

(No Model.)

E. ANDREWS.
NUT LOCKING WASHER.

No. 329,615.

Patented Nov. 3, 1885.

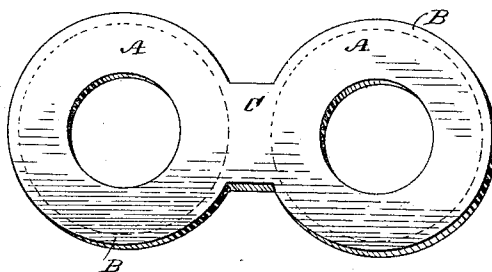


Fig. 1.



Fig. 2.

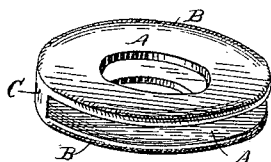


Fig. 3.

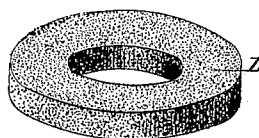


Fig. 4.

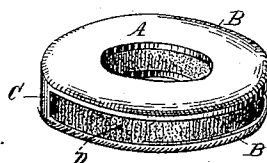


Fig. 5.

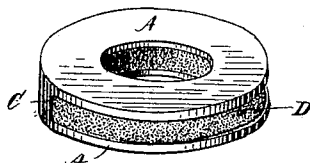


Fig. 6.

Witnesses:
James H. Williams
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Inventor:
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Att.

UNITED STATES PATENT OFFICE.

EMERY ANDREWS, OF KENNEBUNK, MAINE, ASSIGNOR TO THE LEATHEROID MANUFACTURING COMPANY, OF SAME PLACE.

NUT-LOCKING WASHER.

SPECIFICATION forming part of Letters Patent No. 329,615, dated November 3, 1885.

Application filed August 14, 1885. Serial No. 174,383. (No model.)

To all whom it may concern:

Be it known that I, EMERY ANDREWS, of Kennebunk, in the county of York and State of Maine, have invented a new and useful
5 Improvement in Washers for Nuts, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of washers which by their elasticity serve to lock the
10 nuts beneath which they are placed, and is intended to overcome the difficulties found in the practical use of the various iron-clad washers now in use; and it consists of the combination, with an elastic washer, of a double inclosing
15 metal washer, the parts of which are so connected that in the operation of screwing down the nut the elastic washer will be protected from any sliding motion against a metallic
20 surface, which takes places in most forms of washers now in use, and tends to disintegrate the elastic portion of the washer.

In the drawings, Figure 1 represents the metallic double cover as punched out; Fig. 2, a cross-section of the same bent up to inclose
25 the elastic washer; Fig. 3, a perspective of the same; Fig. 4, the elastic washer; Fig. 5, the washer complete; and Fig. 6 a modified form of the same.

In carrying out my invention I punch from
30 sheet iron or steel of suitable thickness (usually about one twenty-fourth of an inch) a blank, as shown in Fig. 1, each of the circular portions thereof being of a diameter equal to or a little larger than that required in the
35 finished washer, the connecting portion C of a length about equal to the thickness of the elastic washer, Fig. 4. This blank may have a slight flange turned up along the edge of the circular parts at the dotted line B B, and it
40 is then bent to the shape shown in Figs. 2 and 3, the ends being preferably slightly nearer together than the thickness of the elastic washer, so that when it is inserted between them the

elasticity of the metal will cause it to hold the elastic washer firmly in place, as shown in
45 Figs. 5 and 6. The flanges B B may be dispensed with and the metal covers left flat, as shown in Fig. 6; but I prefer the form shown in Fig. 5. The elastic washer I prefer to make of paper chemically treated—such as is
50 known to the trade as “leatheroid” or “vulcanized fiber;” but any suitable elastic material may be used. It will be seen that the metallic covers are cheaply made, and so constructed that there can be no sliding action on
55 the surface of the elastic washer D, as if the metal cover next to the nut turns with it the other metal cover turns, and also the inclosed elastic washer, all of necessity moving together, and thus preventing any frictional
60 sliding between the parts of the washer.

I claim—

1. A nut-washer composed of the double metallic cover A A, the two parts thereof being connected by a neck, C, in combination
65 with the elastic washer D, substantially as shown and described.

2. A nut-washer composed of the double concave metallic cover A A, the two parts of which are connected by a neck, C, in combination
70 with an elastic washer, D, substantially as set forth.

3. A nut-washer composed of a double metallic cover, A A, the two parts thereof being connected by an elastic neck, C, so as to hold
75 between them with a yielding pressure the elastic washer D, substantially as specified.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 6th day of
80 August, A. D. 1885.

EMERY ANDREWS.

Witnesses:

S. G. CHASE,
C. LITTLEFIELD.