T. Shaw.

Washers.

No. 77326 Patented Apr. 28, 1868.

Fig. 1

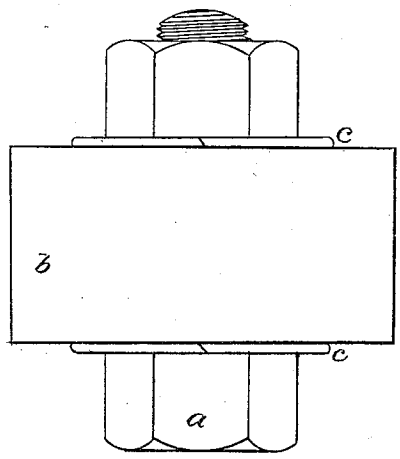


Fig. 2

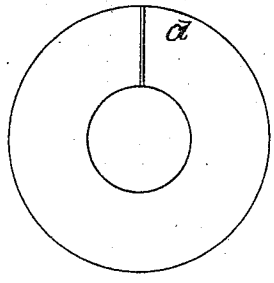
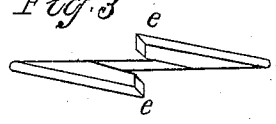


Fig. 3



Witnesses

E. Cobb

Elias J Shaw

Inventor

Thomas Shaw

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

United States Patent Office.

THOMAS SHAW, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 77,326, *dated April* 28, 1868.

IMPROVEMENT IN WASHERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, THOMAS SHAW, of the city and county of Philadelphia, Pennsylvania, have invented a new and improved Spring-Pawl Washer; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists in the shaping of an ordinary washer so as to spring against the head of bolt or nut, and to hold the same in the manner and for the purpose as hereafter described.

In order to enable others to use and practise my invention, I will proceed to describe its construction and operation.

On reference to the accompanying drawing, which forms part of the specification—

Figure 1 represents washers, *e e*, secured by an ordinary bolt, *a*, to piece wood *b*.

Figure 2 represents plain view of washer, and

Figure 3 an edge view of the same.

Fig. 2 represents one side of washer, cut at *d* by a shear, so as to present taper edges when sprung apart, as represented in edge view, fig. 3.

The washer may be made of hard iron or steel, and its operation is to secure the nut from turning when jolted.

On reference to the drawing it will be observed that the taper cut on washer is in the direction to permit the nut to revolve freely over it when the bolt is being made tight; but it will not revolve so freely over it when it is turned back, as the edges, *e e*, of the washer catch upon the surface of the nut and the wood, and oppose its turning unless sufficient power be applied to remove it.

This washer can be used in any place where the ordinary washer is required, and will secure the nut from turning or becoming loose when jarred.

I am aware of the patent of Elliott and Seely, granted February 22, 1868, for "improvement in lock-nut and washer," but do not claim their method of making and using their devices.

What I claim, and desire to secure by Letters Patent, is—

The washer *d*, constructed as described.

THOMAS SHAW. [L. S.]

Witnesses:

E. COBB,

ELIAS J. SHAW.