

(No Model.)

A. H. MARDEN.

CAR BRAKE.

No. 263,052.

Patented Aug. 22, 1882.

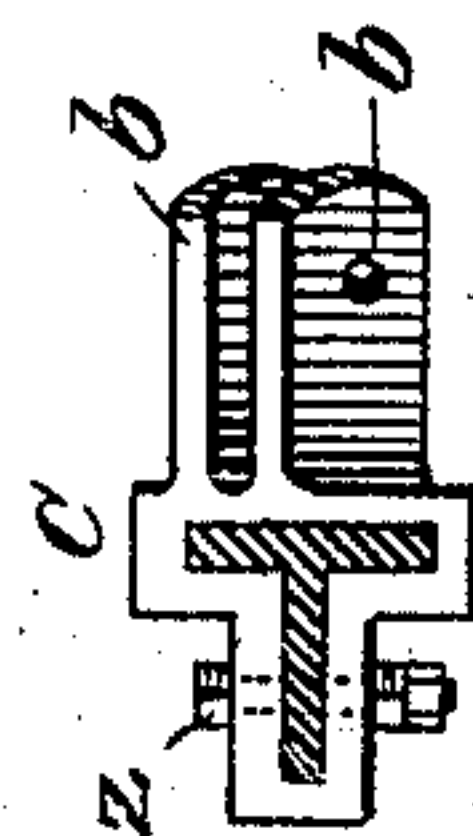
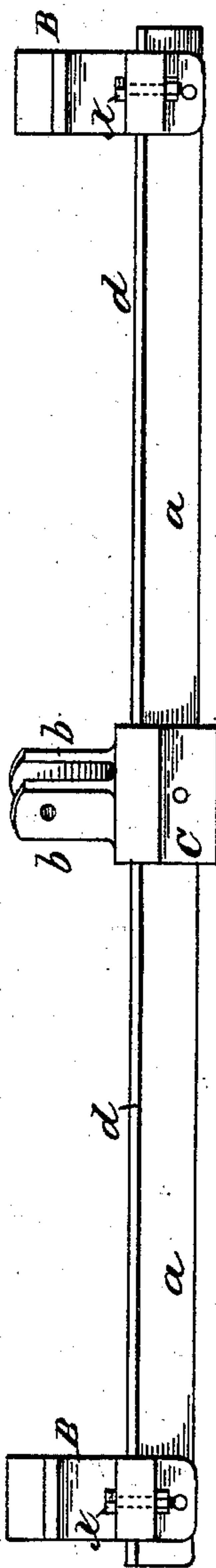
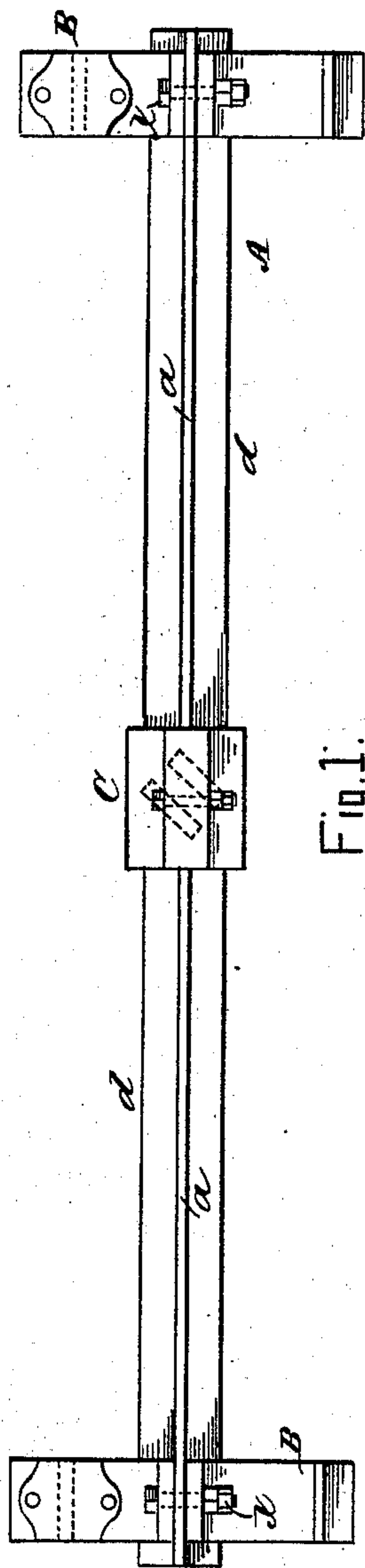


Fig. 4.

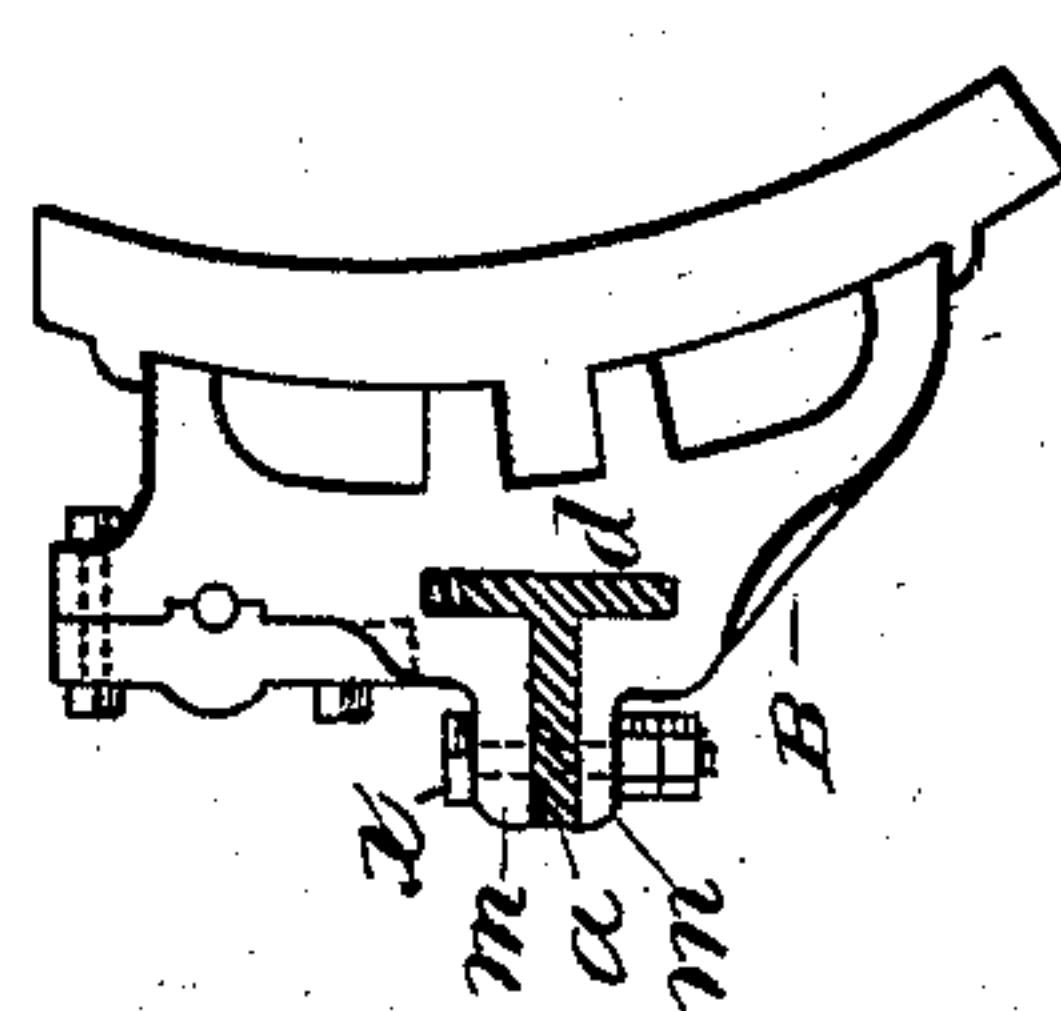


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

ALDIS H. MARDEN, OF CAMBRIDGE, MASSACHUSETTS.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 263,052, dated August 22, 1882.

Application filed May 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, ALDIS HENRY MARDEN, of Cambridge, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Car-Brakes, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation; Fig. 2, a top view; Fig. 3, an end view, and Fig. 4 a view of the lever-clamp.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates more especially to the class of car-brakes employed on steam and horse railways; and it consists in a novel construction and arrangement of parts, as hereinafter more fully set forth and claimed, by which a lighter, stronger, more durable, and effective device of this character is produced than is now in ordinary use.

In the drawings, A represents the cross-beam, B B the heads, and C the lever-clamp, of the brake.

The heads are designed to be suspended to the truck and provided with a friction shoe-pad in the usual manner.

The cross-beam A is formed of T-iron, and so arranged that when in position for use the flange *a* or body of the T will be in a horizontal position, or nearly so, and the top *d* or cross of the T will be nearly vertical, as best seen in Fig. 3.

The brake-heads B B are mortised to receive the ends of the beam, and are provided with outwardly-projecting flanges or lips *m m*, between which the flange *a* of the beam is inserted, the heads being firmly secured to the beam by the bolts *x x*, which extend vertically through the flanges *m m* of the heads and flange *a* of the beam.

The clamp C is mortised laterally to receive the beam A, and is secured thereto, at the center of the same, by the bolt *z*, which passes

through the body of the clamp and the flange *a*, as shown in Fig. 4.

Projecting horizontally from the inner face of the clamp, and arranged diagonally on the same, are two arms, *b b*, in the outer ends of which the brake-lever (not shown) is jointed in the usual manner.

By arranging the beam A as shown the flange or cross *d* is in a position to effectually sustain any vertical strain applied to the beam, the flange or body *a* being at the same time in the best position to strengthen and assist the flange *d* in resisting the lateral strain exerted by the lever, and also in a good position to enable the beam to be secured to the best advantage to the heads B B.

In brakes of this class, as usually constructed, the cross-beam is made of wood; but in order to obtain the requisite strength it has to be very large and heavy. It is also difficult to connect a wooden beam to the brake-heads without greatly weakening the parts, and there is sometimes much difficulty experienced in finding properly-seasoned wood of which to make the beam. The method of connecting the lever-clamp to a wooden beam also weakens it, and the clamp is liable to become loose and wear the same by its vibratory movements, thus deranging the brake mechanism. These difficulties are obviated by my improvement, the T-iron beam, constructed and arranged as shown, being lighter, stronger, and affording facilities for securely connecting the brake-heads and clamps which do not pertain to beams made of wood.

Having thus explained my improvement, what I claim is—

In a car-brake, the T-iron cross-beam A, the brake-heads B B, and clamp C, said clamp being provided with a closed T-shaped slot adapted to receive the cross-beam, and with two diagonally-arranged arms, *b b*, for receiving the brake-lever and its bolt, all constructed and arranged as described.

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Witnesses:

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