

E. MOREHOUSE.
SAFETY CATCH FOR PINS.
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1,058,192.

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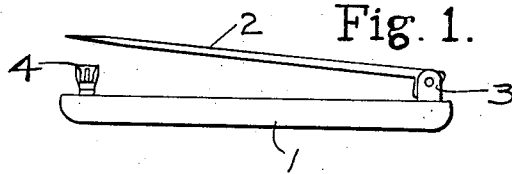


Fig. 1.

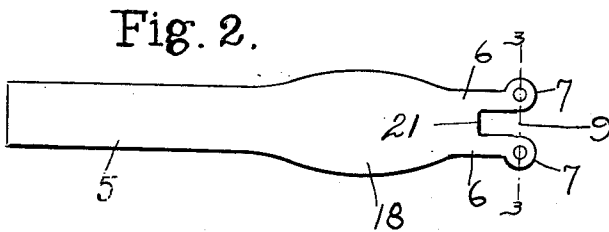


Fig. 2.

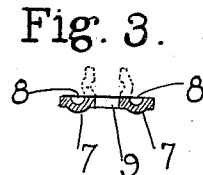


Fig. 3.

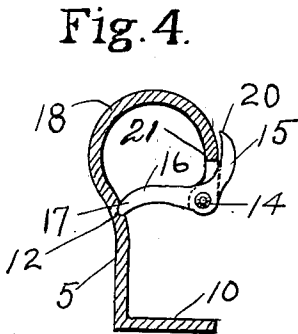


Fig. 4.

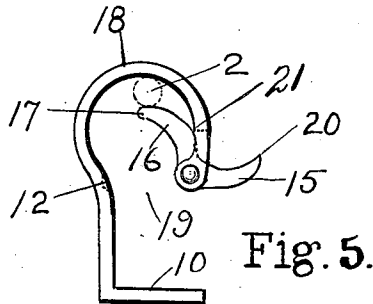


Fig. 5.

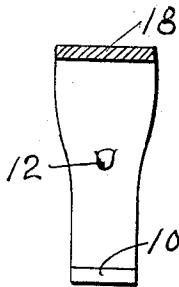


Fig. 6.

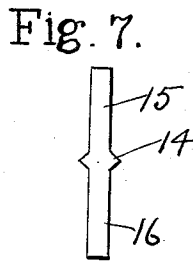


Fig. 7.

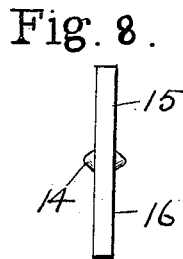


Fig. 8.

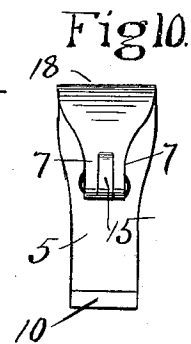


Fig. 10.

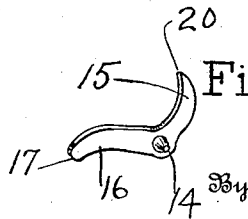


Fig. 9.

Witnesses
E. J. Ogden
J. L. Macdermott

Inventor
Eugene Morehouse

Howard E. Barlow
Attorney

UNITED STATES PATENT OFFICE.

EUGENE MOREHOUSE, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO B. A. BALLOU & COMPANY, INC., OF PROVIDENCE, RHODE ISLAND, A CORPORATION OF RHODE ISLAND.

SAFETY-CATCH FOR PINS.

1,058,192.

Specification of Letters Patent.

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Application filed December 8, 1911. Serial No. 664,633.

To all whom it may concern:

Be it known that I, EUGENE MOREHOUSE, a citizen of the United States, and resident of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Safety-Catches for Pins, of which the following is a specification.

This invention relates to safety catches for pins, and has for its object to provide a hook-shaped catch member having a forked end and a knee lever pivotally held at the end of said hook between said forked ends and adapted to close the mouth of the hook.

A further object of the invention is to provide a recess in the back of the hook member to receive and yieldingly retain the end of the knee lever by the natural spring of the metal at the free end of the hook.

A still further object of the invention is to turn the free end of the gate arm of said lever outward or away from the actuating arm of the same whereby the pin-stem after entering the catch may be passed around back of said turned out end to force the same to its closed position without engaging and manipulating the actuating arm thereof.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and particularly pointed out in the appended claim.

Of the accompanying drawings: Figure 1— is a side elevation of a pin to which my improved catch member is attached. Fig. 2— is a plan view showing the form of a blank as cut from sheet stock. Fig. 3— is a section on line 3—3 of Fig. 2 showing the indentations in the ends of the forked member in which the knee lever is pivoted. Fig. 4— is a sectional side elevation illustrating the knee lever as pivotally held in closed position in the free end of the hook member. Fig. 5— shows the knee lever pivotally held in the free end of the hook member and swung to its open position, and the end of the pin stem in position to act upon this lever to close it. Fig. 6— is a front elevation, partly in section, showing the recess for receiving the end of the knee lever to retain it in closed position. Fig. 7— shows the outline of the knee lever as cut from sheet stock with the pivot projections formed integral therewith. Fig. 8— illustrates the rounding shape of these projections after having been

struck up into the desired form. Fig. 9— illustrates a detail showing the knee lever in perspective. Fig. 10— is a front view of the catch member.

Referring to the drawing, 1 designates the body portion of the usual cuff or beauty pin to one end of which is pivotally held the usual pin-stem 2 in the joint member 3. At the opposite end of this pin body is secured, by solder or otherwise, my improved form of catch member 4, which member upon being struck out of sheet stock is made with a body 5 plain at one end and slotted at 9 at its opposite end, whereby said end is bifurcated or forked. The tines 6—6 of the fork are somewhat slender whereby they may be twisted as and for the purpose presently described. The ends of these tines are slightly enlarged providing ears 7—7 which ears may be pierced, if desired, to form bearing for a pintle, but are preferably struck or swaged forming indentations 8—8 in the face thereof, said ears being then bent by twisting the fork tines at substantially right angles to their original planes as illustrated in dotted lines in Fig. 3, whereby said indentations face toward each other to serve as pivot bearings for the knee lever. This blank is then bent into the shape of a hook, the base 10, by which the device may be attached to a pin body, being formed by turning the end of the body under the end of the hook, the back portion 11 being bent somewhat inward forming a hook substantially in the shape of a question mark with a comparatively small entering mouth 19. The stock at the bend 18 or roof of the hook is slightly broadened, as illustrated in Figs. 2, 4 and 6, so as to better protect the pointed end of the pin stem when engaging this member. A small recess 12 corresponding in shape and size to the engaging or gate end of the knee lever, presently described, is formed into the inner face or back portion of the hook to receive and yieldingly retain the end of said knee lever. I preferably blank this knee lever 13 from sheet stock into the form illustrated in Fig. 7 having opposite lateral angular projections 14, which projections are subsequently struck, rounding them over into the shape illustrated in Fig. 8 so as to form them into suitable bearing members 14 to enter the indentations 8—8 in the fork ends. This member is then bent into an L-shape or what is termed a knee

lever having an operating arm 15 and a gate arm 16. The end 17 of this gate arm is turned outward or away from the operating arm so that when it is mounted between the
 5 tines 6—6 of the fork and is in its open position against the stop formed by the wall 21 at the edge of the slot, as illustrated in Fig. 5, the end of the pin stem may be carried around back of this outwardly turned
 10 end so that a downward pressure on the pin-stem will force this gate arm to its closed position causing its end 17 to engage the recess 12 in the body of the member where it is yieldingly held by pressure at
 15 the end of the hook caused by the natural spring or yielding quality of the resilient metal of which the member is formed.

In the practical operation of my improved catch member the operating arm 15 works partly in the slot 9 between the fork tines 6—6. Its free end 20 is curved inward slightly so that when in closed position there is but the smallest possible portion projecting beyond the contour or outer surface of
 20 the hook member, thereby preventing engagement with laces or other adjacent fabrics while being worn, there being only

enough of this end projecting to be engaged by the finger nail of the wearer whereby it can be drawn downward to withdraw the
 30 end of the gate arm from its recess to release the pin-stem.

I claim:

A safety catch for pins comprising a hook-shaped member forked at its free end, a
 35 knee lever pivotally mounted between the branches of said fork and having an operating arm and a gate arm, the end of said gate arm being turned outward or away from the operating arm whereby the end of the pin-
 40 stem after entering the catch may be carried around back of said turned out end to force said arm to its closed position, and a recess in the inner face of the body portion to receive and yieldingly retain the free end
 45 of the gate arm of said lever by the spring of the metal at the free end of the hook.

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

EUGENE MOREHOUSE.

Witnesses:

HOWARD E. BARLOW,
 E. I. OGDEN.

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