

(No Model.)

L. H. REED.
HOLDBACK.

No. 328,065.

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Fig. 1.

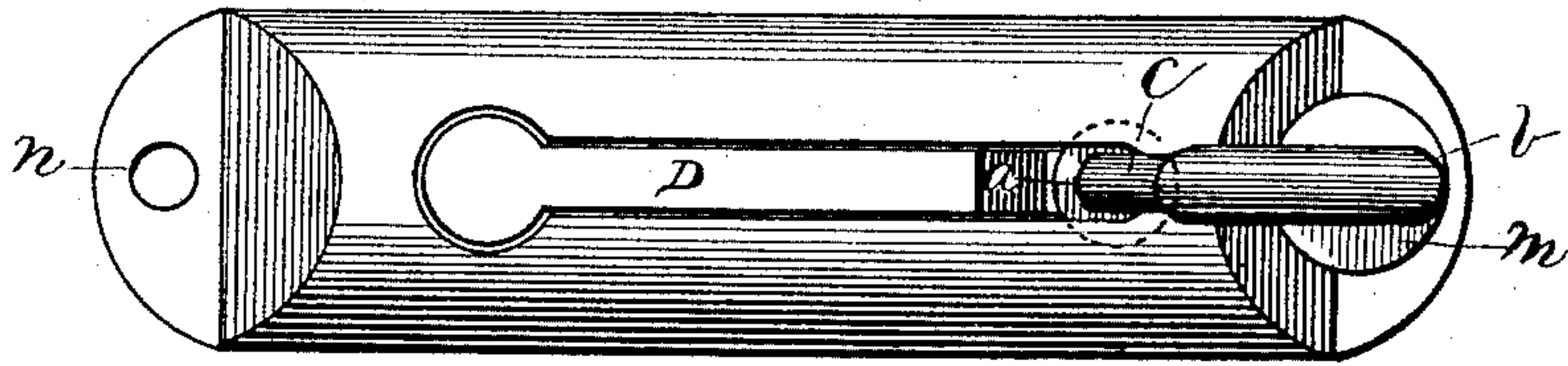


Fig. 2.

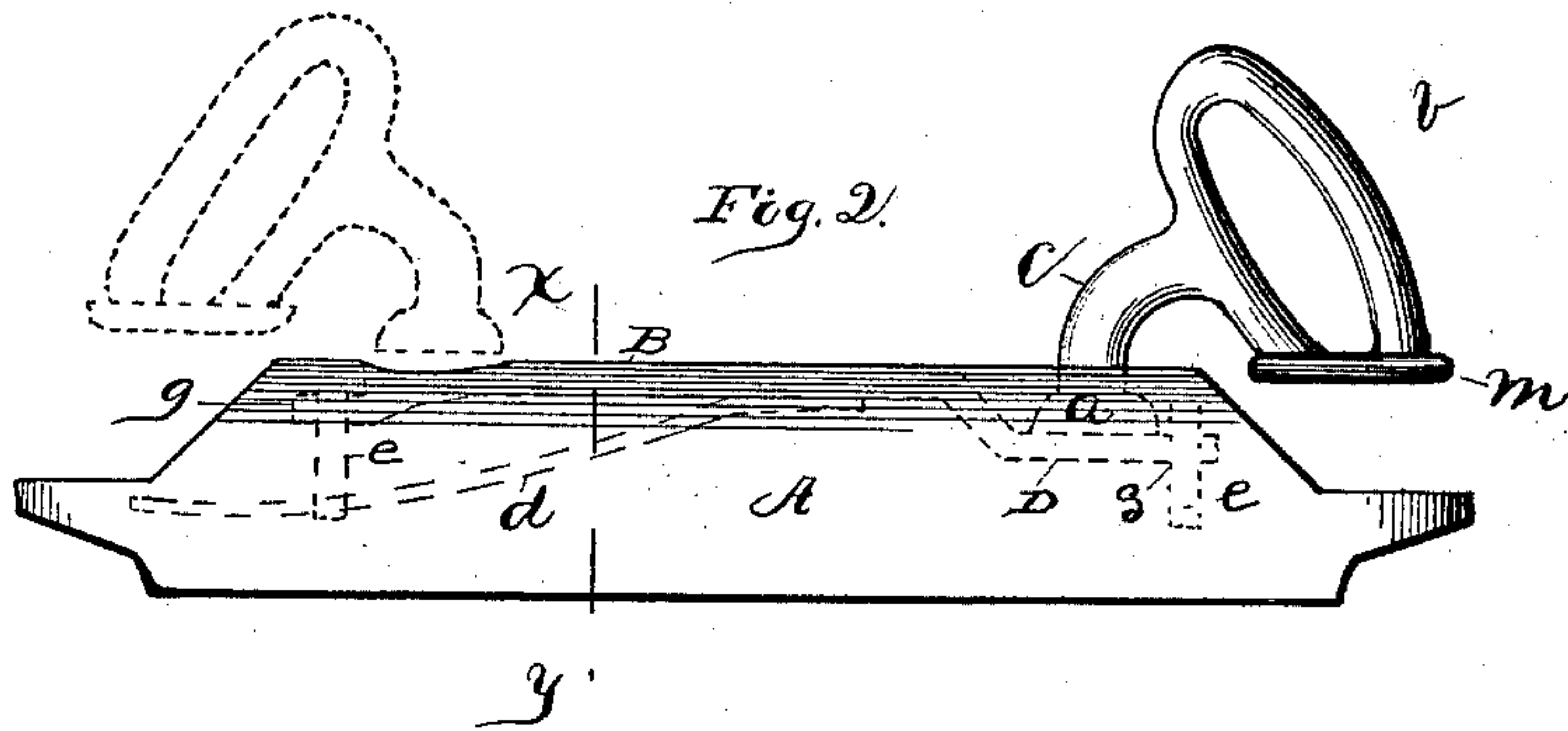


Fig. 3.

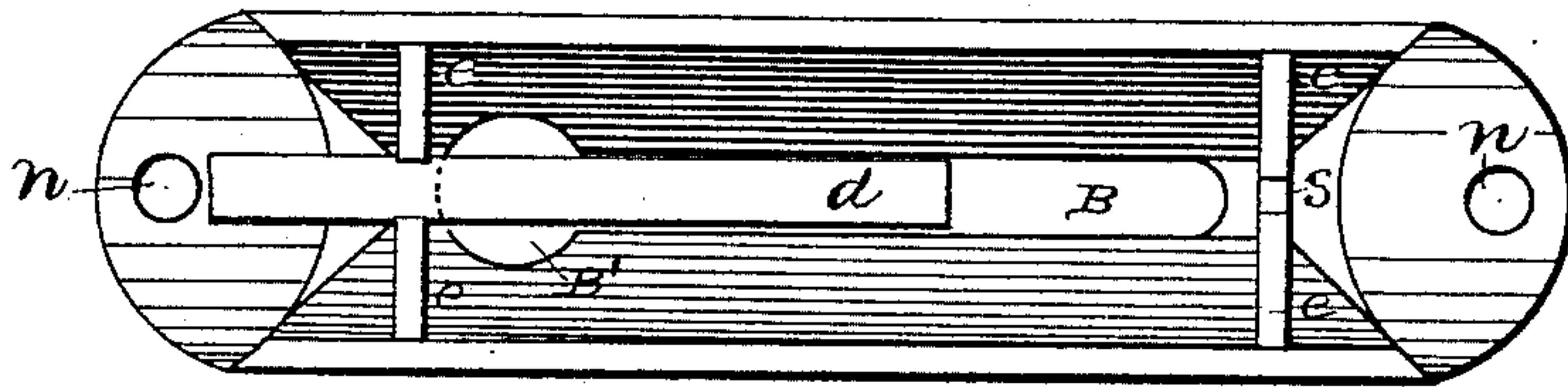


Fig. 4.

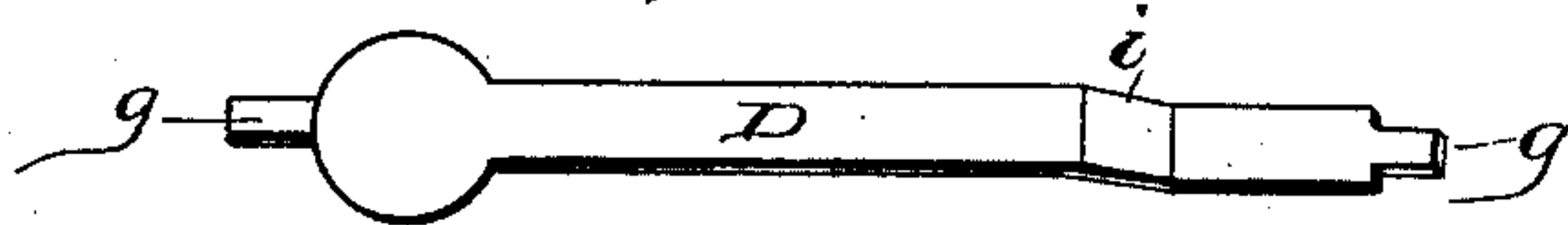
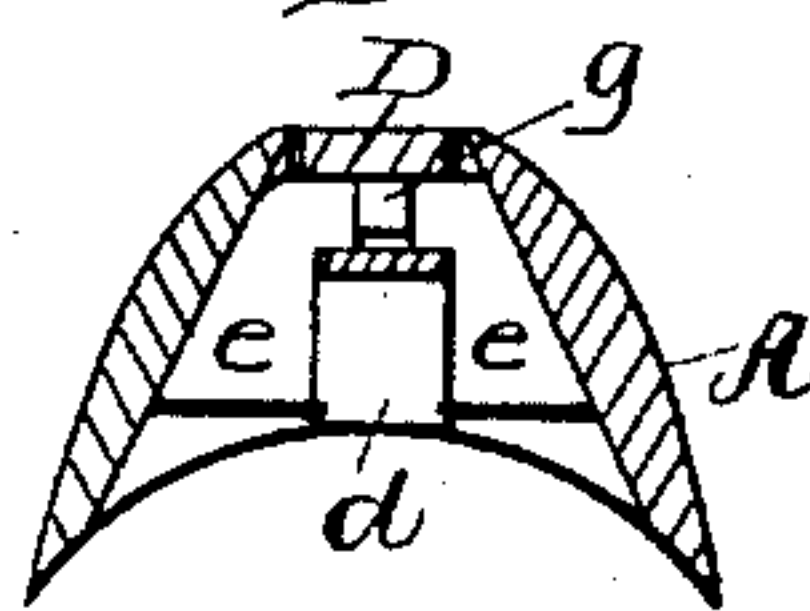


Fig. 5.



Witnesses:

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LAFAYETTE H. REED, OF TROY, NEW YORK.

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SPECIFICATION forming part of Letters Patent No. 328,065, dated October 13, 1885.

Application filed January 12, 1885. Serial No. 152,700. (No model.)

To all whom it may concern:

Be it known that I, LAFAYETTE H. REED, a resident of the city of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Holdbacks; and I do hereby declare that the following is a full, clear, and exact description of the invention, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

My invention relates to improvements in holdbacks.

The objects of my invention are, first, to provide a device by means of which the holdback-strap of a harness may be easily and quickly attached to and detached from a vehicle-thill, and that becomes self-detaching when the harness tugs or traces are detached from the vehicle; second, to provide a holdback that will not be rendered inoperative by accumulations of mud.

My invention consists, first, in connecting a slotted thill-plate with a holdback-strap by means of a shank adapted to slide in said slot, and having a strap-loop at one end and a spherical or hemispherical head at the other end, permitted to escape from said slot only at one end of the slot; second, in providing a spring-controlled mud-shield adapted to fill said slot and exclude any mud therefrom when in use.

Figure 1 of the drawings is a top plan view of my improved device. Fig. 2 is a side elevation of same. Fig. 3 is a bottom plan view of same, with mud-shield and loop-shank removed. Fig. 4 is a perspective of the mud-shield. Fig. 5 is a cross-section taken at broken line *xy* in Fig. 2.

A is the slotted plate, which is provided at each end with a screw-hole, *n*, by which it is attached to the vehicle-thill.

The slot B extends centrally of the upper portion of the plate from one end to the other, or to points near the ends. The slot is enlarged at one end, as at B', to permit of the ingress and egress to and from the slot of the hemispherical head *a*, which is connected with

the strap-loop *b* by shank C. The loop *b* is connected with the harness by means of the holdback-strap. It is clear, therefore, that to fasten the harness to the thill it is only necessary to insert the head *a* in the opening B', which is in the forward end of the slot, and let it slide back to the other end of the slot, where it is secured by the spring *d*, as will be more fully explained hereinafter.

The circular or partly spherical form of the head *a* permits the shank C to rotate and partially revolve in any direction in the slot B, thus forming a universal-joint connection between the plate A and loop-shank C. So long as the line of draft is to the rear the loop-shank will remain in the rear end of the slot and maintain its engagement with the plate A; but should the traces or whiffletree break, as in case of accident, or when the traces are unhitched to take the horse from the vehicle, and the line of draft upon the loop-shank reversed, the shank immediately rotates upon its axis *a* one-half turn and slides to the other end of the slot, where it occupies the position shown by dotted lines in Fig. 2, and becomes wholly free from engagement with the plate A.

If the slot B were not protected in some way, mud and dirt would accumulate therein to such an extent as to impede the progress of the shank and head. I overcome this difficulty by employing what I term a "mud-shield." It consists of a thin metallic plate, D, shaped to just fill and move easily in the slot B, and is provided at each end with a projecting-lug, *g*, adapted to slide vertically in a slot, *s*, in the transverse partitions *e*.

The spring *d* I have shown secured to the lower edge of the partition *e* at a short distance from one end, which rests firmly against the lower side of the plate at or near one end of the plate, while the other or working end of the spring presses against the lower side of the shield about midway of its length. The tendency of the spring is to keep the lugs *g* in the upper ends of slots *s*, which supports the shield within the slot so as to just fill it, and presses one end of the shield against the bottom or plane surfaces of head *a*, forcing the head firmly against the lower surfaces of the edges of the slot, which closely confines the shank and prevents it from rattling when in use. The bend *i* in the mud-shield affords a suffi-

cient safeguard against the accidental disengagement of the shank from the plate, as the head *a* cannot advance along the slot to the open end without depressing the upper surface of the shield to a level with the lower surface of the head against the face of spring *d*, which may be made of sufficient resisting strength as desired.

The guard *m* is attached to the lower end of loop *b* merely to prevent the latter from entering the slot after a semi-rotation and catching at the open ends to prevent its free egress. It is only necessary that the guard be of sufficient size to prevent it from entering the slot or its opening *B'*.

I am aware that it is not new to provide a thill-plate with a longitudinal slot adapted to receive a sliding shank, or to use in combination therewith a sliding shank provided with a strap-loop and a T-shaped head, and I do not claim the same either in combination with each other or with opposite curved ledges provided with curved recesses and a spring.

In using a form of construction last above described the T-shaped head is liable to wedge in the longitudinal slot and remain fast therein when the holdback-strap advances from the rear to the front of the head to draw the same from the slot in disconnecting the head from the plate. By employing the spherical or semi-spherical head which I have shown the connection between the shank and plate is in the nature of a universal joint, and the strap-loop is free to turn in any direction without causing the head to bind upon the plate, from which it appears that the shank will be surely disconnected from the plate by a forward strain

upon the strap and loop, whether the loop turns to one side or the other or vertically over the head as the strap advances forward of the same, thus effecting a certain disengagement of the shank from the plate.

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

1. The combination of a slotted thill-plate with a shank adapted to slide in said slot and provided at one end with a strap-loop and at the other with a spherical or semi-spherical head for the purpose of forming a universal-joint connection between said plate and shank, substantially as described.

2. The combination of a slotted thill-plate with a yielding or spring-controlled plate shaped to enter and nearly fill said slot for the purpose of shielding said slot from mud when in use, substantially as described.

3. In a holdback, the combination of a slotted thill-plate, *A*, mud-shield *D*, and means for retaining said shield in said slot, as slots *s*, lugs *g*, and spring *d*, substantially as and for the purpose set forth.

4. The combination of a slotted thill-plate provided with an egress opening at one end and loop-shank adapted to slide therein with a guard, *m*, attached to the loop of said shank to prevent the loop from entering said slot, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand this 22d day of November, 1884.

LAFAYETTE H. REED.

Witnesses:

GEO. A. MOSHER,
W. H. HOLLISTER, Jr.