

A. BODOR.
 POINT PROTECTOR FOR HAT PINS.
 APPLICATION FILED JAN. 30, 1911.

1,002,632.

Patented Sept. 5, 1911.

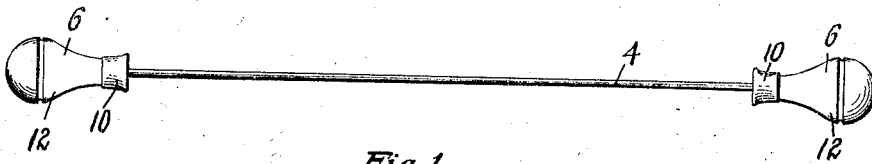


Fig. 1.

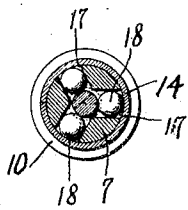


Fig. 3.

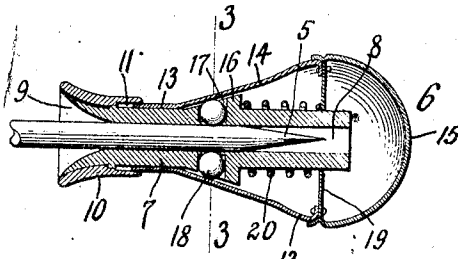


Fig. 2.

WITNESSES

S. Birnbaum
Edmond J. King

INVENTOR

Audor Bodor

BY

Sigmund Herzog
 his ATTORNEY

UNITED STATES PATENT OFFICE.

ANDOR BODOR, OF ELIZABETH, NEW JERSEY.

POINT-PROTECTOR FOR HAT-PINS.

1,002,632.

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To all whom it may concern:

Be it known that I, ANDOR BODOR, a subject of the King of Hungary, and resident of Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Point-Protectors for Hat-Pins, of which the following is a specification.

The present invention relates to hat pins, and more particularly to hat pins which are provided with means preventing injury to persons from the points thereof.

One of the objects of the invention is to provide a simple and efficient protecting device for hat pins, which is capable of manufacture on a commercial scale, or in other words which is not so difficult to produce as to be beyond the reasonable cost of such an article.

Another object of the invention is to provide a safety hat pin of symmetrical appearance, which is obtained by making both ends of the pin appear alike.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in the combination, arrangement and construction of parts hereinafter fully described, pointed out in the appended claim and illustrated in the accompanying drawings, it being understood that many changes may be made in the size and proportion of the several parts and minor details of construction without departing from the spirit and sacrificing any of the advantages of the invention.

One of the many possible embodiments of the invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of a safety hat pin constructed in accordance with the present invention; Fig. 2 is an enlarged section of one end of the hat pin with the protecting device in position thereon; and Fig. 3 is a section taken on line 3—3 of Fig. 2.

In the drawings, the numeral 4 indicates a hat pin which is provided upon both of its ends with points 5, 5. The point protectors are denoted by the numeral 6, and, since their construction is alike, it will be sufficient to describe only one of the same.

The point protector comprises a substantially tubular member 7, the bore 8 of which fits the pin 4. The mouth 9 of the tubular

member 7 is enlarged so that the pin will easily find its way into this tubular member. A sleeve 10 is fixedly attached around the mouth of the tubular member 7; the inner diameter of the inner end of the sleeve being somewhat larger than the outer diameter of the tubular member 7, whereby an annular space 11 is formed between the said tubular member and the sleeve 10, for a purpose to be described. A cap 12 incloses substantially the tubular member 7 and is shiftably arranged thereon. This cap comprises a cylindrical portion 13, which fits into the annular space 11, a conical portion 14, and a preferably semi-globular portion 15. The semi-globular portion 15 is, in the device illustrated in the drawings, attached to the conical portion 14 by crimping, although it will be easily seen that it could be fastened thereto in any other suitable manner. The tubular member 7 is provided at its middle portion with a substantially conical extension 16, in which are formed recesses 17, 17, adapted to receive a plurality of balls 18, 18 in such a manner that these balls are adapted to project into the bore 8 and thus contact with the pin 4, when the device is assembled. A partition 19 is arranged in the cap 12, and against this partition and the conical extension 16 bears a helical spring 20, tending to force the tubular member 7 and the cap 12 in opposite directions, whereby the balls 18 are caused by the inner surface of the conical portion 14 of the cap to project into the bore 8.

The operation of this device is as follows: In order to arrange the point protector upon the pin, the cap 14 is shifted toward the mouth of the tubular member 7 as far as the annular space 11 will allow this to be done. It will be observed that the pressure upon the balls 18 will thus be released, as the inner surface of the conical portion of the cap will not contact with the said balls. The point of the pin can thus be easily inserted into the bore 8 of the tubular member 7, and when then the spring 20 is allowed free to act, the inner surface of the conical portion of the cap will force said balls into close frictional contact with the pin 4, whereby the protector will be safely held in position upon the pin.

It will be noticed that the device is in fact a clutch, the connecting member of

which consists of a plurality of balls held in frictional contact by means of the spring with the parts to be connected.

5 The cap 12 can be ornamented according to the requirements, and made of any suitable material.

What I claim is:—

10 In a point protector for hat pins, the combination with a tubular member adapted to receive the point of a pin, and provided at its middle portion with a shoulder having radially arranged recesses, of a sleeve fixedly attached around the mouth of said tubular member, the inner diameter of the 15 inner end of said sleeve being somewhat larger than the outer diameter of said tubular member, whereby an annular space is formed between said tubular member and said sleeve, a longitudinally slidable cap 20 mounted upon said tubular member having a conical surface, the outer end of said cap

projecting into the space between said tubular member and said sleeve, a plurality of balls arranged in said recesses and adapted to be engaged by said conical surface, a partition wall in said cap having an opening 25 which is engaged by said tubular member, and a helical spring bearing against said shoulder and said partition for forcing said tubular member and cap in opposite directions so as to cause said conical surface to bear against said balls and to force the latter radially toward the axis of said tubular member, substantially as specified. 30

Signed at Elizabeth, in the county of 35 Union and State of New Jersey, this 25th day of January, A. D. 1911.

ANDOR BODOR.

Witnesses:

ALBERT GALLÉ,
HANS SCHÜLLER.