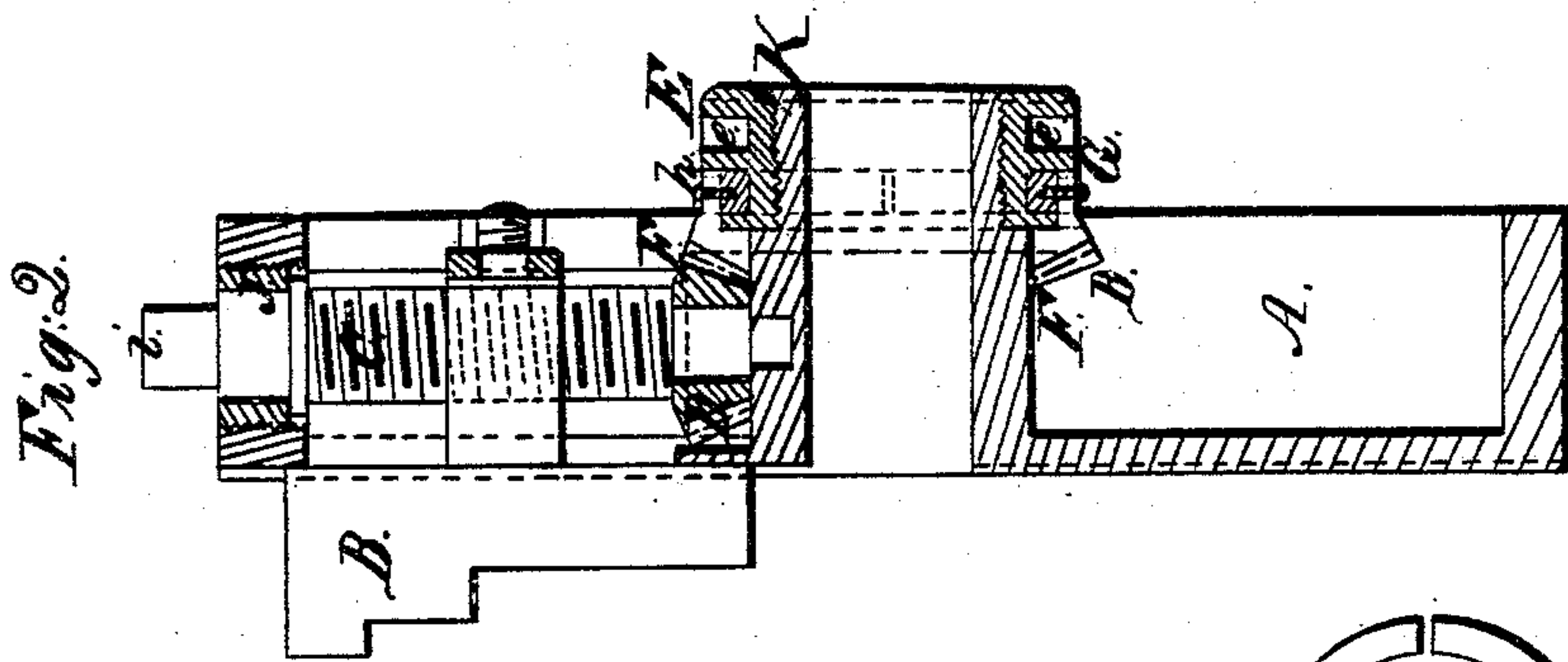


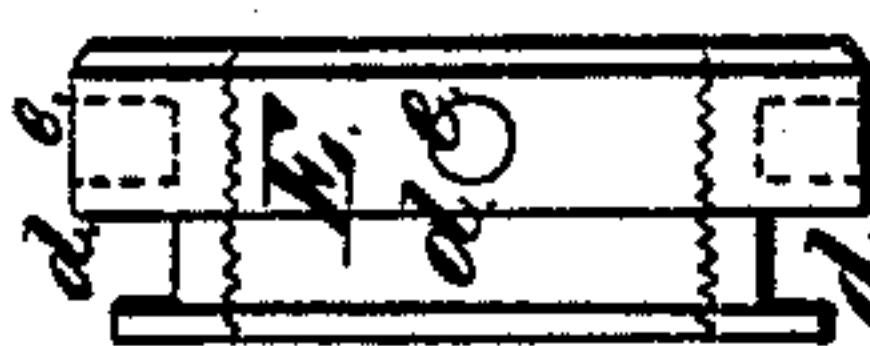
*C. F. Hadley,  
Lathe Chuck,*

*N<sup>o</sup> 84,054.*

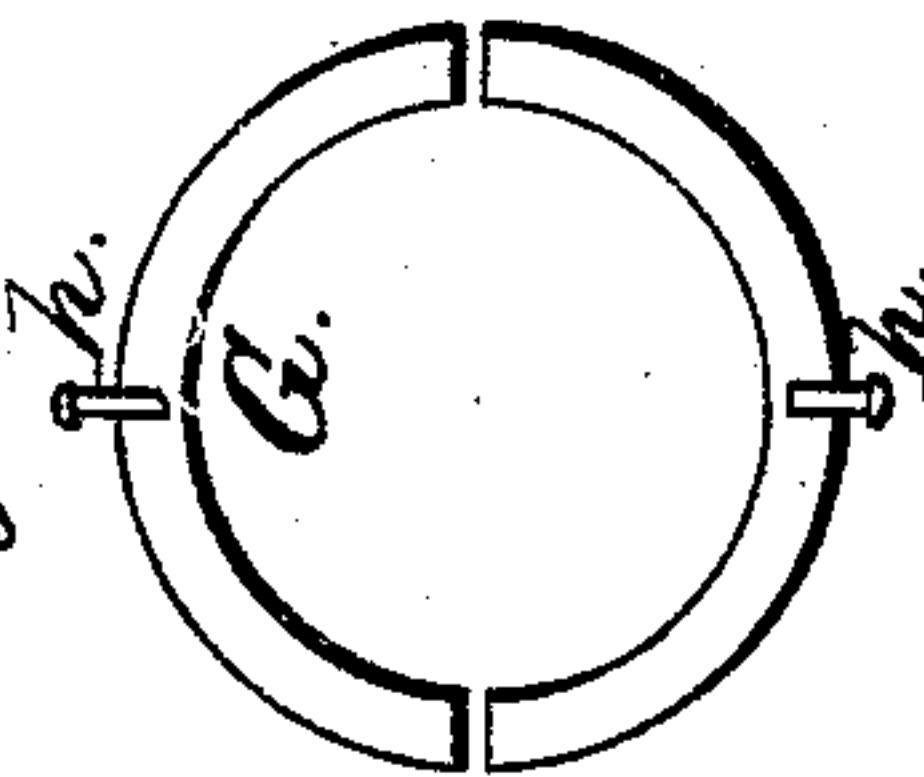
*Patented Nov. 17, 1868.*



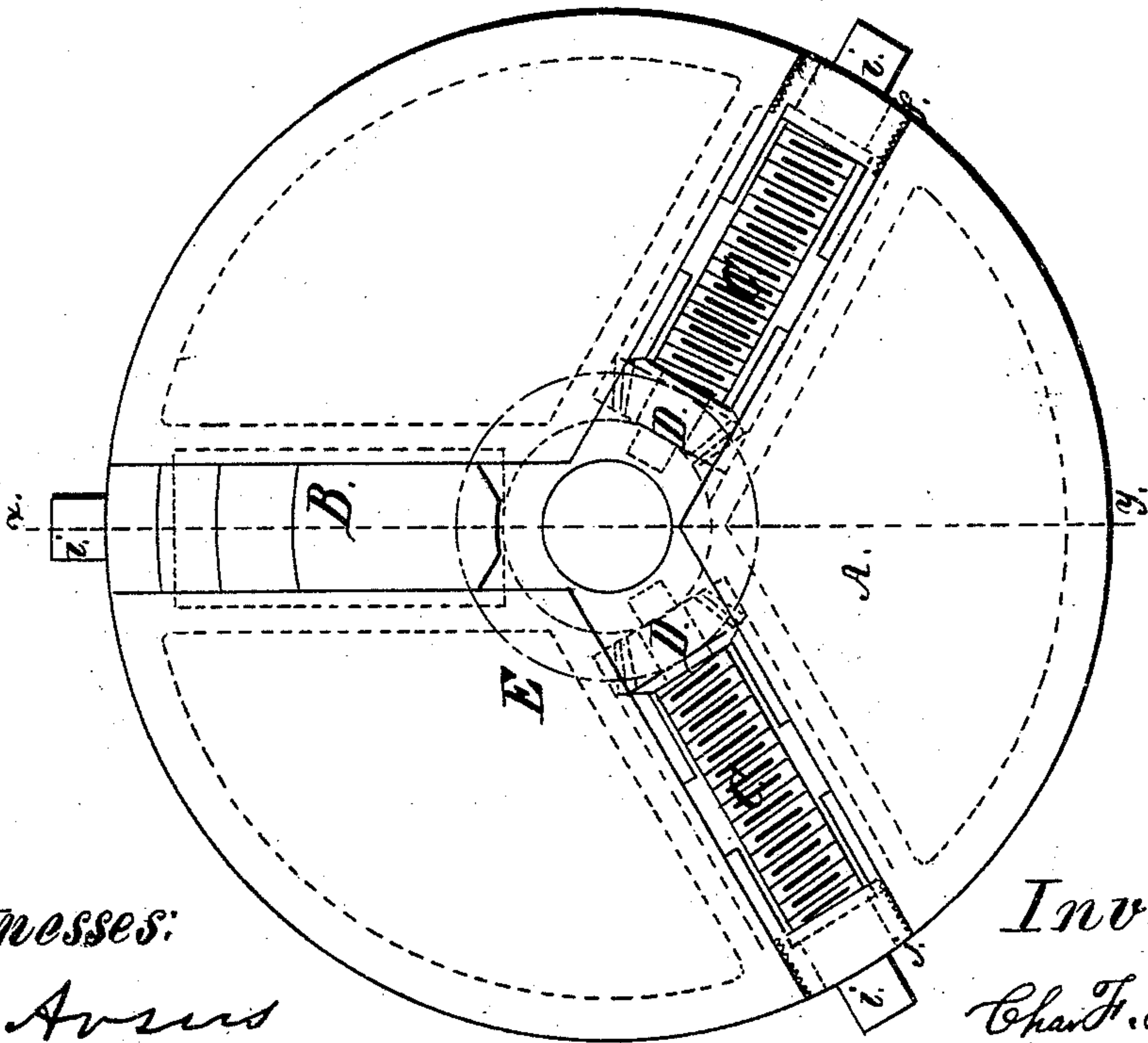
*Fig. 3.*



*Fig. 4.*



*Fig. 1.*



*Witnesses:*

*Geo. A. ...  
Will H. Taylor.*

*Inventor:*

*Chas. F. Hadley.*

# United States Patent Office.

CHARLES F. HADLEY, OF CHICOPEE, MASSACHUSETTS, ASSIGNOR  
TO CLIFFORD ARRICK, OF BELMONT COUNTY, OHIO.

Letters Patent No. 84,057, dated November 17, 1868.

## IMPROVED CHUCK.

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, CHARLES F. HADLEY, of the town of Chicopee, in the county of Hampden, State of Massachusetts, have invented a new and useful Lathe-Chuck; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in an arrangement of means, whereby a concentric or eccentric adjustment may be made with the same chuck at pleasure, thereby enabling the workman to perform, to advantage, circular, eccentric, or other forms of work upon the same machine.

This arrangement is effected by combining the so-called universal screw with the independent jaw-chuck, in the manner hereinafter set forth.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation with reference to the drawings.

Figure 1 is a plan of my invention;

Figure 2 is a transverse section thereof, taken through the line *x y* on fig. 1;

Figure 3 is a detail of the adjustable nut E; and

Figure 4, of the divided ring G and securing-pins *h h*.

The main plate A, to which are fitted three or more independent jaws, B, is arranged and operated by the screws *a*, in the usual way, but upon the screws *c* are fitted the bevel-pinions D.

Upon the adjustable nut E is fitted, by means of the annular groove *d*, divided ring G, and securing-pins *h h*, the bevel-gear F, so that the latter may revolve freely around the former, and so that the nut E may be turned upon its axis independently thereof,

for the purpose of throwing the same in and out of gear with the bevel-pinions D, as hereinafter more particularly described.

The screws *c c* are made square at *i*, to receive the wrench for operating them, and are held in position by the bushing *j*.

The hub K projecting from the centre of the plate A, is provided with a male screw, corresponding to a female thread passing through the nut E, and the latter is operated thereon by applying a key to the holes *e e*.

To operate the chuck, when in gear, apply the wrench to either screw at *i*, when, by means of the pinions D and bevel-gear F, all the jaws, B, will be moved in unison, but to use and operate the jaws B independently, the bevel-gear F is withdrawn from the bevel-pinions D D, by applying the key to the holes *e e*, and turning the nut E back until the result is accomplished.

What I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of the adjustable nut E, bevel-gear F, divided ring G, and securing-pins *h h*, or their equivalents, constructed substantially as described, and for the purpose set forth.

2. The arrangement of the adjustable nut E, bevel-gear F, divided ring G, annular groove *d*, and securing-pins *h h*, or their equivalents, in combination with the bevel-pinions D, constructed and operated substantially as and for the purpose set forth.

CHAS. F. HADLEY.

Witnesses:

GEO. ARMUS,  
H. J. MARKS.