R. K. MAKER.

SAFETY CATCH FOR PINS.

APPLICATION FILED MAY 10, 1912.

1,054,701.

Patented Mar. 4, 1913.

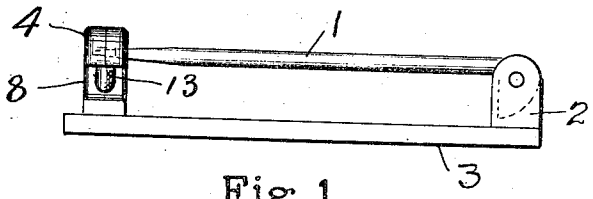

Fig. 1.

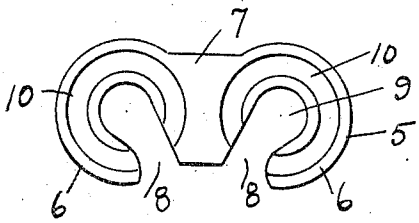

Fig. 2.

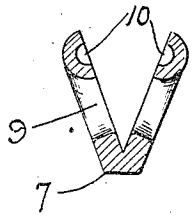

Fig. 3.

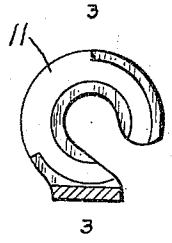

Fig. 4.

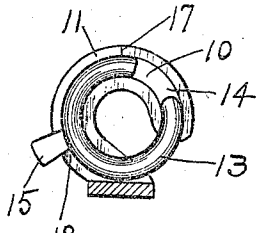

Fig. 5.

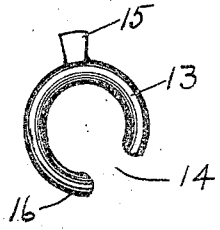

Fig. 6.

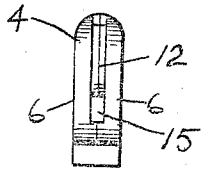

Fig. 7.

Witnesses
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UNITED STATES PATENT OFFICE.

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SAFETY-CATCH FOR PINS.

1,054,701. Specification of Letters Patent. Patented Mar. 4, 1913.

Application filed May 10, 1912. Serial No. 696,418.

To all whom it may concern:

Be it known that I, RALPH K. MAKER, a citizen of the United States, and resident of the city 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 safety catch comprising a keeper having two hook shaped side ears integral with and bent up from a common base, the inner surface of said ears having duplicate registering annular grooves in which a slotted substantially ring-shaped guard member is movably mounted, said member being provided with an operating handle projecting outward therefrom beyond the periphery of the keeper whereby said member may be moved to bring its opening into and out of register with that of said keeper.

A further object of said invention is to form one end of said member out of line with said slot whereby it is sprung back into line therewith upon entering said groove to retain said member in position in the groove by friction.

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 claims.

Of the accompanying drawings: Figure 1— is a side elevation of my improved safety catch retaining the point of an ordinary pin-stem, the opposite end of the stem being secured to the pin body by a joint in the usual way. Fig. 2— is a view of the inner face of the keeper as blanked from the stock showing the hook shaped opening in the ears and the annular registering grooves in which the guard member is movably mounted. Fig. 3— is a section on line 3—3 of Fig. 4 showing the side ears as being partly bent up into shape. Fig. 4— is an inner face view of one of the side ears. Fig. 5— is an inner view of one of the side ears with the guard member mounted therein. Fig. 6— is a detail side elevation of the guard member. Fig. 7— is a rear view of the keeper. Fig. 8— illustrates the ring-shaped guard member 13 with its end offset slightly out of line with the groove into which it is to enter, whereby it is sprung inward in entering the groove to retain said member in position therein by friction.

Referring to the drawing 1 designates the usual pin stem mounted at one end in the joint member 2 attached to the body portion 3. My improved safety catch member 4 may be formed integral with or made separate and attached to the opposite end of the pin body to receive the pointed end of the pin stem, said catch member being constructed of two members, one the keeper 5 and the other the guard 13. In forming the keeper it is preferably blanked out of sheet stock into the shape illustrated in Fig. 2 having a pair of enlarged ears or members 6—6 joined together by the connector or base portion 7 from which the ears are bent up into operative position, which base provides the necessary portion by which the keeper may be attached to the pin body. Each of these ears is provided with an opening 8 formed inward to the center 9 from the margin thereof near the base whereby each ear is made in substantially a hook form, the inner surface of each ear being provided with an annular groove 10 around the center opening, being adapted to register when the ears are brought together. A portion of the stock at 11 at the back of the hook is removed forming a slot 12, see Fig. 7, communicating with the groove 10.

The guard member 13 is made in substantially a ring shape having a marginal opening 14 and an operating handle 15 nearly opposite said opening. The end 16 of this guard member is thrown outward slightly out of line with the rest of the ring and with the groove 10 so that when this guard member is placed in the annular groove and the joint ears pressed together thereover the ring may be moved back and forth so as to cause its opening 14 to be moved into and out of line with that of the opening 8 in said ears, the offset portion 16 of said member being for the purpose of creating a sufficient amount of friction of the ring in its groove to hold the guard member in its closed or locked position.

In assembling the parts the keeper is blanked out into the form illustrated in Fig. 2, then bent up into that illustrated in Fig. 3 when the guard member is placed into position within the grooves and the ears finally closed tightly together in which position

they are retained by the stock at the base portion 7.

In operating, to open the catch it is only necessary to move the handle up against the stop or end wall 17 and to lock the same to move the handle down against the end wall 18 of the groove 12. By this arrangement the operating handle is out of the way and practically out of sight when the catch is in locked or operating position.

I claim—

1. In a safety catch, a keeper having a pair of side ears integral with and bent up from a common base, each of said ears being provided with a hook-shaped pin-tongue receiving opening formed inward to its center from the margin thereof, the inner face of each ear being provided with an annular groove about said center opening each registering with the other, a portion of the stock at the back of the hook adjacent said groove being removed forming a slot communicating with said groove, a ring-shaped guard member having a marginal opening and slidably mounted in said groove, and a handle on said guard extending through said slot whereby said ring may be moved to bring its opening into and out of line with that of said keeper.

2. In a safety catch, a keeper having a pair of side ears integral with and bent up from a common base, each of said ears being provided with a hook-shaped pin-tongue receiving opening formed inward to its center from the margin thereof, the inner face of each ear being provided with an annular groove about said center opening each registering with the other, a portion of the stock at the back of the hook being removed forming a slot communicating with said groove, a ring-shaped guard member having a marginal opening and slidably mounted in said groove, and a handle on said ring extending through said slot whereby said ring may be moved to bring its opening into and out of line with that of said keeper, one end of said guard member being offset slightly out of line with said groove whereby it is sprung inward upon entering the groove to retain said member in position therein by friction.

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

RALPH K. MAKER.

Witnesses:

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