

*F. Washbourne,*

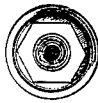
*Nut Blank.*

*No. 111,996.*

*Patented Feb. 21. 1871.*



*Fig. 3*



*Fig. 1*



*Fig. 2*

Witnesses { *E. A. Johnson*  
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*By R. D. Smith atty*

# United States Patent Office.

FRANK WASHBOURNE, OF BROOKLYN, NEW YORK, ASSIGNOR TO STEELE & JOHNSON  
BUTTON COMPANY, OF WATERBURY, CONNECTICUT.

Letters Patent No. 111,996, dated February 21, 1871.

## IMPROVEMENT IN PRESSED NUT-BLANKS.

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

I, FRANK WASHBOURNE, of Brooklyn, in the county of Kings and State of New York, have invented a new and improved Nut, for use upon steam, gas, and water-fittings, of which the following is a specification.

### *Nature and Objects of the Invention.*

Nuts used for the above purposes have heretofore been first cast upon a bar, or a lot connected together of the desired shape and number of sides thereto. They are then separated, drilled, tapped, and put upon a mandrel and turned up, and then squared upon their sides, either by filing or in a machine with cutting-tools.

My invention has for its object to do away with all this labor, except the drilling and tapping; and

The invention consists in making a cold-pressed nut of the desired shape out of any metal sufficiently ductile to be pressed into shape between dies.

### *Description of the Drawing.*

Figure 1 shows a top view of my improved nut.

Figure 2, a side elevation.

Figure 3, a vertical transverse section of the same.

### *General Description.*

I take a rod of the desired shape, of brass or any metal that is sufficiently ductile to be pressed into form and cut a piece of the proper size, and place it under dies of the proper form and shape; and the dies being brought together the nut is formed complete, as shown in the drawing.

I concave the washer face of the nut sufficiently to prevent the burr caused by drilling to project below the face and the other end of the nut, for the purpose of centering the same for drilling, thereby avoiding all labor upon this point.

Another great advantage derived from the use of my invention is that every pressed nut is perfect, which is not the case when they are cast, as many will be worthless by reason of blow-holes, sand streaks, &c.

By making nuts in this way I am enabled to greatly reduce the cost of manufacture, as every nut is perfectly finished, except drilling and tapping, when it leaves the press. And they are exact duplicates, one of the other, which is a great desideratum.

It is my purpose to manufacture and sell my improved nuts to the trade.

In the forming of heavy nuts it may be necessary to form them by degrees under a series of dies, which shall each perform successive operations toward pressing the nut into shape; but for light nuts they may be formed at a single operation.

Having thus described my invention,

I claim—

As a new article of manufacture, the pressed nut-blank herein described, concaved upon one or both faces, substantially as and for the purposes set forth.

FRANK WASHBOURNE.

Witnesses:

C. A. DURGIN,  
EDWARD E. OSBORN.