

J. S. LASH.

Plow-Clevis.

No. 18,459

Patented Oct. 20. 1857.

Fig. 1.

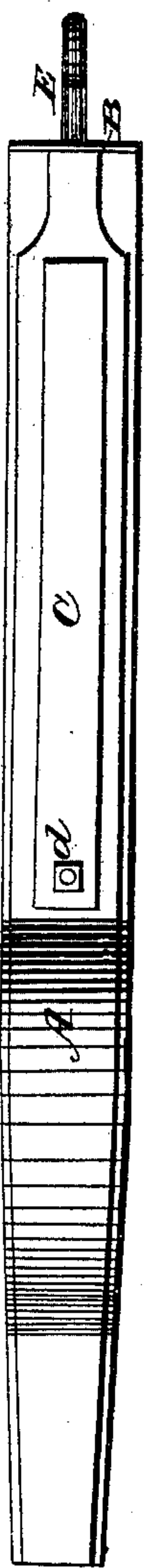


Fig. 2.

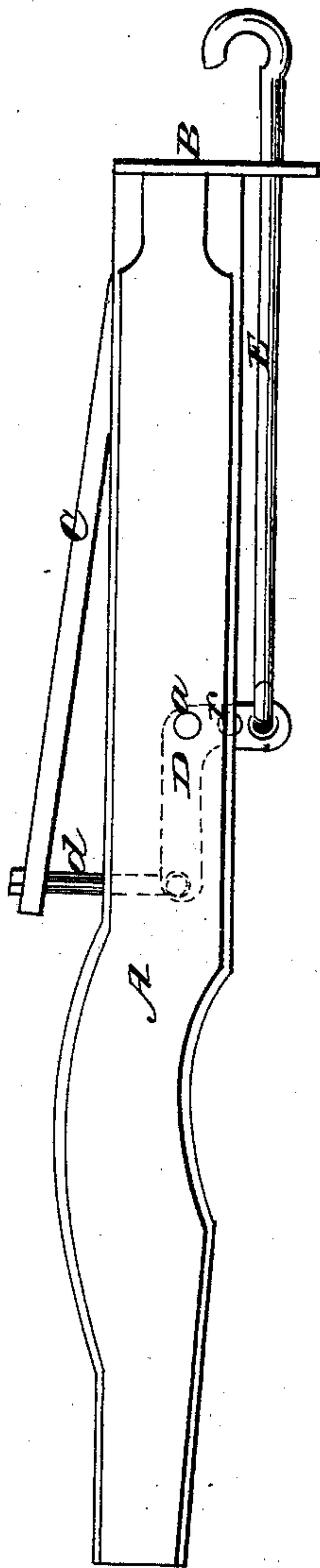
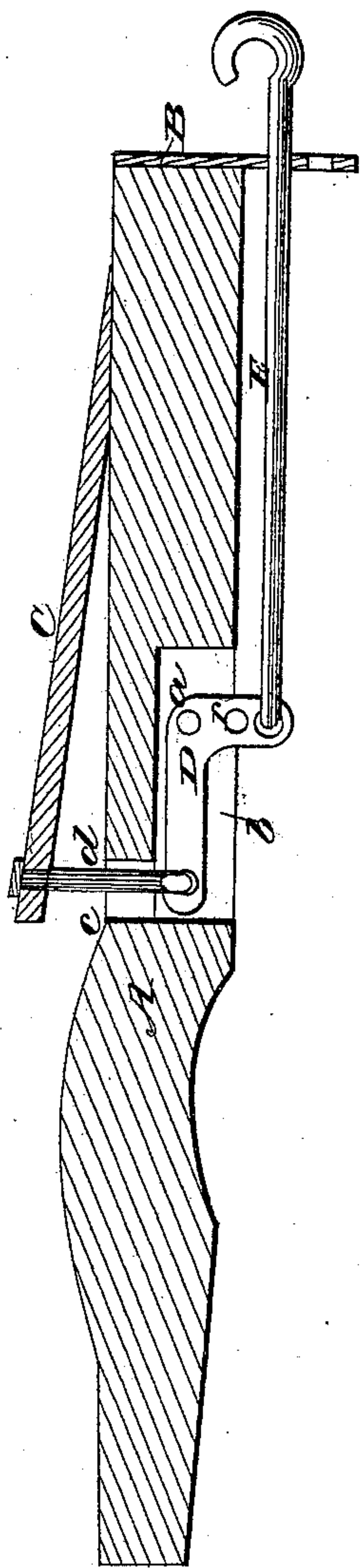


Fig. 3.



# UNITED STATES PATENT OFFICE.

JOHN S. LASH, OF CARLISLE, PENNSYLVANIA.

## IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 18,459, dated October 20, 1857.

*To all whom it may concern:*

Be it known that I, JOHN S. LASH, of Carlisle, in the county of Cumberland and State of Pennsylvania, have invented a new and useful improvement in the manner of applying the draft-easing or team-relieving springs to plows; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan of a plow-beam; Fig. 2, a side view of the same; Fig. 3, a vertical longitudinal section.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of my invention consists in the arrangement of a flat or straight spring on top of the plow-beam, and the combination of the same, thus arranged, with the draft-rod, by means of an elbow-lever, in the manner hereinafter specified.

By having the spring straight or flat and arranged on top of the beam great simplicity and convenience are secured, and all chance of the elasticity of the spring being almost wholly destroyed or brought into action when only compressed slightly, as in the case of the cylindrical rubber or barrel-metal spring are used, is overcome, as a spring of greater length, and which is capable of greater length of movement without its elasticity being impaired much, can be used; and by introducing the elbow-lever between the flat spring and the draft-rod the resistance of the spring can be controlled to a greater or less extent. For instance, if the spring be very strong, as it is when first put into use, the length of the arm of the lever from the fulcrum can be increased, so as to overcome too great resistance of the spring; or if the spring be weak and very elastic, which will be the case after long use, the length of the said arm can be decreased, so as not to act so directly and forcibly upon the spring. This increase or decrease in the length of leverage may be effected by providing levers with arms of the required length, or by providing a lever which has a series of adjusting-holes, *r*, in the arm to which the draft-rod is attached.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the plow-beam, and B the clevis, both made of ordinary or any approved form.

C is the spring, made preferably flat and

of wood, and arranged on top of the beam, on account of cheapness, and so that the farmer can readily and conveniently renew and apply it himself in case it may accidentally get broken. In this, in connection with the increased and constant action of my spring, lies the utility and advantage of my invention over the rubber or metal coil-spring.

D is the elbow-lever. It is arranged on a pivot, *a*, in a slot, *b*, cut vertically in the under side of the beam. This lever is connected by one of its arms to the loose end of the spring, which works up through a hole, *c*, in the beam by a rod, *d*, and by its other arm to the draft-rod E, as shown. With this arrangement it will be evident if the plowshare strikes against a stump, rock, or other impediment, that the sudden jerk or resistance caused thereby will, instead of coming upon the team, fall upon the spring, and cause it to descend a certain distance, or even so as to be flat upon the beam. The spring in thus yielding saves the plowshare and also the team from injury, and although it may be pressed down flat upon the beam its elasticity still remains, which is not the case with the rubber or spiral metal spring, owing to the mass of matter on the coils being compressed so closely together as to have the action of the same destroyed.

A spring made and applied as herein specified will not cost the farmer over one dollar, whereas he has to pay three dollars for the ordinary kind, and in case the former gets accidentally broken he can without going away from home replace it himself, and thus avoid inconvenience and delay, whereas if the latter gets deranged he is obliged to send it away for repair, and thus suffer delay and incur considerable expense.

I do not claim the attachment of the draft-rod to a spring irrespective of the arrangement and manner of applying the spring; but

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of the long, flat, and straight spring C on top of the beam, and the combination of the same, thus arranged, with the draft-rod E, by means of the elbow-lever, substantially as and for the purposes herein described.

JOHN S. LASH.

Witnesses:

DAVID SMITH,  
THEO. U. SMITH.