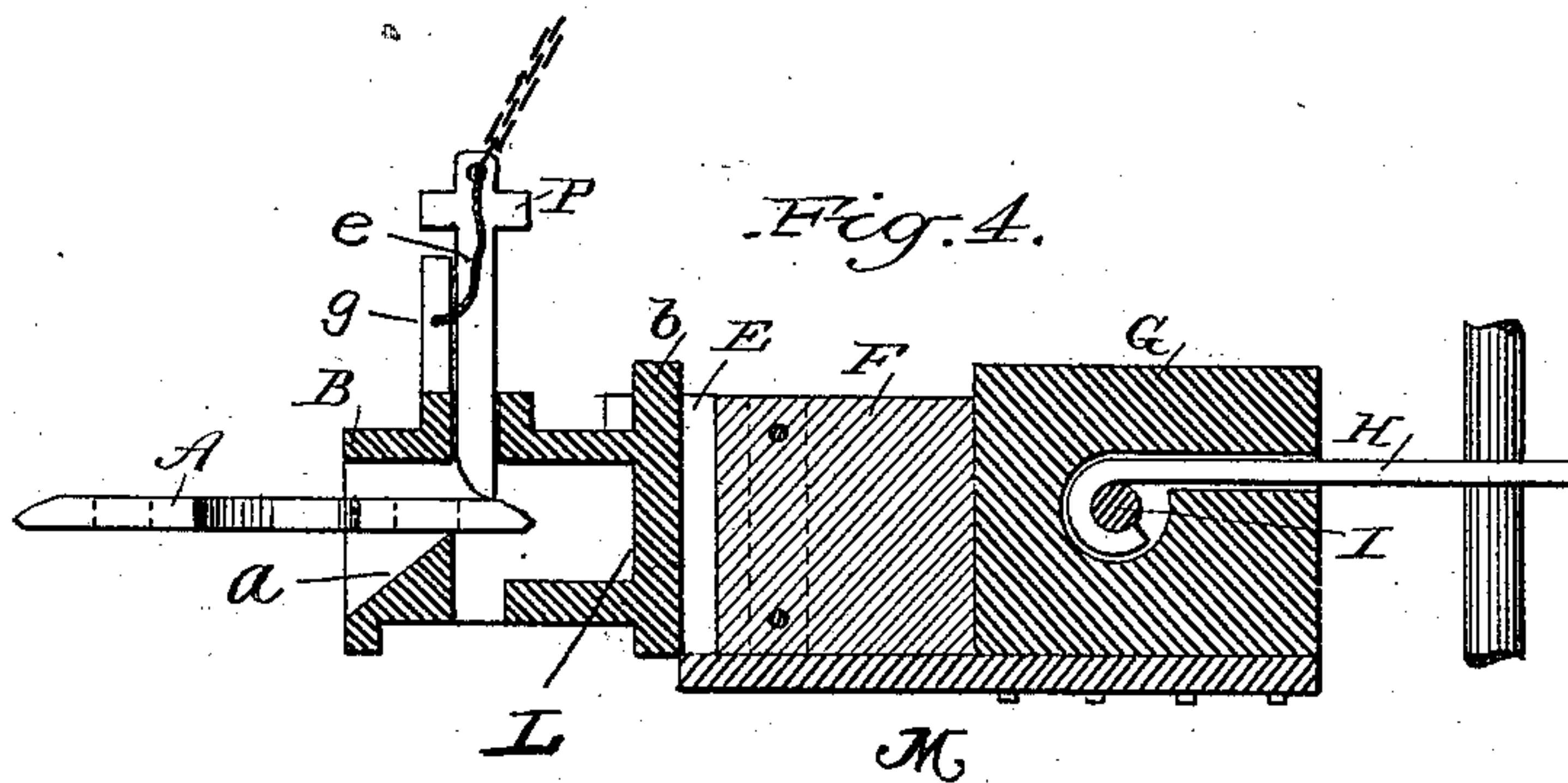
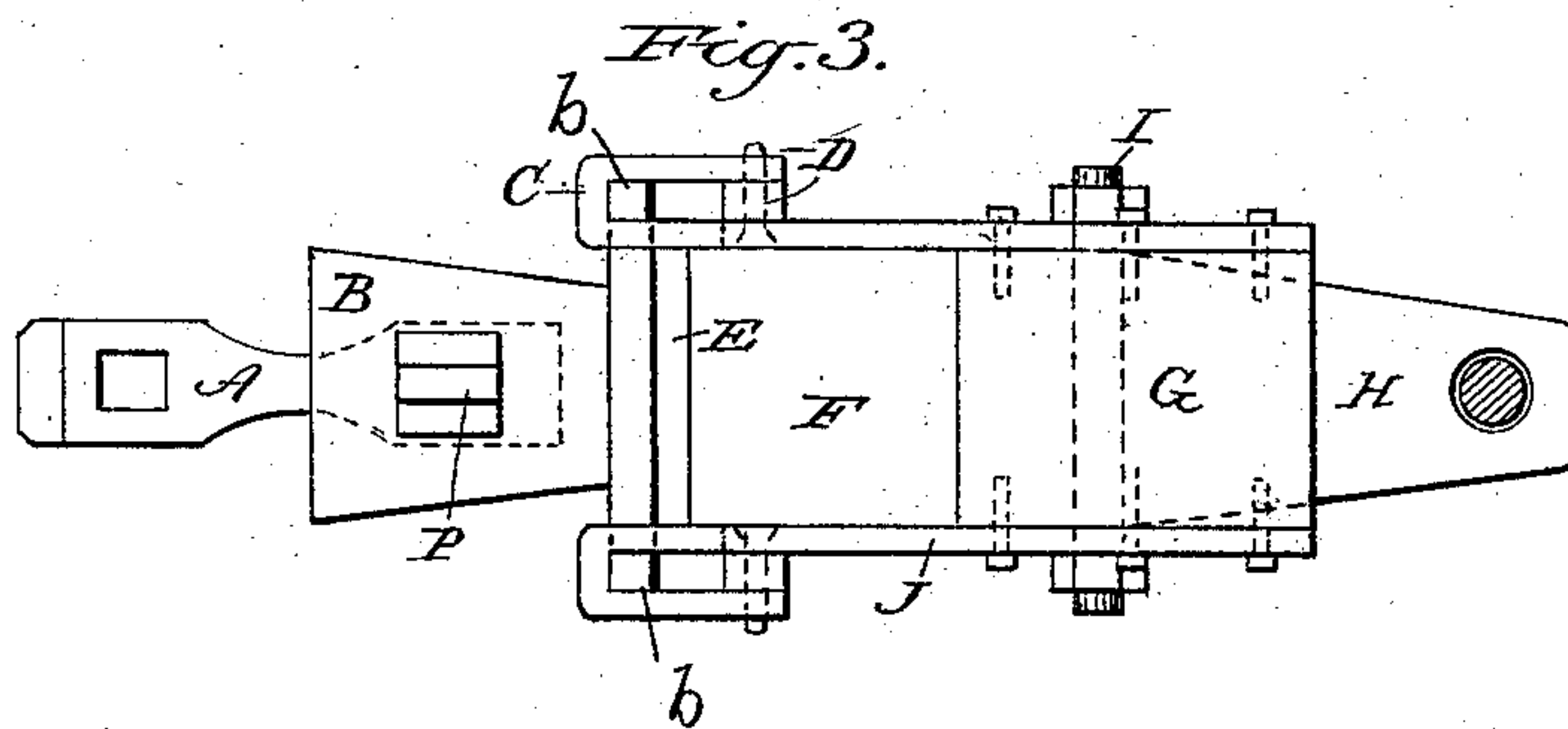
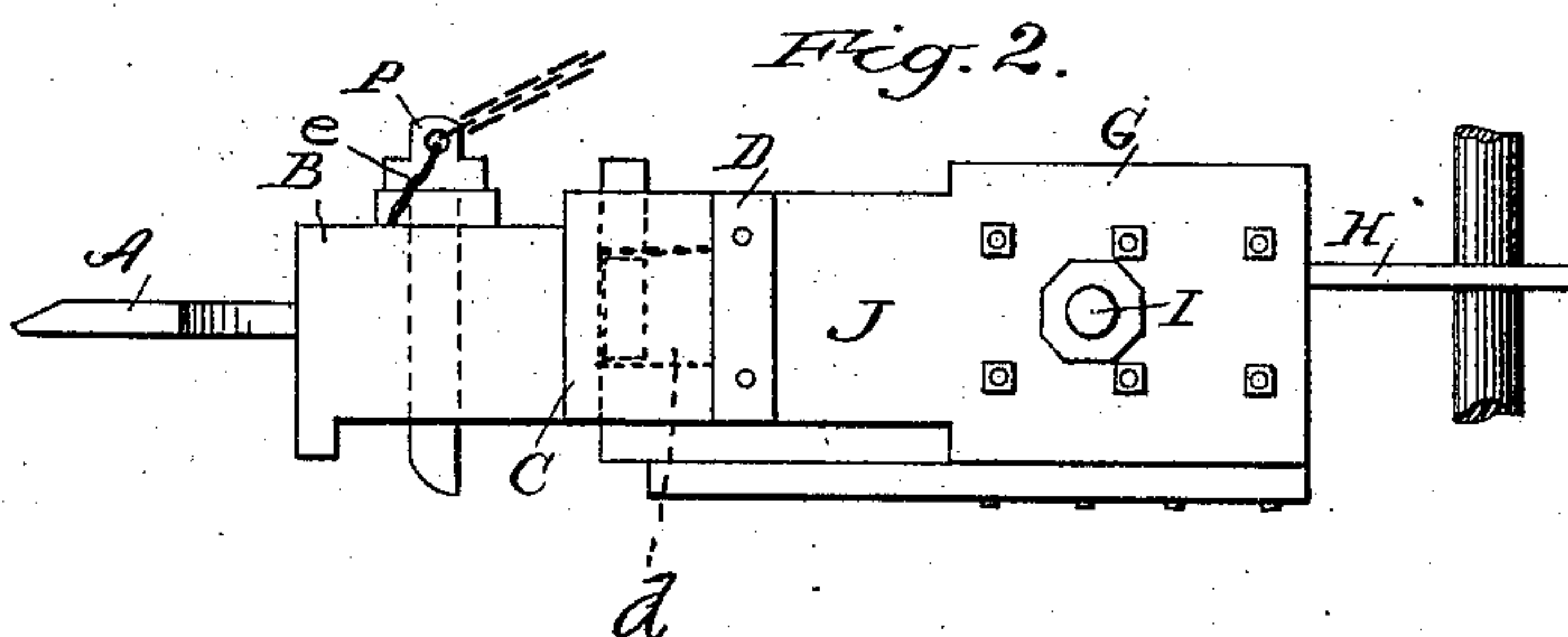
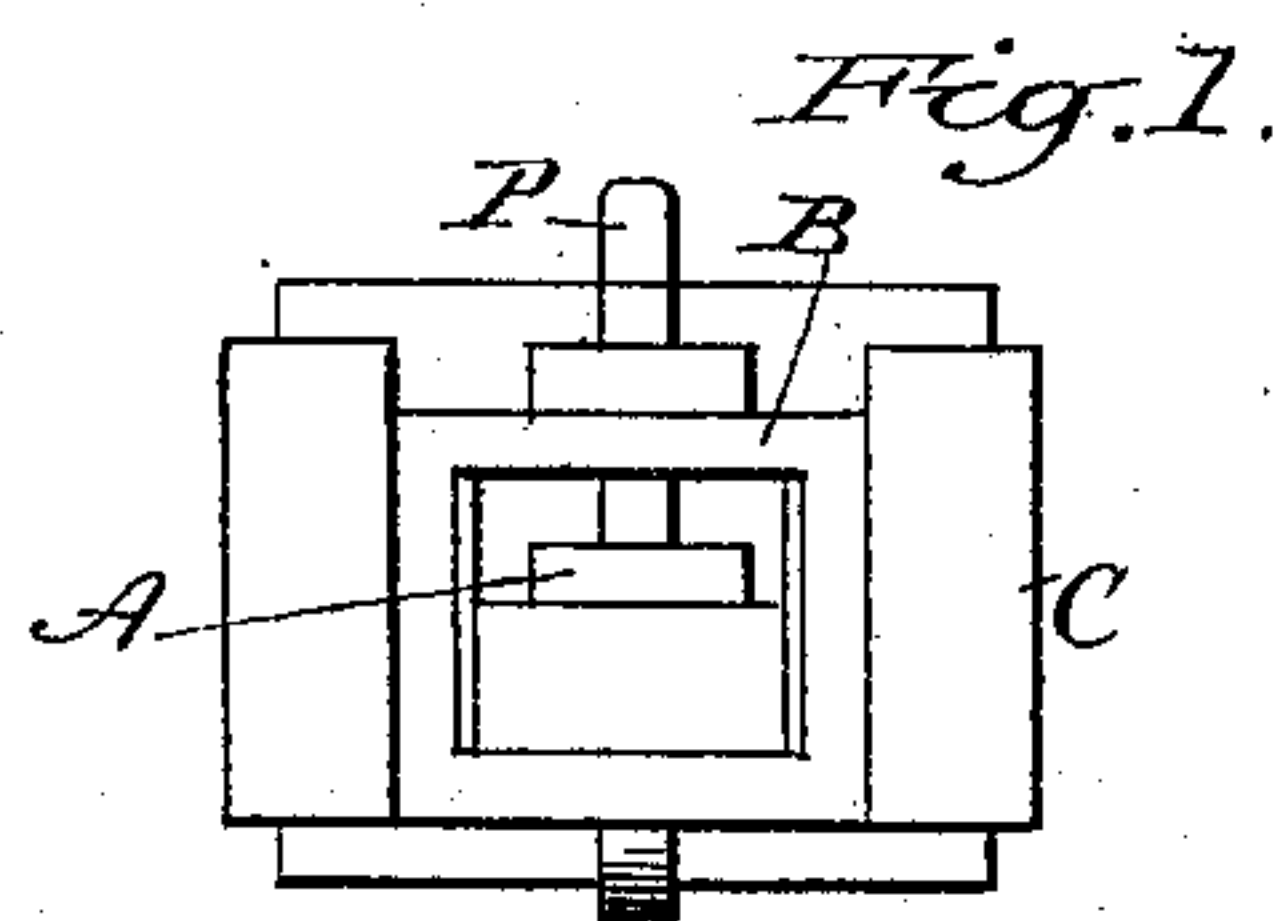


(No Model.)

F. F. LUTZ.
CAR COUPLING.

No. 298,005.

Patented May 6, 1884.



Witnesses:

Edward S. Foster
Frank E. Lester

Inventor:

Ferdinand F. Lutz

UNITED STATES PATENT OFFICE.

FERDINAND F. LUTZ, OF LOUISVILLE, KENTUCKY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 298,005, dated May 6, 1884.

Application filed February 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND F. LUTZ, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Car-Couplers, of which the following is a specification.

This invention has relation to improvements in car-couplers; and it consists in the construction and novel arrangement of devices as will be hereinafter more fully set forth, and particularly pointed out in the claims appended.

In the accompanying drawings, to which similar letters of reference are made, indicating corresponding parts, Figure 1 is a representation of a front view of my device. Fig. 2 is a view of a side elevation of the same. Fig. 3 is a plan view, and Fig. 4 is a longitudinal central sectional view.

In the said drawings, the letter A indicates the coupling-link, having an aperture near each end for the passage of the coupling-pin P, which has its lower end beveled, as shown, and its upper end provided with a collar, to prevent the link from falling through the aperture of the draw-head, and the opposite ends of the link may be also beveled on their flat and edge walls, as shown in Fig. 2.

B indicates the draw-head, which has its walls converging rearwardly, and the lower forward wall is provided with an incline, *a*, as shown. This draw-head is provided with a solid vertical back, L, having lateral extensions *b*, which pass through slots in the side plates, J, as will be hereinafter more fully set forth.

G indicates a block of wood or other suitable material, which is secured upon the base-plate M, and between the side plates, J J, by bolts and nuts or other suitable fastening devices.

F indicates a block of rubber or other suitable elastic material, which is arranged upon the said base-plate against the forward vertical wall of the block G, with an interspace, E, between the rubber and the back plate of the draw-head when the latter is drawn forward during operation.

J indicates the said plates, which are preferably formed of wrought-iron, and between which the elastic and wooden blocks are placed.

These side plates, J, extend forward a sufficient distance beyond the forward end of the rubber block F, and are provided with slots for the passage of the projections on the back plate, L, of the draw-head. These plates are also provided at their forward ends with lateral rectangular loops C, which are formed by first bending their ends outward and then rearward, after which they are firmly secured to the said plates with vertically-interposed metal strip D, as shown, and are placed in such a position transversely over the slots *d* in the plates J that when the draw-head has been driven forward so as to press the forward end of the rubber block F beyond the forward edges of the vertical strip D, the rubber will be relieved from further pressure and the force taken up by the engagement of the projections *b* with the said vertical strips secured to the side plates, J.

By the employment of the rubber or cushion F it will be seen that concussion will be greatly reduced when the cars are brought together in coupling.

H represents an arm consisting of a flat bar of metal, which tapers rearwardly, and is provided with an eye for the reception of the king-bolt. The forward end of this arm extends through a horizontal slot in the rear portion of the block G, is hooked, and secured in an aperture therein by means of a transverse bolt, I, extending through the said block and side plates, J.

The coupling-pin aperture of the draw-head is provided with a boss or collar, N, and connected to the coupling-pin by means of a chain or rope, *e*, is a bar, *g*, which I shall term the "pin-set."

In operation, when it is desired to couple a car, the pin is raised and the set *g* interposed longitudinally between its collar and the draw-head boss. When the link is inserted into the mouth of the draw-head, one of its beveled ends will engage the end of the pin and raise it sufficiently to let the set fall away, the weight of the pin being sufficient to allow it to drop down when it reaches the aperture in the link, and thereby effecting the coupling.

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

1. In a car-coupler, the combination, with the draw-head having the solid back provided with the lateral extensions *b*, of the side plates having slots to receive the said extensions, and the cushion-block F, substantially as specified.

2. In a car-coupler, the combination, with the draw-head constructed as described, having the lateral extensions *b*, of the side plates, J, having the slots *d*, the vertical strips D, and cushion-block L, substantially as specified.

3. The combination, with the draw-head constructed as described, of the block G, provided with the arm H, to receive the king-bolt, the base-plate M, side plates, J, having the forward loops, C, and slots *d*, the draw-head having the rear lateral extensions, *b*, the vertical strips D, elastic block F, and interspace E, substantially as specified.

4. The combination, with the draw-head having the bossed pin-aperture, of the coupling-pin constructed as described, the pin-set, and coupling-link, substantially as specified.

5. The combination, with the draw-head having its inner walls tapering rearwardly, and provided with the incline *a*, of the coupling-link A, having its flat and edge walls beveled at their ends, the pin P, having its lower end beveled, and the pin-set connected to the pin, substantially as specified.

FERDINAND F. LUTZ.

Witnesses:

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