

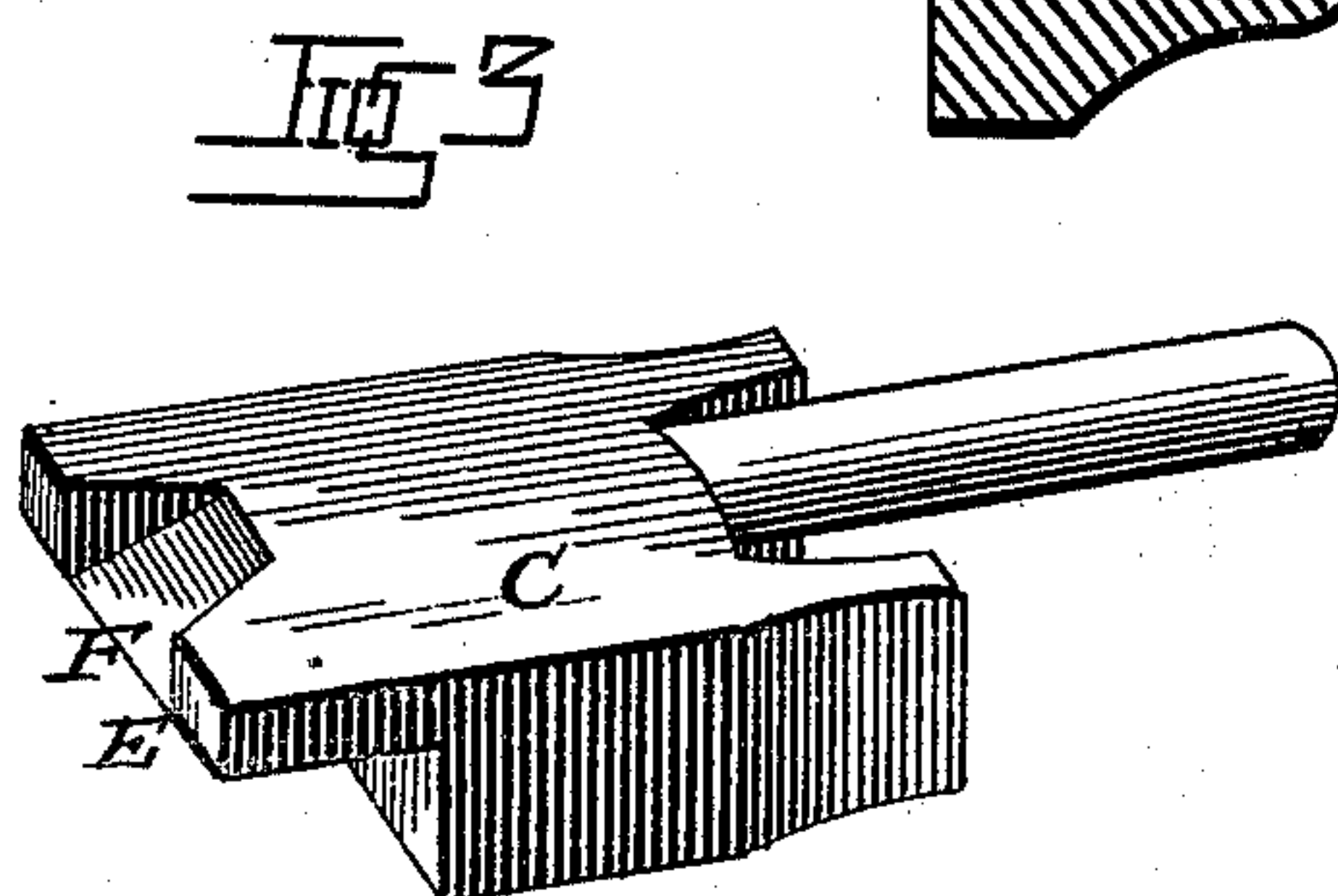
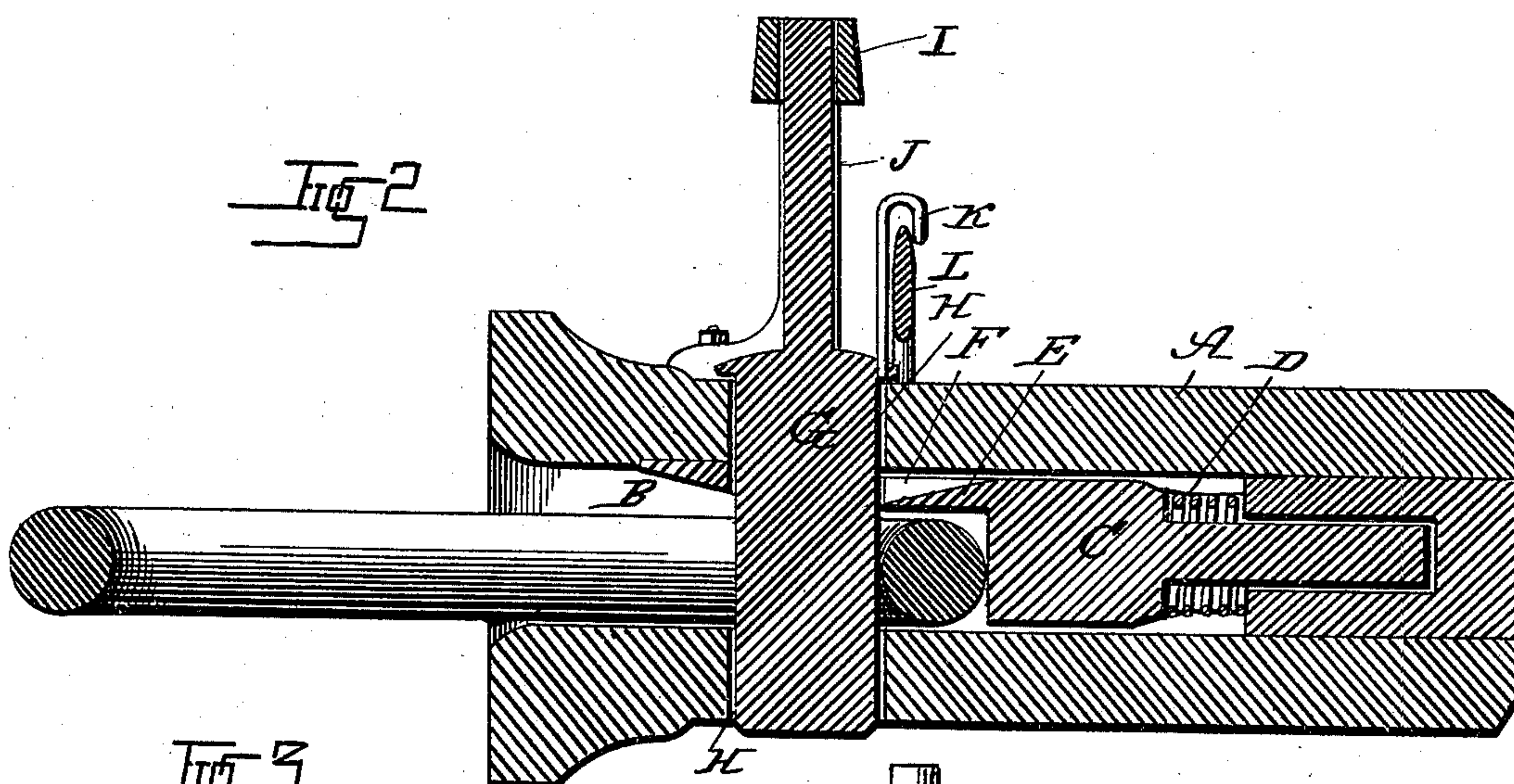
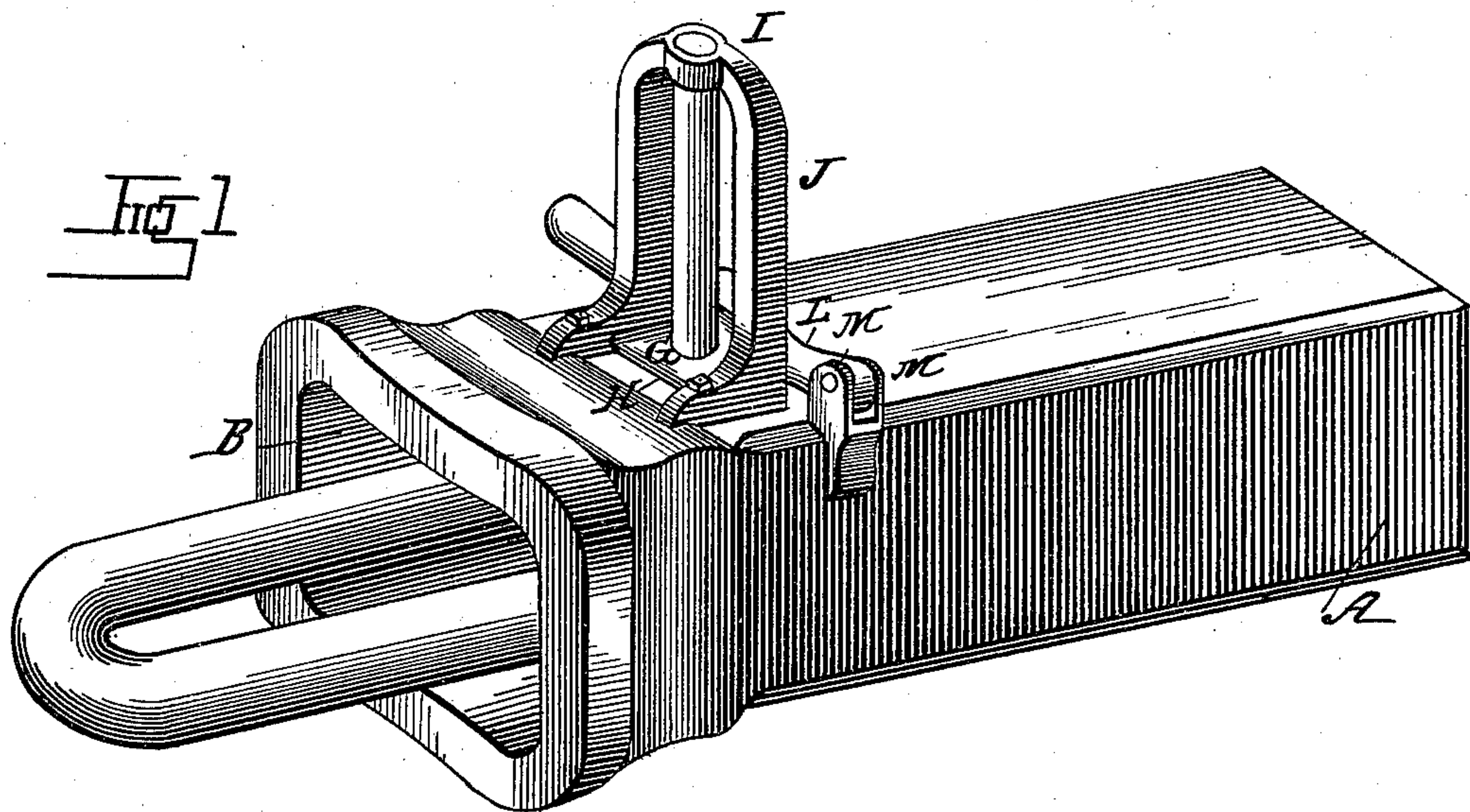
(No Model.)

C. H. ZIMMERMAN.

CAR COUPLING.

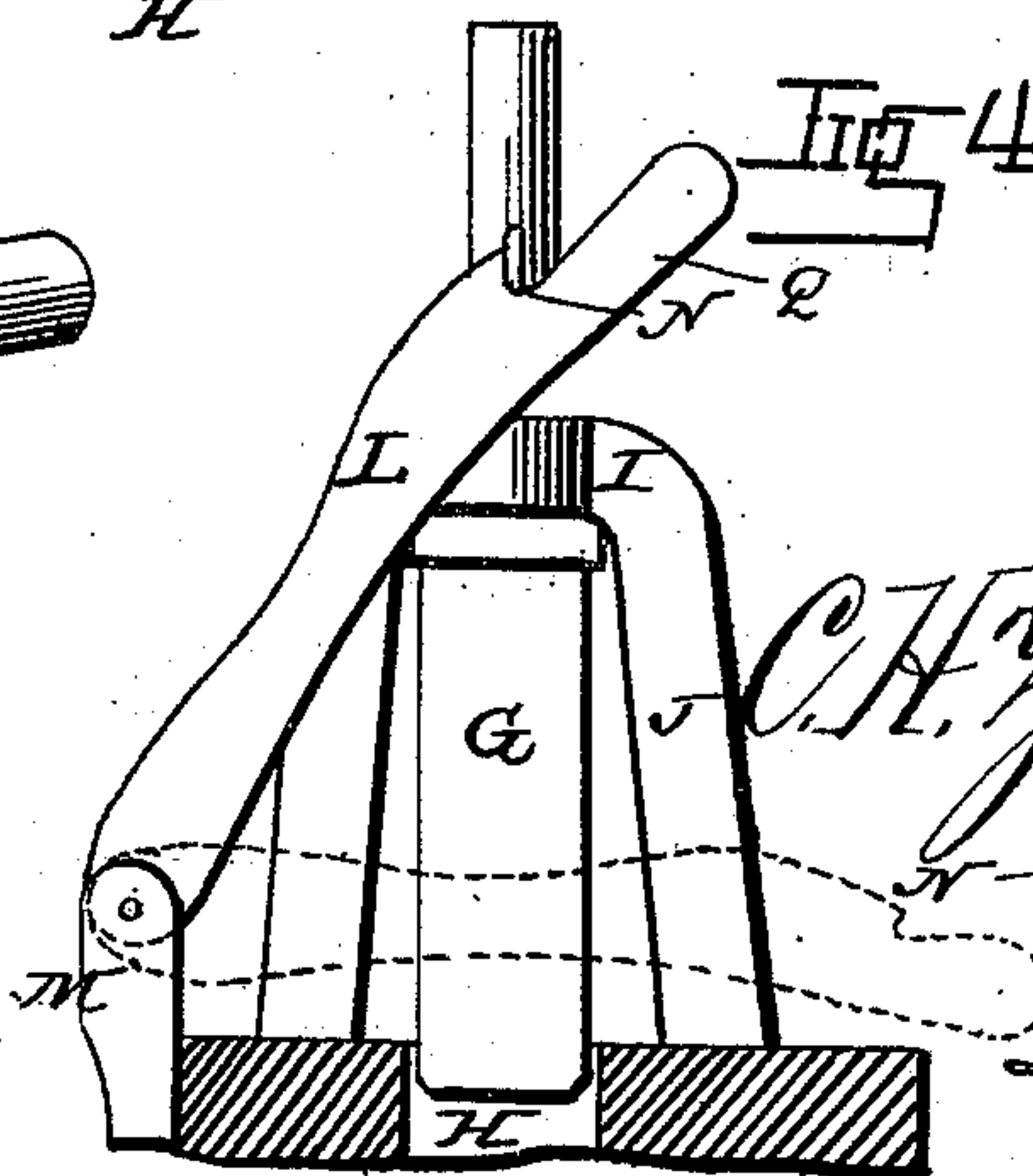
No. 285,722.

Patented Sept. 25, 1883.



WITNESSES:

Ad. L. Dieterich
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UNITED STATES PATENT OFFICE.

CHRISTIAN H. ZIMMERMAN, OF LE ROY, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 285,727, dated September 25, 1883.

Application filed July 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN H. ZIMMERMAN, of Le Roy, in the county of Medina and State of Ohio, 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 of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved car-coupling. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a perspective detail view of the sliding block inside the draw-head, and Fig. 4 is a rear view of the pin and the lever serving to raise the same.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of car-couplings in which the pin is raised by a lever, and held raised in position for coupling by means of a block sliding inside the draw-head; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the draw-head, which is shaped as the draw-heads used in the common pin-and-link coupling, but which has a deeper central recess, B, in which slides a block, C, bearing with its inner end against the outer end of a spiral spring, D, and having a plate, E, projecting forwardly from its outer upper edge, the upper surface of which plate has a forwardly-inclined recess, F, at the point where it will pass under the end of the coupling-pin G. This pin is preferably square, and slides in two correspondingly-shaped perforations, H, in the upper and lower side of the draw-head, and the upper end of the pin is reduced and slides in a vertical bearing, I, in an arched upright, J, projecting from the upper side of the draw-head.

An upright hook, K, projects from the shoulder formed by the reduced portion of the pin, and the rounded upper edge of a lever, L, pivoted at one end between two upright lugs, M, upon the edge of the upper side of the draw-

head, slides in the hook, and has a notch, N, at the end of the curved edge, at the point where the straight handle O commences, the notch being in line with the pivotal point of the lever.

It will now be seen that when the outer end of the lever is raised the pin will be lifted and the hook will catch into the notch upon the lever, which will support the lever until, as the car is slacked up in uncoupling, the link will be withdrawn, allowing the sliding block to pass under the end of the pin, holding it up and allowing the lever to be released and drop down, when the coupling will be ready for coupling again, which simply consists in allowing the link to enter the draw-head, when it will push the sliding block back, allowing the pin to drop, securing the link.

By making the sliding bolt with the beveled or inclined recess it will be seen that it will slide easily under the end of the pin, gradually raising it, and that by having the forwardly-projecting plate upon the upper forward edge of the sliding block the link will first strike the sliding block after it has passed some distance into the draw-head, thus avoiding the trouble that the link releases the pin before the latter can enter the eye of the link, thus missing the coupling.

It will also be seen that the pin will be held raised by the notch upon the edge of the lever engaging the hook upon the shoulder of the pin before the link leaves the draw-head, but that as the link is withdrawn the inclined bottom of the recess upon the projecting plate of the sliding block will raise the pin a little higher, releasing the lever as the sliding block is forced ahead by the spring in the draw-head.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a car-coupling, the combination of the draw-head of the usual construction, having the central longitudinal recess, the sliding head having the spiral spring pressing against its rear end, and having the forwardly-projecting plate projecting from the upper forward edge of the same, and having the forwardly-inclined recess upon its upper side, the pin sliding in vertical bearings and having the hook near its upper end, and the lever pivoted upon the up-

per surface of the draw-head and bearing with its upper edge under the hook, as and for the purpose shown and set forth.

2. The herein-described car-coupling, consisting of the draw-head having the central longitudinal recess, the sliding block having the forwardly-projecting plate, having the inclined recess, the pin sliding in the vertical perforations in the draw-head, and having the upper reduced portion sliding in the bearing in the upright arch, and provided with the rearwardly-projecting hook or catch upon the shoulder

formed by the reduced portion, and the lever pivoted upon one edge of the upper surface of the draw-head, and having the notch at the outer end of its upper curved edge, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHRISTIAN H. ZIMMERMAN.

Witnesses:

ARTHUR J. ARNOLD,
DERWIN E. HYDE.