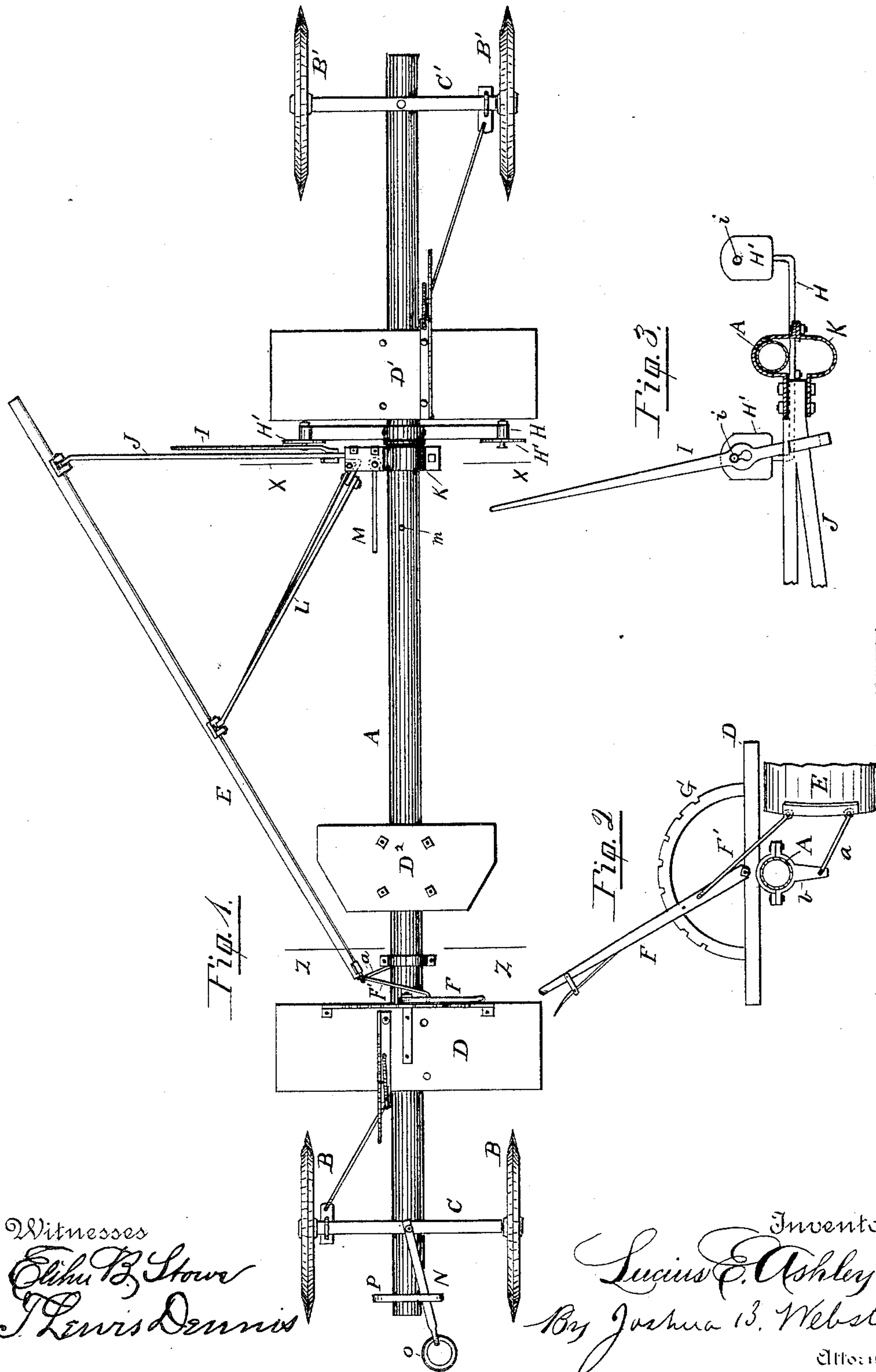


(No Model.)

L. E. ASHLEY.  
DITCHING AND GRADING SCRAPER.

No. 433,116.

Patented July 29, 1890



Witnesses  
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# UNITED STATES PATENT OFFICE.

LUCIUS E. ASHLY, OF STOCKTON, CALIFORNIA, ASSIGNOR OF ONE-HALF TO  
ASA CLARK, OF SAME PLACE.

## DITCHING AND GRADING SCRAPER.

SPECIFICATION forming part of Letters Patent No. 433,116, dated July 29, 1890.

Application filed December 9, 1889. Serial No. 333,140. (No model.)

*To all whom it may concern:*

Be it known that I, LUCIUS E. ASHLY, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Ditching and Grading Scrapers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in ditching and grading scrapers; and it consists in a frame of a peculiar construction having attached to it a two-edged reversible scraper-blade.

The purpose of this invention is to improve the construction of the ditching and grading scraper for which Letters Patent No. 376,022, dated January 3, 1888, were granted to me, so as to make it more convenient in use and more effective in operation.

In the accompanying drawings, Figure 1 is a plan view of my entire scraper. Fig. 2 is a detail section taken through line Z Z, Fig. 1. Fig. 3 is a detail section on line X X, Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the main body of the vehicle portion of the scraper, and consists of a large hollow iron tube.

B are the front wheels, and B' the hind wheels.

C is the front axle, and C' the hind axle, such axles being suitably attached to the tube A. The position of the wheels and axles is preferably controlled by devices shown in my Letters Patent above referred to.

D is an operator's platform just behind the front wheels; D', a rear platform in front of the hind wheels, and D<sup>2</sup> a smaller platform a short distance in the rear of the platform D. All of these platforms are suitably attached to the tube A.

The tube A is used principally by reason of its being round for the purpose, as will be hereinafter shown, and also because it furnishes both a strong, light, and cheap body.

The scraper blade or shoe E is set obliquely to the tube A, and is provided with two edges. It is attached to the tube A at its front end by a rod *a*, pivotally attached at one end to the front end of the blade E, and at its other end to the lug of a hanger *b*, the box of which loosely encircles the tube A, so as to permit of turning thereon just behind the platform D. A rod F' is similarly pivotally attached at its lower end to the front end of the blade E and at its upper end to a lever F, pivotally attached at its foot to the platform D. This lever F is furnished with a spring-detent to engage with the notches of a segment of a circle G, which is attached to the platform D. The rear of the blade E is attached to the tube A by a two-part diagonal brace L, the inner ends of which are attached to a hanger K, the box of which loosely encircles the tube A. A connecting-rod J is pivotally attached at one end to the outer end of the blade E and at the other end to the hanger K, and engages with a lever I, having its fulcrum on a vertical plate H', to which it is attached by a pin *i*, there being a plate H' at each end of the transverse bar H, which is secured at its center to the tube A by clips.

The blade E is raised and lowered by means of the levers F and I, and its general working movements are controlled by the operators on the respective platforms.

If it is desired to change the blade E from one side to the other of the tube A, the rods *a* and F' at the foot of the blade are detached therefrom. The lever I is detached from the plate H' by removing the pin *i*. The blade E is then turned over to the reverse side of the tube A, the lever I being attached to the plate H' on the corresponding end of the bar H, and the rods *a* and F' are again attached to the blade E.

A lock-rod M is pivotally attached to the hanger K, so that if desired to keep the blade E rigidly in position the rod M may be turned under the tube A, and a pin *m* inserted through a vertical hole in the tube A, so that the contact of the pin *m* with the rod M will prevent the blade E from rising off the ground.

The draft attachment consists of a rod N, attached at its rear end to the front of the



tube A, and has a ring O at its forward end, and a guide or loop P, attached to the tube A and embracing rod N.

Having thus described my invention, what I claim is—

1. In a ditching and grading machine, the combination, with the body composed of a round tube A, provided with suitable wheels, axles, and platforms, of the two-edged reversible blade E, substantially as set forth.

2. The combination, substantially as described, of the body A, suitably-mounted platforms D D' D<sup>2</sup>, and the draft apparatus consisting of the rod N, provided with the ring O and the guide P.

3. The combination, substantially as described, of the body A, the platforms D D' D<sup>2</sup>, the blade E, set obliquely to the body A and attached to the body A at its front end by the rods a F' and hanger b and a suitable handling-lever, and at its rear end by the diagonal

two-part brace L and connecting-rod J, attached to the hanger K, encircling the body A, and a suitable handling-lever.

4. The combination, substantially as described, of the tube A, suitably mounted, the blade E, set obliquely to the tube A and flexibly attached at its front and rear ends to the tube A by means of the hangers b and K and suitable connecting-rods, the rear lever I, removably fulcrumed upon one or the other of two plates H' at the ends of the cross-bar H, attached to the tube A, and the lock-rod M, attached to the hanger K and engaging with the pin m, inserted through a vertical hole in the tube A.

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

LUCIUS E. ASHLY.

Witnesses:

JOSHUA B. WEBSTER,  
JAMES T. SUMMERVILLE.