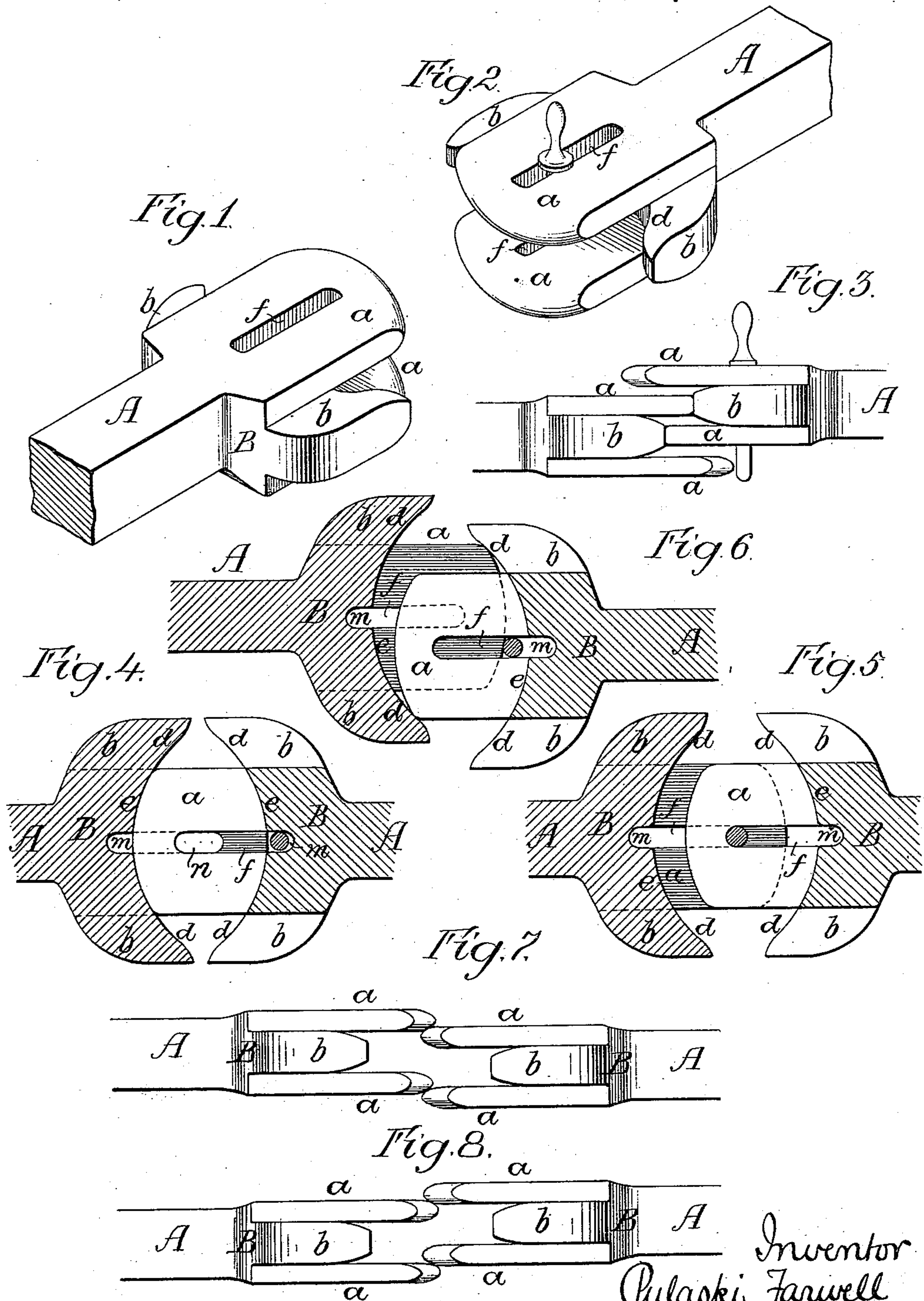


P. FARWELL.
Car-Coupling.

No. 226,293.

Patented April 6, 1880.



Witnesses
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UNITED STATES PATENT OFFICE.

PULASKI FARWELL, OF FREDERICKSVILLE, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 226,293, dated April 6, 1880.

Application filed February 9, 1880.

To all whom it may concern:

Be it known that I, PULASKI FARWELL, a citizen of the United States, residing in Fredericksville, Schuyler county, Illinois, have invented certain Improvements in Car-Couplings, of which the following is a specification.

My invention relates to certain improvements in that class of car-couplings in which the bumpers have projecting slotted plates, which interlock and are secured together by a pin or equivalent device adapted to the slots, the objects of my improvements being to insure the proper coincidence of the slots for the reception of the coupling-pin, and to prevent injury to the coupling-pin due to the forcible contact of either of the bumpers therewith when the cars are approaching each other.

My invention consists in slotting the body of the bumper-head as well as the plates, and in providing said body with certain laterally-projecting fingers for guiding the bumpers, all as hereinafter set forth.

In the accompanying drawings, Figures 1 and 2 are perspective views of opposite bumper-heads constructed according to my invention; Fig. 3, a side view; Figs. 4, 5, and 6, sectional plan views, illustrating the operation of coupling; and Figs. 7 and 8, side views of the coupling, illustrating another feature of the invention.

A represents part of the draw-bar of a car, the bumper-head of which comprises a body, B, having at top and bottom a projecting plate, *a*, and on each side a laterally-projecting finger, *b*, with curved front edge, *d*, forming a continuation of the laterally-curved front *e* of said body.

The front edges of the projecting plates *a* are curved laterally, as shown in Figs. 1, 4, 5, and 6, and are beveled, as shown in Figs. 3, 7, and 8, for a purpose explained hereinafter, each plate *a* having a central longitudinal slot, *f*, the sides of which form continuations of the sides of a central vertical slot, *m*, in the body B of the bumper-head.

Cars provided with bumpers or draw-heads constructed according to my invention are coupled in the following manner: The bumpers of two cars are seldom, if ever, exactly in line with each other vertically, so that when the two cars approach each other the plates *a* of the two bumpers will be interlocked, (as shown

in Fig. 3, for instance,) and the movement of the cars toward each other will continue until the front edge of one of the plates *a* of each bumper comes into contact with the front *e* of the body B of the adjoining bumper, as shown in Fig. 4. If a coupling-pin occupies the slots *f* of either bumper, it will be driven inward until it rests in the vertical slot *m* of the body B, injury to the pin by the forcible contact of the front edge of the plate *a* therewith being thus prevented. The pin is withdrawn from the slot *m* and inserted into the opening *n*, formed by the coinciding portions of the slots *f* in the plates *a* of the opposite bumpers, the cars then being coupled, as shown in Fig. 5, which, however, represents the bumpers drawn apart as in pulling.

If the bumpers are not in line laterally, a corner of one of the plates *a* of each bumper will strike the curved face *d* of one of the fingers *b* of the adjoining bumper, as shown in Fig. 6, and the said plates and bumpers will be caused to move laterally until the slots *f* in the plates *a* of both bumpers coincide with each other, as shown in Fig. 4. These fingers *b* therefore form an important feature of my invention, as it has been found in practice that the simple curving of the ends of the plates *a* and the front of the body B is not sufficient to cause the proper lateral movement of the bumpers.

If the bumpers are so nearly in line with each other vertically that the edges of the plates *a* come into contact with each other, one of the bumpers will be elevated and the other depressed, so as to permit the proper interlocking of the plates *a*, owing to the beveling of the front edges of said plates, as shown in Figs. 7 and 8.

It will be observed that the slots *f* in the plates *a* of the opposite bumpers are caused to coincide by the automatic action of the bumpers upon each other, the brakeman merely withdrawing the coupling-pin from the slot *m* and inserting it into the opening *n* after the bumpers have assumed the positions shown in Fig. 4. The danger incurred in directing an ordinary coupling-link into the usual slotted draw-head is thus effectually prevented.

The front edges, *d*, of the fingers *b* may be inclined instead of curved, if desired.

Bumper-heads constructed as described may

be combined with devices whereby the automatic coupling of the cars can be effected; but as such a combination will probably form the subject of a separate application for a patent, a description of it here will be unnecessary.

I do not wish to claim, broadly, a bumper-head having longitudinally-projecting and slotted plates, nor do I claim the lateral curving of the ends of said plates; but

I claim as my invention—

1. A bumper-head comprising the body A, longitudinally-projecting and slotted plates *a*, and laterally-projecting fingers *b*, having curved or inclined front edges, whereby the

proper centering of approaching bumper-heads is insured, all substantially as set forth.

2. A bumper-head comprising a body, A, with vertical slot *m*, and projecting plates *a*, with slots *f*, the sides of which form continuations of the sides of the slot *m*, whereby a pocket for the coupling-pin is formed, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PULASKI FARWELL.

Witnesses:

T. S. HODGSON,
M. M. DEANE.