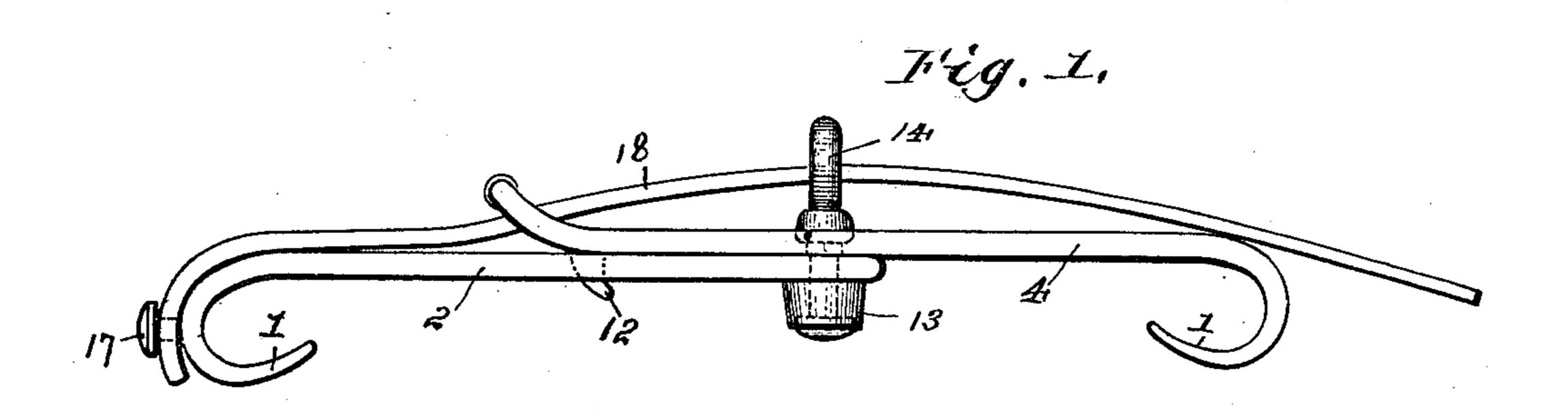
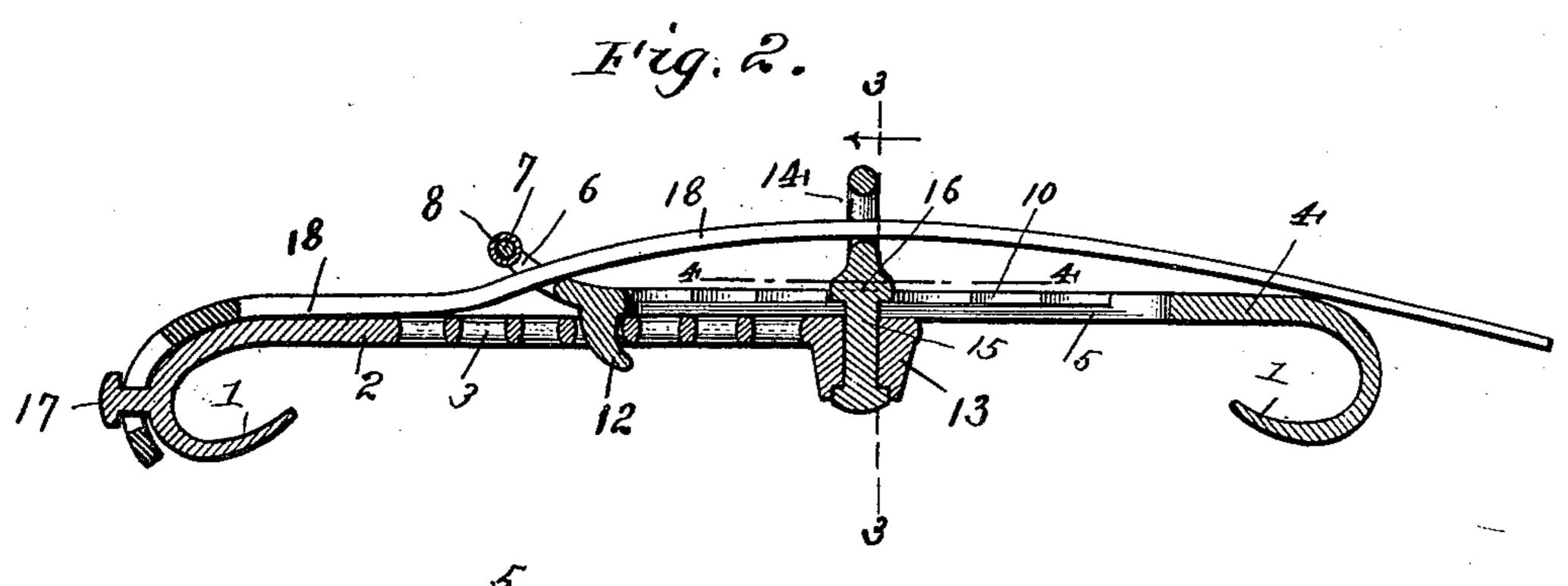
## J. H. HILL.

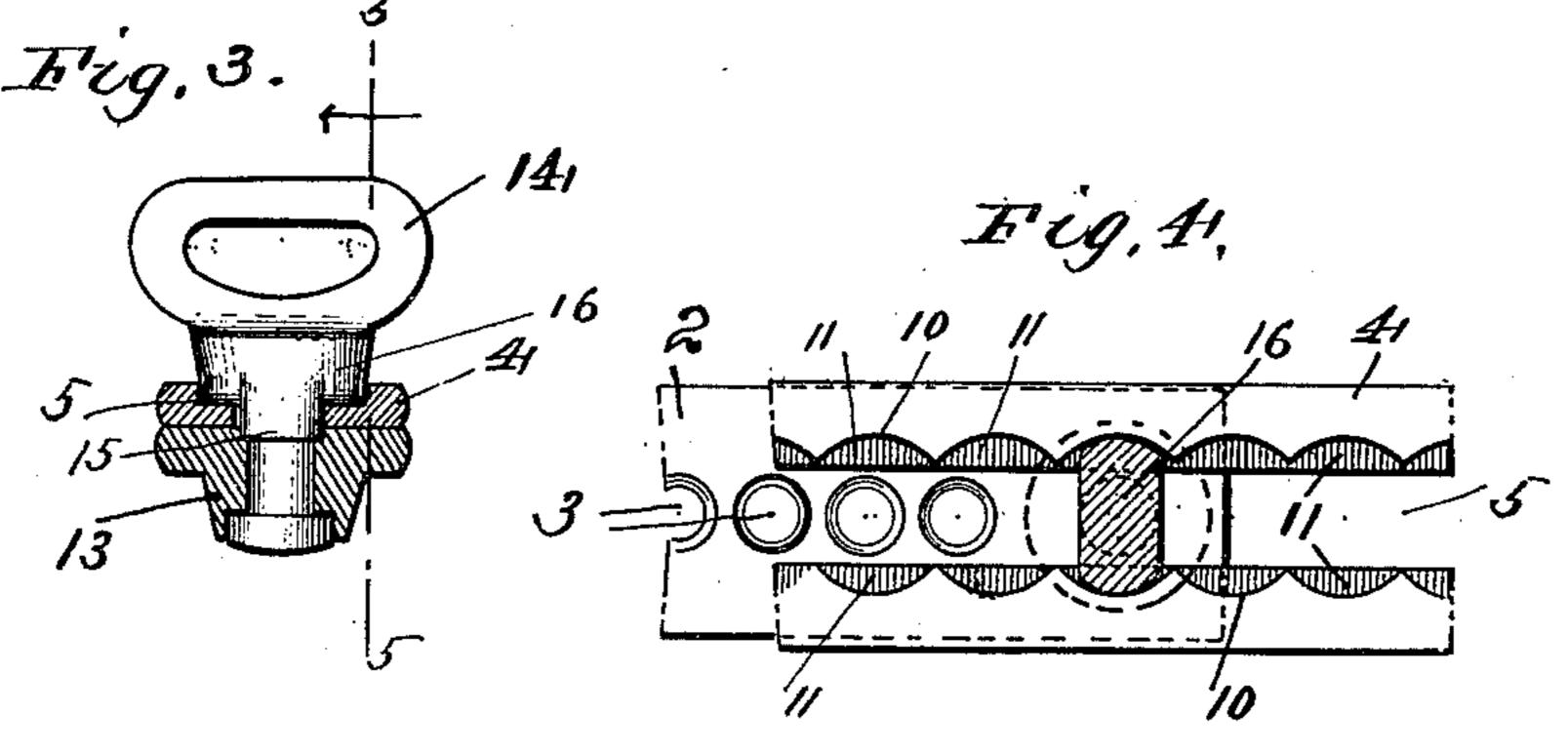
## HAME FASTENER.

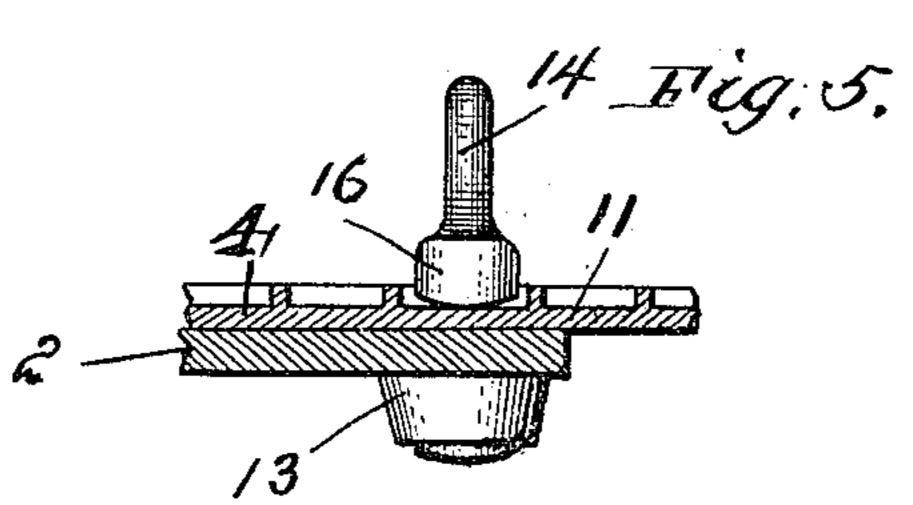
(Application filed June 29, 1899.)

(No Model.)









Witnesses

GHalmsley, GHESTESS Mill, Inventor By Davis & Davis Attorney

## United States Patent Office.

JUSTIN H. HILL, OF CHICAGO, ILLINOIS.

## HAME-FASTENER.

SPECIFICATION forming part of Letters Patent No. 639,982, dated December 26, 1899.

Application filed June 29, 1899. Serial No. 722,304. (No model.)

To all whom it may concern:

Be it known that I, JUSTIN H. HILL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have 5 invented certain new and useful Improvements in Hame-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawings, in which--

Figure 1 is a side elevation; Fig. 2, a longitudinal sectional view. Fig. 3 is a transverse sectional view on line 33 of Fig. 2. Fig. 4 is a detail horizontal sectional view on line 4 4 of Fig. 2, and Fig. 5 is a detail sectional 15 view on line 5 5 of Fig. 3.

The objects of the invention are to produce a simple hame-fastener, which may be readily adjusted to secure the hames together and to provide simple and effective means to secure

20 the device in its adjusted position. The hame-fastener comprises two narrow its outer end with an inwardly-turned hook 1 to engage the loop on the end of the adjacent 25 hame. These bars slide upon each other, and bar 2 is formed with a central longitudinal series of holes 3 and the other bar 4 is formed with a central longitudinal slot 5. The inner end of the slotted bar 4 is bent away from 30 the bar 2 and is formed with an opening 6, and the end cross-bar 7 is provided with the roller-sleeve 8. Along each longitudinal edge of the slot 5 in the outer surface of the bar 4 is formed a series of laterally-extending re-35 cesses, which form flanges 11 and arc-shaped shoulders 10, the recesses on one longitudinal edge of the slot being directly opposite corresponding recesses on the other longitudinal

edge of the slot, the shoulders 10 of each set 40 of opposing recesses being arcs struck from the same point in the center of the slot 5. At the end of the slot 5 near the opening 6 the bar 4 is formed on its inner surface with a hook-shaped lug 12, which curves toward the 45 hook 1 of said bar and is adapted to enter any one of the series of holes 3 in the bar 2.

On the inner end of bar 2 is formed an outward-extending boss 13, in which is swiveled a slotted turn-button 14, the stem 15 of said 50 button extending through the slot 5 of bar 4.

16, which consists of two oppositely-extending shoulders and which is narrower than slot 5 to enable it to be passed through said slot when turned parallel therewith, the shoul- 55 ders of said head being curved at their ends and adapted at said ends to bind against the curved shoulders or walls 10 of opposing recesses when turned transversely of the slot 5 to lock the two bars together and hold them 60 against longitudinal movement. The inner faces of the shoulders of the head 16 fit closely against the flanges 11 and bind the two bars together and hold them closely in contact with each other, the said inner face of the shoul- 65 ders of the head being slightly convex or cam shape to secure this effect. The outer end of bar 2 is formed with an outward-projecting headed stud 17, over which is buttoned a lacing-strap 18, the free end of said strap be- 70 ing passed through the opening 6 in bar 4 to enable said bars to be drawn together to bring flat plates or bars, each of which is formed at | the ends of the hames to the proper position. When the hames have been properly adjusted, the lug 12 is permitted to enter the adja-75 cent hole 3, and the swivel-button is turned transversely of the bars, causing the curved ends of the head 16 to bind on shoulders 10 of the curved recesses on opposite sides of the slot and also bringing the inner face of the 80 said head to bear on flanges 11 on opposite sides of the slot. In this way the two bars are tightly locked against longitudinal and transverse movement with respect to each other and are prevented from rattling—in 85 fact, are held against any independent movement. After the bars are locked together the free end of strap 18 is passed through the slot in the head 14 and prevents said head from being accidentally turned.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

90.

1. In a hame-fastener, the combination of two bars adapted to slide longitudinally upon 95 each other and each being provided with means for attaching it to a hame, a swivel device carried by one of the bars and adjustably engaging the other bar, said swivel device being provided with a locking - head 100 formed with two oppositely-extending shoul-On said button is formed an elongated head | ders whose inner faces are cam-shaped and

are adapted to bind the two bars against each other when the swivel device is turned trans-

versely to the bars.

2. In a hame-fastener, the combination of 5 two bars adapted to slide upon each other and each being provided with means for attaching it to a hame, and a swivel device carried by one of the bars, the other bar being formed with a slot having marginal recesses, the swivel ro device being adapted to extend through said slot, and a locking-head formed on the swivel device and adapted to enter the recesses and to clamp or bind the two bars against each other, and also hold them against longitudi-15 nal and transverse movement.

3. In a hame-fastener, the combination of bars 2 and 4 adapted to slide upon each other and each provided at its outer end with means for attaching it to the end of a hame, bar 2

being formed with a series of holes 3, a swivel- 20 button 14 carried by said bar and formed with the head 16, bar 4 being formed with the slot 5 and the series of recesses or pockets formed on the edges of said slot in the outer surface of the bar and adapted to receive the head 16 25 of the swivel, said recesses forming shoulders 10 and flanges 11 against which the head 16 of the swivel is adapted to bind, and a lug 12 formed on bar 4 and adapted to enter any one of the holes 3.

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

this 20th day of June, 1899.

JUSTIN H. HILL.

Witnesses: GEO. C. BOLTON, CHAS. F. SWEIGERT.

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