

(No Model.)

F. BALDT.
CAR COUPLING.

No. 297,052.

Patented Apr. 15, 1884.

FIG. 1.

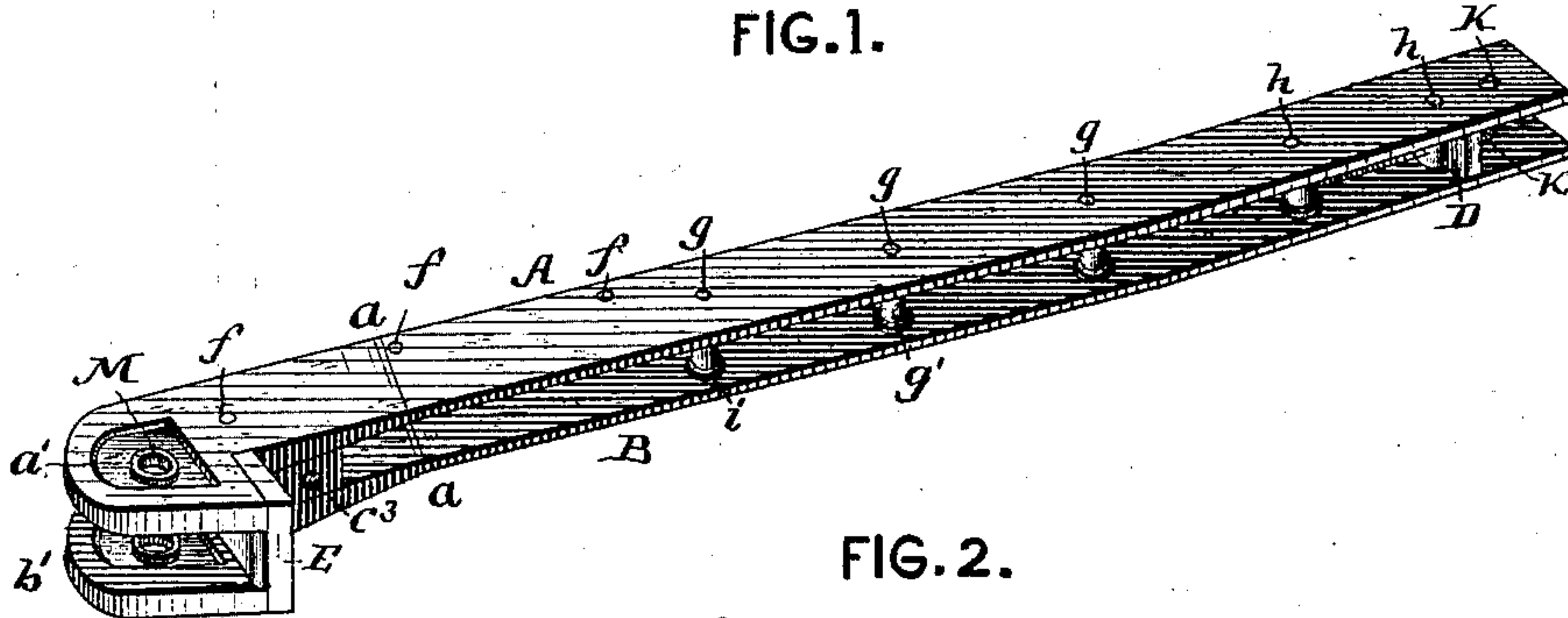


FIG. 2.

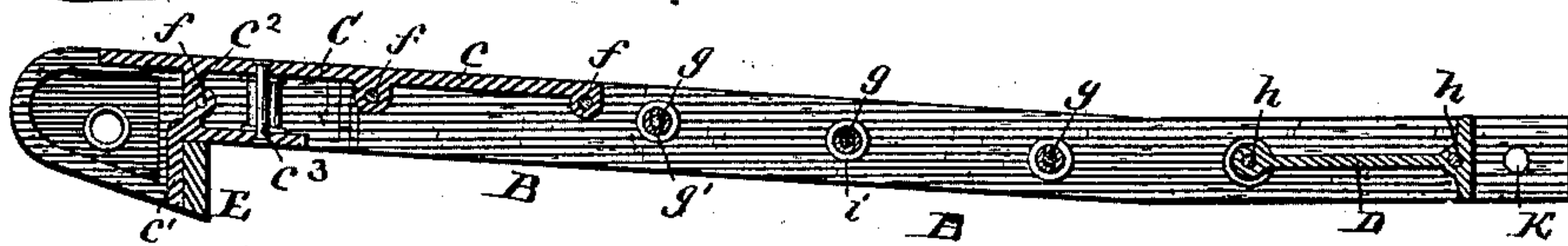


FIG. 3.

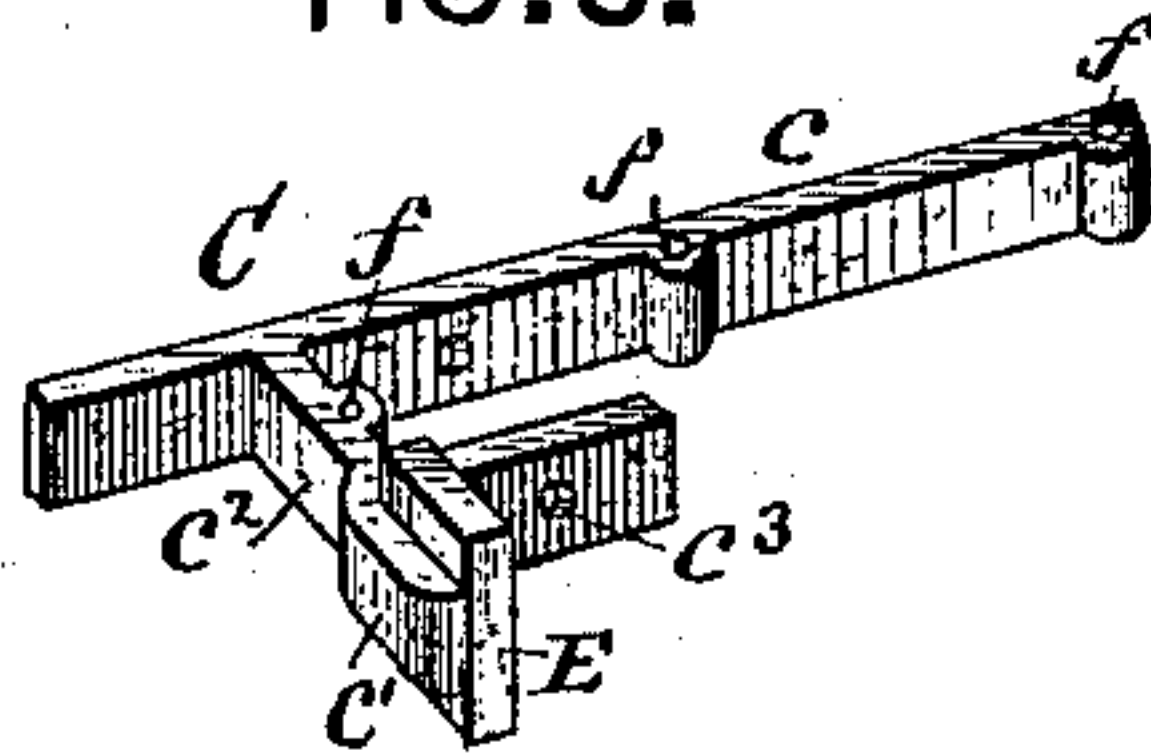


FIG. 4.

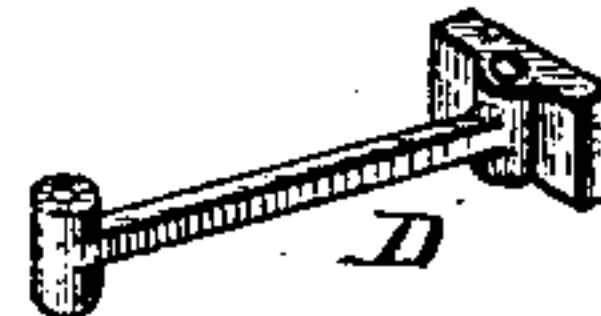


FIG. 5.

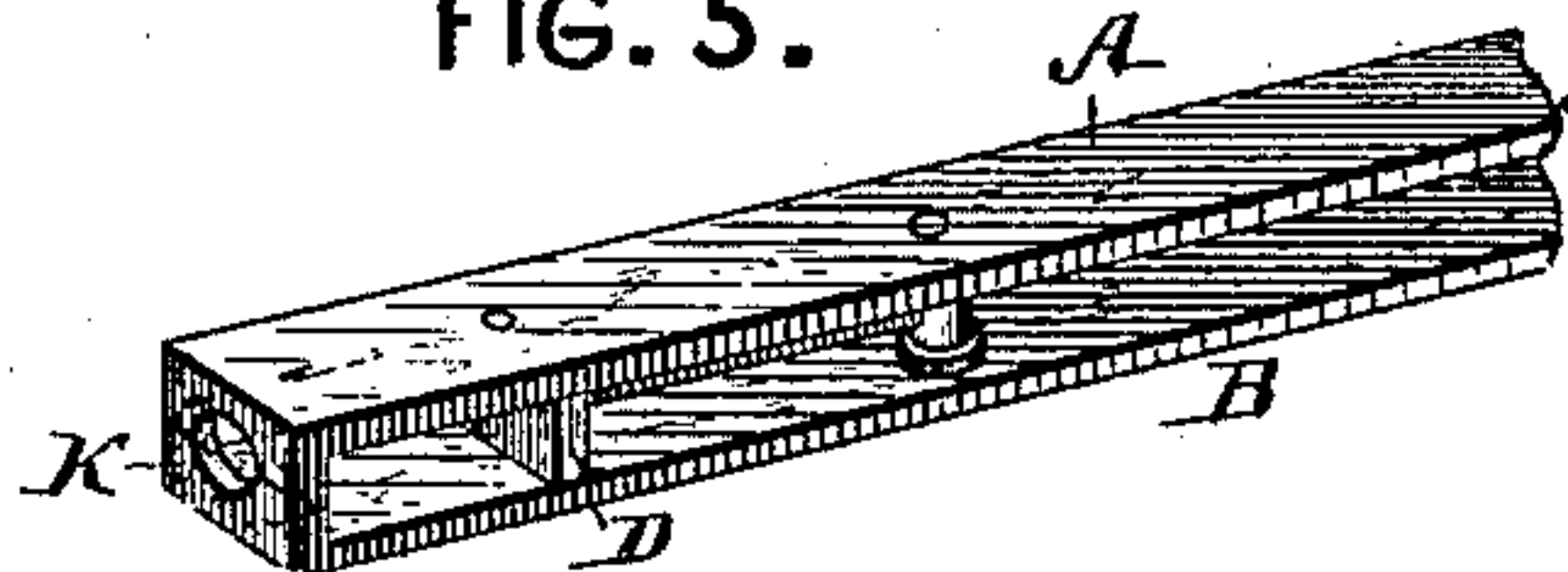


FIG. 6.

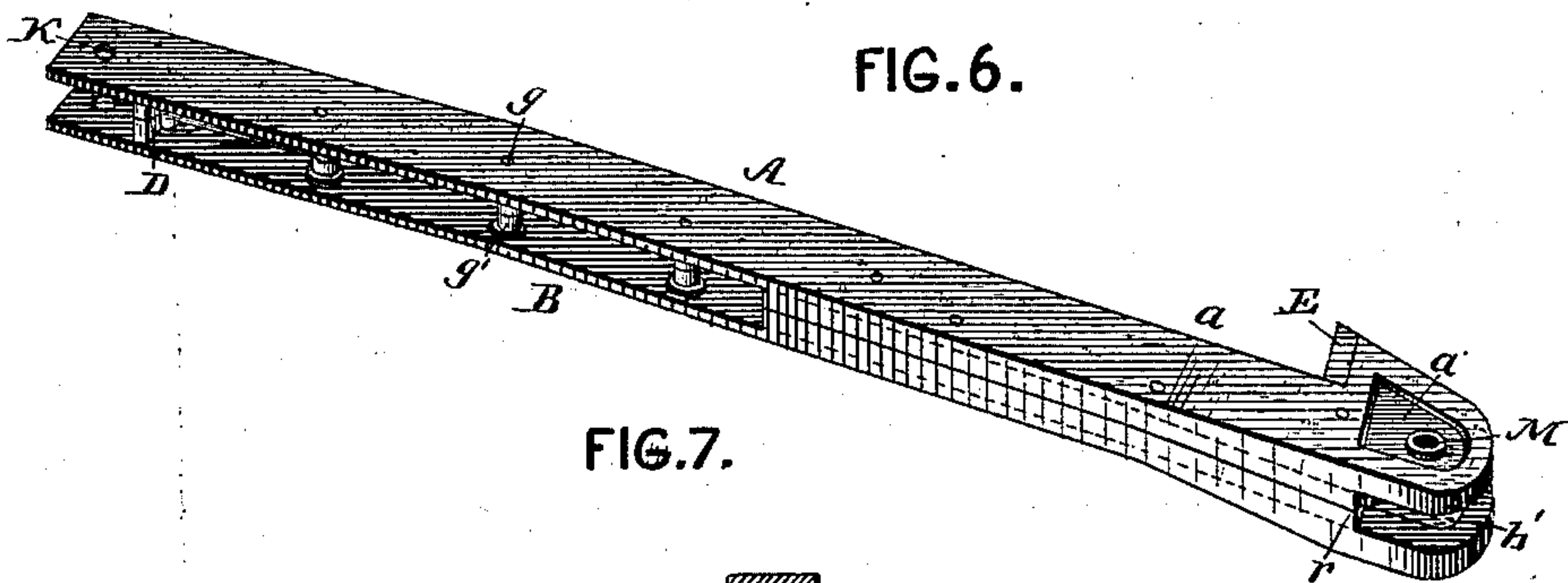


FIG. 7.



ATTEST.

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UNITED STATES PATENT OFFICE.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 297,052, dated April 15, 1884.

Application filed February 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK BALDT, a citizen of the United States, residing at Chester, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Draw-Bars for Hook Car-Couplings; and I do hereby 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.

My invention relates to the class of draw-bars employed in what is generally known as the "Miller coupling."

Heretofore draw-bars of this class have been made with castings and wrought-iron plates bolted or riveted together, and also welded, and skeleton draw-bars have been made of a single casting; but the former as heretofore manufactured have been necessarily heavy, to secure the requisite strength, and the casting of a skeleton draw-bar in one piece is accompanied with difficulties, owing to breakage on account of the shrinkage of the casting over the cores.

The object of my invention is to provide a hook draw-bar of this class, which, in addition to combining strength and lightness, shall be capable of being economically manufactured; and my invention consists of a sectional cast-metal draw-bar, as hereinafter described, and set forth in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved draw-bar. Fig. 2 is a longitudinal cross-section of the same. Fig. 3 is a detached perspective view of the casting C. Fig. 4 is a detached perspective view of the casting D. Fig. 5 illustrates a modified construction of the rear end of the draw-bar. Fig. 6 is a perspective view, showing the intermediate parts cast on the top and bottom plates. Fig. 7 is a cross-section of a modified form of plates, showing them channeled out to save material.

The upper and lower plates, A and B, are each a separate casting or forging, preferably made of cast-steel, as well as the other parts of the draw-bar, though they may be of mal-

leable iron or of gray iron. Each plate is made thin along the shank of the draw-bar, and it thickens gradually from the point *a* forward to the abutting-face of the coupling-head and then continues of uniform thickness to the front of the same, the upper plate, A, being bent upward between the point *a* and the jaw of the coupling-head, to preserve a uniform distance between the plates.

The casting or forging C, which is fitted between the plates A and B, and is fashioned as shown in Fig. 3, has the back plate, *c*, which extends along the back side of the draw-bar forward in front of the line of the jaw to a point opposite the center of the coupling-eye M and back for about one-third the length of the shank. The front plate, *c'*, of the same casting extends out to the end of the abutting-face of the jaw, and has the chilled or hardened face-plate E welded to it or constituting a part of it. The plate *c'* also extends back for a short distance, and, in addition to the connecting-web *c''*, it is riveted to its back plate at *c'''*.

The plates A B are riveted together by the rivets *f f f*, which pass through lugs on the casting C, the rivets *g g g*, which pass through thimbles *g'*, and rivets *h h*, that pass through the casting or forging D. The casting D will be readily understood from the drawings.

The thimbles may be castings or forgings or sections of gas-pipe, and the ends of all, including the thimbles at *c'''*, set within circular bosses *i* on their adjacent plates.

It will be observed that a slot is left between the plates of the coupling-head for the reception of a coupling-link and an eye, M, for a coupling-pin. The upper faces of the plates A and B at the draw-head are recessed out, as shown at *a' b'*, a boss being left around the coupling-eye and rim around the edge of the draw-head.

At the rear end of the draw-bar an eye, K, in each plate is provided for the attachment of the stem of a draw-spring, and the ends of the plates may be bent and united with a lap-joint, as shown in Fig. 5, the eye K being then in the end of the bar.

As a modification of my invention, the parts C and D and the several thimbles may be cast

half on the upper and half on the lower plate, as shown in Fig. 6, the two halves being united by rivets, as above described. In this case the joints will all be made to lap by each other, as indicated at *r*.

The castings above described, whether made integral or in two parts, can all be readily cast without requiring cores, as there are no undercut spaces or recesses.

Having thus described my invention, what I claim as new is—

1. A sectional cast-metal draw-bar having upper and lower plates, and intermediate skeleton web, C, and thimbles, substantially as described, riveted together, as and for the purpose set forth.

2. A sectional cast-metal draw-bar consisting of the plates A and B, skeleton casting C, and thimbles, all riveted together, substantially as set forth.

3. A sectional cast-metal draw-bar consisting of the plates A and B, skeleton castings C and D, and thimbles, all riveted together, substantially as set forth.

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

FREDK. BALDT.

Witnesses:

WILLIAM GIBBS,
O. S. BATES.