(No Model.)

P. BROWN.

DRAW BAR ATTACHMENT.

No. 490,635. Patented Jan. 31, 1893.

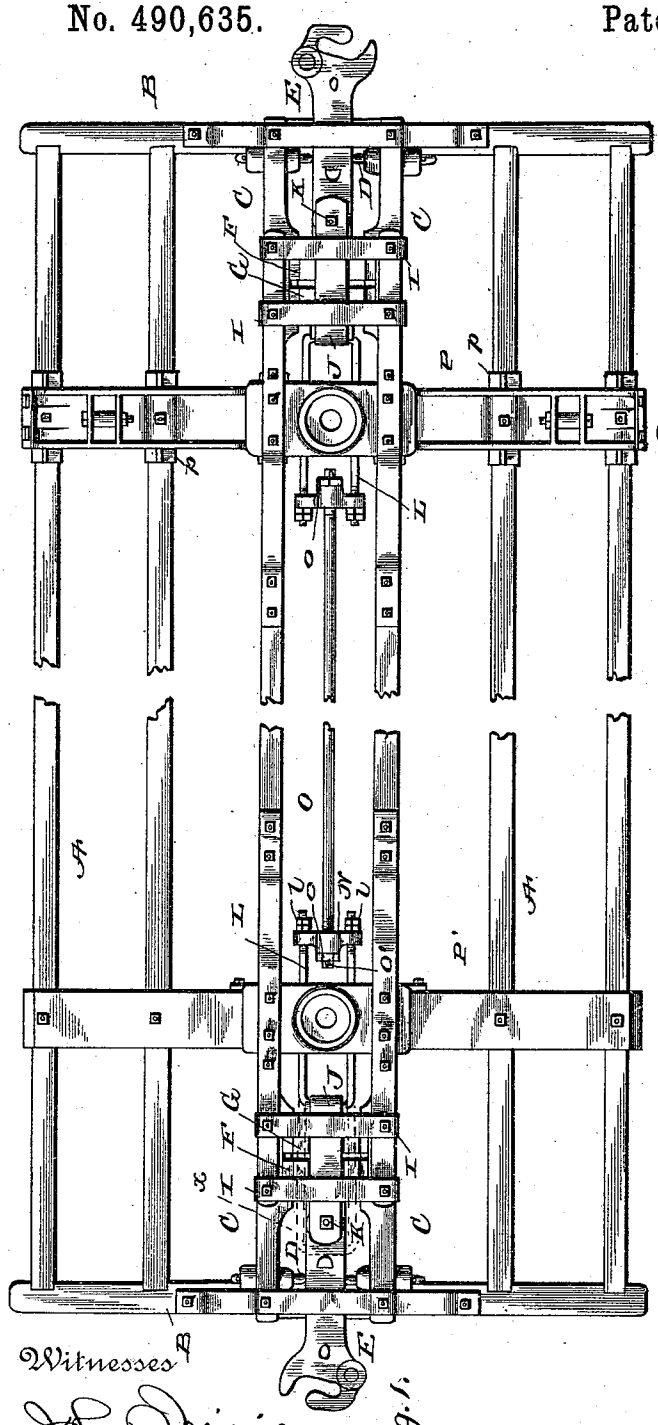

Fig. 1.

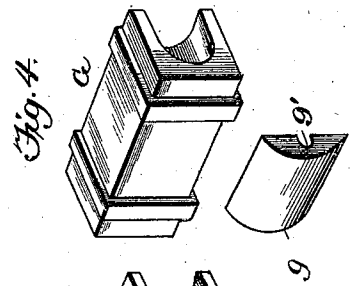

Fig. 4.

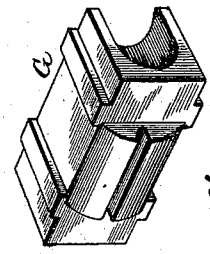

Fig. 3.

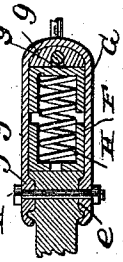

Fig. 5.

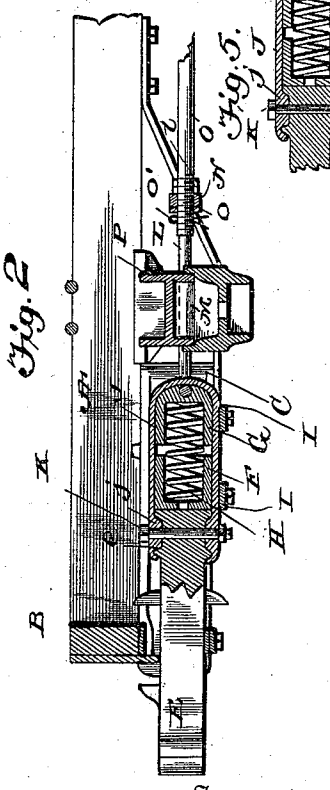

Fig. 2.

Witnesses

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PERRY BROWN, OF SHARONVILLE, OHIO.

DRAW-BAR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 490,635, dated January 31, 1893.

Application filed April 15, 1892. Serial No. 429,328. (No model.)

To all whom it may concern:

Be it known that I, PERRY BROWN, a citizen of the United States, residing at Sharonville, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Draw-Bar Attachments, of which the following is a specification, reference being had therein to the accompanying drawings.

This improvement relates to that style of draw-bar attachment shown in my application Serial No. 427,697 filed March 12, 1892 and the invention consists in the peculiar construction, arrangement and combinations of parts hereinafter more particularly described and then definitely claimed.

In the accompanying drawings—Figure 1 is a reversed plan of the under side of a car constructed according to my improvement. Fig. 2 is a vertical longitudinal section of one end of the same. Fig. 3 is a perspective of one of the follower blocks. Fig. 4 is a similar view of another form of follower block, and wearing piece. Fig. 5 is a sectional detail.

Referring now to the details of the drawings by letter—A indicates the longitudinal sills and B the end sills of the frame, and to the bottom of the central pair of sills are bolted the draw irons C carrying the spring plugs D, between which is set the coupler E as in my aforesaid application. Between the draft irons are set the follower blocks F G, inclosing the spring H, which blocks are held in place by the cross bars I bolted to the draft irons. Surrounding the follower blocks is a yoke J made curved at the center or crotch and having its ends provided with round projections *j* fitting into corresponding recesses *e* in the coupler, which is further secured to the yoke by a bolt K. The rear follower-block G may be made in two forms—either with a curved and grooved end as shown in Fig. 3, or with a detachable wearing piece *g* having a groove *g'* in it, as shown in Fig. 4, which I consider preferable, because the detachable piece *g* may be readily removed should it become worn, and there is less strain on the yoke J, and less liability of its becoming pulled out of shape as the strain will be partly borne by the piece *g*.

At L is shown a yoke of round iron which is linked into the yoke J and has its ends passed through the bolster M and into a cross head N where they are secured by nuts and jam nuts *l*. The center of the cross-head is perforated to receive the connecting rod O which is provided with nut *o* and cotter *o'*, and is connected in the same way with the cross-head N at the opposite end of the car.

I have shown two forms of bolster—one of metal P and the other of wood P' but I prefer the former, and to give it a good bearing surface for the sills I extend brackets *p* from each side which will form an extended surface to receive the sills and prevent the iron cutting into the sills which it is liable to do where no brackets are used.

Instead of the yoke L, I may sometimes use rods extending through the follower blocks F G, as shown in dotted lines at *x*.

By the combination of the follower block having a curved rear with the yoke curved to correspond, I avoid making sharp angles in the yoke and the consequent liability to fracture at the corners which metal bent at right angles is liable to.

In the following claims where I refer to the curved rear of the follower block G, I mean said follower block whether made with a curved rear formed integral therewith, as shown in Fig. 3, or when said curved rear is formed by a detachable piece, as shown in Fig. 4.

What I claim as new is:

1. In a draft attachment, the combination of a coupler and follower block, with a yoke J having its central part curved in the rear of said follower block, substantially as described.

2. In a draft attachment, the combination of a coupler and follower blocks, with a yoke J and L, the cross head N, and connecting rod O, substantially as described.

3. In a draft attachment, the combination of a coupler, a follower block having its rear curved, a yoke substantially fitting said curved rear and connected with the coupler, as set forth.

4. In a draft attachment, the combination of a coupler, a pair of follower blocks, one of which has its rear curved, a yoke J substantially fitting said curved rear connected with the coupler, and a second yoke passing through said yoke J and connected with the coupler at the opposite end of the car, substantially as described.

5. In a draft attachment, the combination with a coupler, and a yoke connected thereto, a second yoke connected with the coupler at the opposite end of the car, of a follower block, and a detachable wearing piece between the yoke connected to the coupler and the follower block, substantially as described.

6. In a draft attachment, the combination with the followers of a coupler having round recesses formed in its rear, and a yoke having corresponding projections fitting into said recesses, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 14th day of April, 1892.

PERRY BROWN.

Witnesses:
THOS. E. ROBERTSON,
JOHN C. SHAW.