

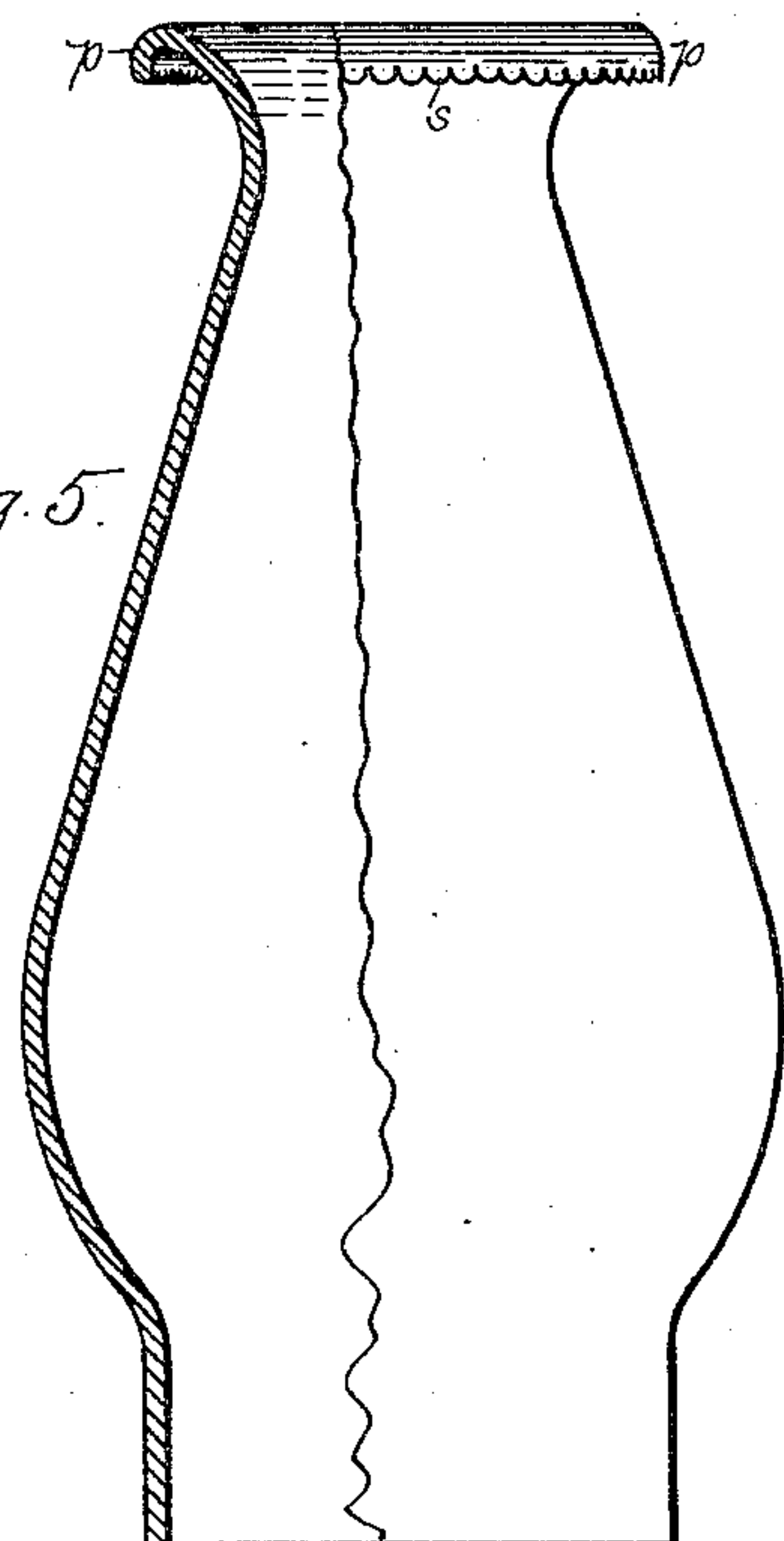
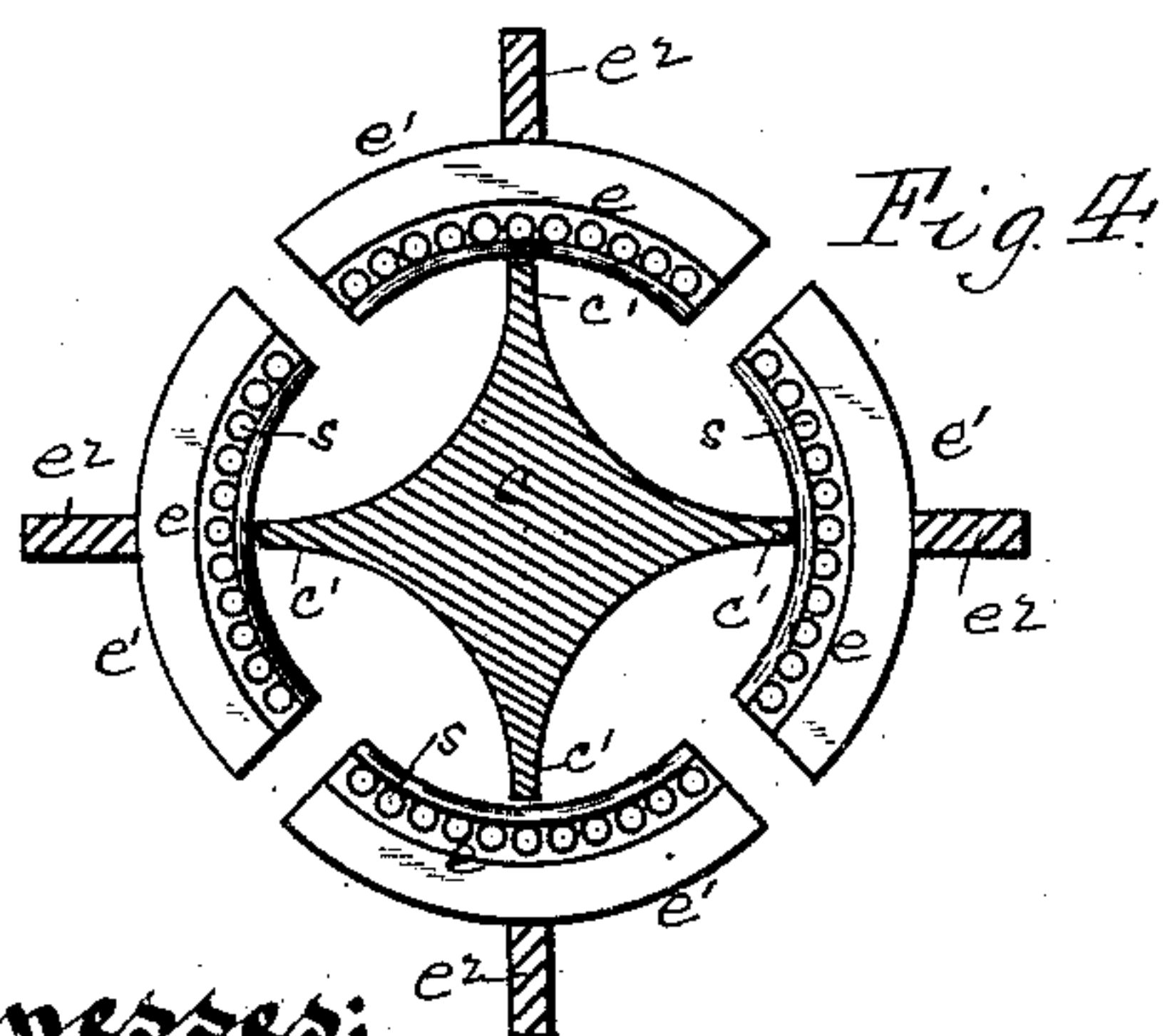
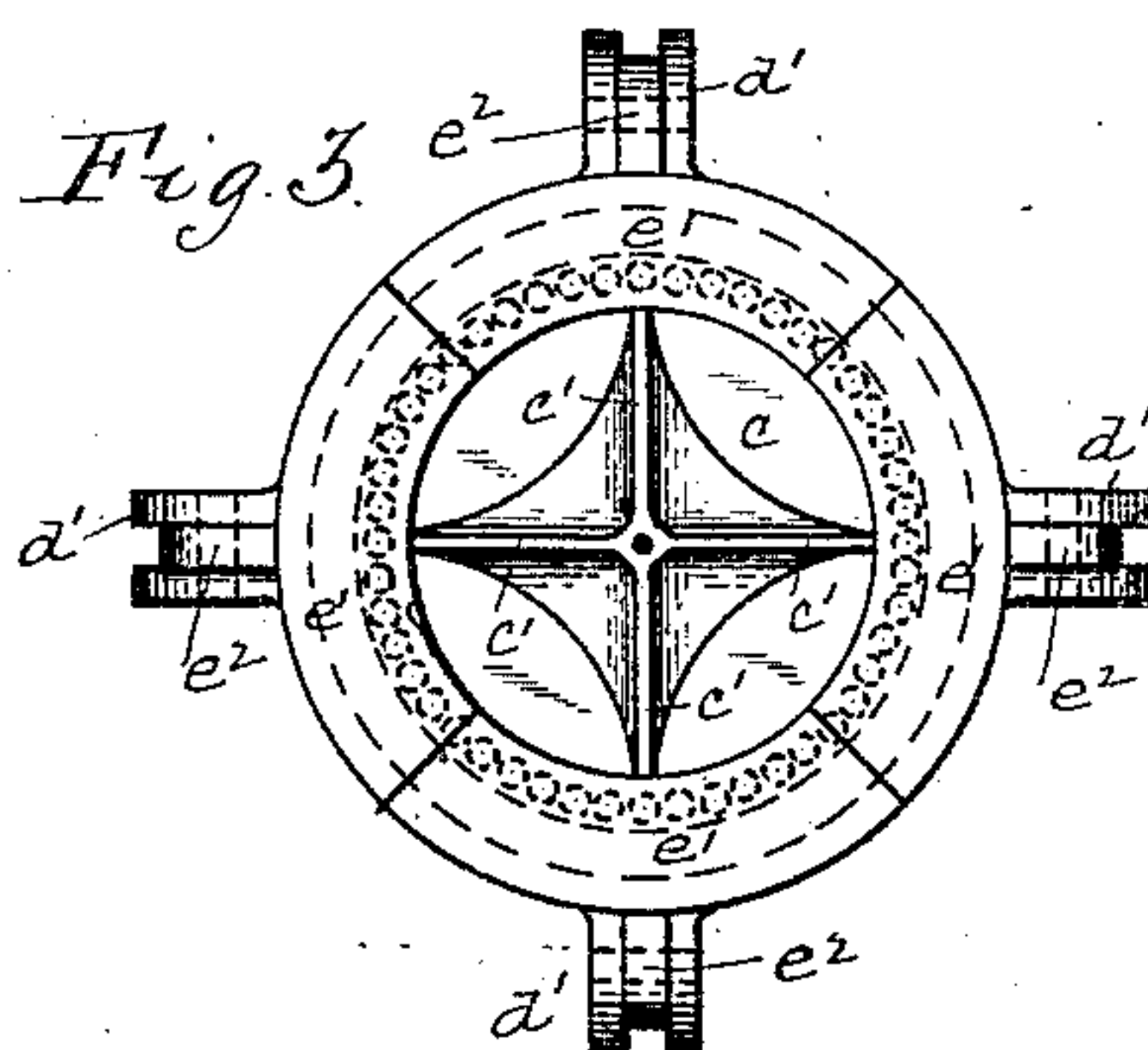
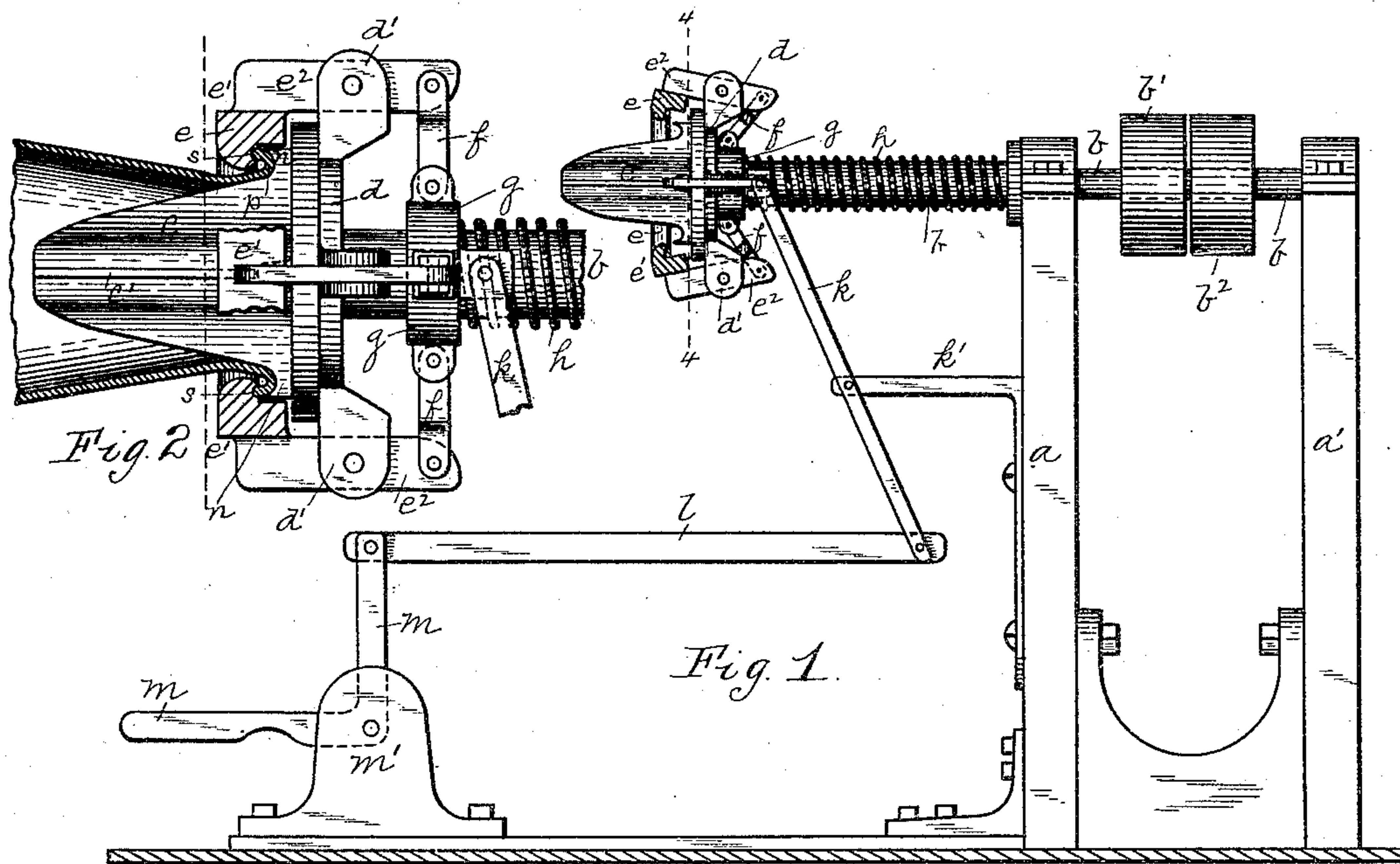
(No Model.)


C. HAMM.

TOOL FOR FINISHING LAMP CHIMNEYS, &c.

No. 437,154.

Patented Sept. 23, 1890.



Sirnesses: ^{ez} 
J. B. Cook
Robt. D. Totten

Inventors
Charles Hamm
By James D. May
attorney

UNITED STATES PATENT OFFICE.

CHARLES HAMM, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO GEORGE A. MACBETH, OF SAME PLACE.

TOOL FOR FINISHING LAMP-CHIMNEYS, &c.

SPECIFICATION forming part of Letters Patent No. 437,154, dated September 23, 1890.

Application filed February 12, 1890. Serial No. 340,100. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HAMM, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Tools for Finishing Lamp-Chimneys and Like Glassware; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to apparatus for finishing the tops of lamp-chimneys and like articles, its object being to provide a machine for flaring the upper end of the chimney and turning the same over, so as to form a depending flange, and for ornamenting the lower portion or base of the flange, so imparting a fine finish to the top of the chimney.

It consists, essentially, in a flaring-tool having at the upper end of the flaring ribs thereof curved forwardly-projecting portions or lips, the chimney-holder and the flaring-tool being rotatory, the one with relation to the other, and the projecting lips acting to turn back the edge of the chimney and form the depending flange thereon.

It also consists in combining with such flaring-tool a mold surrounding the tool and below the curved forwardly-projecting lips, so that when the glass is turned back to form the depending flange its lower portion or edge will enter within the mold and an ornamentation thus be formed upon the lower portion or base of the flange.

It also consists in certain other improvements in the construction of the apparatus, as will be hereinafter more particularly set forth.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a side view thereof, part of the mold being removed to illustrate its operation and the mold being open to permit the withdrawal of the chimney. Fig. 2 is a like view of the tool and mold, the mold being closed, illustrating the finishing of the chimney. Fig. 3 is a face view of the tool and mold when closed. Fig. 4 is a cross-section on the line 4 4, Fig. 1; and Fig. 5 is a side view, partly broken away, of the finished chimney.

Like letters of reference indicate like parts in each figure.

The apparatus embodying my invention is mounted in a suitable frame or stand having uprights *a a'*, at the upper end of which is mounted the power-shaft *b*, which carries the flaring-tool *c*, the shaft *b* having pulleys *b' b''* for rotating it. Fitting around the shaft *b*, back of the flaring-tool *c* and supported in any suitable way, is the mold-block *d*, carrying the mold *e*, formed of the mold-sections *e'*, these mold-sections being mounted in bearings *d'* in the mold, four of these mold-sections being preferably employed, as shown in Figs. 3 and 4, each one being a quarter of a circle, and the mold-sections when closed forming the annular mold *e* around the flaring-tool. The mold-sections *e'* are carried in the arms *e''*, pivoted in the bearings *d'*, and their rear ends are connected by straps *f* with a collar *g*, sliding on the power-shaft *b*. The normal position of this collar is against the mold-block *d*, being held in that position by the spring *h*, confined between the collar and the upright *a* or a collar on the power-shaft, and when in such position the mold is opened, as shown in Fig. 1, to permit the withdrawal of the chimney, this being accomplished by the straps *f* drawing upon the rear ends of the arms *e''*. Connected to the collar *g* is the lever *k*, which is pivoted in the arm *k'*, its opposite end being connected by a rod *l* with the foot-treadle *m*, mounted in the bearing *m'*, so that by pressing upon the treadle through said lever mechanism the collar *g* is forced backwardly against the spring, and through the straps *f* forces the mold-sections into their closed position, as shown in Fig. 2.

The flaring-tool *c* has the ordinary flaring ribs *c'*, and at the upper end thereof these ribs project forward on a curve—such as shown at *n*—so forming the forwardly-projecting lips or ribs, which act when the mouth or top portion of the chimney is forced over them to turn back the top edge and form the depending flange *p*, as shown in the chimney, Fig. 5. The mold-sections *e'* extend in front of the lips *n* into position to receive the edge of the chimney when it is turned back by the lips, so that the edge of the chimney is forced into the mold. The mold has formed thereon any desired ornamentation, that shown in the drawings being a series of semicircular depressions to form an edge consisting of a

string of beads on the lower part or base of the depending lip *p* of the chimney, as shown at *s*. Any desired ornamentation may be formed by the mold—either the beading, such as illustrated in the drawings, or any other suitable design—the annular mold being so constructed as to impart whatever ornamentation is desired on the depending flange of the chimney. This ornamentation may be of course either upon the base of the depending flange or may extend upon the side of the same, as may be found desirable.

I have described my invention in the most approved form, in which the tool is rotated and the mold is non-rotating. It is evident, however, that this may be reversed, the flaring-tool being stationary and the mold rotated, this requiring, however, that the chimney be rotated as it is fed to the apparatus. I have also described the invention where the mold extends inwardly beyond the outer edge of the forwardly-projecting lips *n* of the flaring-tool, this being necessary when the ornamentation is formed upon the base of the depending flange of the chimney; but it is evident where the ornamentation is simply to be formed on the side or lower portion of the depending flange the mold need not extend inwardly beyond the lips *n* of the flaring-tool, and in this case a solid ring-mold or annulus may be employed instead of the partible mold shown.

The operation of finishing a chimney in accordance with my invention, as illustrated in the drawings, is as follows: The mouth or upper portion of the chimney being properly heated while it is carried by the holder, it is brought to the finishing apparatus, and the operator places his foot upon the treadle *m*, thus closing the mold *e* around the flaring-tool. He then presses the mouth of the chimney up over the flaring-tool, which by its rotation opens out the mouth of the chimney and flares it, as in the ordinary operation of flaring the chimney. When, however, the upper edge of the chimney reaches the curved forwardly-projecting lips *n* of the flaring-tool, it is turned back by the same, as illustrated in Fig. 2, thus forming on the upper part of the chimney the depending flange *p*, as shown in Fig. 5. As he forces the chimney up farther over the flaring-tool, it is turned back by the lips *n* until its edge enters or is forced into the mold *e*, in which the desired ornamentation is imparted to the edge—either beading, such as shown in Fig. 5, or any other desired ornamentation. The operator then releases the treadle *m*, when the spring *h* forces the collar *g* forward against the mold-block *d*, and through the straps *f* draws down the rear ends of the arms *e*² and so opens the mold, so that the finished chimney may be withdrawn therefrom. If the operator desires only to form a depending lip or flange upon the chimney and does not desire to ornament the edge of the chimney, the mold *e* and the apparatus

for operating the same may be omitted. The curved forwardly-projecting lips *n* simply serve in such case to impart the desired finish to the top of the chimney.

Chimneys finished by the apparatus above described are neat in appearance and may be ornamented so as to impart a beautiful and desirable appearance to the chimney. They can be finished quickly and at comparatively little expense.

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

1. In apparatus for finishing chimneys and like articles, the combination of a chimney-holder and a flaring-tool having flaring ribs thereon and having curved forwardly-projecting lips at the upper ends of the flaring ribs, the chimney-holder and the flaring-tool being rotatory the one with relation to the other, substantially as and for the purposes set forth.

2. In apparatus for finishing chimneys and like articles, the combination of a flaring-tool having flaring ribs thereon and curved forwardly-projecting lips at the upper ends thereof and an annular mold surrounding the flaring-tool at the forward ends of such lips, substantially as and for the purposes set forth.

3. In apparatus for finishing chimneys and like articles, the combination of a flaring-tool having flaring ribs thereon and curved forwardly-projecting lips at the upper ends thereof and a mold surrounding the flaring-tool at the forward ends of such lips, said mold being formed in sections and extending inwardly beyond said curved forwardly-projecting lips, substantially as and for the purposes set forth.

4. In apparatus for finishing chimneys and like articles, the combination of a flaring-tool having curved forwardly-projecting lips at the upper ends of the flaring ribs thereof, a series of mold-sections fitting around the flaring-tool and forming when closed an annular mold around the same, levers connected to said mold-sections, and a collar sliding on the shaft of the tool and connected to said levers, substantially as and for the purposes set forth.

5. In apparatus for finishing chimneys and like articles, the combination of a flaring-tool having curved forwardly-projecting lips at the upper ends of the ribs thereof, a series of mold-sections fitting around the flaring-tool and forming when closed an annular mold around the same, levers connected to said mold-sections, a collar sliding on the shaft of the tool and connected to said levers, a spring surrounding the tool-shaft, a treadle, and lever-connections between the treadle and the collar on said shaft, substantially as and for the purposes set forth.

In testimony whereof I, the said CHARLES HAMM, have hereunto set my hand.

CHARLES HAMM.

Witnesses:

J. N. COOKE,
ROBT. D. TOTTEN.