C. B. KNOWLES.

Improvement in Car-Couplings.

No. 129,668. Patented July 23, 1872.

Fig 1.

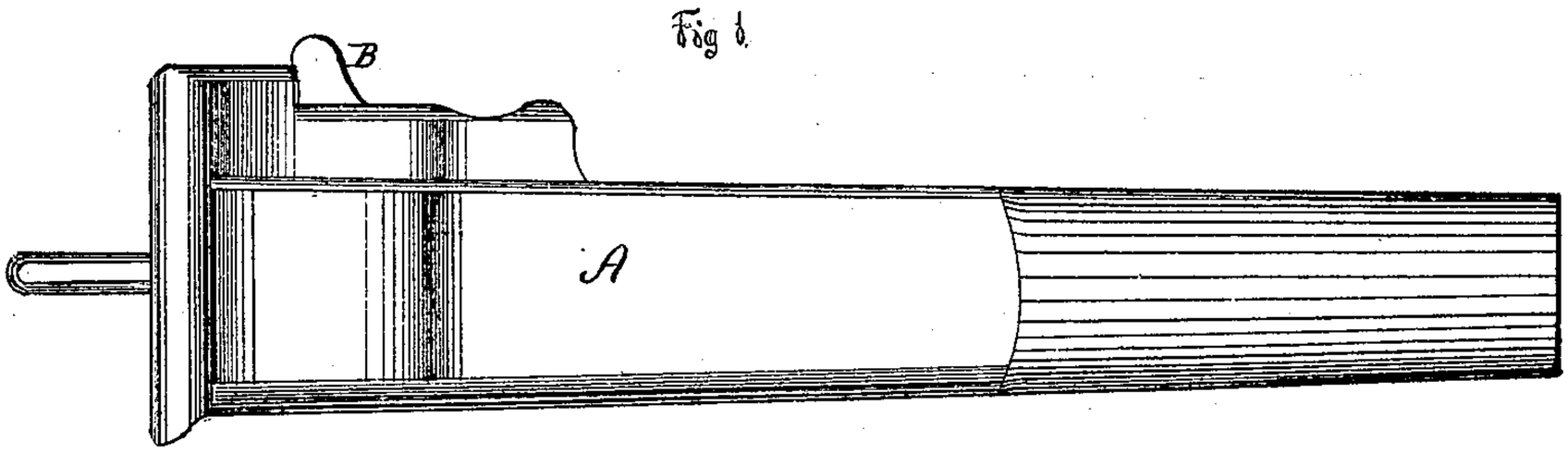


Fig 2.

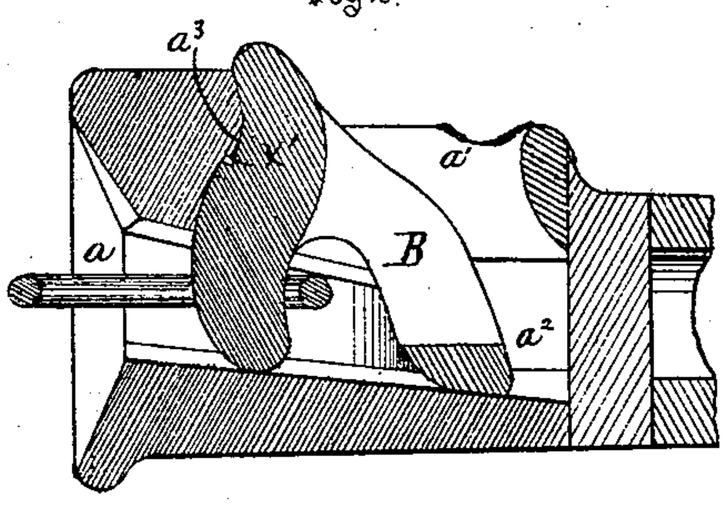


Fig 3.

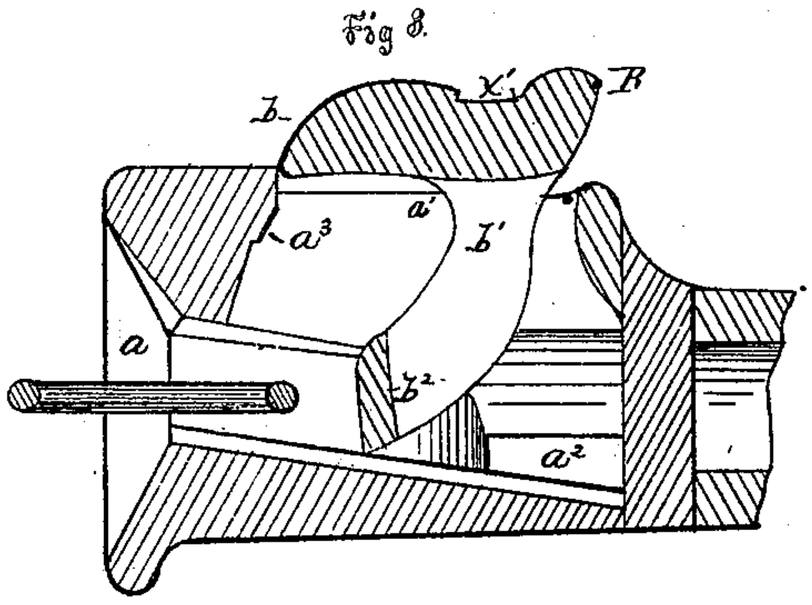


Fig 4.

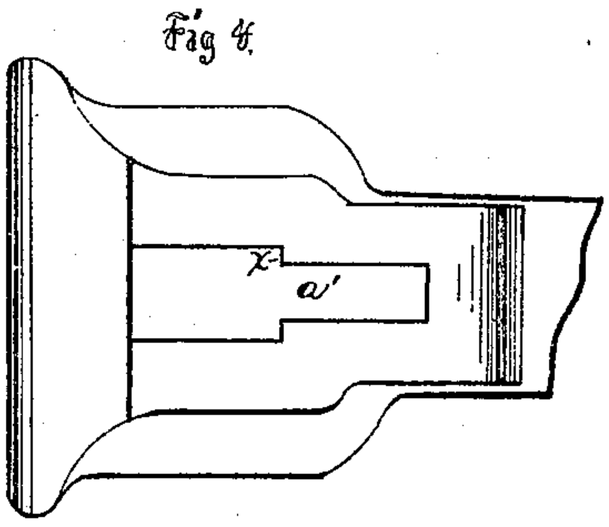
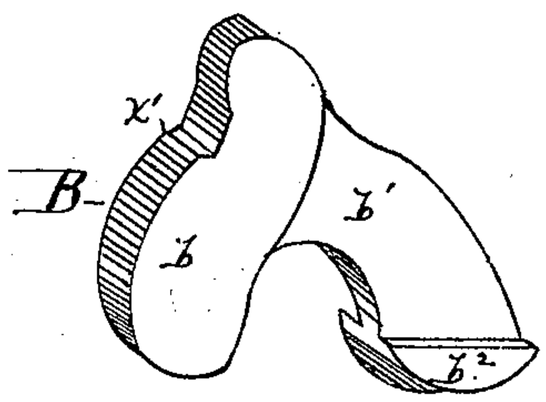


Fig. 5.



WITNESSES.

H. Carlin Clark.

F. J. Noyes.

INVENTOR.

Charles B. Knowles by
Dyer, Beadle & Co.
attys.

UNITED STATES PATENT OFFICE.

CHARLES B. KNOWLES, OF NASHVILLE, TENNESSEE.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **129,668**, dated July 23, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, CHAS. B. KNOWLES, of Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Improvement in Automatic Car-Coupling; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention relates to that class of car-couplings which are automatic in their action when the cars come together; and consists mainly in the combination of a loose hook of peculiar construction with a slotted draw-head, as will be fully described hereinafter.

In the drawing, Figure 1 represents a side elevation of the improved draw-head with the link in place; Fig. 2, a sectional elevation with the parts in the position represented in Fig. 1; Fig. 3, a sectional elevation with the hook raised to release or admit the link; Fig. 4, a plan view of the draw-head with the link removed; and Fig. 5, a perspective view of the hook detached.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and manner of operation.

A represents the draw-head, constructed with a mouth, a, for the reception of the link, a central slotted opening, a^1, through its top portion, and a recess, a^2, in which rests the lower end of the hook B. The slotted opening a^1 is enlarged at x, as shown in Fig. 4, and its front wall is provided with a projection, a^3, and its rear wall with a curved surface, as shown in Figs. 2 and 3. B represents the hook, having the head b, shank b^1, and base b^2. The head b and base b^2 are made wider than the shank, as clearly shown in Fig. 5. The hook is not secured in the draw-head, except as it is held from actual displacement by the enlarged head and base, but has a free movement upon its base, the different positions in which it rests being shown in Figs. 2 and 3. In Fig. 2 the hook is shown in the position which it occupies when a strain is exerted upon the link. It rests upon the point of its head and upon its base, it being held from rising by means of the recess x' in its head, which engages with the projection a upon the front wall of the recess in the draw-head. In Fig. 3 the hook is shown in the position it occupies when it is lifted and thrown backward. This movement releases the link, but leaves the hook ready again for coupling. The hook permits the entrance of the link in either of the positions shown. In one case its head rises and permits the entrance of the link, and in the other case its base is carried back so that its head is free to fall and catch the link. The movements of the hook are easily made, in consequence of its construction. When the hook is thrown back its rear side turns upon the curved surface of the rear wall of the slotted opening, and its base slides along the floor of the draw-head. When it falls the operation is reversed.

This coupling is exceedingly simple in its construction and yet effective in operation.

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

The described coupling, consisting of the draw-head A, with mouth, slotted opening, recess, and projection, in combination with the hook B, having head, shank, base, and recess, as described.

This specification signed and witnessed this 13th day of April, 1872.

CHARLES B. KNOWLES.

Witnesses:
JNO. NEWTON,
R. MCP. SMITH.