

I. VAN KURAN.
NUT-LOCK WASHER.

No. 173,569.

Patented Feb. 15, 1876.

Fig. 1.

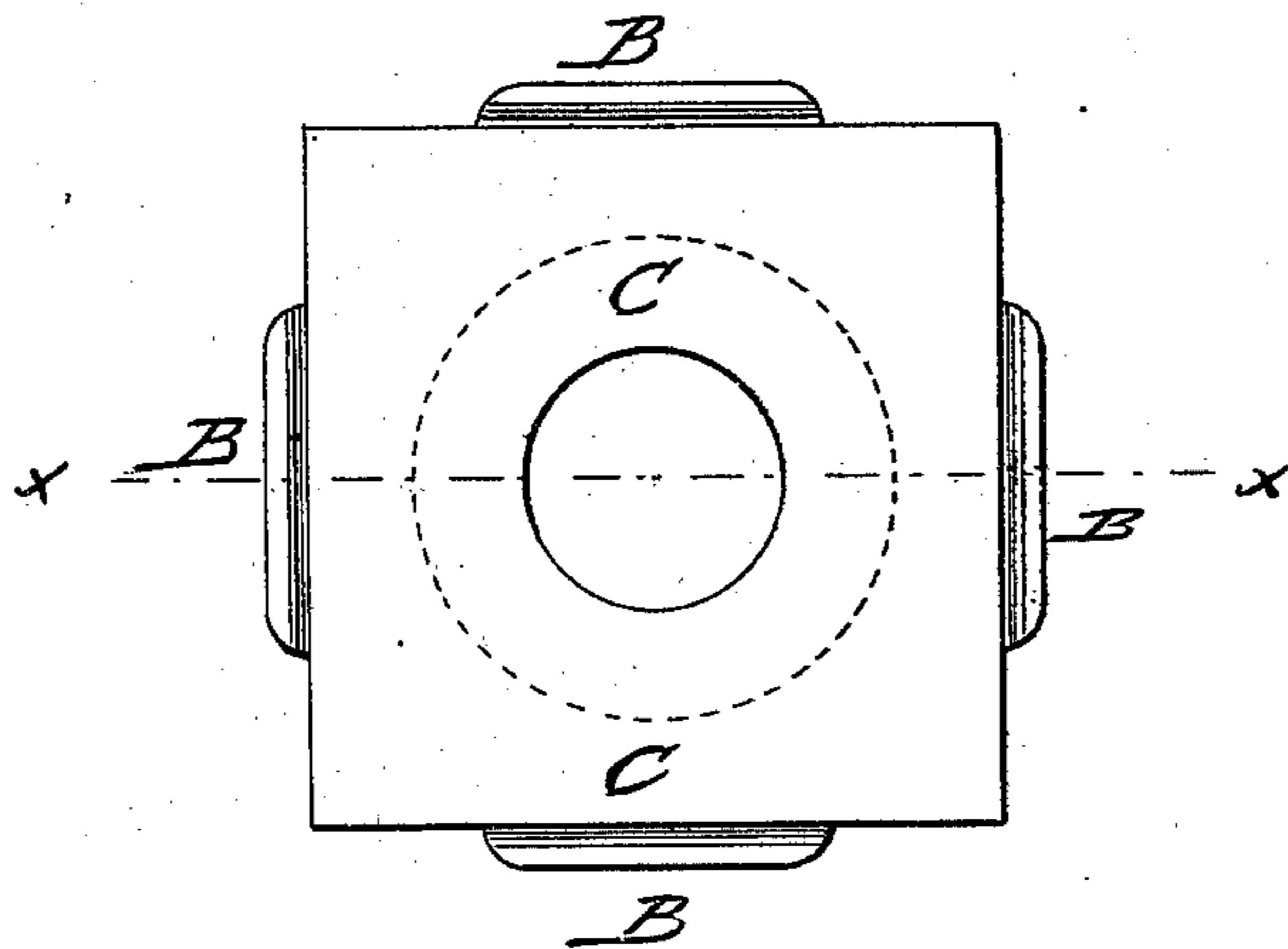
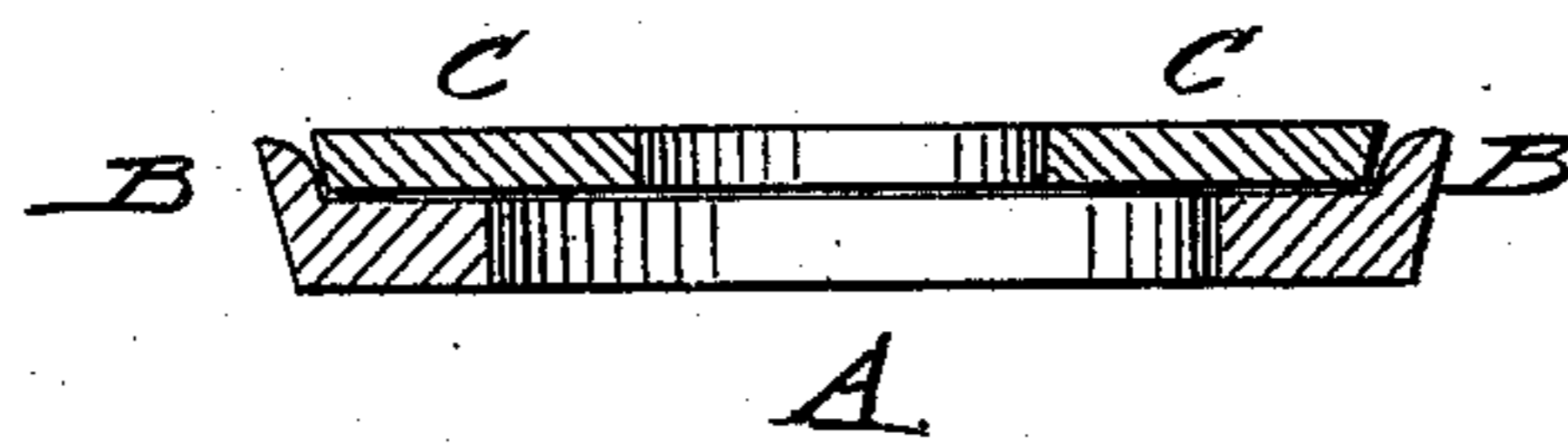


Fig. 2.



WITNESSES:

E. Wolff.
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UNITED STATES PATENT OFFICE.

ISAAC VAN KURAN, OF OMAHA, NEBRASKA.

IMPROVEMENT IN NUT-LOCK WASHERS.

Specification forming part of Letters Patent No. **173,569**, dated February 15, 1876; application filed January 15, 1876.

To all whom it may concern :

Be it known that I, ISAAC VAN KURAN, of Omaha, Douglas County, Nebraska, have invented a new and improved Washer; of which the following is a specification :

Figure 1 represents a top view, and Fig. 2 a vertical central section on the line *x x*, Fig. 1, of my improved washer.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide an improved elastic washer for the nuts of rail-joints and similar purposes, and the invention consists of the base plate of the washer, with a large central opening, holding by side lips or ledges the elastic top plate in central position.

In the drawing, A represents the base-plate of my improved washer, which is made of cast or malleable iron, with lips or ledges, B, at each side, that embrace the top plate C, made of spring-steel, so as to retain the same in central position thereon. The base-plate has a larger aperture than the top plate, which gives a certain elasticity to the top plate, that

binds on the nut and secures the same tightly on the bolt. The loose top plate, retained by the lips, admits of a greater degree of elasticity than washers that are riveted at the corners. The cost of producing the washers is greatly reduced, as the drilling of holes and riveting is avoided.

The cheapness of the washer, together with the greater binding power, as caused by the increased elasticity of the top plate, gives a superior washer for locking nuts exposed to jarring and vibratory strains.

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

An elastic washer for locking nuts, made of a base-plate with projecting side lips or ledges and a large aperture, in connection with a top plate with a smaller aperture retained centrally thereon, substantially as specified.

ISAAC VAN KURAN.

Witnesses :

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