

(No Model.)

J. W. STANLEY.
NAIL FASTENER.

No. 542,288.

Patented July 9, 1895.

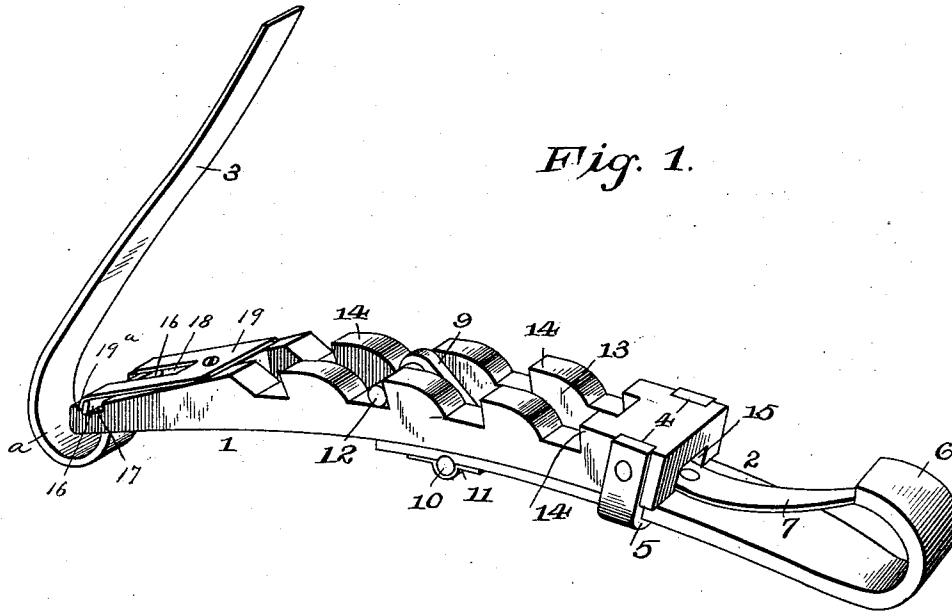


Fig. 1.

Fig. 2.

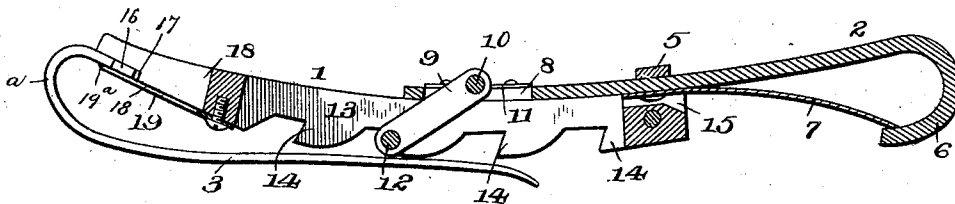


Fig. 3.

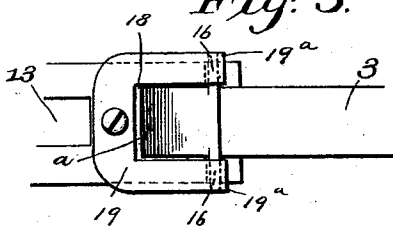
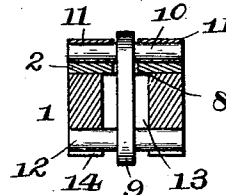


Fig. 4.



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Witnesses

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UNITED STATES PATENT OFFICE.

JOHN W. STANLEY, OF BLUE SPRINGS, MISSOURI.

HAME-FASTENER.

SPECIFICATION forming part of Letters Patent No. 542,288, dated July 9, 1895.

Application filed November 10, 1894. Serial No. 528,409. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. STANLEY, a citizen of the United States, residing at Blue Springs, in the county of Jackson and State of Missouri, have invented a new and useful Hame-Fastener, of which the following is a specification.

This invention relates to an improvement in that class of hame-fasteners wherein the principle of an eccentric lever is employed, and wherein such a lever is provided to draw and hold the hames together.

The principle object of the invention is to provide improved means for mounting the lever and for holding the same closed or open.

A second object is to provide superior means for adjusting the fastener to the varying sizes of collars to which the hames are applied.

To these ends the invention consists in certain novel features of construction and combination and arrangement of parts, as will be hereinafter more fully described, and finally embodied in the claims.

In the drawings, Figure 1 represents a perspective view of my improved hame-fastener, showing it turned upside down to disclose more completely its construction; Fig. 2, a longitudinal section of the fastener; Fig. 3, a plan view of a portion of the fastener and showing the means for mounting and holding the lever; Fig. 4, a detail section taken through the swinging pin of the fastener and showing the means for mounting the same.

The device is composed of three main parts, the body-sections 1 and 2, slidably connected to each other and capable of adjustment, so as to increase or diminish the longitudinal extent of the body-portion, and the eccentric lever 3, mounted upon the larger body-section or the section 1.

The section 1, as indeed are all the other portions of my invention, is formed, by preference, of cast-steel, and has at one end thereof and in its sides the notches 4, in which the respective ends of the yoke 5 are secured and riveted. The yoke 5 projects upwardly from the section 1, and is provided to connect the section 2 thereto. The section 2 is slidably arranged in the said yoke, and is provided at its outer end with a hook 6, by which it may be connected to one of the hames, a spring-

tongue 7 being combined therewith, so as to form substantially a snap-hook, all of which will be understood. The remaining or inner end of the section 2 is formed with a longitudinally-elongated slot 8 therein, through which the arm 9 extends, the said arm being projected slightly above the section 2 and provided with trunnions or journals 10, revolvably mounted in boxes 11, fixed to the upper side of the section 2, and one on each side of the slot 8. The lower or remaining end of the arm 9 is provided with a pin 12, while the arm below the section 2 projects through a slot 13, formed in the section 1.

The slot 13 extends longitudinally in the section 1 and nearly the entire length thereof, it being provided to permit the arm 9 to move longitudinally through the section 1 and in unison with the section 2. The under side of the section 1 is formed with ratchet-teeth 14, which are preferably eight in number and arranged equally on opposite sides of the slot 13 and in transversely-aligned pairs, so that they may be engaged by the pin 12 of the arm 9, as shown in the drawings. By these means the sections 1 and 2 may be moved longitudinally on each other and held at the desired adjustment.

The swinging arm 9 is provided to facilitate connecting and disconnecting the pin 12 with the several ratchet-teeth, and the peculiar construction of this securing device is made necessary owing to the arrangement of the other parts, as will be best seen by reference to Fig. 2. By means of the pivotally-mounted arm the pin 12 may swing in the arc of a circle, so as to pass below the ratchet-teeth 14, and it is by this operation that the pin is made to engage with the several ratchet-teeth. In order to permit the sections to move together as fully as possible, the end of the section 1, which is adjacent to the hook 6, is formed with a notch 15 on its under side, adapted to receive the spring-tongue 7 when the parts are moved together as closely as possible.

The lever 3 consists of a flat steel bar having a curve *a* at its inner end, which curve places a portion of the lever above the plane of its fulcrum, thereby endowing the lever with its eccentric attribute. From the curve *a* the lever extends approximately straight,

so that it will be capable when closed of lying against the under side of the section 1, and when open of projecting out longitudinally from said section.

- 5 Formed on the inner end of the lever 3 and projecting transversely and oppositely therefrom are the journals 16, which are two in number and which are shaped flat, as shown, and adapted to lie within the depressions 17, 10 formed in the ends of the projecting portions left by the slot 18. These depressions are formed by bending the said ends up and then down, as may be seen by reference to Fig. 2. This end of the section 1 is formed with the 15 slot 18 therein, said slot being open at the end of the section and adapted for the reception of a portion of the curve α when the lever is open.

- Rigidly secured to the under side of the 20 section 1 and directly adjacent to the inner end of the slot 18 is the spring-plate 19, which projects laterally and outwardly and which bears upon the extended ends of the journals 17 with considerable force. The plate 19 is 25 formed with the lips 19^a thereon and at each outer corner, which lips are bent upwardly and oppositely from the ends of the section 1, so as to embrace the lower sides of the extended ends of the journals 17. By these 30 means the lever is kept from useless play and held at the position into which it is moved. Thus when the lever is closed the spring will bear up against the outer ends of the journals 16 and exert its influence, so as to prevent the 35 return of the lever without the application of a superior force. On the other hand, as the lever is moved to its open position the spring will bear upon it and operate as just described.

- 17^a indicates a rivet by which the spring is 40 held in place on the section 1.

- It will be observed that the plate 19 is formed with a central slot 19^b, corresponding with the slot 18, and provided for the passage 45 of the curve α of lever 3. In the operation of swinging the lever the plate 19 is of necessity pushed downwardly, since the journals 16 must turn against the plate. When the lever rests, however, at an open or closed position, the plate will be snugly against the 50 under side of the section.

- The use of my invention will be fully understood from the drawings and from the prior art. Thus in its operation as a hame-fastener the hook 6 is connected to one section 55 of the hame through the medium of the usual eye thereon and the lever 3 is engaged with the remaining section of the hame, the sections 1 and 2 of the device having been previously adjusted to suit the conditions of size under which the device is used. It will 60 be understood that the abstract operation of the lever 3 does not differ from the operation of all eccentric levers, the eye of the hame-section being first made to embrace the lever, after which the lever is closed, thus causing 65 it to operate as a cam or eccentric and draw

the eye toward its fulcrum and finally seating it in the curve α .

When the device is operating to fasten the hames, the lever 3 will lie snugly against the 70 under side of the section 1, as shown in Fig. 2 of the drawings, and to release the hames all that is necessary is to move the lever to its open position, which will allow the eye of the hame-section to be disengaged therefrom. 75

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention. 80

Having described the invention, I claim—

1. A hame fastener comprising a longitudinally-slotted body having teeth on one side and having a yoke at one end, a slidable section 85 movable through the yoke and located on that side of the slotted body opposite the teeth, an arm pivoted to the inner end of the slidable section and operating through the slot of the body, and having a transverse portion at its free end to engage with the said 90 ratchet teeth, and a lever to extend over the slotted side of the body and positively secure the free end of the pivoted arm in engagement with any of the said teeth, substantially as described. 95

2. In a hame fastener, the combination with a longitudinally-slotted body having ratchet teeth on one side, a section having a hook and slidably connected with the said body and arranged to move upon the side opposite 100 that provided with the teeth, and an arm having pivotal connection at one end with the said section and operating through the longitudinal slot of the body, and having a transverse portion at its free end to engage 105 with any one of the series of ratchet teeth, of a lever having laterally-extending flattened journals and constructed to project over the toothed side of the slotted body and hold the free end of the pivoted arm in positive engagement with the required ratchet teeth 110 and a spring exerting a pressure upon the flattened journals of the lever so as to hold the latter in intimate relation with the slotted body, substantially as set forth. 115

3. In a hame fastener, the combination with a longitudinally-slotted body having ratchet teeth on one side, and a section slidably connected with the slotted body and having a 120 portion to engage with the said ratchet teeth, of a lever having flattened journals at one end, and a plate secured at one end to the slotted body and having projecting portions at its opposite end to bear against the said flattened journals to maintain the said lever 125 in closed relation upon the slotted body, substantially as set forth for the purpose described.

4. The herein shown and described hame fastener, comprising a longitudinally-slotted 130 body having a yoke at one end and formed on one side with a series of ratchet teeth, a

slidable section arranged on that side of the
body opposite the teeth and operating through
the said yoke, an arm pivoted at one end to
the slidable section and operating through
5 the longitudinal slot of the body, and having
a transversely-disposed pin at its free end to
engage with the said ratchet teeth, a lever
having its inner end curved and formed with
laterally-extending flattened journals which
10 are fitted in recesses at that end of the slotted
body opposite the yoke, and a plate secured
at one end to the slotted body and having
its opposite end slotted and formed with lips

to engage with and retain the flattened jour-
nals in the recesses, and by means of which the 15
said lever is held in closed relation upon the
slotted body, substantially as and for the pur-
pose set forth.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in 20
the presence of two witnesses.

JOHN W. STANLEY.

Witnesses:

JOHN P. SCHOLL,
CLAUDE S. GOSSETT.