A. H. CLARK.

CAR-COUPLING.

No. 174,116. Patented Feb. 29, 1876

Fig 1

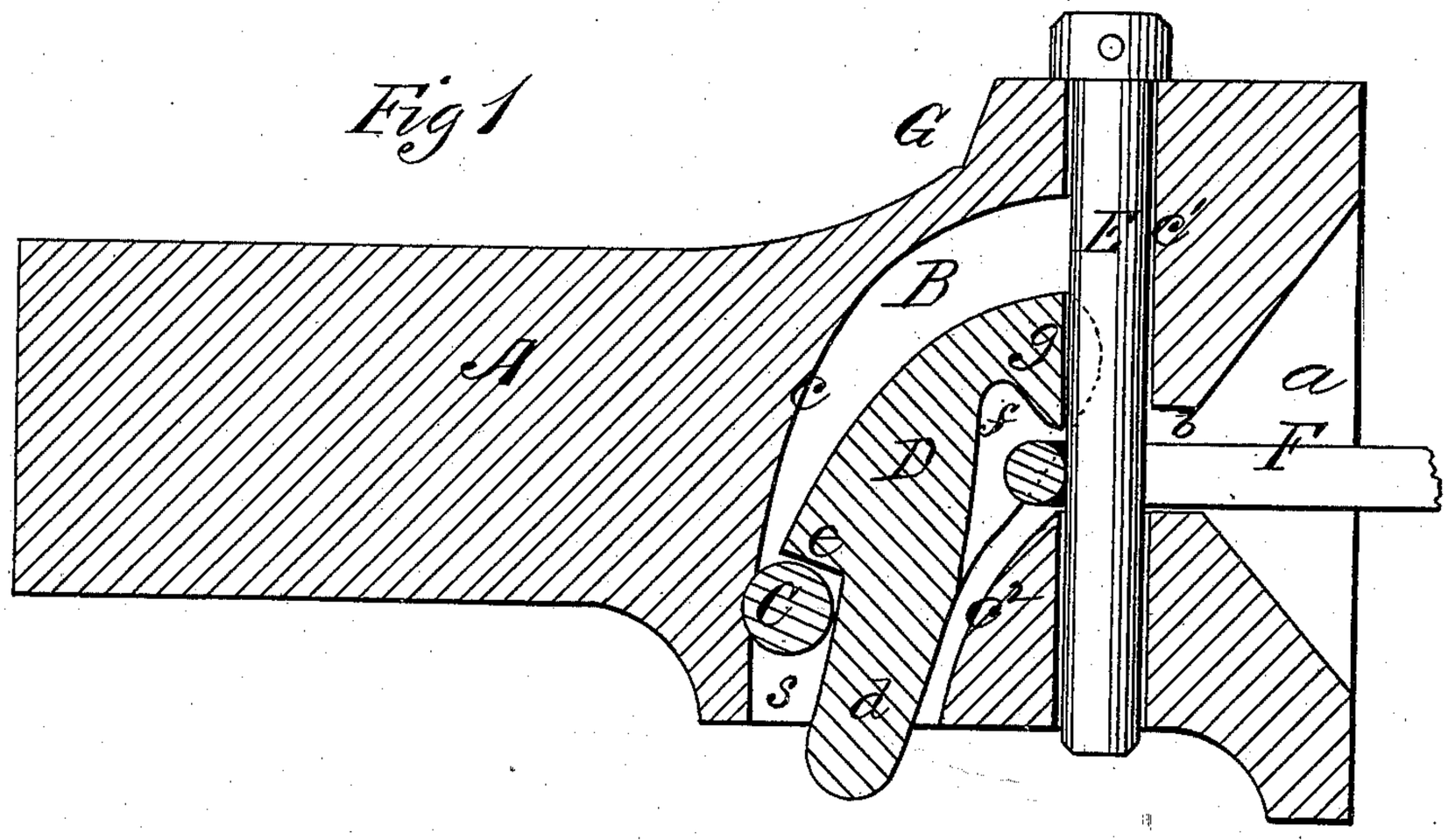

Fig 2

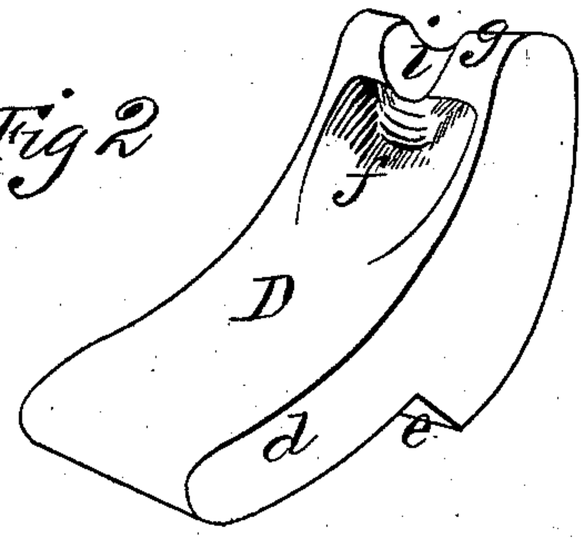

Fig 3

WITNESSES

Eug. W. Johnson.

E. H. Bates

INVENTOR

Alexander H. Clark,

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ATTORNEYS

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ALEXANDER H. CLARK, OF FOND DU LAC, WISCONSIN.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **174,116**, dated February 29, 1876; application filed March 20, 1875.

To all whom it may concern:

Be it known that I, ALEXANDER H. CLARK, of Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented a new and valuable Improvement in Car-Coupling, called the "Automatic Car-Coupler;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my car-coupler. Fig. 2 is a detail view of the same, and Fig. 3 is a longitudinal vertical sectional view.

This invention has relation to improvements in automatic car-couplers; and the nature of the invention consists in combining with the usual well-known endwise movable and detachable coupling-pin, applied through registering-perforations in the upper and lower walls of a chambered draw-bar, a curved metallic rest, applied within the same by means of a slot cut in its floor, which rest or support is prevented from downward displacement by means of a detachable bolt passing transversely through the draw-bar and across its slot, and is adapted, by its curved form and enlarged upper end, to gravitate to the front under the perforation for the pin in the upper wall of the draw-bar, holding the same against an engagement with the perforation in the floor thereof until the said rest is thrust back by a link in the draw-bar of a car approaching to be coupled, when the said pin will fall through the link to an engagement with the hole in the lower wall of the draw-bar and effect a coupling, as will be hereinafter more fully explained.

In the annexed drawings, A designates a draw-bar, presenting as to its exterior the usual well-known form, and preferably cast in a single piece. The front of this draw-bar tapers inwardly from its sides, top, and bottom, forming a pyramidal cup, *a*, which communicates, by means of a passage, *b*, with a chamber, B, within the same, as shown in Figs. 1 and 3. The rear wall *c* of this chamber is regularly concave, its upper front wall c^1 being vertical to the length thereof, and its lower front wall c^2 convex, as shown in Fig. 1. D indicates a curved rest or support, of any suitable metal, which is inserted from below into chamber B through a slot, *s*, of suitable dimensions, cut in the floor of the draw-bar, and which is held in place by means of a bolt, C, passing transversely across the said draw-bar and slot, as shown in Figs. 1 and 3. Rest D is provided as to its lower end with a tang or tongue, *d*, which projects downwardly a suitable distance below the lower horizontal face of the draw-bar through slot *s*. It has also a shoulder, *e*, formed at its rear, which allows the said rest to be sustained by bolt C, and prevents it from falling out of chamber B. The rear edge of rest D is convex, and its front edge concave, as shown in Fig. 2. It has also a recess, *f*, cut in its front upper edge, which recess forms, with the extreme upper end of the said rest an overhanging lip, *g*, in which a circular notch, *i*, is cut, for a purpose hereinafter explained. This formation of rest D causes it to gravitate to the front into the position shown in Fig. 3, so that when a coupling-pin, E, is inserted into the perforation in the upper wall of the draw-bar it will be held against further penetration into its chamber of the same until the said rest has been thrust rearwardly by a coupling-link, F, when it will fall through the said link into perforation *j* in the lower wall of the draw-bar, and effect a coupling, as shown in Fig. 1. When in this position notch *i* of rest D will embrace pin E, and will prevent its rattling and jolting out of place, and when the cars are brought together to be coupled the inner end of the link, engaging in recess *f* under lip *g*, will obtain an adequate hold upon the pin-supporter D, and will accurately and positively thrust it to the rear from under pin E, the said supporter working upon bolt C as upon a hinge.

Should rest D from any casual injury become inoperative, the draw-bar may be used as a common link-and-pin coupler, and the broken rest removed from the chamber of the said draw-bar by detaching pin C.

In practice, I propose to construct the draw-bars with an enlargement, G, upon their upper front edges, as shown in Figs. 1 and 3; but I may at pleasure dispense with it, in view

of the fact that my improvements are applicable, with some immaterial changes, to all kinds and descriptions of chambered draw-bars now in use.

What I claim as new, and desire to secure by Letters Patent, is—

In a car-coupler, the ordinary draw-bar A, provided with the chamber B, in combination with the pin-supporter D, having tongue *d*, lip *g*, recess *f*, notch *i*, and shoulder *e*, and the removable bolt C, constructed as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

A. H. CLARK.

Witnesses:
B. F. PAULY,
L. ISHAM WHITE.