

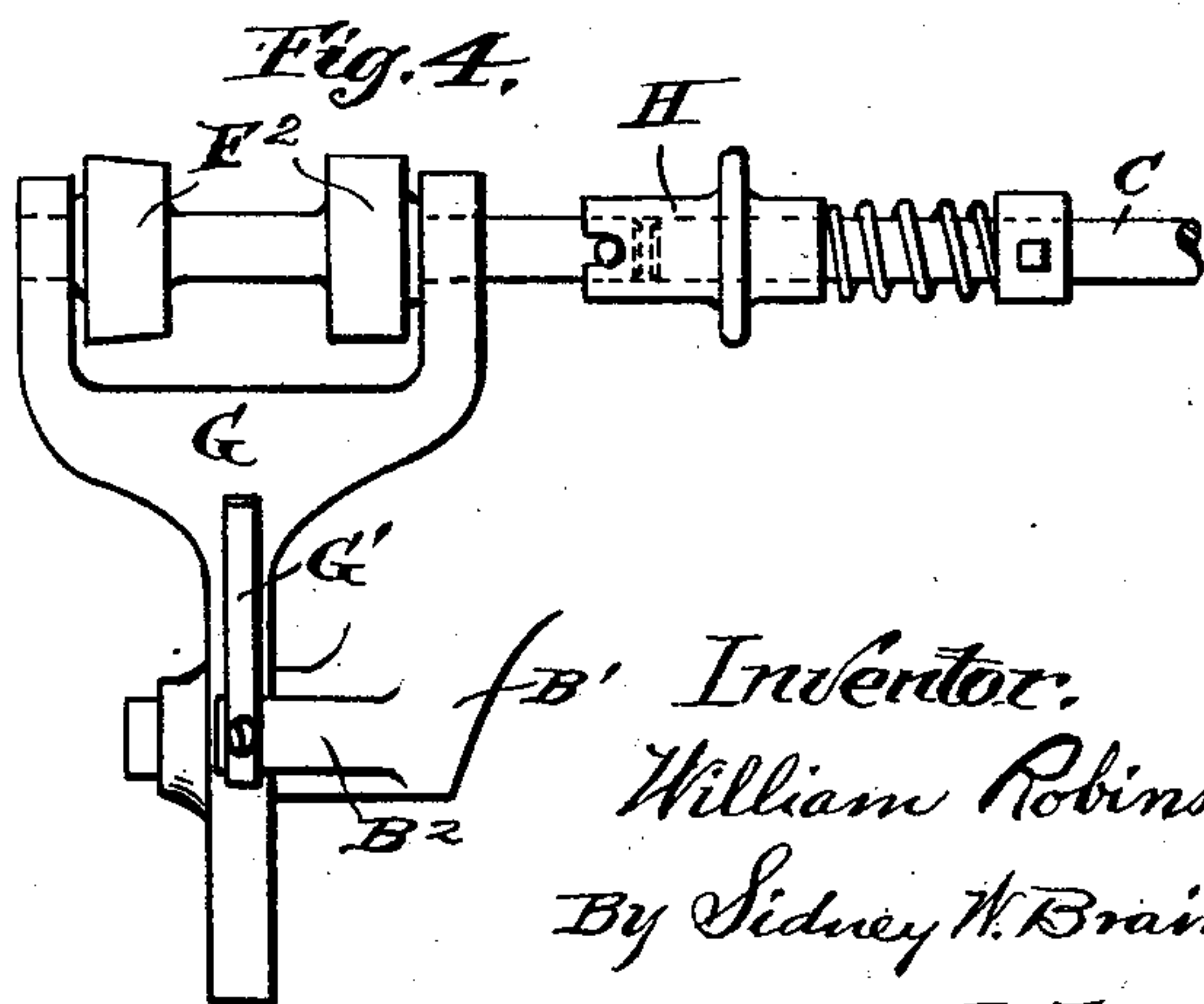
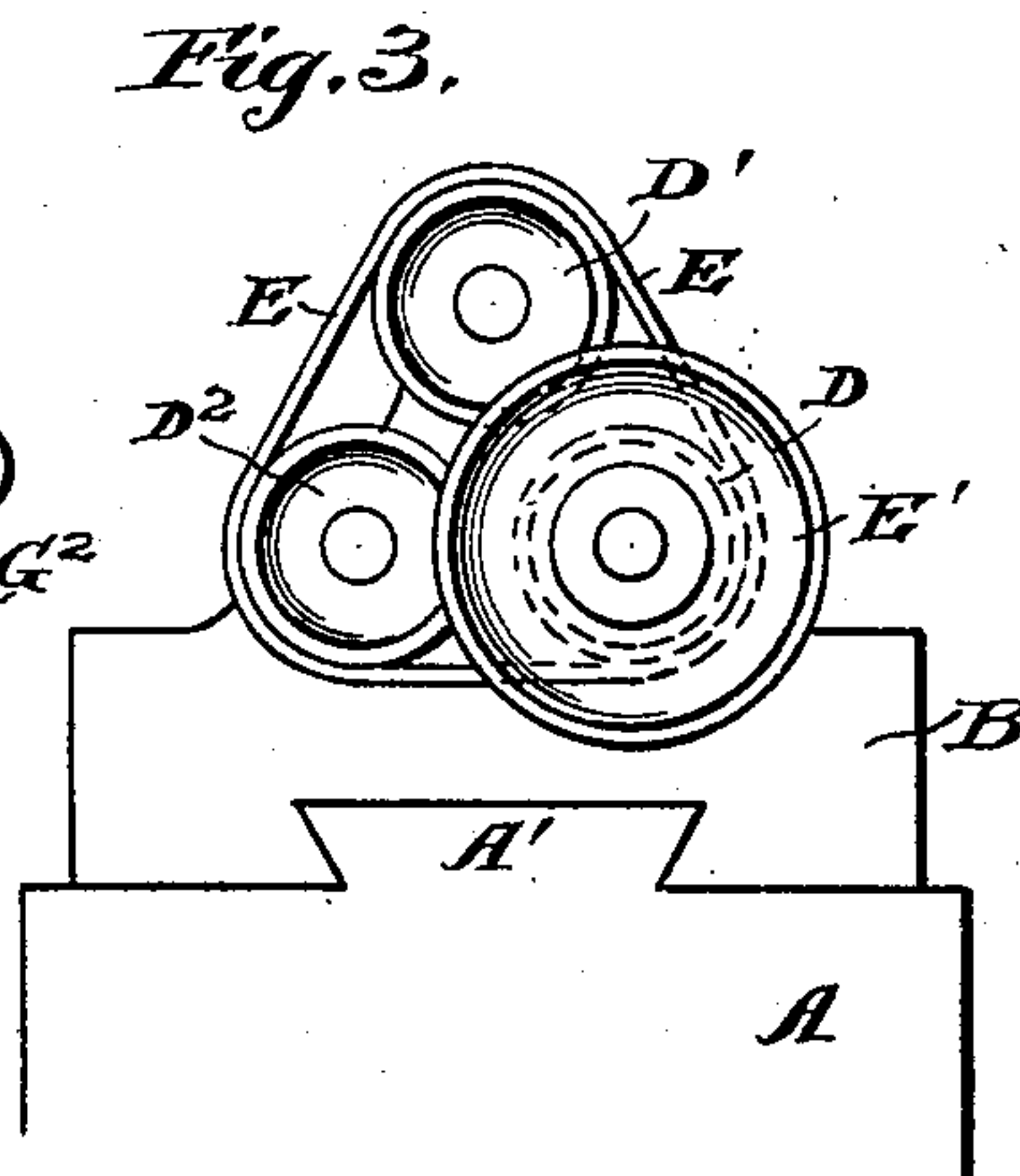
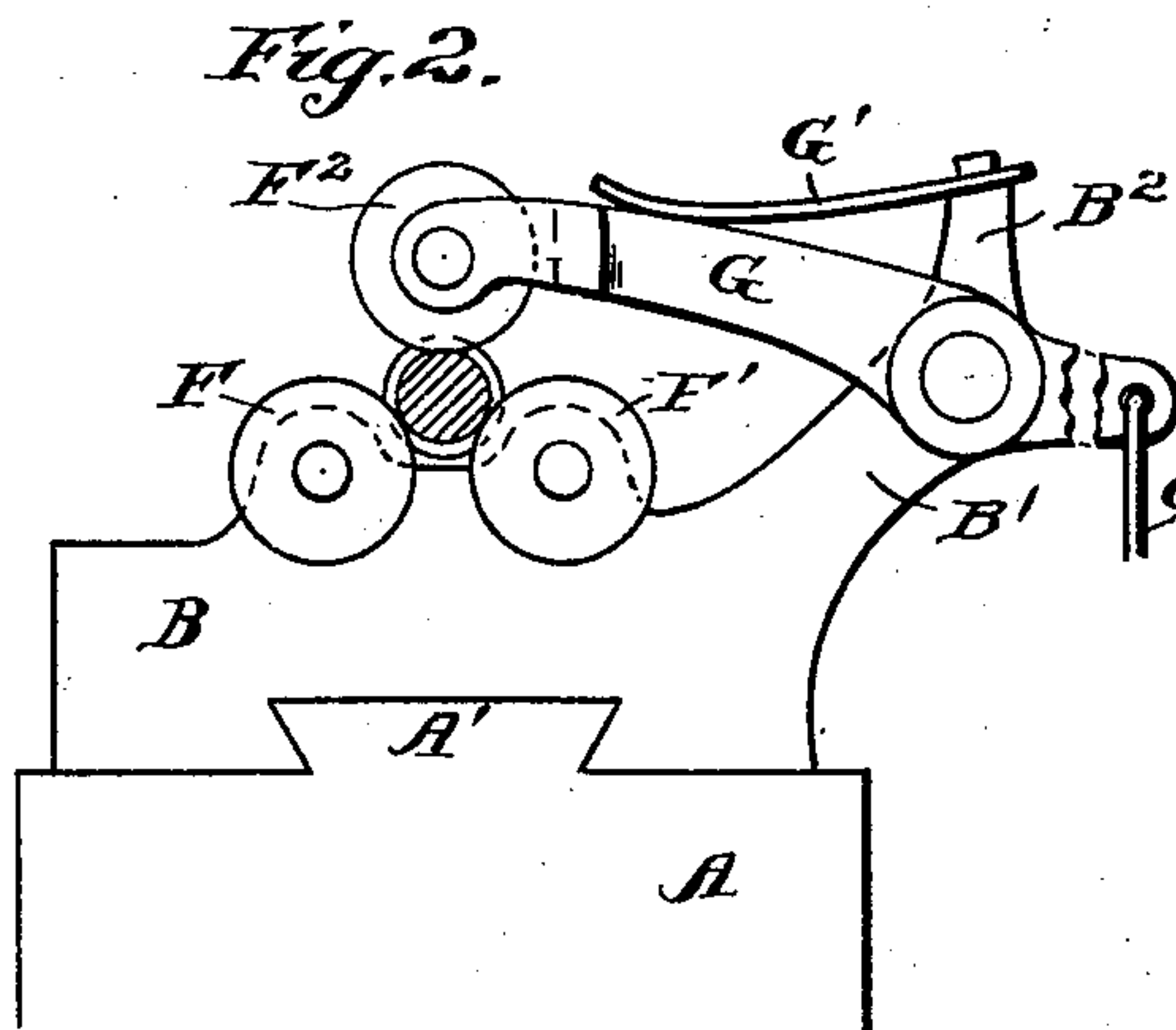
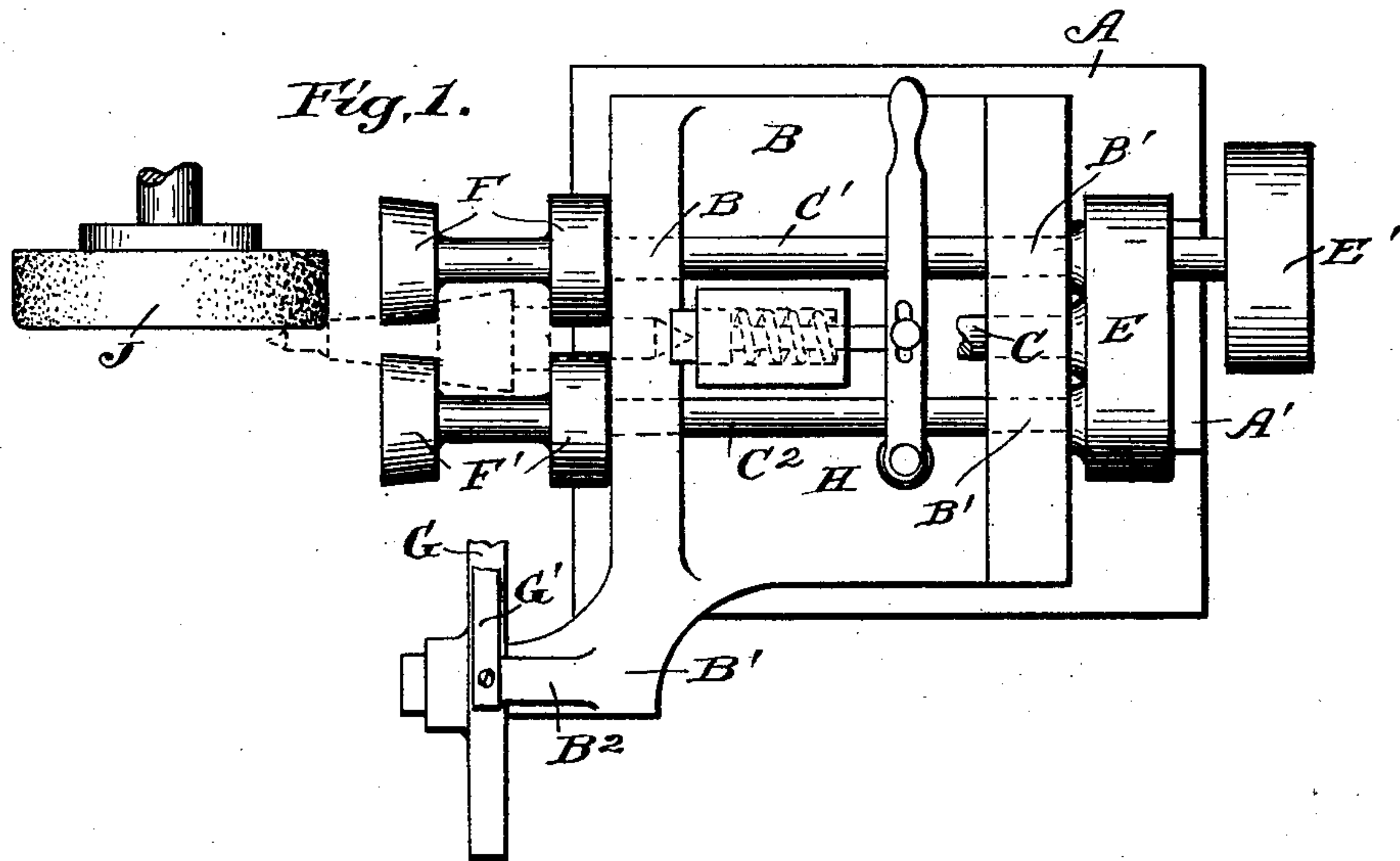
No. 688,437.

Patented Dec. 10, 1901.

W. ROBINSON.  
CHUCK.

(Application filed Apr. 15, 1901.)

(No Model.)



*Witnesses,*  
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# UNITED STATES PATENT OFFICE.

WILLIAM ROBINSON, OF AURORA, ILLINOIS.

## CHUCK.

SPECIFICATION forming part of Letters Patent No. 688,437, dated December 10, 1901.

Application filed April 15, 1901. Serial No. 55,952. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM ROBINSON, a citizen of the United States, residing at Aurora, in the county of Kane, State of Illinois, have invented certain new and useful Improvements in Chucks; and I do declare the following to be a full, clear, and concise description of same.

The purpose of my invention is to produce a chuck that will readily center the "work" or piece placed therein and also "drive" same during the process of turning, grinding, or polishing.

Referring to the drawings, Figure 1 represents a top plan view of chuck, showing one portion removed in order to more clearly disclose the parts beneath. Fig. 2 represents a front end elevation of my device. Fig. 3 is an end elevation opposite to that shown in Fig. 2. Fig. 4 is a detail top plan view of the upper roller, clutch, &c., these being the parts cut away in Fig. 1.

My device consists of a main frame portion A, having mounted thereon on a suitable guide A' the part B. The part B is provided with suitable journal-bearings B' B<sup>2</sup>, in which are mounted suitable rotatable shafts C C' C<sup>2</sup>. Upon one end of each of the shafts C C' C<sup>2</sup> are mounted pulleys D D' D<sup>2</sup>, having a driving-belt E placed about them in such manner as to cause all three pulleys to revolve in the same direction. Motion is imparted to the whole by means of a suitable driving-pulley E', placed upon one of the above-mentioned shafts. Mounted upon the opposite or front ends of the shafts C' C<sup>2</sup> are suitably-formed chucking-rollers F F'. Pivotaly mounted upon the lug B' of the part B is an arm G, having pivoted thereto a roller F<sup>2</sup>, adapted normally to rest upon and clamp the work being chucked. This roller F<sup>2</sup> is forced upon and held in contact with the part being chucked by means of a spring G', secured to the lug B<sup>2</sup>.

In order that the roller F<sup>2</sup> may be raised out of contact with the work in order to remove same or to put in a new piece, a clutch H is provided between the shaft C and stem of the roller F<sup>2</sup>.

For purposes of illustration I show a grinding disk or wheel J placed in working relation to the part chucked. In Fig. 1 of the drawings I show in dotted outline a watch-balance staff in position in the chuck; but any desired object might be placed therein. The chucking-rollers may be varied in form to meet different requirements.

The manner of operating my invention will be readily understood. First, disengage the stem of the roller F<sup>2</sup> from the shaft C by moving the chuck H to the right, when the roller F<sup>2</sup> may be raised, so as to allow work to be placed upon the stationary rollers F F'. The roller F<sup>2</sup> is raised by means of a foot-treadle attached to the rod G<sup>2</sup>, the said treadle not being shown in the drawings. After placing the work in position release the treadle and the spring G' will cause the roller F<sup>2</sup> to descend upon and clamp the work. Engage the shaft C with the roller F<sup>2</sup> by means of the clutch H and set the parts in motion. The part B may be moved from right to left when in operation upon the guide A' by well-known means not herein shown.

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

A chucking device for lathes, grinders and the like, consisting of several rollers mounted parallel axially of one another and equidistant about a common center, some of said rollers being secured in a certain fixed relation and one or more rollers made movable transversely to direction of rotation, the said rollers being constructed and adapted to rotate in one and the same direction and a suitable clutch and driving mechanism for imparting the said rotary motion, all substantially as set forth and shown.

In witness whereof I have hereunto set my hand, in the presence of the two subscribing witnesses, this 11th day of April, A. D. 1901.

WILLIAM ROBINSON.

Witnesses:

R. ROELFS,  
C. E. SEAVEY.