

(No Model.)

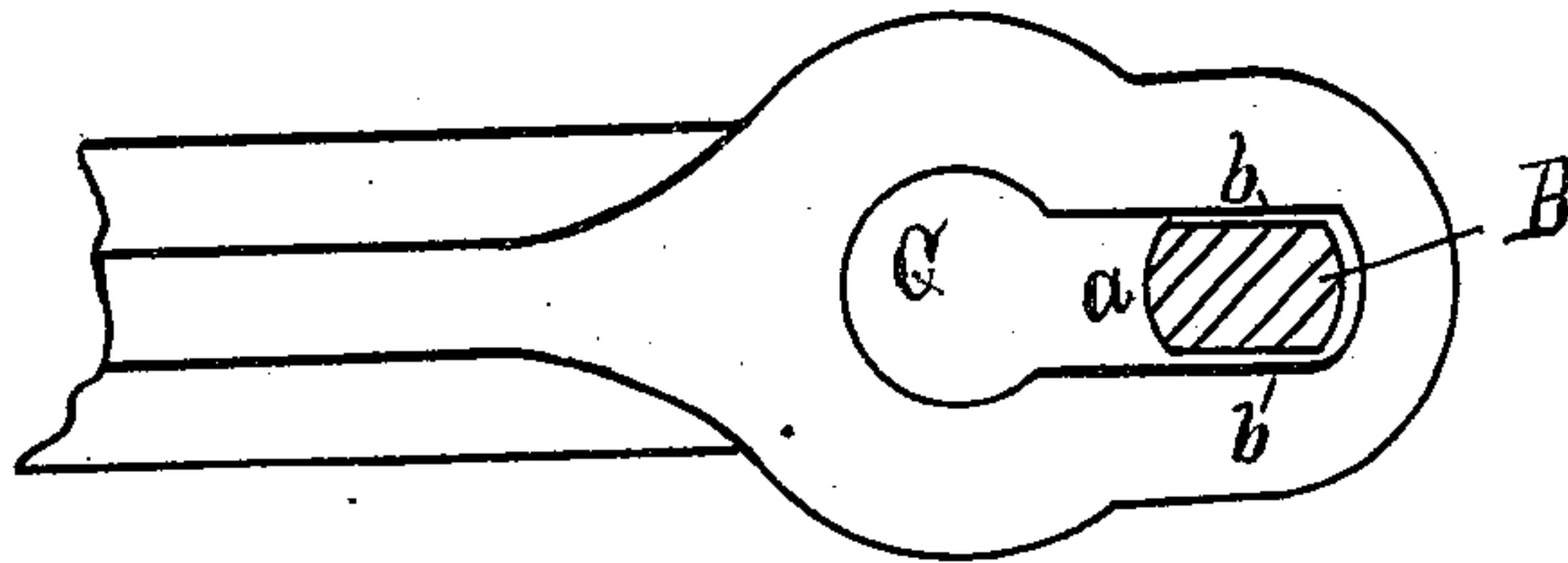
M. C. CHURCH.

CLEVIS.

No. 245,448.

Patented Aug. 9, 1881.

Fig. 2.



A

Fig. 1.

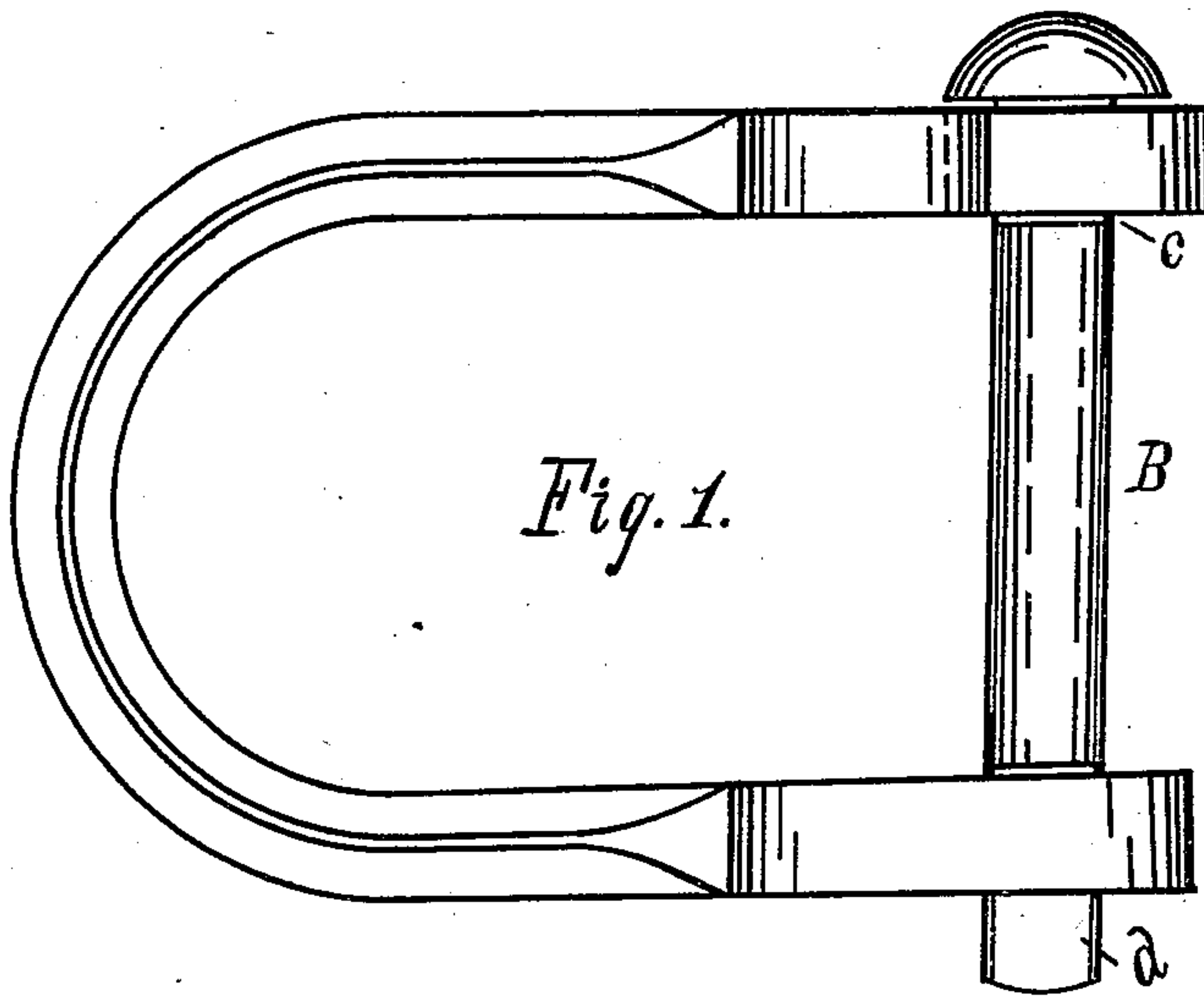


Fig. 3.

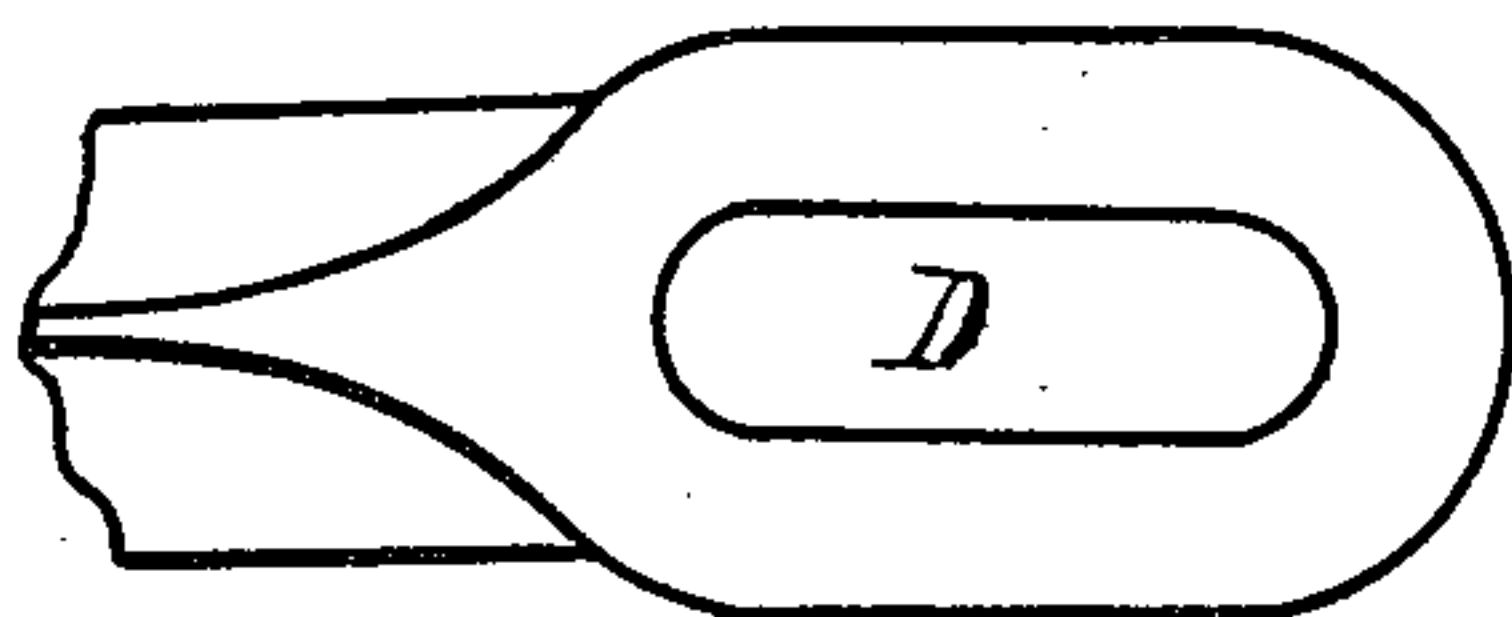
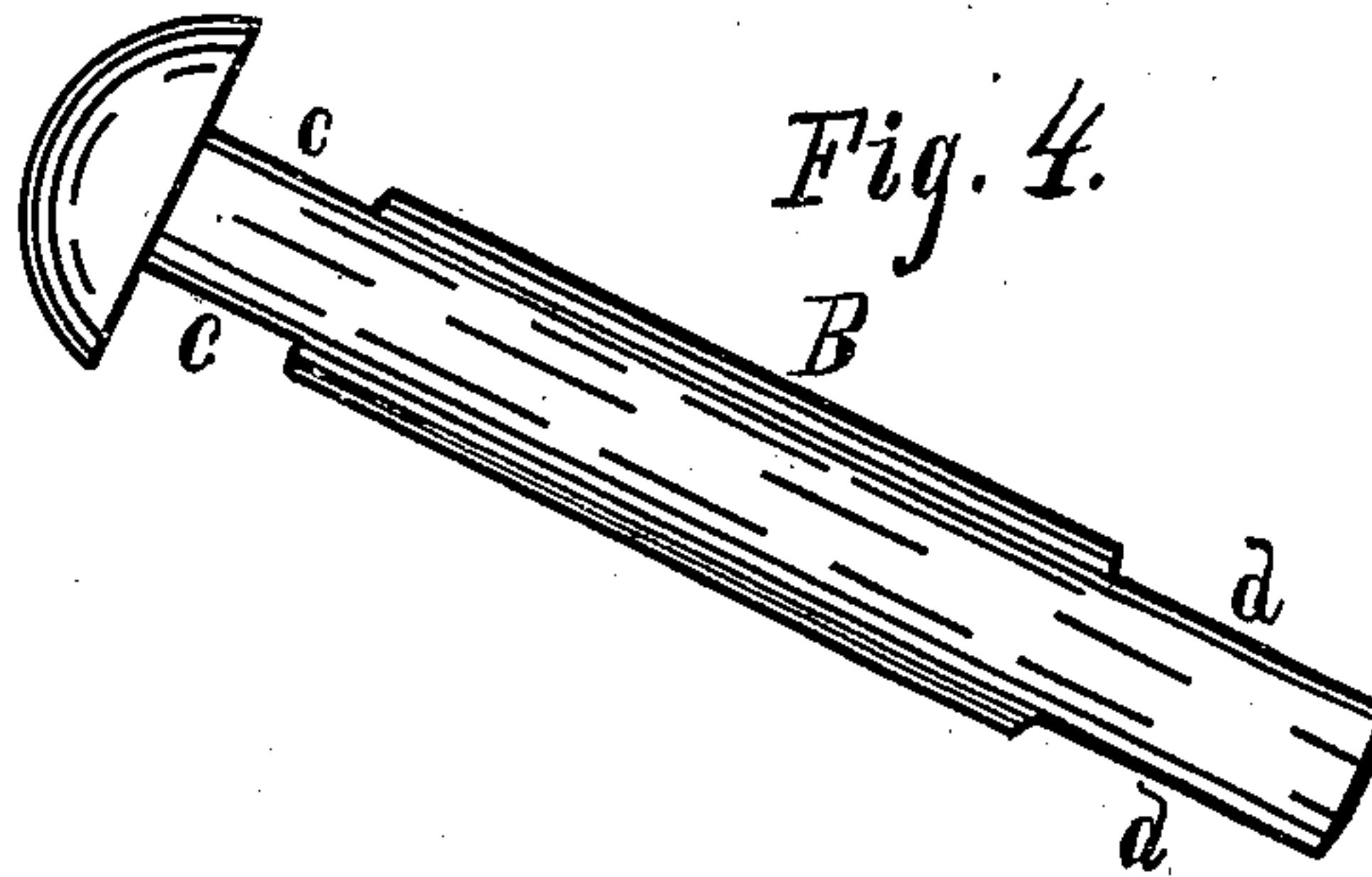


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

MORRIS C. CHURCH, OF ROCK FALLS, ASSIGNOR OF ONE-HALF TO JOHN G. MANAHAN AND HENRY C. WARD, BOTH OF STERLING, ILLINOIS.

CLEVIS.

SPECIFICATION forming part of Letters Patent No. 245,448, dated August 9, 1881.

Application filed December 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, MORRIS C. CHURCH, a citizen of the United States, residing at Rock Falls, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Clevises; and I do hereby 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 ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in
15 clevises, and has for its object an improved mode of securing the pin of such clevis from casual withdrawal. This object I secure by a novel and simple interconformation and adjustment of the parts, as hereinafter more fully
20 set forth.

In the drawings, Figure 1 is a side elevation of the clevis complete, showing the pin B in position. Fig. 2 is a top view of the pin-hole C in the upper end of the clevis-bow A, showing the recess *a* in such pin-hole. Fig. 3 is a
25 top view of the pin hole or slot D in the lower end of the clevis-bow A. Fig. 4 is a detached view of the pin B, showing the recesses *c c* on opposite sides of the upper end of such pin and the recesses *d d* on opposite sides of the lower
30 end of such pin.

A is the clevis-bow, made in the usual way, with the exception of the shape of the pin-holes. I construct such pin-holes as follows: The front
35 end of the upper pin-hole, C, is made round, and of a size to permit the passage of the pin B. In the rear end of the hole C, I form the recess *a*, having the parallel sides *b b*. The lower pin-hole, D, of the clevis-bow A is made
40 in the shape of a slot of about the same length of the hole C, including the recess *a*.

B is the clevis-pin, having recesses *c c* formed on opposite sides thereof by cutting out, and thus flattening the sides of the pin B of the
45 depth from the lower side of the pin-head of about the thickness of the upper end of the clevis-bow A. Like recesses *d d* are formed at the lower end of the pin B, on the same sides of the pin as the recesses *c c*. The re-
50 cesses *d d* extend to the lower end of the pin B

from a point on such pin B directly above the upper edge of the lower end of the clevis-bow A when the pin B is in position.

As before suggested, the difficulty sought to be overcome in my invention is the liability of
55 the ordinary clevis-pin to become loose and either work completely out, disengaging the whiffletree, or to withdraw from the lower hole of the clevis-bow, in which case, the draft being obliquely across the upper part of the clevis,
60 the latter is soon either bent or broken.

One mode heretofore adopted to prevent such action has been the use of a pin having longitudinal flanges which pass through corresponding
65 recesses in the pin-hole of the clevis; but this requires a corresponding groove in the hole through the wood part of the whiffletree to prevent the pin from turning, and by the oscillations of the clevis the wood is soon cut out or worn away, so that the groove becomes in-
70 effectual; also, as the mode named required a partial turning of the clevis, it was inapplicable to a clevis in the center of a whiffletree. Again, there is an objection on the part of those
75 using clevises to any device which involves cutting the wood of a beam or whiffletree in any shape other than with a round hole, as wooden grooves or flanges are certain to have a very brief existence.

The operation of my invention is as follows: 80
A round hole the size of the clevis-pin is bored in the beam or whiffletree at the point for attaching the clevis. The latter is then placed over the beam or whiffletree in the usual way. The pin B, with an ordinary head, is then passed
85 through the clevis bow and beam, with its recessed sides in line with the clevis-bow. The clevis is then drawn forward, and the upper end of the pin passes into the recess *a* of the clevis-hole C, where, by reason of the lower
90 shoulders of the recesses *c c* of the pin B abutting against the lower side of the upper end of the clevis-bow, the pin B cannot rise. The lower end of the pin B passes to the rear of the slot D in the lower end of the clevis-
95 bow, and thus retains the perpendicular. As that part of the pin B which remains in the slot D has flattened sides, conformably to the parallel sides of such slot, the pin in being inserted is brought into the proper position for
100

passing at its upper end into the recess *a*. And the further purpose in the use of the slot D and the flattened lower end of the pin B is that in case the clevis-pin at the upper end
 5 should be jolted into the forward end of the slot C the pin, by such arrangement in the slot D, will be prevented from revolving or turning, and the draft will immediately draw the upper end of the pin B again into the recess
 10 *a*. Of course, if the pin B, while in the front end of the slot C, should turn partly around, it could not return to the recess *a*, and it is in part to prevent such turning that I use the slot D and the flattened lower end of the pin
 15 B. It will be observed that the pin B, being in a round hole in the beam, can move neither forward nor back, and that the only motion forward or back must be that of the clevis-bow. As the weight of the whiffletree and
 20 traces holds the clevis-bow taut forward, even when there is no draft, the clevis cannot move automatically backward, so as to remove the pin from the recess *a*. After a trial in practical use for several months, I can say from ex-
 25 perience that the pin B will remain as placed. The slot D may be made transversely, the recesses *d d* being made to correspond; and my invention would be operative with one straight side in the hole C and slot D and one
 30 corresponding recess on each end of the pin B; but I prefer the present form.

One great advantage of my invention is that it is applicable to all beams and whiffletrees now using the ordinary clevis-pin, as the use

of my clevis does not involve any change in 35 the ordinary clevis-pin hole in the beam or whiffletree.

It is my intention, in the practical use of my invention, to form a knob or spur on the rear of the pin B, immediately below the lower end 40 of the clevis-bow A, to prevent the spreading of the bow.

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

1. The clevis-bow A, provided with the slot D in one of its ends, and in its other end the pin-hole C, having the recess *a* therein, substantially as shown, and for the purpose mentioned. 45

2. An improved clevis, consisting of the clevis-bow A, having the slot D, and the pin-hole C, provided with the recess *a*, in combination with the pin B, having the recesses *c c* and *d d*, substantially as shown, and for the 50 purpose described. 55

3. The combination of the clevis-bow A, having the slot D, and pin-hole C, provided with the recess *a*, and the pin B, having one or more recesses, *c* and *d*, substantially as 60 shown, and for the purpose described.

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

MORRIS C. CHURCH.

Witnesses:

JNO. J. CUSHING,
 CYRUS KEHR.