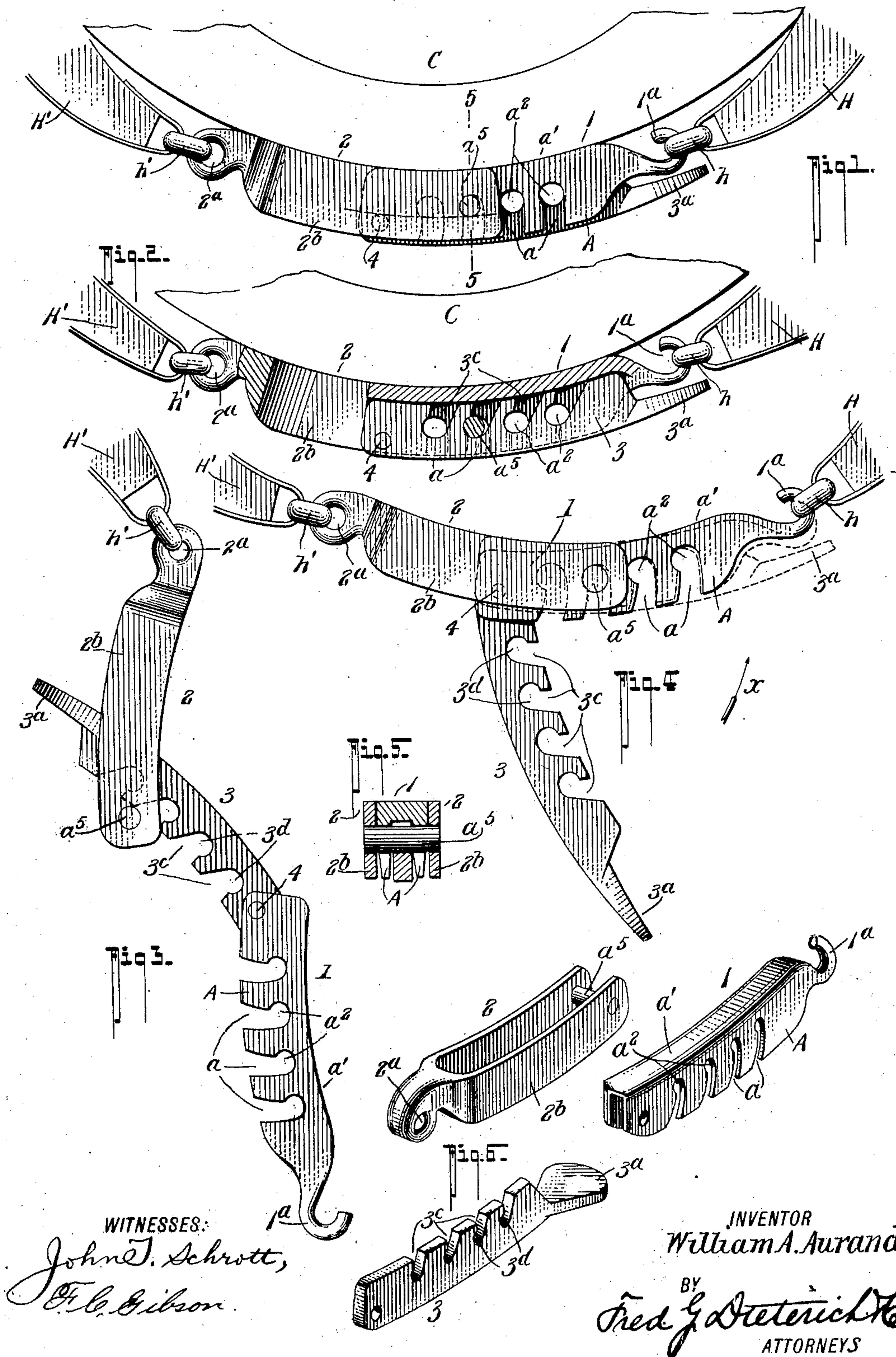


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W. A. AURAND.
HAME FASTENER.

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HAME-FASTENER.

No. 826,528.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM A. AURAND, residing at Franklin, in the county of Venango and State of Pennsylvania, have invented a new and Improved Hame-Fastener, of which the following is a specification.

My invention relates to improvements in that class of hame-fastener means in which opposing interlocking members are drawn together by a lever device, whereby to closely clamp the hame-sections on the collar and in position to secure the said interlocking members by a latch or detent mechanism, and the said invention seeks to provide a hame-fastener means of the class stated of a very simple and economical construction which can be readily manipulated and quickly adjusted to fasten the hame-sections upon the collar and when adjusted by the actuating-lever to positively maintain the interlocking members to their locked engagement without the use of spring-latch devices, a detent, or other special means such as is usually required in hame-fasteners of the type referred to.

In its general arrangement my invention comprises a pair of interlocking members, one of which is adapted for being permanently secured to the lower end of one hame-section and the other to be detachably connected to the other hame-section, and a combined lever and lock member hinged to one of the interlocking members and adapted to be adjustably connected to the other member in such manner that when swung up to lock the hame-sections it will bring the two interlocking members and itself in position to maintain the several parts at their interlocked position that the same cannot until forcibly shifted to a releasing position become displaced, the said lever member also having means for movably sustaining that member which detachably connects with its hame-section when said member is disconnected from the hame in such position, so it is always held in place for being quickly adjusted and from becoming detached from the lever member.


In its more subordinate features my invention embodies certain details of construction and peculiar combination of parts, all of which will hereinafter be fully described, pointed out in the appended claims, and

illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my hame-fastener, showing the same as connected with the lower ends of the hame-sections and in its locked position to draw and sustain the said sections closely upon the collar. Fig. 2 is a longitudinal section thereof, the parts being in the position shown in Fig. 1. Fig. 3 is a view of a portion of the collar and the hame-sections and showing the fastener members at their open or suspended position and how the lever member is sustained on the locking member that is pivotally connected to its hame-section. Fig. 4 is a view of the fastener, illustrating the manner in which the parts are adjusted to bring the member to an interlocking position; and Fig. 5 is a cross-section on the line 5 5 on Fig. 1. Fig. 6 is a perspective view of the fastener, the several members being in their separated position.

My improved fastener consists of three parts, of such shape that they can be cast or otherwise economically formed of metal.

The members 1 2 constitute the interlocking means, one of which, 2, has an eye 2^a, that engages the ring of link *h'* in the hame-section *H'* to hang therefrom at all times, and the other member has a hook 1^a, adapted when the member 1 is swung up to detachably engage with the ring or link *h* on the other hame-section *H*.

The member 1 has its body portion made  shape in cross-section its full length, and its side members *A* have registering notches *a a*, that extend from the bottom edges to a point near the top *a'*, and at the top said notches *a a* terminate in inwardly-projected concavities or seats *a² a²*, the reason for which will presently appear.

The member 2, which is of the same width as member 1, has its body portion bifurcated its full length, so its side members 2^b 2^b will readily straddle the member 1, and at the other end the said members 2^b carry a cross-pin *a⁵*, which is the locking-pin hereinafter referred to.

The members 1 and 2 have a curved or segmental form, the upper edges having the curvature of the collar *C*, whereby the upper edges of the two members 1 and 2 will firmly rest against the collar-rim and be thereby

held from independent movement during the ordinary application of the members 1 and 2 against the collar, this being an essential point in my invention, since it is the holding
 5 of the two members from independent movement when locked against the collar that maintains the said members to their locked position without the aid of special latch or detent devices.

10 3 designates the combined lever and locking member, which is of a length substantially that of the member 1 and consists of a flat bar having the width of the hollow space within the member 1 and curved on the same
 15 arc, so as to snugly fit within the hollow member 1 when the parts are in their interlocked position, as shown in Figs. 1 and 2. The outer or free end of the bar 3 is flattened at right angles to the main part to form a head
 20 3^a , which serves the double purpose of a thumb and finger piece for swinging the member to its locked and released positions and also as a stop for preventing the member 3 from becoming detached from the locking
 25 member 2 when the parts are swung down to disconnect the hame end.

The inner end of the bar 3 is pivotally mounted upon the cross-pin 4 in the outer end of the \square -shaped member 1, as best shown
 30 in Fig. 2, by reference to which it will be noticed the said pin is located in a plane below the seats a^2 of the notches a , and the member 3 has a series of inclined notches 3^c in the upper edge, that terminate in concaved seats
 35 3^d , which, together with the notches a and seats a^2 in the member 1, are relatively so formed in the respective members 1 and 3 that when the member 3 is swung up and closed into the \square -shaped member 2 the seats
 40 3^c and a^2 form circular bearings for the lock-pin a^5 . The seats 3^c in the member 3 are also located in a plane above the pivot or fulcrum of the said member 3, so that all of the circular bearings for the lock-pin a^5 are in a
 45 plane above the fulcrum of member 3, when the several parts are adjusted for holding the hame ends locked against the collar C.

To secure a hame to a collar with my fastener devices, the hame is fitted on the collar
 50 in the usual manner with the member 2 swinging from the hame-section H' and the members 1 and 3 swinging from the member 2 by reason of the stop or thumb-piece holding the part 3 from sliding out of the forked
 55 body of the part 2, as clearly shown in Fig. 3. The member 1 is then swung up and hooked upon the ring or link on the lower end of the hame-section H, and the lever member 3 is then adjusted in the member 2 to bring the
 60 desired one of the notches therein in engagement with the lock-pin, after which the lever 3 is swung up in the direction of the arrow x on Fig. 4 until the member 3 is seated entirely within the member 1, with its finger-piece
 65 close up against the hook end of the member

1, as shown in dotted lines on Fig. 4, by reference to which it will be seen that when the parts are closed together, as shown in dotted lines, the lock-pin will be firmly seated in the seat portions of the locking-notch and absolutely maintained by reason of the expansion-draft on the members 1 and 2 in opposite
 70 directions, since the said seat portions and the lock-pin therein are positively located in a plane above the fulcrum of the locking-lever, which insures against any possible chance of displacement of the interlocked parts, except under force applied on the outer end of the lever 3, and this position of the parts is further maintained, since the two members 1
 75 and 2 are now fitted to form a continuous bearing the full length of the body portions of said members 1 and 2 against the collar C, as the upper faces of said two members are in the same curved alinement, and hence independent motion of the interlocked members 1, 2, and 3 is absolutely prevented and danger of the position of the lock-pin shifting to a plane partly or wholly below the fulcrum of the lever 3 is absolutely overcome.
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From the foregoing, taken in connection with the drawings, the advantages of my invention will appear. It is apparent that by reason of the peculiar construction and correlation of the several parts the same are
 95 always in position to be easily and conveniently manipulated to draw the hame ends on the collar and for maintaining their locked position without detent or latch devices, and by reason of the absence of such devices and a simple finger-piece to grip the fastener can be quickly locked and unlocked with gloved hands in all kinds of weather.
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Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—
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1. A hame-fastener comprising a pair of opposing interlocking members, one of which is pivotally connected to the lower end of one hame-section, the other having means for detachably connecting with the lower end of the other hame-section, one of the said members having the body portion grooved longitudinally and its side flanges formed with a series of notches that extend to near the top and terminate in lateral concaved seats, the other member being forked to straddle the grooved and notched member and having a cross-pin in the outer end of its forked portion, said members being provided with upper edges forming a smooth surface or an unbroken arc when in the closed position, a lever consisting of a flat body adapted to close up into the grooved member, said lever having its inner end pivoted in the grooved member, the pivot being at a point below the notch-seats in said grooved member, said lever having notches in its upper edge that terminate in a line above the pivot or fulcrum point of the lever, for the purposes set forth.
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2. A hame-fastener, comprising a pair of interlocking members, one of which pivotally connects to the lower end of one of the hame members, said pivotally-connected member
 5 having its body portion bifurcated and provided with a cross-pin in the outer end of the bifurcated portion, a lever consisting of a flat bar slidable within the forked end of the pivotally-connected member, and having one
 10 end flattened to form a finger-piece and a stop to prevent the lever from becoming disengaged with the said member, a grooved member having means for detachably and pivotally connecting with the other hame-
 15 section, said grooved member being pivotally connected at its inner end to the inner end of the lever, said grooved member and the lever having a series of locking-notches in their opposing edges that terminate in seats said
 20 seats when the lever is closed in the grooved member registering and located at a point wholly above the fulcrum-point of the lever, as set forth.

3. The hereinbefore-described improvement in hame-fasteners, which consists of a
 25 pair of interlocking members one of which has means for pivotally and permanently suspending it from the lower end of one hame-section, the other having means for detachably
 30 connecting with the other hame-section, the detachable member having its body portion

grooved longitudinally, provided with a fulcrum-pin in its inner end, and having a series of notches in the side flanges extending from the bottom up to near the top of the body, 35 and terminating in lateral concaved seats, located in a plane wholly above the fulcrum-pin, the other member having its body bifurcated to straddle the first-stated member, the two members being of the same width 40 and having their top edges uniformly curved, the bifurcated member having a cross-pin in its free end, and a lever comprising a flat bar adapted to close up into the grooved member pivotally mounted on the fulcrum-pin of said 45 grooved member, said lever member fitting within and having movement through the bifurcated member, and having its free end terminated in a laterally-projected flat head, that forms a finger-piece and a stop to hold 50 the lever from dropping out of the bifurcated member, said lever having a series of notches in its upper edge that terminate in seats, said seats being disposed in a plane wholly above the fulcrum of the lever, when 55 said lever is closed into the grooved member, substantially as shown and for the purposes described.

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Witnesses:

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