

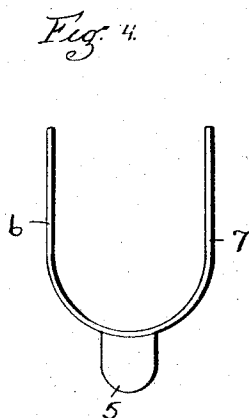
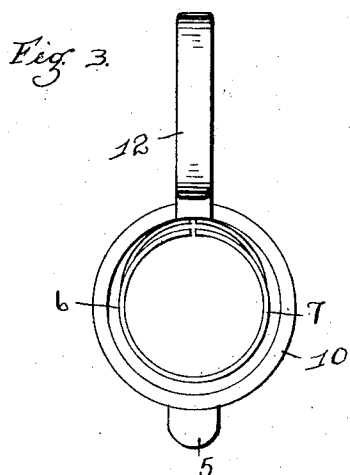
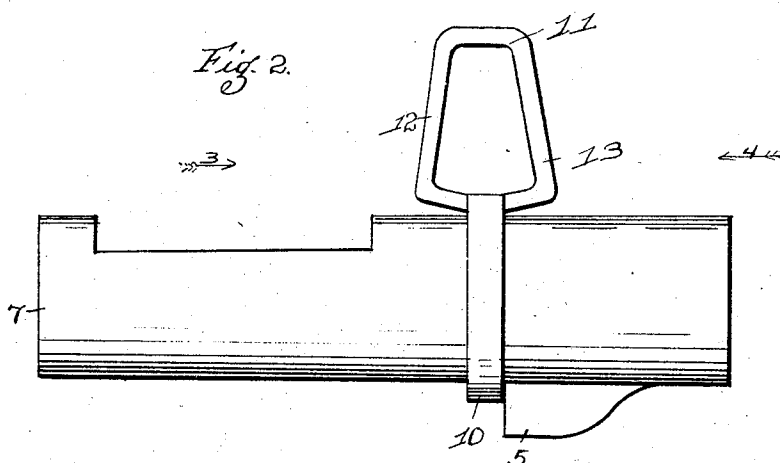
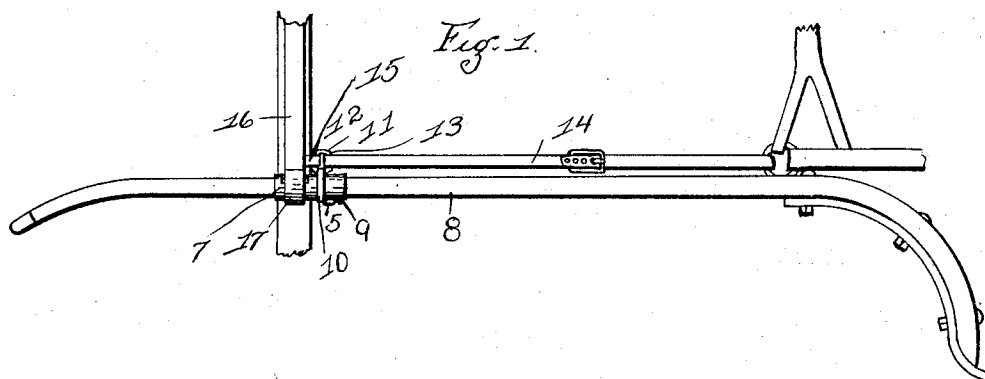
No. 765,468.

PATENTED JULY 19, 1904.

J. B. FRENCH.
HOLDBACK AND SHAFT PROTECTOR.

APPLICATION FILED APR. 11, 1904.

NO MODEL.



Witnesses:
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Alfred A. Ellis

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UNITED STATES PATENT OFFICE.

JOHN B. FRENCH, OF ST. LOUIS, MISSOURI.

HOLDBACK AND SHAFT-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 765,468, dated July 19, 1904.

Application filed April 11, 1904. Serial No. 202,609. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. FRENCH, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Holdbacks and Shaft-Protectors, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to holdbacks; and it consists of the novel features herein shown, described, and claimed.

In the drawings, Figure 1 is a view in elevation, showing my improved holdback applied to a harness and shaft in position for use. Fig. 2 is an enlarged elevation of the holdback disconnected from the harness and shaft. Fig. 3 is an end elevation looking in the direction indicated by the arrow 3 in Fig. 2. Fig. 4 is an enlarged end view of the stop and supporting-plates before the plates are applied to the shaft, as seen looking in the direction of the arrow 4 in Fig. 2.

Referring to the drawings in detail, the stop 5 is cast integral with the plates 6 and 7, and then said plates are curved around the shaft 8 to hold the stop in position upon the shaft, screws 9 being inserted through the plates into the shaft. The plates 6 and 7 are cast in flaring or parallel positions, so that no core is required, and the plates may be bent to fit shafts of different sizes, whereas if the sleeve were cast solid in tubular form it could not so readily be fitted to the shaft. The shaft-ring 10 is adapted to receive the shaft and engage against the stop 5, and the strap-loop 11 is cast integral with the ring 10, the opening through the loop being at right angles and crosswise of the opening through the ring. The sides 12 and 13 of the loop 11 are farther

apart at their lower ends than at their upper ends. The strap 14 connects the rear side 13 of the loop to the breeching of the harness, and the strap 15 connects the front side 12 of the loop to the back-pad 16. The inclination of the sides 12 and 13 allows the loop to sag, so that the straps 14 and 15 will be inclined downwardly.

Heretofore shaft-tugs and other forms of holdbacks have either been connected to the breeching alone or to the back-pad and belly-band.

My improved construction connects the holdback to both the breeching and the back-pad at a point somewhat nearer to the back-pad than to the breeching, and the motion of the vehicle back and forth is reduced to a minimum by tightening the straps 14 and 15, and the wear upon the supporting-loops 17 of the back-pad is greatly reduced.

I claim—

In a holdback and shaft-protector; the supporting-plates 6 and 7 cast integral and bent into a circle; and the stop 5 cast integral with the supporting-plates; in combination with the shaft-ring 10 adapted to fit against the stop; and the strap-loop 11 cast integral with the shaft-ring and at right angles thereto; said strap-loop being adapted to receive the strap connected to the breeching and to receive the second strap connected to the back-band; substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

JOHN B. FRENCH.

Witnesses:

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