

S. VANSTONE.

MECHANISM FOR SMOOTHING AND POLISHING THE EDGES OF NUT BLANKS.

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Patented Apr. 25, 1911.

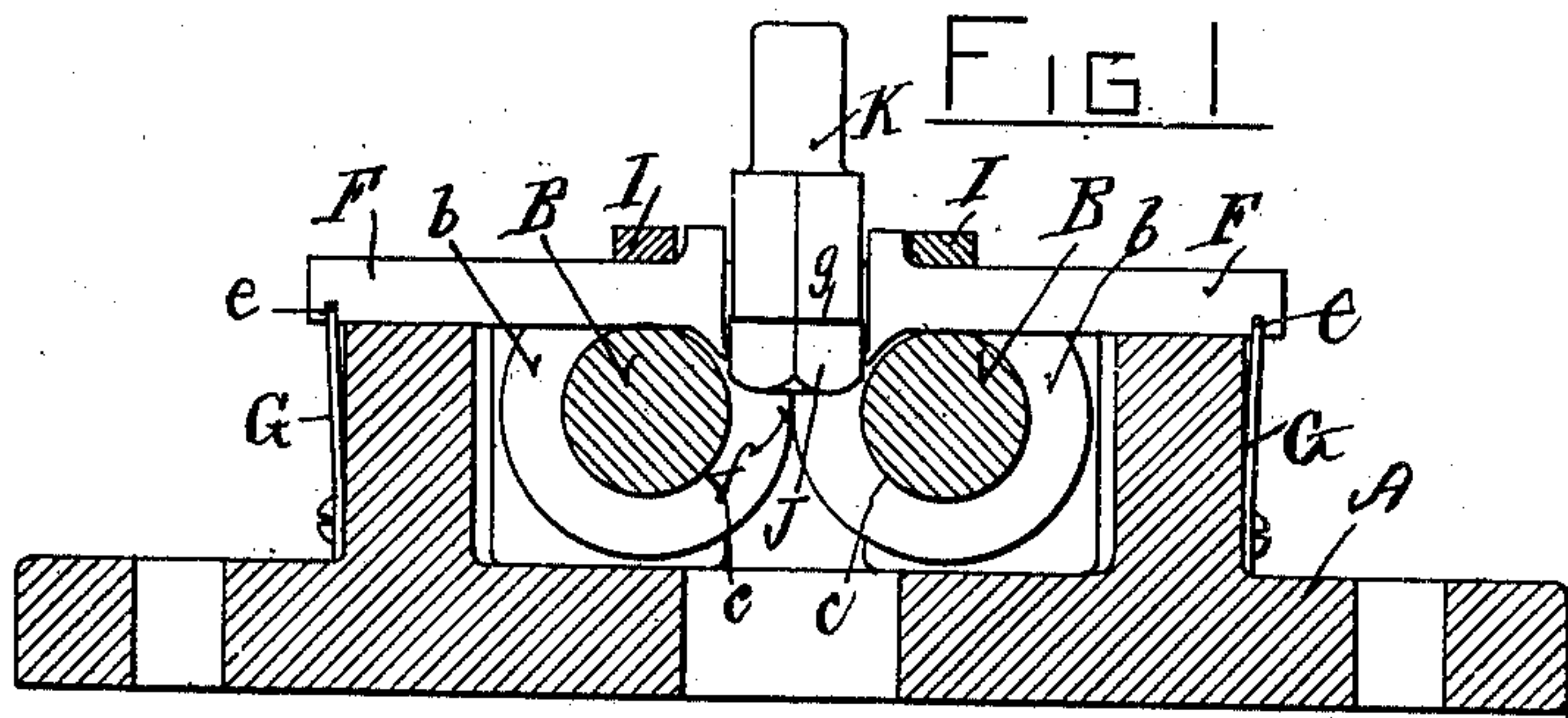
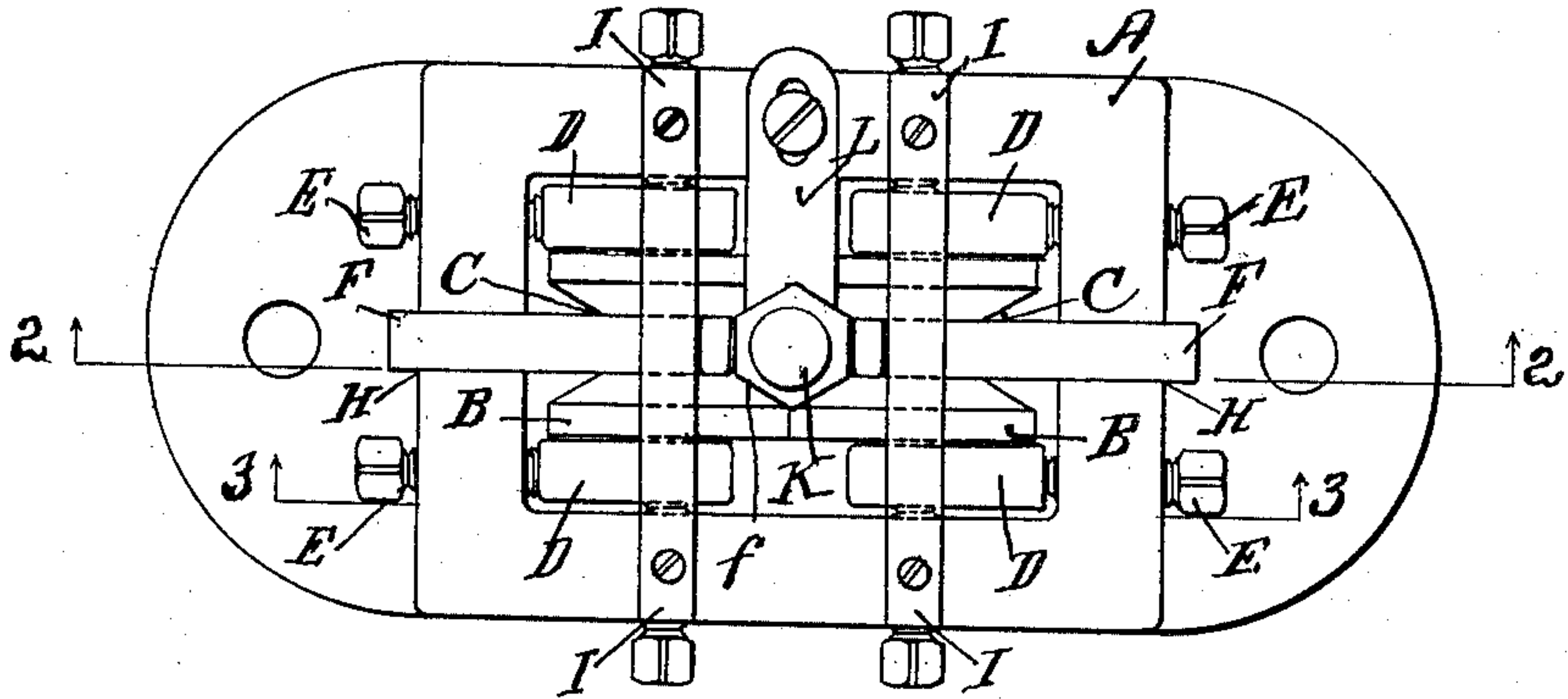


FIG. 2.

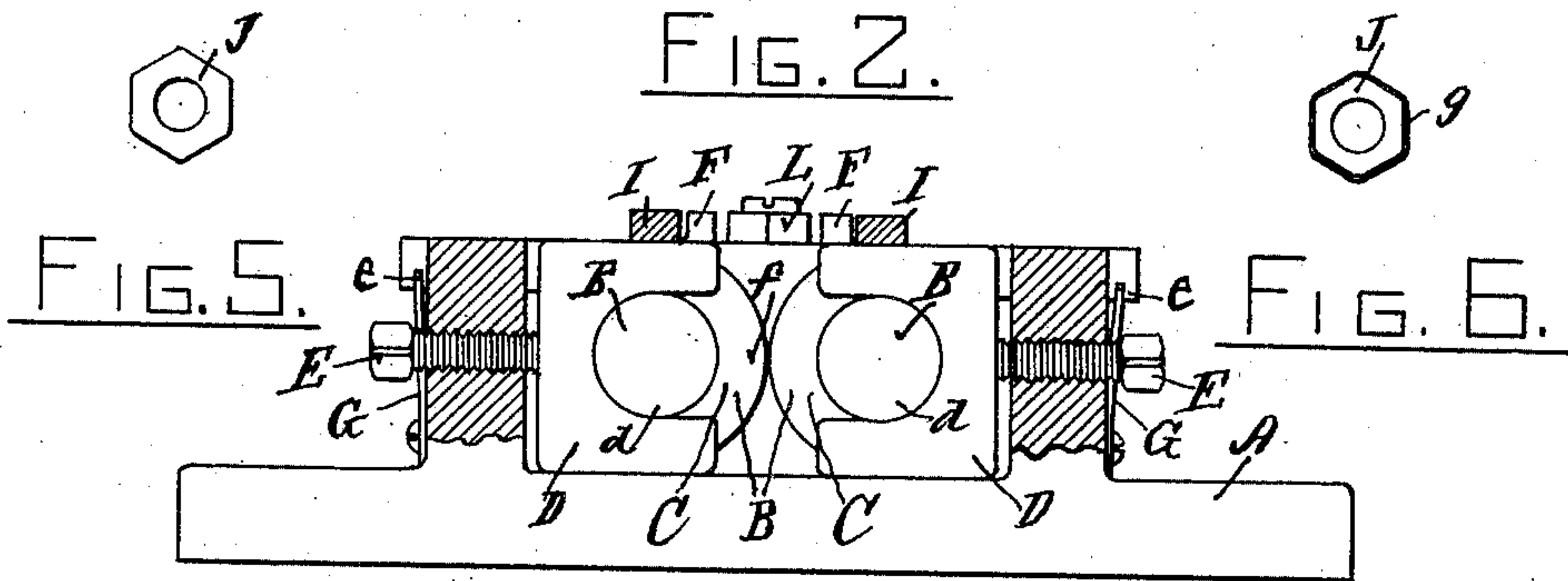


FIG. 3.

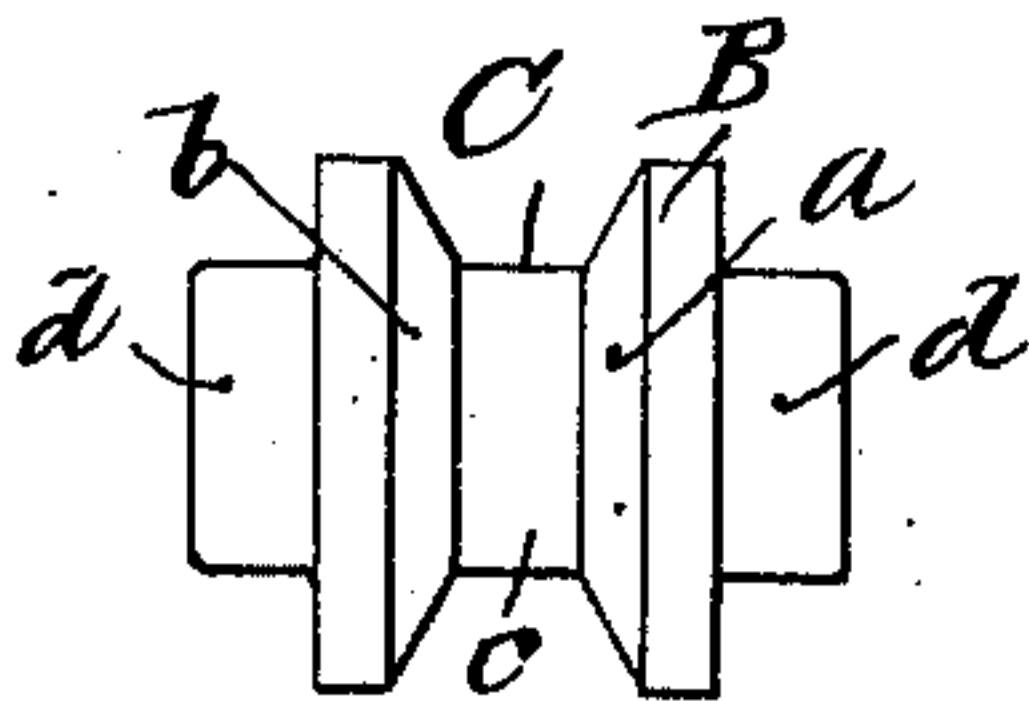


FIG. 4.

WITNESSES

Lehas. W. Eddy.  
Alfred E. Adams.

INVENTOR

Samuel Vanstone  
per J. Scholfield  
ATTORNEY

# UNITED STATES PATENT OFFICE.

SAMUEL VANSTONE, OF PROVIDENCE, RHODE ISLAND.

MECHANISM FOR SMOOTHING AND POLISHING THE EDGES OF NUT-BLANKS.

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Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, SAMUEL VANSTONE, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Mechanism for Smoothing and Polishing the Edges of Nut-Blanks, of which the following is a specification.

The nature of my invention consists in the employment of a pair of grooved rolls arranged side by side to form an angular opening between them, in combination with a plunger for forcing a nut-blank through the opening between the rolls to smooth and polish the edges of the blank, by means of the resulting friction between the blank and the rotating sides of the groove.

In the accompanying drawings:—Figure 1 represents a top view of the holder for the smoothing and polishing rolls. Fig. 2 represents a section taken in the line 2, 2, of Fig. 1. Fig. 3 represents a section taken in the line 3, 3, of Fig. 1. Fig. 4 represents a side view of one of the smoothing and polishing rolls. Fig. 5 represents a view of one face of the nut-blank. Fig. 6 represents the opposite face view.

In the drawing, A represents the frame for holding the smoothing and polishing rolls B, B; the said rolls being provided with a groove C, having the sides *a*, *b*, and the bottom *c* of the groove, at an angle of 60° with one another. The said rolls are also provided with the journals *d*, *d* held in the journal bearings D, D which are made adjustable toward or from each other by means of the set screws E, E.

The bars F, F, for guiding the nut-blank are carried forward to clasp the edges of the blank by means of the springs G, G, the upper ends of which enter the notches *e*, *e*, at the under side of the said bars F, F, the said bars being held in the grooves H of

the frame, and in the angular grooves C of the rolls, by means of the cross-bars I, I, secured to the frame A by means of set screws.

When the nut-blank J is forced through the angular opening *f* between the rolls by the action of the plunger K the rubbing friction experienced by the sides of the nut-blank in its passage through the said opening serves to fill up and repair the broken surfaces at the edges of the blank and to smooth and polish the said surfaces.

The nut-blank J is slightly beveled or rounded around its rear edge *g* as shown in Fig. 6, in order to prevent the production of a fin at the said edge upon the passage of the blank between the rolls.

L is a stop guide for the proper insertion of the nut-blanks as they are fed to a position under the plunger K, by the action of the machine.

I claim as my invention:

1. The combination of a pair of grooved rolls which placed together form an angular opening between their peripheries, with a reciprocating plunger for forcing the blanks through said opening to smooth and polish the edges of the same, and means for holding the nut blanks in proper feeding position under the plunger.

2. The combination of the frame, the adjustable journal bearings, the angularly grooved rolls held in the adjustable bearings, the plunger for forcing the nut-blanks through the angular opening formed between the rolls, and the spring actuated guides for holding the blank above the said opening between the rolls.

SAMUEL VANSTONE.

Witnesses:

SOCRATES SCHOLFIELD,  
BENJAMIN L. DENNIS.