(No Model.) 2 Sheets—Sheet 1.

# J. A. DONALDSON.

## HOOK.

No. 594,335. Patented Nov. 23, 1897.

*Fig. 1.*

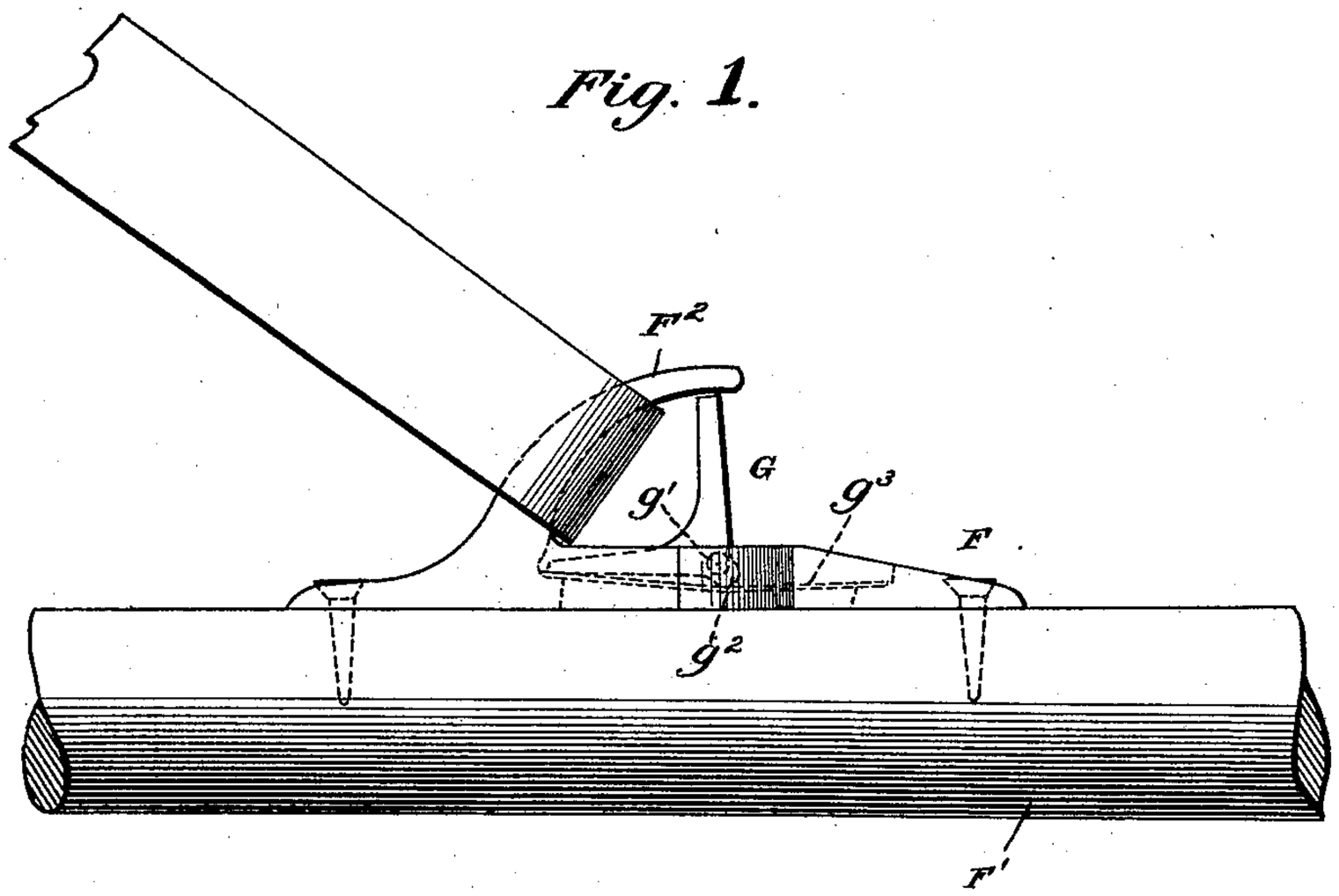



*Fig. 2.*

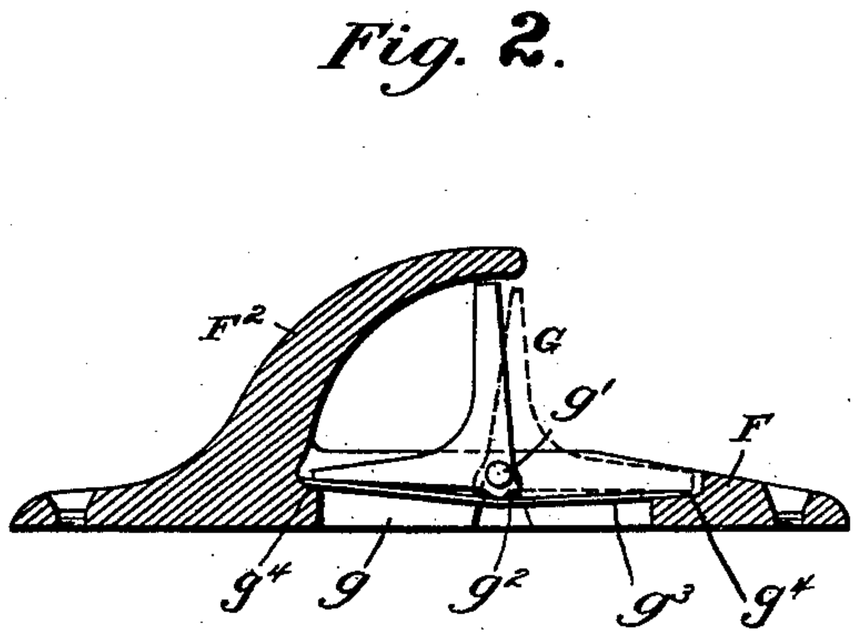
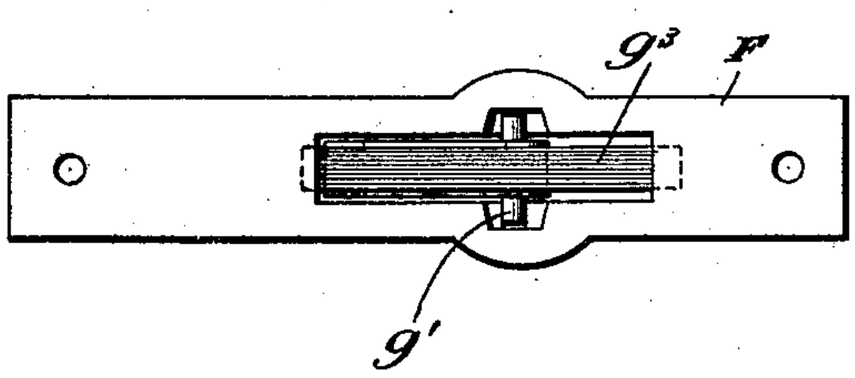



*Fig. 3.*




Witnesses.
Edw. D. Duvall Jr
Charles E. Riordan

Inventor.
James A. Donaldson
By Cushman & McDowell
his Attys

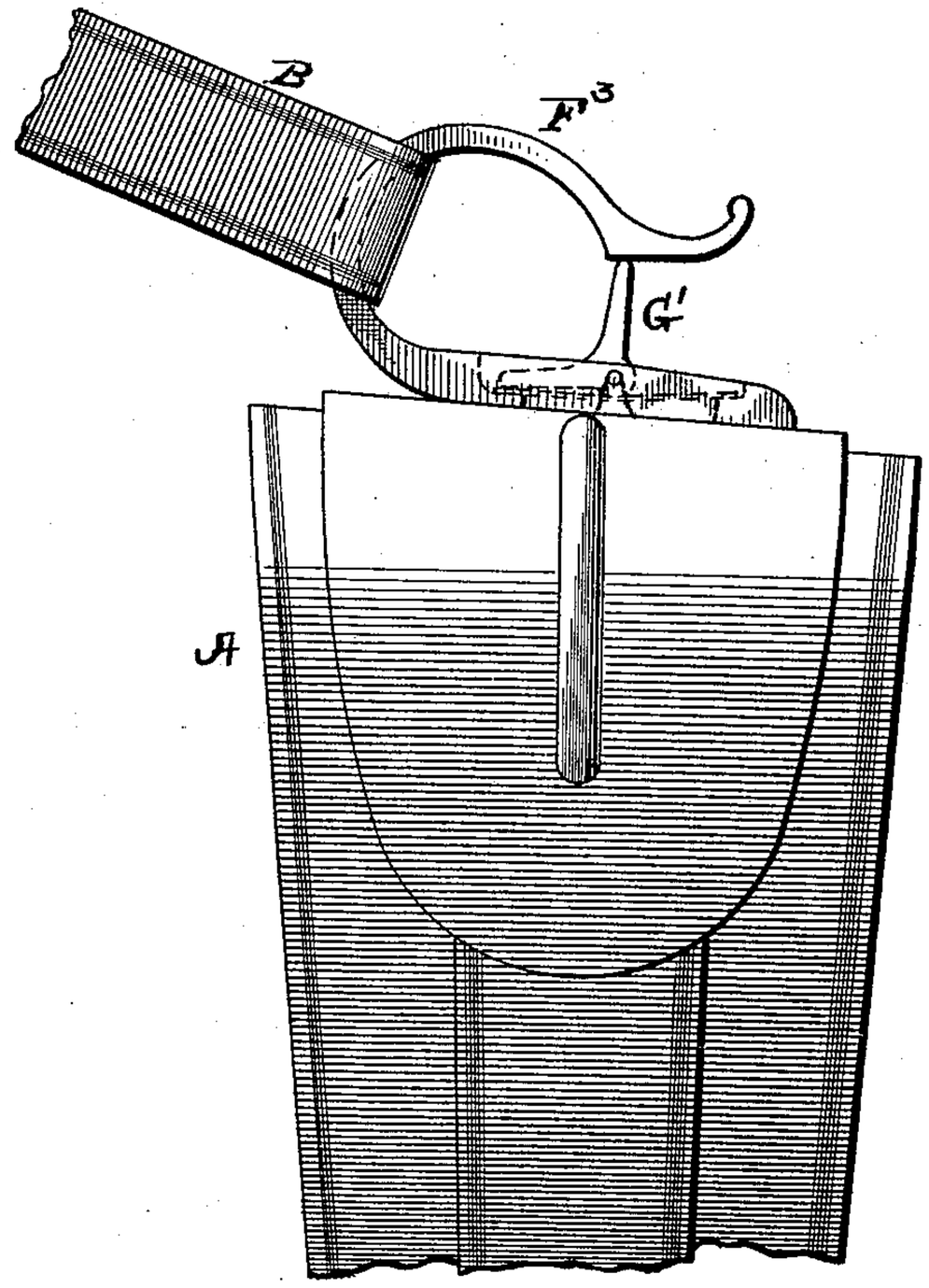
(No Model.) 2 Sheets—Sheet 2.

# J. A. DONALDSON.

## HOOK.

No. 594,335. Patented Nov. 23, 1897.

*Fig. 4.*




*WITNESSES*

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# UNITED STATES PATENT OFFICE.

JAMES A. DONALDSON, OF GREENVILLE, PENNSYLVANIA.

## HOOK.

SPECIFICATION forming part of Letters Patent No. 594,335, dated November 23, 1897.

Application filed January 16, 1897. Serial No. 619,484. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. DONALDSON, a citizen of the United States, residing at Greenville, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Hooks for Harness; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hooks for harness, but more particularly to checkrein and holdback hooks.

The primary object of my invention is to provide a simple, efficient, and inexpensive hook adapted to readily receive the checkrein or breeching-strap and to hold the same in engagement therewith under normal conditions, while permitting the ready and easy removal of the engaged portion of the harness in unhitching or detaching runaway horses, thereby lessening the time required and overcoming the difficulties usually encountered in unhitching, and at the same time affording means for positively confining the checkrein or other engaged portion of the harness in the hook and preventing accidental disengagement in use.

The invention will first be hereinafter more particularly described with reference to the accompanying drawings, forming a part of this specification, and then pointed out in the claim at the end of the description.

Referring to the drawings, Figure 1 is a side elevation of a holdback-hook embodying my invention, showing the breeching-strap connected therewith. Fig. 2 is a vertical sectional view of the holdback-hook, partly in elevation, showing in dotted and full lines, respectively, the position of the tongue before and after attaching the quarter or breeching strap thereto. Fig. 3 is a plan view looking at the under surface of the base. Fig. 4 is a side elevation of a checkrein-hook embodying my invention, showing a portion of the saddle to which it is applied and the portion of the checkrein engaged with the hook.

In the figures of the drawings, in which I have represented the invention as applied to a holdback-hook, F′ may denote a shaft or saddle, to which the base or plate F of the holdback-hook may be secured in any suitable manner. As shown, the base F is secured to the shaft or thill F′ by screws or otherwise and may have a hook $F^2$ extending outwardly therefrom, which latter may be curved and formed integrally with said base, so as to provide an open space between the outer end of the hook and the base to permit the ready attachment or removal of the quarter or breeching strap therefrom. The base F may have an elongated opening or slot $g$ extending therethrough beneath the hook, and lateral recesses arranged on opposite sides of the opening $g$ and extending from the lower surface of said base, in which the pintles or projections $g'$ may be arranged, so as to form a pivot for the tongue G and to permit said tongue to be readily attached to or removed from the base. This tongue may have the apex or angle formed by the outer edges of the arms thereof curved or rounded or somewhat extended, as at $g^2$, against which a spring $g^3$ may act. The spring $g^3$ may have its ends removably or otherwise supported on ledges $g^4$, so as to yield intermediate its ends, and may serve to divide the opening $g$ and provide a recess above said spring for the free backward-and-forward motion of the tongue on its pivot. The pressure of the spring on the tongue G should be sufficient to confine the breeching-strap in engagement with a hook when the tongue is in its normal position, as shown in full lines, and the strap resting within the hook; but the tongue is adapted to yield and swing on its pivot when the strap is forcibly withdrawn. By this means the breeching-strap may be readily and easily attached or detached and retained in engagement with the hook, being adapted to be disengaged by pressing with sufficient force against the vertical arm of the tongue to overcome the force of the spring. Thus the necessity for wrapping the strap around the thills, according to the common practice, is avoided, and in case of a runaway, when suitable provision is made for detaching the traces, the breeching will also be detached by the horse by pulling the straps from the hooks.

In its normal position, as described, the tongue G will retain the breeching-strap in engagement with the holdback-hook, while permitting its automatic disengagement; but

it will be understood that the tongue G, if placed in the position shown in dotted lines in Fig. 2, will positively hold the breeching-strap and prevent its automatic detachment. In either case the spring may act on the tongue with sufficient pressure to retain the rein or strap in engagement with the hook under ordinary circumstances.

The holdback-hook is especially designed for use in connection with the safety detaching device shown in my pending application filed simultaneously herewith, Serial No. 619,483, wherein is shown means for releasing the traces, so that the horse may be entirely unhitched from the vehicle in case of danger from runaway or other accidents.

It will be understood that the checkrein-hook and the holdback-hook are substantially alike with respect to all essential features, differing merely in the form or shape of the hook and the means for attaching the hook-supporting base to its support and in the application of the device in one instance to a harness-saddle and in the other to a shaft or thill, and I desire it to be understood that in the use of the word "hook" or "hooks" for harness herein it refers to either the checkrein-hook or the holdback-hook for whatever uses either may be employed.

In Fig. 4 I have illustrated the invention embodied in a checkrein-hook, from which it will be observed that the only changes as compared with the holdback-hook are such as above indicated. In this figure of the drawings the reference-letter $F^3$ designates the hook; G', the tongue; A, the saddle, and B the checkrein.

The operation of the device will be readily understood from the foregoing description when taken in connection with the accompanying drawings. Assuming the tongue to be in the position shown in dotted lines in Fig. 2, it will be seen that the strap or checkrein may be readily passed through the open space, so as to tilt the tongue forward on its pivot to permit the strap or checkrein to engage the hook, and the spring, acting upon the apex of the angle formed by the outer edges of the arms, as it passes the dead-center will throw or assist in throwing the tongue to the position shown in full lines. In this position the strap or checkrein may be readily removed; but if the tongue be again shifted to the position shown in dotted lines said strap or rein will be held in engagement with the hook without possibility of accidental disengagement.

I thus provide a simple and efficient holdback or check hook adapted to have the breeching-strap or checkrein readily attached to or removed therefrom and to automatically release the breeching-strap when the horse runs away and effectually avoid unchecking when the horse throws his head up and down, thereby avoiding the necessity for using a block or similar device.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

A hook for harness comprising a base-piece adapted for attachment to a suitable support and having a hook proper rising therefrom; said base-piece being longitudinally recessed in the upper surface thereof to receive a spring inserted from above and provided with ledges or shoulders at opposite ends of said recess to form rests for the ends of the spring confined therein, and having vertical slots or narrow recesses in its under side on opposite sides of said longitudinal recess, a spring spanning said longitudinal recess, removably inserted therein from above, and having its ends free and resting on said ledges, and a two-armed rock-lever or tongue resting on said spring and pivotally arranged in and confined by said longitudinal recess so that either arm thereof may be thrown into an upright position to close the opening between the free end of the hook and the base-piece, while the other arm is horizontally arranged, in one of which positions of the tongue its upright arm is adapted to lock and positively retain the rein or strap in engagement with the hook, while in the other position, the upright arm is adapted to confine the rein or strap in engagement with the hook under normal conditions, and to yield to applied pressure so as to permit the confined part to be quickly withdrawn; said tongue being secured and retained in operative position in said longitudinal recess by the pressure of said spring on which it rests, and the engagement of its pivot-pin or studs with said side recesses, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

J. A. DONALDSON.

Witnesses:
JOHN P. MURRAY,
C. M. GEYER.