

*B. I. Sanders,*

*Lock Nut.*

*No. 83214.*

*Patented Oct. 20. 1868.*

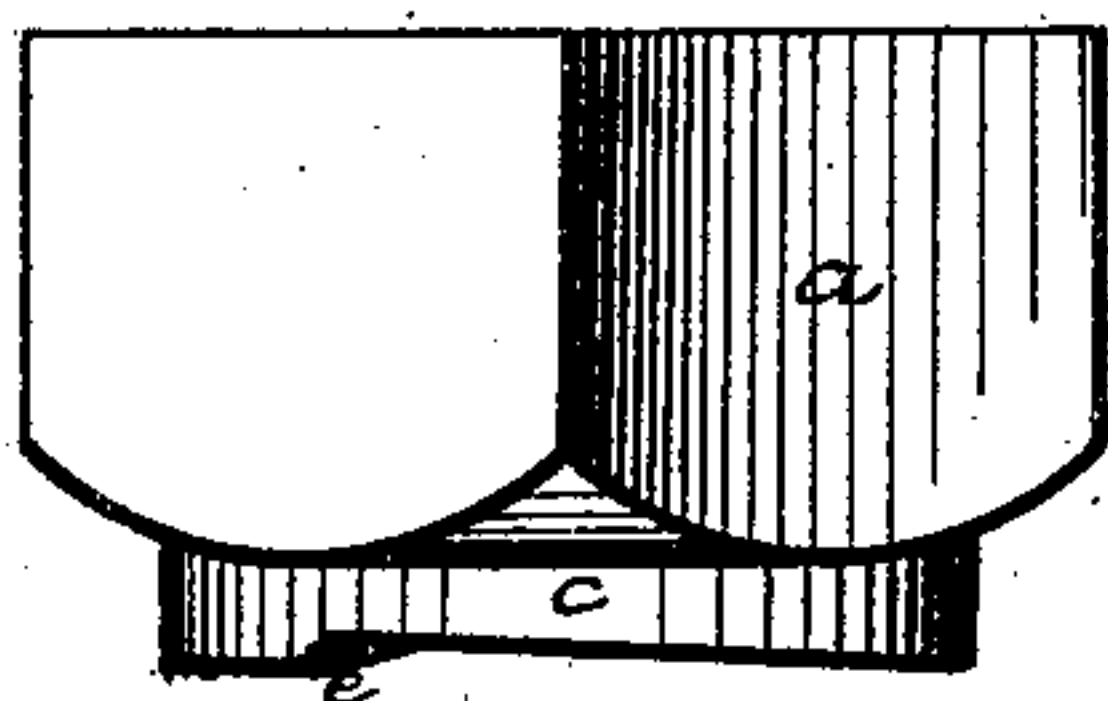


FIG 3.

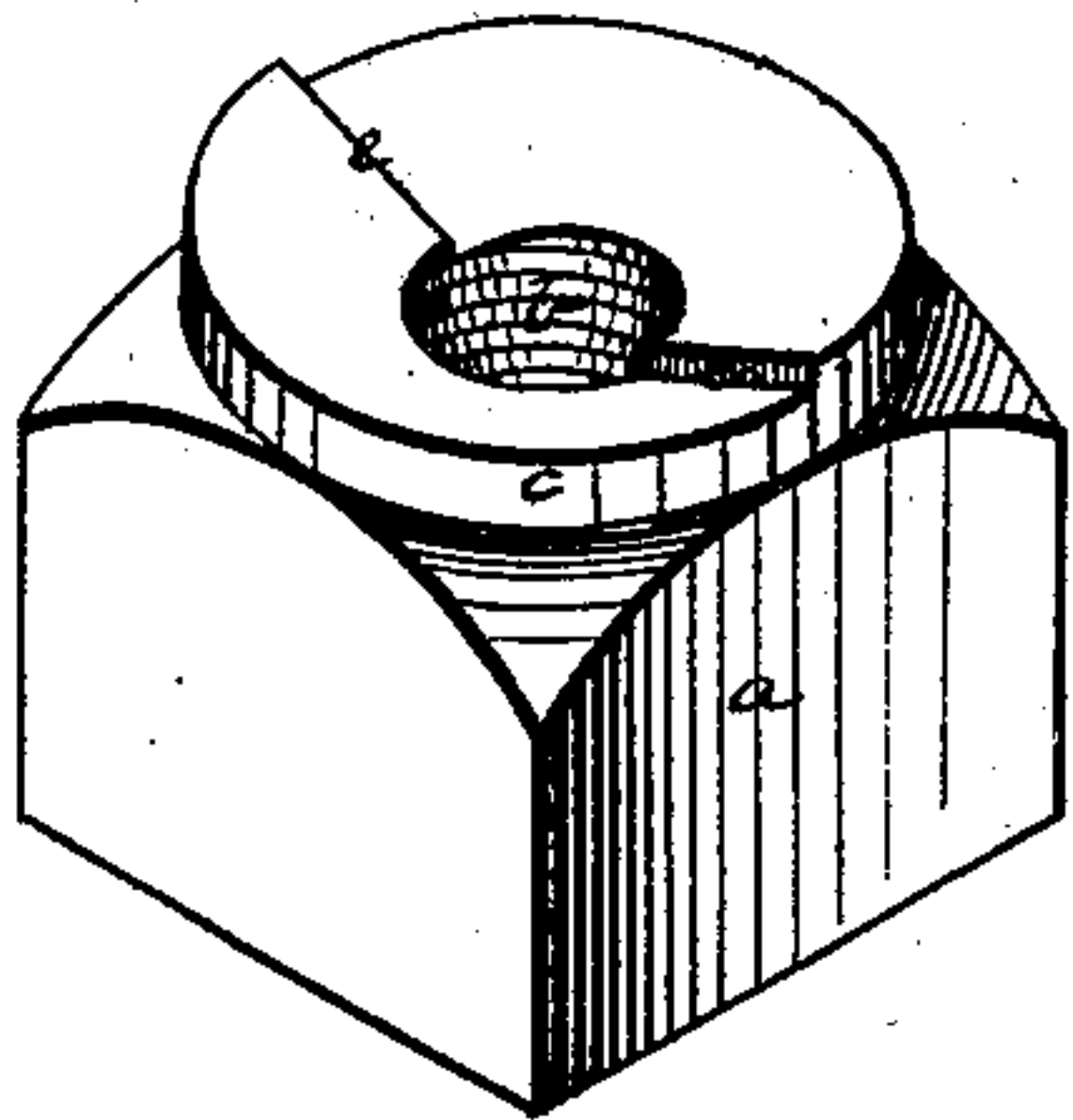


FIG 1.

**Witnesses:**

*S. C. Campbell*  
*J. H. Bakewell*

**Inventor:**

*Benj. D. Sanders*  
*by his attys*  
*Bakewell & Christy.*

# United States Patent Office.

BENJAMIN D. SANDERS, OF WELLSBURG, WEST VIRGINIA.

Letters Patent No. 83,214, dated October 20, 1868.

## IMPROVEMENT IN NUTS.

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, BENJAMIN D. SANDERS, of Wellsburg, in the county of Brooke, and State of West Virginia, have invented a new and useful Improvement in Nuts for Screw-Bolts; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a perspective representation of my improved nut.

Figure 2 is a side view of my improved nut.

In fig. 1, the lower face of the nut is turned upwards, so as to exhibit the peculiarities of construction.

Like letters of reference denote similar parts in all the figures.

My invention relates to the construction of nuts for screw-bolts, and is designed chiefly for nuts which are to be screwed down upon a surface of wood or other yielding substance, but my nuts may also be applied to metallic or non-yielding surfaces, as hereinafter described, the object attained in either case being a firmer and more secure hold, and the prevention of the unscrewing of the nut by vibration or jarring.

To enable others skilled in the art to make use of my improvement, I will proceed to describe the construction and application of my improved nut.

I have heretofore invented an improved nut, having a concave or conical depression on its lower face, around the eye or bore, which is described in another specification.

My present invention, which is an improvement on my concave-faced nut, just referred to, consists in making a circular collar on the lower face of the nut, of sufficient depth to permit the nut to enter slightly into the yielding surface against which it is pressed, by screwing it down on its bolt, and in combination therewith, depressing the face of the nut from the periphery of such collar to or towards the eye of the nut, so as to form an edge, either angular or rounded, which will more readily enter the wood or other yielding surface, and also forming one or more recesses, steps, or teeth, extending radially across the face of the nut, so as to take into the surface of the wood or other yielding surface, and form a secure lock or fastening, which will prevent the accidental unscrewing of the nut.

In the drawing, *a* is the nut, the exterior of which is square, hexagonal, or other polygonal shape. *b* is the eye or bore of the nut, which is tapped to receive the screw-bolt. Around the eye is a cylindrical collar, *c*, of such diameter as may be desired, but preferably with its periphery bounded by the plane sides of the nut. The depth of this circular collar should be suffi-

cient to allow of its entering slightly into the yielding surface against which it is screwed. The surface of the nut, within the circumference of the collar *c*, is dished or concave, the concavity extending to the eye of the nut, so that the outer edge of the collar shall have an angular or rounded edge, or at least be so narrow as readily to enter the surface against which it is screwed. An angular edge is preferable, because, when used against a yielding surface, it will more readily force itself down into it, and thus take a firmer hold, and be less likely to become loose.

Another feature of my improvement is the formation of one or more recesses or steps, *e e*, on the lower face of the nut, and extending from the periphery of the collar *c*, radially, to or towards the eye of the nut, as shown in the several figures. These recesses or steps are so made as not to prevent, or in any way interfere with the screwing down of the nut, the sharp or angular edge of the step forming a tooth, and entering the surface against which it is screwed, and thus effectually preventing the unscrewing of the nut by accidental causes, or by means of vibration or jarring.

If these nuts are used to secure together pieces of metal, a washer, of wood, lead, or other yielding substance, may be used immediately under the nut, and if such washer be in any way secured from turning on the bolt, it will serve to lock the nut, and prevent its loosening or displacement; or a corresponding projection or step, faced in the opposite direction to the face of the step in the nut, may be made in the metallic surface on which the nut is screwed, at the proper point to fasten it when screwed down.

Having thus described my improvement in nuts,

What I claim as my invention, and desire to secure by Letters Patent, as an improvement on my concave-faced nut, is—

1. A metallic nut for screw-bolts, having a body of square or other polygonal shape, with a cylindrical collar on its lower face, and a conical or concave depression around the eye, substantially as hereinbefore described.

2. A metallic nut for screw-bolts, having one or more recesses or steps around the eye, with a concavity or depression on its lower face, substantially as and for the purpose described.

In testimony whereof I, the said BENJAMIN D. SANDERS, have hereunto set my hand.

B. D. SANDERS.

Witnesses:

A. S. NICHOLSON,  
ALLAN C. BAKEWELL.