

J. B. OELKERS.
DIE OR MOLD FOR FORMING FERRULES.

APPLICATION FILED MAR. 18, 1902.

NO MODEL.

Fig. 1.

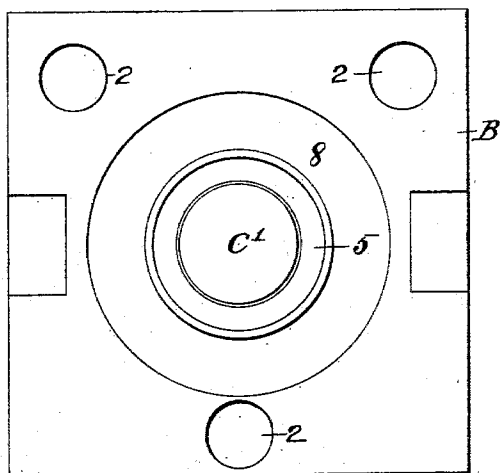


Fig. 2.

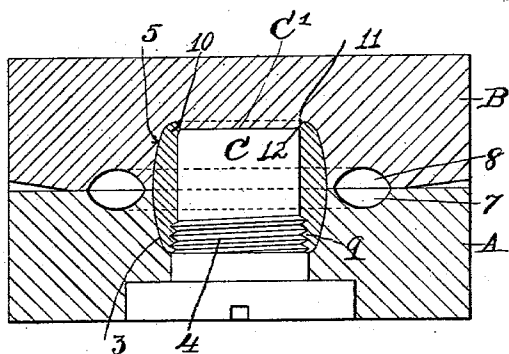
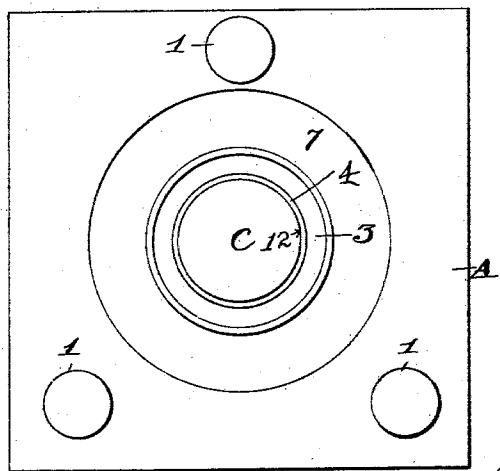


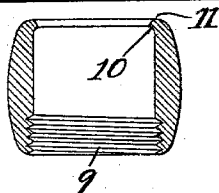
Fig. 3.



WITNESSES:

Geo. W. Eisenbraun
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Fig. 4.



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UNITED STATES PATENT OFFICE.

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DIE OR MOLD FOR FORMING FERRULES.

SPECIFICATION forming part of Letters Patent No. 717,604, dated January 6, 1903.

Application filed March 18, 1902. Serial No. 98,782. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. OELKERS, a citizen of the United States of America, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Dies or Molds for Forming Ferrules, of which the following is a specification.

My invention has reference to improvements in dies or molds for forming ferrules of plastic material—such as rubber, celluloid, and the like—and has for its object to produce a ferrule having substantially uniform strength—that is to say, a ferrule not liable to split along a line in the direction of its length—and having at one end a screw-thread for the purpose of effecting its attachment to a handle and at its other end an interiorly-projecting flange flared outwardly.

Heretofore ferrules have been produced from a tubular body which was compressed transversely into the required shape; but it is obvious that such transverse compression left a plane of weakness about the axis of the tubular body in view of the fact that the dies caused an extreme pressure at the top with a gradual diminution to practically no pressure at ninety degrees. In consequence thereof the ferrule was subjected to rupture along diametrically opposite lines extending lengthwise of the ferrule. This fact has been substantiated in practice, as ferrules for shaving-brushes frequently split longitudinally in view of the pressure exerted by the spreading or swelling of the hairs when the brush is used, owing to the propagation beyond the externally-extending bristles of the moisture absorbed by the bristles.

My invention consists, essentially, in a die or mold for forming ferrules of plastic material, comprising two members, one of which is provided with a depression and a centrally-arranged boss having a screw-thread thereon within the depression and a second member provided with a recess and a boss registering with the boss and depression of the first member and said bosses meeting when the die or form is closed.

The nature of my invention will be best understood when described in connection with the accompanying drawings, in which—

Figure 1 represents a face view of the up-

per member of the die or mold. Fig. 2 is a transverse section through the die or mold, showing the members brought together and the ferrule molded or formed. Fig. 3 is a face view of the lower member of the die or mold. Fig. 4 is a transverse section through the ferrule.

Similar letters and numerals of reference designate corresponding parts throughout the several views of the drawings.

Referring to the drawings, A and B designate, respectively, the two members of the die or mold, which are provided with usual means—such, for instance, as the pins 1 and sockets 2—for the purpose of guiding and registering the same. The lower member A is provided with a depression 3, in this instance made circular, although it may be made polygonal. Within this recess 3 is arranged a rigid boss C, which projects above or beyond the plane of the inner surface of said lower member of the die or mold and is provided within said depression with a screw-thread 4. In practice I prefer to make this boss separate from the lower member of the die or mold and to set the same into said lower member from the bottom thereof. The upper member of the die or mold is provided with a recess 5, registering with the depression 3 of the lower member, and also with a boss C', registering with the boss C of the lower member. The boss C' extends but slightly beyond the bottom of the depression 5 and is flared outwardly and upwardly to give it the form of a truncated cone. The heights of the two bosses are such that their adjacent ends or surfaces meet when the die or mold is fully closed. Each member of the die or mold is also preferably provided with an overflow-groove, as 7 8, adapted to receive the surplus material in a usual manner. The inner or upper edge 12 of the boss C is chamfered. The die or mold may be placed into any ordinary press adapted to operate the upper die or mold in the usual manner.

It will be readily understood that if a tubular section of rubber, celluloid, or like material capable of being molded under the influence of pressure or combined heat and pressure is placed within the depression 3 of the lower member of the die or mold and the upper member is caused to descend the section will be caused, first, to be provided with an

internal screw-thread 9 at its lower end corresponding to the screw-thread on the boss C; secondly, with an interior flange 10, and, thirdly, with an upwardly and outwardly flaring opening or mouth 11.

What I claim as new is—

1. A die or mold for forming ferrules of plastic material comprising two members, one of which is provided with a depression and a centrally-arranged boss having a screw-thread thereon within the depression and a second member provided with a recess and a boss registering with the boss and depression of the first member, and said bosses meeting when the die or form is closed, substantially as set forth.

2. A die or mold for forming ferrules of plastic material comprising two members, one of which is provided with a depression and a centrally-arranged boss having a screw-thread thereon within the depression, and a second member provided with a recess and boss reg-

istering with the depression and boss of the first member and flared outwardly and upwardly, substantially as set forth.

3. A die or mold for forming ferrules of plastic material comprising two members, one of which is provided with a depression and a centrally-arranged boss having a screw-thread thereon within the depression, and chamfered at its top, and a second member provided with a recess and a boss registering with the boss and depression of the first member, and said boss of the second member being flared outwardly and upwardly, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN B. OELKERS.

Witnesses:

JOHN C. GROEL,
L. MANGOLD.