said loops, these sliding bolts being adapted to slide forward over the draft-bars when the scoop is lowered, thereby locking the scoop to the draft-bars, substantially as and for the purpose described.

2. The combination of an arched axle mounted on wheels, operating-levers rigidly secured to the arch of the axle, a scoop pivotaly connected to the forward ends of the levers by standards, and a tongue, and pairs of draft-bars rigidly secured to the tongue and embracing the respective sides of the scoop and pivotaly connected thereto, substantially as described.

3. The combination of an axle and wheels, a scoop pivotaly supported thereby, a tongue, and two pairs of hounds or draft-bars rigidly secured to the tongue and embracing the sides of the scoop and pivotaly connected thereto, substantially as described.

4. The combination of an arched axle and

wheels, a scoop pivotally swung therefrom, a tongue pivotally connected to the scoop by draft-bars, loops secured on the edges of the scoop and extending above the respective draft-bars, and sliding bolts or rods connected to the arch of the axle and extending forward through the said loops and adapted to be pushed forward and engage over the upper edges of the draft-bars when the axle is rocked forward to lower the scoop, substantially as described.

5. The combination of an arched axle and transporting-wheels, a lever for operating the axle, a scoop swung pivotally from the axle, a tongue pivotally connected to the sides of the scoop by draft-bars, sliding rods connected to the arch of the axle and extending forward on the upper edges of the sides of scoop to near the forward ends of the same, whereby when the axle is rocked forward the rods will be pushed forward and engaged over the draft-bars, and means for locking the said sliding rods to the upper edges of the scoop when they are pushed forward, substantially as described.

6. The combination of an arched axle, wheels thereon, and an operating-lever connected to the axle, a scoop pivotally swung from under the axle, draft-bars pivotally connected to the sides of the scoop and extending rearwardly beyond their pivotal point, vertical levers pivoted on the sides of the scoop and provided with lugs to engage under the rear ends of the draft-bars, and means for operating these levers, substantially as described.

7. The combination of an arched axle, an operating-lever connected thereto, a scoop pivotally swung from under the axle, draft-bars pivotally connected to the sides of the scoop

about midway its length and extended rearwardly from their pivotal points, movable levers supported upon the sides of the scoop and provided with means for engaging the rear ends of the draft-bars, and means connecting the said levers to the arch of the axle, as and for the purpose described.

8. The combination of an arched axle supported on wheels, a lever connected to said axle for rocking it, a vertically-movable scoop pivotally swung from under the axle, draft-bars pivotally connected to this scoop and extended rearwardly from their point of attachment, handles connected to the rear end of the scoop, stops on the sides of the scoop above the rear ends of the draft-bars, levers pivotally connected to the sides of the scoop and provided with lugs adapted to engage under the rear ends of the draft-bars, and operating-rods connecting these levers to the arched axle, all arranged as and for the purpose described.

9. The combination of an axle supported on wheels, a scoop pivotally swung therefrom and vertically movable thereunder, draft-rods pivotally connected to the scoop about midway its length, and means, substantially as described, carried by the scoop for automatically engaging the forward and rear ends of the draft-rods and locking them to the respective sides of the scoop when the same is lowered for work, substantially as and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

RHODOM M. BROOKS.
WILLIAM H. BROOKS.

Witnesses:

C. D. DAVIS,
ALEX. S. STUART.