

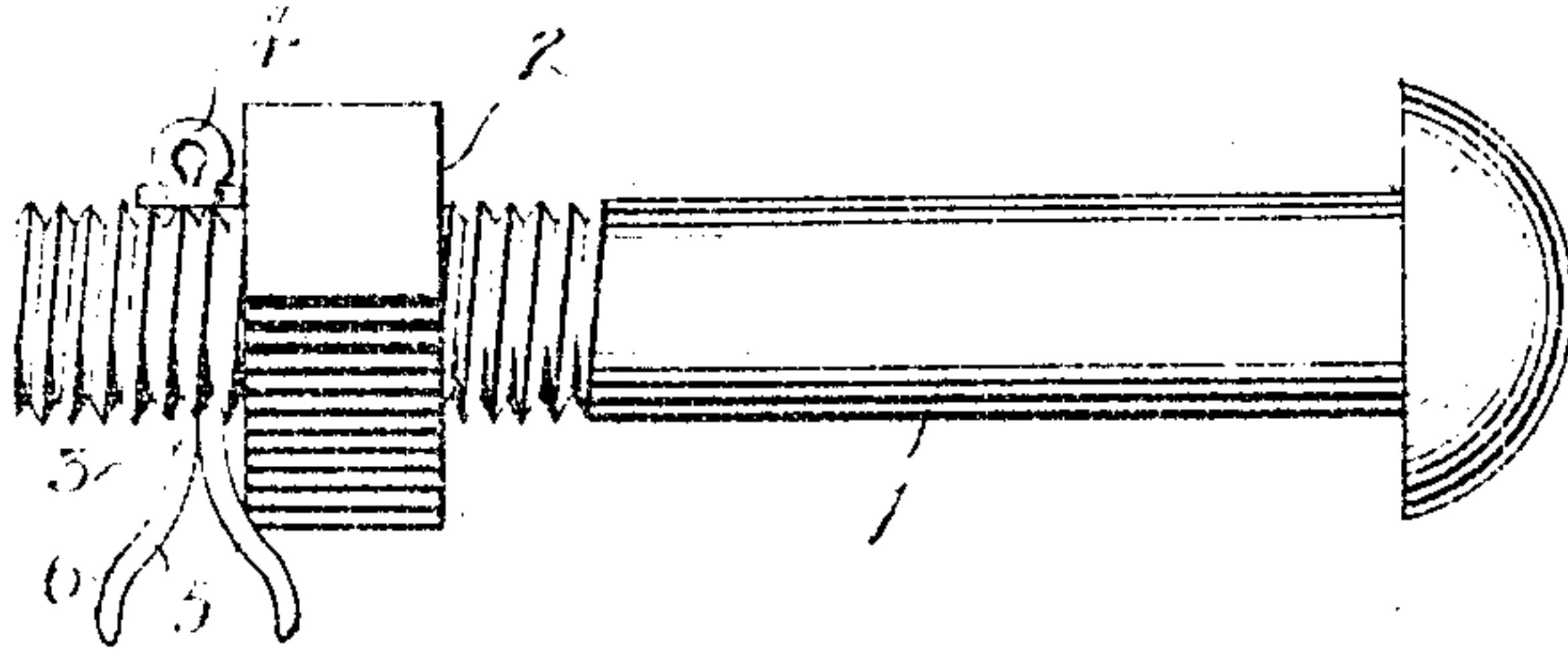
No. 872,180.

PATENTED NOV. 26, 1907.

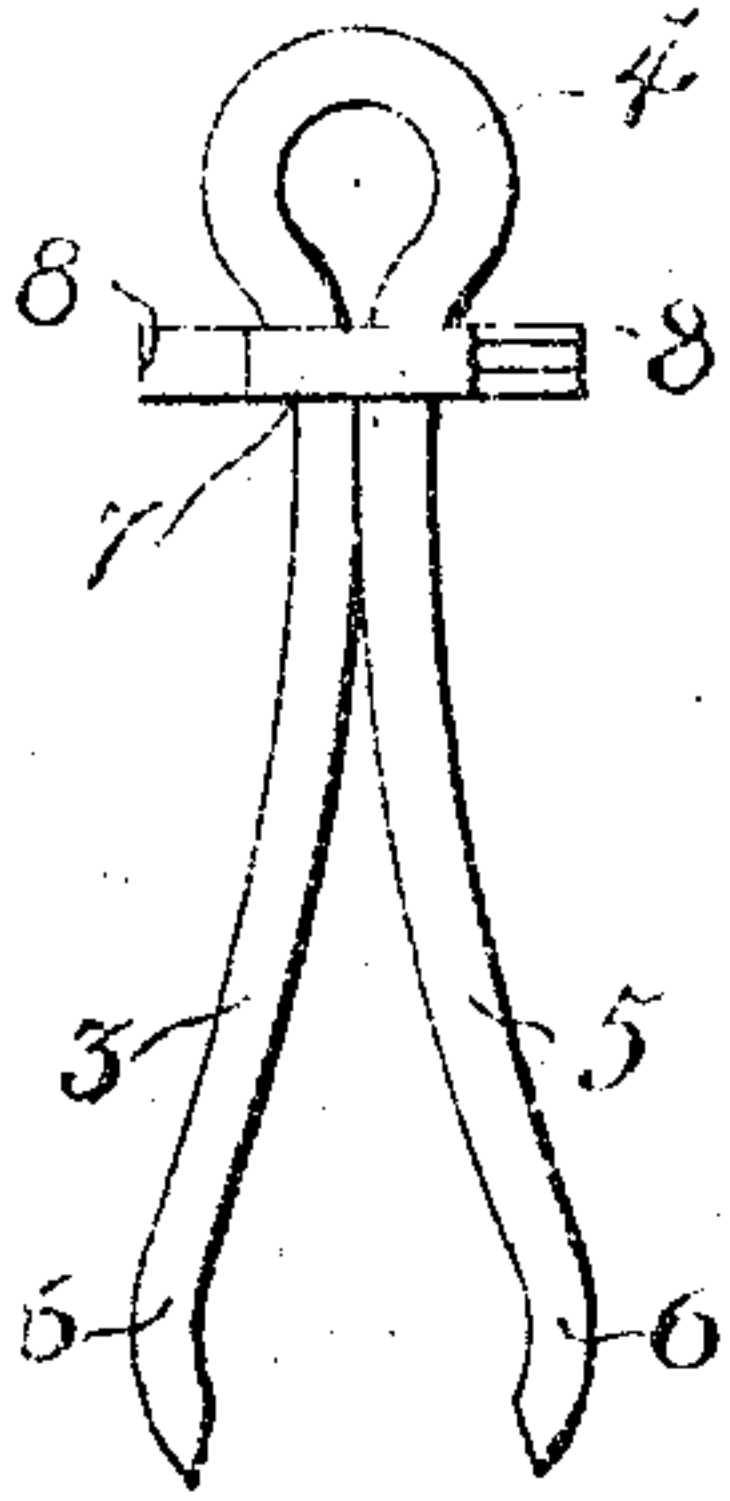
F. E. HITE.  
COTTER PIN.

APPLICATION FILED MAY 8, 1907.

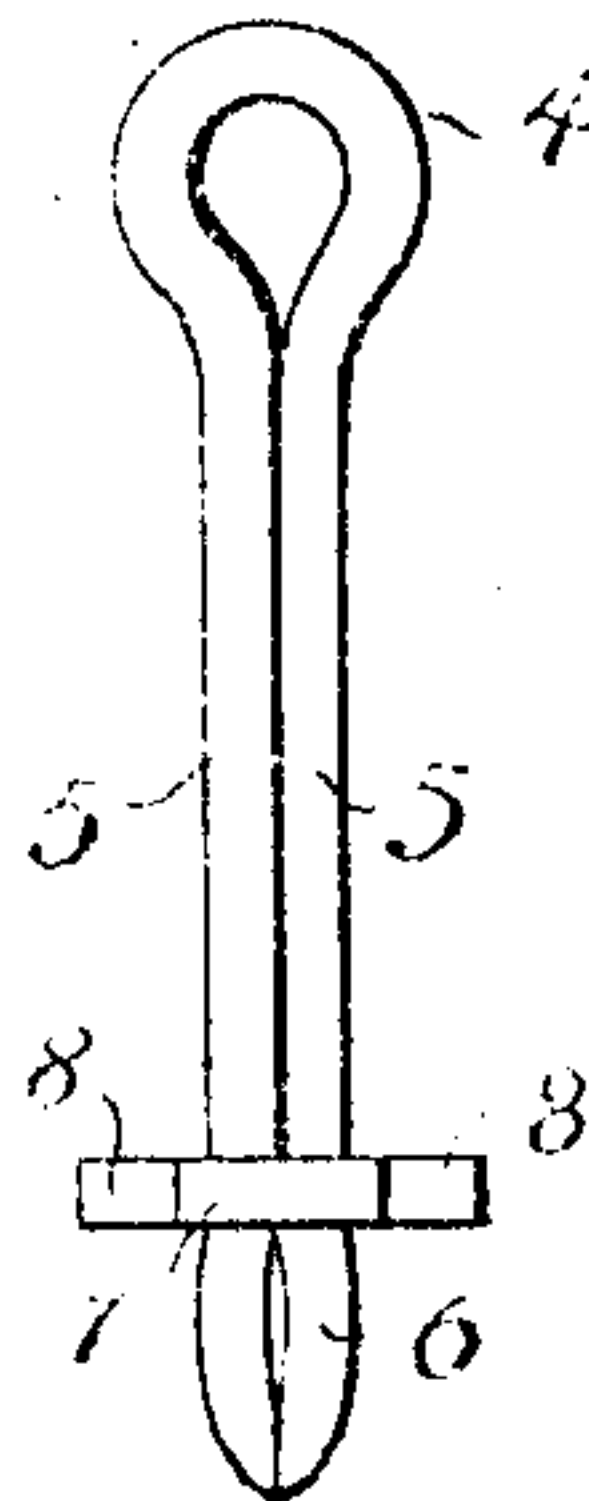
*Fig. 1*



*Fig. 2*



*Fig. 3*



*Fig. 4*



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# UNITED STATES PATENT OFFICE.

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## COTTER-PIN.

No. 872,180.

Specification of Letters Patent.

Patented Nov. 28, 1907.

Application filed May 9, 1907. Serial No. 373,681.

*To all whom it may concern:*

Be it known that I, FRANK EDWARD HITE, a citizen of the United States, residing at Owensboro, in the county of Daviess and State of Kentucky, have invented new and useful Improvements in Split or Cotter Pins, of which the following is a specification.

This invention relates to a cotter pin of the split type, and relates more particularly to a means whereby the spring members or arms of the pin can be held in compressed position so as to facilitate the insertion of the pin in the part intended to receive the same.

The invention has for one of its objects to provide a comparatively simple, inexpensive and durable form of cotter pin having spring arms normally sprung outwardly, in connection with a collar or equivalent means slidably arranged on the pin whereby the arms can be held compressed to render the insertion of the pin a comparatively simple matter, and also possessing the advantage of dispensing with the bending of the arms of the pin and the subsequent straightening thereof, should it be desired to use the pin again after removal.

A further object of the invention is the provision of a cotter pin having the extremities of its spring arms bulged oppositely so that the compressing collar can be retained between the eye of the pin and the bulged extremities.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention, Figure 1 is a side elevation of a bolt or nut, showing the cotter pin in position to retain the nut. Fig. 2 is a front elevation of the cotter pin, showing the compressing collar in normal position. Fig. 3 is a similar view, showing the arms of the pin compressed by the collar. Fig. 4 is a plan view of the collar.

Similar reference characters are employed to designate corresponding parts throughout the several views.

Referring to the drawing, 1 designates a

bolt, and 2, a nut, the bolt being provided with an opening for the reception of the cotter pin designated by 3. The cotter pin is constructed of spring wire and bent to form an eye 4 and spring arms 5 that normally spread apart, the extremities of the arms being bulged oppositely, as at 6. Disposed on the arms 5 and retained thereon between the eye 4 and bulged extremities 6 is a compressing means 7 in the form of a collar having oppositely disposed lugs 8 for permitting the collar to be conveniently gripped between the fingers. By means of this collar, the spring arms 5 can be compressed inwardly toward each other to the position shown in Fig. 3, whereby the bulged extremities of the pin can be readily entered in the hole of the bolt 1. After the pin is entered, the longitudinal pressure applied to the eye or head 4 causes the pin to pass into the opening to its full extent, the collar 7 sliding along the arms as the pin is inserted. Since the arms 5 have a normal outward tension, their extremities will spring apart as shown in Fig. 1, when the pin is fully inserted. It will thus be seen that the extremities of the arms do not have to be sprung apart as is ordinarily required, and that when the pin is removed, the arms will compress together, as will be readily understood so that repeated use of the pin is possible.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the apparatus which I now consider to be the best embodiment thereof, I desire to have it understood that the apparatus shown is merely illustrative and that such changes may be made when desired; as are within the scope of the claims.

Having thus described the invention, what I claim is:—

1. A cotter pin having arms tending to spring outwardly, and a collar slidable on the arms for compressing them together, said collar being provided with outwardly extending lugs forming gripping means.

2. A cotter pin comprising an eye and



spring arms tending to separate and having  
their extremities bent oppositely, and a  
member slidable on the arms to compress the  
same and permanently retained between the  
5 eye and bent portions of the arms.

3. A cotter pin comprising an eye and  
spring arms normally spread apart, a collar  
slidably mounted on the pin for compressing  
the arms, and means coöperating with the

eye for holding the collar permanently on the 10  
pin.

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

FRANK EDWARD HITE.

Witnesses:

E. B. ANDERSON,  
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