

(No Model.)

W. R. WALLACE.

CAR COUPLING.

No. 277,635.

Patented May 15, 1883.

Fig-1-

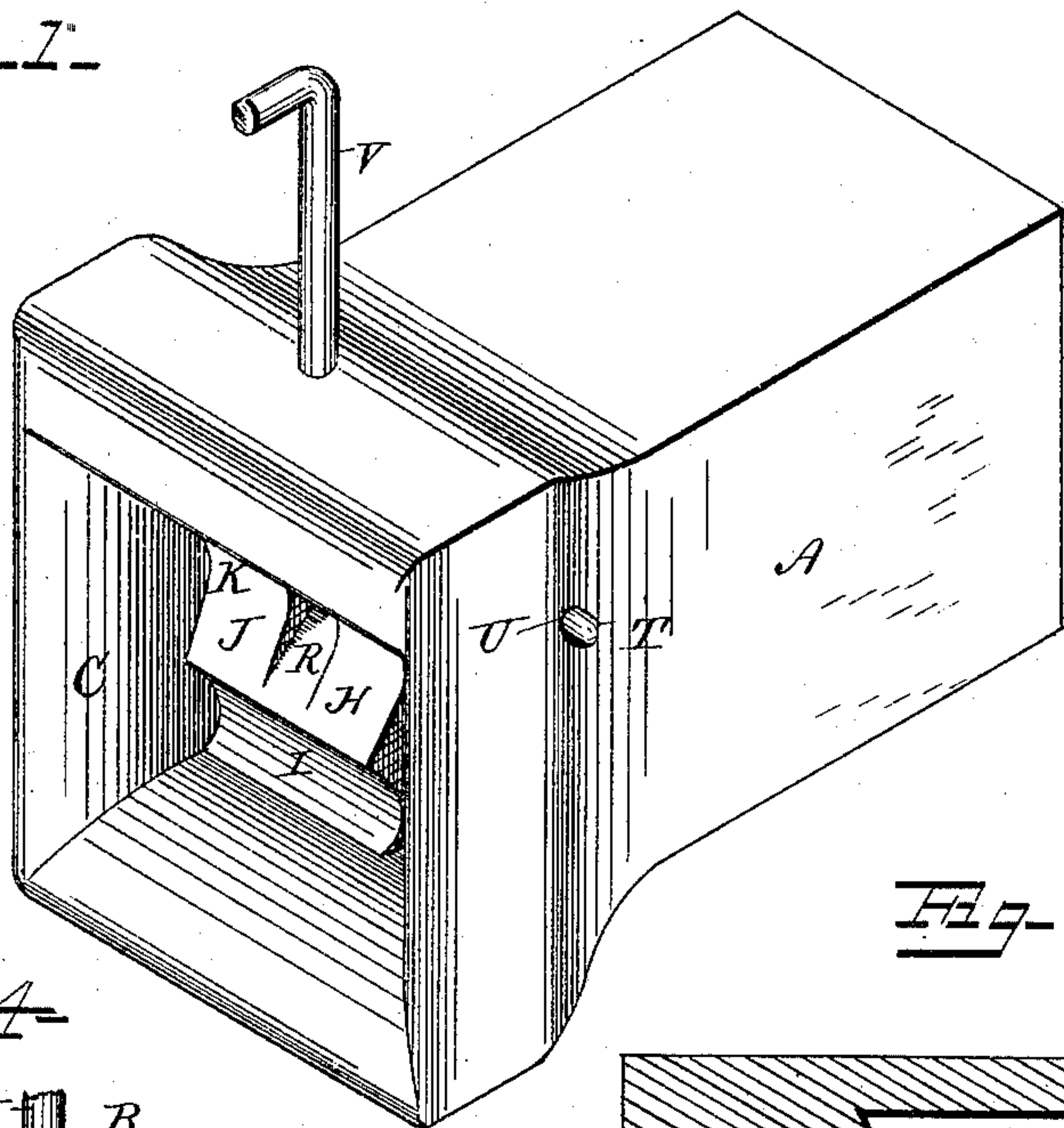


Fig-4-

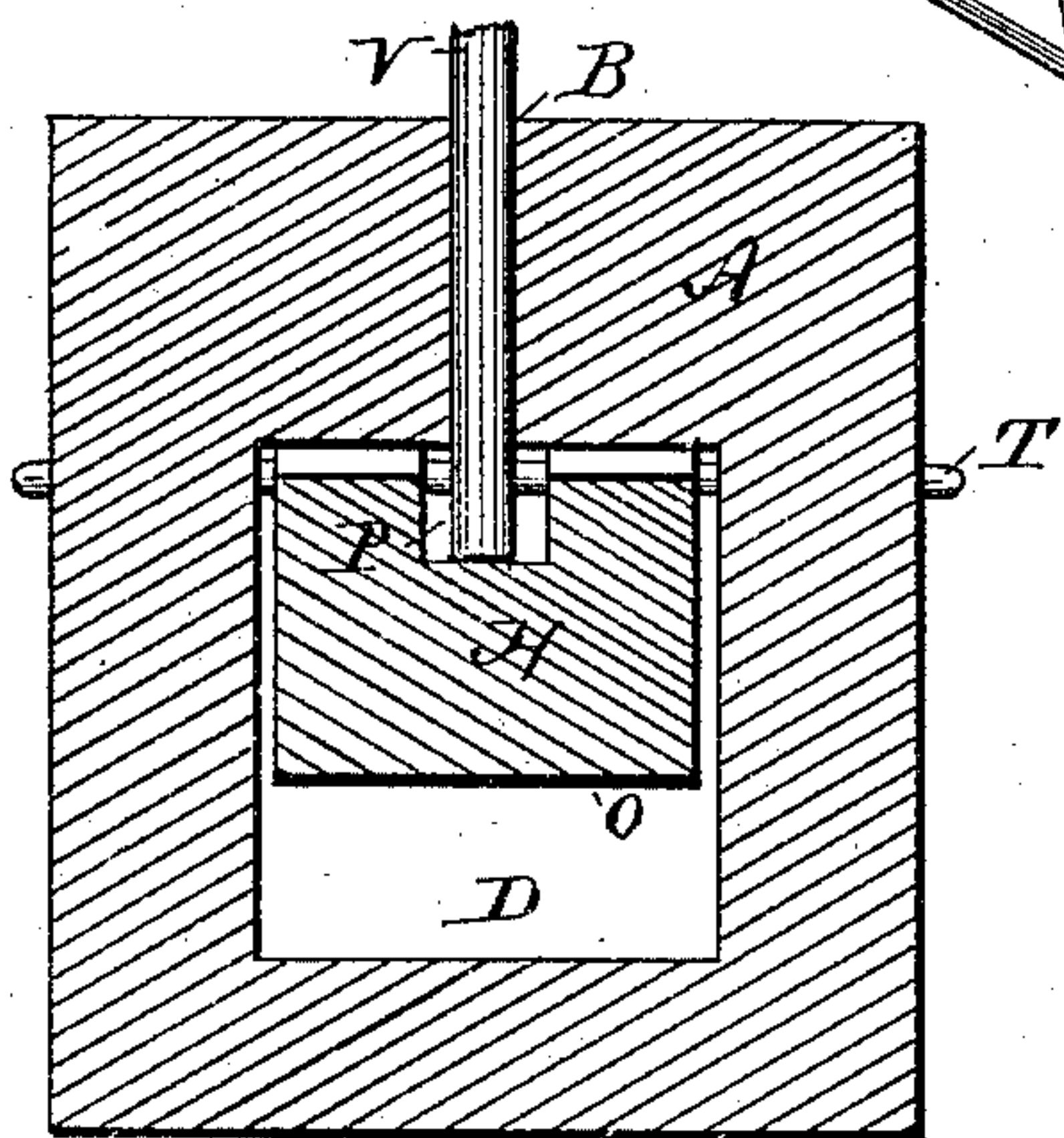


Fig-2-

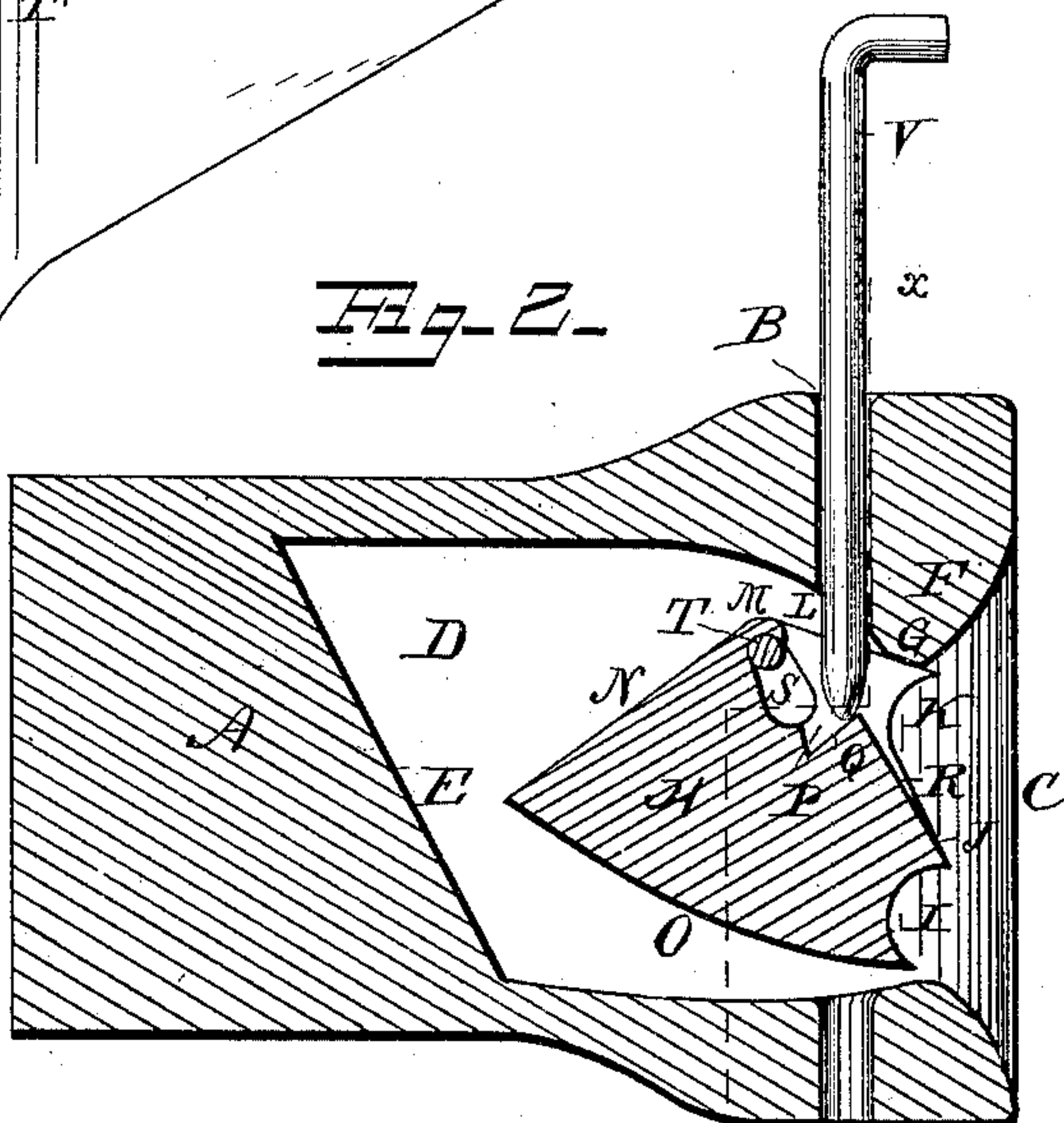


Fig-3-

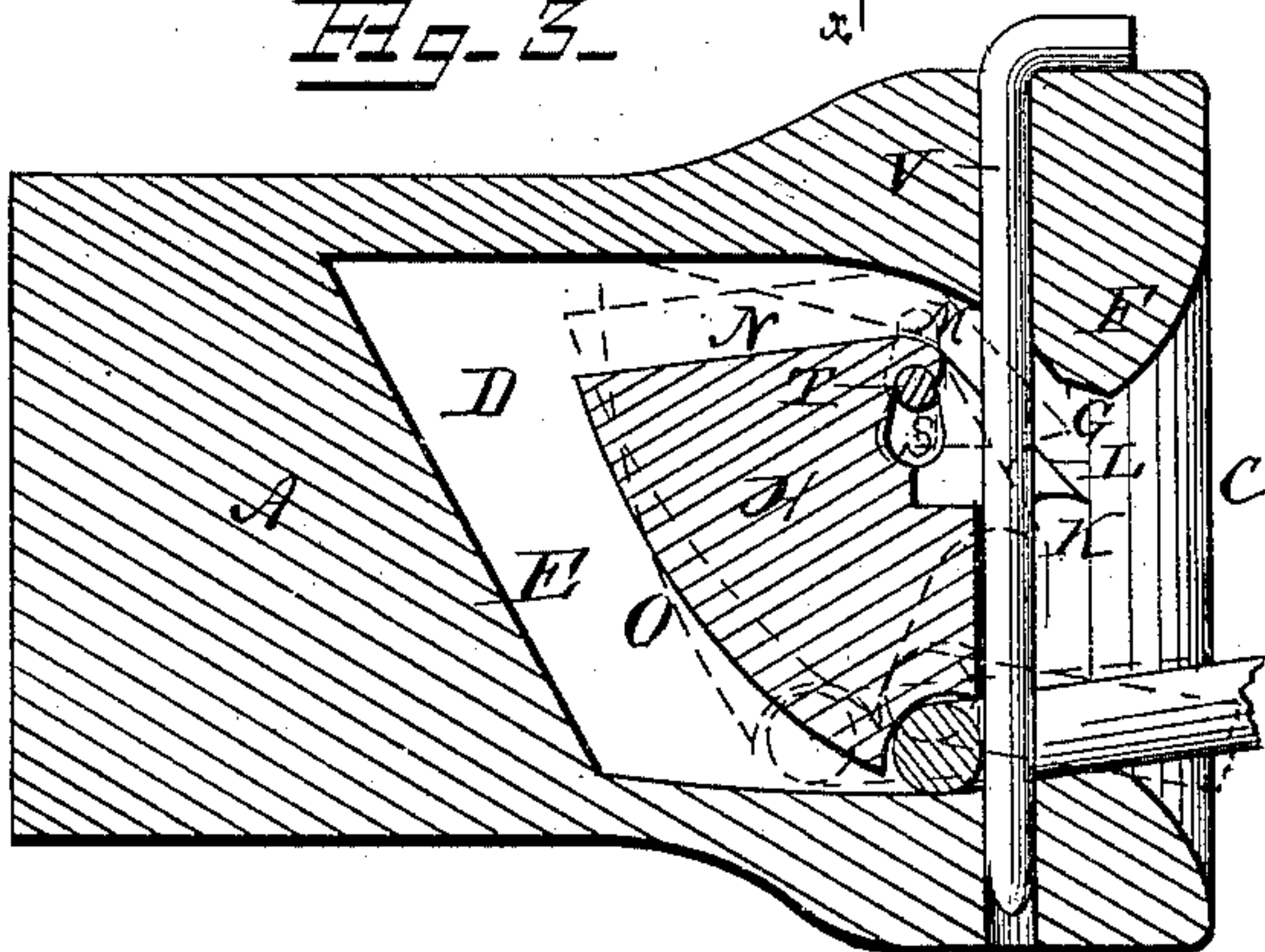
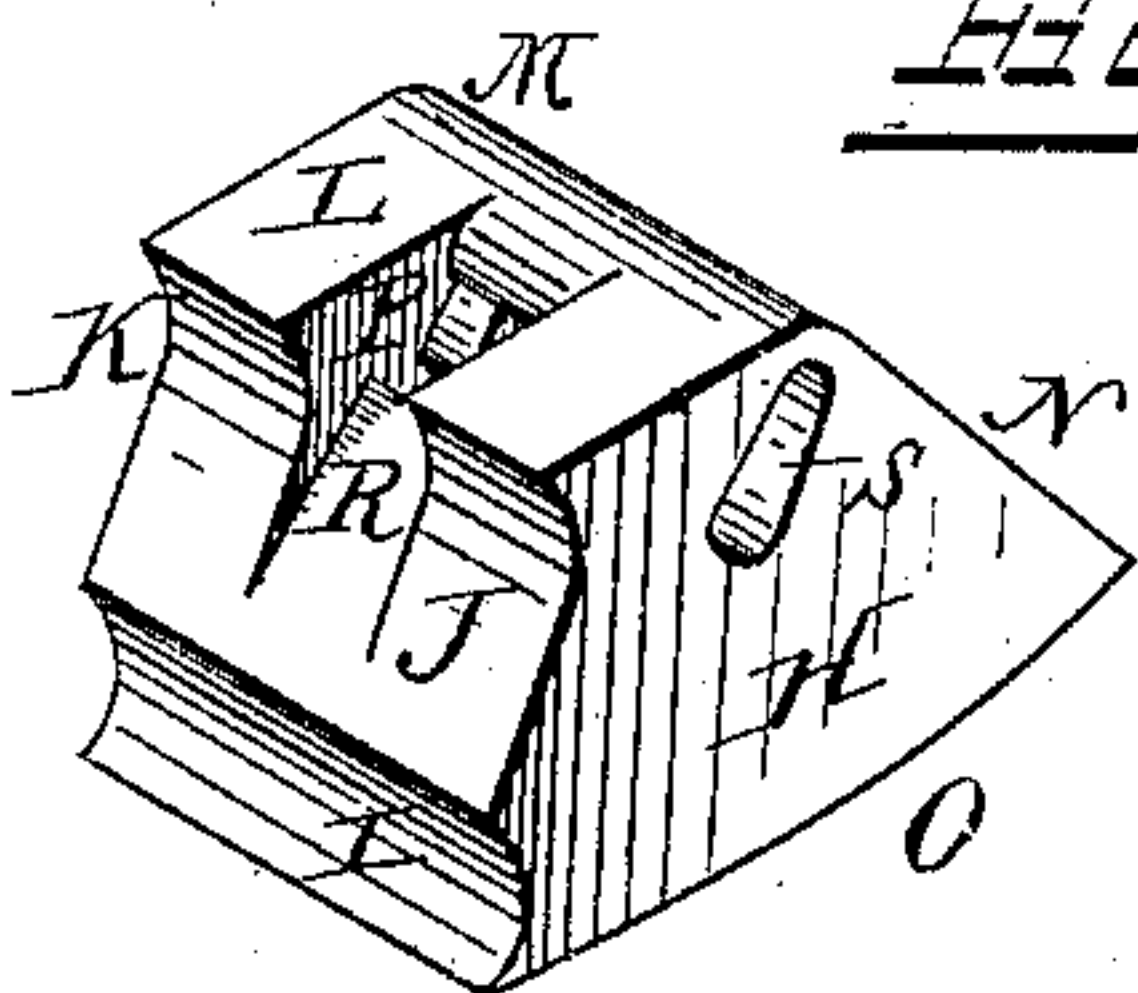


Fig-5-



WITNESSES

J. R. Littell,
J. B. Noyes.

INVENTOR

W. R. Wallace,
by C. A. Snow & Co. Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM R. WALLACE, OF MOUNT VERNON, ILLINOIS, ASSIGNOR OF TWO-THIRDS TO THOMAS L. RIVERS, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 277,635, dated May 15, 1883.

Application filed November 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. WALLACE, a citizen of the United States, residing at Mount Vernon, in the county of Jefferson and State of Illinois, have invented a new and useful Car-Coupling, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to automatic car-couplings, and has for its object to provide a simple, inexpensive, durable, and efficient coupling by means of a pin and link, that will be especially adapted to the shape of the common draw-head, that will effect an automatic coupling between cars of different height, and that will admit of vertical and horizontal play of the link.

The invention, consists substantially, in the application to a common pin-and-link draw-head having a preferably slightly-modified interior construction of a swinging block of novel and adapted construction, as will be hereinafter more fully set forth.

In the drawings, Figure 1 is a perspective view of the improved draw-head complete. Fig. 2 is a vertical longitudinal sectional view of the draw-head ready for coupling. Fig. 3 is a like view after the coupling is effected. Fig. 4 is a transverse vertical sectional view on the line *x x*, Fig. 3. Fig. 5 is a detail perspective view of the swinging block which forms a pin-support and link-adjuster.

Referring to the drawings, A designates the draw-head, which is of the ordinary construction, having the vertical pin-perforation B, mouth C, and link-chamber D. The latter is preferably formed with an upwardly and rearwardly inclined rear wall, E, and across the mouth C, at its top, is arranged a downwardly-extending transverse flange, F, having a rearwardly and upwardly beveled under edge, G.

His the pin-supporting block, which is formed with a transverse concaved groove, I, at its lower front edge, from which its face is beveled rearwardly and upwardly, as at J, and another transverse concaved groove, K, formed at the front top edge. The top L of this block H is flat, as shown, and formed with a curved rear edge, M, from which its back N is beveled rearwardly and downwardly. The under

surface, O, of block H is preferably slightly curved rearwardly and upwardly. About centrally in top L is formed a deep recess, P, having a forwardly and upwardly beveled front wall, Q, from which extends a forwardly-inclined channel or groove, R, in face J, running down to groove I. Block H is also provided with a transverse perforation, S, at its edge M, which is ovolo in cross-section, and inclined rearwardly, with the point or smaller end of the oval at the top.

T is a cross-pin, which passes through perforations U U at the top of the draw-head, and also through the ovolo perforation S in the block, by which means the latter is pivoted in the draw-head.

V is the coupling-pin, which may be connected with suitable chain-and-lever mechanism, by which it may be lifted in uncoupling without going between the cars.

The operation and advantages of my invention will be readily understood and appreciated. The block H normally hangs just inside the mouth of the draw-head, and closes the same. When in this position its top L engages the edge G of flange F and the pivot-pin T rests in the small end of the ovolo perforation S. The coupling-pin is now supported in recess P. In coupling, when the approaching link strikes the face of block H the latter swings back on pin T until the front wall, Q, of recess P forms a forwardly-inclined plane dome, on which the pin V slides as the block swings back until it passes over the end and falls to effect the coupling. While in the draw-head the link has ample horizontal play, as the block will swing back and follow the link forward. When the link plays vertically the block moves likewise, by reason of its ovolo perforation S on pin T, until the latter is in the lower butt-end of the oval. If the link, in coupling, strikes the beveled face J or groove K, it is at once guided down into the lower groove, I, in which it works.

To uncouple it is only necessary to raise the coupling-pin, when the block, by reason of its gravity, swings forward in position to support the coupling-pin in its recess. This forward swing throws the coupling-link out of the draw-head, and the movement is limited by the en-

gagement of the top of the block with the under side of the top front flange.

I claim as my invention—

1. The combination, with the draw-head having the usual pin-perforation, of the interiorly-swinging block having a transverse bottom groove in its face, from which the latter is beveled rearwardly and upwardly, a pin-supporting recess in its top, having an upwardly and forwardly beveled front wall leading to a guide-groove in the face of the block and extending to the bottom transverse groove, as set forth.

2. The combination of the draw-head having the vertical pin-perforation, and the transverse flange across the top of its mouth, provided with an upwardly and rearwardly beveled under edge, the transverse pivot-pin, and

the interiorly-swinging block having a transverse bottom groove in its face, from which the latter is beveled rearwardly and upwardly, a pin-supporting recess in its top, having an upwardly and forwardly beveled front wall leading to a guide-groove in the face of the block and extending to the bottom transverse groove, said block having also a flat top which engages the said beveled edge of the transverse groove, as set forth.

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

WILLIAM R. WALLACE.

Witnesses:

C. S. BOSWELL,

W. H. SATTERFIELD.