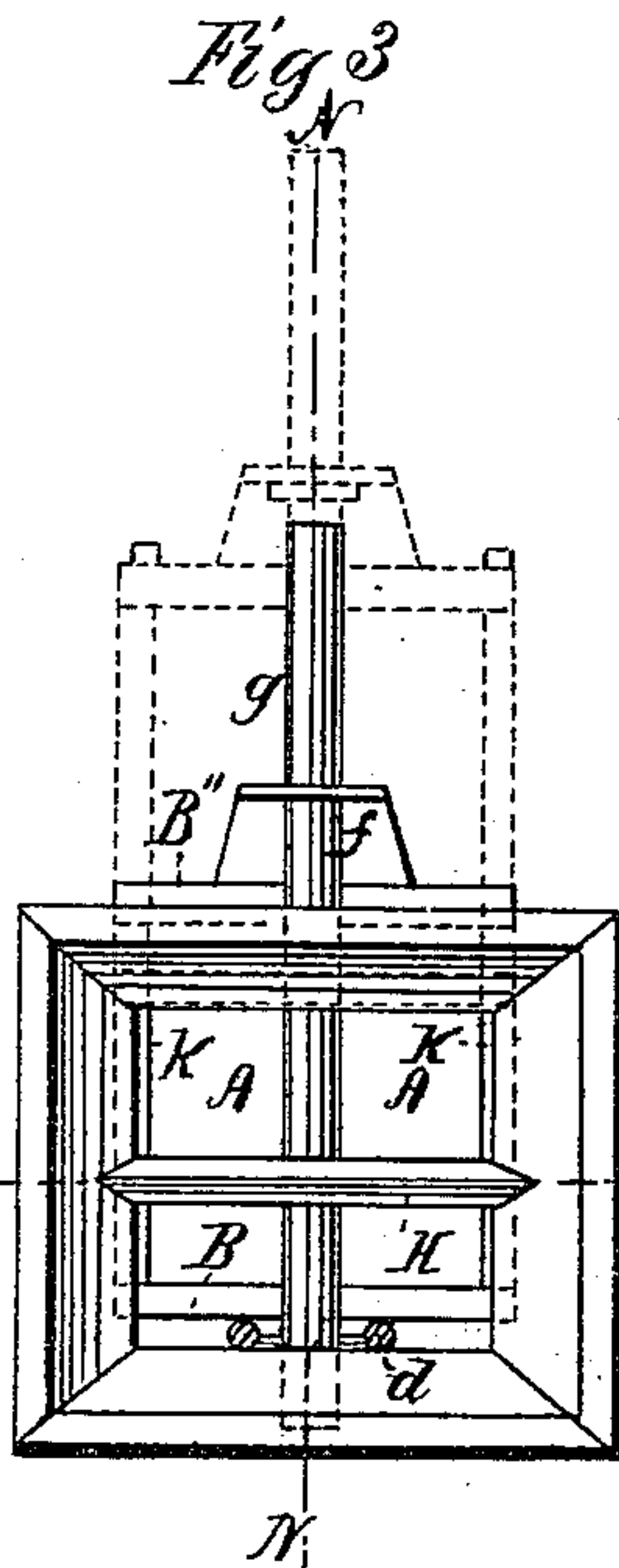
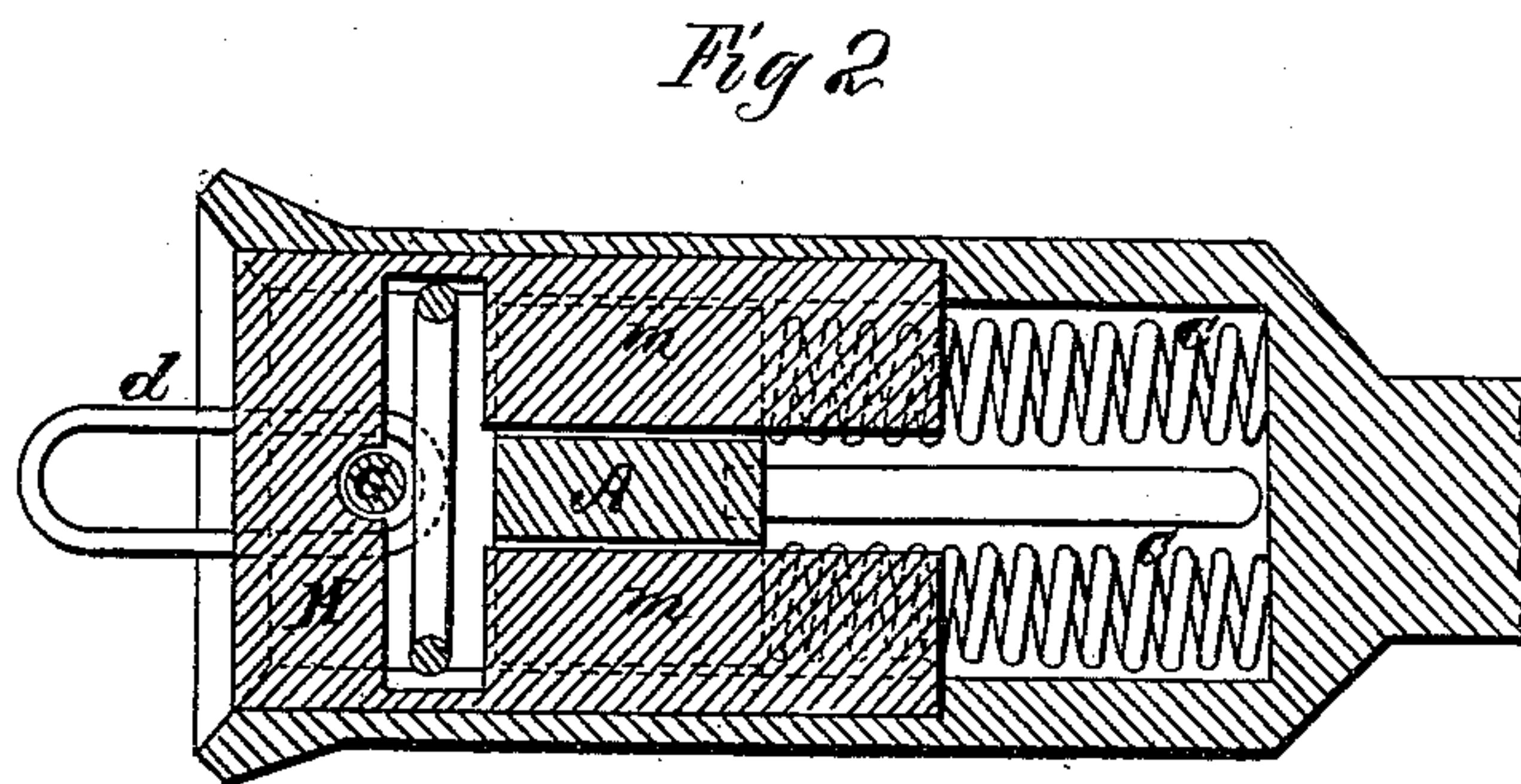
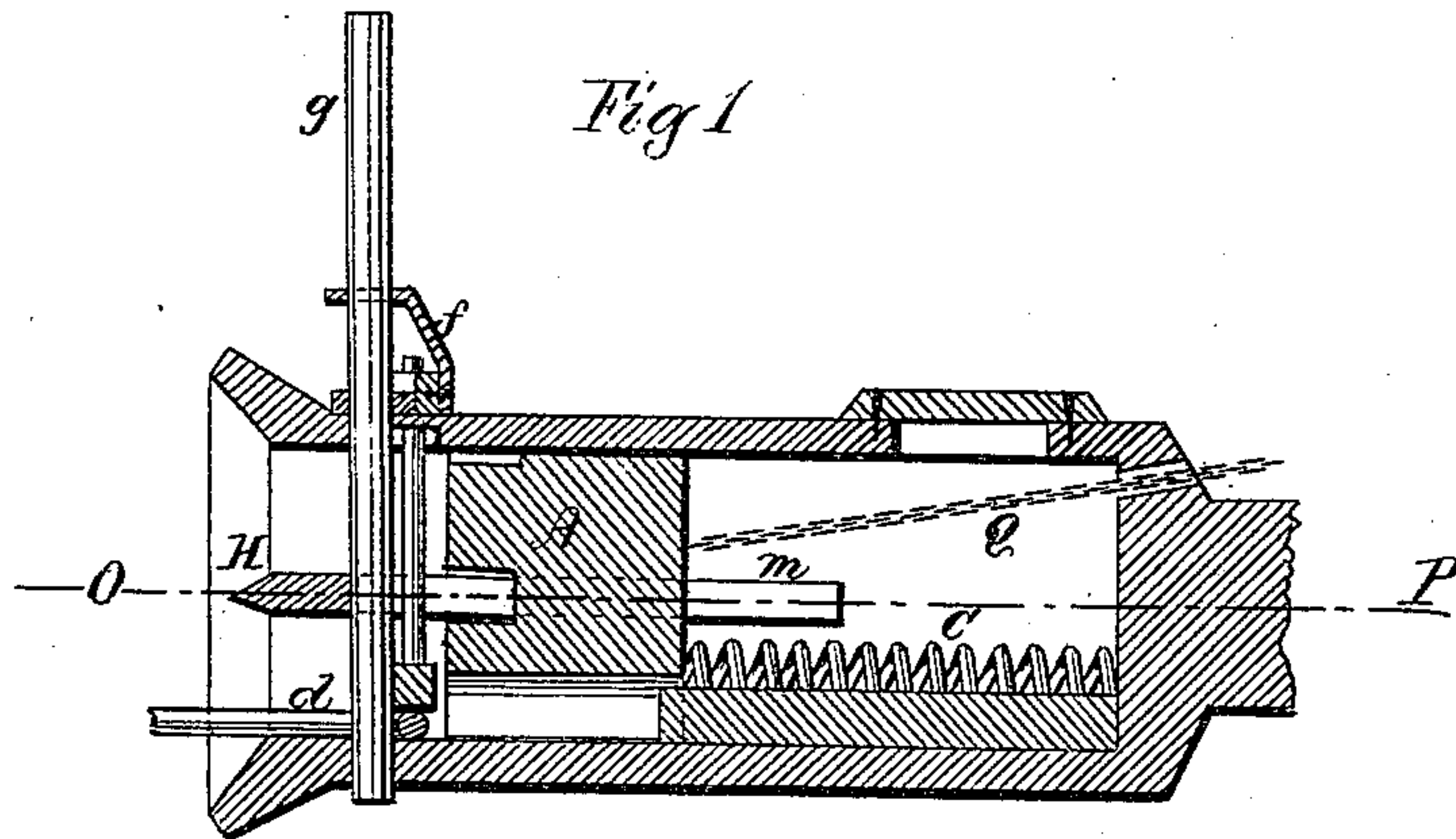


**D. B. REED.**  
**Car-Couplings.**

No. 148,847.

Patented March 24, 1874.



*Witnesses.*

*Geo. T. Allison.*  
*H. C. McQuil*

*Inventor.*

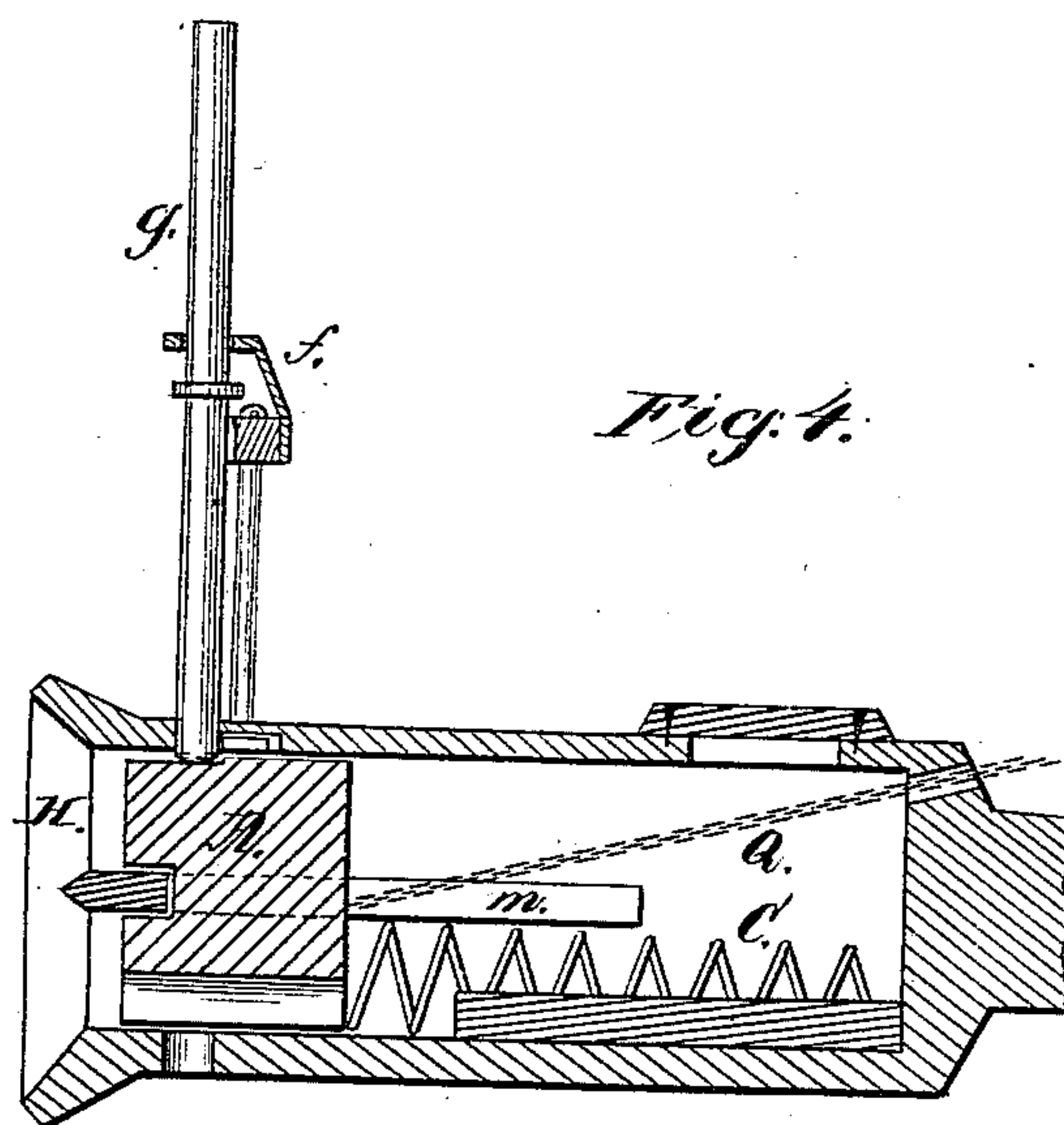
*Daniel B. Reed*

2 Sheets--Sheet 2.

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# UNITED STATES PATENT OFFICE.

DANIEL B. REED, OF SIOUX CITY, IOWA.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 148,847, dated March 24, 1874; application filed October 6, 1873.

*To all whom it may concern:*

Be it known that I, DANIEL B. REED, of Sioux City, Iowa, have invented a Car-Coupling, of which the following is a specification:

My invention relates to that class of devices employed in attaching and detaching the several cars making up railroad-trains, and is designed to facilitate the repeated operation of coupling and uncoupling cars on all kinds of rail and tram ways. Also, to render the operation comparatively safe to the operator.

In order to enable others skilled in the business to which my invention relates, to understand the working and construction of the same, I will proceed to describe it, in which reference will be made to the annexed drawings, similar letters referring to similar parts in the several figures.

Figure 1 is a vertical sectional view, taken in the line N N, Fig. 3. Fig. 2 is a horizontal sectional view, taken in the line O P, Fig. 1. Fig. 3 is a front view, showing the several parts as they appear when looking directly into the open end of the draw-head.

It will be readily seen, by inspection of the drawings, that my invention consists, essentially, of a draw-head of the usual general form, differing, mainly, in making the chamber deeper, for the purpose of containing the several useful devices which constitute the improvements which I claim, and which are hereinafter more fully described.

The hollow part of the draw-head contains a block of metal or wood, shown at A, Figs. 1 and 2. This block is made to slide easily back and forth in the chamber, on guides shown at M M, Figs. 1 and 2, and is thrust forward by means of the stiff coiled spring C C, Figs. 1 and 2. In the front part of the chamber of the draw-head is a metal frame, composed of the rectilinear pieces B B, Figs. 2 and 3, connected by the rods K K, Figs. 1, 2, and 3. This frame, by means of the rods K K, moving in half-circular grooves in each side of the draw-head, slides freely up and down, so as to be made to occupy the position shown by the dotted lines in Fig. 3. The draw-head is provided with the usual draft-pin, except that it is made longer from the collar upward than in the common draw-head, as shown at g

g, Figs. 1 and 3, and passes up through a loop secured to the piece B, as shown at f f, Figs. 1 and 3.

In the operation of connecting and disconnecting the cars of a train, the several cars are to be provided with draw-heads of this construction, and the operations of the devices mentioned are as follows: The frame B B K K, Figs. 1, 2, and 3, is raised until the piece marked B, Fig. 3, enters the recess, (shown more plainly in Fig. 1,) when the coiled spring C C will force the block A A forward against the edge of the shelf H when the frame B B and draft-pin g g will rest on the top of the block, and thus be kept in the position shown by the dotted lines in Fig. 3, and be kept from falling back to the position they occupy in Fig. 1. When the frame and pin are in this position, and the end of the link, which is of the form usually employed in coupling cars, is thrust forcibly into the draw-head, the block A yields, by means of the coiled spring, and the pin descends through the link and the lower piece B, Fig. 3, the frame falling at the same time upon the link, and holding it in the position shown at d d, Figs. 1 and 3, ready to enter an approaching draw-head, in which the frame has been raised to the position shown by dotted lines in Fig. 3, when the same effect will be produced by the link being thrust against the block A, as that just described, and the operation of coupling the two draw-heads be completed. This frame and pin may be operated from top of car or platform, by any suitable device for the purpose.

In disengaging the draw-heads of two separate cars, all that is necessary for the operative to do is to raise the frame and pin to the position shown by the dotted lines in Fig. 3, and the link is readily withdrawn, the pin g, frame B B K K, and block A, all being again in position for coupling on the approach of another draw-head with a link in the position shown at d, Fig. 1. In case two draw-heads approach, in one of which a link is left in the position shown at d d, Figs. 1 and 3, and connection is not desired, the operative pulls upon the chain, shown at Q, Fig. 1, when the block A is drawn back, and the pin and frame fall to the position shown in Fig. 1, and the link is prevented from entering the draw-head, and

the coupling of the cars is prevented. Again, if two draw-heads approach, in both of which a link is in position, shown at *d*, Fig. 1, the frame and pin are raised by the operative, and the link falls out, leaving the draw-head with its several parts ready for connecting with the approaching draw-head.

The block A acting as a yielding cushion, the bending and breaking of draft-pins are prevented, as the block A will yield sufficiently to admit the whole length of the links, and yet come back to its place again when the pressure is removed.

The partition shown at H H, Figs. 1 and 2,

is designed as a shelf, on which the link may be laid when coupling with a draw-head which is higher from the track than the one with which it is to be connected by means of the link.

Having described my invention, I wish to secure by Letters Patent—

The combination, in the draw-head, of the sliding block A, frame B B K K, and pin *g*, as set forth.

DANIEL B. REED.

Witnesses:

JNO. P. ALLISON,  
H. C. McNEIL.