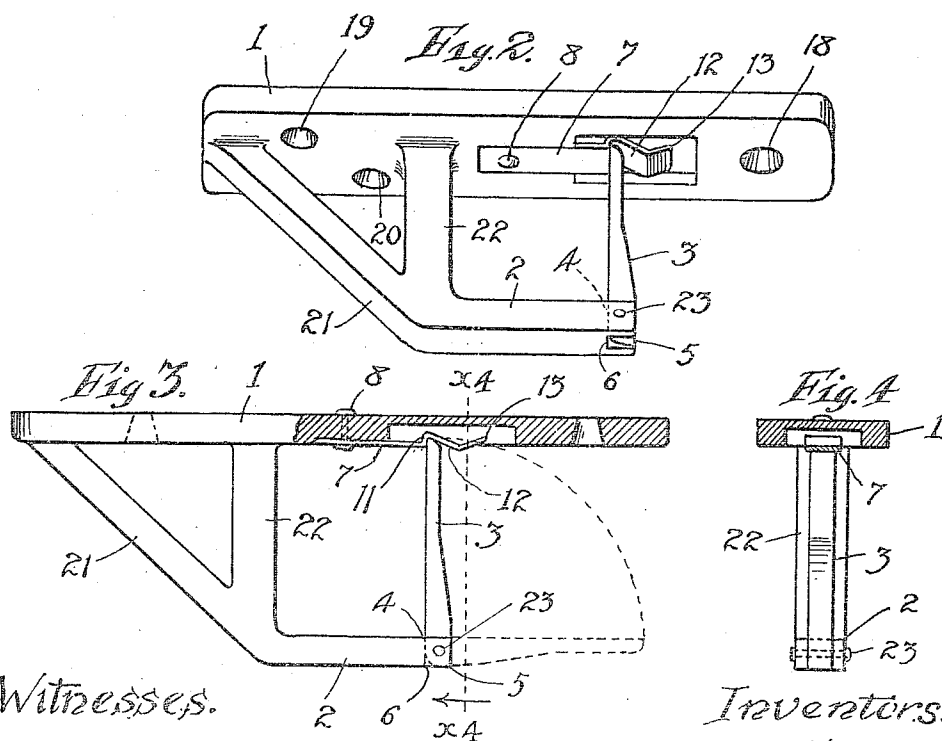
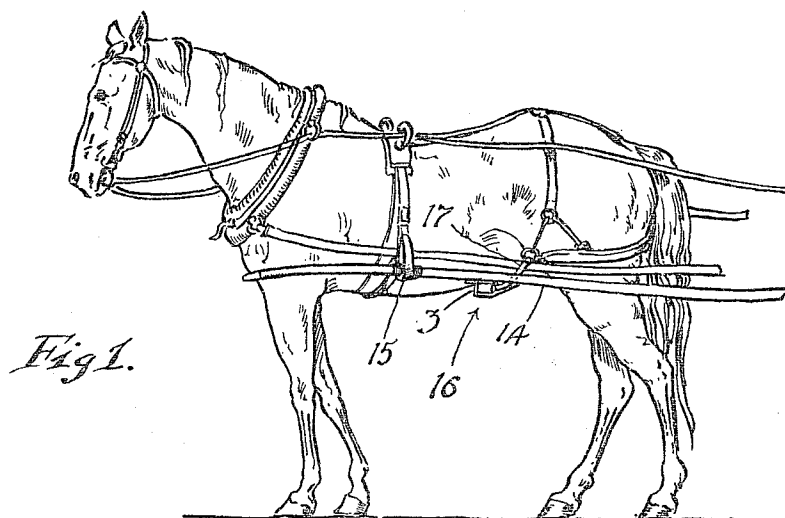


957,678.

Patented May 10, 1910.



Witnesses.

Geoffrey Holt.
Frank W. Durlough

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UNITED STATES PATENT OFFICE.

DAVID N. HYRE AND JOHN W. SHIREY, OF LOS ANGELES, CALIFORNIA.

SAFETY-HOLDBACK SHAFT-HOOK.

957,678.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed January 11, 1910. Serial No. 537,553.

To all whom it may concern:

Be it known that we, DAVID N. HYRE and JOHN W. SHIREY, both citizens of the United States, and residents of Los Angeles, California, have invented new and useful Improvements in Safety-Holdback Shaft-Hooks, of which the following is a specification.

An object of this invention is to provide a hold back hook that will be an improvement over other hold back hooks in respect to having a specially constructed spring that yieldingly holds the tongue or keeper in the closed position in an improved manner. Such spring, while permitting the keeper to be forced to the open position, positively locks it against farther inward movement from the closed position. That is to say, the spring performs the additional function of a stop to limit the inward swing of the keeper. The keeper is therefore adapted to effectually resist the backward sliding of the shaft tug in case of an accident occasioned by the harness breaking, as will hereinafter more clearly appear.

Referring to the accompanying drawings which illustrate the invention, Figure 1 is a side view of a buggy shaft provided with the invention, a horse and harness being also shown. Fig. 2 is a bottom perspective separately illustrating the appliance. Fig. 3 is a side elevation of the appliance. Fig. 4 is a cross-section on line X⁴ of Fig. 3.

Referring in detail to the drawings,—from the base 1, depends a forwardly opening hook 2 to the forward end of which is pivoted a tongue or keeper 3 which engages a shoulder 4 at the forward end of said hook when in the closed position as illustrated in Fig. 2. The heel 5 of the keeper 3 engages the shoulder 6 when the keeper is dropped to the open position as shown in Fig. 3, said shoulders 5 and 6 thus preventing the keeper 3 from dropping below a horizontal position.

In order to yieldingly hold the keeper 3 in the closed position a keeper-holder desirably a leaf spring 7 is attached in any suitable manner as by rivet 8 to the base 1. The free end of said spring projects forwardly beyond the point to which the tip of the keeper 3 moves on its backward swing, said spring being provided at such point with an abrupt upward bend forming therein a shoulder 11 against which the tip of the keeper 3 strikes at the same time that it engages the shoulder 4 on its inward

swing, said shoulder 11 of the spring therefore cooperating with the shoulder 4 of the hook to positively prevent any backward swing of the keeper 3 from its vertical or closed position.

Beyond the shoulder 11 the spring 7 is provided with a downwardly inclined section 12 forming a beveled recess in front of said shoulder, and a reverse upwardly inclined tip portion 13, this construction allowing the keeper 3 to be readily swung to and from the closed position by moving the tip thereof across the angle between the sections 12 and 13, the spring 11 readily yielding to permit such movement.

As illustrated in Fig. 1 the appliance is shown attached to a shaft 14, said shaft being supported in a well-known manner by means of the shaft tug 15 forwardly of the hold back which is, in a general way, designated 16 in Fig. 1.

17 is the usual hold back strap. Now, it will be seen that in case the hold back strap 17 breaks in descending the hill the shaft tug 15 will slide back until it encounters keeper 3 when it will engage said keeper and be thereby held against farther rearward movement, the shoulder 11 of spring 7 greatly assisting and, in fact, bearing almost the entire strain of the rearward pressure of the shaft tug against the keeper 3. If the end of the keeper 3 were not thus locked against rearward movement by the spring 7 it would be broken when subjected to strain as just described.

The base 1 of the hold back may be provided with a forward hole 18 and rearward holes 19 and 20 for the reception of fastening means to secure the same to the shaft.

21 is an inclined brace to reinforce the upright post 22 of the keeper hook 2.

23 is a rivet for pivoting the keeper to the front end of the hook 2 said hook being desirably slotted at its end as shown to provide ears between which the keeper 3 is pivoted.

We are aware that heretofore hold backs have been constructed having some of the general features of our appliance, but so far as we know the peculiarly constructed retaining spring for the keeper, having the advantages which have been set forth, is new in the art to which our invention pertains.

We claim:

In a hold back, a base, a forwardly opening hook depending from said base, a keeper

hinged to the end of said hook, and a leaf spring to yieldingly hold said keeper in the closed position, said spring having an abrupt bend therein to prevent backward movement of said keeper from the closed position.

5 In testimony whereof we have hereunto signed our names in the presence of two sub-

scribing witnesses at Los Angeles, California, this 6th day of January 1910.

DAVID N. HYRE.
JOHN W. SHIREY.

Witnesses:

ALBERT H. MERRILL,
FLORA H. FOSS.