

CHARLES WHITUS.
Improvement in Car-Coupling.

No. 126,000.

Patented April 23, 1872.

Fig. 1.

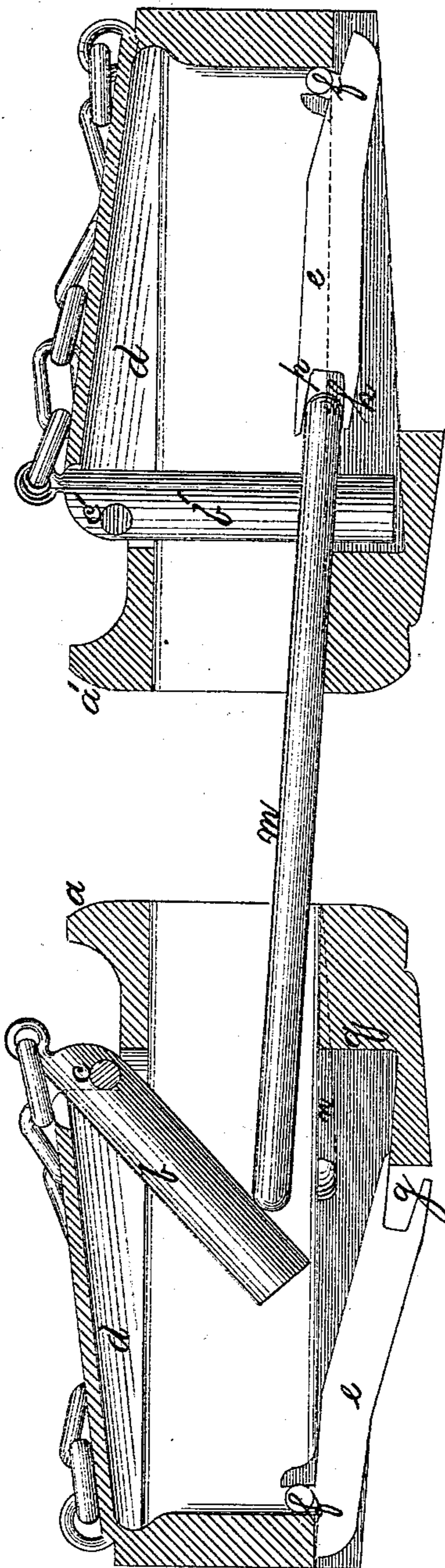
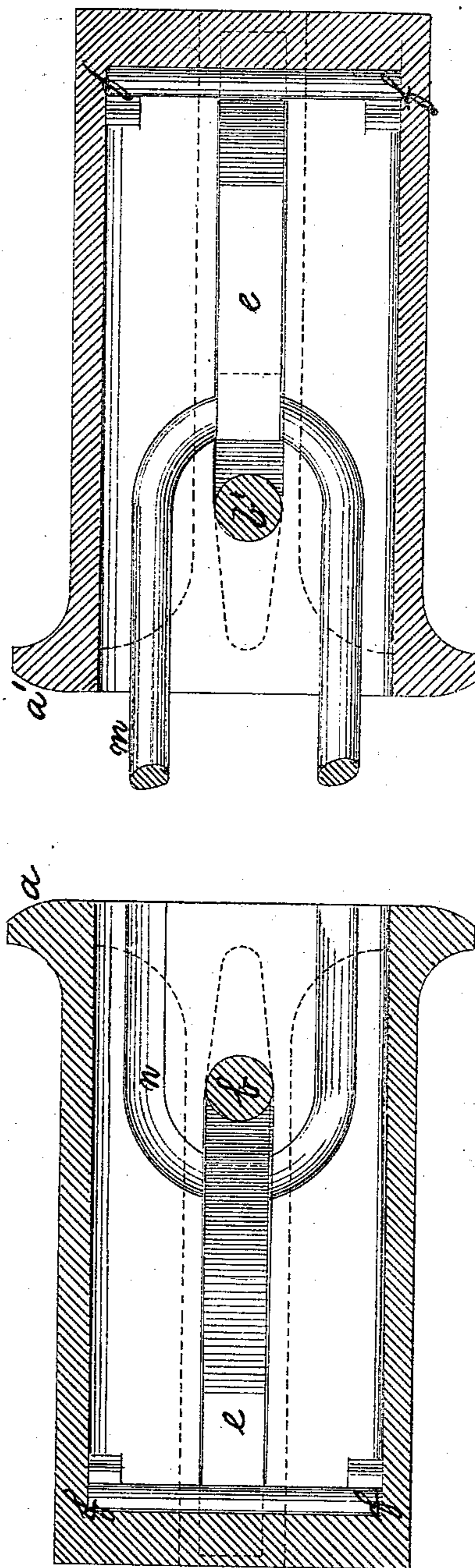


Fig. 2.



Witnesses:

Edward J. Faby

Thos. A. Burr.

Inventor:

Charles Whitus.

UNITED STATES PATENT OFFICE.

CHARLES WHITUS, OF PHILADELPHIA, PA., ASSIGNOR TO HIMSELF, EDWARD C. SMITH, AND WILLIAM MARTIN, JR., OF SAME PLACE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 126,000, dated April 23, 1872.

Specification describing certain Improvements in Car-Couplings, invented by CHARLES WHITUS, of the city of Philadelphia, in the State of Pennsylvania.

My improvements consist, first, in arranging the counterpoise *e* with open bearings at the bottom of the draw-head, over an aperture formed for it in said bottom, so that it is enabled to hold the coupling-link at the elevation or angle required for coupling cars of different heights, or cars standing on curves, and also so that said counterpoise can drop out of the way of the coupling-link when the operation of coupling has been effected; second, in combination of the draw-head *a* or *a'*, swinging draw-pin *b* or *b'*, coupling-link *m*, and counterpoise *e*, when constructed and arranged as herein set forth.

Figure 1 is a longitudinal vertical sectional elevation of a coupling embracing my improvements; Fig. 2, a horizontal sectional plan of the same.

a a' represent two draw-heads. *b b'* are draw-pins, which swing back freely on pivots or trunnion-like bearings *c c'*, which rest on the tops of the draw-heads, respectively. *d* is a recess in the top of the draw-head, or formed, as shown, by elevating the middle portion of the draw-head top. The recess *d* is given sufficient capacity or depth to receive the draw-pin, and allow it to be pushed back into said recess flush with the inner top surface of the draw-head, so as to be entirely free from interference with the coupling-link in the operation of shackling, or preparatory to this operation. *e* is the counterpoise, which turns freely on open bearings *f*, and of its own gravity drops down, so that its free end is below the level of the draw-head bottom inside, as at *g*, Fig. 1; or it is employed to hold the projecting end of the link (by pressure on its inserted end) at any desired angle of elevation preparatory to the operation of shackling, as shown at *h*, Fig. 1. *m* is the coupling-link. *n* is a shallow groove in the bottom of the draw-head corresponding to the form of the connecting-link.

With this coupling the operation of shack-

ling is in all cases automatically effected. Thus referring to Fig. 1, the draw-head *a'* is supposed to be attached to a car at rest, and the draw-head *a* to a car which is being moved toward (for the purpose of being shackled or coupled to) the car at rest. The link *m* is set at a slight inclination, as is necessary in cases where the draw-heads of the opposite cars have slightly different elevations above the track.

It is to be understood that the link *m* is set either horizontally or at any angle the circumstances referred to may require.

The inserted end of the link *m* is caused to enter the recess *p* in the front end of the counterpoise *e*. The counterpoise has sufficient weight to enable it to hold the link at any required angle.

As the moving car approaches the car at rest the link *m* pushes the draw-pin *b* back toward or into the recess *d*, and thus passes the draw-pin, which swings back of its own gravity into a perpendicular position, its lower end coming in contact with the shoulder *q*, Fig. 1.

The link *m* is given length sufficient to free it from interference with the turning of the cars on curves, and is still sufficiently short to prevent contact between it and the backs of the opposite draw-heads *a* and *a'* when the latter are in contact.

Instead of constructing the counterpoise with a recess, *p*, in its front end, to receive the inserted end of the coupling-link, preparatory to shackling, the counterpoise may be made without recess, and square or rounded concave or convex at this end; but I prefer to construct it with a recess, as shown.

The mouth of the draw-head is shown to be made square; but it is obvious that it may be made flaring or bell-shaped, more or less, as desired.

The draw-pin and counterpoise, being removable, are easily replaced in case of breakage.

I claim—

1. The arrangement of the counterpoise *e* with open bearings at the bottom of the draw-

head, over an aperture formed for it in said bottom, so that it can be employed to hold the coupling-link at the required elevation or angle when adjusted for coupling cars of different heights or cars standing on curves, and so as to leave the draw-head space clear when the act of coupling is completed, as set forth.

2. The car-coupling, consisting of draw-head

a or *a'*, swinging draw-pin *b* or *b'*, coupling-link *m*, and counterpoise *e*, when these several parts are constructed and arranged as set forth.

CHARLES WHITUS.

Witnesses:

EDWARD J. FASY,
THOS. A. BURTT.