(No Model.)

A. LYON.

DRAFT REGULATING DEVICE FOR PLOWS AND CULTIVATORS.

No. 387,689. Patented Aug. 14, 1888.

Fig. 2.

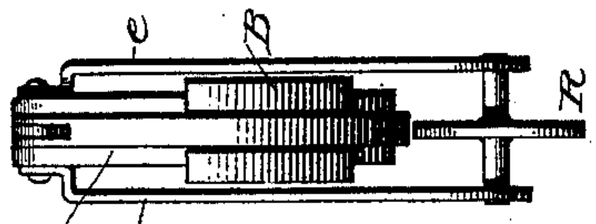

Fig. 1.

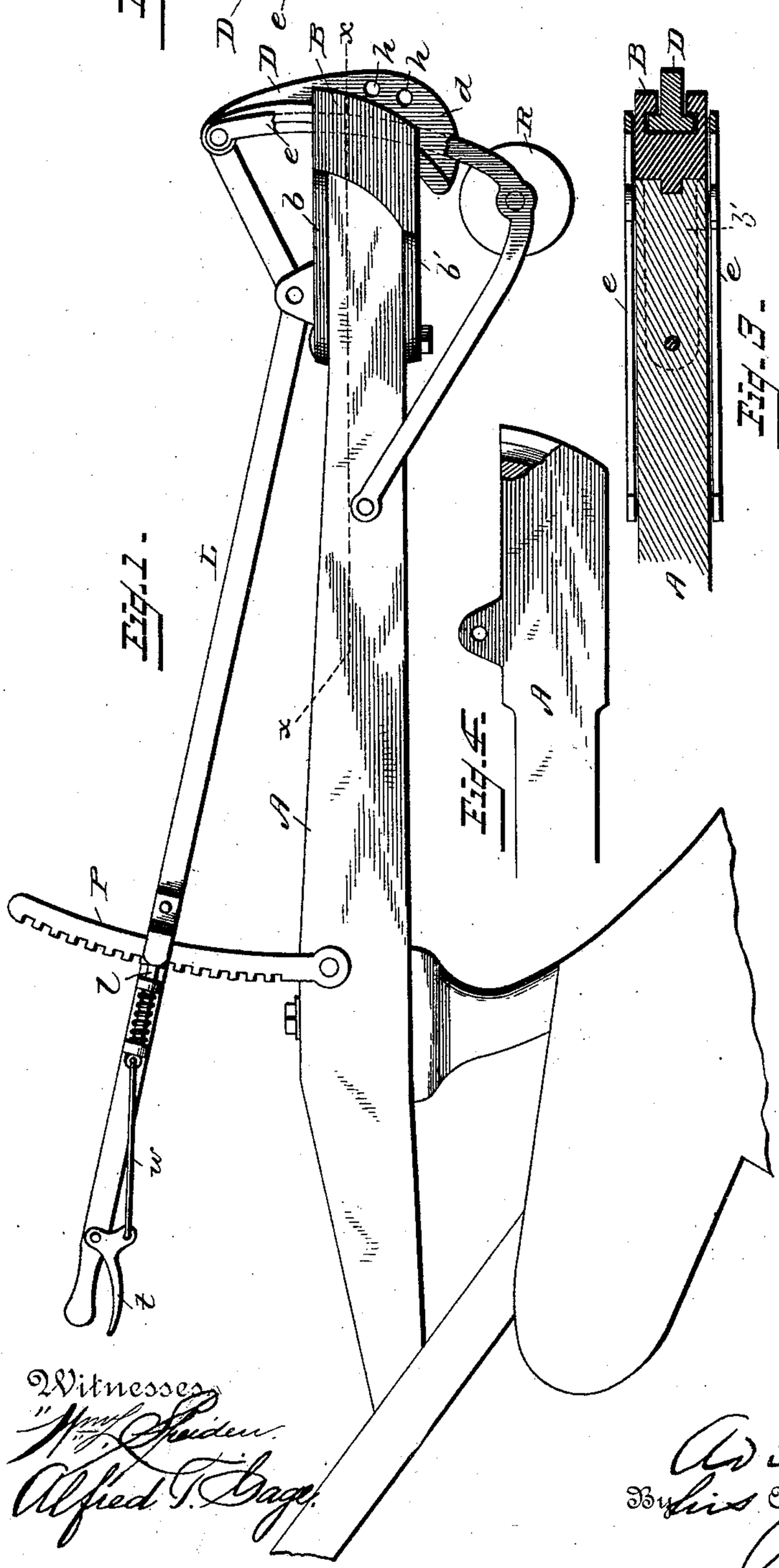

Fig. 3.

Fig. 4.

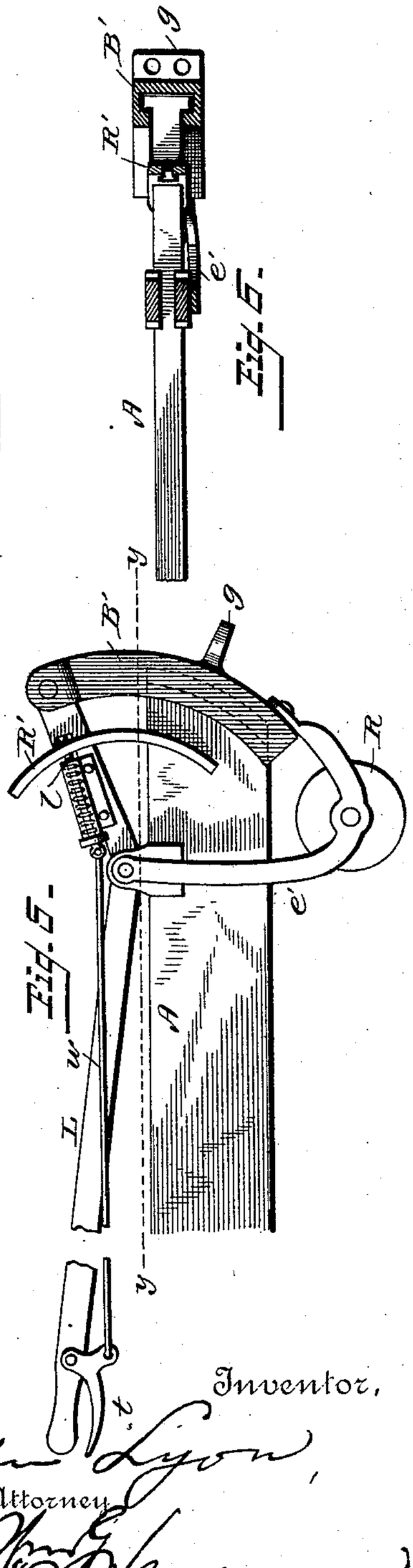

Fig. 5.

Witnesses,
Wm. F. Linden.
Alfred T. Gage.

Inventor,
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By his Attorney
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UNITED STATES PATENT OFFICE.

ADIN LYON, OF SPRING HILL, PENNSYLVANIA.

DRAFT-REGULATING DEVICE FOR PLOWS AND CULTIVATORS.

SPECIFICATION forming part of Letters Patent No. 387,689, dated August 14, 1888.

Application filed November 22, 1887. Serial No. 255,918. (No model.)

To all whom it may concern:

Be it known that I, ADIN LYON, a citizen of the United States, residing at Spring Hill, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Draft-Regulating Devices for Plows and other Implements to which it is Adapted; 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 and figures of reference marked thereon, which form a part of this specification.

My improvement relates in particular to draft attachments for plows, but may be applied to harrows, wagons, reapers, or any other implements in which it is desired to change the point of application of the draft; and it consists in a draft-piece made adjustable vertically in guides made in or fastened upon the beam of the plow or some similar part of the other implements. This draft-piece is raised and lowered by a ratchet-lever and has connected to it and adjustable with it a roller or wheel.

Figure 1 is a side view of a plow with my invention applied; Fig. 2, an end view of same; Fig. 3, a section on line *x x* of Fig. 1; Fig. 4, a side view of part of solid metal beam with slot in end; Fig. 5, a side view of a modification; Fig. 6, a section thereof on line *y y*.

The beam A has upon its end the piece B, which has the two arms *b b'*, closely embracing the end of the beam, and by means of which the piece B is bolted or otherwise securely fastened to the beam A. This guide-piece has in the end a slot which in cross-section is T-shaped. It is also a segment of a circle with its center at or near the pivotal point of the lever L. The adjusting-lever L is pivoted upon the guide-piece B, or the beam, as is most convenient, and extends back to a point where it can be conveniently operated. Fastened to the beam is a rack-bar, P, having teeth to be engaged by a sliding lock-bolt, *l*, sliding in guides upon the lever L. This bolt is thrown into engagement by an ordinary vertical spring which surrounds it, or is otherwise spring-actuated. It is withdrawn from engagement by a trigger, *t*, pivoted upon the handle and connected to the bolt by a rod or wire, *w*.

The draft-piece, or piece to which the power is directly applied, is in cross section T-shaped to fit the slot in the guide-piece B. The flanges are also of the same curvature as the slot. The web *d* has holes *h h* for the attachment of the clevis through which the draft is applied. This web *d* extends far enough forward that the clevis will freely clear the end of the piece B. Pivoted at one end to the draft-piece D and adjustable vertically with it are the curved bars *e*, which at the other end are pivoted to the beam. These bars carry the wheel R.

The construction of parts described is the one I prefer; but it may be varied somewhat and yet be essentially the same. For instance, the beam may be of iron and have the guide-slot formed in the end, thus dispensing with the separate guide-piece B. The rack-bar R' may be placed upon the other side of the fulcrum, as shown in Fig. 5, which illustrates another form of construction. In this form the guide-flanges are upon the end of the beam, and the draft-piece B' has a T-slot which embraces the guide-flanges, thus forming a sort of cap. The rack-bar R' is also located upon the beam between the fulcrum and the adjustable guide-piece B'. The curved bar *e'*, carrying the wheel R, is also attached directly to the lower part of the draft-piece D', instead of to the upper part, as in Figs. 1 and 2. Upon the front face of the guide-piece D' is a horizontal lug or flange, *g*, which has a number of holes in it for the attachment of the draft-clevis, so that the draft can be regulated horizontally as well as vertically.

It will be observed that the colter and draft attachment are simultaneously adjustable, so that when the draft-piece is raised or lowered the colter is by the same means and movement likewise raised or lowered.

It is obvious that changes can be made without departing from the spirit of my invention.

Having described my invention, what I claim, and desire to cover by Letters Patent, is—

1. In a draft-regulating device, the guide-piece B, draft-piece D, vertically adjustable in said guide-piece B, and adjusting-lever L, in combination with devices for securing said

lever L at any point, the bars *e*, connected to and moving with the draft-piece D, and wheel R, substantially as described.

2. In a draft-regulating device, the guide-piece B, draft-piece D, one of said pieces having a T-slot and the other flanges to fit said slot, whereby vertical adjustment may be obtained, adjusting-lever L, devices for securing said lever at any point, in combination with the bars *e*, connected to and moving with the draft-piece D, and wheel R, substantially as described.

3. In a draft-regulating device, the guide-piece B, draft-piece D, one of said pieces having a T-slot and the other flanges to fit said slot, whereby vertical adjustment may be obtained, in combination with the adjusting-lever L, rack-bar P, lock-bolt *l*, spring for returning the same, trigger *t*, and connecting-rod *w*, bars *e*, secured to and moving with the draft-piece D, and wheel R, carried by said bars, substantially as described.

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

ADIN LYON.

Witnesses:
WILLIAM EDWARD LANE,
HARVEY MEYERS BERKLEY.