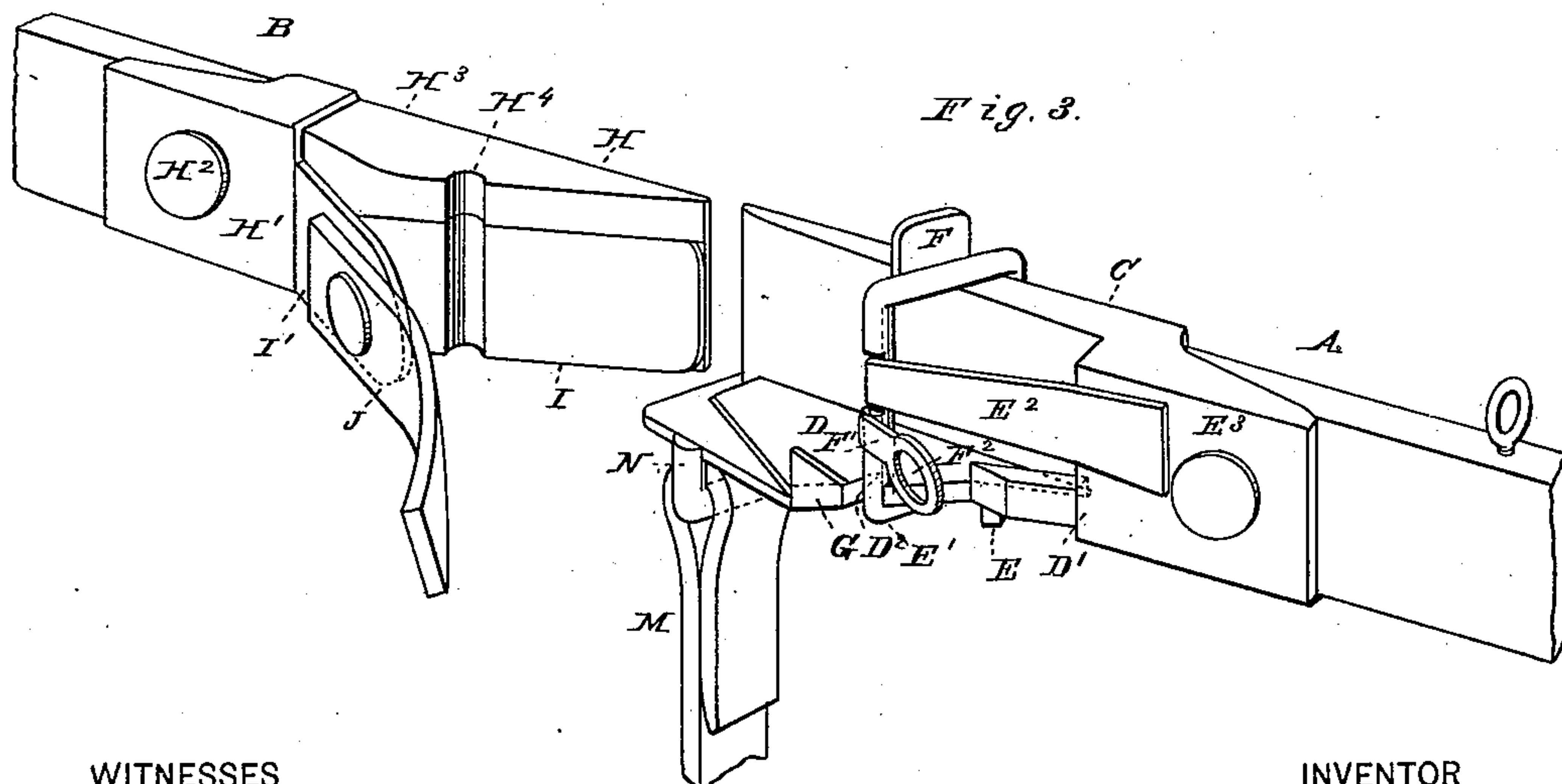
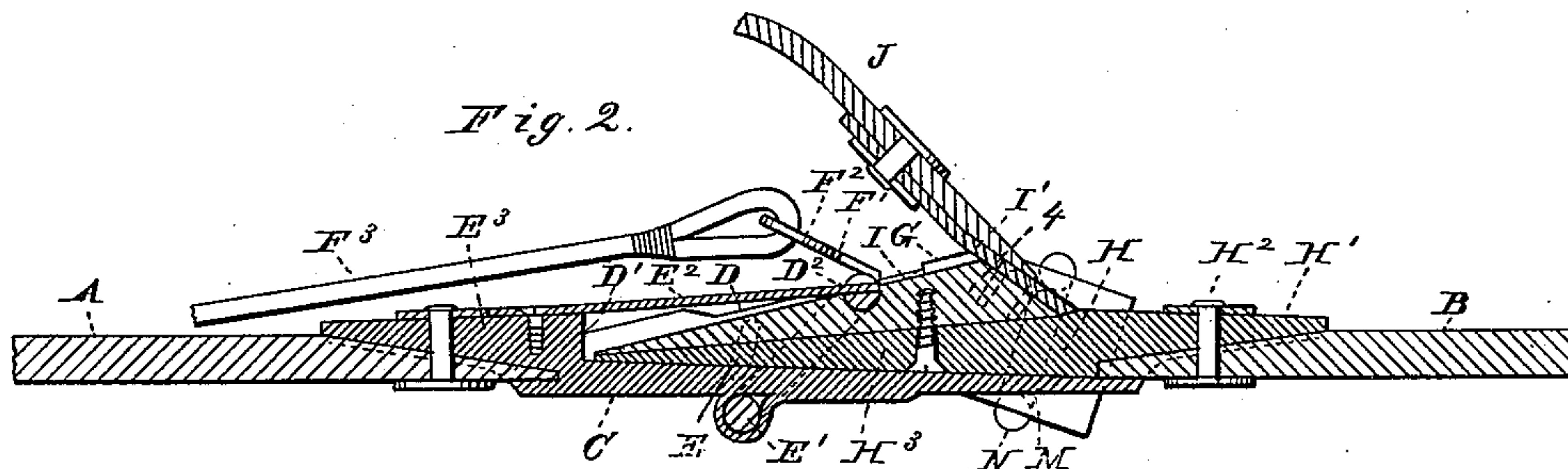
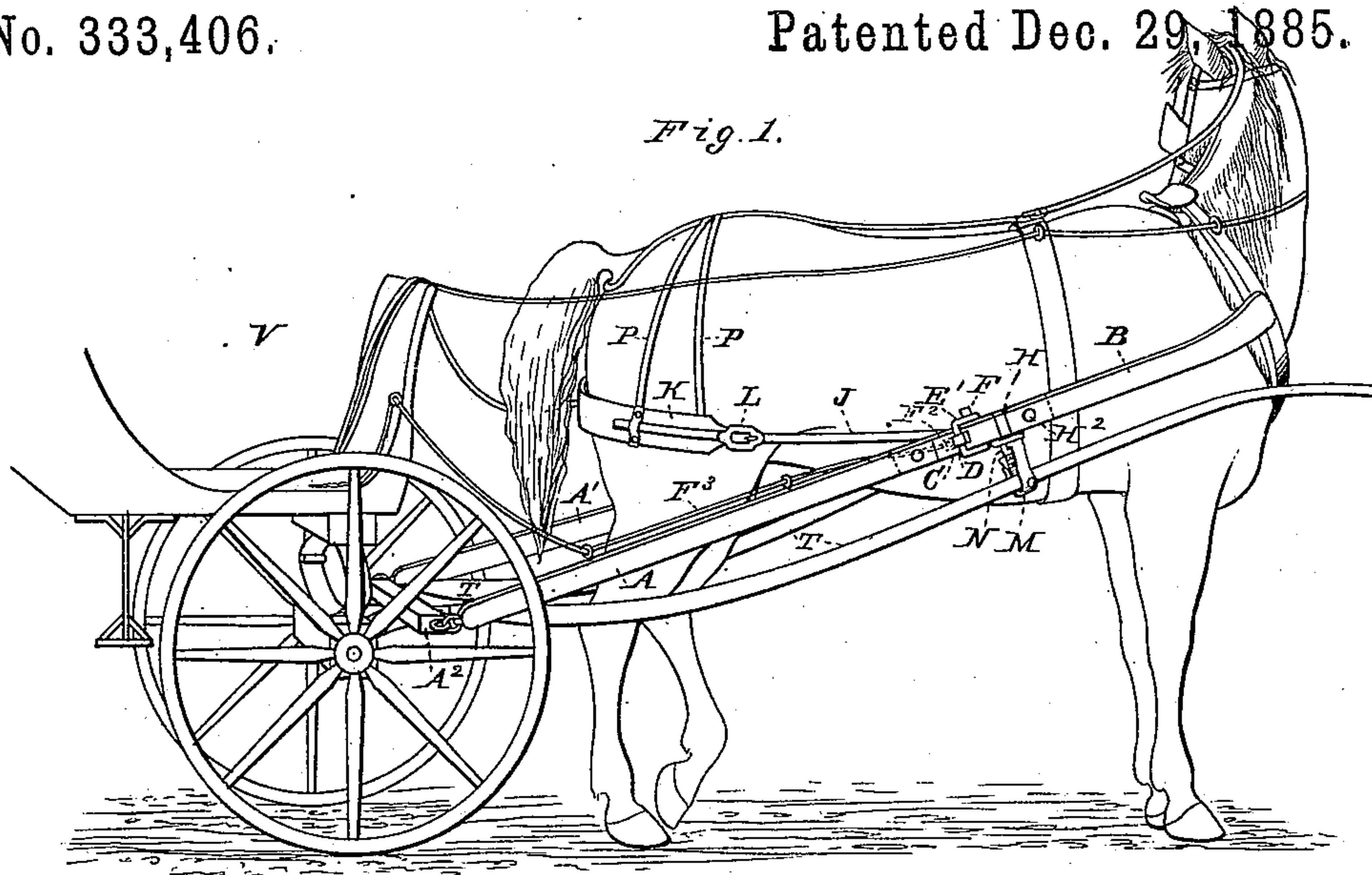


(No Model.)

M. GATES.
SAFETY HARNESS HITCH.

No. 333,406.

Patented Dec. 29, 1885.



WITNESSES

Villette Anderson.
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UNITED STATES PATENT OFFICE.

MATTHIAS GATES, OF KANSAS CITY, MISSOURI.

SAFETY HARNESS-HITCH.

SPECIFICATION forming part of Letters Patent No. 333,406, dated December 29, 1885.

Application filed October 13, 1885. Serial No. 179,805. (No model.)

To all whom it may concern:

Be it known that I, MATTHIAS GATES, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in a Quick and Safety Harness-Hitch; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of the invention and shows its application. Fig. 2 is a horizontal section through the snap. Fig. 3 is a perspective view of both parts of the snap separated.

My invention relates to a quick and safety harness-hitch adapted to vehicles employing thills; and it consists in the construction and novel combination of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

Referring by letter to the accompanying drawings, V designates a portion of the front of a buggy, which is sufficient to illustrate an application of my invention.

T designates the thills, and A² the single-tree.

The improvement is applicable to all single harness that may have been already constructed, by simply cutting the tugs in two about six inches in front of the breeching-buckles and riveting the ends of the tugs thus severed to the snaps hereinafter described.

In new harness the construction will from the first embody the improvements, so that the improvements will be applicable to both classes of harness without materially adding to the cost of either. The rear parts, A A', of the tugs are secured to the single-tree A² in any of the ways commonly practiced, and all ways remain in place. The front parts, B B', of the tugs form permanent parts of the harness, and leave the thills with the harness as the animal wearing the harness moves out of the thills, this harness-hitch thereby serving as a horse-detacher.

The snaps by which the severed or sectional tugs are connected are rights and lefts, but are

otherwise similar in construction. A description of one will therefore answer for both. To the forward end of the rear part, A, of the tug is securely riveted a small casting or buckle-frame, C, having at its lower edge an angular flange, D, which is widest at its forward end and tapers back to the shoulder D' of the frame C. On its under face the flange D is provided intermediate of its ends with a downwardly-projecting stop, E, against which the hinged loop E' abuts or strikes when said loop is drawn back. This hinged loop E' is held normally in the closed position by a spring, E², which is secured to the rear face of the attaching-flange E³, projecting from the rear end of the buckle-frame C. The hinged loop E' is provided on its upper end with an upwardly-projecting thumb-piece, F, by which the hinged loop may be moved or turned on its hinge to open the snaps when the operator has alighted from the vehicle. The hinged loop E' is also provided at its front side with a short inclined arm, F', extending rearwardly, and having an eye, F², at its rear end, to which eye the forward end of the detaching-cord F³ is connected, said detaching-cord extending back to the vehicle within easy reach of the driver. The angular flange D is provided with a notch, D², about the middle of its length, in which the front side or arm of the hinged loop E' rests when the loop is closed. Immediately in front of the notch D² is an upwardly-projecting pointed guide-spur, G, which serves also as a stop for the bevel-faced block H, secured to the rear end of the part B or front section of the tug. This bevel-faced block H is provided with an end flange, H', which is riveted to the rear end of the front section, B, of the tug by rivet H². The longer bevel or incline H³ of the bevel-faced block H is provided with a transverse groove, H⁴, in which the front side of the hinged loop E' rests when the two parts of the snaps are connected. To the shorter incline I of the block H is secured a short arm, I', which may be integral with said block, if desired, and to this arm I' is riveted one end of a strap, J, the other end of which strap J is secured to a breech-strap, K, by a buckle, L. The holdback-strap M is secured to a loop, N, projecting downwardly from the under face of the angular flange D, near the forward end of the latter, so that the hold-

back-strap M does not need to be undone when the horse is to be detached from the thills, but remains with the rear section of the tug attached to the vehicle.

5 P P' are the hip-straps, and Q is the back-band, of the harness.

For breast-strap harness separate the short incline 4 from the longer one by withdrawing the screw, and in case the tug is lengthened
10 take up the strap *m* and lengthen strap J, and to shorten the tug reverse the operation.

In all cases, if desired, detach the horse from the buggy before getting out.

Having described this invention, what I
15 claim, and desire to secure by Letters Patent, is—

1. The combination, with a tug-section provided at its forward end with a buckle-frame having a tapering notched flange along its
20 under side, with a downwardly-projecting loop and an upwardly-projecting guide-spur near the forward end of said tapering flange, a holdback-strap attached to said downwardly-projecting loop, the spring-pressed hinged
25 loop, and operating-cord, of a tug-section provided at its rear end with the bevel-faced transversely-notched block H, provided with the short arm I', substantially as specified.

2. The combination, with the part A, of the tug provided with the buckle-frame having
30 the tapering flange along its lower side provided with the downwardly-projecting loop near its forward end, and the holdback-strap connected to said downwardly-projecting loop, substantially as specified. 35

3. The combination, with the tapering buckle-frame having the tapering notched flange along its lower side, of the hinged loop with the finger-piece at its upper end and the spring bearing against said loop, as set forth. 40

4. A safety harness-hitch consisting of a sectional tug, a spring-pressed fastening device, and a detaching-cord, one section of the tug having bevel-faced transversely-notched
45 block, and the adjacent end of the opposite section having the fastening device consisting of a spring-pressed hinge-loop, and the releasing-cord connected with the said hinged loop, substantially as specified.

In testimony whereof I affix my signature in
50 presence of two witnesses.

MATTHIAS GATES.

Witnesses:

W. C. BRANHAM,
C. L. BLANCHARD.