

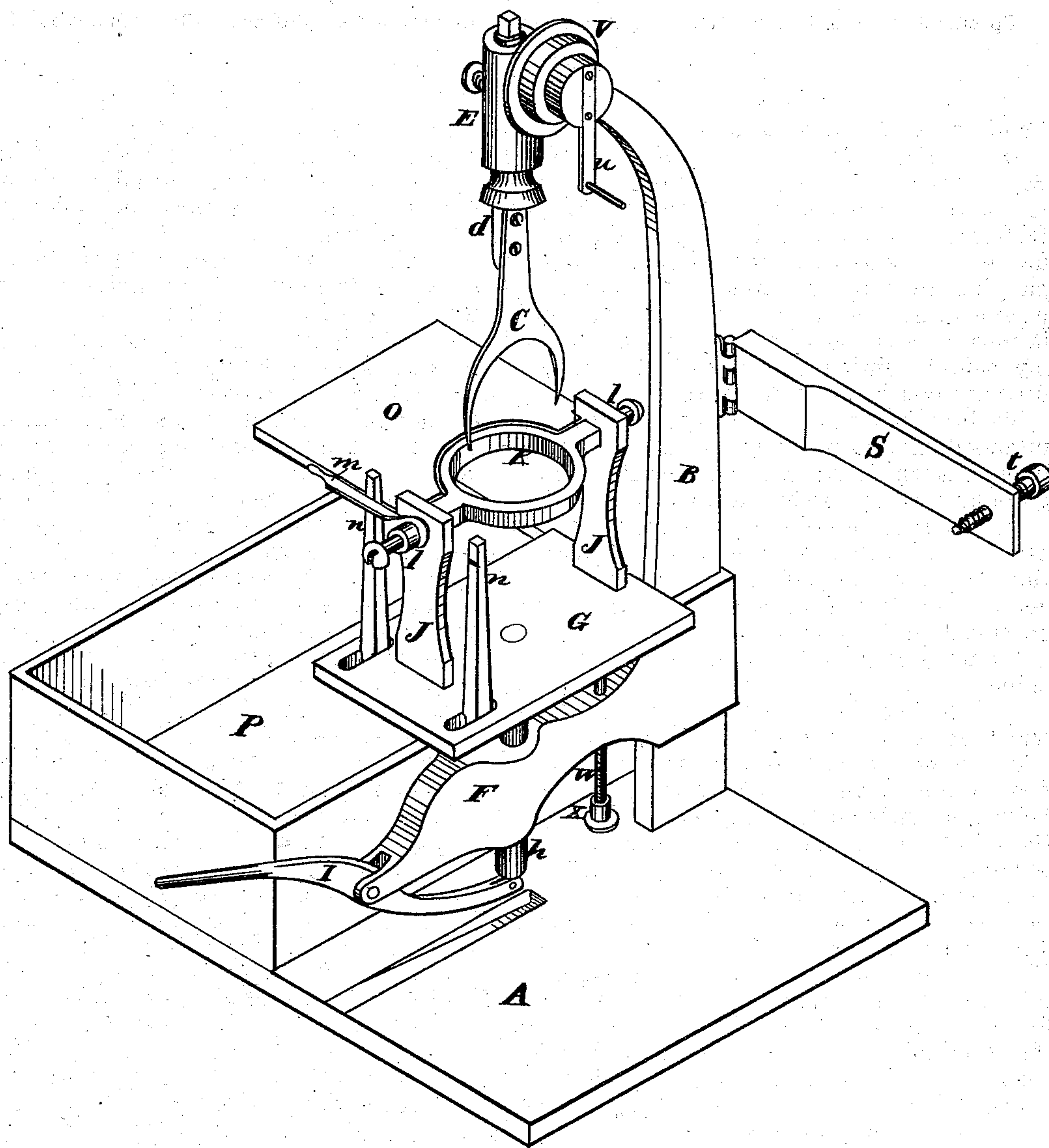
A. J. KANE.

Machines for Turning Globular Forms.

No. 156,293.

Patented Oct. 27, 1874.

Fig. 1



Inventor

John L. Boone
C. M. Richardson

Witnesses

Andrew J. Kane
by Dewey & Co
his attys

UNITED STATES PATENT OFFICE.

ANDREW J. KANE, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN MACHINES FOR TURNING GLOBULAR FORMS.

Specification forming part of Letters Patent No. **156,293**, dated October 27, 1874; application filed July 30, 1874.

To all whom it may concern:

Be it known that I, ANDREW J. KANE, of San Francisco city and county, State of California, have invented an Improved Machine for Turning Globular Forms; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention relates to a machine which is intended more especially for turning soap-balls, but which can also be used for turning globular forms in other substances.

In order to describe my invention so that others will be able to understand its construction and operation, reference is had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my machine.

A is the base of the machine, or floor upon which it is constructed. B is a standard, which is secured to one side of the base or floor A, and extends upward to the desired height, its upper end being bent over toward the middle of the base, so as to support the turning-tool C. This tool is semicircular in form, and is secured to the lower end of a vertical spindle, *d*, at the middle of its convex side, so that its concavity is on the under side. The spindle *d* is supported and arranged to rotate in a vertical box, E, which is either formed upon or secured to the upper end of the standards B. A horizontal arm, F, is secured to the standard B a short distance above the floor or base A, and upon this arm is a table, G, from the center of which a spindle, *h*, depends and passes through a hole in the arm F. An S-shaped lever, I, has its middle pivoted to the extremity of the arm F, while its lower end is connected with the lower end of the spindle *h*, so that, by pressing down upon the upper end of the lever, the table G can be raised, the spindle serving to guide it as it is raised and lowered. Upon the table G I secure two upright standards, J J, one at each end. These standards serve to support the holding-ring K. The ring K has formed upon it, opposite each other, two arms

or trunnions, *l l*, which bear in the upper ends of the standards J J. A lever, *m*, which is secured to the outside journal or trunnion *l*, serves to reverse or turn the holding-ring, when desired.

It will be seen that this holding-ring, when placed horizontally, will be directly below the tool C, so that, when the table G is raised, the ring will be carried up to the tool, thus causing the depending ends of the horns or prongs of the semicircular tool to pass inside of the ring. A rod, W, passes up through a hole in the arm F and into the table G. A nut, X, on the lower end of this rod regulates the height to which the table is lifted. A post, *n*, upon each side of the outside standard J has a notch in its upper end at the proper point to receive and retain the lever *m* when the ring is in a horizontal position, either side uppermost. O is a table, which is secured to the upper ends of the standards J for the purpose of holding the crude material within easy reach of the operator; and P is a box, which receives the balls after they are turned. A bar or plate, S, is hinged to the upright standard B opposite the upper end of the standard J, in the end of which is a set or gage screw, *t*. This bar or plate serves the double purpose of pressing the soap or other substance into the holding-ring, when it stands vertically, and gaging the amount to be used at each operation.

The operation of my machine is as follows: The crude material to be turned is placed upon the table O. The operator first turns the ring K until it stands vertically, and then takes a piece of soap of about the size desired and places it against the open side of the ring. He then closes the hinged bar or plate against the soap, so as to force it into the ring until the end of the gage-screw *t* strikes the side of the ring. This being done, he swings the gage-plate back out of the way, and turns the ring K to a horizontal position, so as to bring the lump of soap directly below the tool C. The tool C is then set in motion, either by hand, by means of crank *u*, or by belting around the pulley V. The operator then presses upon the lever, so as to raise the table and bring the soap under the action of the rotating tool. This tool, being semicircular

in form, cuts the upper part of the piece of soap into a hemispherical form. The table is then lowered, and the ring rotated, so as to bring the opposite side of the piece of soap beneath the tool, when the same operation is repeated, thus completing the ball or globe, which will, when finished, drop upon the table O, and thence roll into the box P.

If desired, a piece of india-rubber or other soft cushion can be secured upon the table O, so as to prevent the ball from being defaced. The inner face of the ring K I roughen or mill, so that it will retain the soap more firmly.

In turning material of a finer character than soap, such as ivory, wood, horn, or like substances, I employ two or more holding-screws, which will pass radially through the ring, so as to hold them while being turned.

By this means I provide a machine that will turn globular forms with great speed and accuracy.

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

1. The semicircular tool C, substantially as and for the purpose above described.

2. The rotating ring K, in combination with the semicircular tool C, substantially as and for the purpose above described.

3. The table G, with its guiding-spindle *h*, arranged to be raised and lowered by lever I, and having the rotating ring K, mounted on standards J J, on its upper side, in combination with the semicircular tool C, substantially as and for the purpose described.

4. In combination with the table G, with its guiding-spindle *h* and operating-lever I, the rod W, with its adjustable nut X, substantially as and for the purpose above described.

In witness whereof I hereunto set my hand and seal.

ANDREW J. KANE. [L. s.]

Witnesses:

JNO. L. BOONE,

C. M. RICHARDSON.