

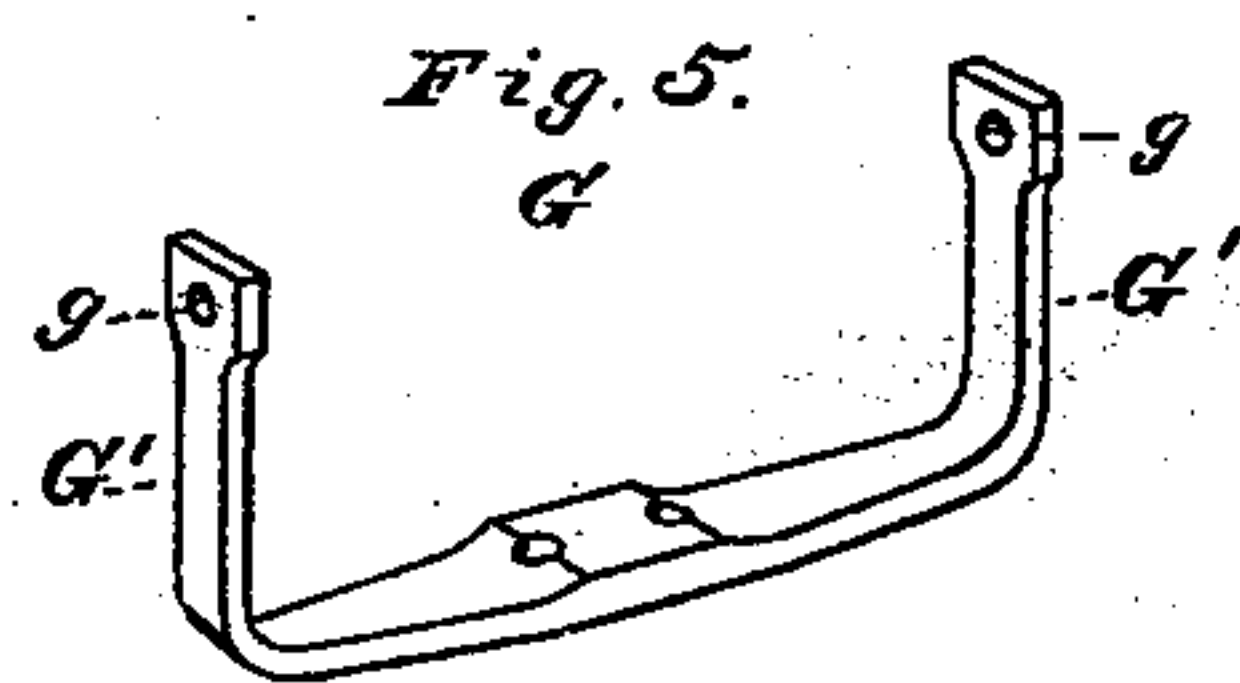
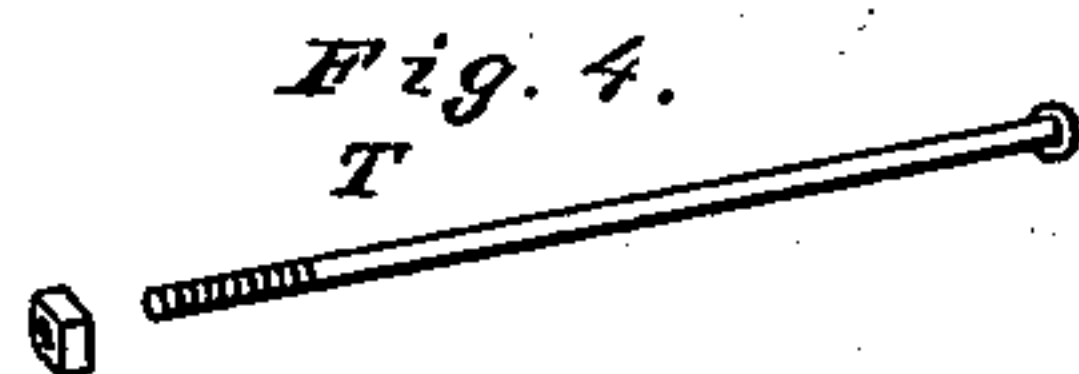
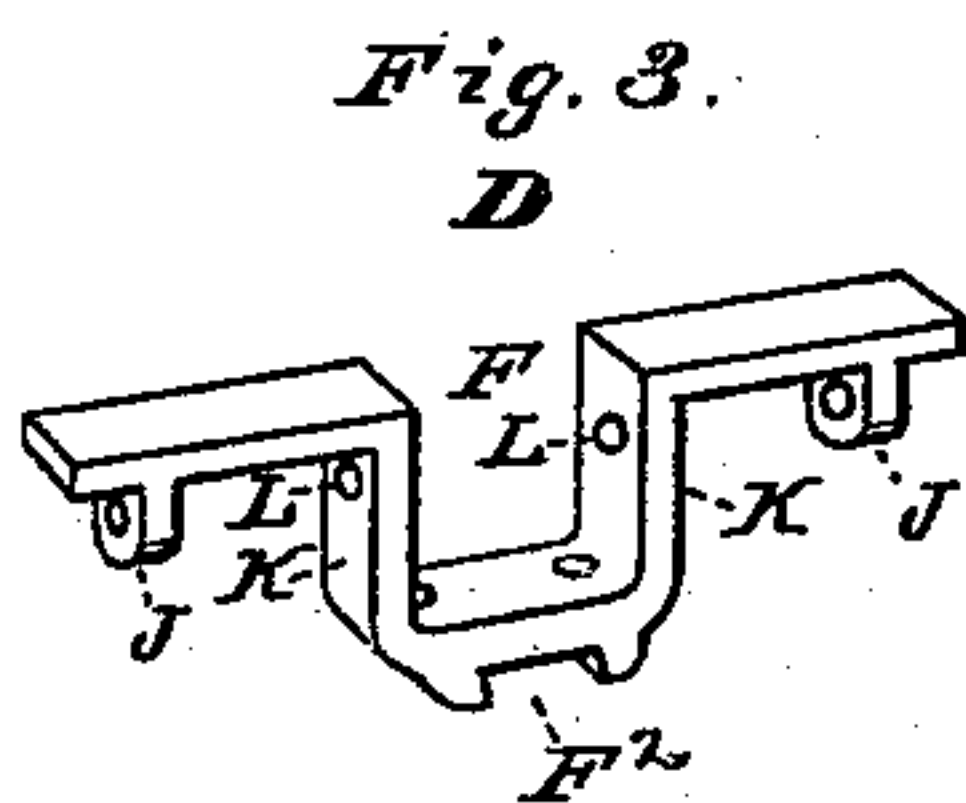
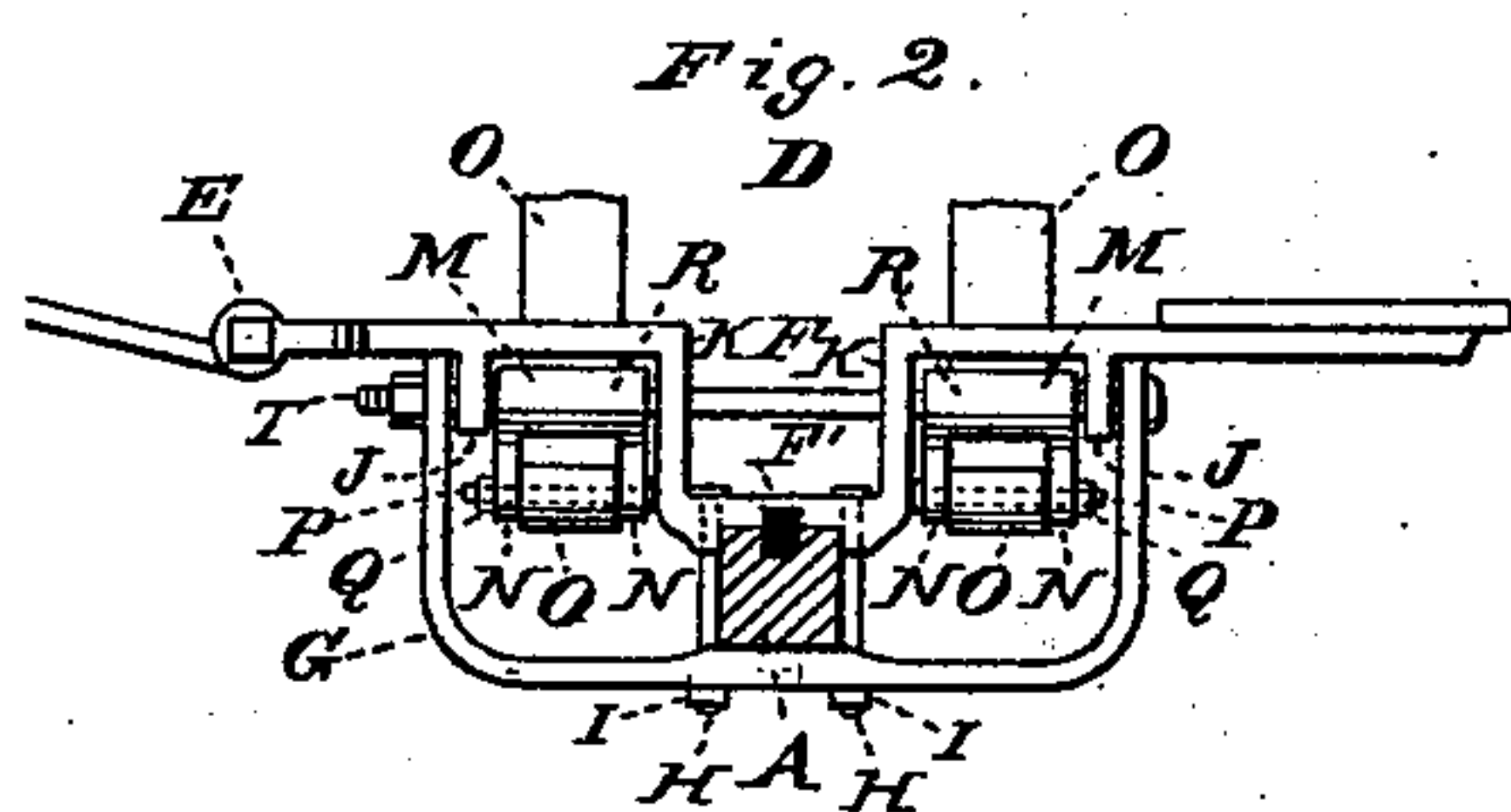
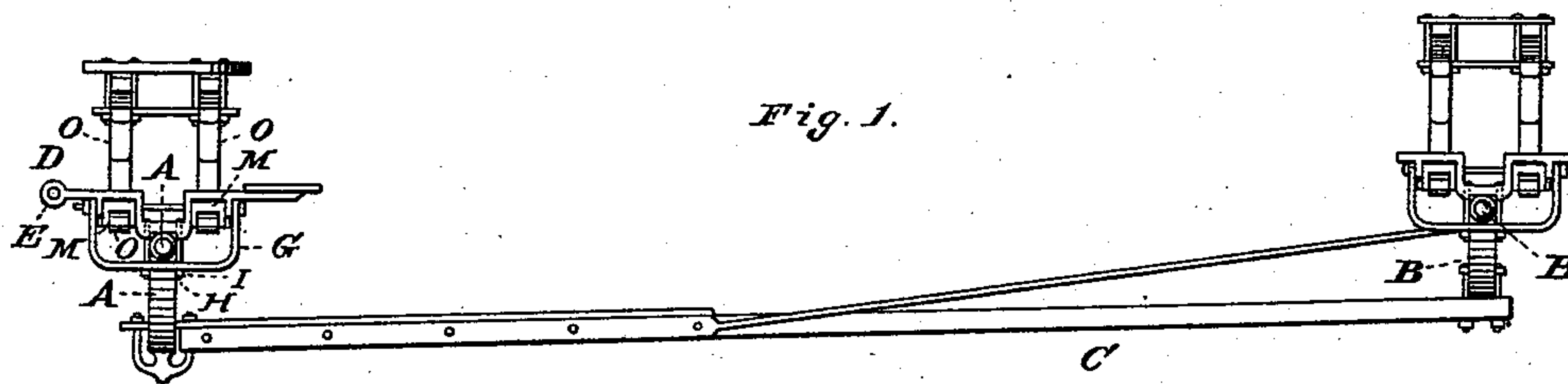
(No Model.)

E. H. BOOTH.

LUG BAR FOR SPRING VEHICLES.

No. 377,985.

Patented Feb. 14, 1888.



WITNESSES

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UNITED STATES PATENT OFFICE.

EBENEZER H. BOOTH, OF KIRKWOOD, NEW YORK.

LUG-BAR FOR SPRING-VEHICLES.

SPECIFICATION forming part of Letters Patent No. 377,985, dated February 14, 1888.

Application filed August 23, 1887. Serial No. 247,672. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER H. BOOTH, a citizen of the United States, and a resident of Kirkwood, in the county of Broome and State of New York, have invented certain new and useful Improvements in Jacks or Lug-Bars for Spring-Vehicles; 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 this invention, and is a side view. Fig. 2 is a vertical section across the outer end of the front axle, with the lug-bar in full lines. Fig. 3 is a perspective view and a detail, and shows the lug-bar of rear axle. Figs. 4, 5, and 6 are details and perspective views of different parts of the invention.

This invention relates to jacks or lug-bars for spring-vehicles; and it consists in the construction and novel combination of parts, as hereinafter set forth.

Referring by letter to the accompanying drawings, A designates the front axle, B the rear axle, and C the reach, of the running-gear of a wagon.

D designates one of the lug-bars or jacks for the front axle, A, which differs from the jacks or lug-bars D on the rear axle in this only, that the front lug-bars or jacks are provided with foot plates or steps to enable persons to get in and out of the wagon by using said steps; and, further, the front lug-bars, D, are provided with lugs E at their forward ends, by which to attach the pole or shafts to the vehicle. In all other respects the four lug-bars employed are similar in construction, and a description of one will answer for all of them.

The lug-bar D is provided with an angular bend, F, about the middle of its length, which bend is made downwardly, and is provided with a broadened or flattened portion, F', at its bottom, upon the lower surface of which is formed a bearing, F, the said bear-

ing being recessed transversely in its lower face to receive a small portion of the upper part of the axle.

A downwardly-curved brace, G, having eyes *g* at the upper ends of its arms G' G', is secured to the under side of the axle by headed bolts H H, passed down through the broadened or plate portion F', on opposite sides of the axle and through said brace G, nuts I I being employed to secure it at these points and to hold said bolts H H in place.

The lug-bar D is provided on its under side near each end with downwardly-projecting lugs J, and the vertical arms K K at each side of the angular bend F are provided with holes L, which are aligned with the holes in the lugs J.

M M are barrel-shackles between the depending arms N N, to which the ends of the parallel springs O O are secured by the transverse bolts P P, which are passed through the eyes in the ends of the spring and through the eyes in the lower ends of the depending arms N N, said bolts being held in place by nuts Q Q on their threaded outer ends. The upper portions, R, of the barrel-shackles M M are provided with axial holes S, through which the long bolt-rod T passes when inserted to place in the curved brace and lug-bar, so that the barrel-shackles M M may oscillate thereon when the ends of the springs O O are connected to said barrel-shackles.

The long bolt-rod T, in addition to serving as bearings for the barrel-shackles, forms a tie for the curved brace, as well as the jack itself.

These jacks are made light or heavy, to suit the style or kind of vehicle on which they are to be used. The lug-bars are prevented from slipping on the axle by dowelpins secured in the axle and entering the middle portion of said bars.

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

1. The combination, with the lug-bar having the middle depression with bolt-holes in the vertical arms thereof, and the lugs on its under face near its opposite ends, of the down-

wardly-curved brace, the barrel-shackles, and the long bolt-rod passed through the lug-bar and barrel-shackles and secured in place by nuts, substantially as specified.

- 5 2. The combination, with the axle, of the lug-bar, recessed in the under face of its middle downwardly-projecting portion, the downwardly-curved brace, the long bolt-rod,

and the barrel-shackles, substantially as specified. 10

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

EBENEZER H. BOOTH.

Witnesses:

O. L. KEELER,
S. B. BALL.