

(No Model.)

2 Sheets—Sheet 1.

J. W. HOBSON.
WHEELED EARTH SCRAPER.

No. 570,401.

Patented Oct. 27, 1896.

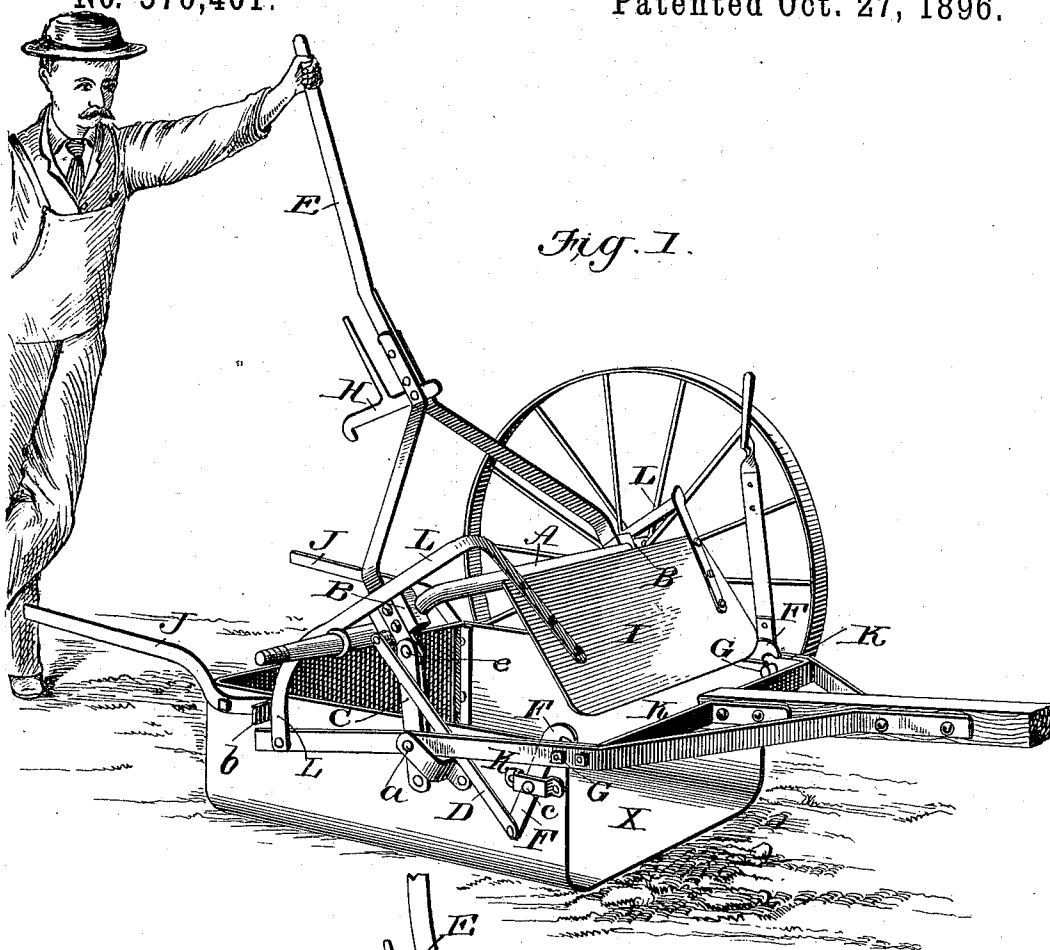
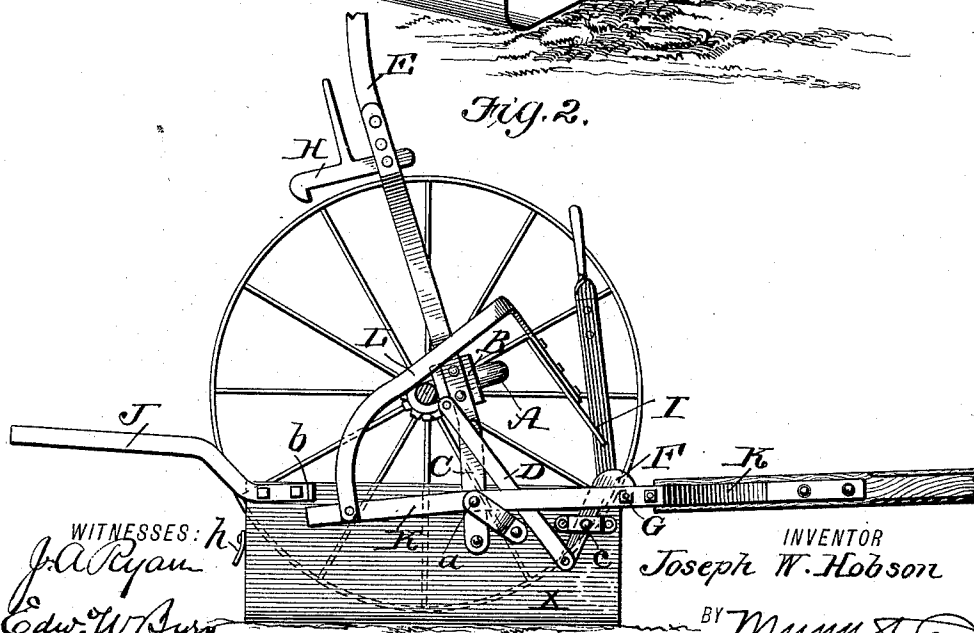


Fig. 2.



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Fig. 3.

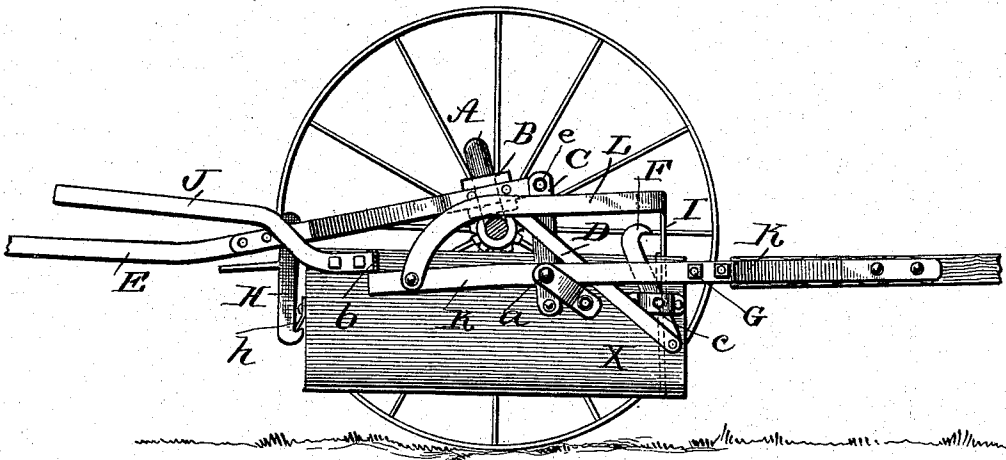
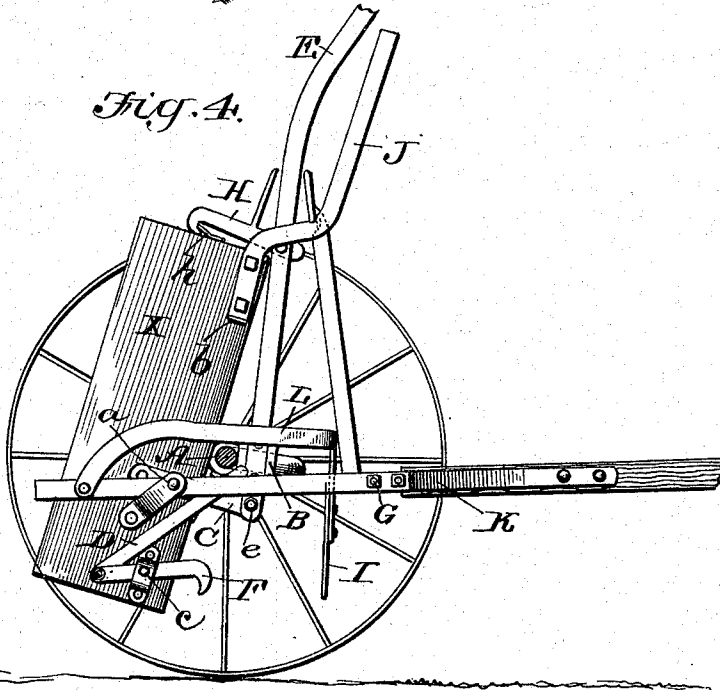


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH W. HOBSON, OF BAYONNE, NEW JERSEY.

WHEELED EARTH-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 570,401, dated October 27, 1896.

Application filed March 3, 1896. Serial No. 581,619. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. HOBSON, of Bayonne, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Wheeled Earth-Scrapers, of which the following is a specification.

My invention is in the nature of an improved construction of road or earth scraper of that class in which the scoop is mounted upon wheels and is provided with a front gate which is adapted to close the front end of the scraper and retain the earth while being transported and be automatically raised when the scoop is being dumped.

The object of my invention is to simplify the construction of machines of this character and at the same time to provide a scraper which embodies as one of its principal objects improved means for connecting and operating the end-gate and for locking the front end of the scoop when placed in a loading position, and at the same time providing an improved means for sustaining the scoop in a horizontal position when adjusted for transportation.

My invention consists in means for accomplishing the above objects, which I will now proceed to describe with reference to the drawings, in which—

Figure 1 is a perspective view of the scraper with the rear wheel removed and the front end-gate raised nearly to its highest limit. Fig. 2 is a side view with the axle in section and the rear wheel removed, showing the fully-raised position of the end-gate and the position of the scoop when filling the same. Fig. 3 is a similar view of the parts in the position for transportation; and Fig. 4 is a similar view of the parts in the position for dumping.

Referring to Fig. 1, A represents the usual cranked axle.

B is a block, either cast or forged, firmly bolted to the riser or crank of the axle, one of which blocks is attached to the crank of the axle at a corresponding point on each side of the scraper, either as shown or at a convenient point on the horizontal portion of the axle just between the collar of the wheel-arm and the riser.

C represents an upright or vertical standard firmly and rigidly riveted or bolted to the

sides of the scoop X. To the standard the forward branches of the lever E are loosely pivoted upon a bolt or rivet at *e* and are also rigidly bolted to the blocks B.

D is a connecting-rod, one on each side, pivoted at their rear ends to an eccentric point on the axle, such as the block B, as shown, or any rigid attachment to the axle, and also pivoted at their front ends to the lower portions of the lever-hooks F F, which are fulcrumed at *c* to the sides of the scoop, and have their hooked upper ends extending above the sides of the scoop, so as to engage at the proper time with the bolts G of the hounds K.

I is the front end-gate, made of sheet-steel and carried by a pair of bent arms L L, which pass rearwardly over the axles and, bending downwardly, are loosely pivoted to the rear extensions of the hounds K, which pass some distance to the rear beyond their fulcrum *a*. The rear ends of the hound extensions pass back to range of engagement with outturned lugs *b* on the forward ends of the handles J to hold the scoop horizontal when being transported, as shown in Fig. 3.

H is a lever-catch pivoted to the lever E and adapted to engage with a piece of metal $\frac{1}{2}$, riveted to the rear end of the scoop to lock it during transportation.

The operation of this scraper is as follows: When lever E is raised, as shown in Figs. 1 and 2, the connecting-rods D, moving rearwardly, pull the upper ends of hooks F into contact with and over the tops of the stud-bolts G, thus holding the scoop in a position where it must firmly remain while the load is being taken in. These hooks and studs prevent the front end of the scoop from diving into the ground deeper than is necessary, and also prevent the scoop from turning bottom side up. While the scoop is being loaded the body of the scoop rests upon the ground and is about two inches lower than the bottom of the wheels, as seen in Fig. 2. When the scoop is loaded, the lever E is brought down to the position shown in Fig. 3, and is fastened in this position by means of the latch H. This movement causes the scoop to be raised from the ground and lifted upon the standards C, acting as hangers, and the thrust of the connecting-rods D simultaneously throws the hooks back and away from

the bolts G, and as the scoop rises to the axle the arms L of the front end-gate are allowed to drop down and cause the gate I to close the front of the scoop, as shown in Fig. 3, so as to avoid spilling the contents in transportation. The scoop is now suspended upon the wheels, and the rear extension of the hounds K rest against the outturned lugs b of the handles J and hold the scoop in a horizontal position. When it is to be dumped, it is thrown by the handles or lever II into the position shown in Fig. 4, which causes the front end of the scoop to move rearwardly and away from the end-gate, thereby discharging its load.

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

1. An earth-scraper comprising a crank-axle, a scoop, hounds having a pivoted connection to the sides thereof and extending rearwardly beyond their pivots, bent arms pivoted or hinged to the rear ends of these

hounds in rear of their pivots and extending over the axle and provided with a front end-gate at their forward ends substantially as and for the purpose described.

2. In an earth-scraper the combination with the scoop and crank-axle; of an end-gate having its arms resting on top of the axle, and their rear ends pivoted to the hounds in rear of the axle substantially as and for the purpose described.

3. In an earth-scraper the combination with the scoop having lever-hooks on the front ends of its sides, a pair of hounds, a crank-axle, and a pair of connecting-rods anchored at one end to an eccentric point on the axle and at the other end to the lower end of each hook-lever substantially as and for the purpose described.

JOSEPH W. HOBSON.

Witnesses:

FREDK. CHAMBERLAIN,
L. HACKLAND.