

(No Model.)

F. N. LOOK.
DEVICE FOR MAKING COVERED EYELETS.

No. 575,963..

Patented Jan. 26, 1897.

Fig. 1.

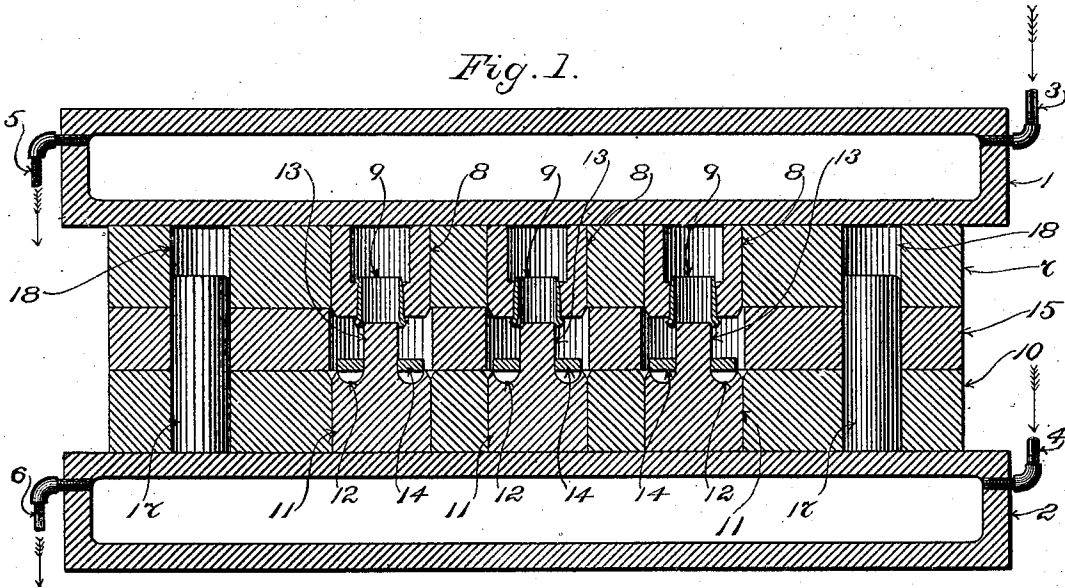


Fig. 2.

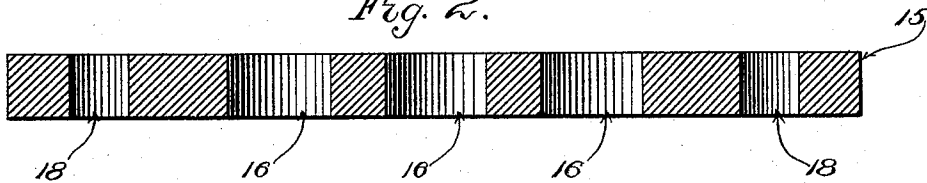
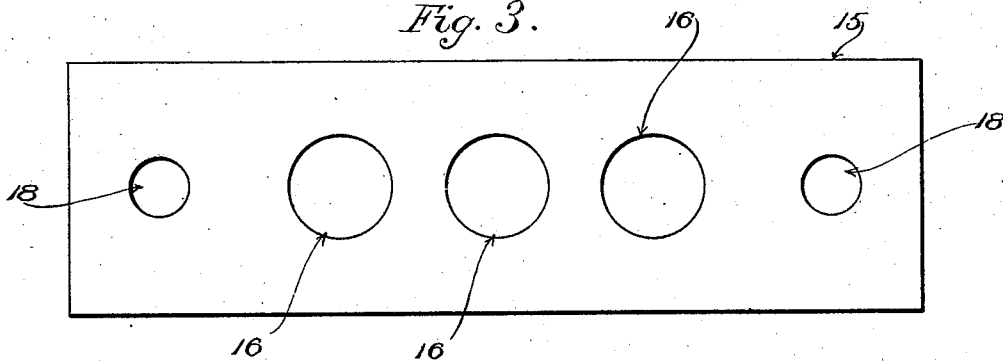


Fig. 3.



Witnesses:

Oscar F. Bill
Robert Wallace.

Inventor:

Frank N. Look
by Maceo Salver & Randall
Attorneys.

UNITED STATES PATENT OFFICE.

FRANK N. LOOK, OF NORTHAMPTON, MASSACHUSETTS.

DEVICE FOR MAKING COVERED EYELETS.

SPECIFICATION forming part of Letters Patent No. 575,963, dated January 26, 1897.

Application filed June 19, 1896. Serial No. 596,225. (No model.)

To all whom it may concern:

Be it known that I, FRANK N. LOOK, a citizen of the United States, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Devices for Making Covered Eyelets, of which the following is a specification, reference being had therein to the accompanying drawings.

The objects of my invention are to simplify and facilitate the operations which are necessary to be performed in applying to the metal bodies of eyelets the coverings of plastic material which are required to be molded upon the said bodies and to economize in the time which is expended in the performance of such operations.

The invention consists in an improved means of heating the molds or dies to prepare them for the molding operation and also of softening the plastic material to facilitate the molding. It will be described first with reference to the accompanying drawings, and afterward will be more particularly pointed out and distinctly defined in the claims at the close of this specification.

Figure 1 of the drawings shows in vertical section the two platens of a press, two dies or molds between the said platens, and an intermediate plate between the said dies or molds, the said dies or molds having applied to the same, respectively, the uncovered eyelets and also the plastic material of which the coverings are to be formed. Fig. 2 is a view in section of the intermediate plate. Fig. 3 is a view in plan thereof.

1 and 2 are respectively the upper and lower platens of a press. They are hollow, as shown, for the admission of steam by means of which to effect the heating thereof. 3 and 4 are the pipes by means of which steam is admitted into the said platens. 5 and 6 are the pipes by means of which the steam is discharged from the latter.

7 is the mold-plate which contains the dies 8 to receive the metal eyelets 9.

10 is the opposing mold-plate, which is provided with dies 11, having grooves 12, by means of which the outer portions of the coverings of plastic material are shaped, and also having the centrally-projecting pins 13, which pass into the openings or bores of the eyelets

9 when the said mold-plates 7 and 10 are placed together in the molding operation.

At 14 14 are shown washers of plastic material, such as pyroxylin, surrounding the pins 13 13 and fitted to be molded onto the ends of the eyelets 9, which project from the dies 8 8 of the mold-plate 7.

15 is a plate having openings 16 16 there-through corresponding in arrangement with that of the dies of the two mold-plates. This plate 15 is shown separately in section in Fig. 2, and in plan in Fig. 3. In Fig. 1 it is shown interposed between the two mold-plates 7 and 10.

At 17 17 are steady-pins which are applied to the mold-plate 10 and project above the upper surface of the same in Fig. 1, said pins passing into the holes 18 18, which are formed in the intermediate plate 15 and in the mold-plate 7. By means of the said pins 17 17 and the holes 18 18 I insure that the holes 16 16 of the plate 15 and the dies 8 8 of the mold-plate 7 shall register properly with the dies 11 11 of the mold-plate 10. The projecting portions of the eyelets 9 and of the pins 13 are received within the holes 16 16 of the intermediate plate 15, the said holes being larger in diameter than the washers 14 14, so as to permit the latter freely to pass into the same. The three plates 7, 15, and 10 having been placed together, they are introduced between the separated platens 1 and 2 and are subjected to compression between the said platens. The pressure received through the platens forces the surfaces of the three plates into close and intimate contact with one another, and with the surfaces of the said platens also, which insures speedy transmission of heat throughout all parts of the assemblage of plates. This causes the mold-plates 7 and 10 rapidly to become heated to the degree required for effecting the molding properly. Heat is transmitted through the pins 13 13 to the washers 14 14 of plastic material, as well as radiated also from all sides upon the same, thereby speedily bringing the washers into the required degree of plasticity. I find that placing the intermediate plate 15 of metal between the two mold-plates 7 and 10 and then applying the assembled three plates between the steam-heated platens 1 and 2, which latter are compressed against the assembled

plates, thereby occasioning close and practically perfect metallic contact among the surfaces of all the said parts, enables the heating to be very rapidly performed, the mold-plates 5 and the plastic material being brought into the condition which prepares them for the molding operation in a small fraction of the time which usually is required in the case of existing methods of procedure.

10 The plate 15 serves to transmit the heat from one mold-plate to the other. As will be perceived, when the said plate has been interposed between the two mold-plates and the assembled three plates are subjected to com- 15 pression between the steam-heated platens 1 and 2 there is no intervening layer or stratum of air between the mold-plates to retard the transmission of the heat from one to the other. Hence with the aid of this my present inven- 20 tion the mold-plates are speedily brought to the required heat, both mold-plates are heated uniformly and equally, and the washers 14 14 of plastic material quickly are brought into the required degree of plasticity.

25 I claim as my invention—

1. The combination with a pair of heated press-platens, and a pair of mold-plates adapted to be interposed between the said platens, of an intermediate plate 15 separating the said mold-plates from each other, and adapted to 30 come in contact with both of such plates, substantially as described.

2. The combination with a pair of heated press-platens, and a pair of mold-plates 7 and 10 which are constructed to receive the un- 35 covered eyelets and the portions of plastic material which are to constitute the molded coverings as described, of the intermediate plate 15 having holes therein to receive the projecting ends of the said eyelets and the 40 said portions of plastic material, said plate being adapted to come in contact with both of the said mold-plates, substantially as set forth.

In testimony whereof I affix my signature 45 in presence of two witnesses.

FRANK N. LOOK.

Witnesses:

WM. A. MACLEOD,
CHAS. F. RANDALL.