

(No Model.)

W. D. DUNCAN.
SHACKLE.

No. 407,582.

Patented July 23, 1889.

Fig: 1.

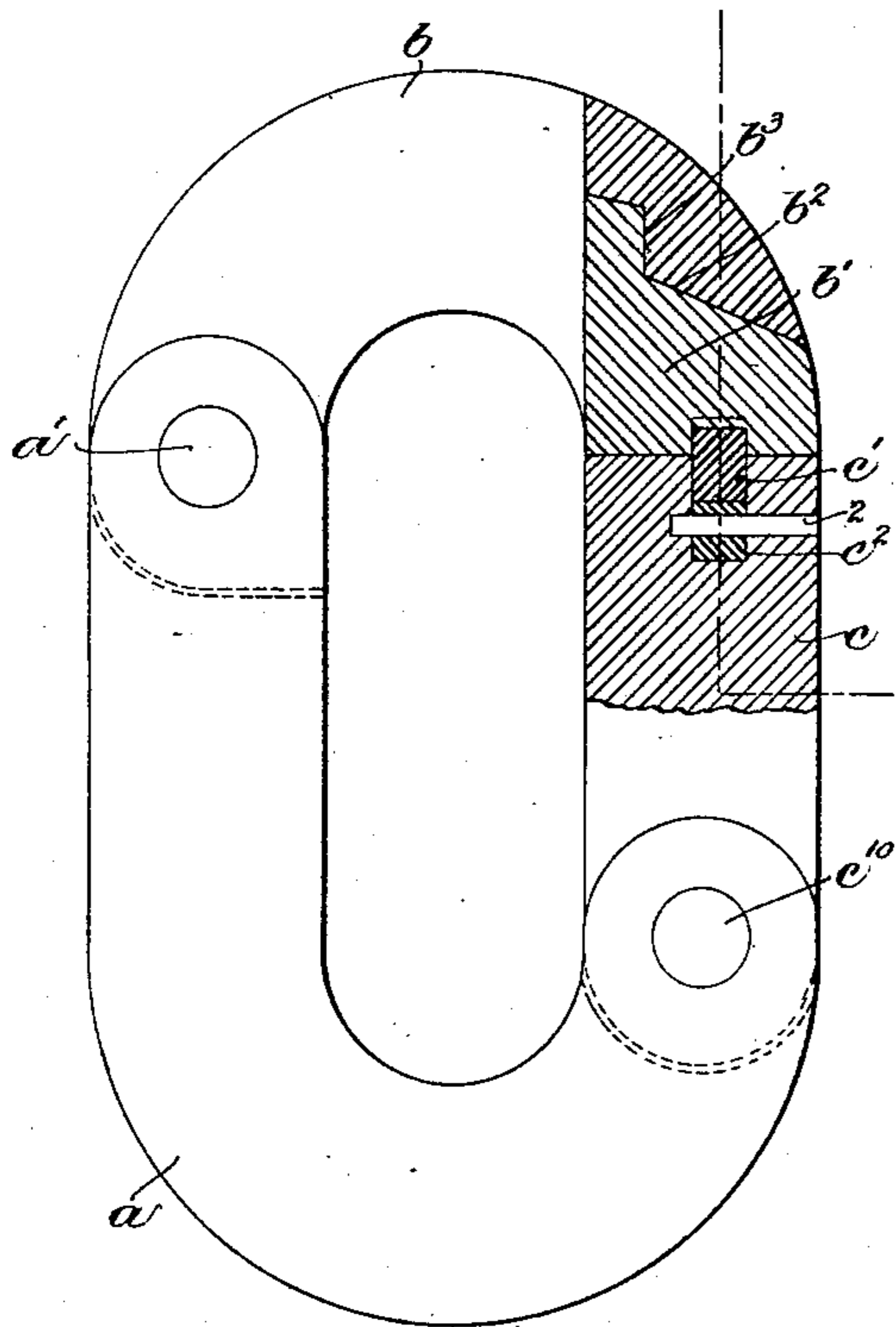


Fig: 2.

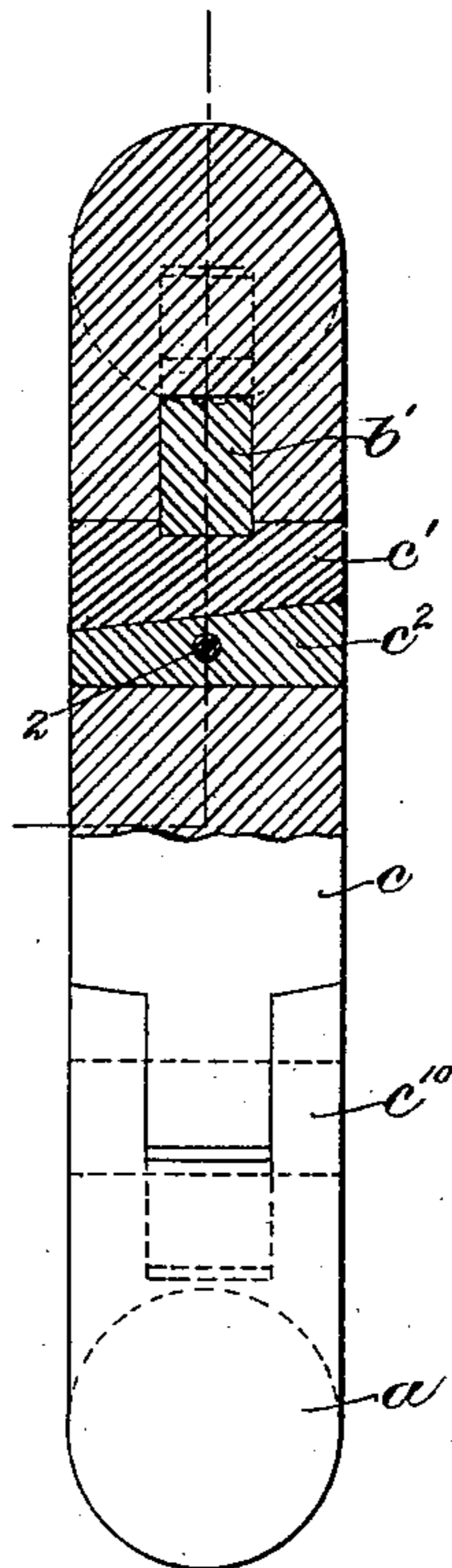
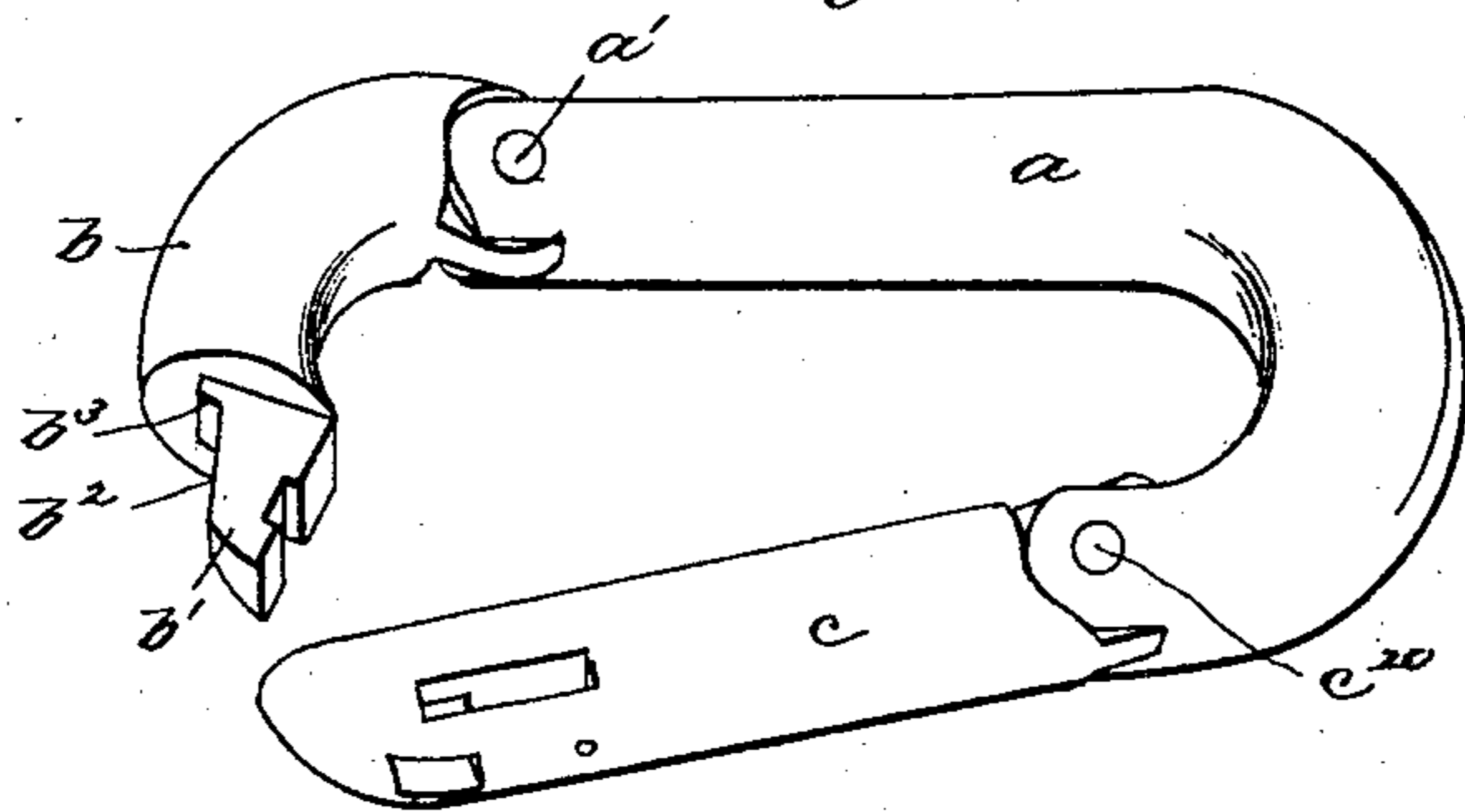
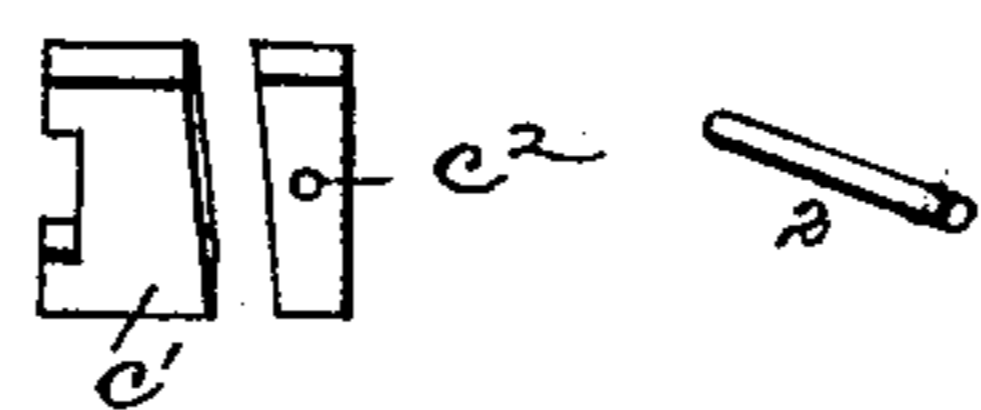


Fig: 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM D. DUNCAN, OF BOSTON, MASSACHUSETTS.

SHACKLE.

SPECIFICATION forming part of Letters Patent No. 407,582, dated July 23, 1889.

Application filed March 9, 1889. Serial No. 302,637. (No model.)

To all whom it may concern.

Be it known that I, WILLIAM D. DUNCAN, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Shackles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to construct a shackle especially adapted for chains, which may be disconnected immediately, even though great strain be exerted upon it; and it is particularly designed for use on ship-board and in connection with derricks where great strain is brought upon it and while under such strain, when the parts of the links are so bound together as to render it impossible to separate it by hand, a locking device may be struck with a hammer or other object, knocked out, and the parts of the shackle separated to let go the hold.

In accordance with this invention, the shackle is made like unto an ordinary oval or oblong link in shape, but composed of three essential parts hinged together and provided with a locking device by which the parts are locked in position. One of the parts comprises one end of the link and substantially one of its sides. Another part comprises the opposite end of the link, is hinged to the aforesaid part, and has a tenon of peculiar shape, to be hereinafter described, while the third part comprises the opposite side of the link, is hinged to the first-named part, and has a mortise shaped to receive the aforesaid tenon. The part having the mortise has a hole through it at right angles to said mortise, with which it communicates, which receives a key or block notched to receive the tenon, and also a wedge-shaped block or bar to hold the key or block in place, and I preferably employ a wooden pin to hold the said wedge-shaped bar in place.

Figure 1 shows in front elevation and partial section a shackle embodying this invention; Fig. 2, a side elevation and partial section of the shackle represented in Fig. 1. Fig. 3 is a perspective view of the shackle partly opened.

The shackle is composed, essentially, of three parts, one of which, as *a*, comprises one end portion and substantially one side por-

tion; another of which, as *b*, comprises the opposite end portion and is hinged to the portion *a* at *a'*, and has a tenon *b'*, provided with an inclined side *b²* and a shoulder *b³*. The third essential part, as *c*, of the shackle comprises the opposite side portion, is hinged at *c¹⁰* to the part *a*, and has a mortise at its outer end shaped to receive the tenon *b'* of the part *b*. The part *c* also has a hole through it at right angles to the mortise and communicating therewith, which receives the key or block *c'*, having at one side a notch to receive the tenon *b'*, and having its opposite side inclined, and said hole also receives the wedge-shaped block or bar *c²*, which is employed to hold the key or block *c'* in position to retain the tenon in the mortise.

The parts thus far described will be made of metal; but I may, if desired, add a pin 2, of wood or other suitable material, which passes through the wedge-block *c²* to hold it in position, it being readily broken off when necessary.

With the parts made as shown and described, the strain upon the end *b* of the shackle will be resisted by the shoulder *b³*; yet when the key or block and its fastening, constituting the locking devices, are removed the inclined side *b²* permits the ready withdrawal of the tenon from the mortise, so that it will be seen that the shackle may be readily disconnected, even when under great strain, by merely exerting a force upon the part having the tenon, when the inclined shoulder *b²* will facilitate such separation of the parts, the part *b* then readily turning on its pivot and leaving the end of the shackle open, the chain or other device held therein thus being allowed to pass freely therefrom.

I claim—

1. The shackle herein described, consisting of three parts, two of which are hinged to one, one of the hinged parts having a tenon provided with a shoulder and with an inclined side and forming one end of the shackle and the other part having a mortise to receive said tenon, the hinged end being free when unlocked to turn and leave the end of the link open and unobstructed, and a locking device for said tenon, substantially as described.

2. The shackle herein described, consisting of the hinged parts *a b c*, the part *b* having a tenon shaped as shown and described and the part *c* having a mortise to receive said
5 tenon, and the notched block or bar *c'* and the wedge-shaped bar *c²*, substantially as described.

3. The shackle herein described, consisting of the hinged parts *a b c*, the part *b* having a
10 tenon shaped as shown and described, the part *c* having a mortise to receive said tenon,

and the notched block or bar *c'*, the wedge-shaped bar *c²*, and the pin 2, substantially as described.

In testimony whereof I have signed my name 15 to this specification in the presence of two subscribing witnesses.

WILLIAM D. DUNCAN.

Witnesses:

BERNICE J. NOYES,
FREDERICK L. EMERY.