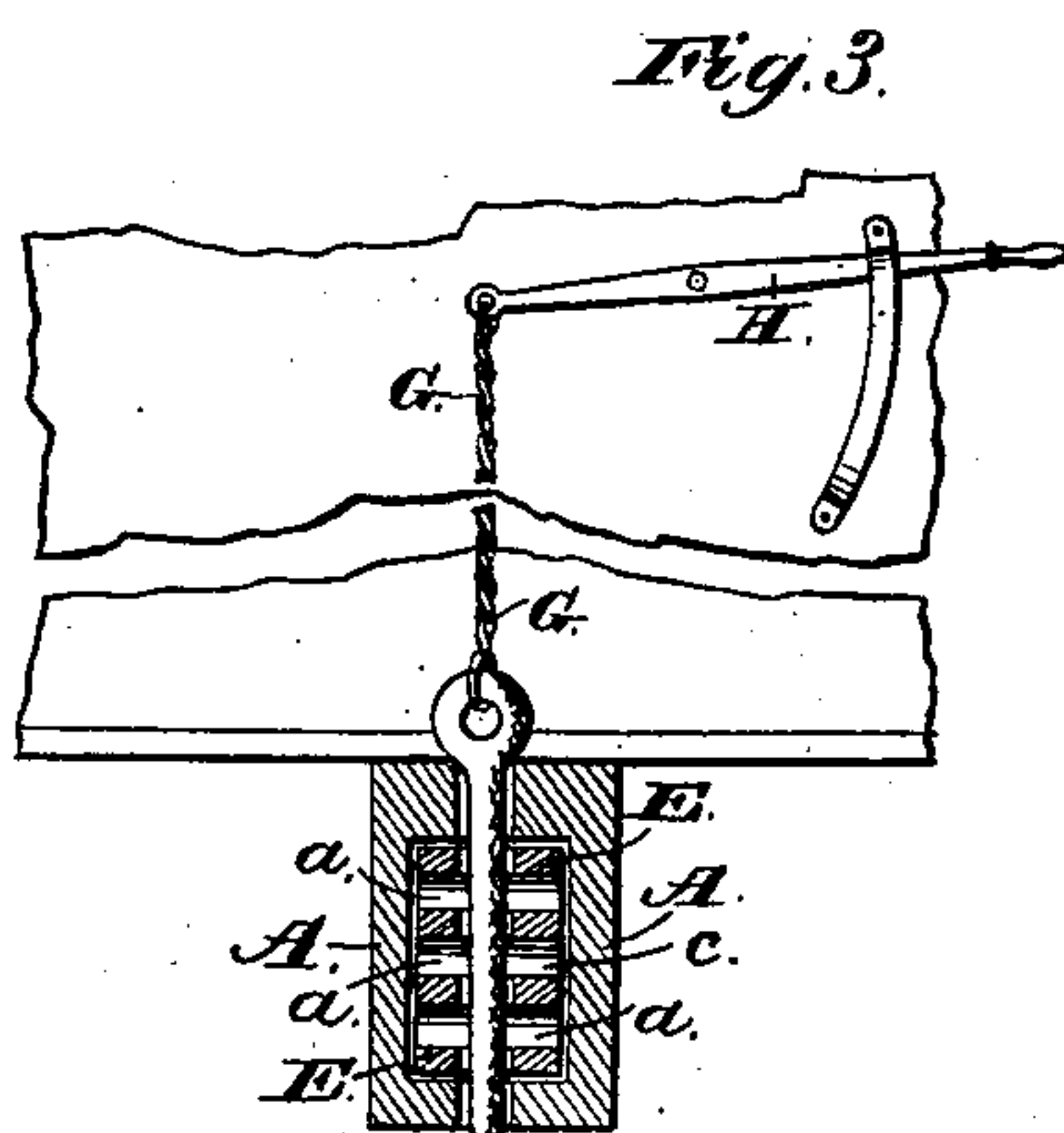
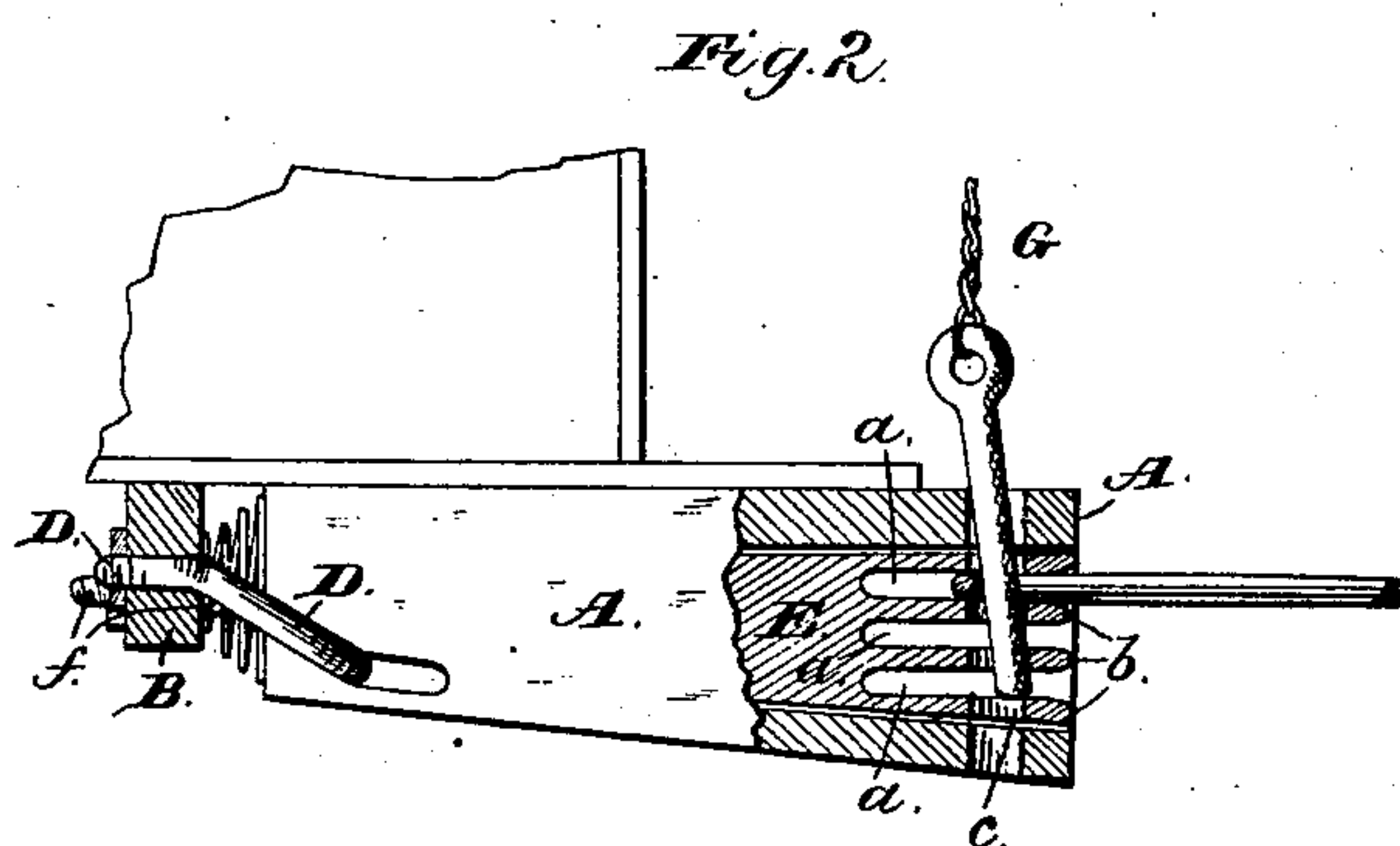
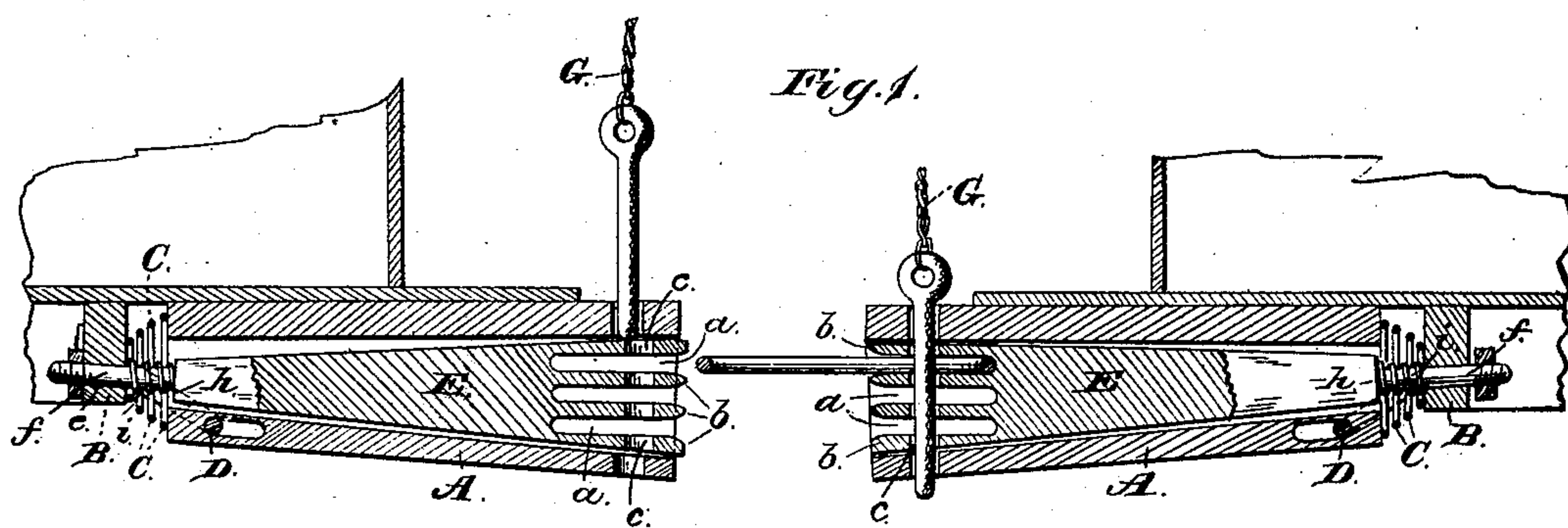


(No Model.)

J. W. PAGE.  
Car Coupling.

No. 243,606.

Patented June 28, 1881.



Witnesses:  
Jas. E. Hutchinson  
J. A. Rutherford

Inventor:  
John W. Page,  
By James L. Norris  
Atty.



# UNITED STATES PATENT OFFICE.

JOHN W. PAGE, OF WOODBURY, TENNESSEE, ASSIGNOR OF TWO-THIRDS  
TO HENRY A. WILEY, LITTON B. McFERRIN, AND JAMES A. JONES, OF  
SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 243,606, dated June 28, 1881.

Application filed April 14, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. PAGE, a citizen of the United States, residing at Woodbury, in the county of Cannon and State of Tennessee, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

This invention relates to car-couplings in which the coupling-pin of one draw-head is held up by a yielding pin-support until the link of the adjoining car pushes the latter from beneath the pin, when the pin falls through its pin-opening in the draw-head and automatically couples the cars together.

The object of my invention is to improve the construction of the sliding and spring-impelled pin-support, whereby it performs several functions, namely, to hold the pin until pushed from beneath it, to sustain the usual link in a level position to engage the adjoining draw-head, to hold the coupling-pin in drawing the cars in case the lower end of the pin does not pass through the pin-opening in the bottom wall of the draw-head, and to hold the coupling-link at different heights. This I accomplish by the construction and arrangement of parts shown in the accompanying drawings, in which—

Figure 1 represents a longitudinal vertical sectional view of two draw-heads embodying my invention, with the longitudinally-sliding parts in position to couple when brought together; Fig. 2, a longitudinal section of one of the draw-heads, showing the manner in which the yielding pin-support sustains the pin in case the lower end of the latter should not pass through the pin-opening in the bottom wall of the draw-head; and Fig. 3 is a transverse sectional view on the line of pin-hole, Fig. 1.

The letter A indicates an ordinary draw-head, which is preferably cast of malleable iron in one piece, with the usual rectilinear chamber and pin-openings. This draw-head is supported upon the under side of the car-platform by any of the well-known means employed for this purpose, and between its rear end and a fixed abutment, B, is arranged the spring C, for permitting the draw-head to yield. In the present instance the draw-head is provided with an elongated slot, in which is arranged a strong

loop, D, the ends of which are securely bolted to the abutment B, which serves to support the draw-head.

Within the draw-head is arranged the pin-support E. It is composed of a rectangular or square head provided with a series of chambers, *a*, formed by projecting plates *b*, each of which is perforated near its forward end, as at *c c c*, the perforations all coinciding with each other. The chambers *a a a* each extend rearwardly back of the perforations *c*, and the plates *b* thereby form extended bearings to support and sustain the coupling-links in a level and horizontal position to accurately engage the adjoining draw-head. The chambers extending rearwardly back of the pin-holes *c* therefore perform an important function, because they provide ample supports for retaining the links in a level position, and, further, by providing the pin-holes in the pin-support the plates *b* of the same serve to sustain the coupling-pin in drawing the cars in case the lower end of the coupling-pin does not pass through the pin-opening in the bottom wall of the draw-head, as represented in Fig. 2. This is of considerable advantage, because the pin is liable to fall into the position shown in Fig. 2, where the pin-support is divided into a series of chambers to provide for adjusting the height of the link for different cars. The pin-support E is extended through an aperture, *d*, in the rear end of the draw-head, and through an aperture, *e*, in the fixed abutment B, and the projecting reduced stem or shank *f* is provided with a nut, *g*, or other device to retain it in place. Upon the stem or shank *f*, between the abutment B and the shoulder *h*, is arranged a spring, *i*, the function of which is to normally throw the pin-support forward and keep its pin-holes *c* out of coincidence with the pin-opening in the draw-head, thereby holding the pin in a suspended position, as shown in Fig. 1, until the cars come together, when the link of the adjoining car will pass into one of the chambers *a*, push the pin-support rearward, and as soon as the pin-openings in the latter are brought into coincidence with the coupling-pin the latter will fall and couple the cars together.

The coupling-pin is attached to one end of a



chain, G, the other end of which is attached to a pivoted lever, H, which can be operated from the side of the car, so that the pin can be raised and the cars uncoupled without passing between the car-platforms. The object of this chain is to provide a loose connection between the coupling-pin and the operating-lever, and thereby permit the pin to freely drop.

It will, of course, be evident that the longitudinally-sliding pin-support need not extend through the rear end of the draw-head, as it could be entirely inclosed within the draw-head and the spring *i* arranged between the rear end of the pin-support and the interior of the rear end of the draw-head.

A car-coupling has heretofore been provided with a pin-support composed of a series of connected parallel plates pivoted at the lower portion of the draw-head, the plates having perforations near their outer ends, and having a spring arranged in their rear; but such structure does not constitute my invention and is not claimed by me.

What I claim is—

1. In combination with the draw-head, the

spring-impelled pin-support E, arranged to slide longitudinally on the bottom walls of the draw-head, and constructed with the series of plates *b*, each plate having a pin-opening, *c*, with the chambers *a* extending rearwardly back of said pin-openings, substantially as described.

2. The combination, with the yielding draw-head, of the spring-actuated pin-support E, constructed with the pin-openings *cc* in the series of link-supporting plates *b*, and the series of chambers *a* extending rearwardly back of the pin-openings, the rear end of the pin-support having the stem or shank *f* arranged in the abutment B, and the spring *i* arranged on said stem or shank, all substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN W. PAGE.

Witnesses:

JAMES A. JONES,  
W. C. TODD.