

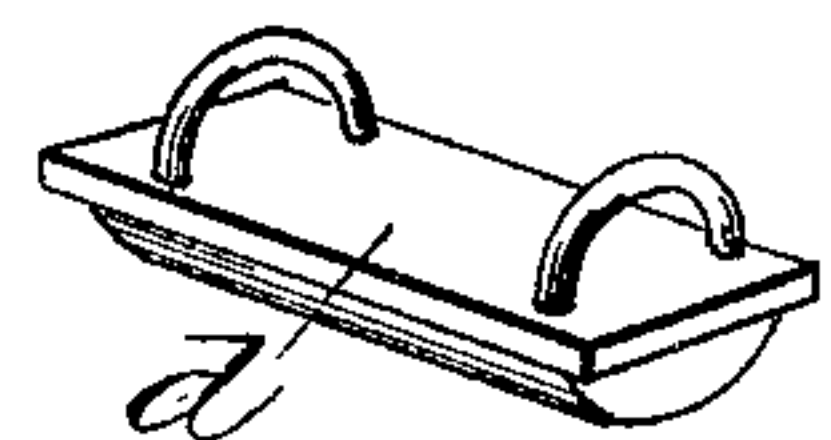
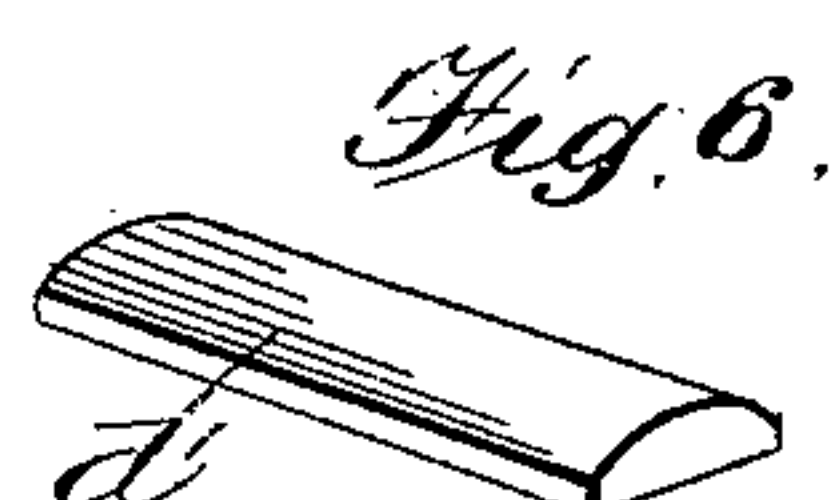
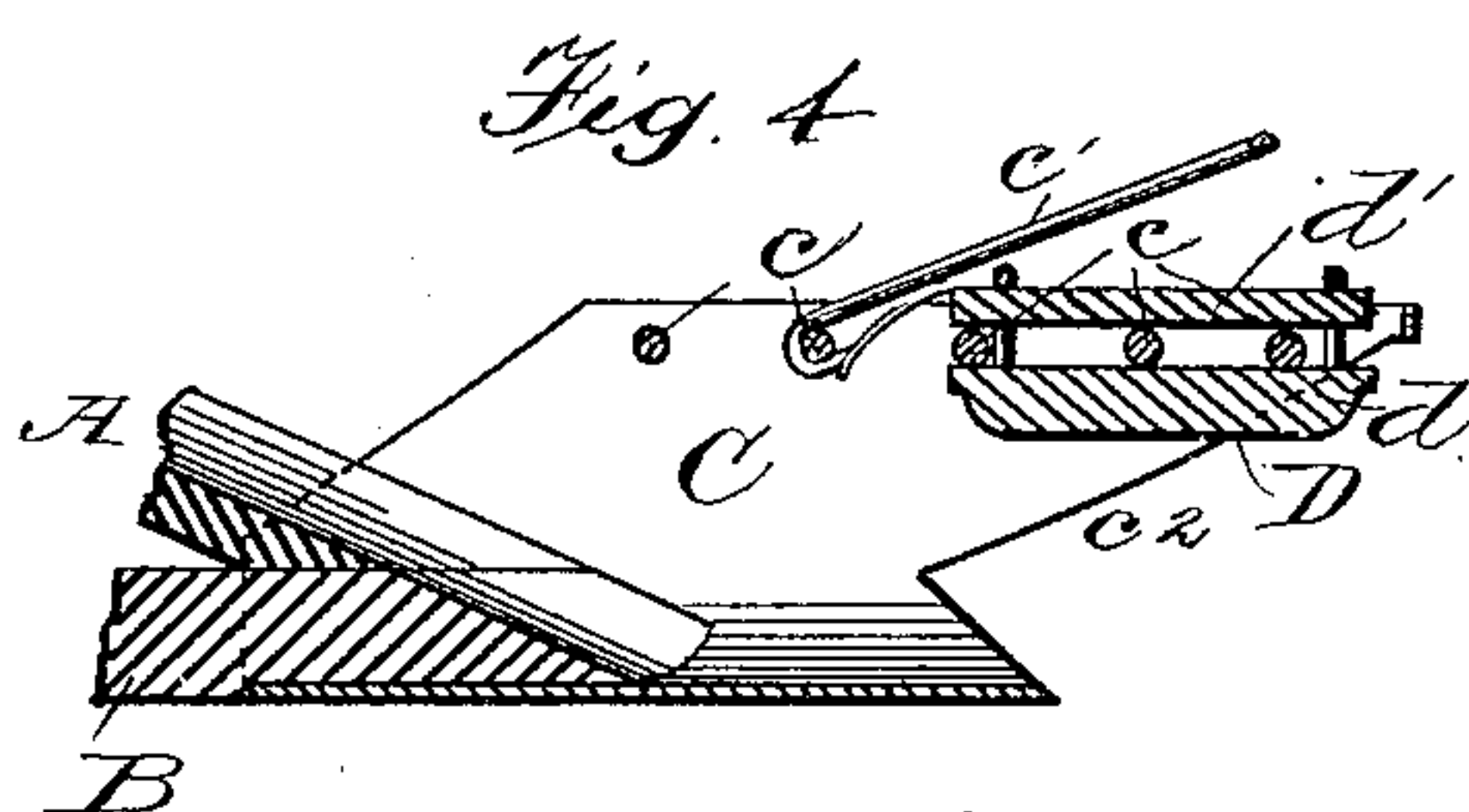
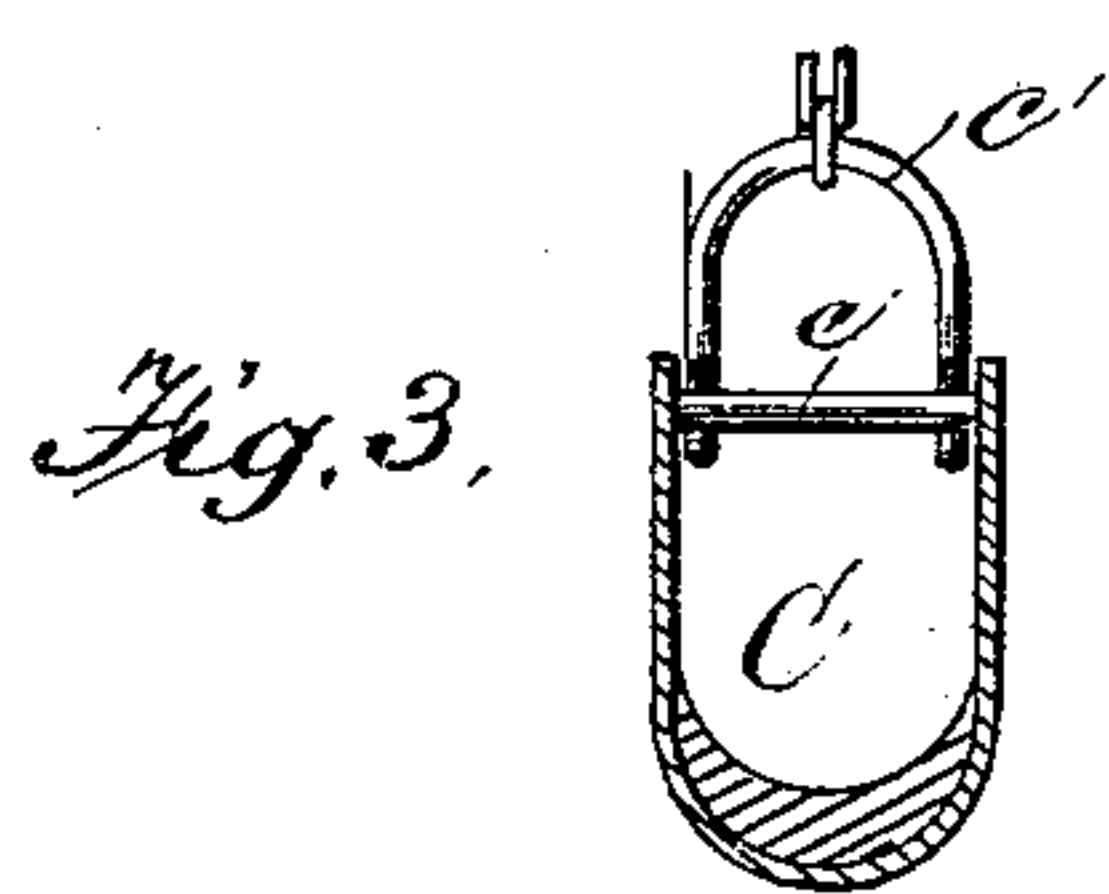
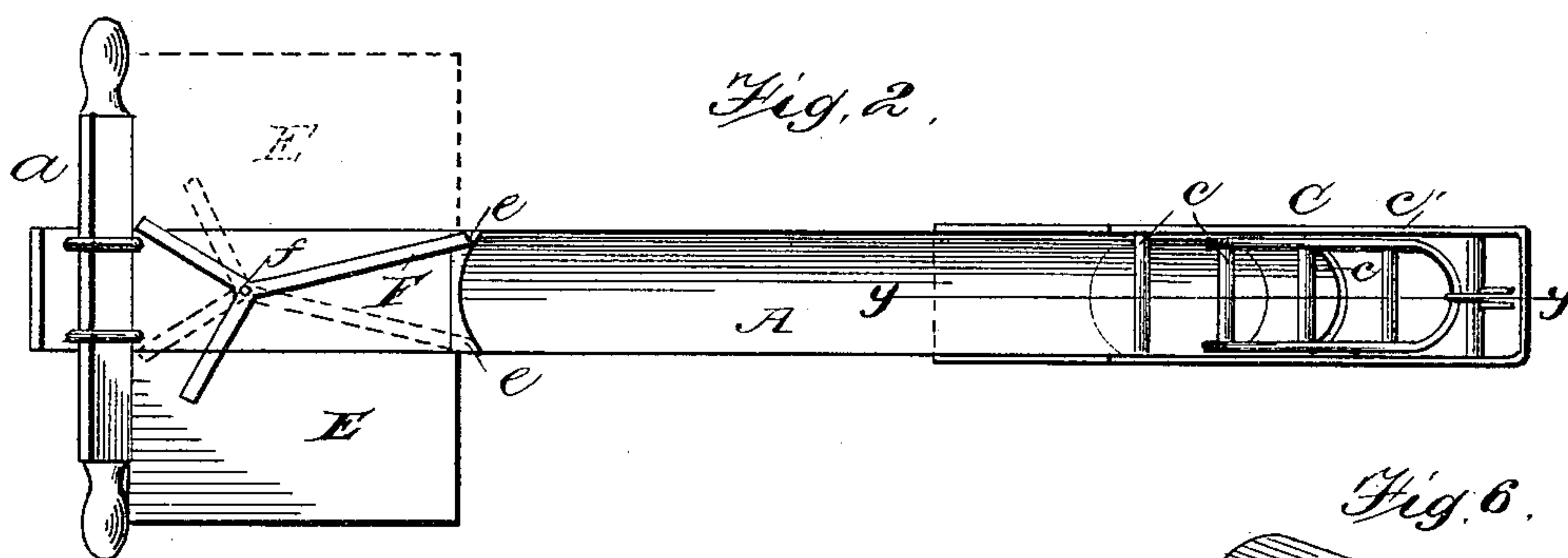
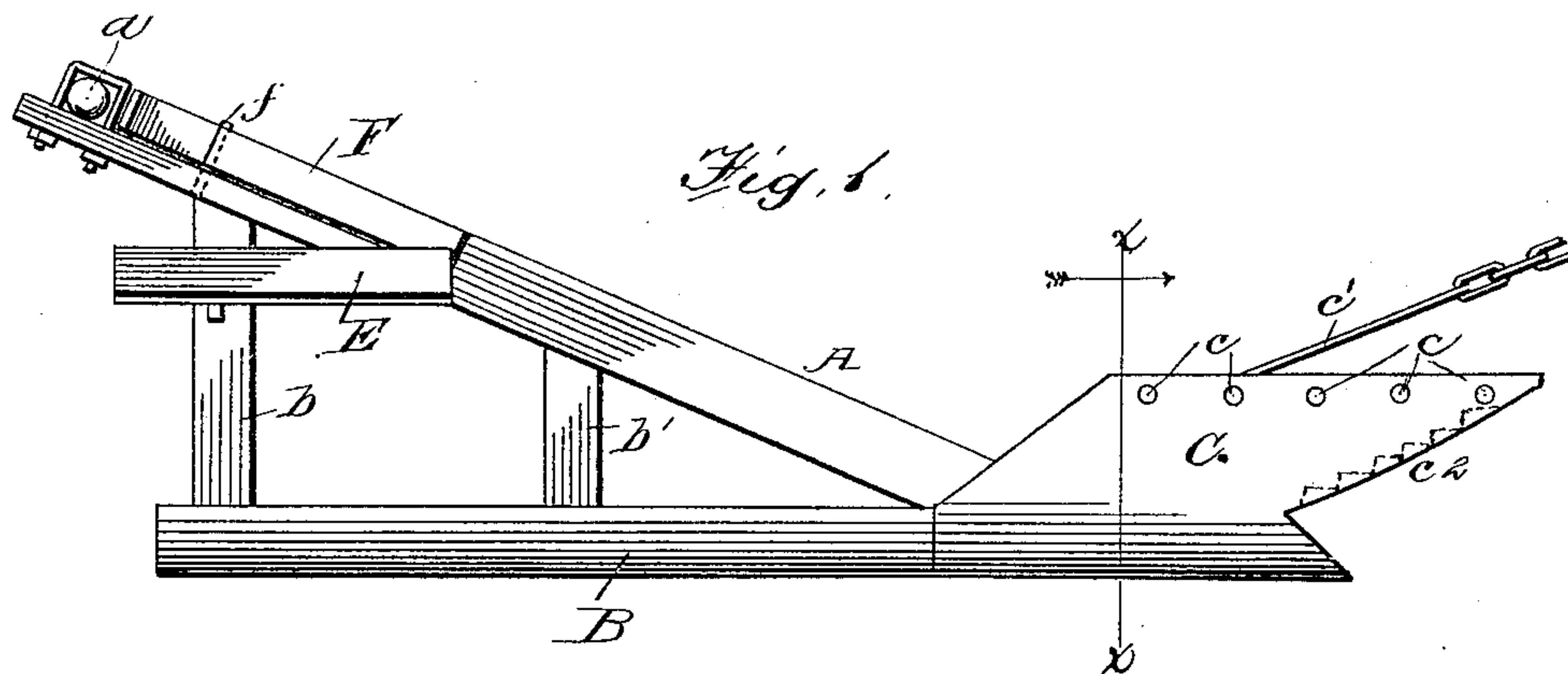
(No Model.)

W. DEUEL.

PLOW.

No. 353,668.

Patented Dec. 7, 1886.



Attest:
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UNITED STATES PATENT OFFICE.

WILLIAM DEUEL, OF BRYAN, OHIO.

PLOW.

SPECIFICATION forming part of Letters Patent No. 353,668, dated December 7, 1886.

Application filed April 7, 1886. Serial No. 198,129. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DEUEL, a citizen of the United States, residing at Bryan, in the county of Williams and State of Ohio, have invented certain new and useful Improvements in Plows, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to plows, having for its object the provision of an article used for digging ditches, foundations, &c., which shall be simple and durable in construction, cheap of manufacture, and efficient in operation; and to these ends the invention consists in the construction, combination, and arrangement of parts, substantially as hereinafter described, and pointed out in the claims.

In this class of inventions the efficiency of the parts employed to throw the earth out of the way of the plow is a great desideratum, and I therefore attach much importance to that portion of my device which accomplishes this result, in what manner will hereinafter be described.

The invention is illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 represents a side elevation of my improvement. Fig. 2 is a top plan view thereof. Fig. 3 is a sectional view on the line $x x$, looking in the direction designated by the arrow. Fig. 4 is a sectional view on the line $y y$ of Fig. 2. Figs. 5 and 6 are perspective views, respectively, of what I term my "depth-graduating block."

Referring to the drawings, A designates the scoop-beam, which is preferably hollowed out in cross-section, to the rear end of which is secured the handle-bar a , by means of which the plow is guided.

B designates a beam, which supports said scoop-beam by means of standards b and b' .

C designates a scoop and cutter, the end c^2 of which is sharpened so as to adapt it to cut the sod and earth.

$c c$ designate cross-rods, which connect the sides of the cutter-head, to any one of which may be secured a clevis, c' , consisting of a long loop, the ends of which are hooked, and provided with springs which bear against the ends of said hooks, whereby the clevis is pre-

vented from becoming disengaged from the cross-bar. Of these cross bars or rods there may be any number. They serve to regulate the depth of cut which the plow can make by providing different points for attachment of the clevis.

D designates the depth-graduating block, consisting of the block d , provided upon its upper surface with loops which project upwardly between the cross-rods c , and through which is inserted another block, d' , above the rods c , thus holding said lower block firmly in position. Of these blocks there may be any number, and of as many different sizes.

E designates a table, preferably inclined downwardly, extending backward from a point, e , where the side of the scoop-beam ends, so as to permit the earth to slide over upon the table, and thence fall to the ground. This table may either be rigidly or detachably secured to the scoop-beam and upright, and may be used alone, or, in connection with a similar one placed on the other side, may be used alternately, in the manner hereinafter described.

F designates a spider pivoted at f , and having arms to guide the earth onto the respective tables, as will readily be seen.

The operation of my device is as follows: The operator, desiring to cut a ditch of a certain depth, fits a medium-sized block in the cutter-head, corresponding to the one, D, in the drawings, which gages the depth of the cut. In advancing, the earth pressing against that which has been taken up, pushes it up until it is guided over the side and slides down the table E, and thence falls to the ground. Now, supposing both tables are in position, if the plow by continuing its course would throw dirt into another ditch, the operator has simply to shift the arm of the spider to the opposite side of the scoop-beam, thereby directing the entire stream of earth to the other side.

Modifications in the details of construction herein shown and described may be made without departing from the spirit or sacrificing the advantages of my invention—as, for instance, the side edge of the cutter-head may be toothed or serrated, as shown in dotted lines, or the handles may be like those of an ordinary plow, and fastened to the beam B.

Having thus described my invention, what I

claim, and desire to obtain by Letters Patent, is—

1. The combination, with the frame of a ditching-machine, of a scoop, substantially
5 such as shown, having a series of cross-rods, a two-part depth-graduating block clamped above and below upon said cross rods, and means for securing the draft or clevis to either of said rods, as and for the purpose set forth.
- 10 2. The combination, with a scoop having a series of transverse bars and an attached shoe

or block, an inclined beam, as A, and an earth receiving table, as E, of a pivoted spider forked at its rear end and adapted to direct the earth to either side of said beam A upon
15 said table, substantially as described.

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

WILLIAM DEUEL.

Witnesses:

JOHN M. CALKINS,
JACOB YOUSE.