

C.H. Miller,

Knife Fastener.

No. 101642.

Patented Apr. 5. 1870.

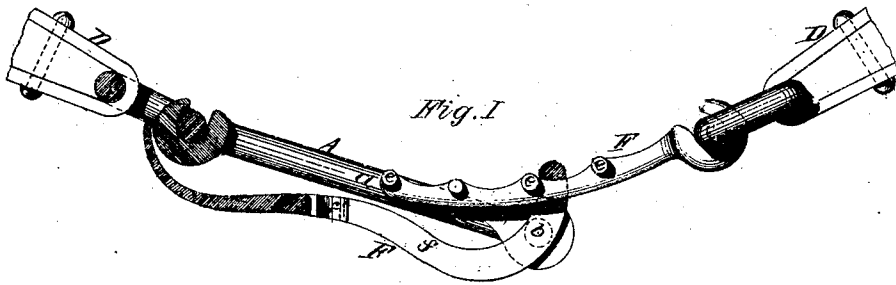


Fig. I.

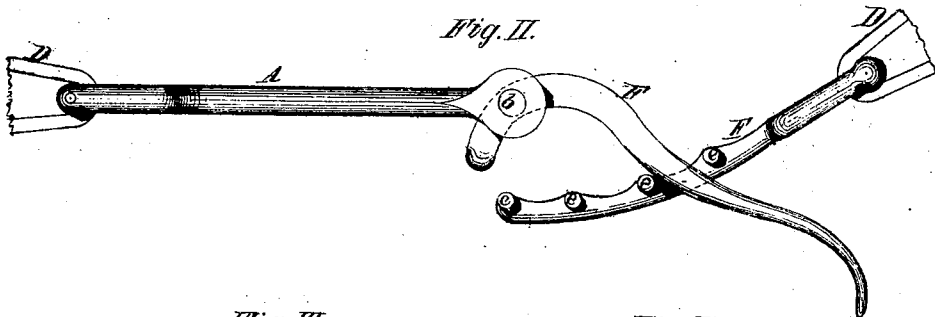


Fig. II.

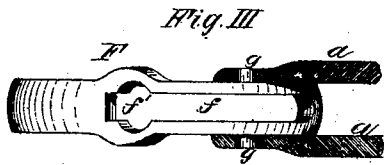


Fig. III.

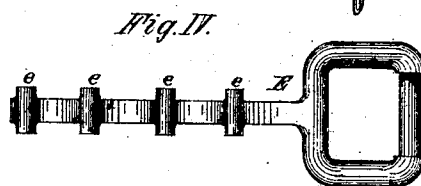


Fig. IV.

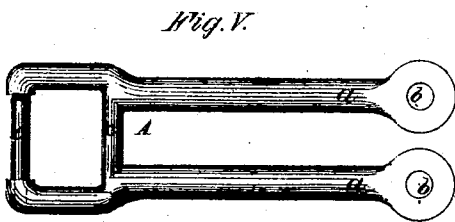


Fig. V.

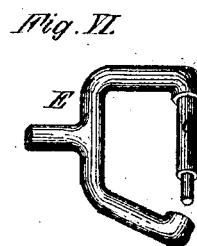


Fig. VI.

Wm. H. Beckler,
Geo. J. Bonner

Witnesses.

Chas. H. Miller
by Forbush & Heyatt
Inventor
Attys

UNITED STATES PATENT OFFICE.

CHARLES H. MILLER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN HAME-FASTENERS.

Specification forming part of Letters Patent No. 101,642, dated April 5, 1870; antedated April 1, 1870.

To all whom it may concern:

Be it known that I, CHAS. H. MILLER, of the city of Buffalo, in the county of Erie and State of New York, have invented a new and Improved Hame-Fastener, of which the following is a specification:

My device is composed of two rods attached to the ends of the hames, and a lever drawing and coupling these rods together. One of the rods is forked to receive the lever, which is hinged thereto. The lever is formed with a longitudinal slot, enlarged at the outer end to permit the introduction of the end of the other rod, which is provided with lugs that prevent its withdrawal.

The invention consists, first, in the combination of the two connecting-rods and lever, when constructed and operating in the manner hereinafter described; second, constructing the connecting-rods with loops at the ends to permit of their direct attachment to the hames, thereby dispensing with the rings which are usually required.

In the accompanying drawing, Figure I is a front sectional view of my fastener, shown attached to the hames by means of an intervening ring. Fig. II is a front elevation representing the parts attached to the hames according to my improved method. Fig. III is a section through the ends of the forked rod, showing the manner of hinging the lever therein. Fig. IV is a plan of the rod, provided with lugs, which engages with the lever. Fig. V is a plan of the forked rod, showing the form in which it is cast. Fig. VI is a plan of the loop at the ends of the rods when cast open.

Like letters of reference designate like parts in each of the figures.

A is the forked rod; *a a*, the forks; *b b*, the holes in the ends for hinging the lever; and *c c'* the two cross-bars at the opposite end, forming the loop by which it is connected directly with the iron strap D of the hame. E is the other rod, having the loop for connecting with the hames formed in a similar manner to that of the rod A, *e e* being the lugs cast therewith, so as to project laterally on each side, as shown. F is the lever; *f*, the slot

therein; *f'* the enlargement of the slot at its outer end; and *g* the gudgeons cast thereon on opposite sides near the end, forming the axis of the hinge by which the lever is connected with the forked rod A. This end of the lever is bent, as shown, for a purpose presently to be explained. This forked rod is cast of the form shown in Fig. V, which enables the holes *b* to be cast therein. The forks *a* are then twisted, so that the axes of the holes will coincide and be parallel to the cross-bars *c c'* and the lever arranged between with the gudgeons fitting therein, thus forming the hinge-connection without any drilling or finishing of the parts being required.

To be able to thus avoid the labor of finishing is a matter of great importance in the manufacture of light and cheap castings. The expense of drilling the holes would add materially to the cost of the fastener, to reduce which has been the great object of my invention.

The cross-bar *c* of the loop may, if required, be cast disconnected from its bearing at one end, as shown at Fig. VI, and a hole afterward punched in the bearing, so as to enable the fastener to be attached to the hame after the latter is finished, although it is my design to attach the fastener to the hames before the latter are finished, so as to permanently secure the fastener thereto.

My improved fastener is operated in the following manner: The hames being adjusted on the collar, the end of the rod E is inserted in the enlargement *f'* of the slot of the lever, and passed through it, as represented in Fig. II. The rod is then slid down in the slot and the position of the lever reversed to that shown in Fig. I, during which movement it operates to draw the two rods together, causing the rod E to assume a position at the opposite end of the slot, beyond the axis of the hinge, the lugs *e* overlapping the sides of the lever beyond the slot, and preventing the withdrawal or disengagement of the parts.

The construction and form of the lever and arrangement of the axis are such as to cause the strain on the fastener to operate to draw

the free end of the lever and keep it pressed firmly against the rod A, as is manifest from an inspection of Fig. 1.

What I claim as my invention is—

1. The combination of the rods A E and lever F, constructed and operating substantially as and for the purpose hereinbefore set forth.

2. The loops at the ends of the parts A E, formed by the cross-rods *c c'*, for the purpose of attaching the fastener directly to the hames, as hereinbefore set forth.

CHARLES H. MILLER.

Witnesses:

JAY HYATT,
JNO. J. BONNER.