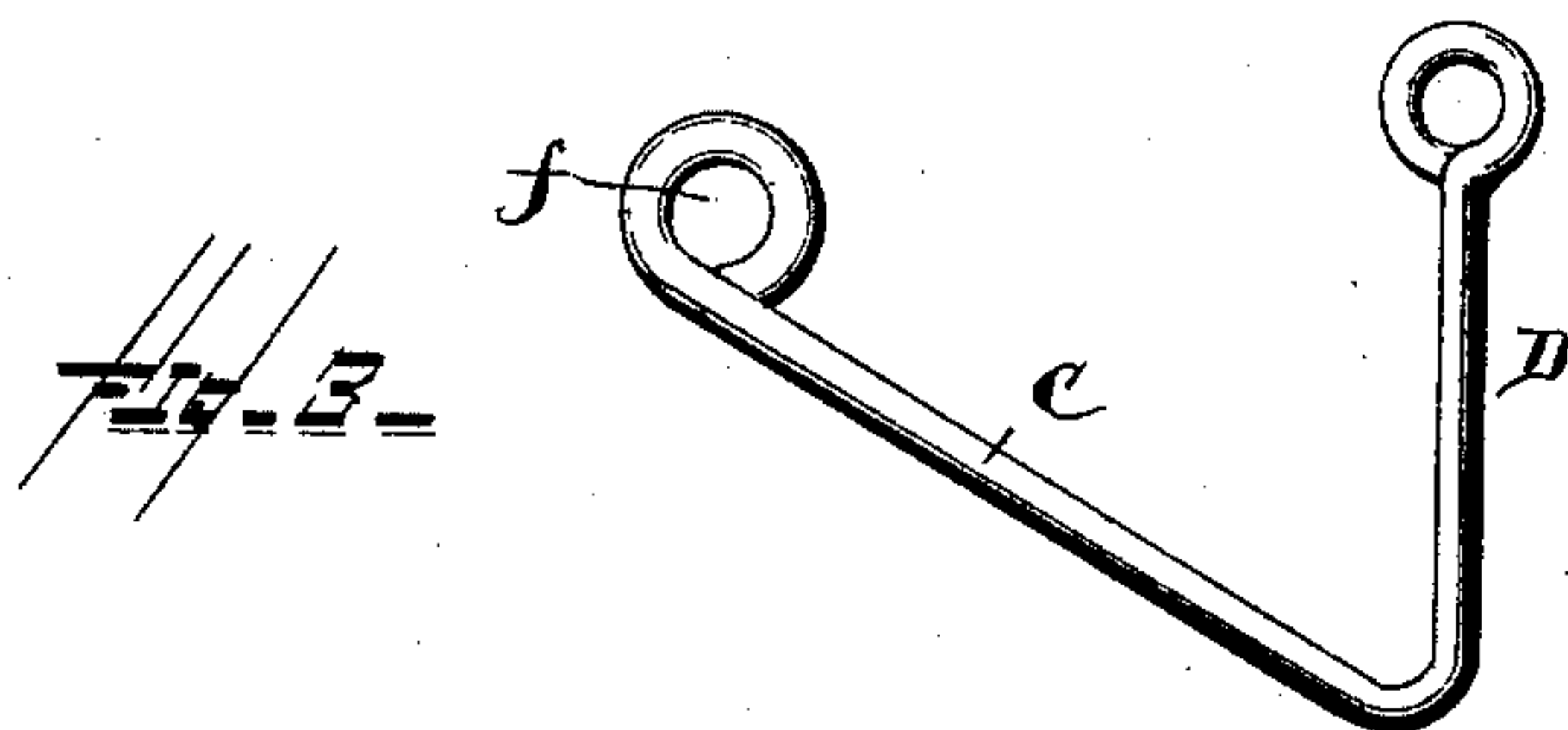
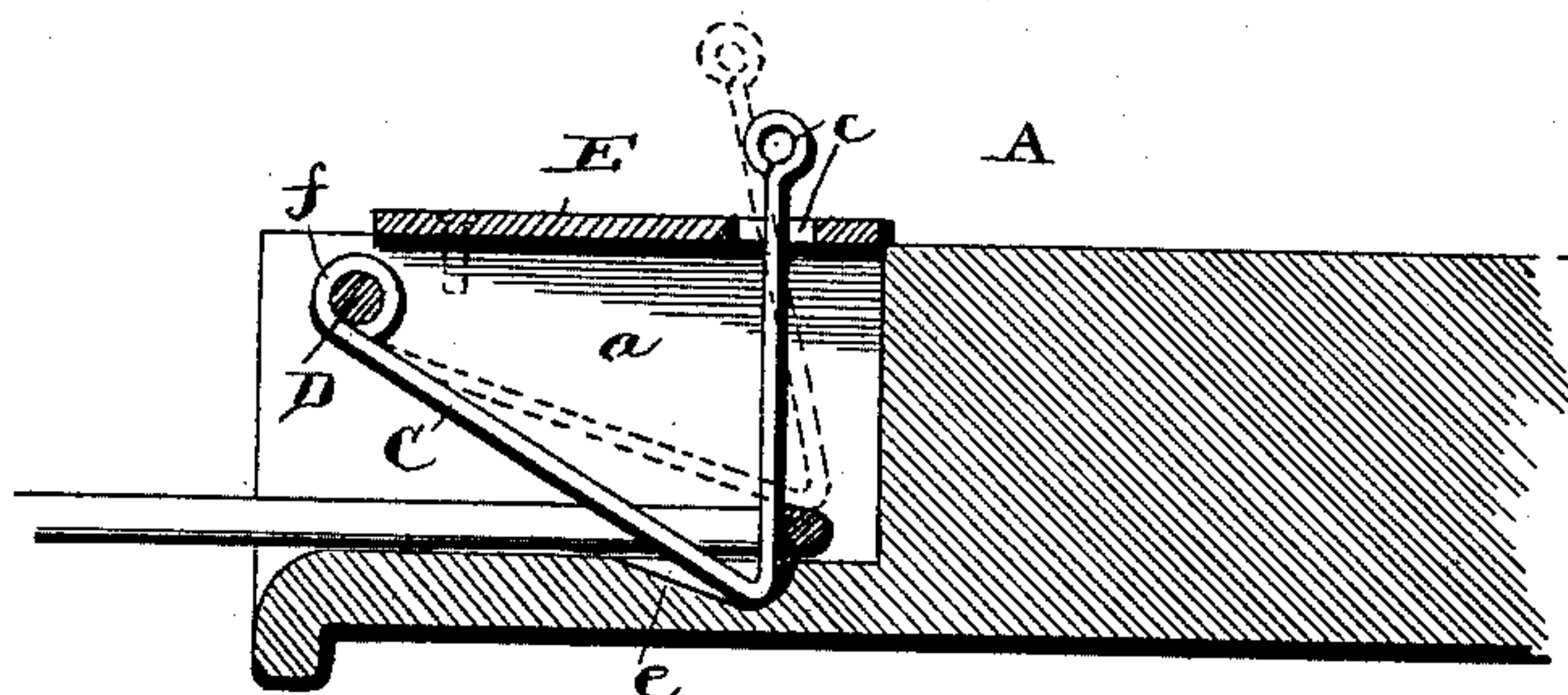
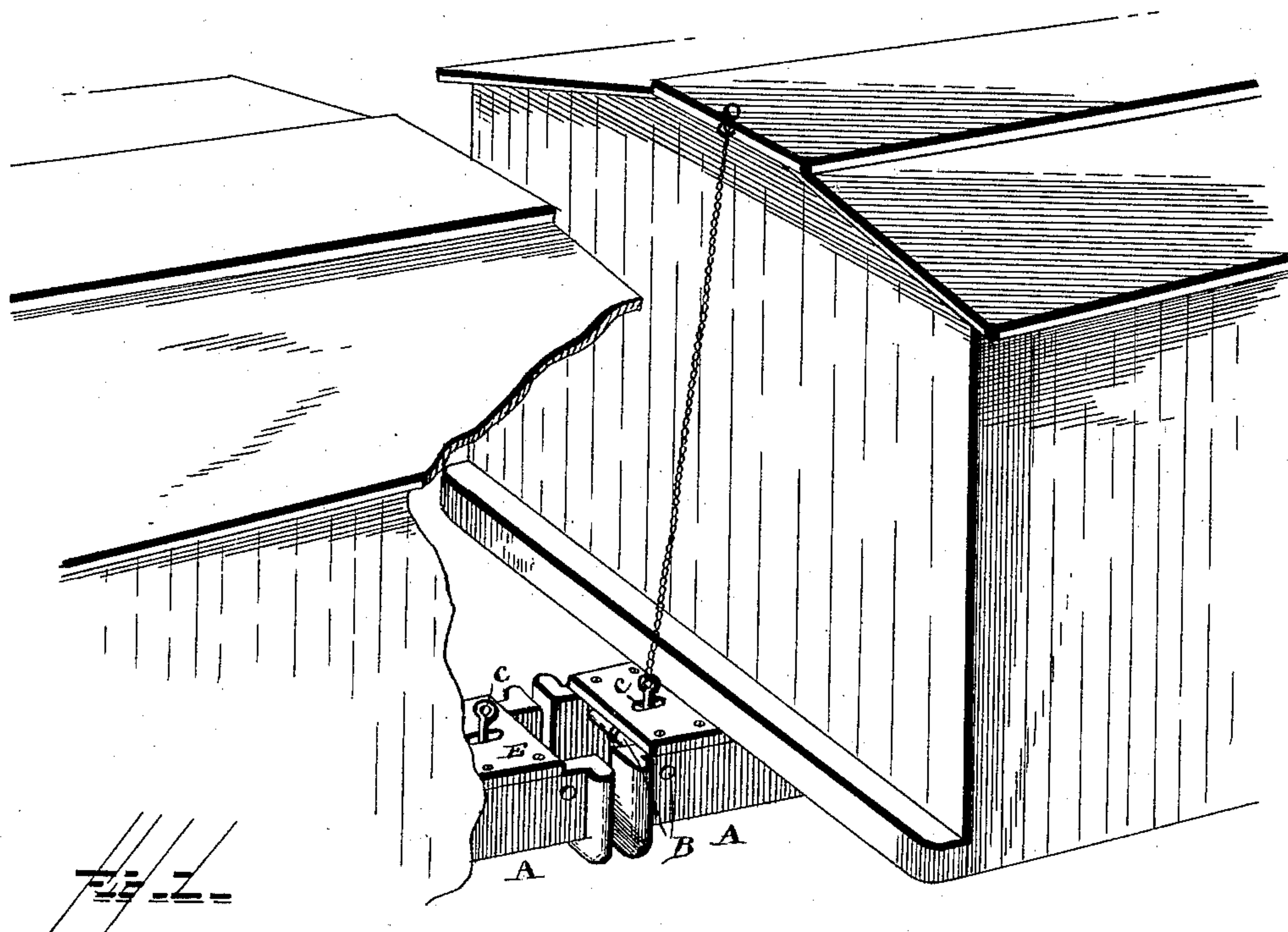


(No Model.)

W. T. SIMS.
CAR COUPLING.

No. 409,875.

Patented Aug. 27, 1889.



Witnesses

Albert Speiden
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Inventor

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By *his* Attorney

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UNITED STATES PATENT OFFICE.

WILLIAM T. SIMS, OF YAZOO CITY, MISSISSIPPI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 409,875, dated August 27, 1889.

Application filed June 26, 1889. Serial No. 315,596. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. SIMS, a citizen of the United States, residing at Yazoo City, in the county of Yazoo and State of Mississippi, have invented certain new and useful Improvements in Car-Couplers; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in car-couplings; and it has for its objects to provide a simple device of this class which shall be of few parts, readily attached to ordinary draw-heads, and which shall be very efficient in operation.

The novelty resides in the peculiar combinations and in the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of portions of two cars coupled together by means of my improved coupling. Fig. 2 is a vertical section through the draw-head provided with my improved coupler. Fig. 3 is an enlarged detail view of the coupler removed.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates a draw-head provided at its forward end with a recess or chamber *a*, as shown.

In the side walls of the draw-head is supported the transverse pin or shaft B, to which is secured one end of the coupling-hook C, which is formed of a suitable metallic bar, preferably, though not necessarily, round in cross-section. The shaft B is arranged near the top of the draw-head, as shown, and the bar, being attached to this shaft, extends rear-

wardly and downwardly, as shown, until it reaches a point below the bottom of the chamber in the draw-head, when it is bent upward to form the vertical portion D, which passes through and works in an elongated slot *c* in the plate E, secured across the top of the draw-head. A depression or concavity *e* is formed in the bottom of the chamber in the draw-head, as shown, to receive the angle of the bar, so as to bring the portion D vertical, so that when two cars are coupled the strain on the hook will tend to lock the same down in the position shown in Figs. 1 and 2.

To couple the cars, the link being in position and retained by the hook of one coupler, as the cars come together the link comes in contact with and rides under the inclined portion of the hook, forcing the same upward until the link has passed the angle of the same, when the hook falls by reason of its weight, and when strain is put upon the link it will bear against the vertical portion of the hook, and the greater the strain the more firmly will the hook be held down in the position shown. By the construction shown as the hook is thrown upward by the contact therewith of the advancing link the hook is thrown upward and forward, as shown by dotted lines in Fig. 2, so that as soon as the end of the link has passed the angle of the hook the hook will immediately fall into place. The forward end of the bar forming the hook is preferably bent into an eye *f*, which loosely encircles the shaft B, preferably seated in a groove therein, so as to allow the hook to move very freely.

The uncoupling may be accomplished in any suitable way from either the sides or the top of the car, or both. I have shown one way of accomplishing this, but numerous others may be devised.

The construction above described will serve efficiently in coupling cars of different heights, the inclined front portion of the hook providing for the entering of the link and the vertical rear portion serving equally as well with a high as with a low car.

The form of the hook permits me to use comparatively light material and yet provide sufficient strength.

The coupler is simple and cheap, and in practice has been found to be very efficient.

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

1. The combination, with the chambered draw-head and the transverse shaft B, of the coupling-hook loosely sleeved at its forward end on said shaft and formed of a bar comprising a downwardly and rearwardly inclined portion and a vertical portion joined to the inclined portion by a bend, substantially as shown and described.

2. The combination, with the chambered draw-head and the transverse shaft B, of the coupling-hook formed of a metallic bar having an eye at one end sleeved on said shaft and bent to form a rearwardly and downwardly inclined portion and a vertical por-

tion connected with the inclined portion and formed at its upper end with an eye, substantially as shown and described.

3. The combination, with the chambered draw-head having in its bottom wall a depression *e* and the transverse shaft B, of the coupling-link loosely sleeved at its upper end on said shaft and formed with a downwardly and rearwardly extending portion and a rear vertical portion, the bend connecting the vertical and inclined portions being adapted to rest in said depression, substantially as shown and described.

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

WILLIAM T. SIMS.

Witnesses:

N. T. PUGH,

R. A. PARKER.