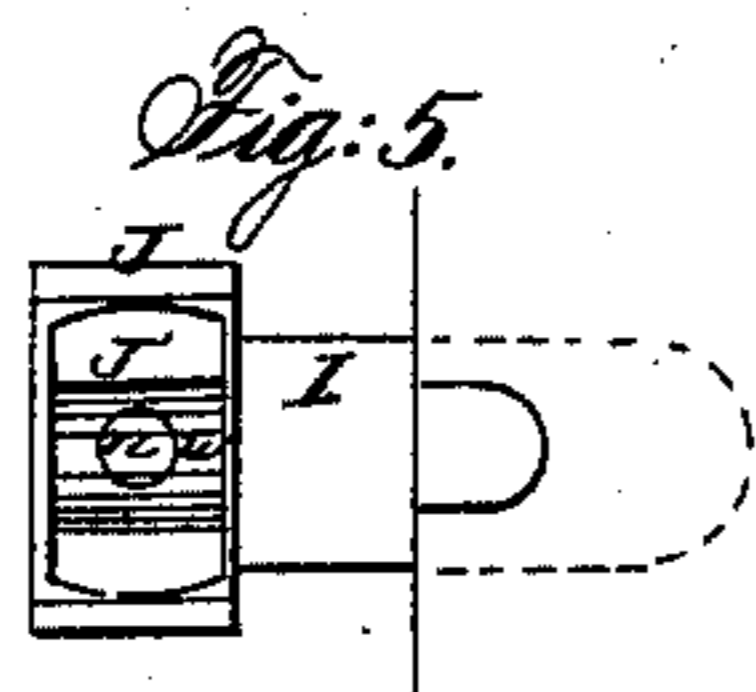
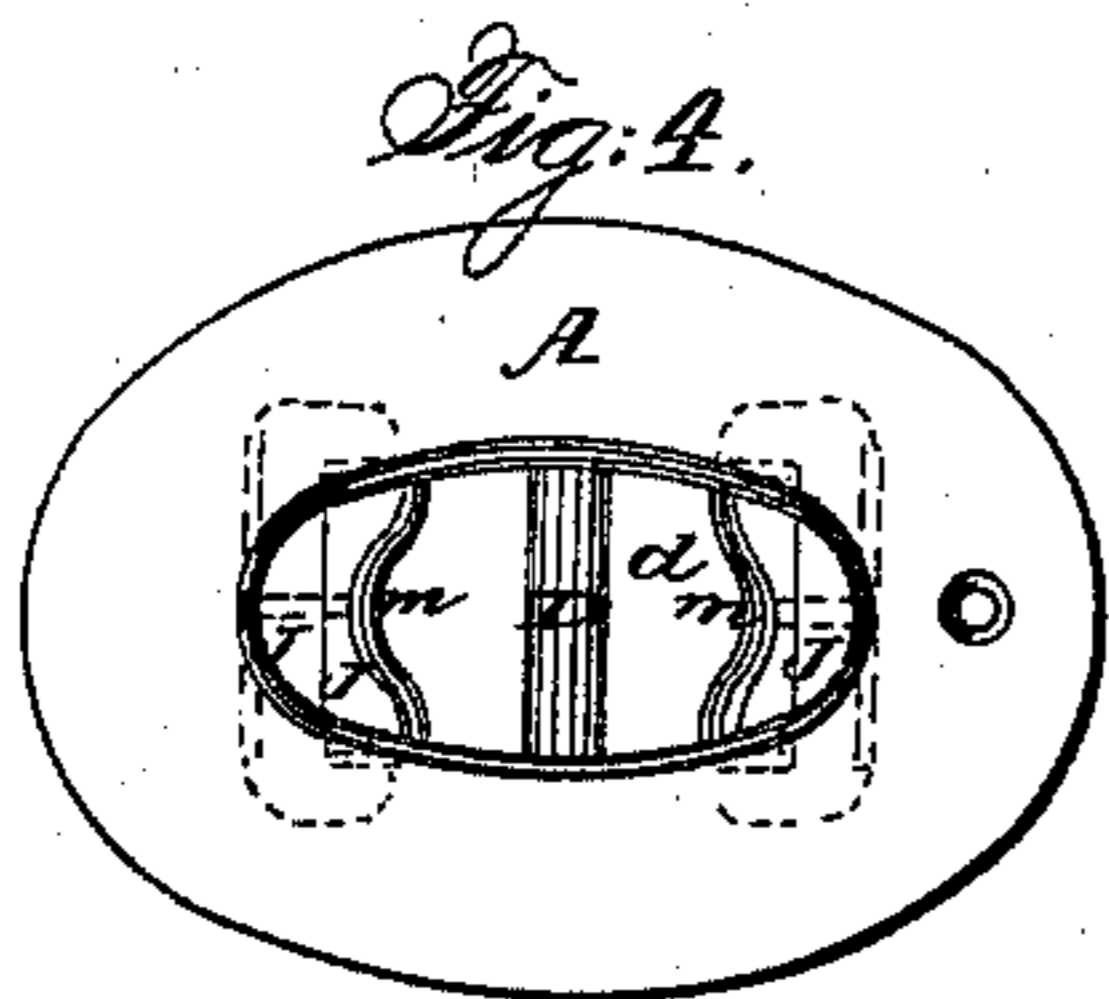
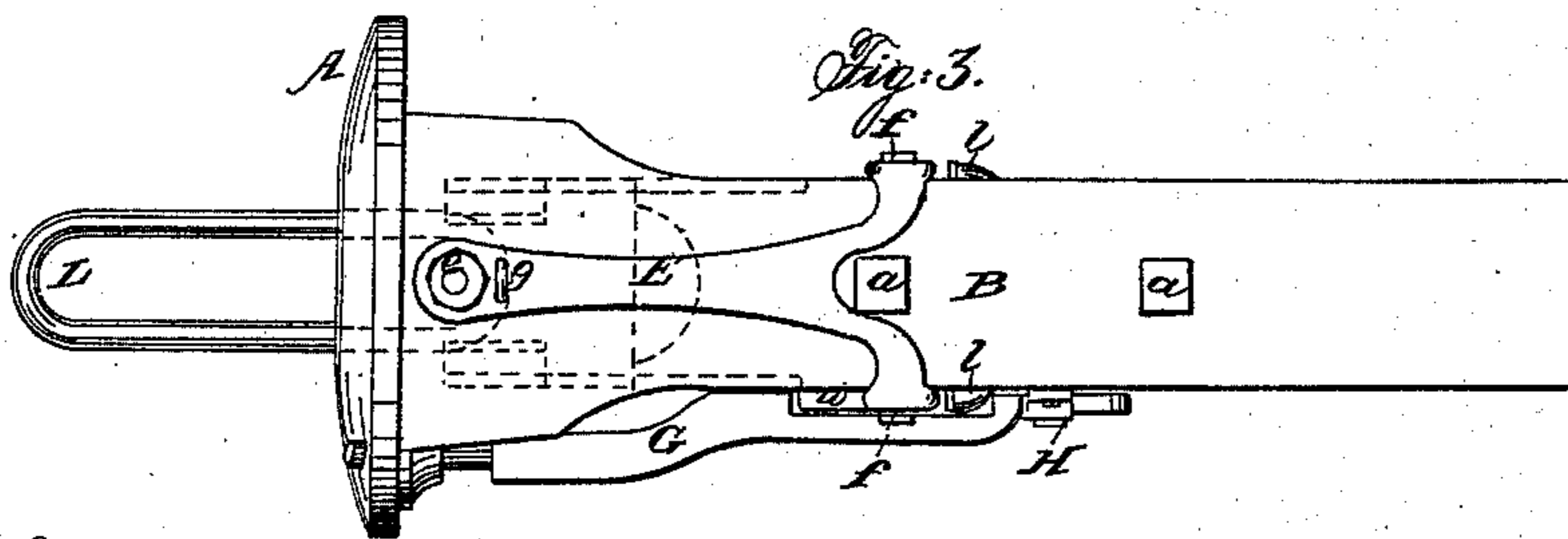
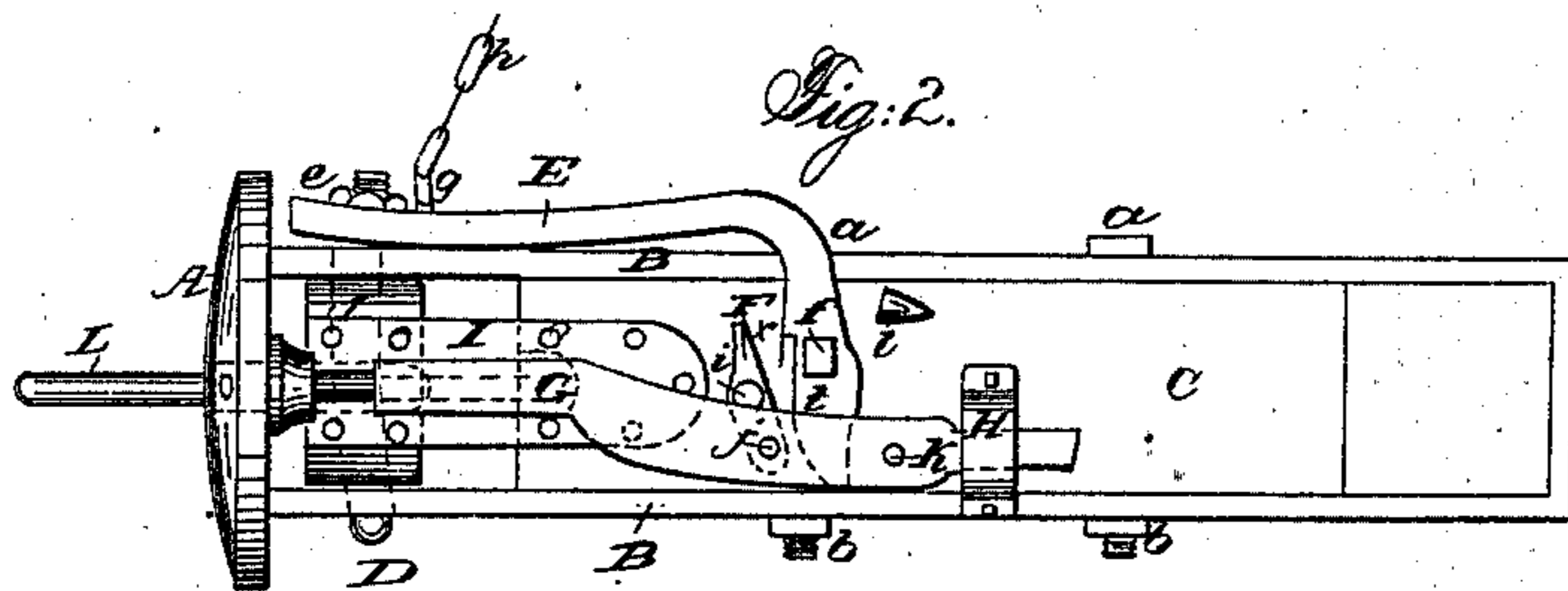
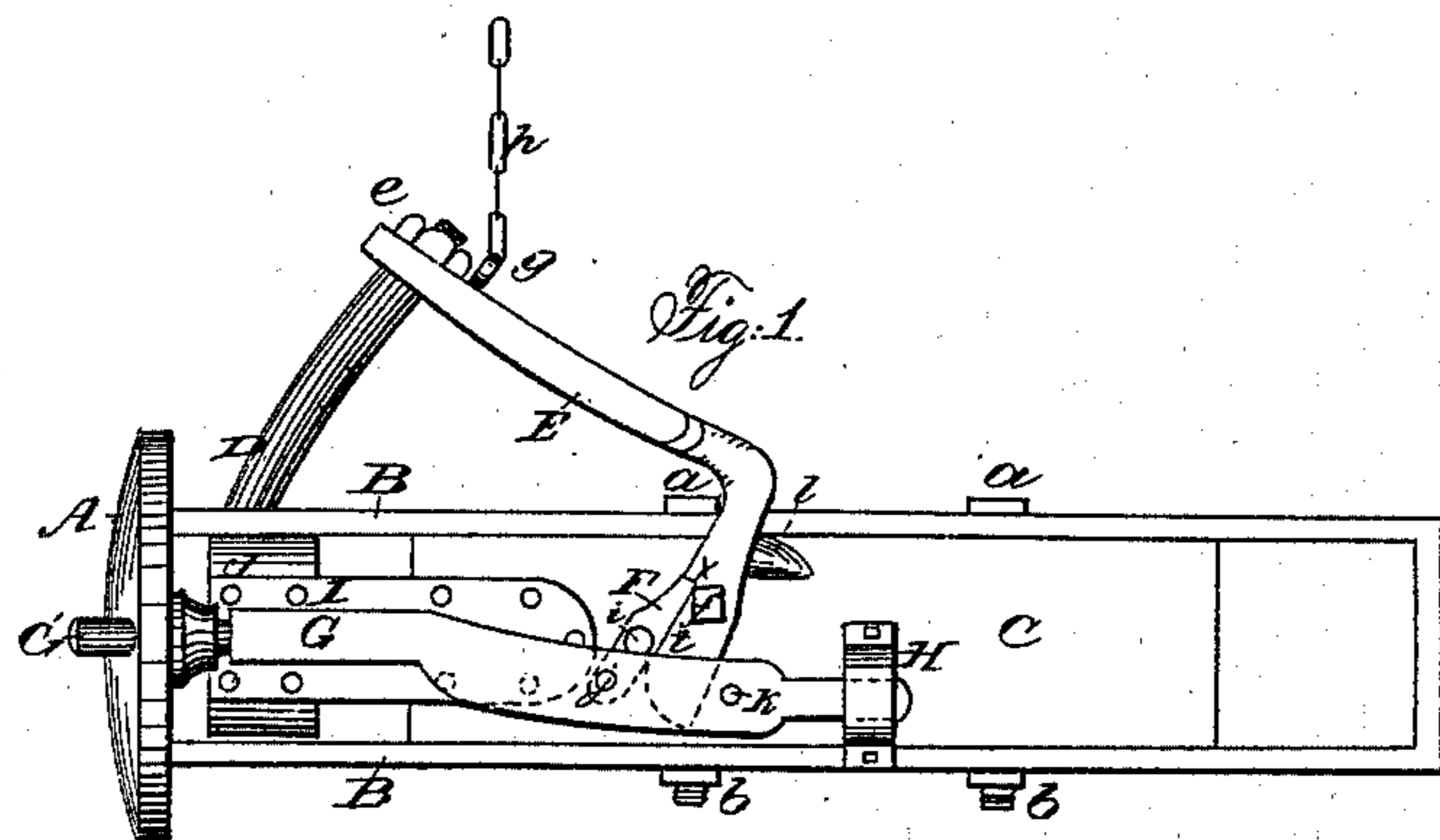


W. C. MORSE.  
Car Coupling.

No. 49,292.

Patented Aug. 8, 1865.



Witnesses  
J. Ames  
for R. Clarke

Inventor  
W. C. Morse

# UNITED STATES PATENT OFFICE.

W. C. MORSE, OF BOSTON, MASSACHUSETTS.

## IMPROVED CAR-COUPLING.

Specification forming part of Letters Patent No. 49,292, dated August 8, 1865.

*To all whom it may concern:*

Be it known that I, W. C. MORSE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Self-Shackling Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation representing the shackling-pin D drawn up, and Fig. 2 is a similar view representing the shackling-pin dropped down. Fig. 3 is a top view, Fig. 4 is a front elevation, and Fig. 5 is an inside plan, of one of the clamps J J.

Like parts are indicated by the same letters in all the drawings.

To enable others skilled in the art to make and use my improvements, I will now describe the construction and operation of the same.

A is the "bunter" or front of the coupling, and B B are the top and bottom pieces, all of iron, and constructed substantially like many in general use.

C is a block of cast-iron, confined between the top and bottom pieces, B B, by means of the bolts *a a* and screw-nuts *b b*. In the center of the front end of this block C is a recess large enough to receive the end of the link L, as shown by dotted lines in Fig. 2, and thereby prevent the same from dropping down from a horizontal position.

J J are metallic clamps, shaped as clearly shown in Figs. 1, 4, and 5, placed behind the bunter A between the top and bottom pieces, B B, and attached by means of screws or rivets to the front ends of the flat springs I I, the back ends of which are confined in a similar manner to the sides of the block C. Attached to each of these clamps by means of a pivot, *n*, (see Fig. 5,) is a cheek, J', which turns freely a few degrees on said pivot in a square-cornered recess in the clamp, as clearly shown in Figs. 4 and 5. Across these cheeks are rounded depressions *m m*, into which the link L is forced, the springs I I allowing the said clamps to yield enough to receive it, while at the same time they hold it in any required position, either horizontal or slightly inclined up or down, as may be required to direct it (the link) into another coupling of a similar construction on another car.

If the two bunters are of the same height, the link L should be horizontal, but if (as is sometimes the case) one bunter is higher than another, then the link pressed between the cheeks J' J' (which turn on their pivots *n*) may have its outer end elevated or depressed to correspond with the height of the bunter into which it is to be forced and shackled.

D is the shackling-pin, bent into the arc of a circle, as shown in Figs. 1 and 2, and confined to the front end of the lever E by means of the screw-nut, or in any other obvious manner. The back end of this lever is divided, forming two arms, which are bent as shown in Figs. 1 and 3, and attached to the sides of the block C by means of pivots *f f*.

G is a sliding arm, the front end of which is round and passes through a hole in the bunter A, while the rear end is flat and passes through a clasp, H, on the side of the block C, as represented in Figs. 1, 2, and 3. On the inner side of the arm G is a slot, *w*, (see Fig. 3,) which receives the lower end, *t*, of the forked lever E. Projecting into the slot *w* is a pin, *k*, which, striking against the lower end, *t*, of the lever E, will raise the latter into the position represented in Fig. 1.

F is a link or dog, the center of which is attached to the side of the block C by the pivot *i*, while its lower end is attached to the arm G by the pivot *j*. The design of this link is to hold the shackling-pin D and lever E in the position shown in Fig. 1, which it does by having its top forced under the shoulder *x*.

l is a pin or start projecting from the side of the block C, its purpose being to prevent the lever E from rising high enough to draw the shackling-pin D out of the hole in the top piece, B.

h is a chain or rope attached to the loop *g*, and extending upward to the platform or top of the car, so that a person there may by means of said chain or rope withdraw the shackling-pin D from the link L and into the position represented in Fig. 1, where it will be held, as before described, by means of the link F. The levers E and G and pin D being in the position, shown in Fig. 1, the coupling is ready to receive a link, L, held, as shown in Fig. 2, in the coupling of another car. The link L (being held by the clamps J J of one coupling) will enter between the clamps of the other, and when the bunter strikes the projecting end of

the arm G, forcing it back into the position shown in Fig. 2, releasing the link F from the shoulder *x*, and driving the pin, D, downward through the link or dog L, thus forming a self-shackling car-coupling.

My improvement is very simple, cheap, and efficient, and can be readily applied to many of the couplings now in general use.

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

1. The grooved and pivoted cheeks J' J', in combination with the yielding clamps J J, sub-

stantially as set forth and for the purpose described.

2. The arm G, projecting in front of the bunter A, in combination with the lever E and shackling-pin D, substantially as and for the purpose described.

3. The link or dog F, in combination with the arm G and lever E, for the purpose of holding up the latter, substantially as described.

W. C. MORSE.

Witnesses:

N. AMES,

GEO. R. CLARKE.