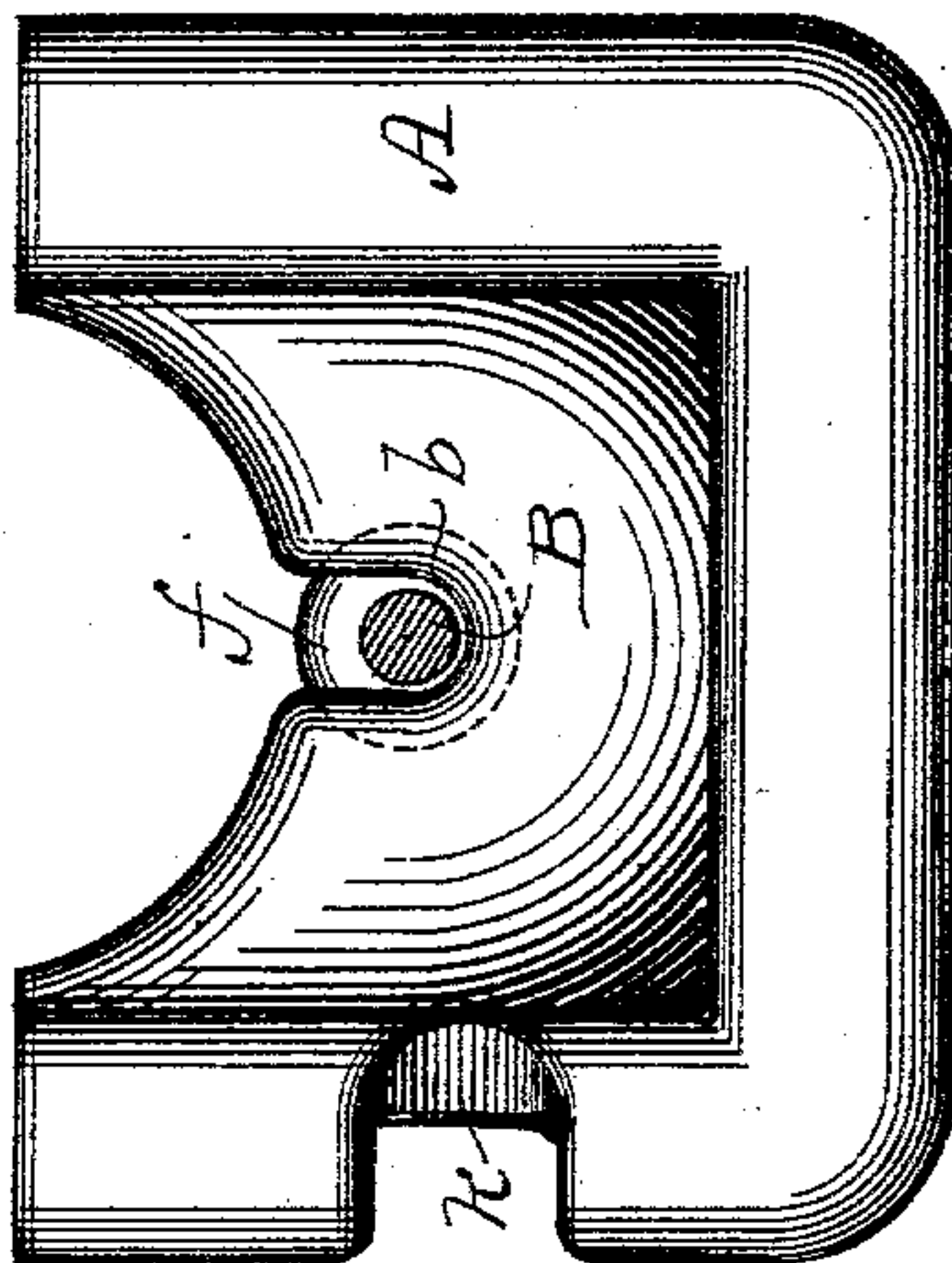
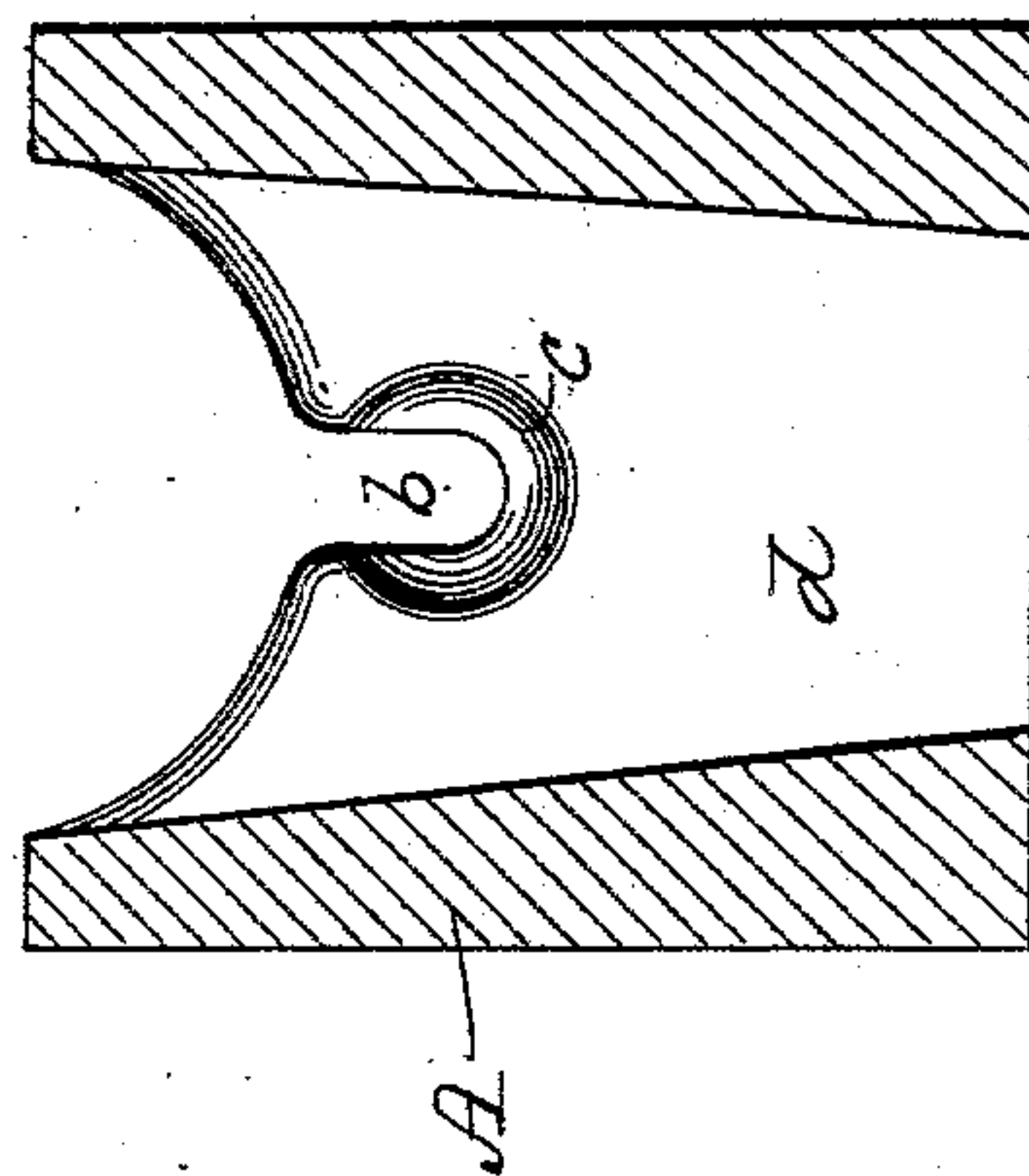
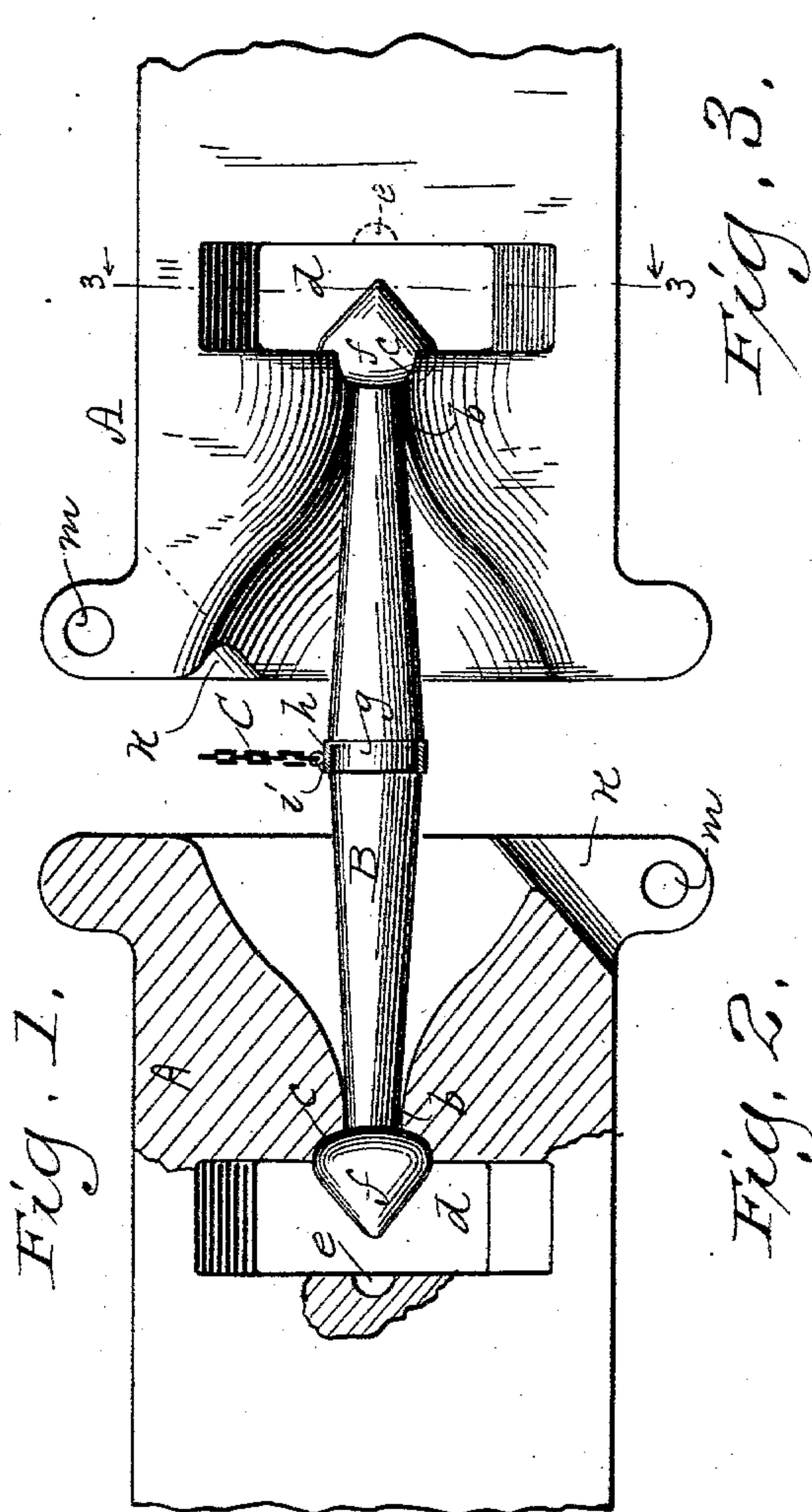


(No Model.)

M. FLANAGAN.
CAR COUPLING.

No. 476,008.

Patented May 31, 1892.



Witnesses
Geo N. Young.
W. E. Oliphant

Inventor
Michael Flanagan.
By H. G. Underwood,
Attorney

UNITED STATES PATENT OFFICE.

MICHAEL FLANAGAN, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF
TO WILLIAM DOYLE, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 476,008, dated May 31, 1892.

Application filed December 14, 1891. Serial No. 414,942. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL FLANAGAN, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide a simple and economical car-coupling that may be operated from the top or side of a car and which will not require a trainman to place his hand between opposing draw-heads to set or guide a link.

To this end the said invention consists in certain peculiarities of construction and combinations of parts to be hereinafter described with reference to the accompanying drawings and subsequently claimed.

In the drawings, Figure 1 represents a plan view of my improved car-coupling partly in horizontal section; Fig. 2, an end elevation of a draw-head that constitutes part of my invention, and Fig. 3 a vertical transverse section taken on line 3 3 of the preceding figure.

Referring by letter to the drawings, A A represent opposing draw-heads, each of which is a solid body of metal similar in general contour to the draw-heads in common use. The outer portion of each draw-head is open at the top, this being one of the features of my invention, and the inner sides of this open portion of the draw-head are beveled, so as to facilitate engagement with a peculiar link, to be hereinafter described; but as the beveling of the inner sides of a draw-head is common in the art it is only incidental to my invention. Each draw-head is provided with a central longitudinal seat *b*, having a countersunk inner end *c*, that is preferably concave in contour, and in rear of this seat there is a vertical open space *d*, that extends through the bottom of said draw-head. Each draw-head is also preferably provided with a conical depression *e* opposite the countersunk inner end of the longitudinal seat *b*, above described.

As shown in Fig. 1, the opposing draw-heads A A are connected by a link-bar B, that forms part of my invention, this link-bar being of suitable metal, preferably tapered from a

point midway of its length toward both its ends, the latter being in the form of conical knobs *f*, the butts of which are made convex to fit snugly in the concave inner ends *c* of the longitudinal seats *b* in said draw-heads. I also prefer to provide each link-bar with a central annular groove *g*, in which I arrange a loose ring *h*, provided with an eye *j* for engagement with a chain C, by means of which said link-bar may be operated from the top of a car.

In practice a link-bar such as I have described is positioned in one of the draw-heads A, so as to have its body portion rest in the longitudinal seat *b* of the same, the adjacent one of the conical knobs *f* of the link-bar being engaged in the opposing depression *e* in said draw-head. The link-bar is thus centered and held in position to engage the opposing draw-head, the beveled inner surface of which guides said link-bar into place. The coupling being formed, the link-bar engages the longitudinal seats *b* of both draw-heads and the draft is on the knobs *f* of said link-bar, these knobs being in engagement with the concave inner ends *c* of said seats, whereby ball-and-socket joints are formed, that compensate for the various irregular movements of the draw-heads due to the running of a train of cars. The open space *d* and conical depression *e* in rear of the seat *b* in each draw-head permits of longitudinal movement of said draw-head on the link-bar, and said space is extended through the bottom of the aforesaid draw-head to prevent the accumulation of dirt, water, or snow. I also provide one side of each draw-head with a recess *k*, intercepted by a vertical opening *m*, and thus I am enabled to utilize the ordinary link and pin for the purpose of coupling one of my draw-heads with one of the ordinary construction.

It is to be particularly observed that as the draw-heads above described are open at the top any sort of link may be guided to place from above said draw-heads, and consequently there is no necessity for a trainman to place his hand in danger when coupling cars. It is also to be observed that the draw-heads above described are cast in one piece, the same as those of the ordinary construction, although

less material is employed, and by the employment of a link-bar such as I have described there is a further saving of metal over what is required to make the two pins and link
5 necessary in the ordinary car-coupling.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A car-coupling comprising a pair of opposing draw-heads provided with conical depressions in their rear walls and longitudinal seats that have concave inner ends and are in line with the depressions, and a link-bar
10 having its extremities in the form of conical knobs convex at their butts, substantially as
15 set forth.

2. A car-coupling comprising a pair of opposing draw-heads, each of which has a vertical side thereof provided with a longitudinal recess intercepted by a vertical opening,
20 countersunk longitudinal seats within the

draw-bars, and a link-bar having its extremities in the form of knobs that engage with the countersinks of said seats, substantially as
25 set forth.

3. A car-coupling comprising a pair of opposing draw-heads provided with conical depressions in their rear walls, longitudinal seats that have concave inner ends in line with the depressions, and bottom openings in
30 intermediate of the said rear walls and seats, and a link-bar having its extremities in the form of conical knobs convex at their butts, substantially as set forth.

In testimony that I claim the foregoing I
35 have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

MICHAEL FLANAGAN.

Witnesses:

N. E. OLIPHANT,
JOHN E. WILES.