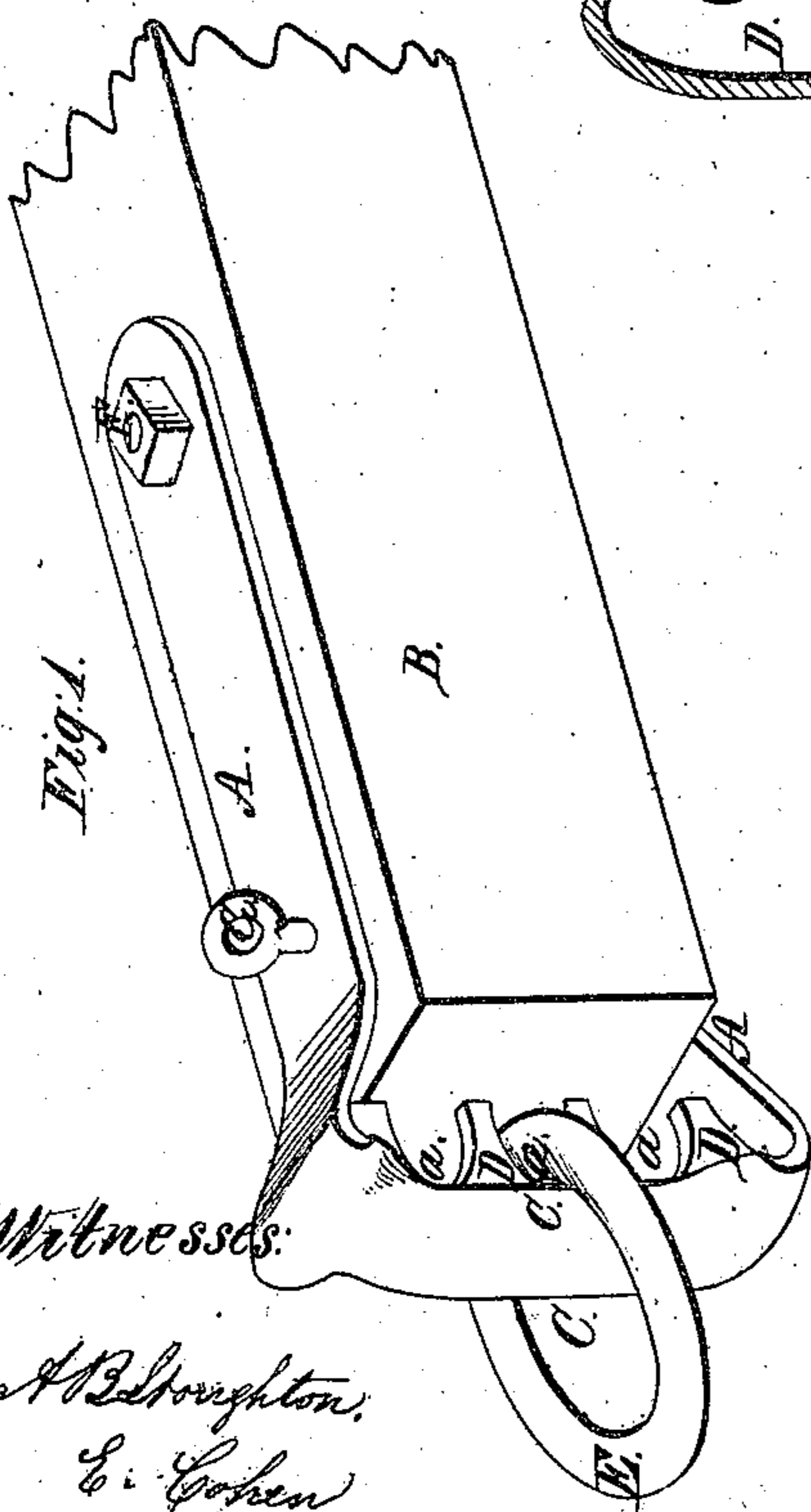
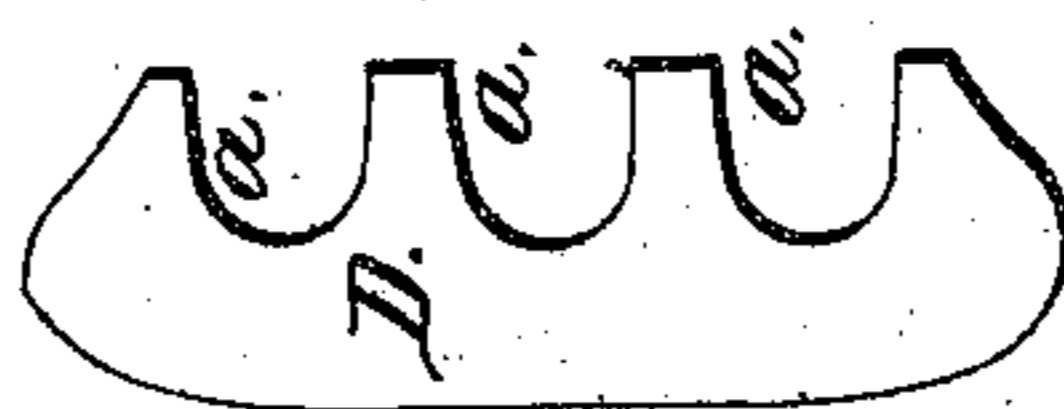
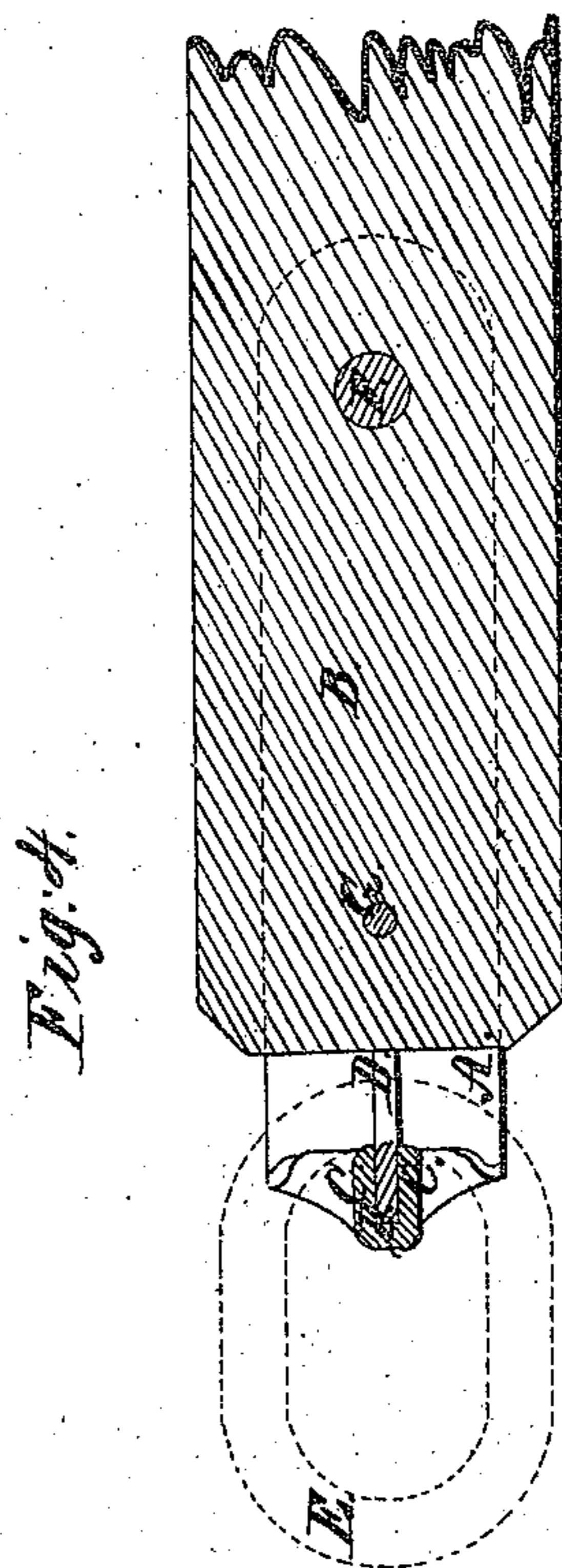
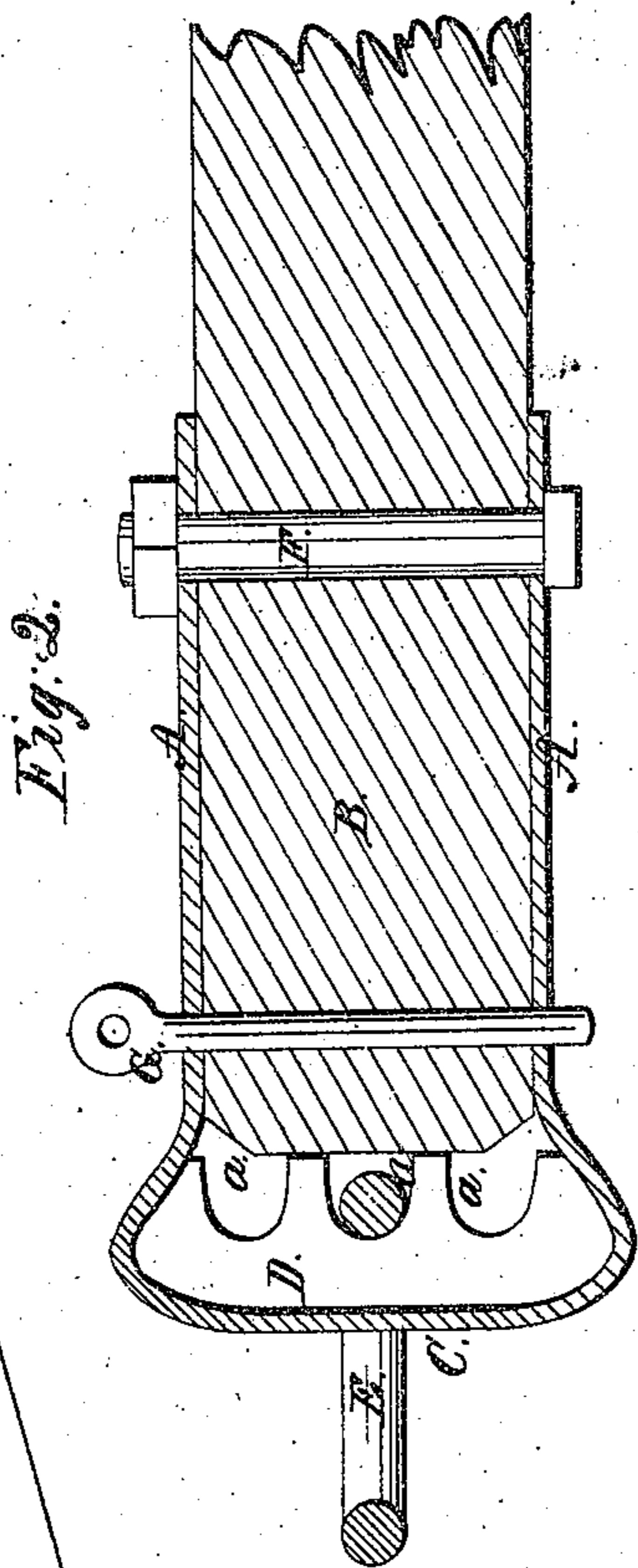
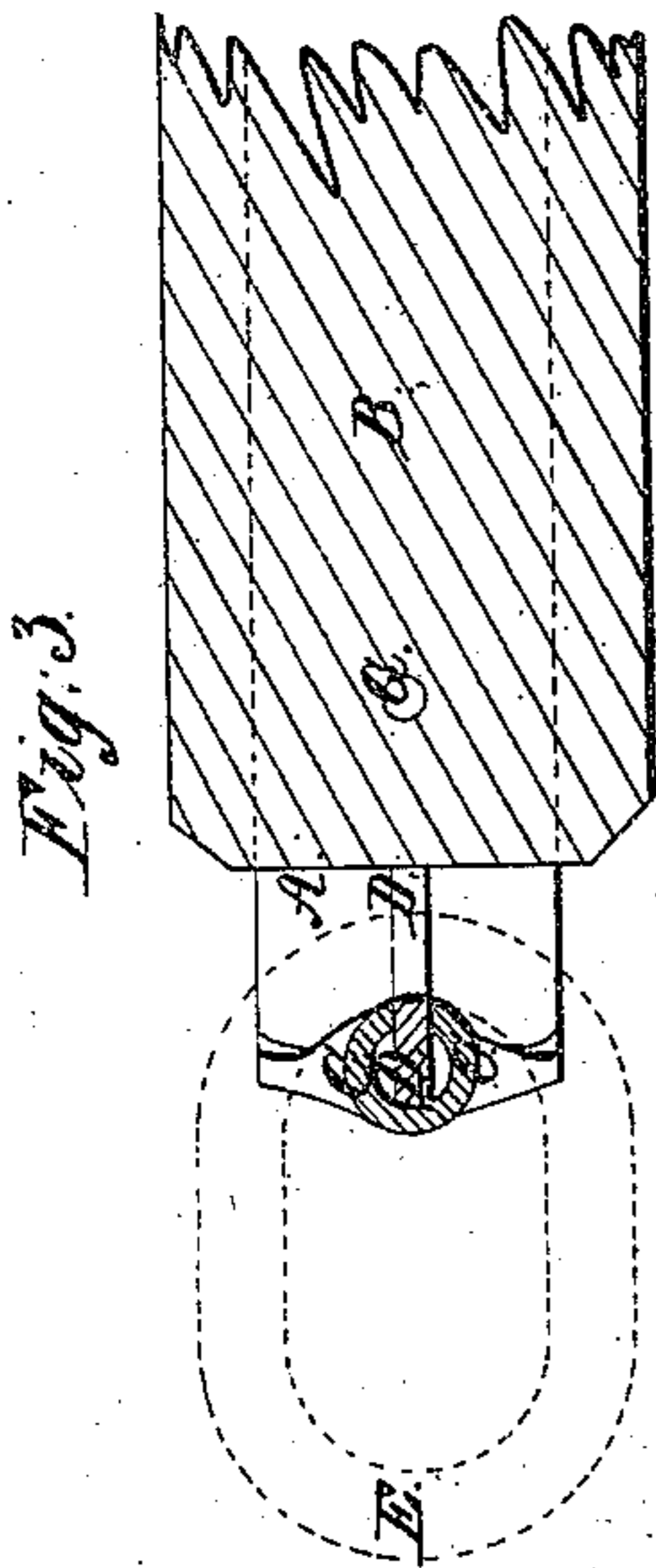


J. S. Hall.

Plow Clevis.

N^o 30,813.

Patented Dec. 4, 1860.



Witnesses:

*H. Broughton,
G. Cohen*

Inventor:

John S. Hall

UNITED STATES PATENT OFFICE.

JOHN S. HALL, OF MANCHESTER, PENNSYLVANIA.

IMPROVEMENT IN PLOW-CLEVISES.

Specification forming part of Letters Patent No. 30,813, dated December 4, 1860.

To all whom it may concern:

Be it known that I, JOHN S. HALL, of Manchester, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in the Manner of Constructing Plow-Clevises; and I do hereby declare the following to be a full, clear, and exact description of the construction of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents, in perspective, a portion of the plow-beam with one of my clevises in place. Fig. 2 represents a longitudinal vertical and central section through the same. Figs. 3 and 4 represent horizontal sections through the clevis and beam, showing the link in red lines. Fig. 5 represents one of the pieces of the clevis detached to show its form.

Similar letters of reference, where they occur in the several figures, denote like parts in all of the drawings.

Clevises for plows, &c., are more generally made by upsetting, welding, or working down a bar of iron; but they have been made of strap or flat iron, with a separate bar to hold the link. In either of these cases there must be considerable heating and working of the metal, and consequent expense in the production of the clevis. Such construction I lay no claim to. My object is to make a plow-clevis out of flat or strap iron entirely, without welding, upsetting, or working down the bar, and with a single heat barely sufficient to allow the metal to bend, and not near that of a welding-heat, by which means I not only expedite, but very much cheapen the cost of the clevis.

My invention consists in clamping a strengthening-plate in the bend of the clevis by bending down or over the strap or flat bar of which the clevis is made, as will be explained, said plate serving, if so desired, as the means of adjusting the link on the clevis for deep or shallow plowing, which is necessary with such articles.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

I take a piece of flat or strap iron of sufficient size to form the flat sides A of the clevis that is fastened to the beam B. At the center of this bar, which may be about fifteen inches

long, more or less, the edges are bent together, as seen at C, or nearly so. I then take a plate, D, previously stamped out of strap-iron, and insert it into or between the bent-down portions of the flat bar, and then firmly bring down the portions C onto the plate, and at the same instant bend around the bar into the clevis form or shape shown in the drawings. This bending is best and more uniformly done by dies or clamps, though it may be done over the anvil. The plate D is formed, for the sake of economy, with a series of recesses *a a*, &c., to receive the link E and admit of its adjustment. A separate plate, however, or bar may be used for this purpose, while the plate D is only a strengthening-plate, and resists the strain and wear of the link or clevis-ring E. When the plate D is inserted in the bent portions of the strap the two ends are brought around, as shown in Figs. 1 and 2, the ends of the plate D defining the shape of the curve or bend, and these ends may be curved, inclined, or irregular, and when the sides are brought against it it is permanently held there without welding, riveting, or any other fastening than that of being clamped in the clevis-bar both endwise and laterally.

In Fig. 3 I have shown the bent portions of strap in a circular form, which gives more impact or bearing-surface to the clevis-ring E, (in red,) which prevents the parts from wearing. In Fig. 4 the bent portions are more flat, causing more friction-surface upon the plate D and less contact-surface between the ring and the clevis. Both answer a good purpose, and either may be used. The strain upon the ring E is brought partially against the plate D and partially against the clevis-iron, which makes the clevis abundantly strong, though made of very light strap-iron. When the strap is bent down over and against the plate D, or set down against it by a proper tool or clamp, the plate is as immovably fixed as though it were welded there, while I avoid in reality the necessity of a welding-heat. F is a bolt for securing the clevis to the beam, and G a pin to prevent it from turning on said bolt. When it becomes necessary to change the clevis-ring E from one recess *a* to another the pin G is withdrawn and the clevis swung around clear of the beam, and then the ring can be readily shifted. It

would be possible to make a clevis by cutting the notches in the bent portions C and leave out the plate; but it would scarcely have the necessary strength to resist the strain. The portions C may also be spread out before bending.

Having thus fully described the nature and object of my invention, what I claim is—

The making of a clevis by bending down

and around the piece of metal so as to inclose and rigidly hold a strengthening-plate in its bends or folds, substantially as herein described.

JOHN S. HALL.

Witnesses:

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