

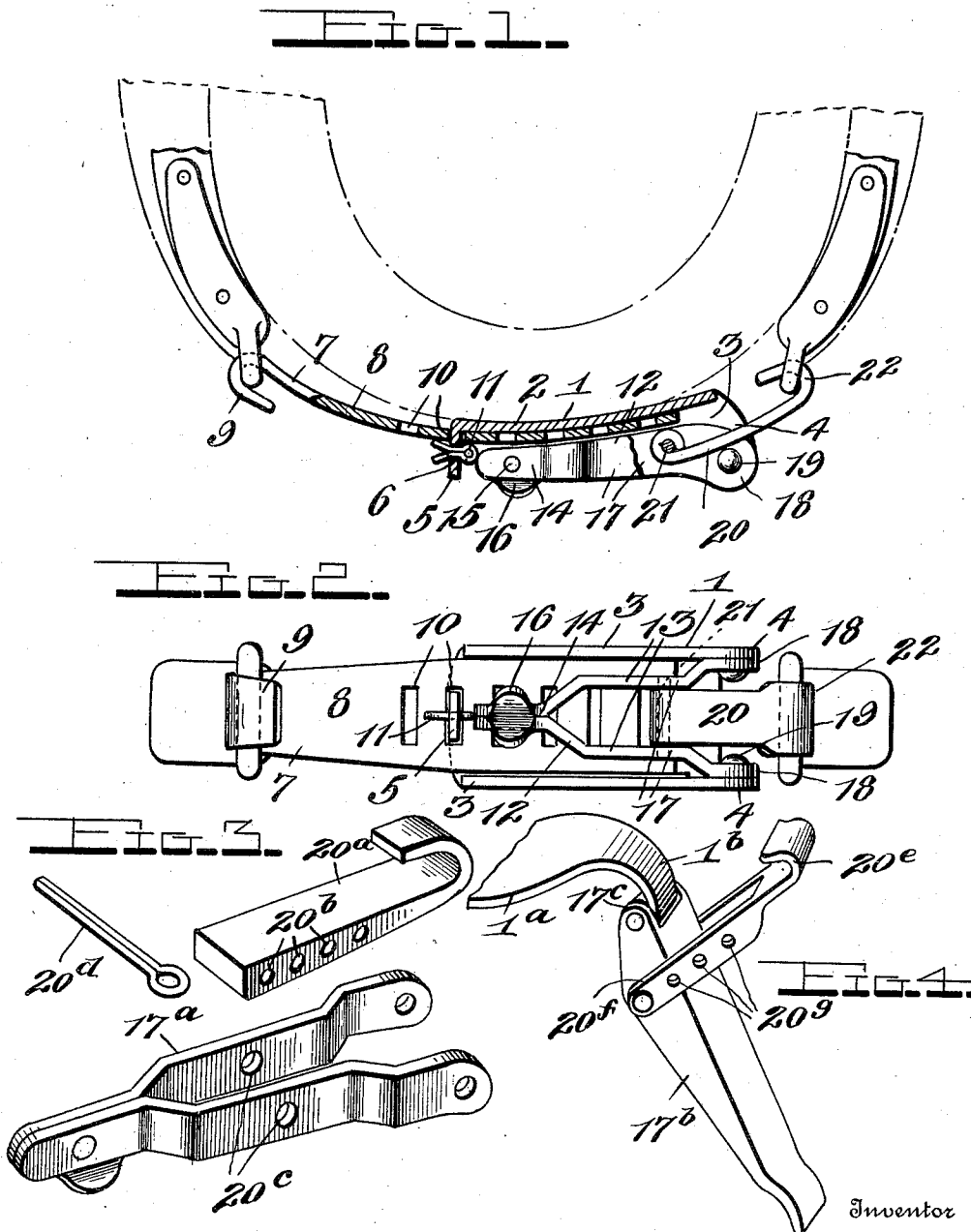
W. R. ANGELL.
HAME FASTENER.

APPLICATION FILED APR. 17, 1911.

1,019,291.

Patented Mar. 5, 1912.

2 SHEETS—SHEET 1.



Witnesses

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L. G. Ellis.

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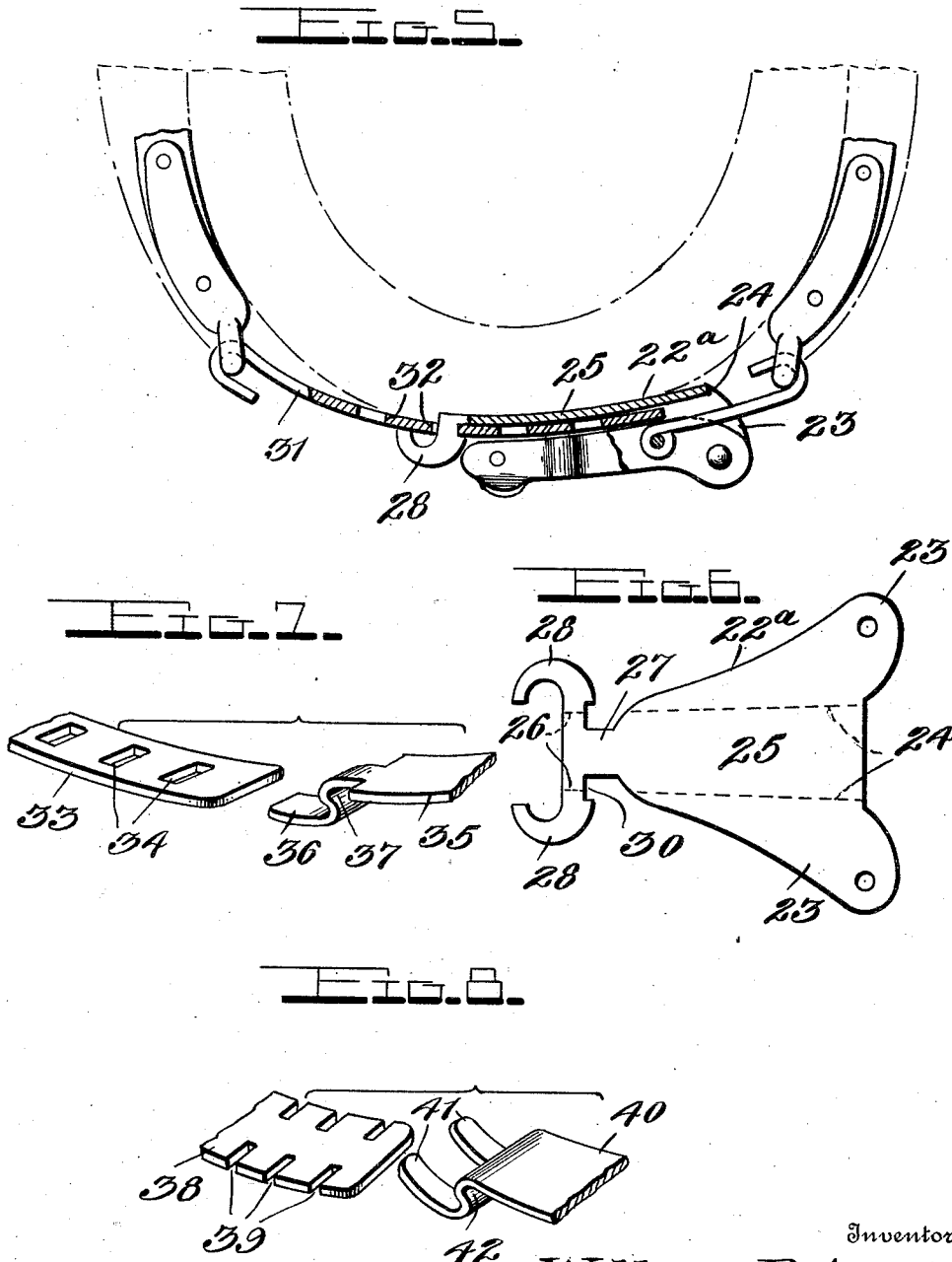
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UNITED STATES PATENT OFFICE.

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HAME-FASTENER.

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To all whom it may concern:

Be it known that I, WILLIAM R. ANGELL, a citizen of the United States, residing at Courtenay, in the county of Stutsman and State of North Dakota, have invented certain new and useful Improvements in Hame-Fasteners, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in hame fasteners by means of which a pair of hames may be readily secured on a collar so that they cannot slip or become disengaged therefrom, the said improvements also enabling the hame fastener to be adjusted according to the size of the collar in connection with which it is to be used, the invention consisting in the construction, combination and arrangement of devices hereinafter described and claimed.

One object of my invention is to effect improvements in the construction of the body of the hame fastener.

Another object is to combine with the body a link hook which may be readily adjustably secured thereon, the body and the link hook having novel co-acting devices to permit the adjustable connection of the link hook and the body.

A further object is to effect improvements in the construction of the latch lever.

Another object is to combine with the latch lever the latch hook which is adjustably connected thereto.

In the accompanying drawings Figure 1 is partly a side elevation and partly a sectional view of a hame fastener which embodies my improvements in the preferred form; Fig. 2 is a plan of the same; Fig. 3 is a detail perspective view showing a modification in the construction of the latch lever and the latch hook, whereby the latter is adjustably connected to the former; Fig. 4 is a similar view of the same showing another modification; Fig. 5 is a longitudinal sectional view showing another modified form of my hame fastener; Fig. 6 is a plan of the blank form which the body of the hame fastener is made; Fig. 7 is a perspective view showing another modification in the construction of the body and the link hook; and Fig. 8 is a similar view showing still another modification in the construction of the body and the link hook.

Referring particularly to the form of my

invention shown in Figs. 1 to 4 the body 1 is an integral structure made preferably of plate steel or iron and comprises a bottom 2 and sides 3 which are parallel with each other and are at the sides of and at right angles to the bottom. The bottom is slightly curved longitudinally to adapt it to the shape of the lower side of the collar in connection with which the hame fastener may be employed. The sides 3 of the body are formed at one end thereof with ears 4 and the bottom of the body is formed at the opposite end with an integral lug 5 which is spaced from and is disposed between the sides 2 and is provided with an opening. The link hook 7 is likewise preferably made of a single piece of plate steel or iron and comprises a longitudinally curved shank 8, the width of which is such as to enable it to fit on the bottom of the body between the sides thereof, one end of the said shank being provided with a bill 9 for engagement with the eye *a* of one of the hames. The shank of the link hook is provided with a series of transverse openings 10 through any one of which the lug 5 may be extended so that the lug and the openings of the link hook co-act to secure the link hook to the body for any desired longitudinal adjustment of the link hook, and to secure the link hook in place when thus desired I provide a split key 11 which is placed in the opening of the lug.

The latch lever 12 in the form of the invention shown in Figs. 1 and 2 comprises a pair of side braces 13 both of which are preferably formed from plate steel or iron. The side braces of the latch lever bear against each other at their outer ends 14 and are secured together by a rivet 15 and are provided in their outer edges with oppositely inclined out-turned thumb pieces 16 by means of which the free end of the latch lever may be readily grasped when operating the latch lever. Said braces of the latch lever are also provided with offset portions 17 which are spaced apart and terminate in outwardly rounded and extended ears 18. The said ears bear against the inner sides of the ears on the sides of the body and are pivotally connected thereto as by means of suitable rivets 19. Hence the latch lever is pivotally connected to one end of the body and may be swung outwardly therefrom or inwardly so as to lie directly over the bottom

of the body and on the shank of the link hook. The latch hook 20, which is also preferably made from a single piece of plate steel or iron, has its inner end disposed between the offset portions of the sides of the latch lever and pivotally connected thereto as at 21, the outer end of the latch hook being formed with an inwardly turned bill 22 for engagement with the eye of the other hame.

It will be understood that after my improved hame fastener has been appropriately adjusted according to the size of the collar and after the link hook and latch hook have been engaged with the eyes of the hames the hames may be fastened together under the collar by merely swinging the latch lever inwardly between the sides of and over the bottom of the body and shank of the link hook, so as to carry the pivotal connection between the latch hook and the latch lever past the pivotal connection between the latch lever and the body, so that the stress of the hames will hold the latch lever against the outer side of the shank of the latch hook and the casual release of the latch lever will be entirely avoided, the latch lever being held the more firmly in place the greater the stress there is upon the hames.

In Fig. 3 I illustrate a modification in the construction of the latch hook, in which the latch hook is formed with a shank 20^a which is provided with a series of adjusting openings 20^b any one of which may be placed in coincidence with a pair of openings 20^c in the sides of the latch lever 17^a and a split key 20^d is inserted through the said openings so as to secure the latch hook to the latch lever and permit of the longitudinal adjustment as well as the pivotal connection of the latch hook.

In Fig. 4 I illustrate a modification in which the body 1^a is provided at the end to which the latch lever 17^b is attached with an arm 1^b which is provided with a transverse opening and is inserted between the spaced lugs 17^c at one end of the latch lever. The latch hook 20^e is provided at its inner end with a pair of spaced lugs 20^f which are of suitable length and are provided with a series of adjusting openings 20^g. These lugs of the latch hook bear on the outer sides of the latch lever and the split key is passed through any of the openings in the lugs of the latch hook and through an opening in the latch lever so as to adjustably and pivotally connect the latch hook and the latch lever.

These two modifications, as will be understood, admit of the additional adjustment in that they not only permit the adjustment of the link hook with respect to the body of the hames fastener but also permit the longitudinal adjustment of the latch hook with respect to the latch lever and hence greatly facilitate the use of the device.

Referring now to the form of my invention shown in Fig. 5 the body 22^a is formed from a substantially triangular blank of plate steel or iron such as is shown in Fig. 6, the sides 23 being bent on parallel lines 24 (shown in Fig. 6) at right angles to the bottom 25 of the body and forming ears between which the link hook operates and the latch lever is pivotally mounted. At the opposite end of the bottom of this form of the body is a neck 27, at the opposite sides of which are hooks 28 which are curved as shown and are bent, on lines 26, so as to lie parallel with each other and at right angles to the bottom. These hooks are provided on their rear sides with notches 30. The link hook 31 in this form of my invention is provided with series of adjusting openings 32 through which the hooks 28 may be extended, the said hooks and said openings admitting of the ready adjustment of the link hook and its detachment from the body and the longitudinal adjustment of the link hook on the body as may be required, and those portions of the link hook which form the rear sides of the openings through which the hooks 28 are extended engage the notches 30 in the rear sides of the said hooks and hence the link hook, when adjusted and connected to the body, is firmly locked in place.

In the modification shown in Fig. 7 the link hook 33 is provided with a single series of transverse openings 34 and the body 35 is provided at one end with a hook 36 which extends therefrom and may be inserted in any one of the openings 34, the said hook being substantially S-shaped so that a notch 37, corresponding to the notches 30 of the hooks 28 in the form of the invention shown in Fig. 5, is formed in the rear side of the hook 36 for engagement by the link hook.

In the form of my invention shown in Fig. 8 the link hook 38 is provided in opposite sides with series of notches 39 which are transversely alined in pairs, and the body 40 is provided at one end with a pair of spaced S-shaped hooks 41 for engagement with any pair of the said notches 39 so as to longitudinally and detachably attach the link hook to the body. These S-shaped hooks 41 are formed in their rear sides with notches 42 for engagement by the link hook to lock the latter in place on the body as will be understood.

Having thus described my invention I claim:

1. In hames fasteners of the class described, the combination of a body comprising a bottom, a fastening device at one end thereof and extending downwardly from the bottom of the body at a substantially right angle therefrom, a link hook having a shank to bear against the bottom of the

body provided with a series of adjusting openings for engagement by the fastening device, a latch lever pivotally connected at one end to the body and adapted to be
5 turned toward the bottom of the body and against the link hook, and a latch hook pivotally connected to said latch lever at a point eccentric to the pivot of the latch hook.

10 2. In hames fasteners of the class described, the combination of a body comprising a bottom, a pair of side ears at one end thereof and a fastening device at the
15 opposite end thereof and extending downwardly from the bottom of the body at substantially a right angle therefrom, a link hook having a shank to bear against the bottom of the body and between the side
20 ears and provided with a series of adjusting openings for engagement by the fastening devices, a latch lever pivotally connected at one end to and mounted between the ears of the body and adapted to be turned toward the bottom of the body and against
25 the link hook, and a latch hook, said latch lever and latch hook having co-acting devices pivotally connecting the latch hook

to the latch lever and also adjustably connecting said latch lever thereto.

3. In hames fasteners of the class de- 30 scribed, the combination of a body having a pair of side ears and also provided at the end opposite said side ears with a lug projecting downwardly from and at substantially a right angle to the body, a link hook 35 having a shank to bear against the body and between the said side ears and provided with a series of adjusting openings for engagement with the lug, a key extending through the lug at a point below the link 40 hook to lock the link hook thereon, a latch lever pivotally connected at one end to the ears of the body and adapted to be turned against the link hook to clamp the latter between the bottom of the body and the 45 upper side of the latch lever and a latch hook pivotally connected to said latch lever.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

WILLIAM R. ANGELL.

Witnesses:

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L. NICHOLS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."