

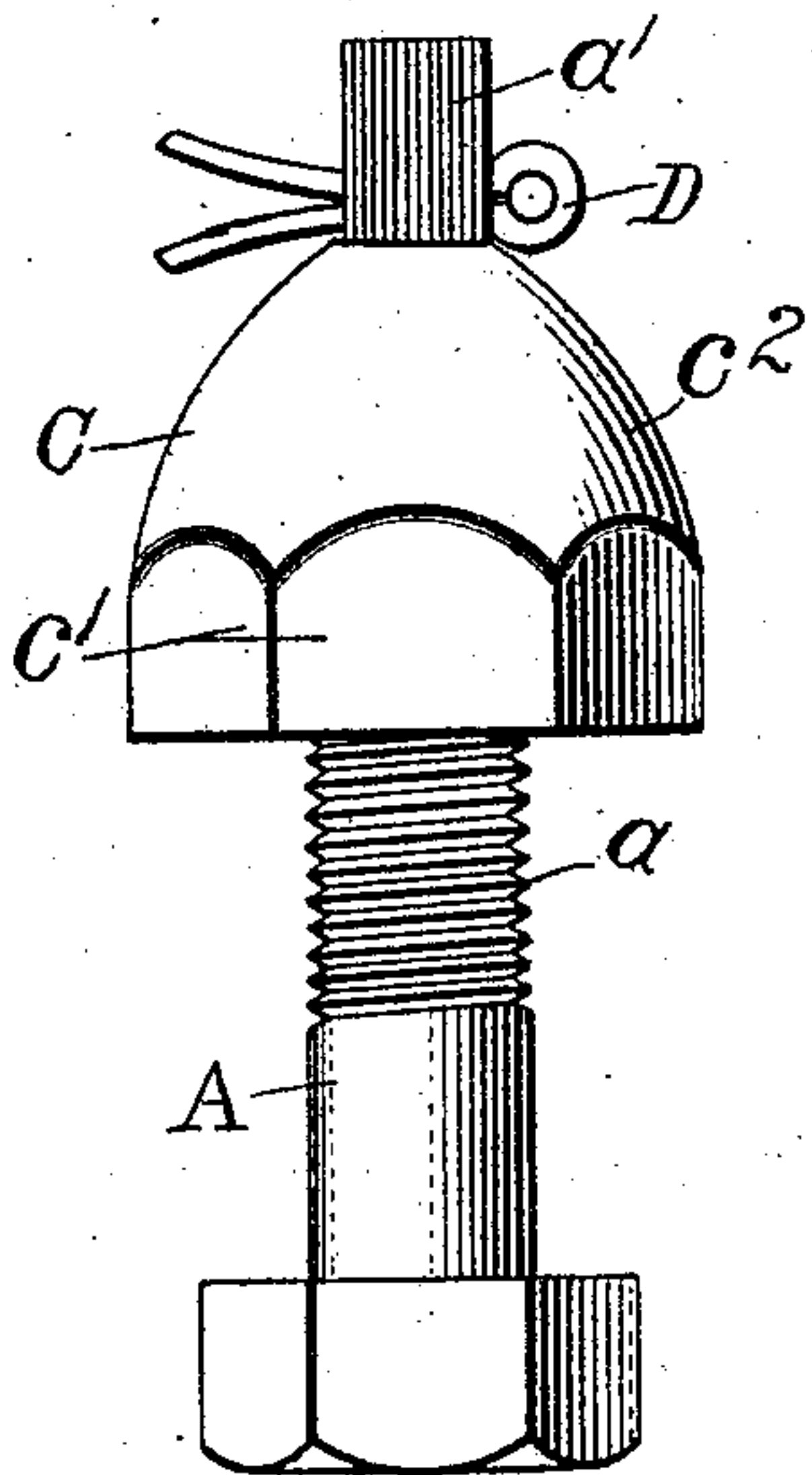
No. 847,322.

PATENTED MAR. 19, 1907.

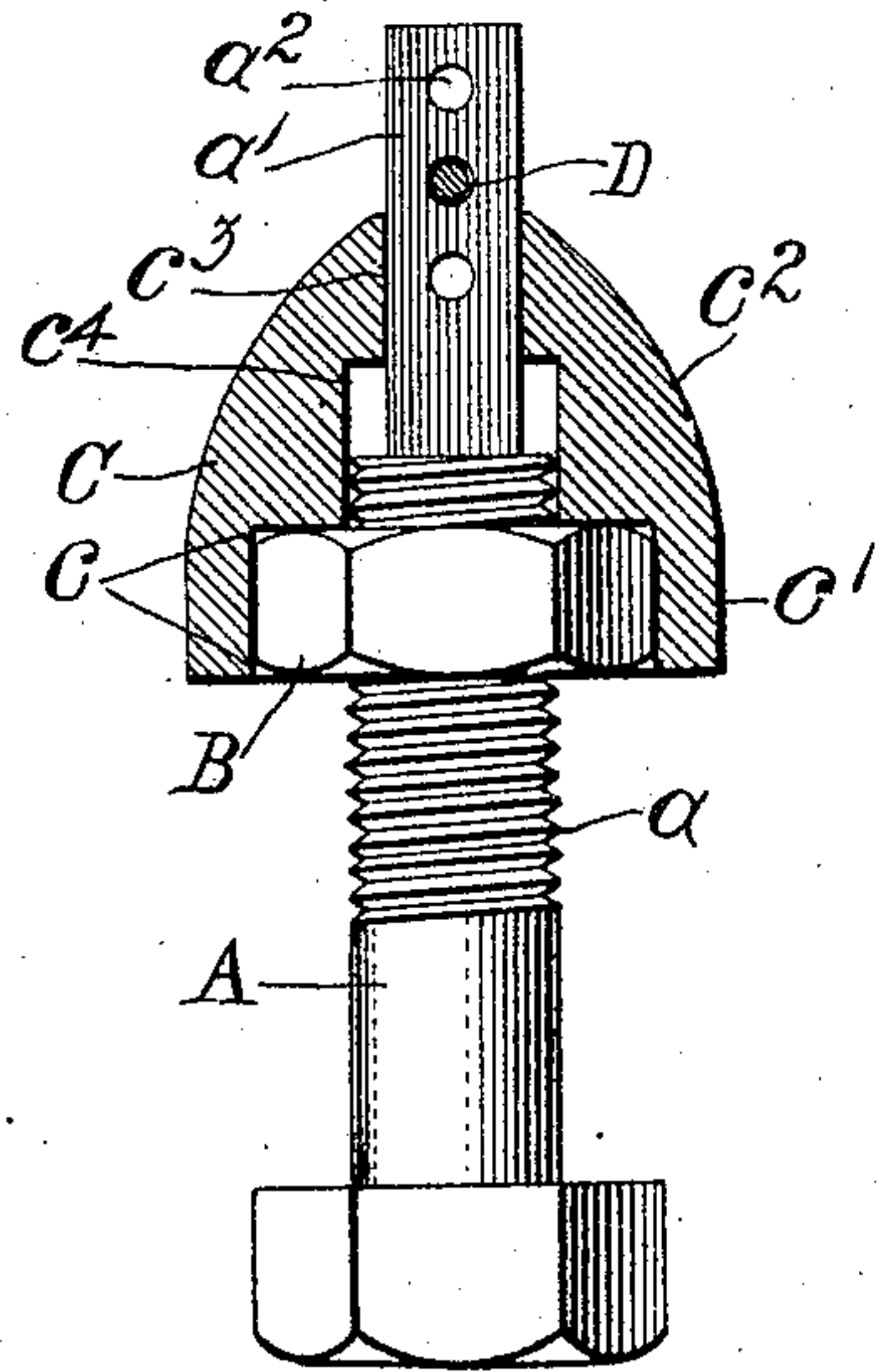
H. DAY.  
NUT LOCK.

APPLICATION FILED MAY 28, 1906.

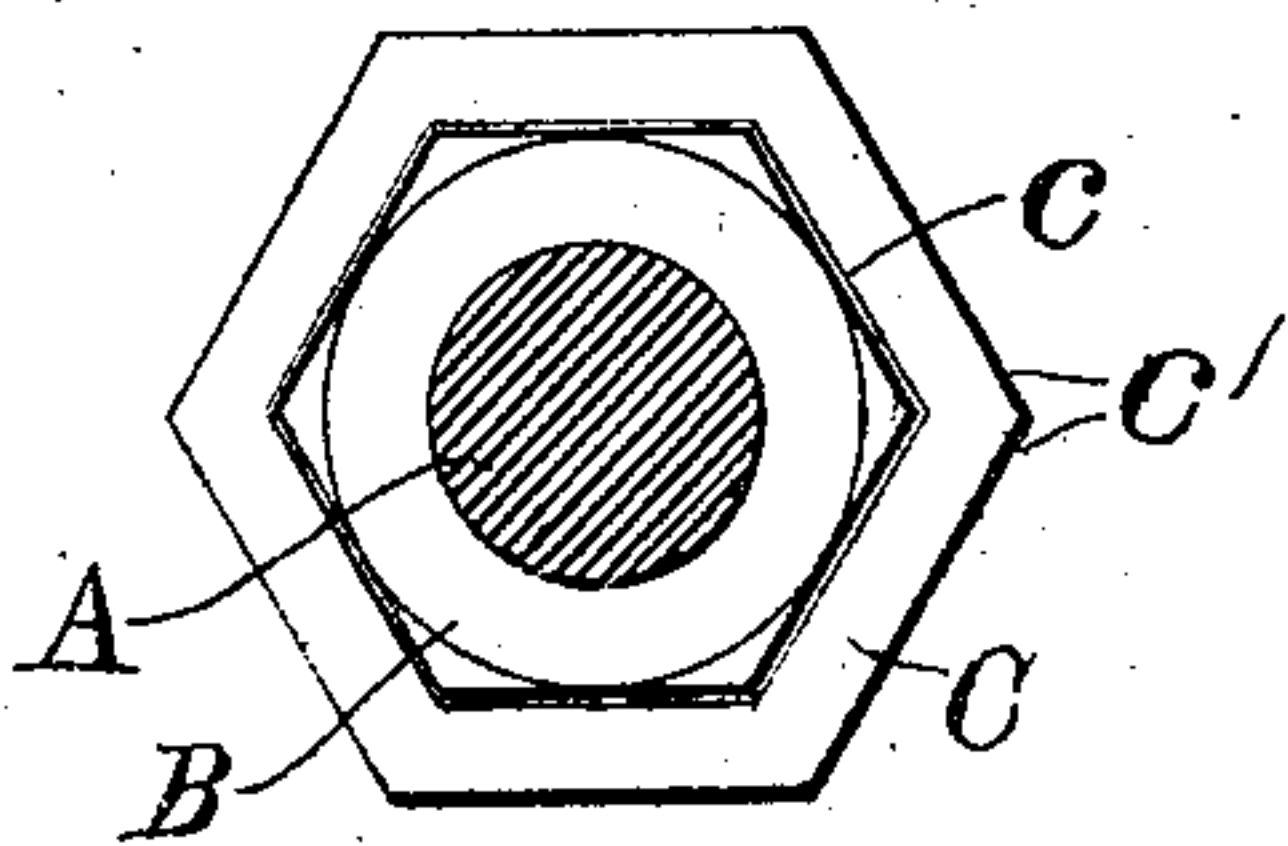
*Fig. 1.*



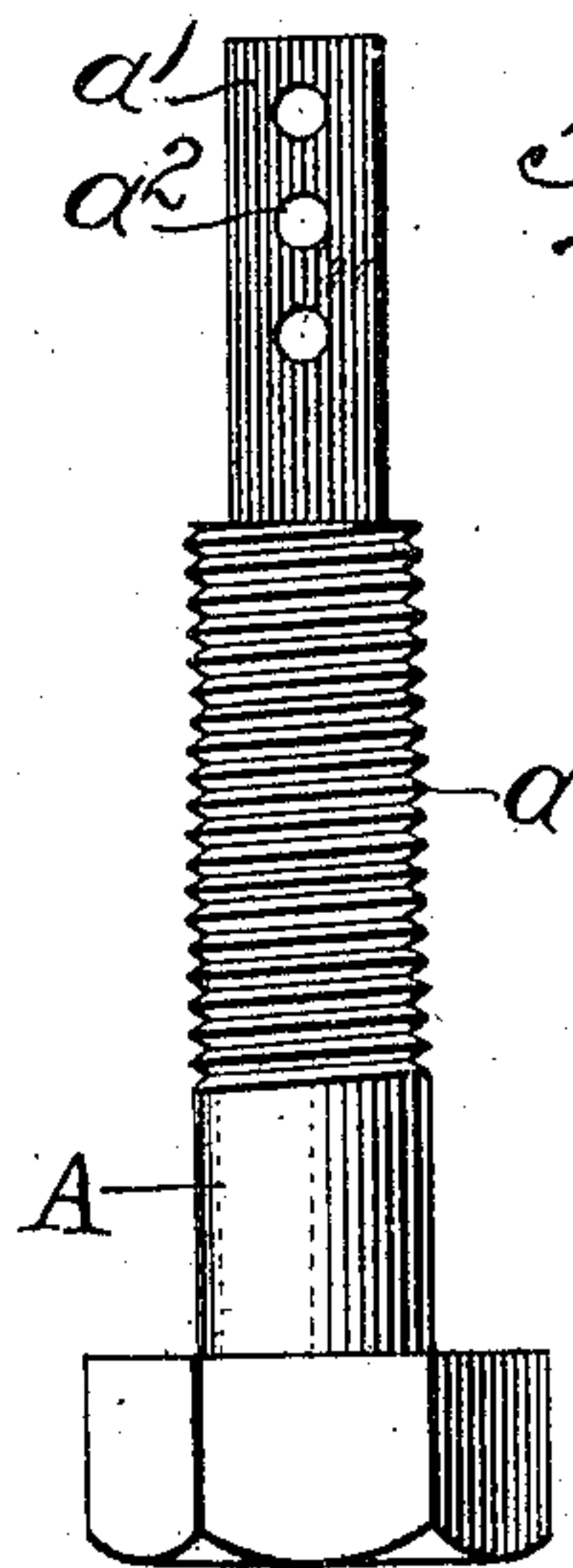
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses  
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# UNITED STATES PATENT OFFICE.

HARRY DAY, OF UPPER SANDUSKY, OHIO.

## NUT-LOCK.

No. 847,322.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed May 28, 1906. Serial No. 319,067.

*To all whom it may concern:*

Be it known that I, HARRY DAY, a citizen of the United States, residing at Upper Sandusky, in the county of Wyandot and State of Ohio, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification.

My invention relates to nut-locks, and belongs to that particular type of devices designed for securing the nut upon a bolt or screw against accidental displacement, while permitting the ready removal of the nut by hand, if desired.

It is the object of my invention to produce a nut-lock having special formation and arrangement whereby it is believed great strength and security results and which by reason of its special formation and arrangement may be exposed to weather conditions, however inclement and for whatever period of time, without impairing either the strength or security of the fastening. Furthermore, in the majority of nut-locking devices with which I am familiar the constructions are more or less affected by long exposure to wet and dry atmospheric surroundings, and especially in situations open to flying dust are rendered oftentimes difficult of detachment and removal when desired. Frequently in my personal experience it has been practically impossible to remove the nuts from bolts which have long occupied positions in the open air uncovered. By the use of my invention I have found that even after such long-continued subjection to severe weather and to dust and grit, which is always flying about and steadily accumulates upon the fastening, there is comparatively no trouble met with when it is desired for any reason to detach the lock and nut from the end and threads of the bolt.

The particular construction and arrangement constituting my said invention is set out in the accompanying drawings, of which—

Figure 1 represents a side view. Fig. 2 is a side view showing the cap in vertical section. Fig. 3 is a bottom plan view of the cap about the nut, a cross-section of the bolt being also shown. Fig. 4 is a side view of the end of the bolt with the cap omitted.

In these drawings and this description like letters refer to the same parts throughout.

Considering the drawings, the letter A designates the bolt, having the threaded portion  $a$  and a squared end  $a'$ , pierced by one or

more transverse holes  $a^2$ . The nut engaging the threaded portion of the bolt is marked B. The cap which locks the nut is referred to by the letter C, and the cotter, which passes through one or the other of the holes  $a^2$  and prevents the cap from slipping off the bolt in the direction of the length of the bolt, is designated by letter D.

The particular construction of the cap, which constitutes an essential feature of my invention, comprises a mouth  $c$ , corresponding in shape to the nut. For example, in the drawings I have illustrated a hexagonal nut, and the mouth  $c$  of the cap is therefore of that shape. It will be here observed that the outer walls of the cap near the mouth and referred to by the characters  $c'$  correspond to the sides of the mouth of the cap in number and position. The outer walls  $c'$  will be again mentioned.

Cap C has the conoidal upper portion  $c^2$ , which form enables it to be made very strong and heavy, if desired. Passing through the apex is the square throat  $c^3$ , that is of such size as to fit movably the squared end  $a'$  of the bolt.

Necessarily the squared end  $a'$  of bolt A is smaller in cross-section than the threaded portion  $a$  of the bolt, and the throat  $c^3$  of cap C fits and admits only the squared end  $a'$ . It will be understood that in order to permit cap C to move up and down on the bolt the additional cavity or passage  $c^4$  is provided to receive the threaded portion of bolt A, as best shown in Fig. 2. Without the additional cavity the cap could not be adjusted along the bolt following nut B.

To describe the operation of my invention, let it be assumed that the nut has been set up as far as desired and the cap placed over it and the cotter passed through the nearest of the holes  $a^2$  and spread in the ordinary manner. Now it is believed to be shown that the cap cannot be accidentally rotated, and that being the case the nut can neither become displaced in any direction. Supposing that from long occupation of its place without detachment or removal there is any accumulation of rust or dirt upon the fastening, it might become so incrustated as to hide the junctions of the parts entirely. It is found that by placing the wrench upon the exterior walls  $c'$  of the cap and by working it back and forth a few times the whole thing is fully loosened and is thereafter readily detached.

Having now described my invention and explained the mode of its operation, what I claim is—

5 In a nut-lock, the combination with a bolt having a squared end and a threaded portion, the squared end of the bolt having a number of transverse holes, of a nut engaging the threaded portion of the bolt, a cap having formed through the top thereof a  
10 throat movably fitting the squared end of the bolt, the said cap having a mouth formed to movably fit the said nut, the said cap having also an additional cavity opening into the

said throat and mouth and constructed to receive the threaded portion of the bolt, and a pin adapted to be passed through either of the holes in the said squared end of the bolt to retain the cap and lock the nut, substantially as described. 15

In testimony whereof I affix my signature 20 in presence of two witnesses.

HARRY DAY.

Witnesses:

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