

B. BEVELANDER.

Car Coupling.

No. 87,622.

Patented March 9, 1869.

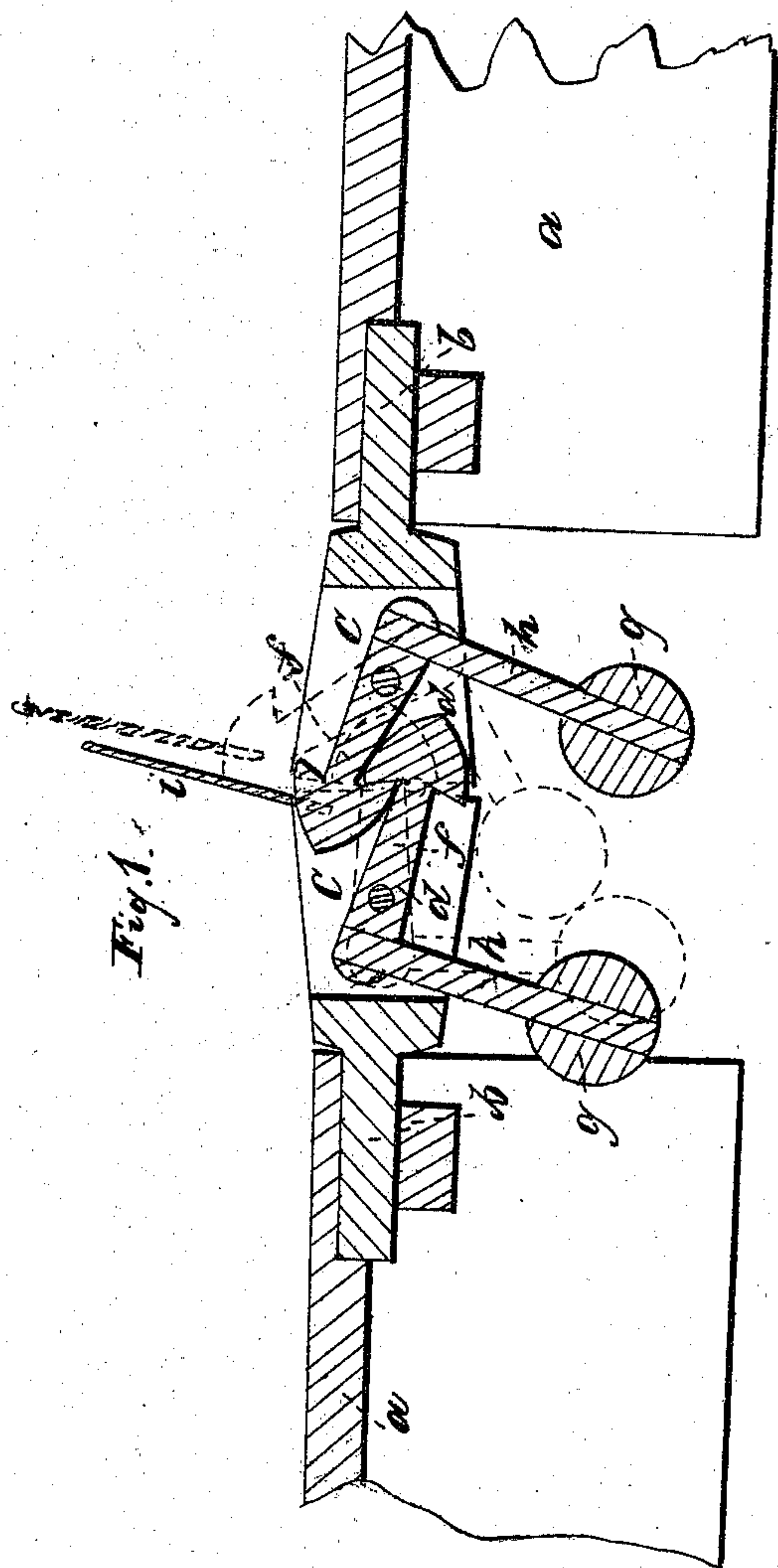
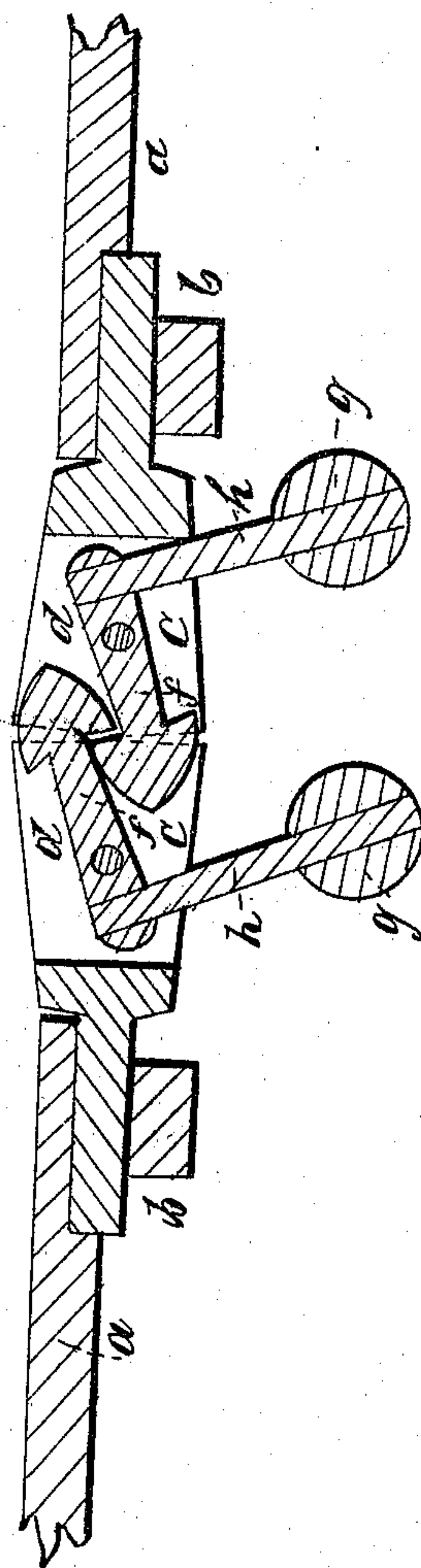


Fig. 1.



Witnesses:

J. B. Kidder.

C. Warren Brown.

Inventor

Benj Bevelander

By his Atty

Crosby, Halsted & Gould



BENJAMIN BEVELANDER, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 87,622, dated March 9, 1869.

IMPROVED CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, BENJAMIN BEVELANDER, of Boston, in the county of Suffolk, and State of Massachusetts, have invented an Improvement in Car-Couplings; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

This invention relates to a device by which cars are automatically coupled by the act of bringing the couplings together, the act of uncoupling being performed by manipulation, said device consisting of two pivoted arms, provided with opposed heads, of the shapes shown in the drawings, and with weights, as shown, there being one arm located at each end of a car, in suitable jaws attached to the draught-bar of the car.

Figure 1, of the drawings, shows, in sectional elevation, the coupling, embodying my invention, exhibiting the parts of the coupling as engaged.

Figure 2 is a view similar to fig. 1, showing the parts of the coupling as engaged in a manner the reverse of that shown in fig. 1, in which figure is shown, in red lines, the position of the parts in uncoupling.

The platforms of two adjacent cars are shown by *a a*, portions of the common draught-bars beneath the platforms, and attached to each car, being shown by *b b*, said portions terminating, as shown, with jaws *c c*, in which are pivoted, at *d d*, the arms *f f*, having ends or heads as shown, said heads being pointed, so that when they are brought together, one will deflect the other, so that the two heads will slide past each other, and will couple or engage as shown.

The arms *f f* extend to the rear of their pivots *d d*, and to said extensions, weights *g g* are fixed, by rods *h h*, the couplings, the rods, and weights, making bent levers pivoted at *d d*.

This arrangement is such, that, by the gravitation of the weights, the parts *f f* of the couplings are, when

apart, held horizontally, and when they are brought together, the weight of one part holds it up, and the weight of the other part holds it down, each part against the other part, with the barb-like parts of the heads of the arms *f f* interlocked.

The normal or horizontal position of one of the arms *f* is shown in fig. 1, in red lines, and the position which the other arm is made to assume, by manipulation in uncoupling, is also shown in red lines in the same figure, there being a chain or rope, *i*, attached to each coupling, by which one or the other of the arms may be lifted out of gear with its fellow.

It will be observed that in my construction no springs, levers, or other appliances are used or needed to secure the proper action of the self-locking barbs, and all complication and liability to derangement are avoided.

When springs are used with barbed hooks, serious objections exist, some of which are as follows:

All springs act by flexing the metal, and the period at which the spring will lose its flexibility, or break, is a mere question of time. They are also constantly exposed to fracture, when used in car-couplings, and are always subject to extreme thermal changes, and, in very cold weather, will snap and break, even though well made, and having no flaws.

I dispense with all springs of all kinds.

It will also be observed, that whichever barbed head may lodge uppermost, will have its weight upon the same side of its centre of gravity, as the other weight will occupy relative to its centre of gravity, so that the upper barbed head will be forced down, and the lower one forced up, by necessity.

I claim the coupling, as made with arms having pointed and barbed heads, pivoted, and provided with weights, arranged to operate substantially as described.

B. BEVELANDER.

Witnesses:

J. B. CROSBY,
FRANCIS GOULD.