

C. DEAMUDE & G. W. CANNON.
Car Coupling.

No. 229,679.

Patented July 6, 1880.

Fig. 1.

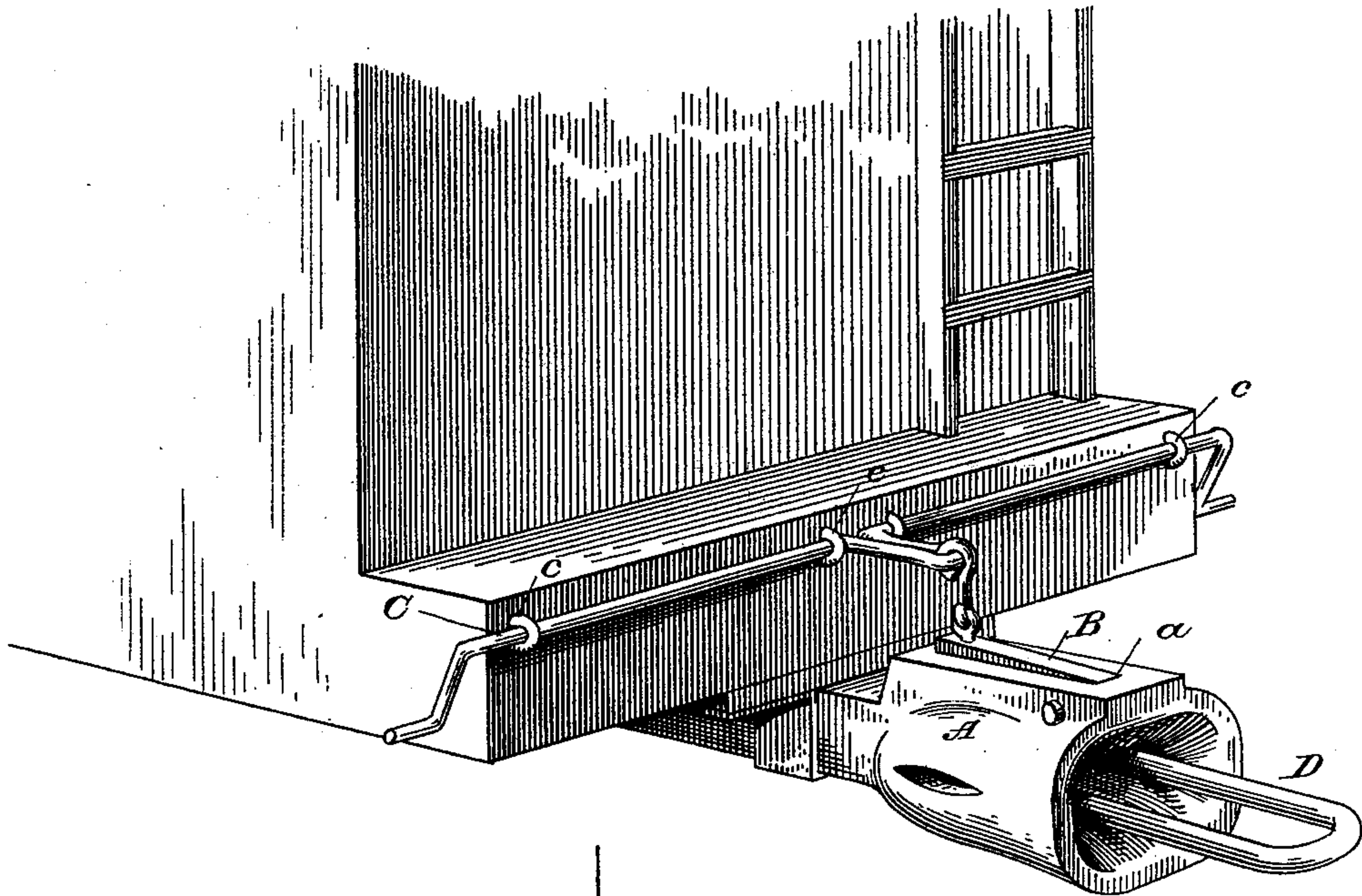


Fig. 2.

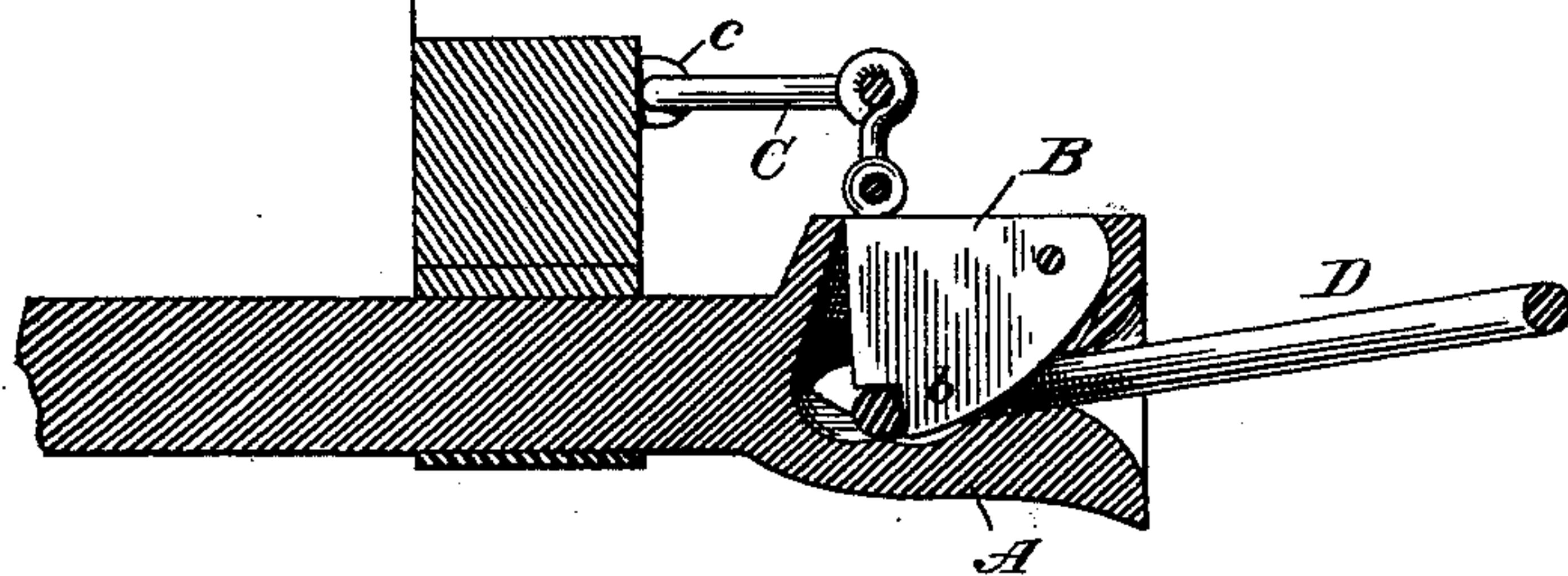
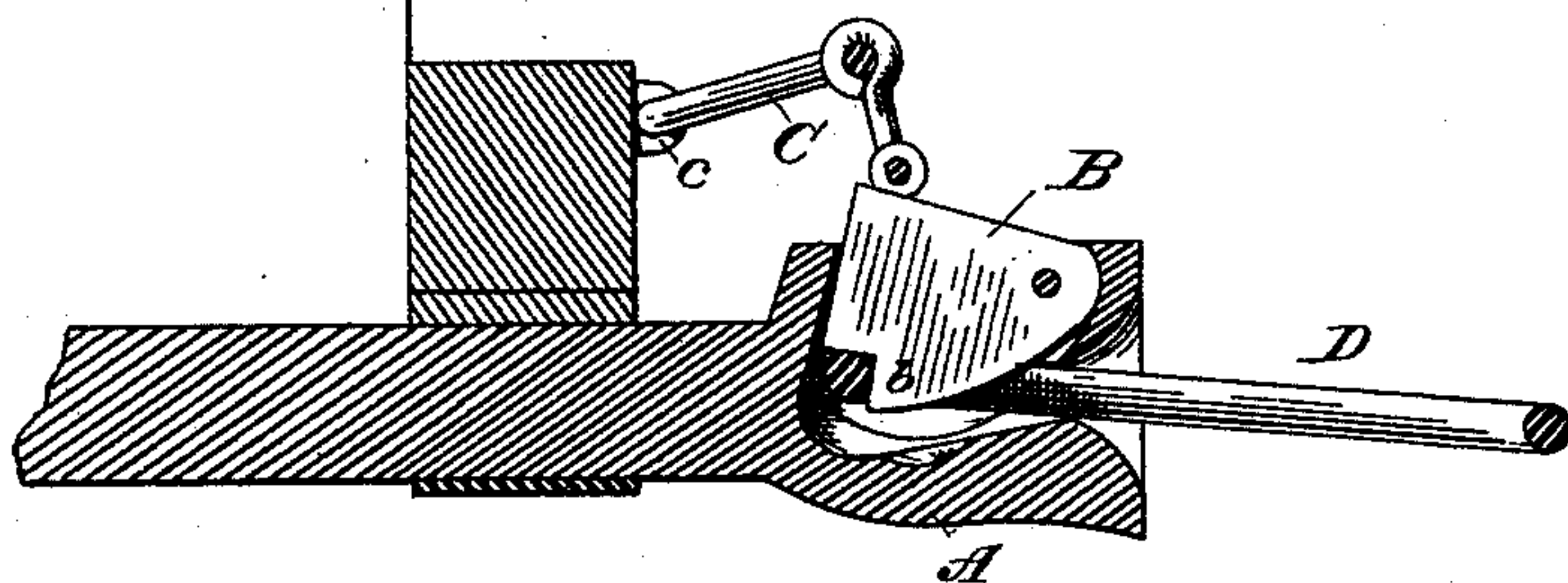


Fig. 3.



Witnesses:
Warren Seely
R. F. Barnes.

Inventor:
Charles Deamude
George W. Cannon
by Eli Spear Atty

UNITED STATES PATENT OFFICE.

CHARLES DEAMUDE AND GEORGE W. CANNON, OF DANVILLE, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 229,679, dated July 6, 1880.

Application filed December 5, 1879.

To all whom it may concern :

Be it known that we, CHAS. DEAMUDE and GEORGE W. CANNON, of Danville, in the county of Vermillion and State of Illinois, have
5 invented a new and useful Improvement in Car-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the same.

Our invention relates to car-couplings; and
10 its object is to furnish an automatic coupling capable of being operated from the outside of the car both in uncoupling and in directing the link in coupling where the cars differ in height, without danger of injury to the per-
15 son engaged in coupling, as well as of being adjusted to couple with draw-heads at a higher or lower level.

Our invention consists in combining, with a draw-head having a narrow mouth but an en-
20 larged rear diameter, a pivoted gravity-catch capable of holding the link in any desired position, and a crank-shaft operated from the outside of the track, whereby the weighted latch may be adjusted in height from the out-
25 side of the car. These devices are used in connection with an ordinary link on the adjacent car.

In order that those skilled in the art may understand the construction and operation of
30 our device, reference is made to the accompanying drawings, and to the letters thereon, indicating like parts in all the figures, viz:

Figure 1 is a perspective; Fig. 2, a section, showing the latch depressed, and Fig. 3 a
35 similar section with the catch elevated.

In these figures, A represents the metallic draw-head, attached to the car in any suitable manner. The draw-head, as shown in Figs. 2
40 and 3, has a narrow mouth just large enough to permit of the entrance of the link without play; but its rear diameter is greatly enlarged, so that its interior, in longitudinal section, is approximately pear-shaped and is continuously curved.

45 The draw-head is slotted lengthwise at *a* on its upper side, and in the slot is pivoted the gravity-catch B, filling the slot closely, and having its upper portion flush with the top of said draw-head when the coupling-link is hori-

zontal. The catch is pivoted at its forward
50 end, and its bottom is continuously curved, except that a shoulder or projection, *b*, is formed on its under surface. This interior configuration of the draw-head is essential to the operation of the device, as will be herein-
55 after shown, and its inside surface made smooth and unbroken, except where it is slotted, at *a*.

On the end of the car are attached eyes or staples *c*, and in them is jointed a rock-shaft, C, which at its central portion is bent on it-
60 self, forming a crank. This crank is connected in any suitable way with an eye on the rear end of the catch B, and the outer ends of the shaft C have proper handles, by which it is operated. The catch can thus be raised or
65 lowered from the outside without the necessity of going between the cars.

D is the coupling-link, of ordinary construction, attached to the adjoining car. It is evident that the link will engage automatically
70 with the shoulder *b*, on account of the curved shape of the catch, which will be pushed up until the link passes the projection, when it will drop by gravity and retain the link in position, and were the link and draw-head on
75 exactly the same level the operation would be as just described.

It often happens, however, that the draw-head of one car is on a higher or lower level than that of the other, and some provision is
80 required to meet this difficulty. We accomplish this by making the interior of the draw-head of the form shown, whereby the back end of the catch and the link will fall by gravity to the bottom of the draw-head. Of course,
85 under these circumstances, the link and catch could not become disengaged; but under ordinary conditions the elevation of the catch and link, as shown in Fig. 3, would permit the link to fall were the mouth of the draw-head
90 of sufficient diameter to give play to such link.

It will therefore be noticed at once that by making the mouth only of sufficient diameter to contain the link without allowing it any
95 play it is impossible to disengage the link and catch, no matter what their position may be, and yet the parts can be adjusted to couple cars where the height of draw-bars is very

unequal. It is thus evident that the pear-shaped interior of our draw-head is essential to its operation.

The adjustment of the catch is accomplished, 5 as before described, by the use of the shaft B.

We thus provide an automatic as well as an adjustable device, capable of coupling in any position, and operated without danger from the outside of the track, without the necessity 10 of going between the cars.

We are aware of the patent granted March 23, 1875, to Miller, Rogers, and Force, wherein is shown a gravity-catch pivoted in a draw-head having straight interior sides and a wide 15 mouth, and having the bottom of such draw-head slotted to permit the latch to drop down below the surface of the bottom of such draw-head, and thereby retain the link in a horizontal position, and we do not claim the invention 20 shown therein; but,

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

In a car-coupling, the combination of the draw-head having its interior approximately 25 pear-shaped, of the pivoted gravity-catch having a shoulder adapted to receive the end of the link, and of the lifting-rod whereby said catch and link may be held in any required position, as set forth. 30

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CHAS. DEAMUDE.
GEORGE W. CANNON.

Witnesses:

JAMES BRANWELL,
R. W. HANFORD.