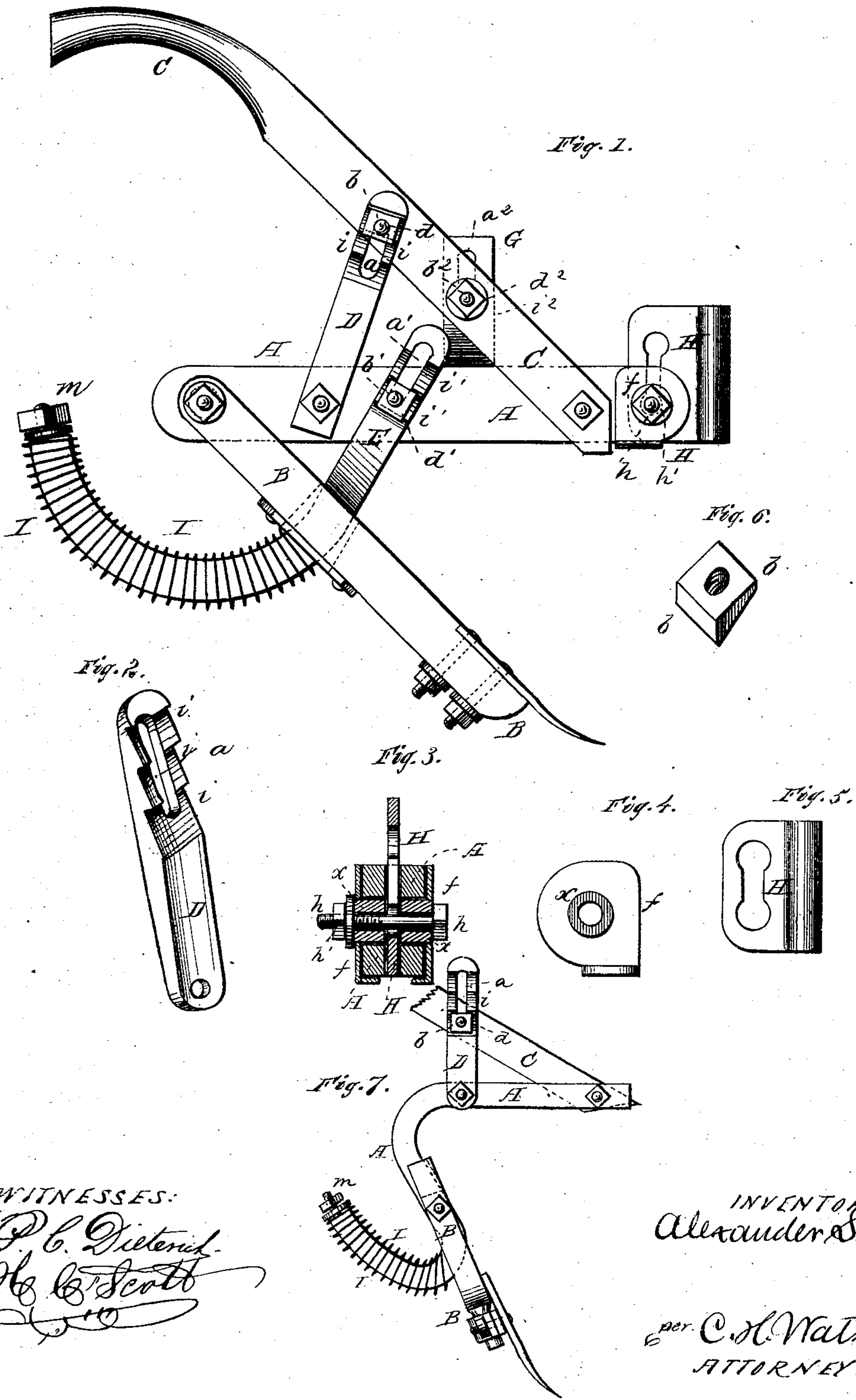


# Plows.

No. 157,234.

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WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **157,234**, dated November 24, 1874; application filed September 5, 1874.

*To all whom it may concern:*

Be it known that I, ALEXANDER SMITH, of Cuba, in the county of Clinton and State of Ohio, have invented certain new and useful Improvements in Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains 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.

The nature of my invention consists in certain improvements applicable to all single and double riding or walking plows, as will be hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a side elevation. Figs. 2 to 6 are details; and Fig. 7 represents the invention as applied to an iron beam.

A represents the plow-beam; B, the sheath or foot, pivoted; and C, the handle, also pivoted to the beam. These parts may be constructed in any of the known and usual ways. The handle C is adjusted to any angle desired—up and down—to suit the height of the person operating the plow, and held firmly in position by means of a brace, D, pivoted at its lower end to the beam A. The upper end of the brace D is provided with an elongated slot, *a*, through which passes a bolt, *b*, said bolt also passing through a hole in the handle C, and fastened on the opposite side thereof by a nut, *d*. On the outer side of the brace D, across the slotted part, are made beveled notches *i*, and the head of the bolt *b* is beveled to correspond on its under side, so as to fit against either of the shoulders formed by the notches *i* in the brace.

For the purpose of changing the handle it is only necessary to loosen the nut *d* sufficient to allow the bolt-head to get out from the notch in which it was placed, when the handle may be raised or lowered, as required, the bolt-head placed in another notch, and the nut *d* tightened, which makes the handle firm and stationary in the desired position. The plow-sheath B is raised and lowered in the same manner by means of the arm E, provided with a slot, *a*<sup>1</sup>, and notches *i*<sup>1</sup>, and fast-

ened to the plow-beam A by means of the bolt *b*<sup>1</sup> and nut *d*<sup>1</sup>. G represents the foot-stirrup, provided with a slot, *a*<sup>2</sup>, and notches *i*<sup>2</sup>, and fastened to the handle C by a bolt, *b*<sup>2</sup>, and nut *d*<sup>2</sup>, so as to be raised and lowered in precisely the same manner as described for the handle C. The front end of the beam A is slotted vertically, for the insertion of a cast plate, H, having a vertical tube, *e*, formed along its front edge. This casting is adjusted up and down in the beam for the purpose of raising or lowering the beam.

Through the cast-iron plate H are made two or more holes, and said plate is fastened in the beam by the following means, the holes in the plate, however, being connected by a vertical slot. On each side of the beam A is placed a washer, *f*, from which a hollow stud, *x*, passes through the wood and one-half of the thickness of the casting, the two studs thus meeting in the center of one of the holes in the cast plate. A bolt, *h*, is then passed from one side through both studs, and fastened on the opposite side by a nut, *h*'. Ordinary washers may be placed between the washers *f* and the bolt-head and nut.

When necessary to change the position of the casting H, the nut *h*' will be loosened sufficiently to allow both the washers *f* to be moved, so as to withdraw both the studs *x* from the casting, which can then be moved up or down, the slot between the holes passing over the bolt *h*; and, when in position, the washers *f* are pressed inward, and the nut *h*' tightened again.

The arm E, above described, for adjusting the plow-sheath B, passes through a slot therein, and behind the same it is curved, as shown. On this curved part is placed a spiral spring, I, held thereon by a nut, *m*, on the end of the arm. This spring does away with all pins, spikes, &c.

If the plow should run against a stone, root, or other obstruction, it is not necessary to stop and make a new pin, but simply raise the plow up slightly while the plow is going on, as it gives and turns backward to the obstruction, and as soon as the obstruction is passed the spring throws it back in position again.

In case of breakage or wearing out the

spring is readily removed by simply taking off the nut *m*.

These improvements are equally applicable to plows of any description, whether made of iron or wood.

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

The combination of the plow sheath or standard B, curved slotted arm E, spring I, and nut

*m*, substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

ALEXANDER SMITH.

Witnesses:

PETER CLEVINGER,  
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