

(No Model.)

H. SOMMERFELD.
CAR COUPLING.

No. 424,582.

Patented Apr. 1, 1890.

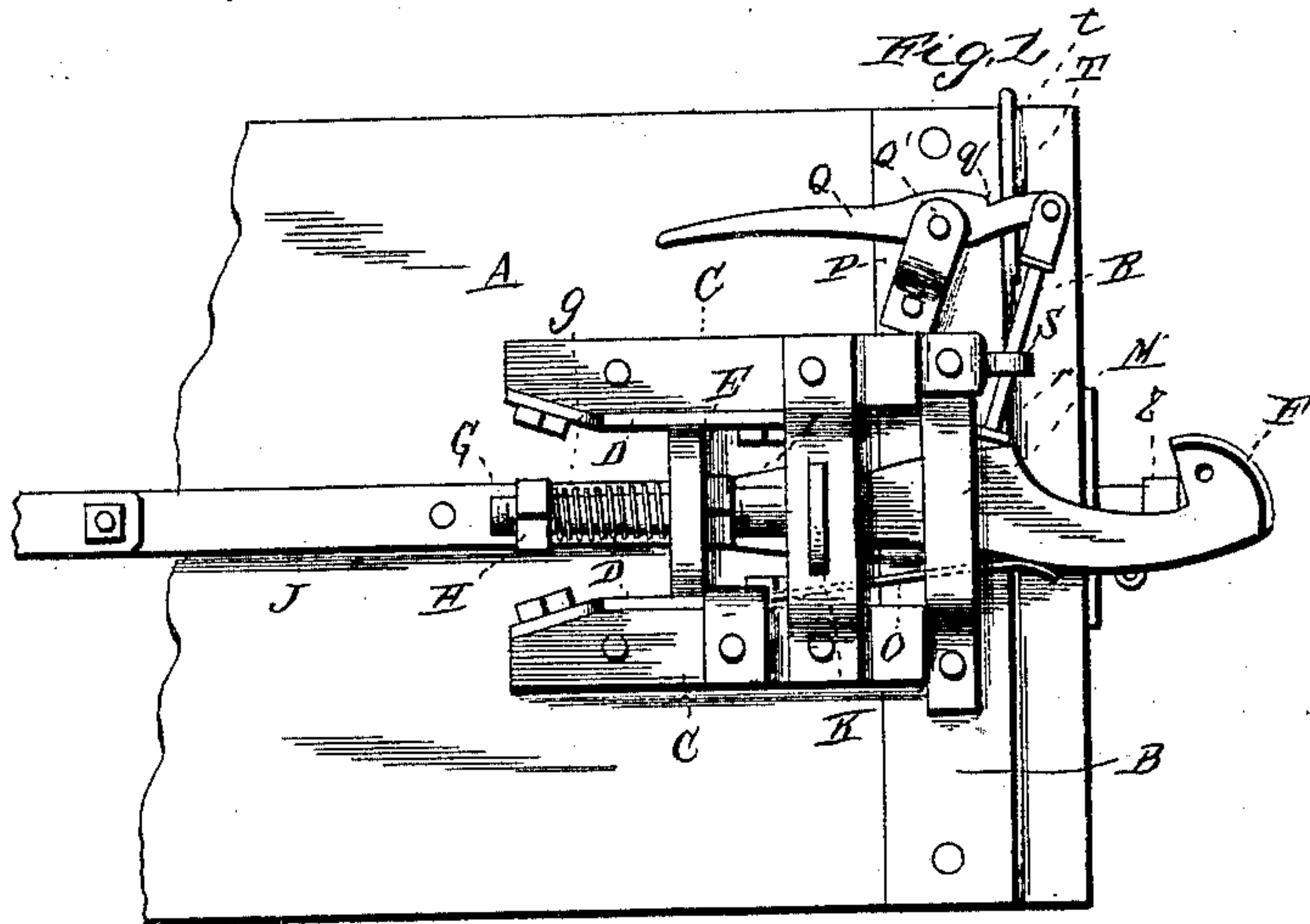


Fig. 1.

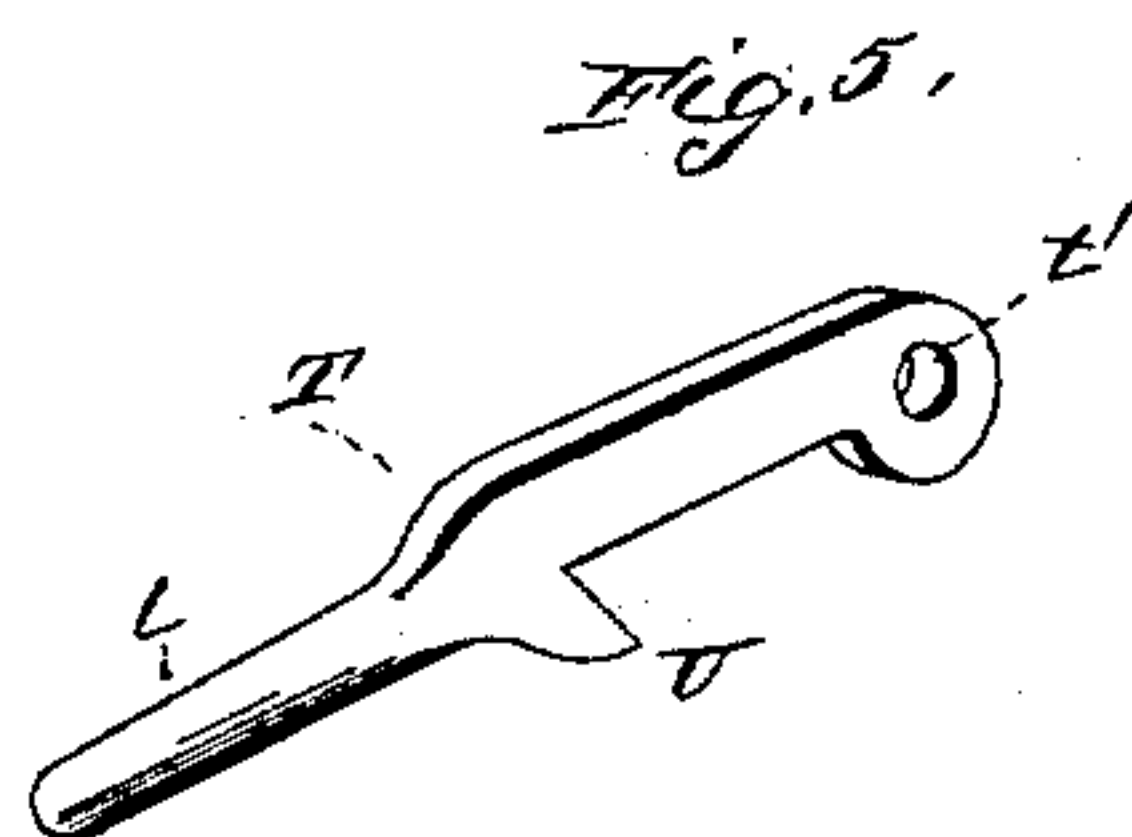


Fig. 5.

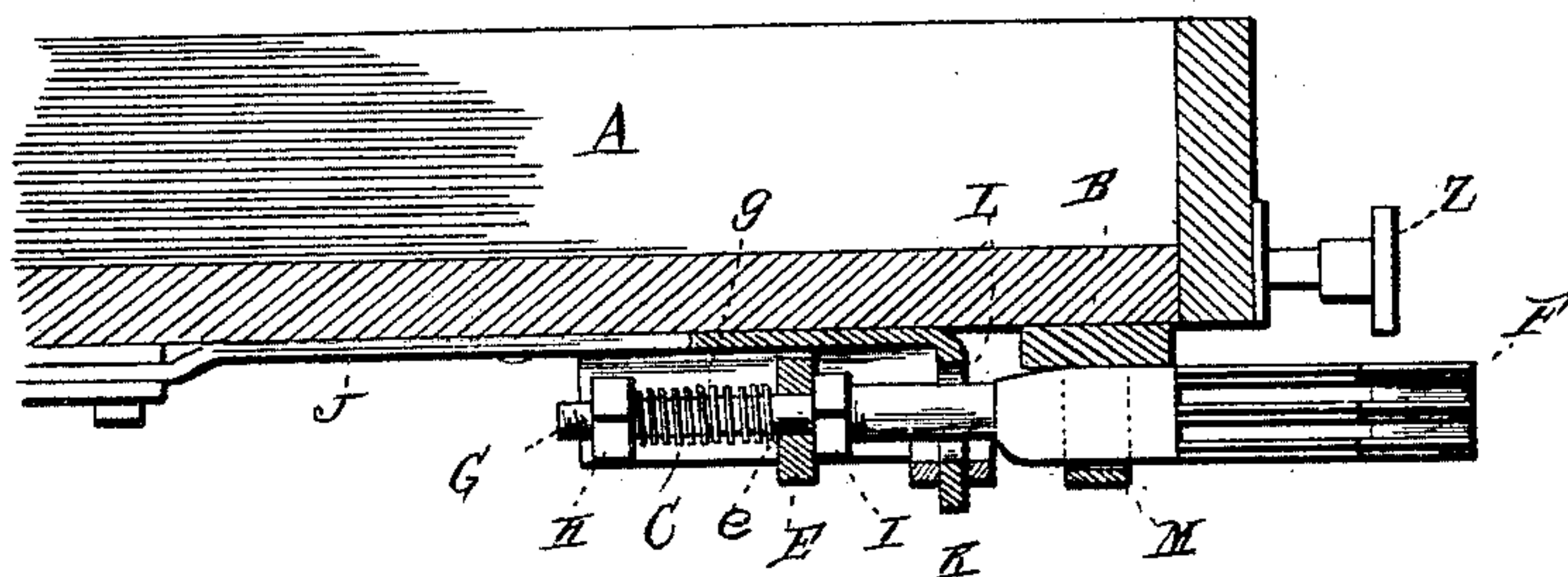


Fig. 2.

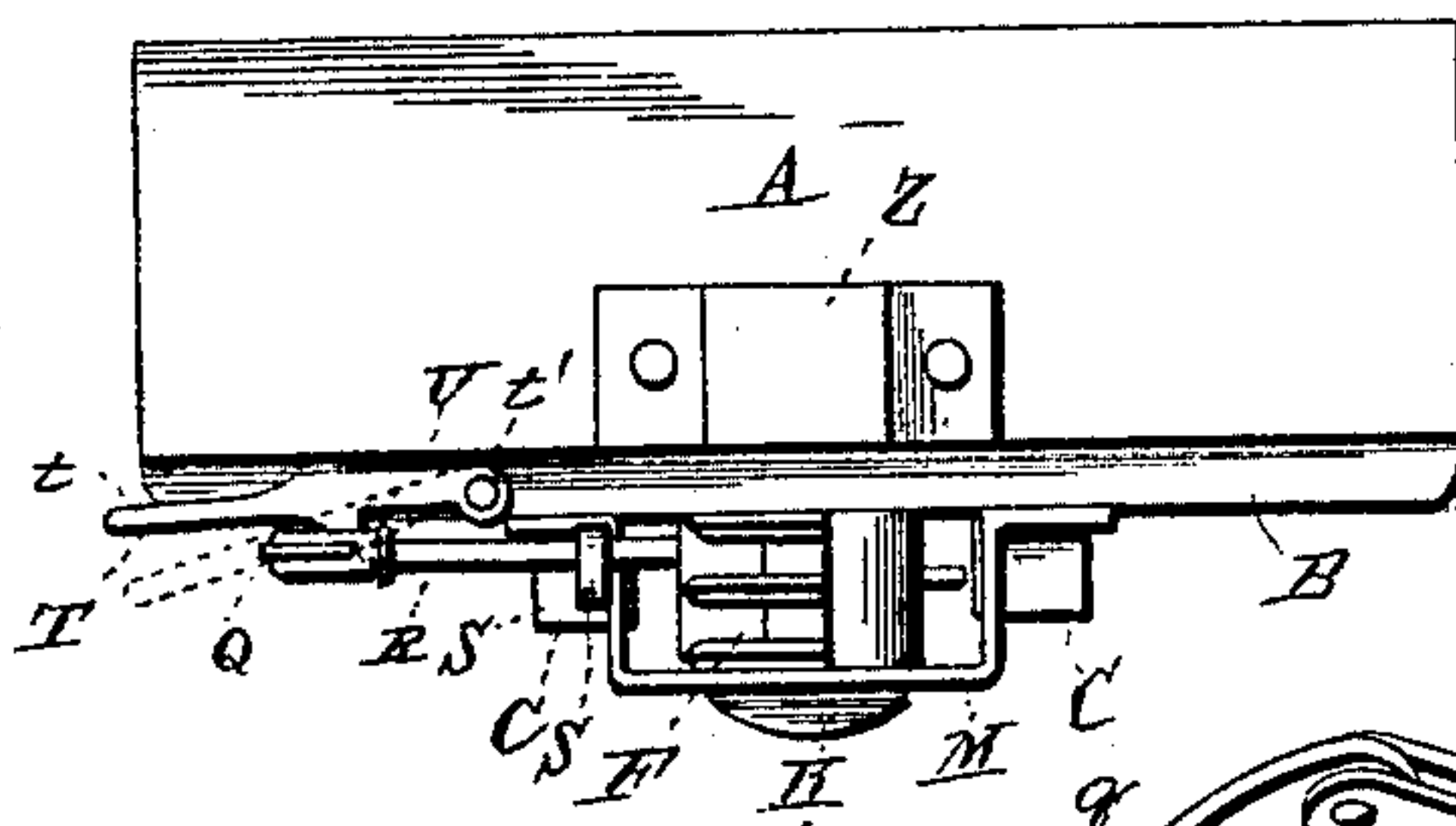


Fig. 3.

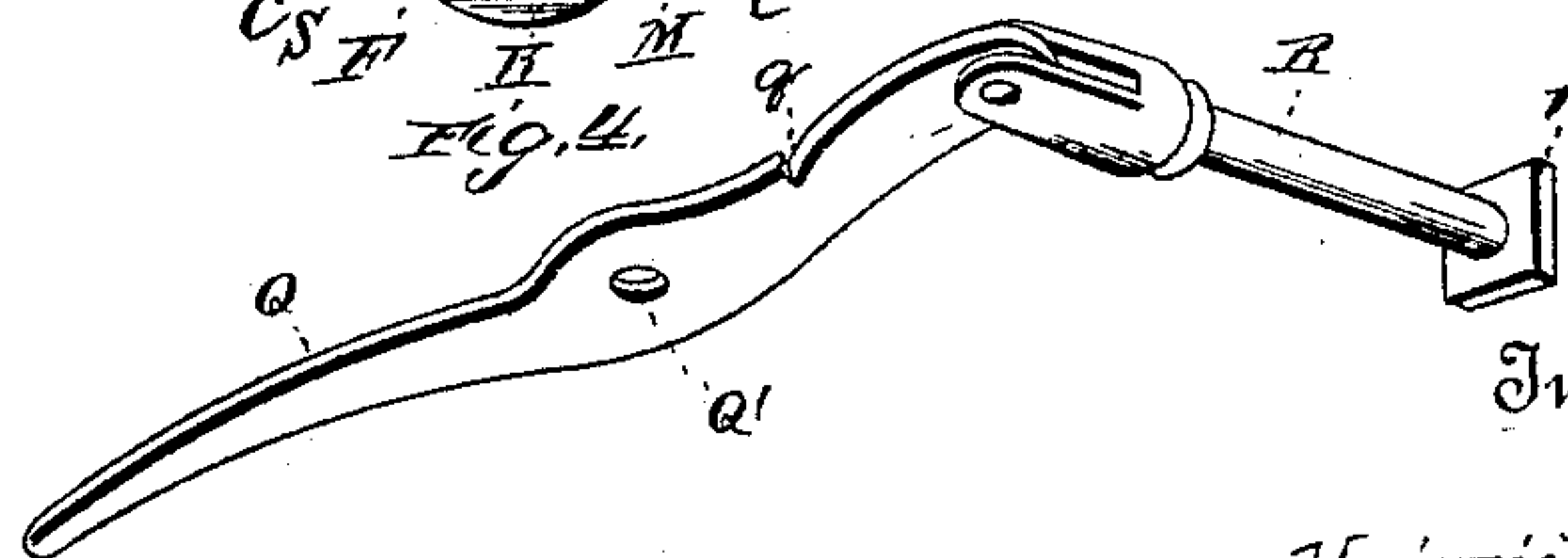


Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

HEINRICH SOMMERFELD, OF CANTON, KANSAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 424,582, dated April 1, 1890.

Application filed December 14, 1889. Serial No. 333,725. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH SOMMERFELD, of Canton, McPherson county, Kansas, have invented certain new and useful Improvements in Car-Couplers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in car-couplers; and it consists in the novel construction and arrangement hereinafter set forth and described.

In the drawings, which illustrate the manner of carrying out my invention; Figure 1 is an inverted plan view showing the improvements of my coupler. Fig. 2 is a central transverse section of same. Fig. 3 is a front view. Fig. 4 is a detail in perspective of the lever used in operating my coupler; and Fig. 5 is a detail in perspective of the gravity-lock, which holds the coupling back when not in use.

Referring to the drawings by letter, A represents the bottom of a car-truck, to which the mechanism used for operating my car-coupling is properly secured by suitable bolts, screws, &c.

B is a cross-beam near the end of the truck, to which the lever Q and loop M are properly bolted.

C are two sleepers, to which are secured the metallic linings D, said metallic linings D having a cross-connection E, provided with perforation L, through which the shaft G of coupler F passes, said coupler F being made in the manner illustrated in Figs. 1 and 2, and is provided with a spiral spring near its rear terminus, which holds it in position when in use. H is a nut, which keeps said spiral spring G in position. I is a similar nut, secured on the coupling-shaft. This regulates the movements of said coupling by bearing against metallic plate K, said metallic plate K being a continuation of plate J, which is secured on the under side of truck-frame. L is the perforation through said plate K.

M is a loop composed of suitable material, which is rigidly bolted to the cross-beam B.

O is a flexible steel spring secured to sleeper C in a suitable manner. Said flexible

spring, bearing against coupler F, serves to hold it in position.

P is a journal in which is pivoted the lever Q by suitable bolt Q'. Said lever Q is provided with a ratchet q, in which operates the gravity-lock T, said gravity-lock T being made in the manner illustrated in Fig. 5 and pivoted at the end through perforation t'. U is a ratchet in said lock T, which drops over lever Q when it is forced back, thus holding the coupling F out while the cars are uncoupled.

S is a loop or eye through which the fulcrum-lever R passes, said fulcrum-lever R being provided with a bearing-plate r, which rests against coupler F. Fulcrum-lever R is pivotally hinged to lever Q in such a manner that when lever Q is operated the coupler F is thrown backward and forward, as described.

Z is a bumper secured to the truck in a suitable manner.

The normal position of my coupler is as shown in Figs. 1 and 3, and when the cars are to be uncoupled the operator grasps lever Q and pulls it out toward the side of car. This being pivoted at Q', forces the fulcrum-lever R inward until it bears upon coupler F and forces it out of position. When said coupling F has reached the extreme backward point, gravity-lock T drops over said lever Q in such a manner that the ratchet W holds said lever in position, thus keeping the coupler bent backward until it is ready to be coupled to an adjoining car. The gravity-lug T is then drawn backward, allowing the coupling F to spring back into position, and the coupling is made. Being constructed in this manner, the operator can manipulate the coupler without going between the cars.

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

1. In combination with the laterally-movable coupler F, the lever Q, pivoted under the bottom of the car and arranged in a horizontal plane, the lever R, hinged to the lever Q and having the plate r, bearing against the coupler F, for the purpose set forth, and the guide S for the said lever R, substantially as described.

2. A car-coupler having the levers Q and R, secured in journals P and S, provided with a gravity-lock T, which has a ratchet U, this fitting over operating-lever Q, substantially as set forth and described.

3. The operating-lever Q, fulcrum-lever R, and gravity-lock T, operating in combination with and forming a part of the car-coupler operated in the manner described, these levers Q and R being properly secured in journals

P and S and constructed in such a manner that they may be operated without going between the cars, substantially as set forth and described.

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

HEINRICH SOMMERFELD.

Witnesses:

CHAS. L. TAYLOR,

R. A. BALDERSON.