

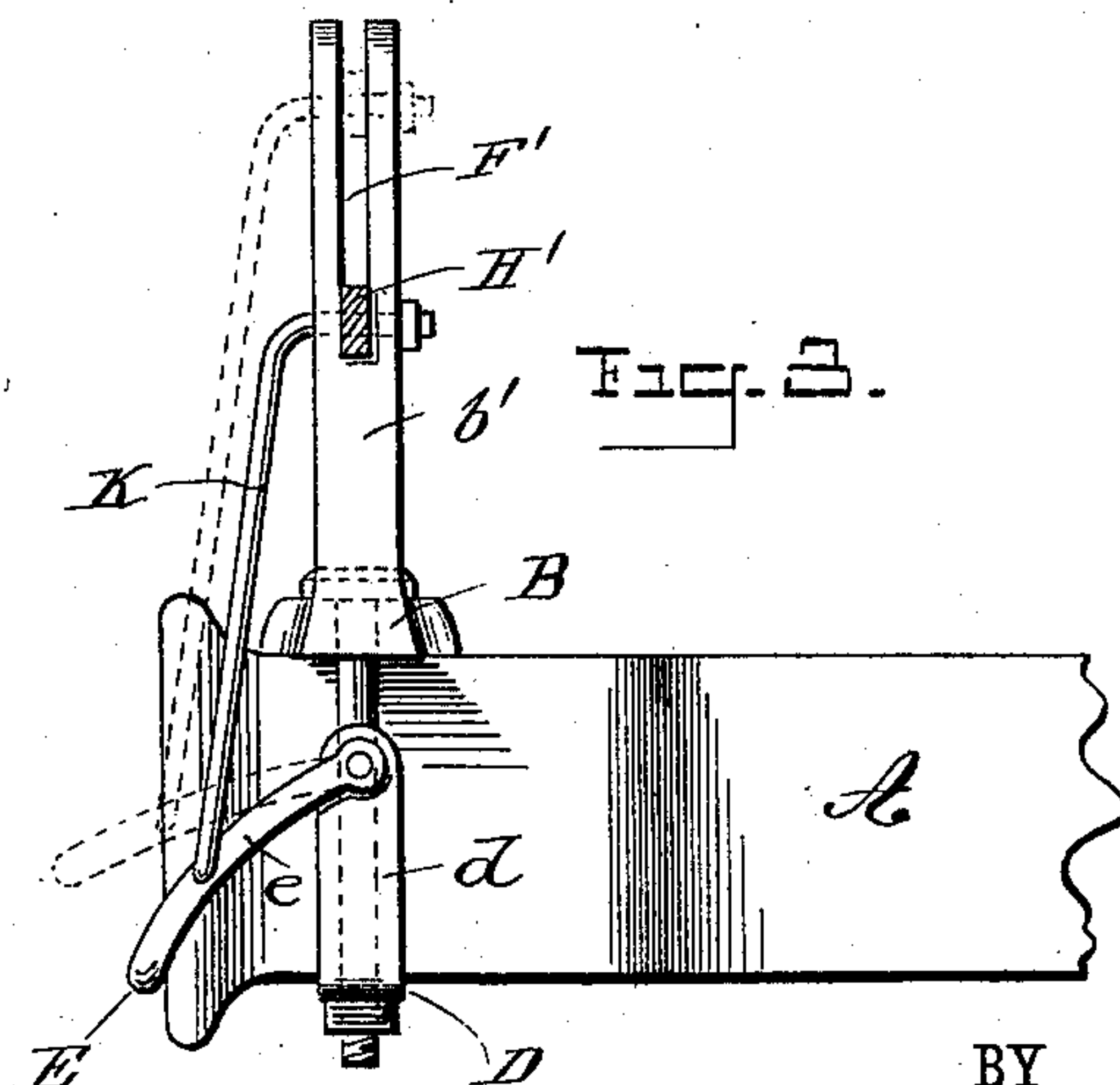
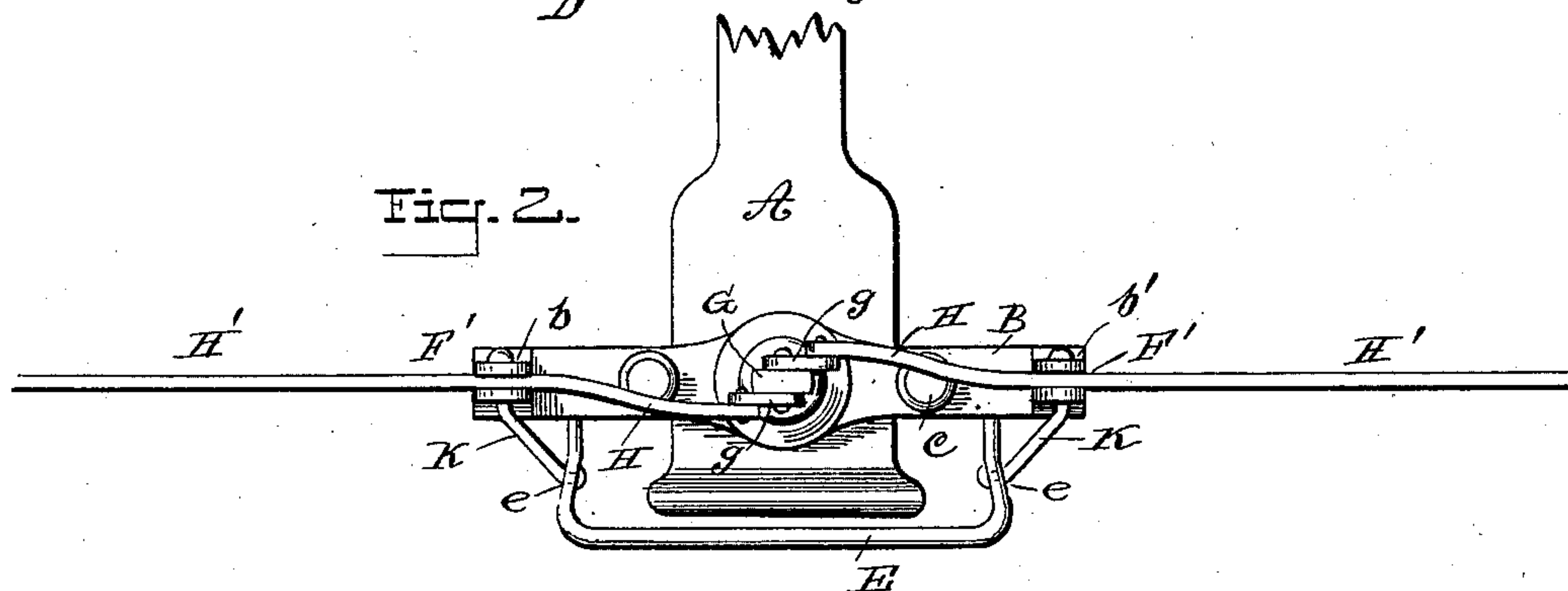
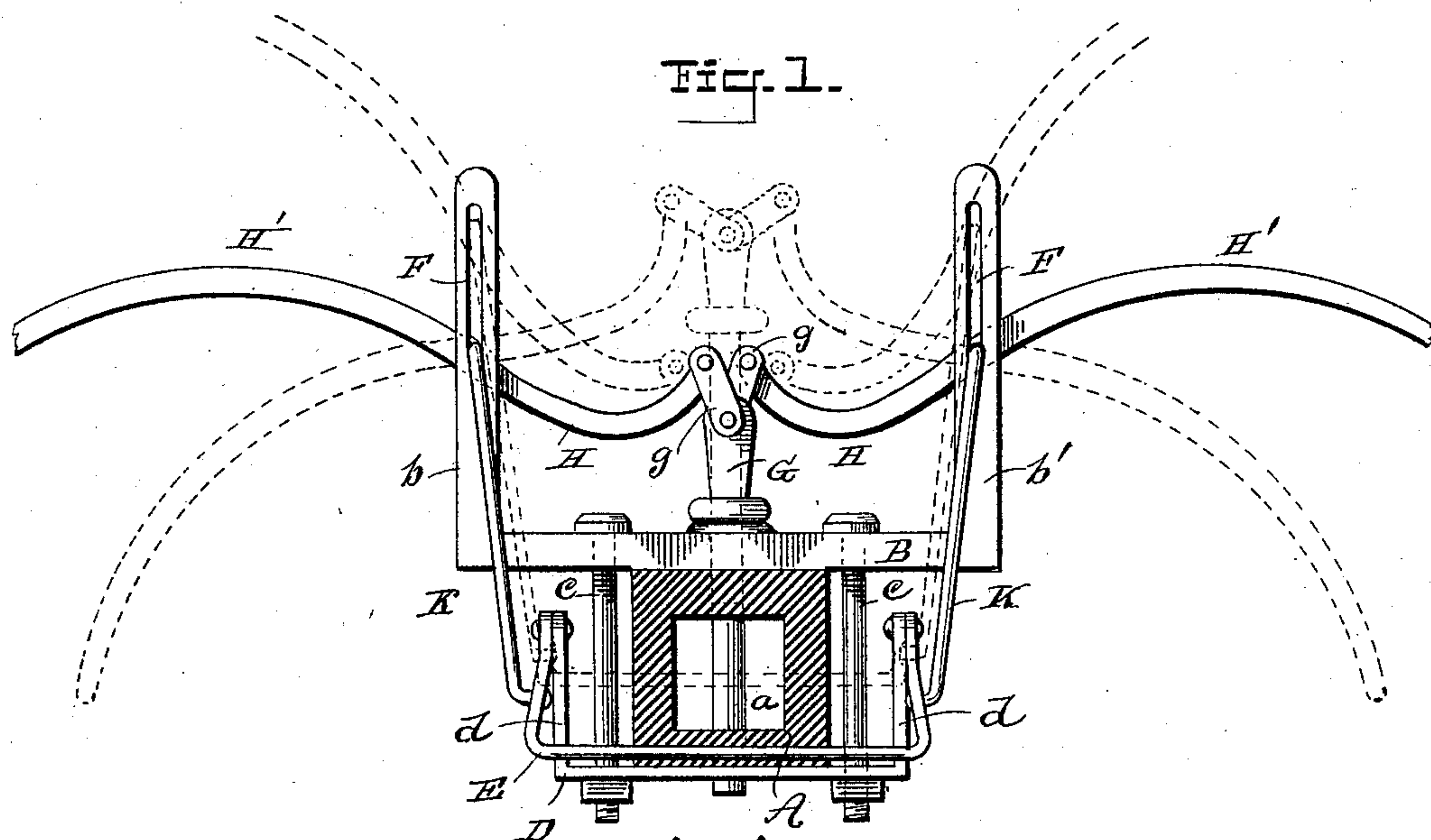
(No Model.)

A. G. W. FOSTER.

CAR COUPLING.

No. 364,810.

Patented June 14, 1887.



WITNESSES:

O. D. Mott
C. Sedgwick

INVENTOR:

A. G. W. Foster
Munn & Co.
ATTORNEYS.

BY

UNITED STATES PATENT OFFICE.

ABRAHAM G. W. FOSTER, OF NEWNAN, GEORGIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 364,810, dated June 14, 1887.

Application filed December 8, 1886. Serial No. 220,972. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM G. W. FOSTER, of Newnan, in the county of Coweta and State of Georgia, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

My invention relates to an improved car-coupling, and has for its object to provide a coupler which may be coupled from the sides of the car, and in which the link may, from the same point and with the same lever, be adjusted to enter an opposing coupler of greater height.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of my coupler, the draw-head being in section, illustrating in dotted lines the various positions of the levers. Fig. 2 is a plan view of the coupler; and Fig. 3, a side elevation, the lever being in section.

In carrying out my invention I employ the ordinary form of draw-head, A, having a link-opening, *a*, and the usual pin-aperture therein. Transversely the upper face of the draw-head I attach a bar, B, provided with arms *b b'*, adapted to extend vertically upward therefrom and at right angles thereto, and also a central aperture which is made to register with the pin-aperture in the draw-head. The attachment of the horizontal bar B to the draw-head is usually accompanied by bolts *c*, which, passing through the said bar at each side of the draw-head, are entered through and secured upon a metallic plate, D, in engagement with the under surface of the said draw-head, which plate is also apertured in alignment with the pin-aperture of the coupling. The horizontal bar B and plate D, through the medium of the said bolts, are thus held securely in position at the forward end of the draw-head. As an additional safeguard, however, one or more pins may be driven through the plate D into the draw-head, if found desirable.

The plate D, which is preferably of greater

length than the width of the draw-head, yet not as long as the horizontal bar B, is provided at each end with integral vertical right-angular projections *d*, adapted to extend vertically upward to a point beneath the said horizontal bar B. To the ends of the projections *d* of the bottom plate, D, a U-bar, E, is pivoted to extend outward, the members *e* thereof being preferably formed with a slight curve, so as to cause the horizontal portion of the said U-bar to lie parallel with the lower front edge of draw-head a suitable distance therefrom below the link-opening, for a purpose hereinafter stated. The vertical arms *b b'* of the horizontal bar B are provided with a slot, F, cut through their front face from a point near the top to a distance downward, preferably above the center, and also with another side slot, F', at right angles to the aforesaid slot F, extending the same distance downward, and usually upward through the top of said arms, as shown in Figs. 1 and 3.

To the head of the coupling-pin G, when inserted in its opening, I pivot upon each side, by the same pivotal bolt, one end of short connecting-plates *g*, the other ends of which are pivoted to the upwardly-curved ends H of levers H', which levers are made to enter the side slots, F', of the vertical arms *b b'*. The said levers H' are pivotally held in the aforesaid side slots, F', by means of connecting-rods K, which, passing through the front slots, F, and also through apertures in the levers, are retained in position at that end by a nut or equivalent form of fastening. The other end of the connecting-rods K are projected at an inclination inward and downward, where they are pivotally attached to the curved members *e* of the U-guide bar E. Thus it will be seen that by bearing down upon either of the levers H' the pin G may be raised to receive the link of an opposing coupler without necessitating the operator entering between the cars, and that also from the side of a car by lifting the levers upward the U-guide bar E is brought into play, raising the link to any desired height to enter the draw-head when the opposing coupler is of a greater height, as shown in dotted lines, Fig. 1.

In operation, to uncouple, the lever H' is pressed down, which raises the pin and frees the link. Upon releasing the lever the pin re-

turns to its place in the draw-head. In coupling, if the link is in the draw-head of the standing car, the lever of that car may be raised with the right hand until, through the medium of the U-guide bar connected therewith, the link is brought to the required elevation. The lever of the approaching car may then be grasped with the left hand, and by bearing thereon the pin is raised. As soon as the link enters the opposing draw-head both levers are released and the coupling is effected. For use on passenger cars a single arm, H', will be used, having its free end bent upward to extend above the car-platform.

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

1. The combination, with a draw-head provided with a pin, of a horizontal bar, B, attached to said draw-head, provided with vertical arms *b b'*, having slots F F' cut therein at right angles to each other, the curved levers H', and connecting-plates *g*, substantially as shown and described, whereby the said pin is elevated by the depression of said levers, as set forth.

2. The combination, with a draw-head provided with a pin and a horizontal bar, B, held

in said draw-head, having vertical arms *b b'*, and slots F F' cut in said arms at right angles to each other, of a bottom plate, D, attached to said horizontal bar, having vertical end projections, *d*, a U-shaped guide-bar pivoted to said arms, curved levers H, and connecting-plates *g*, pivoted to said pin, and an inclined connecting-bar, K, uniting said levers and guide-bar, substantially as shown and described, whereby the pin is elevated when said levers are depressed and the link elevated when the same levers are raised, as set forth.

3. The combination, with a draw-head and a coupling-pin entered therein, of the upwardly-extending arms *b b'*, secured to the draw-head, and provided with slots F F' at right angles to each other, the side arms, *d d*, secured to the draw-head, the U-shaped lifter E, pivoted to the arms *d*, the rods K, pivoted to the lifter E, and having their upper bent ends passed through the slots F, and the levers H', pivoted in the slots F' on the rods K, and connected at their inner end to the coupling-pin, substantially as shown and described.

ABRAHAM G. W. FOSTER.

Witnesses:

SAMUEL FREEMAN,

THOS. W. POWEL.