(No Model.)

D. P. PRESCOTT.

Car Coupling.

No. 236,625. Patented Jan. 11, 1881.

Fig 1

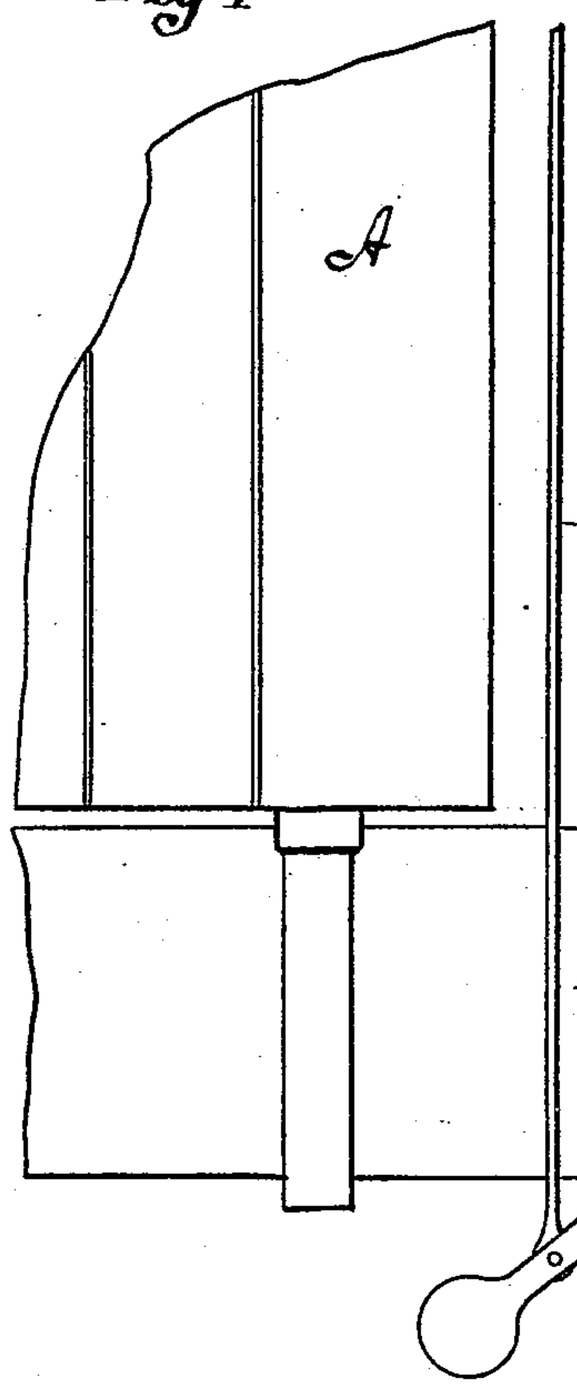


Fig 3

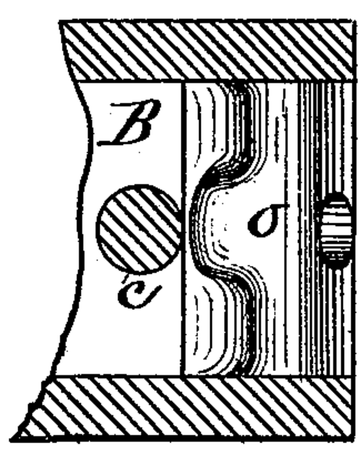
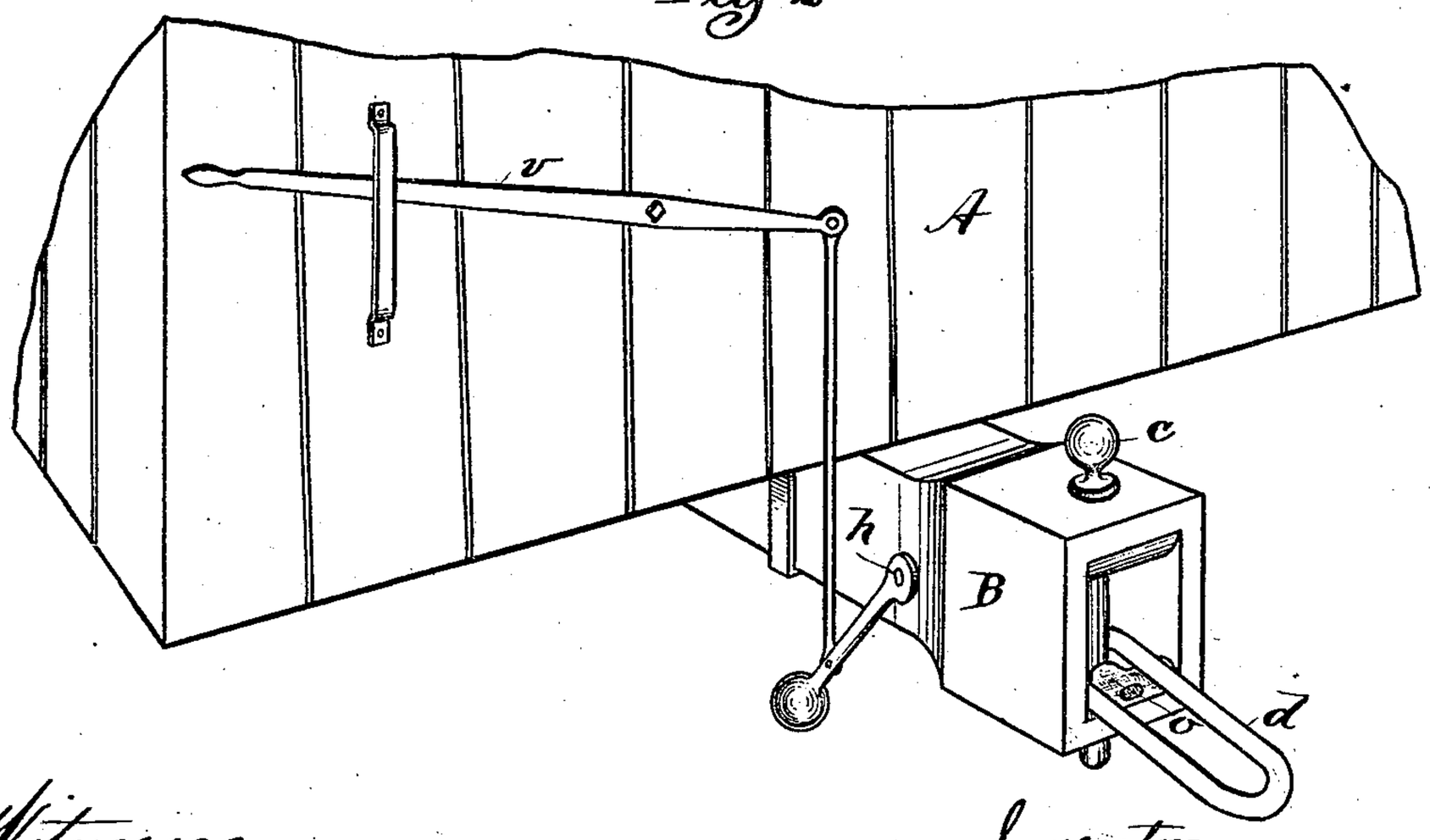


Fig 2



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UNITED STATES PATENT OFFICE.

DANIEL P. PRESCOTT, OF VERNON, VERMONT.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 236,625, dated January 11, 1881.

Application filed September 15, 1880. (No model.)

To all whom it may concern:

Be it known that I, DANIEL PAGE PRESCOTT, a citizen of the United States, residing at Vernon, county of Windham, and State of Vermont, have invented new and useful Improvements in Draw-Bars for Freight-Cars, of which the following is a specification.

My invention relates to the construction of the open or link-receiving end of freight-car draw-bars, and to devices arranged to co-operate therewith and with the ordinary coupling-link to assist in coupling cars; and the object thereof is to provide, in combination with a draw-bar and link and pin of substantially ordinary construction, simple and practical devices and forms which will enable persons to make the coupling-connections between cars provided with common link-and-pin couplings without going between the ends of said cars, thus obviating the great loss of life and limbs constantly occurring from the operation of said couplings by persons going between the cars for that purpose.

I attain the above objects by the construction and devices illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a part of the end of a car, and of a draw-bar, partly in section, showing my invention. Fig. 2 is also a view of the end, in part, of a car also having my draw-bar attached thereto, and showing a means of operating it from the side of the car. Fig. 3 is a view of the link fulcrum-block and the relative position of the pin thereto.

A represents a portion of the end of a car. B is the draw-bar. *c* is the pin. *d* is the link. *e* is the curved interior portion of the draw-bar cavity. *h* is a transverse shaft in bar B. *i* is a link-arm attached to shaft *h*. *o* is a link fulcrum-block in the draw-bar cavity. *s* is an arm on shaft *h*. *t* is a rod attached to arm *s*. *v* is a lever pivoted to the car A and connected to arm *s*.

I construct my improved draw-bar with the upper side of its link-cavity curved, as at *e*, and within said curved portion I provide a recess, as shown, for the reception of the link-arm *i*, which is firmly secured to the transverse shaft *h*, which passes through bar B just back of its cavity. The pin *c* passes vertically through the draw-bar in the usual manner, and the link *d* rests upon the fulcrum-block *o*, hanging on pin *c*, as seen in Fig. 1, and while the link is in this position the link-arm *i* rests over the end of the link *d*, near to pin *c*, as seen in said figure. The link fulcrum-block has its inner side contiguous to the pin *c* made vertical, and said block and pin so arranged relatively that the block supports the pin against a drawing strain; but said block is cut away each side of its center on its inner edge, as shown, so that the end of the link within the cavity, when pushed quite in, may freely drop onto the bottom. The outer and upper edge of block *o* is also somewhat cut away, so that the link, when pushed quite in or quite out, may freely rock thereon. The link-cavity of the draw-bar is made deep enough beyond the upper sharp edge of block *o* to receive a little more than half the length of the link *d*, so that the latter, when quite back in the cavity, will rest upon the bottom thereof by its own weight.

Secured to one end of the transverse shaft *h* is an arm, *s*, and to said arm may be attached a rod, *t*, running to the top of the car, or a lever, *v*, pivoted to the end of the car, may be attached to arm *s*, as shown; or both lever *v* and rod *t* may be attached to said arm for the purpose of operating it, as hereinafter described. Arm *s* is made so that its free end, to which is attached rod *t* or lever *v*, is sufficiently heavy to counterbalance the weight of the link-arm *i*, and, when not operated by either said rod or lever, cause arm *i* to be held up in the cavity in the curved portion *e* of the draw-bar, as in Fig. 1.

The operation of my improvements, in conjunction with the draw-bar and link and pin, to facilitate the coupling of cars without danger is as follows—viz: The usual movement and concussion of meeting cars in a train almost always causes the link *d* to hang in the position seen in Fig. 1, and when a link is placed in a draw-bar preparatory to coupling cars it would naturally be left in that position. The act of coupling cars together requires that a person should, as couplings are ordinarily made, step between the ends of approaching cars and carefully guide the end of the link into the open end of the approaching draw-bar. In using my improvements,

however, the operator, if on the ground by the side of the train, has only to bear down on the end of lever *v*, thereby operating arm *s*, shaft *h*, and link-arm *i*, causing the latter to bear upon the inner end of link *d*, and, swinging it upon the fulcrum-block *o*, cause its outer end to be gently elevated to a proper height to enter said approaching draw-bar on another car. The same result is effected when the person is on the roof of the car and raises rod *t*. When the link is quite in the draw-bar its outer end is in such a position as to cause it to almost invariably enter an approaching draw-bar without guiding it; and, if desired, it may be left to rest on block *o*, with its rear end against the lower part of the curved portion *e*, when the link will lie about level.

What I claim as my invention is—

1. The combination, with the draw-bar constructed with the recessed curved portion *e* and the fulcrum-block *o*, of the link-arm *i*, shaft *h*, arm *s*, and suitable appliances for operating said arm *s*, substantially as and for the purpose set forth.

2. In combination, the draw-bar B, constructed with the recessed curved portion *e* and fulcrum-block *o*, the pin *c*, link *d*, link-arm *i*, shaft *h*, arm *s*, and suitable appliances for operating said arm *s*, substantially as and for the purpose set forth.

DANIEL PAGE PRESCOTT.

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