

L. P. ROBERTS.  
MOLD IN WHICH TO FORM PLASTIC ARTICLES.  
APPLICATION FILED AUG. 2, 1909.

952,279.

Patented Mar. 15, 1910.

Fig. 5.

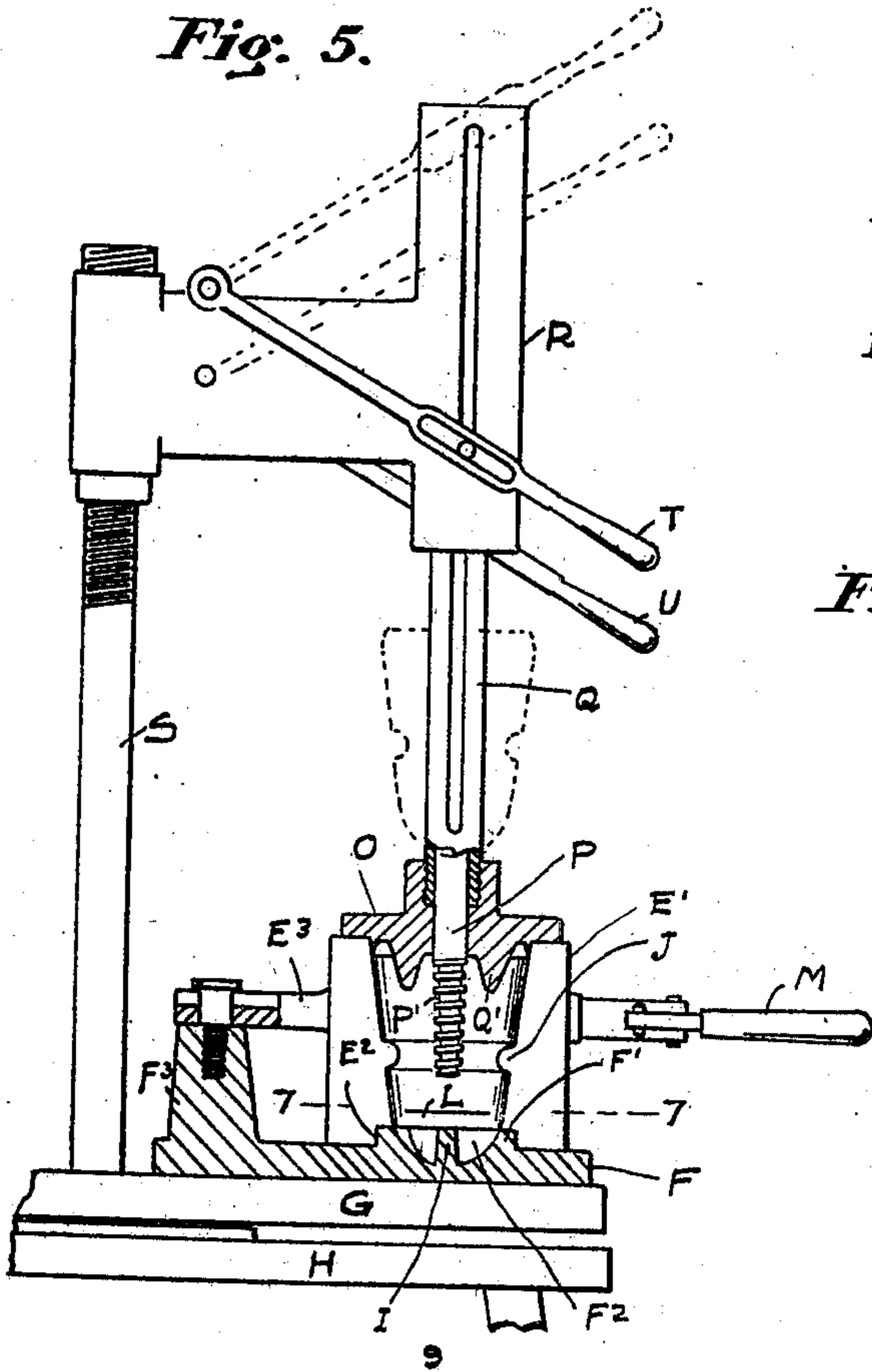


Fig. 1.

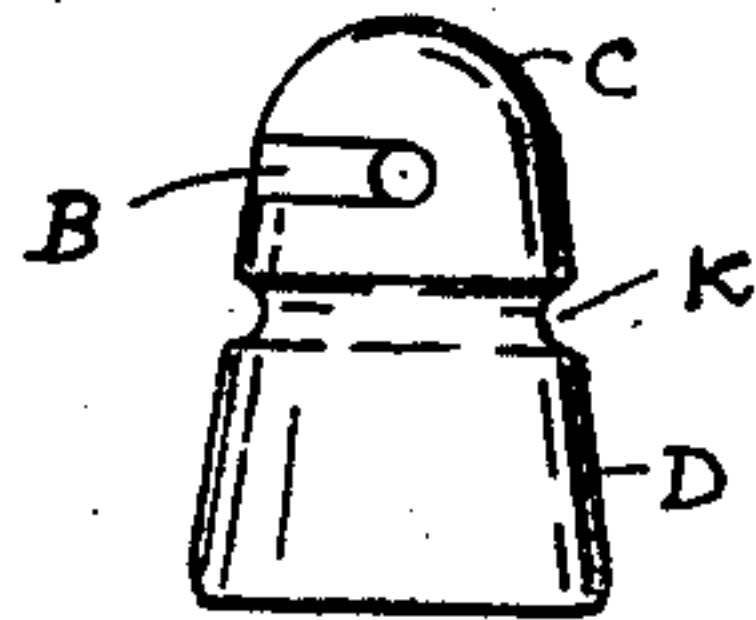


Fig. 2.

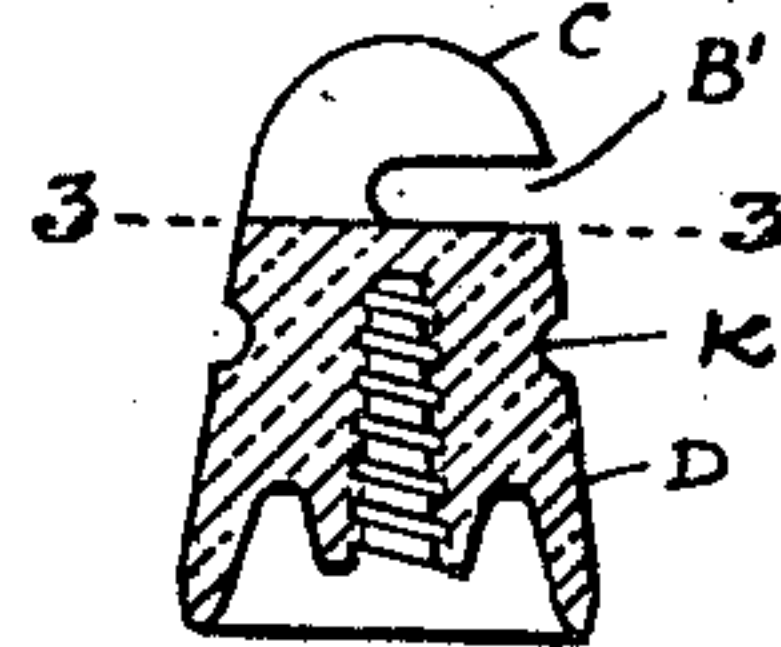


Fig. 4.

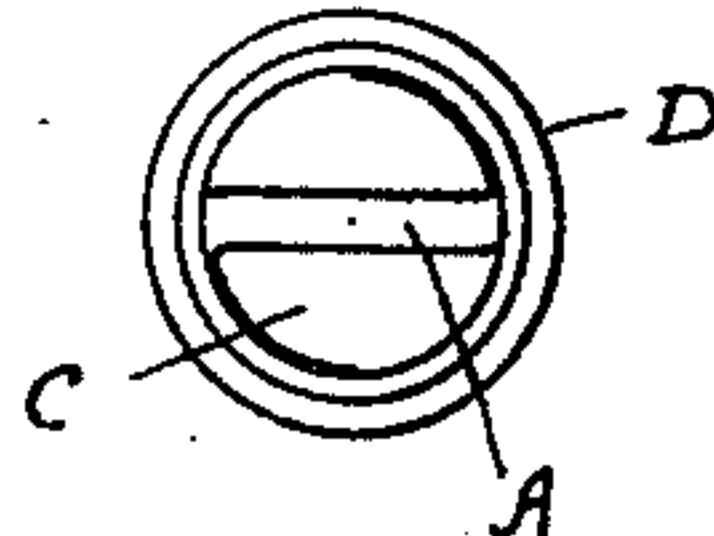


Fig. 3.

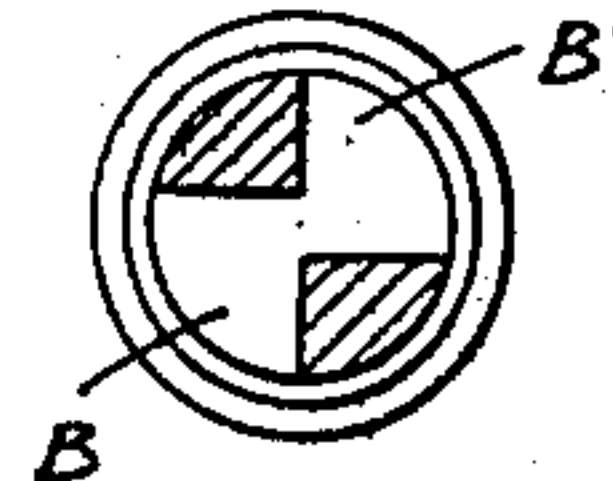


Fig. 6.

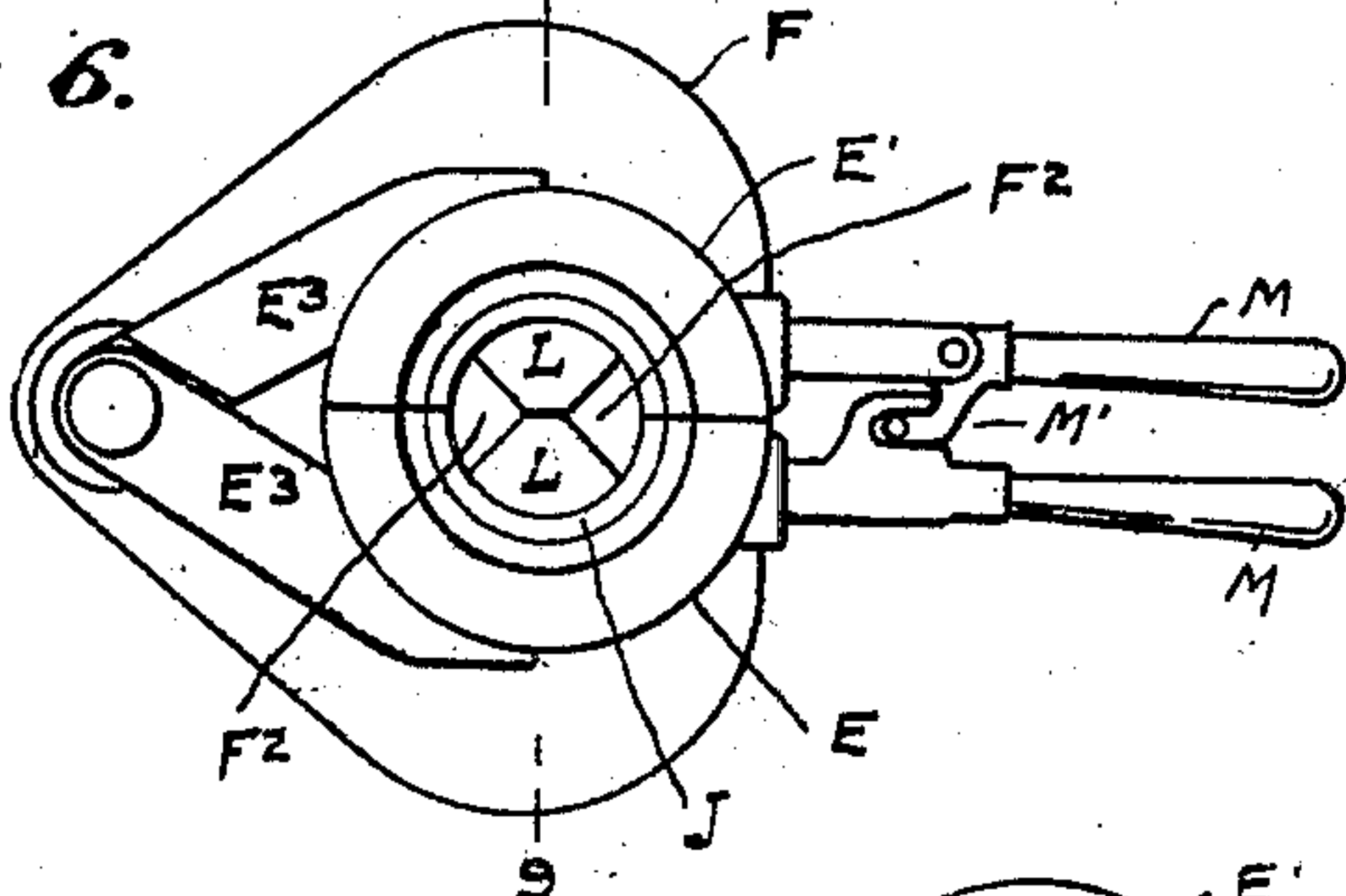


Fig. 7.

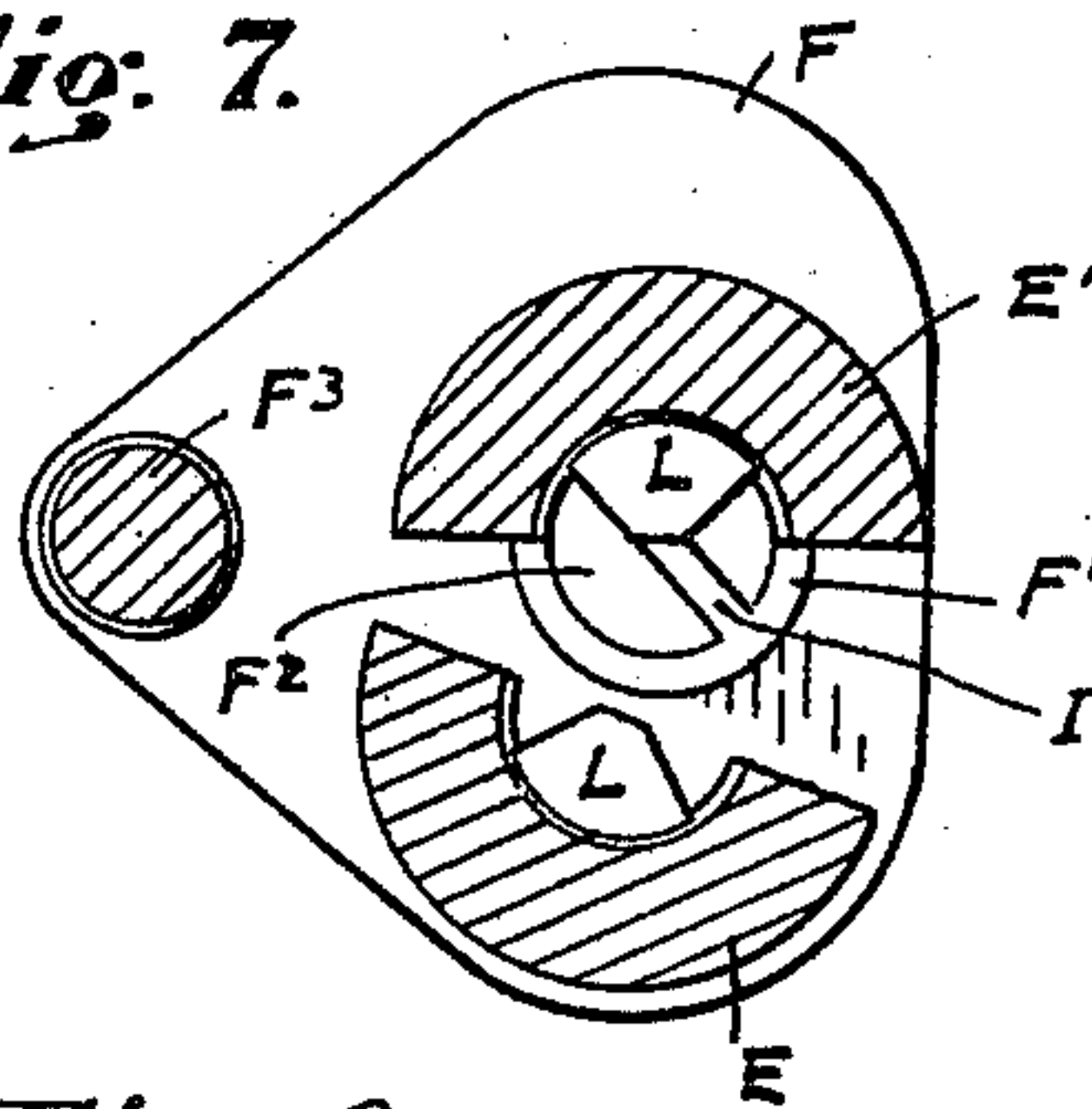


Fig. 9.

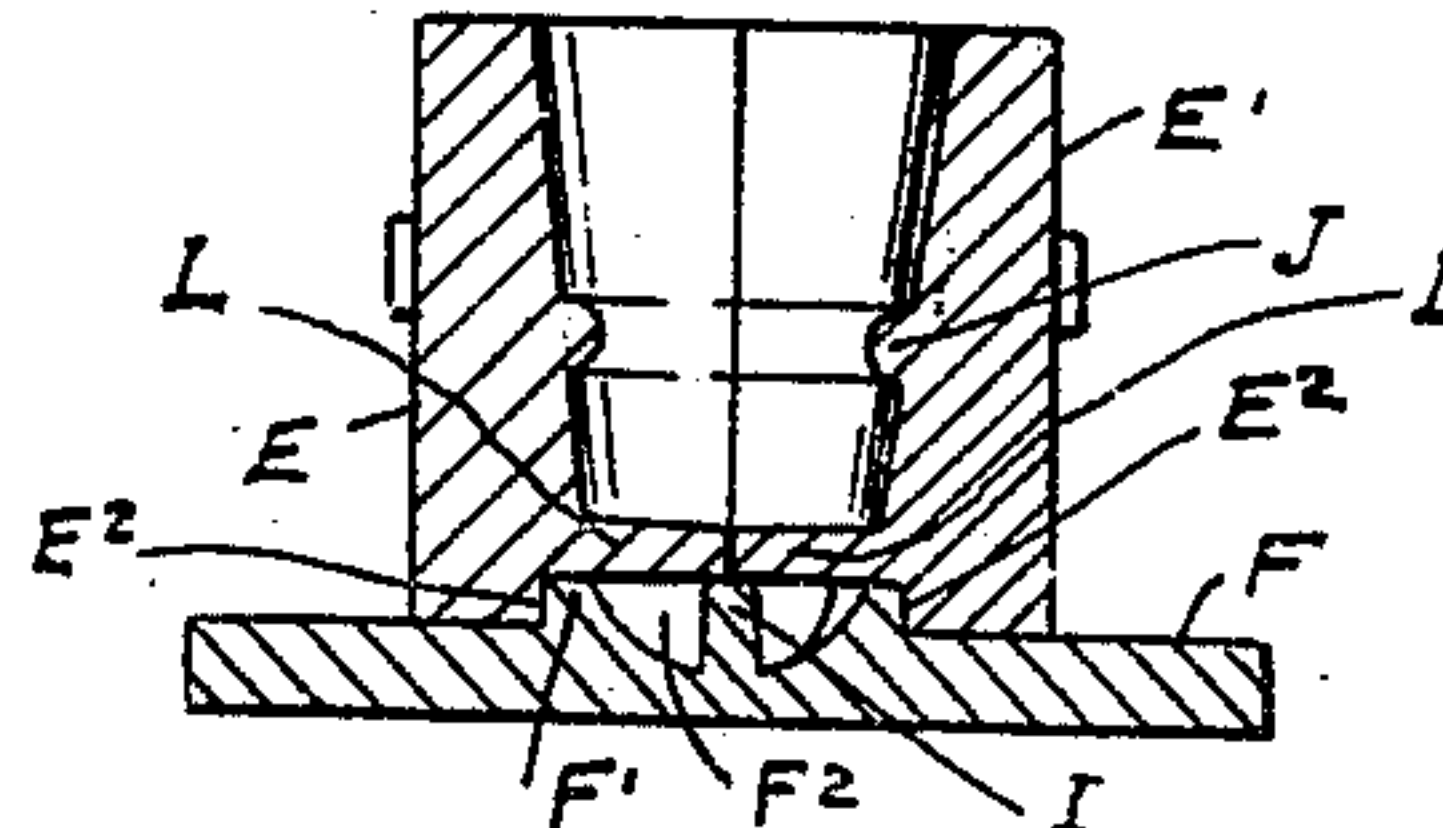
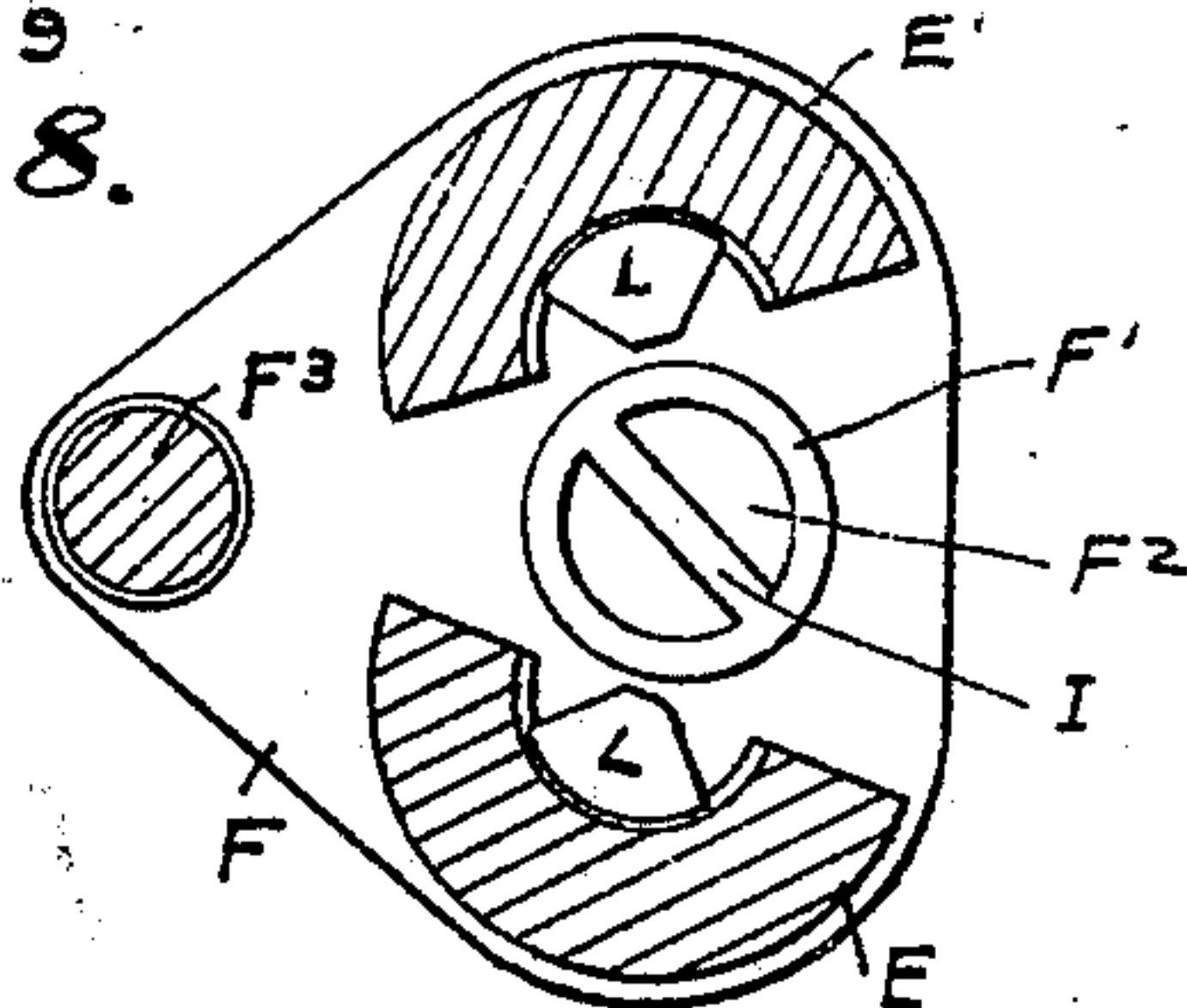


Fig. 8.



WITNESSES:

Ethel L. Lister.  
Clinton D. Murray

INVENTOR

LINAS P. ROBERTS.

BY

Thomas L. Ryan  
ATTORNEY



# UNITED STATES PATENT OFFICE.

LINAS P. ROBERTS, OF MUNCIE, INDIANA, ASSIGNOR OF ONE-THIRD TO HAYES  
McGIBBENY, OF MUNCIE, INDIANA.

MOLD IN WHICH TO FORM PLASTIC ARTICLES.

952,279.

Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed August 2, 1909. Serial No. 510,776.

*To all whom it may concern:*

Be it known that I, LINAS P. ROBERTS, a citizen of the United States, and a resident of the city of Muncie, in the county of Delaware and State of Indiana, have invented a new and useful Mold in Which to Form Plastic Articles, of which invention the following is a specification.

My invention relates to improvements in the art of making articles of plastic material, and more particularly to that of the manufacture of glass insulators.

An insulator of very desirable form and structure which contains improvements invented and perfected by me is shown in the drawings which form a part of this specification.

In the views which illustrate this glass insulator, Figure 1 is a side view, and Fig. 2 is a vertical transverse sectional view; and Fig. 3 is a horizontal transverse sectional view taken on the line 3—3 Fig. 2. Fig. 4 is a top plan view.

The essential features of this insulator are that the top portion of same has the vertical slit or bifurcation A the bottom of which slit terminates in the transverse openings B B<sup>1</sup> that extend in each direction from the center and through the body of the insulator.

In the use of this insulator it is fastened on the cross arm or other object in the usual way, and in such position with reference to the line wire that the latter is let down into the slit A and then deflected laterally, or the insulator is turned slightly in a rotary direction, the line wire will then reside in the transverse openings B B<sup>1</sup> and will be held against vertical and also against transverse movement.

A form of insulator embodying the above general feature of the vertical slit and transverse openings is illustrated in United States Letters Patent dated August 19, 1902, and numbered 707,429.

It will be observed that the insulator shown in this application besides having the foregoing features of general construction has the rounded top C, the flared body portion D, and the recessed interior. The eminently practicable material for this insulator is glass; the difficulty however has been that hitherto no means have been devised whereby this insulator could be practicably made of such material.

The contour and general form of this insulator has been designed generally with a view not only to making it thoroughly efficient to perform its functions, but to produce an insulator that is capable of being economically manufactured.

The objects of the invention which forms the subject of this application are to provide a molding device or mechanism whereby insulators of the character above referred to may be made of glass, economically and rapidly, and which insulators will be accurate in dimensions, contour, and weight.

These general objects and other objects of more specific character as will presently appear, are accomplished by and my invention consists of the new construction, combination and arrangement of parts described in this specification, illustrated in the accompanying drawings, and clearly defined in the appended claims.

In the drawings, corresponding parts are indicated by similar characters of reference throughout the several views, in which—

Fig. 5 represents a vertical central sectional view of my newly invented mechanism, there being also shown in the said view a sufficient portion of the certain mechanical parts well known, and necessary to perform the function of forming the threaded hole in the insulator and for pressing the plastic material in the mold. Fig. 6 is a plan view of the mold. Fig. 7 is a horizontal transverse sectional view of the mold taken on the line 7—7 Fig. 5, one half-section of the mold having been moved to the open position. Fig. 8 is a horizontal sectional view of the mold taken on the line 7—7 in Fig. 5, both half-sections of the mold having been moved to the open position. Fig. 9 is a vertical transverse sectional view taken on the line 9—9 Fig. 6.

My improved mold which is composed of the complementary half-sections E E<sup>1</sup> and the base-plate F is shown positioned on the rotatable carrier table G. This rotatable carrier table is mounted on a suitable frame H, so that a plurality of the molds may be moved successively into position underneath the parts that form the bottom of the insulator, and that form the threaded hole in same. The raised circular portion F<sup>1</sup> has the cup-shaped recess F<sup>2</sup> in which is the integrally formed partition I. In the form of mechanism shown herein, the same being



intended to form an insulator of substantially the design as shown in Fig. 1, the said partition stands at an angle of 45 degrees to the line of division of the mold half-sections.

5 The thickness of this partition is that of the width desired for the slit A.

The machined interior faces of the mold half-sections are of such form that the annular offset  $E^2$  thereof will engage the raised circular portion  $F^1$  of the base plate. The annular bead J will form the peripheral recess K in the insulator. Projecting from the lower part of the wall faces are the angular tongues L. These tongues have a thickness that of the width desired for the openings B  $B^1$  and are so formed that when the half-sections of the mold are closed together as shown in Fig. 6 one edge of each of the said angular tongues will register with the edge of the partition I, and the ends of said angular tongues will meet each other, directly above and in registration with the top of the partition I. These mold half-sections are provided with the usual handles M having a suitable locking device  $M^1$  whereby the half-sections may be held securely together. The arms  $E^3$  are pivotally secured to the stud  $F^3$  of the base plate F.

30 In order to more clearly illustrate and explain the functions performed by my invention I have shown an arrangement of mechanism adjacent thereto for the manipulation of the pressing head O and the mold bar P. The mold bar moves slidingly in the hollow bar Q and has its lower portion  $P^1$  tapered and threaded. The pressing head O is secured on the bottom end of the hollow bar Q, and has the annular tongue  $Q^1$ . The hollow bar Q is disposed slidingly in the arm R which is supported in the upright S that forms part of the frame H. By the suitable hand levers T and U having connections with the mold bar P and the hollow bar Q respectively, the mold bar and the pressing head may be operated independently of each other. The said pressing head and mold bar when not operating will occupy the positions as shown by the dotted lines in Fig. 5.

In the practice of my invention the mold half-sections occupy the closed position as shown in Fig. 6. A charge of molten glass is delivered into the mold. The mold bar is lowered, and then the pressing head is lowered to the position as shown in Fig. 5. In this pressing of the glass it is caused to fill the body of the mold and to fill the recess  $F^2$  and by the partition I and the angular tongues L, the slit A and the openings B  $B^1$  are formed. The mold is then opened by the moving apart of the half-sections. The angular tongues will leave the insulator and leave the openings B  $B^1$  smooth and finished.

The pressing head is then raised and then with the raising of the mold bar, the insulator is raised from the base plate and as it leaves same the slit A is left smooth and finished by the partition I. The insulator thus finished and lifted free from and apart from the mold is then engaged with the usual suitable hand implement by the operative, and is unscrewed from the mold bar, and thus is accomplished the making of an insulator of the conformation as shown in Fig. 1.

It will be understood that the partition I and the angular tongue L are formed with their sides of the proper slight bevel or slant to afford the proper "draft" when the mold half-sections are moved apart and when the insulator is elevated.

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

1. A mold in which to form plastic articles of the character described, consisting of a base plate having a recess in its top surface there being a vertical partition in the said recess, complementary mold half-sections so arranged above the base plate that the dividing line between them is at an angle to the longitudinal center line of the aforesaid partition, there being tongues projecting from the internal walls of said half-sections and having the lower edges thereof to register with the top of said partition.
2. A mold in which to form plastic articles of the character described, consisting of a base plate having a circular raised portion provided with a recess, there being a vertical partition in the said recess, complementary mold half-sections so arranged above the base plate that the dividing line between them is at an angle to the longitudinal center line of the aforesaid partition, angular horizontal tongues projecting from the internal walls of said half sections and having the lower edges thereof to register with the top of said partition.
3. A mold in which to form plastic articles, consisting of a base member having a recess in its top surface, a partition in said recess, mold half-sections above said recess to rest on the base plate the vertical dividing line of said mold half-sections being at an angle to the longitudinal center line of the said partition, complementary angular tongues to project from the interior faces of the walls and having their lower edges to register with the top of the said partition.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

LINAS P. ROBERTS.

Witnesses:

JABEZ MOON,  
THOMAS L. RYAN.