

C. TROUPE.
Car-Coupling.

No. 223,079.

Patented Dec. 30, 1879.

FIG. 1.

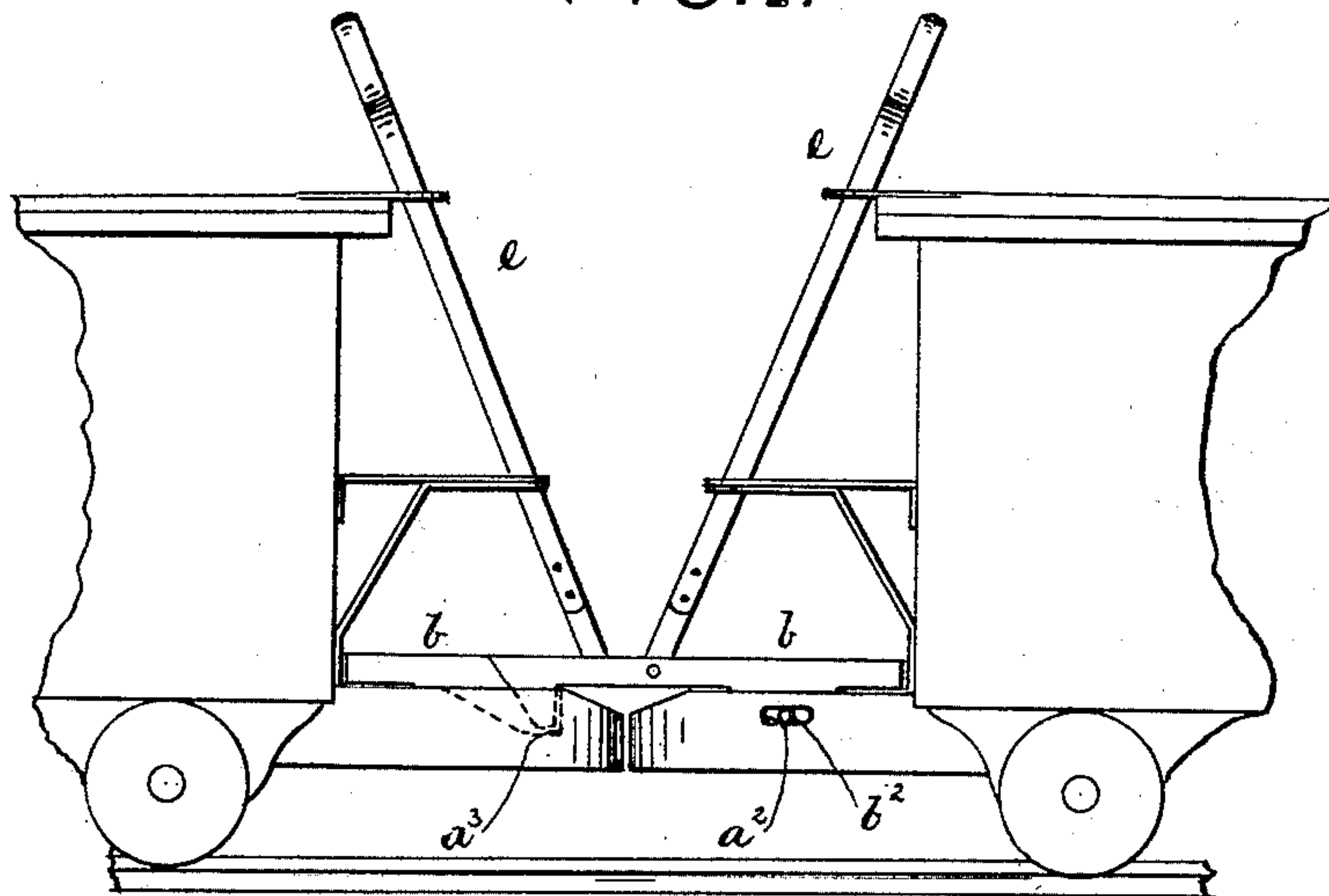


FIG. 2.

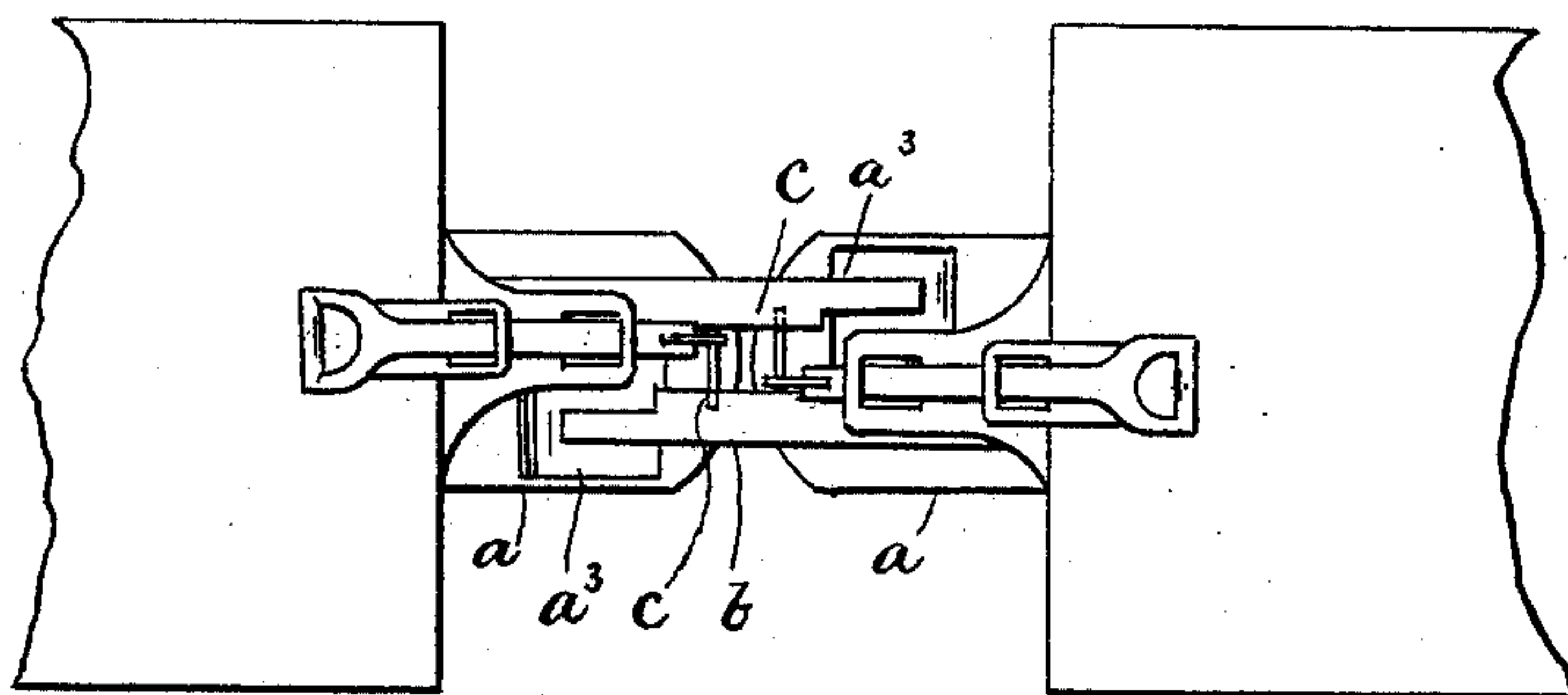


FIG. 3.

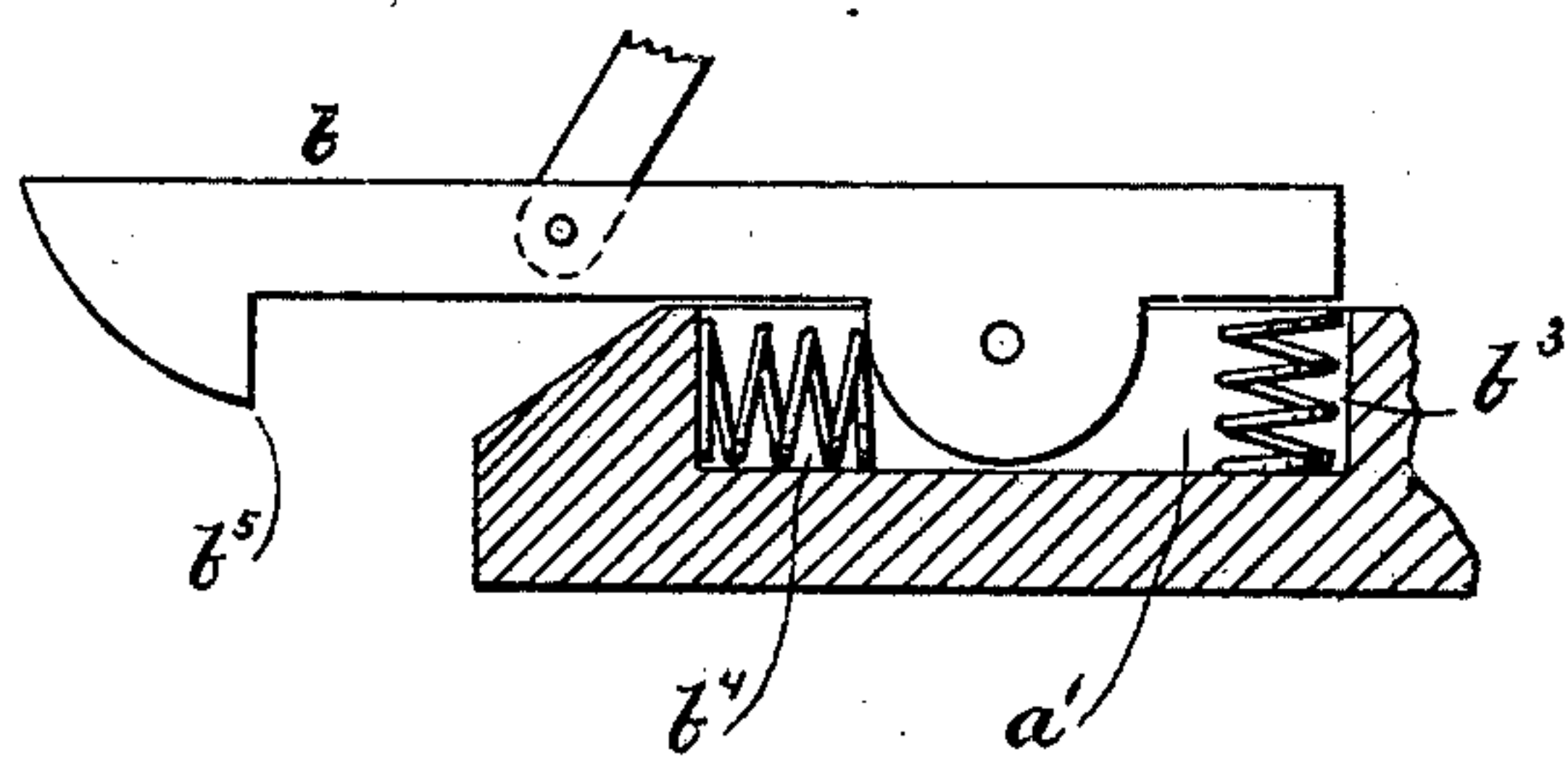
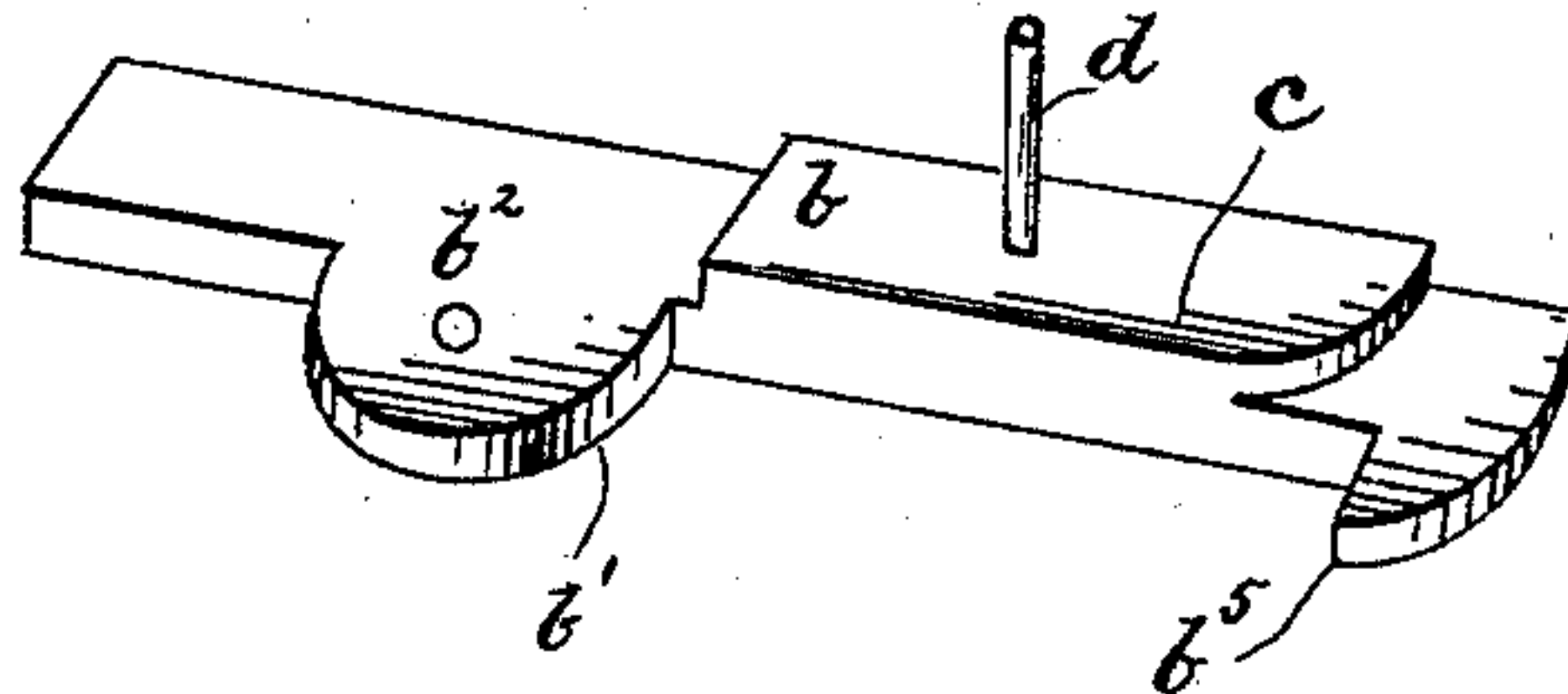


FIG. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES TROUPE, OF LITTLE VALLEY, MINNESOTA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **223,079**, dated December 30, 1879; application filed November 20, 1879.

To all whom it may concern:

Be it known that I, CHARLES TROUPE, of Little Valley, in the county of Olmsted and State of Minnesota, have invented certain new and useful Improvements in 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in car-couplers; and it consists in a coupling-hook, constructed to be pivoted in the draw-bar, and having a shoulder and pin projecting from its inner side, all of which will be more fully hereinafter described.

In the drawings, Figure 1 is a side elevation of two cars having my invention attached. Fig. 2 is a plan. Fig. 3 is a longitudinal section of a draw-head having my coupling-hook applied thereto; and Fig. 4 is one of the coupling-hooks.

The draw-bars and coupling device, according to my invention, are all made alike, and a description of one answers for all.

a is a draw-bar. Its forward end is beveled so as to form an inclined plane for the coupling-hook to slide upon. In its upper side is formed a longitudinal recess or mortise, *a'*, the sides of which are provided with longitudinal slots or guides, *a²*, in which the axial pin which holds the coupling-hook to the draw-head slides. It is also provided with a shoulder, *a³*, projecting upward from it at right angles to its longitudinal direction, over which the coupling-hook of the opposite car catches to effect the coupling of the cars.

b is the coupling link or bar. Upon its under side and near its rear end is a lug, *b'*, projecting into the mortise *a'*, where it is held by a pin, *b²*, passing through it into the slots or guides *a²*.

b³ is a spring arranged in the mortise *a'*, under the rear end of the coupling-hook *b*, so as to keep it in its hold when drawing the car. *b⁴* is also a spring adjusted between the front

end of the mortise *a'* and the lug *b'*, and serves as a bumper to ease up the shock when the cars are started.

The slots *a²* allow the necessary longitudinal play of the coupling link or bar. The outer end of the said coupling-bar is beveled, so as to the more readily slide up the incline of the draw-head, and is also provided with a hook or catch, *b⁵*, to drop over the shoulder *a³* of the opposite car in coupling.

c is a shoulder projecting laterally from the inner side of the coupling-hook, under which the pin hereinafter mentioned slides, and upon which it lifts in uncoupling the cars.

d is a pin projecting laterally from the shoulder *c* or from the inner side of the coupling-hook, when so desired, and extends to and under the shoulder of the opposite coupling-hook belonging to the next car to the depth of the said shoulder, but no farther, so that it may readily escape the catch *b⁵*, when the cars are uncoupled and separate.

e is a lift attached to the coupling-hook, and conducted to the top of the car, though it may be applied in any of the well-known methods for safety in operating the invention.

It will be seen that when two cars having my invention applied are brought together, the beveled hooks slide up the inclines of the draw-heads, and the catches *b⁵* drop over the shoulders *a³*, and that in this position the pins *d* are under the shoulders *c*, so that when either of the coupling-hooks is raised its pin lifts the other and effectually uncouples the cars, whereby the brakeman may readily and perfectly control both coupling-hooks by either of the lifts *e*.

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

1. The combination of the draw-bars *a*, constructed with the mortises *a'*, longitudinal slots *a²*, and cross-shoulders *a³*, coupling-bars *b*, having hook *b⁵* and lugs *b'*, and axial pin *b²* and bumper-spring *b⁴*, all arranged to operate substantially as and for the purposes set forth.

2. The combination with the coupling-bars *b*, having hooks *b⁵*, and side flanges, *c*, and

pivoted on the draw-bars *a a*, having shoulders *a*³, of the pins *d*, each pin having one end fixed to a bar, *b*, while its other end projects laterally under the flange *c* on the other bar, and the necessary levers or mechanism for lifting said coupling-bars, substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of November, 1879.

CHARLES TROUPE.

Witnesses:

WM. TEACHANT,
H. P. WILLSON.