

No. 610,838.

Patented Sept. 13, 1898.

W. C. WHITE.  
NUT LOCK.

(Application filed Dec. 21, 1897.)

(No Model.)

Fig. 1.

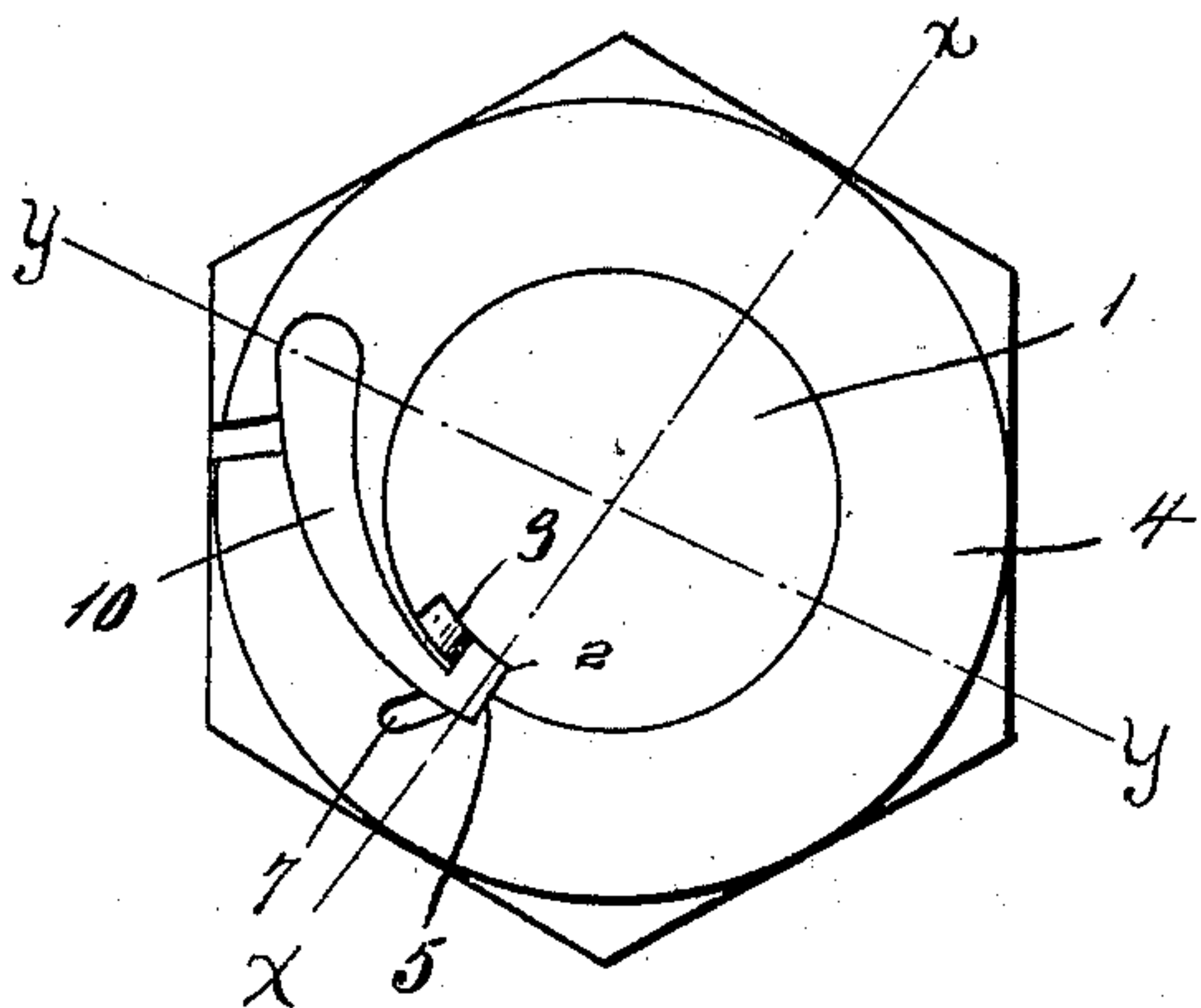


Fig. 2.

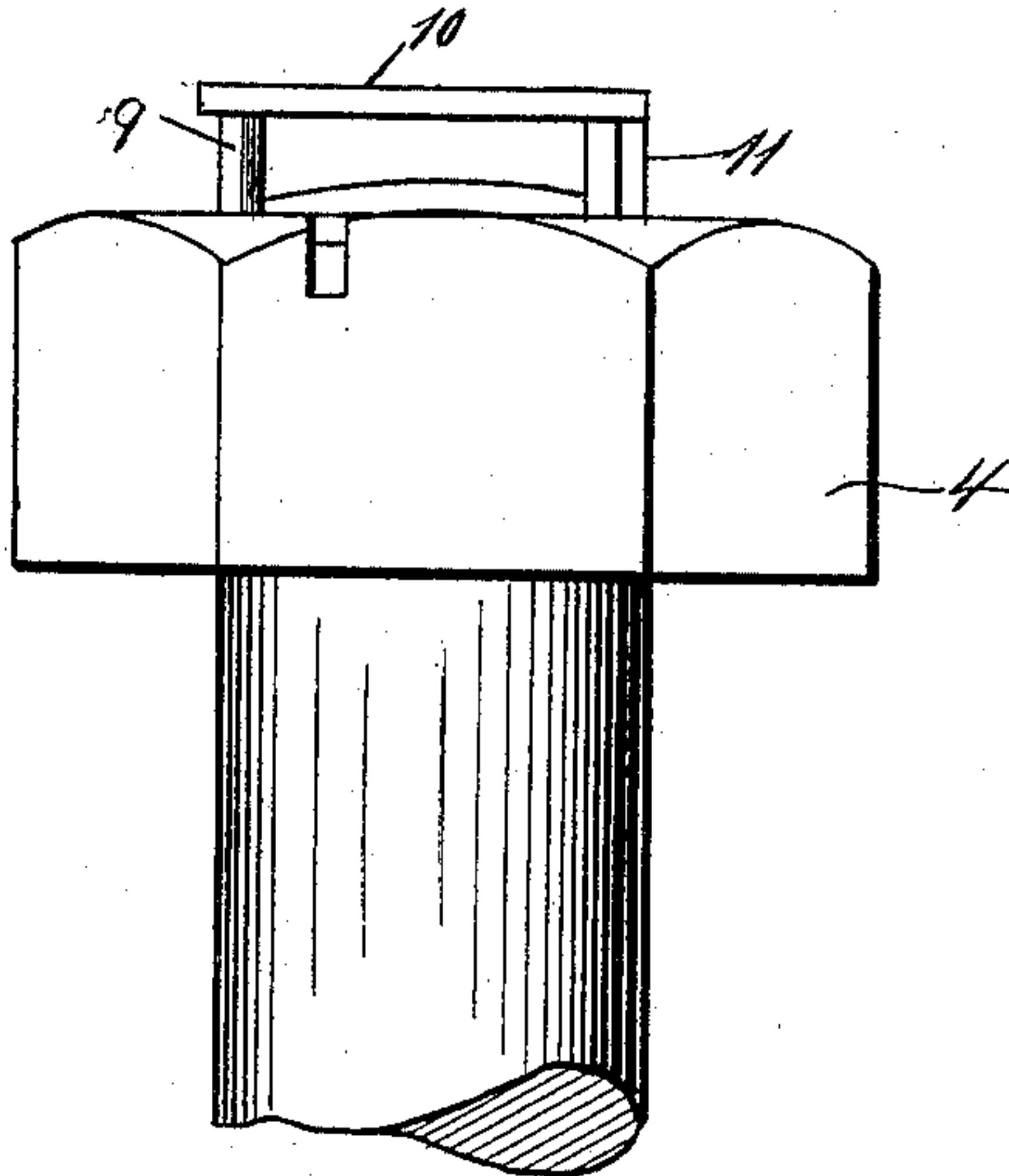


Fig. 3.

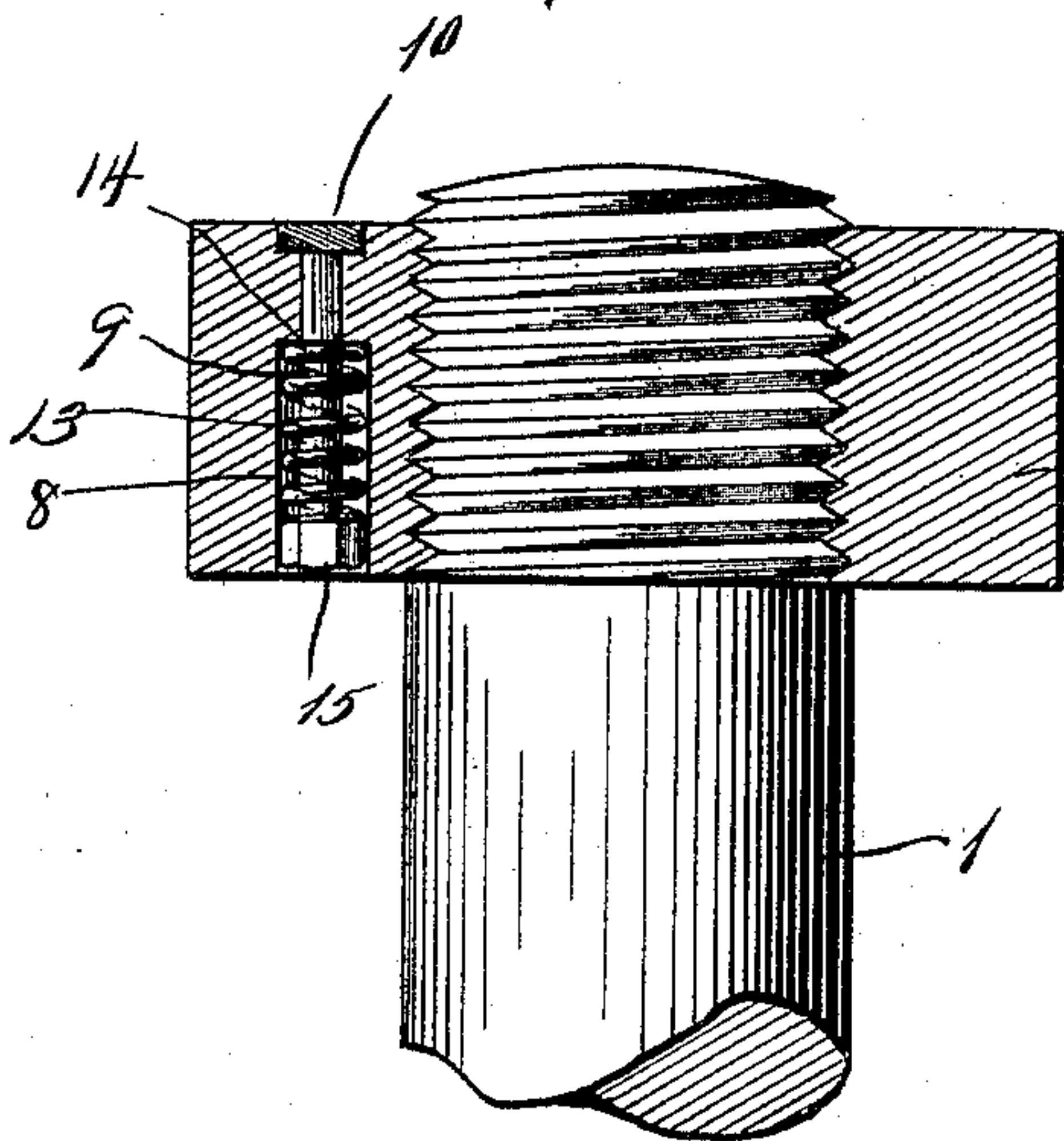
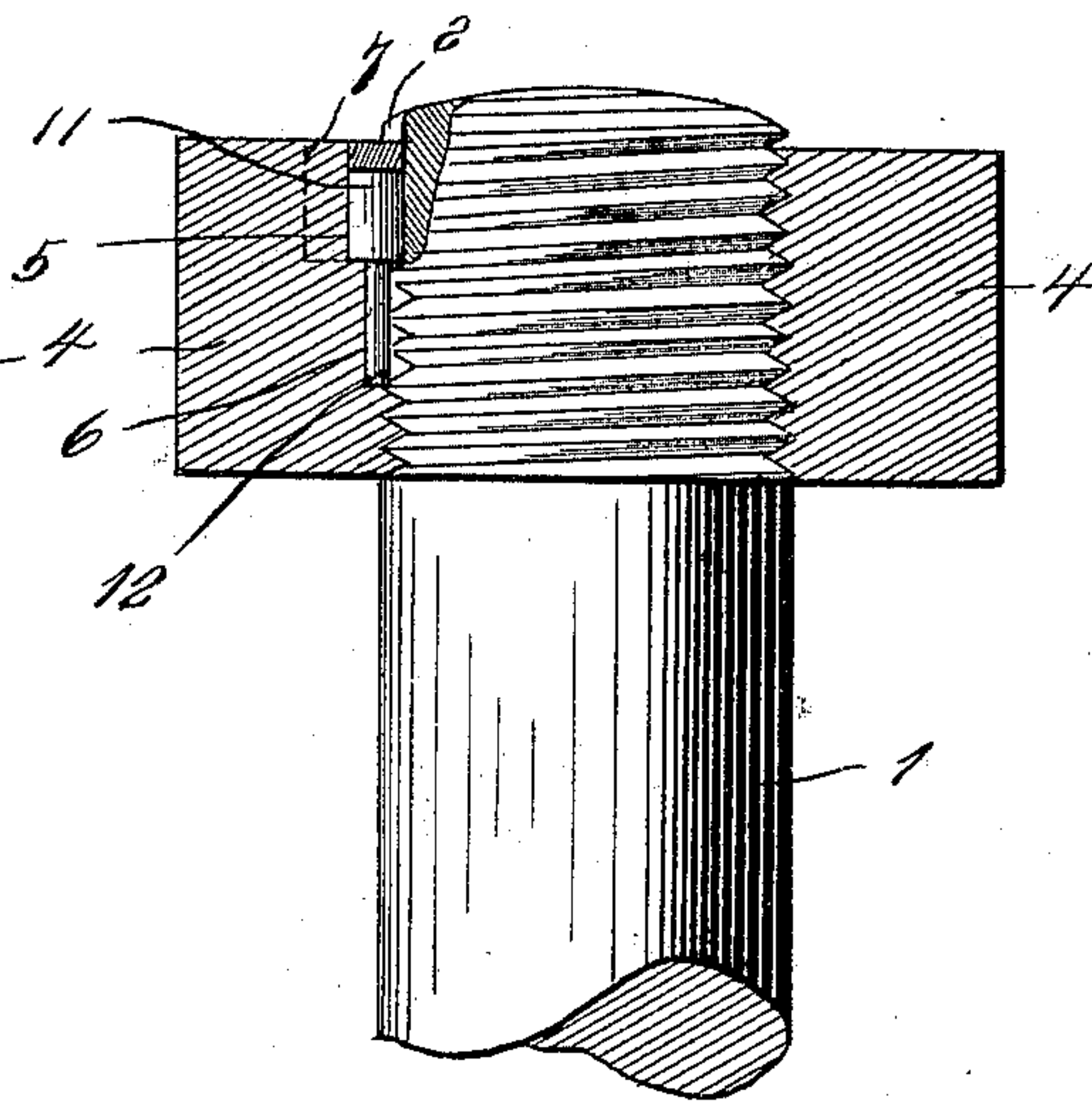


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 610,838, dated September 13, 1898.

Application filed December 21, 1897. Serial No. 662,794. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. WHITE, of Danville, in the county of Pittsylvania and State of Virginia, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 This invention relates to certain new and useful improvements in nut-locks, the object of the same being to provide a simple, cheap, and effective device of this character which is carried by the nut and will automatically  
15 engage the bolt to prevent backward rotation of the nut thereon.

The invention contemplates an arrangement by which the lock can be readily released or elevated out of engagement with the  
20 bolt and supported entirely by the nut, so as not to interfere with the operation of removing the nut.

To the above ends the invention consists in the particular construction and combination  
25 of the parts forming my improved nut-lock, the following specification giving a detail description and the claims setting forth the novel features.

In the drawings forming part of this specification, and wherein like numerals of reference refer to similar parts throughout the several views, Figure 1 is an end view of a nut-lock constructed in accordance with my invention. Fig. 2 is a side elevation with the locking device elevated out of operative position. Fig. 3 is a transverse sectional view on the line *y y* of Fig. 1. Fig. 4 is a similar view on the line *x x* of Fig. 1.

In carrying out my invention I provide the  
40 outer end or threaded portion of the bolt 1 with a recess 2 in one side, the outer end of said recess being extended to form an inclined shoulder 3 leading thereto, this being the only change which is made in the ordinary bolt.

45 4 designates the nut, which is provided in its top with a vertical recess 5 at one side of the threaded opening, a vertical aperture or pin-opening 6 forming a continuation of the  
50 recess at the lower end thereof, while the said recess is extended laterally, as shown at 7. The nut is further provided with a vertical

opening 8 through the same near the aforesaid recess, and through this opening is passed a pin 9, to the outer end of which is connected  
55 a curved arm 10, having a depending lug or head 11 at its free end which is reduced to form a pin 12. The arm practically forms a pawl the length of which corresponds with the distance between the opening and recess  
60 in the nut in order that the head may enter the recess, while the pawl is adapted to be swung to locate the pin within the lateral extension of said recess for the purpose hereinafter specified. The pawl is normally held  
65 against the top of the nut by means of a helical spring 13 encircling the same and bearing at one end against a shoulder 14 within the vertical opening of the nut and at its outer end against a head or collar 15, rigidly  
70 secured to the lower end of the pin. This arrangement allows the pawl a vertical movement with respect to the nut, and the head is beveled at its end to ride upon the upper end  
75 of the bolt when the nut is being screwed thereon in the proper position, the beveled side of the recess in the bolt permitting the pawl to ride out of engagement with said opening, while backward movement is prevented by the head of the pawl engaging the  
80 straight wall of the aforesaid recess. In order to provide for raising the pawl out of engagement, the nut is recessed beneath said pawl, and the latter is provided with a depression to receive the pointed end of a tool  
85 used for the purpose of releasing the pawl.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I provide a nut-lock in which the locking-pawl automatically engages the bolt  
90 to prevent backward rotation, and though I have shown and described the said bolt as having but one recess it is apparent that it may have others, so as not to require a complete rotation of the nut to insure the engagement of the pawl. It will also be observed  
95 that when the pawl is raised and the free end pressed to one side, with the pin resting in the bottom of the lateral extension of the recess in the nut, the said pawl is held released and  
100 will not interfere with the operation of unscrewing the nut. It is also apparent that the top of the nut could be provided with a recess to receive the pawl in order that it may



lie entirely within the nut and said pawl provided with a threaded aperture to require the use of a particular implement in releasing the same. Other modifications or changes could  
5 be made in the arrangement of the pawl without sacrificing any of the advantages which accrue from the particular construction of my improved nut-lock, and I therefore declare that I do not wish to be limited to what  
10 is exactly herein shown and described, but reserve the right to modify or change the construction within the spirit and scope of my claims.

Having thus described my invention, what  
15 I claim as new, and desire to secure by Letters Patent, is—

1. In a nut-lock, the combination with a nut and bolt, the latter having a recess in its outer end and an inclined shoulder adjacent  
20 to said recess constituting a guide or track way, of a vertically-movable pawl carried by the nut, and a spring for holding the pawl normally in engagement with the bolt, as and for the purpose set forth.

25 2. In a nut-lock, the combination with the nut and bolt, the latter having a recess in its outer end adjacent to one of its side edges, one side of said recess being beveled forming a guide or track way, of a vertically-movable  
30 pawl carried by the nut, the head of the pawl being beveled on one side and adapted to bear against said guide, and a spring for holding the pawl normally in engagement with the

end of the bolt, as and for the purpose set forth. 35

3. In a nut-lock, the combination with the nut and bolt, the nut being provided with a recess having a lateral extension, and also a vertical opening adjoining the recess, of a  
40 pawl connected to a pin having a vertical movement in the opening of the nut, a head which engages the recess and is adapted to be moved into the extension thereof, and a spring moving the pawl normally in engagement with the bolt, substantially as shown  
45 and for the purpose set forth.

4. In a nut-lock, the combination with the nut and bolt, the latter having one or more recesses in its outer end, while the nut is provided with an opening and with a recess hav-  
50 ing vertical and lateral extensions, a pawl having a head with an extension fitting the vertical and lateral extensions in the nut, a pin to which the bolt is connected, said pin having a play within the vertical opening in  
55 the nut, and a spring for returning the pawl to a normal position, substantially as shown and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscrib-  
60 ing witnesses.

WILLIAM C. WHITE.

Witnesses:

FRED. S. WYNN,  
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