(No Model.)

# J. S. BAKER.

## HAME FASTENER.

No. 412,358. Patented Oct. 8, 1889.

Fig. 1.

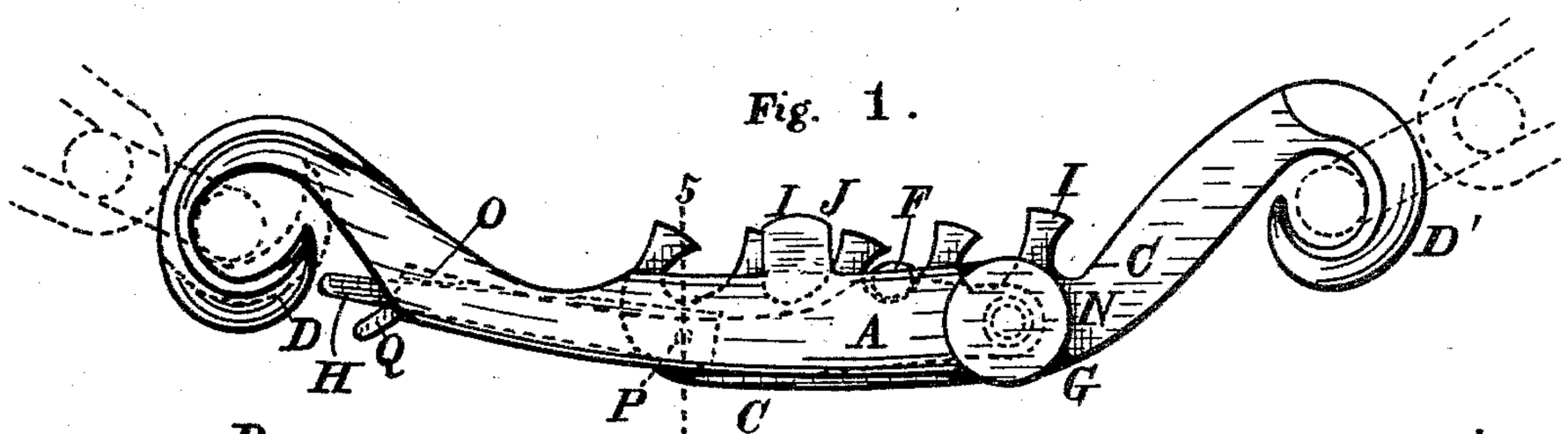


Fig. 2.

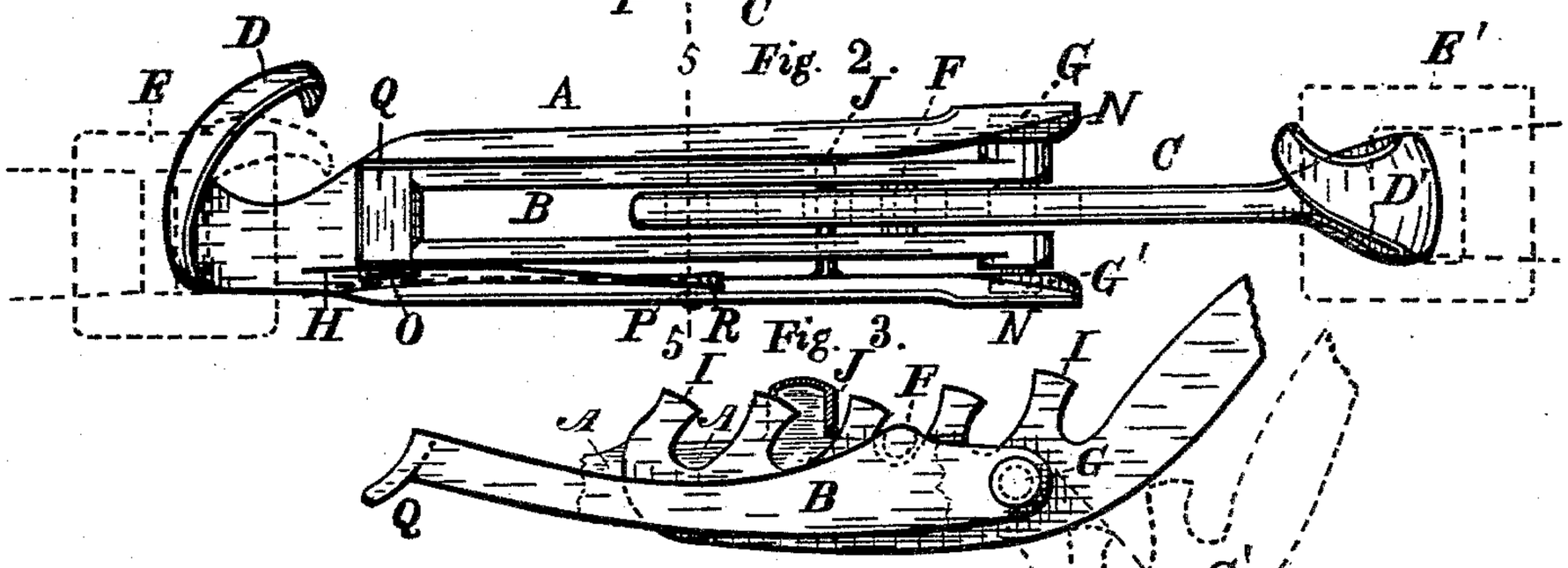


Fig. 3.

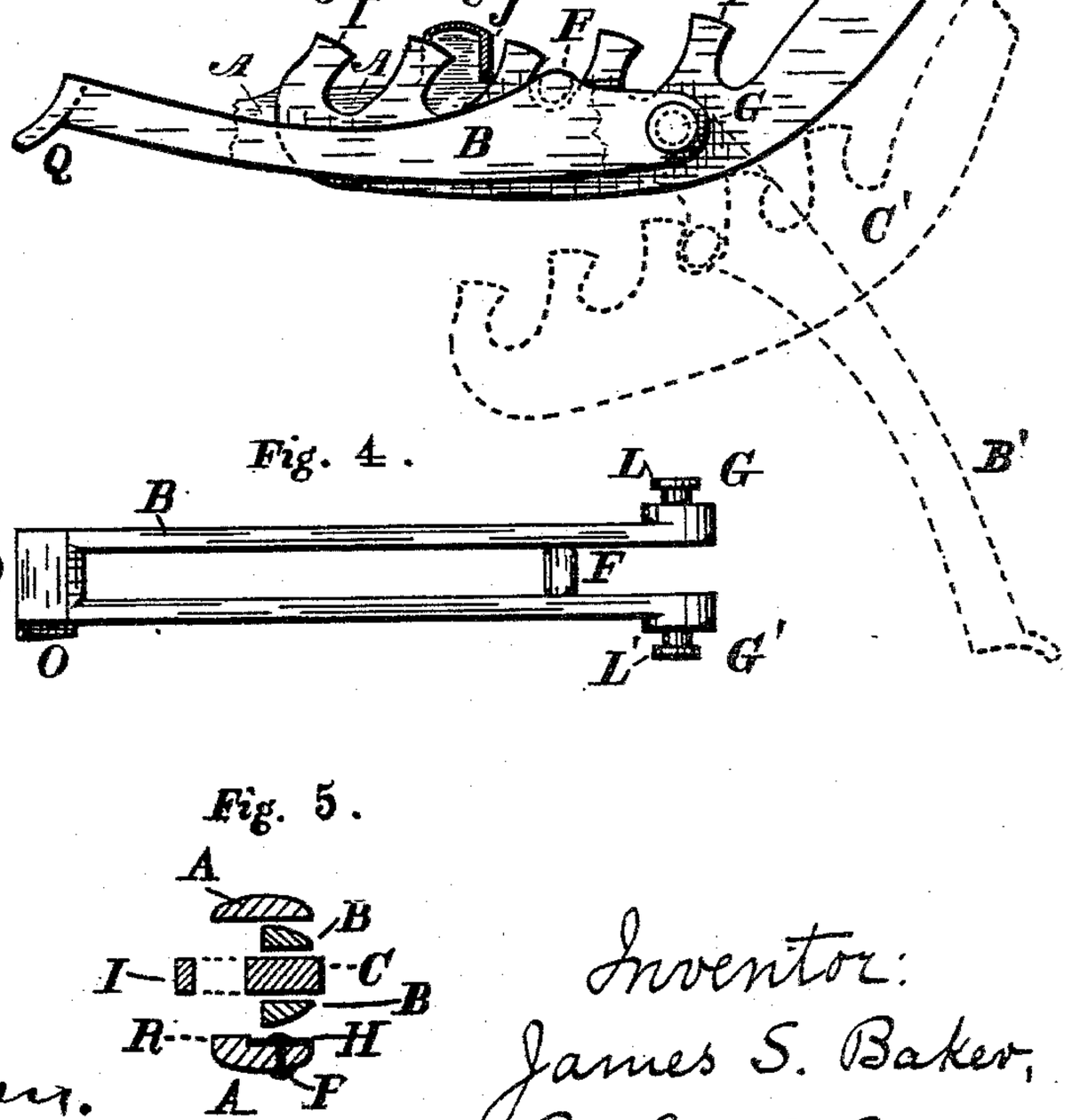


Fig. 4.

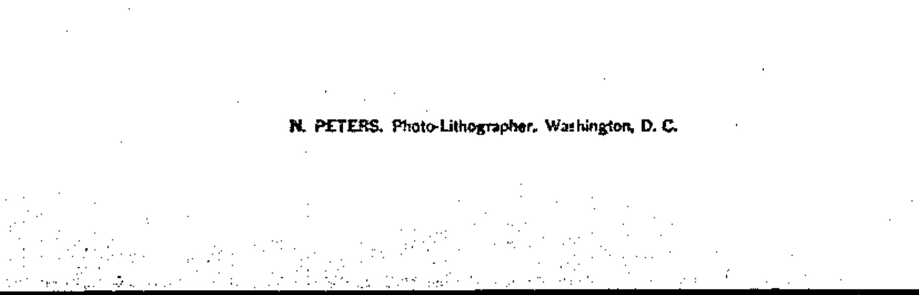


Fig. 5.




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# UNITED STATES PATENT OFFICE.

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## HAME-FASTENER.

SPECIFICATION forming part of Letters Patent No. 412,358, dated October 8, 1889.

Application filed April 4, 1889. Serial No. 305,975. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES S. BAKER, a citizen of the United States, residing at Rochester, in the county of Monroe, in the State of New York, have invented certain Improvements in Hame-Fasteners, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to certain improvements on the hame-fastener described and claimed in Letters Patent No. 348,711, issued September 7, 1886, whereby the construction of the said hame-fastener is cheapened and its durability and efficiency increased.

My invention is fully described and illustrated in the following specification and accompanying drawings, and the novel features thereof specified in the claims annexed to the said specification.

My improvements in hame-fasteners are represented in the accompanying drawings, in which—

Figure 1 is a top or plan view showing the parts locked together. Fig. 2 is a front view. Fig. 3 represents the slotted lever and hooked strap, a portion of one side of the body being indicated by broken lines. Fig. 4 is a front view of the slotted lever. Fig. 5 is a sectional view on the line 5 5, Figs. 1 and 2.

In the accompanying drawings, A represents the body of the hame-fastener, B the slotted lever, and C the toothed strap. The body of the fastener and the toothed strap are provided with hooks D D′, which are malleable and capable of being closed cold, and by which they are attached to the links E E′ on the ends of the hames, as indicated in Figs. 1 and 2.

The operation of the device will be understood from Fig. 3, from which it will be perceived that in order to fasten the hames to the collar the toothed strap C is engaged with the pin or pivot F on the slotted lever B, after which the slotted lever is swung inward, so as to occupy a position in the opening in the body, thereby drawing the hames together. The slotted lever is pivoted in the end of the slotted body at G G′, and it is held in its position in the body by the spring H.

The mode of operation of the various parts is indicated by the dotted lines B′ C′, Fig. 3, the lever and toothed strap being shown in the said figure in a fastened in or closed position by full lines.

In order to prevent the teeth or hooks I I of the toothed strap from becoming disengaged from the pivot F of the slotted lever, a bar J is cast across the rear side of the body A, against which bar the rear side of the hook engages when the slotted lever is folded within the body, as represented most clearly in section in Fig. 3, from which it will be seen that the bar J prevents the hook I from becoming disengaged with the pivot F when the slotted lever is folded inward within the slot in the body. The slotted lever is provided on each side with the pins G G′, having enlarged collars or heads L L′ at their outer ends.

In the construction of the device the lever is placed within the mold and the body is cast around the pins G G′, (the latter being coated with shellac and fine sand in order to permit the requisite freedom of motion in the joint, as is commonly practiced for such purposes.) It will be observed that the pins G G′ are provided on their outer ends with projections or collars L L′, the object of which is to prevent the spreading of the ends K K′ of the slotted body.

In order to provide for locking the slotted lever within the body when closed, I cast on its free end a lug or projection O, which engages behind the spring H when the lever is closed. The spring H is riveted at P to the side of the body and extends outward in the proper positions, so that when the lever is closed the lug O passes over the spring and engages behind it, thus holding the lever securely in place.

In order to unfasten the lever, the spring is pressed downward, as indicated by the full and dotted lines in Fig. 2, thus allowing the lug O to swing over the spring and the lever to be swung outward, in which position the hook I may be disengaged from the pivot F. The free end of the lever is provided with a suitable projection or thumb-piece Q, which facilitates its disengagement from the spring H. A lug may be cast on the body to prevent the spring H from swinging too far inward when the parts are unfastened.

It will be understood that the pivot F may be engaged with any one of the hooks I I, so as to secure the proper adjustment of the hames to the collar.

As indicated in Fig. 5, the spring H is secured in place on the side of the body by the lug or lugs R, against which the edge of the spring bears, the spring being held in place by the rivet P. The lug R is cast on the inside of one of the bars of the slotted body, which is also provided with a recess which permits the spring to be bent away from the slotted lever.

As indicated in the drawings, the hooks D D′ on the ends of the body and the toothed strap are made of a peculiar form, being bent or curved spirally, and the spiral portion projecting laterally on one side of the longitudinal axis of the body or strap, as shown most clearly at D, Fig. 2, by which device I am enabled to mold the hooks without a core, and the hooks thus made possess a further advantage in that they are not as easily detached from the eye on the hame as those heretofore made, while, if desired, they may be closed down on the eye, so as to attach the body or strap permanently to the hame, as indicated by the dotted lines in Figs. 1 and 2.

By my invention I am enabled to construct hame-fasteners in a cheaper manner than has been heretofore practiced, and also secure greater durability and effectiveness or freedom from accidental detachments, whereby accidents are prevented.

It will be observed that the free end of the spring H projects beyond the lever, so that it can be readily bent out of engagement with the lug on the lever. The spring retains the lever in place in the body and prevents its falling out when the strain of the horse's pulling is released. It will be observed that the relative positions of the pivots G G′ and pin F are such that the strain of the draft forces the body inward toward the collar and holds the parts together. By this construction I am enabled to produce a hame-fastener which will remain locked on the collar when the hames are applied with sufficient tension without the retaining-spring, but by the use of the spring the device is kept locked even when carelessly attached or when the horse is backing or going downhill.

I claim—

1. The combination, with the slotted body A, having hook D, of the toothed strap C, provided with hook D′, the slotted lever B, pivoted in the ends of the slotted body and provided with pin F, and the retaining-spring H, adapted to retain the lever in the locked position, substantially as described.

2. The combination, with the slotted body A, having hook D and provided with cross-bar J, of the toothed strap C, provided with hook D′, the slotted lever B, pivoted in the ends of the slotted body and provided with the pin F, and the spring H, by which the lever is secured to the body, substantially as described.

3. The combination, with the slotted body A, having hook D and provided with cross-bar J, of the toothed strap C, having hook D′, the slotted lever B, pivoted in the ends of the slotted body and provided with pin F, the said cross-bar being adapted to engage with one of the teeth of the strap to prevent its disengagement from the pin of the slotted lever, substantially as and for the purposes set forth.

4. The combination, with the slotted body A, having hook D, of the toothed strap C, provided with hook D′, and the slotted lever B′, pivoted in the ends of the body on the pins G G′, having collars L L′ on their extremities, substantially as described.

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