

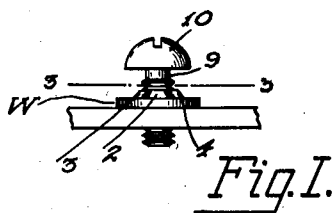
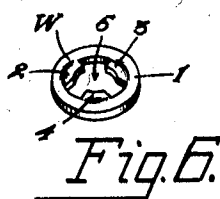
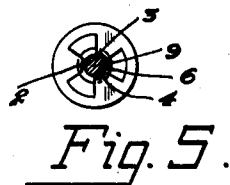
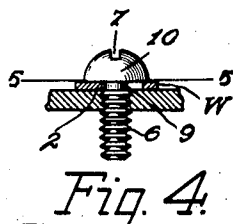
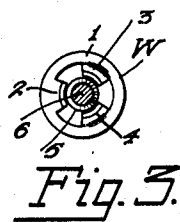
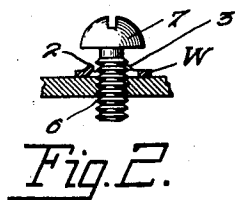
July 28, 1925.

1,547,162

E. A. BOHLMAN

WASHER

Filed Aug. 15, 1919



Inventor:
Ernest A. Bohlman
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1,547,162

UNITED STATES PATENT OFFICE.

ERNEST A. BOHLMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO KELLOGG SWITCHBOARD AND SUPPLY COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

WASHER.

Application filed August 15, 1919. Serial No. 317,637.

To all whom it may concern:

Be it known that I, ERNEST A. BOHLMAN, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Washers, of which the following is a specification.

My invention relates to washers in general and has to do more particularly with washers of the type used for cushioning or packing purposes. The washer of my invention may be used for various purposes, and is particularly adapted to be used in conjunction with terminal screws such as are used on terminal strips, to which terminal clips or conductors are connected.

The present type of washers in use are provided with an orifice slightly larger than the body of the screw so as to permit it to be slipped over the body of the screw. When a terminal or wire is to be removed, the screw is loosened and the connection taken off. Now, when another connection is to be made, the washer must be lifted to allow the conductor or terminal to be inserted between the washer and terminal strip before the screw may again be tightened. A terminal of this construction is open to the objection that it is necessary to hold the washer in a raised position while a conductor is being inserted, and as terminals are often used in places where they are hard to reach, it means added work and a loss of time when making such a connection. The washer of my invention overcomes these objections by being provided with upturned prongs which form an orifice of a size to receive the body portion of a screw, so that when the screw is tightened the prongs are flattened out and assume the plane of the washer proper, and these prongs rest under the head of the screw, so that when the screw is again loosened the washer is carried by the screw. Now, when a connection is to be made all that it is necessary to do is to place the conductor under the washer and tighten the screw.

It is the object of my invention to produce an improved device of the class described which will obviate the above-mentioned objections and embody desirable features and advantages all in a simple, efficient, and economical manner; and to the accomplishment of this object and such others as may hereinafter appear the invention consists in

the novel details of construction, parts, and combination of parts hereinafter described, and particularly pointed out in the appended claims.

For a more complete understanding of my invention, reference may be had to the accompanying drawing in which like reference characters in the several views denote like parts and in which:

Fig. 1 is an elevation of the washer of my invention associated with a terminal screw and plate;

Fig. 2 is a view similar to Fig. 1, but showing the washer in section;

Fig. 3 is a sectional view along the line 3—3 of Fig. 1;

Fig. 4 is a sectional view similar to Fig. 2, but showing the washer secured to the screw;

Fig. 5 is a sectional view along the line 5—5 of Fig. 4;

Fig. 6 is a perspective view of the washer of my invention.

Referring now more in detail to my invention as illustrated, the washer comprises a disk 1 perforated as illustrated in Fig. 6, having three upturned prongs 2, 3 and 4. The opening 5, formed by the prongs 2, 3 and 4, is of a size to allow the washer to be slipped over the body 6 of the screw 7, as illustrated in Figs. 2 and 5.

The screw 7 is provided with a threaded body portion 6 which may be rolled thereon, and a screw when formed in this manner is what is commonly known as a roll threaded screw. A screw when roll threaded has the threaded portion 6 enlarged, and the portion 9 just under the head 10 thereof remains normal in size. Now, when the screw 7 is tightened, in order to clamp a suitable terminal or conductor in position, the prongs 2, 3 and 4 are pressed down into the plane of the rest of the washer W, so that the prongs 2, 3 and 4 rest in the space 9 between the head of the screw and the threaded body portion 6. When the terminal or conductor, which the screw is clamping in position, is to be removed, all that it is necessary to do is to loosen the screw and remove the conductor. Owing to the fact that the prongs 2, 3 and 4 rest in the reduced portion 9 of the screw, the washer is raised with the screw when the screw is turned.

The prongs of the washer are so formed that the orifice 5 in the washer is of a size

to just receive the threaded portion of the screw. Then when the prongs of the washer are straightened out they grip the portion 9 of the screw, thereby securing the washer
5 to the screw.

From the foregoing, many of the advantages of my device will at once be apparent. The washer and the screw are each formed separately so that it is not necessary that
10 they be assembled at the place where they are made. The washers may be used in connection with any type of screw already in use.

The washer may be made of a size so that
15 when once used on a screw the prongs grip the screw so tightly that it can not be rotated on the screw, or they may be made of a size so that they merely prevent the washer from dropping down over the
20 threads of the screw. When made in this latter manner, the washer may be rotated independently of the screw, so that when a conductor is being clamped in place the washer does not rotate when the screw is
25 turned.

While the invention has been described with particular reference to the details of construction, it should be understood that it is not limited thereto as many changes
30 and modifications may be made therein without departing therefrom, and I therefore, wish to cover all such changes and modifications which come within the spirit and scope of the appended claims.

35 Having described my invention, what I claim as new and desire to secure by United States Letters Patent, is:

1. An article of manufacture comprising a plate like member having its central body
40 portion cut away to form a plurality of inwardly projecting members and to provide a central opening through said member, each of said projecting members being separated by openings extending outwardly from said
45 central opening and substantially of the same size and contour of said inwardly

projecting members, said inwardly projecting members being of the same size and bent upwardly relative to the plane of the body portion of said plate like
50 member, a screw-threaded member having an annular groove adapted to receive the ends of said inwardly projecting members while the body portion of said screw threaded
55 member engages said inwardly projecting members, said inwardly projecting members grasping said screw threaded member to prevent rotation of said plate like member relative to said screw threaded
60 member thereby forming a single operating suit.

2. An article of manufacture comprising a washer having its central body portion cut away to form inwardly projecting
65 members, the ends of said inwardly projecting members extending slightly upwardly and forming the periphery of a central opening through said washer, said inwardly
70 projecting members being separated from each other by openings extending outwardly from said central opening toward the periphery of said washer and substantially
75 of the same size and contour as said inwardly projecting members, a cylindrical member provided with a head and having an annular groove immediately below the head
80 of said member, said cylindrical member adapted to extend through the central opening in said washer, and said washer when placed on said cylindrical member and screw
85 drawn into position bearing said upwardly extending ends down into said annular groove whereby said inwardly projecting members assume the plane of the body portion of the washer thereby permanently attaching said washer to said cylindrical member.

Signed by me at Chicago, in the county of Cook and State of Illinois, this 13th day of August, 1919.

ERNEST A. BOHLMAN.