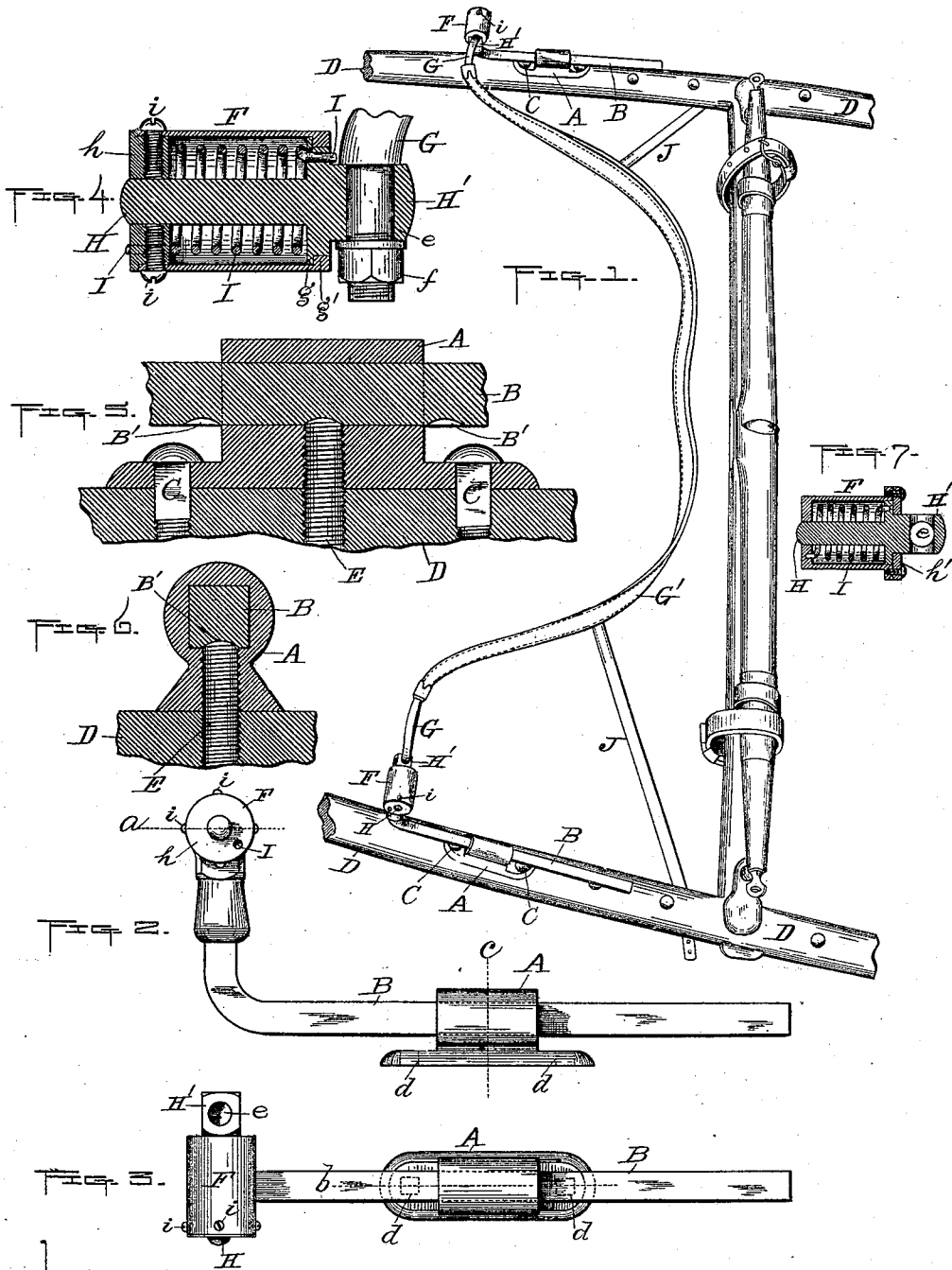


(No Model.)

S. A. PRESCOTT.
HOLDBACK FOR CARRIAGES.

No. 465,201.

Patented Dec. 15, 1891.



Witnesses,

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UNITED STATES PATENT OFFICE.

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HOLDBACK FOR CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 465,201, dated December 15, 1891.

Application filed April 14, 1891. Serial No. 388,842. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL A. PRESCOTT, of Wilkinsonville, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Holdback Attachments for Carriages; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a perspective view of my improved holdback attached to the shafts of a carriage, those portions of the thills or shafts not relating to said improvements being broken away for convenience in illustration. Figs. 2 and 3 represent upon an enlarged scale a detached side view and plan, respectively, of the adjustable holding devices hereinafter described, to which each end of the holdback is attached. Fig. 4 is a central longitudinal section taken on line *a*, Fig. 2, upon a still larger scale, Figs. 5 and 6 being upon the same enlarged scale as said Fig. 4. Fig. 5 is a central longitudinal section taken at the point indicated by line *b* in Fig. 3, also showing a part of one of the shafts. Fig. 6 is a transverse or cross section of the same parts, taken at the point indicated by line *c* in Fig. 2; and Fig. 7 is a similar view to Fig. 4, showing a modification hereinafter described.

My invention consists in certain improvements in self-adjusting holdback devices for carriages and other vehicles, and relates more particularly to improvements in the holdback device upon which I was granted a United States patent dated November 18, 1884, and numbered 308,093.

In order that others may better understand the nature and purpose of my said invention, I will now proceed to describe it more in detail.

In the drawings, A A represent the holdback-bearings, which are provided with suitable longitudinal openings to receive the slide-rods B B, and with vertical openings *d d* at each end to receive the bolts C C, used in fastening said bearings to the thills or shafts D D. In addition to said horizontal and ver-

tical openings each bearing is provided with a vertical central opening extending from the inner side thereof to its longitudinal opening to receive a bolt E, extending up through the thill or shaft through said bearing and against the inner side of the slide-rod B to hold the latter from longitudinal movement therein, and to facilitate said purpose the rod may be provided with recesses or indentations B' at short distances apart along said inner side to receive the inner end of the holding-bolt, as is shown in Figs. 5 and 6.

The slide-rods B B are preferably made square in cross-section, as shown in Fig. 6, to prevent their turning in the bearings; but I do not limit myself thereto. They are in practice made of sufficient length to permit of such adjustment as may be necessary to fit the holdback-rod attached thereto to horses of different sizes. That end of each slide-rod which extends forward when secured in position is curved upward, and upon the upper end thereof is mounted a cylinder F, to which is attached the ends of the holdback-rod G. Said rod is bent, as shown in Fig. 1, into the proper shape to fit the horse, and is preferably provided with a leather or similar case G' over the same to produce an easier and broader bearing-surface against the horse. I do not limit myself, however, to the use of said leather covering, as it is not an essential feature of my invention.

Each end of holdback-rod G is bent downward and passes through one of the transverse openings *e* in the head H' of a journal H, which is fitted in each cylinder F, being held therein from pulling out by a nut *f*, as is shown in Fig. 4, or by any other well-known means. The journal is provided with a shoulder *g*, which when said journal is placed in position in the cylinder fits against the internal flange *g'* at one end of the cylinder, as is also shown in Fig. 4, the head of the journal thus closing this end of the cylinder. At the opposite end a collar or disk *h* is fitted into the end of the cylinder and over the end of the journal, and transverse holding-screws *i* are passed through the cylinder and into the collar or disk to secure the latter to said cylinder. Between the head of journal H

aforesaid and said collar or disk, over the journal, is fitted a spiral spring I, one end of which passes through a longitudinal hole in the journal-head and the other end through a similar hole in the collar or disk secured to the cylinder. A torsion-spring, it is obvious, is thus produced, whereby the journal and in consequence the holdback-rod G have a rotary-spring power imparted thereto to turn the same in one direction, according to the position of the spring. In practice it is made and adjusted so as to impart an upward pressure to the holdback-rod while at the same time yielding to a downward pressure thereon. Said upward movement is controlled by suitable holding-straps J J, one at each side, secured at one end to the holdback and at the other end to some fixed point of the carriage, preferably to the thills or shafts, as shown in the drawings, by a buckle or any other well-known means.

Although I prefer the above-described mode of constructing the cylinder—that is, of providing the same with the internal flange *g'* at one end and the detachable collar *h* at the other end, which provides for the insertion of the journal H at the end where said collar comes—I do not limit myself thereto, as the same result may be accomplished—viz., of connecting one end of the spring I with said journal and the other with the cylinder—by the construction shown in Fig. 7. In this instance the collar is made integral with the cylinder and the journal arranged to be slipped in at the other end by leaving off the internal flange *g'* and fastening a detachable collar *h'* to the end of the cylinder to hold the journal in position after adjustment.

From the foregoing description it will at once be apparent that a good, strong, and effective holdback is thus produced, independent of the harness and in many respects more satisfactory in its application to practice than the device covered by my United States patent previously referred to.

One of the principal advantages of my improved construction is that the holdback-rod attachments being elevated above the thills bring the line of draft horizontal, and thus remove the liability of the holdback-rod working down and cramping the legs of the horse. Then, again, said device is more susceptible of adjustment to horses of different sizes, and also presents a neater and more tasty appearance upon the carriage than my old patented device.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the holdback-rod G, having suitable holding-straps connecting the same with some fixed point on the carriage, of the thill-attaching devices, each consisting of the journal H, fitted in cylinder F, said cylinder, the collar or disk *h*, fitted in the end of the cylinder over the smaller end of the journal and fastened to said cylinder by suitable transverse screws, the torsion-spring I, arranged in the cylinder over the journal between the head of said journal and the aforesaid collar or disk, one end being connected with said journal and the other with the collar or disk, the slide-rod B, upon the forward upper end of which is mounted said cylinder, and the bearing A, fastened to the thill and in which the slide-rod is adjustably fastened, substantially as shown and specified.

2. The combination of the cylinder F, mounted on slide-rod B, having an internal transverse flange at one end and a fastened collar or disk at the other, with the journal H, arranged in the cylinder, fitted at its small end in said collar or disk and at its opposite end against the internal flange, also having a transverse opening or openings in its head to receive the end of the holdback-rod G, and said holdback-rod having means for fastening it to the journal, substantially as and for the purpose set forth.

3. The combination, with the thill of a carriage or other vehicle, of the bearing A, fastened to said thill by means of suitable bolts and having a longitudinal opening therein to receive the slide-rod B, also having means for holding the latter from sliding therein, and said slide-rod curved upward at one end and having the cylinder F mounted on said curved end, substantially as and for the purpose set forth.

4. In a holdback attachment for carriages and other vehicles, the combination of the journal H, fitted in the cylinder F and having one end of the holdback-rod attached to its outer end with said cylinder, and a spiral spring I arranged therein, connected at one end to the journal and at the other end to the cylinder, substantially as and for the purpose set forth.

SAMUEL A. PRESCOTT.

Witnesses:

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