

W. F. CORKERY.
EYELET HOLDING APPARATUS.
APPLICATION FILED DEC. 7, 1910.

1,012,192.

Patented Dec. 19, 1911.

Fig: 1.

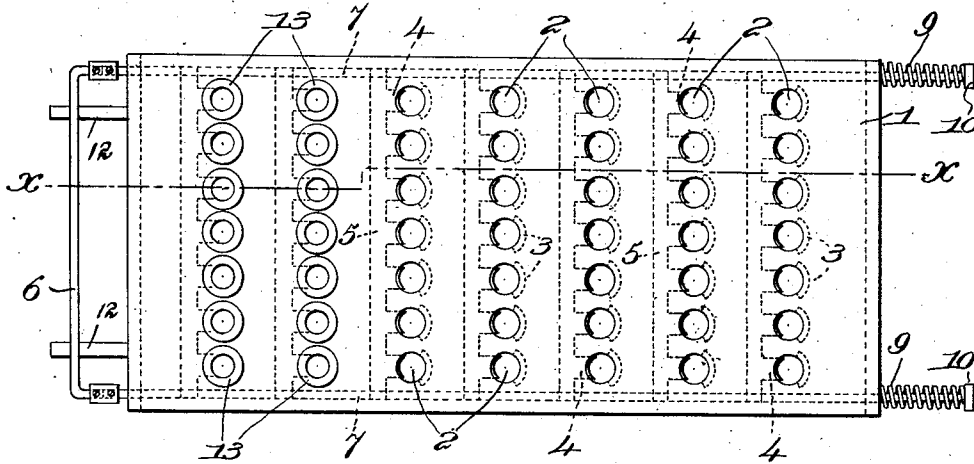


Fig: 2.

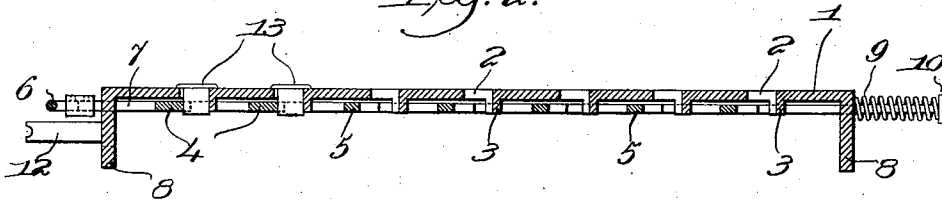
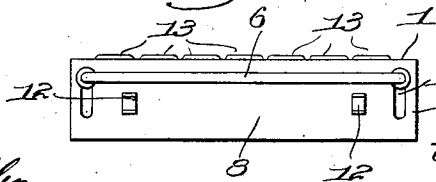


Fig: 3.



Witnesses:
Edward H. Allen.
Joseph M. Ward.

In witness whereof:
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UNITED STATES PATENT OFFICE.

WILLIAM F. CORKERY, OF TAUNTON, MASSACHUSETTS.

EYELET-HOLDING APPARATUS.

1,012,192.

Specification of Letters Patent.

Patented Dec. 19, 1911.

Application filed December 7, 1910. Serial No. 596,053.

To all whom it may concern:

Be it known that I, WILLIAM F. CORKERY, a citizen of the United States, and residing at Taunton, county of Bristol, State of Massachusetts, have invented an Improvement in Eyelet-Holding Apparatus, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention provides an apparatus for holding a large number of eyelets in suitable manner for having a coating of enamel or other material applied to the surface of the heads thereof in which the eyelets may readily be positioned and held for that purpose.

In the manufacture of eyelets it is common to coat the ring-shaped head of the eyelet with enamel or other material, but this material must not extend over the surface of the funnel end of the eyelet because the funnel end is split and bent in the process of setting the eyelet and such coating if applied thereto would crack and split off, and is furthermore unnecessary because the funnel end appears only on the wrong side of the article in which the eyelets are set.

Hitherto it has been common in enameling eyelets to use sheets of pasteboard perforated with holes corresponding in size to the funnels of the eyelets, and the eyelets are inserted in these holes with their heads resting on the upper surface of the pasteboard. These sheets of pasteboard are then run through the enameling machine and the coating of enamel or other material is thus applied only to the heads. The holes in the sheet of pasteboard obviously are adapted to receive but one size of eyelet; the insertion and removal of the eyelets changes the size of the holes leaving the eyelets loose therein; and the pasteboard wears out and breaks under usage.

The present apparatus presents a device of permanent and durable character adapted to receive various sizes of eyelets, to hold them securely in place and present them properly and evenly to the enameling or coating apparatus.

The invention will more fully appear from the accompanying description and drawings and will be particularly pointed out in the claims.

The drawings show a preferred form of this apparatus.

In the drawings Figure 1 is a top plan view of a preferred form of apparatus embodying this invention; Fig. 2 is a longitudinal cross sectional view taken on the line $x-x$, Fig. 1; Fig. 3 is an end elevation looking at the left hand side of Fig. 1.

The apparatus comprises a board 1 of sheet metal, or similar material, provided with perforations 2 to receive the funnel end of the eyelets. These perforations are preferably arranged in some regular plan and, as shown, in regular transverse and longitudinal rows. These perforations vary in size according to the eyelets to be handled but are preferably made of a fairly large diameter so as to receive a variety of sizes of eyelets, running from that diameter down to such a size that the eyelet may rest in a hole without its head passing therethrough. The apparatus comprises in addition means located beneath the board to clamp the funnel ends of the eyelets in such a manner that they may be readily released. The clamping means as shown herein comprises two features: first, flanges depending from the underside of the board at one side of the perforations and gripping means correlated with these flanges and adapted releasably to grip the eyelet funnels against the flanges. More specifically considered the flanges of the gripping means are formed by striking down a portion of the metal to form the perforations, so that the struck-down portion presents at one side, herein shown as the right hand side of each perforation, the segmental flanges 3.

The correlated gripping members comprise segmental fingers 4 oppositely disposed with reference to the flanges 3, and herein shown as carried upon transverse bars 5, while these bars in turn are connected to and movable with a carrier 6, shown as a U-shaped member, the limbs 7 of which slide in apertures in flanges 8 bent downwardly at the ends of the board, these flanges serving also to stiffen the board. At the right hand end the limbs 7 of the carrier are surrounded by coiled springs 9 confined between the flanges 8 and head 10 carried upon the limbs 7. At the left hand end the apertures 11 in the flange 8, through which the carrier passes, are elongated so that the left hand end of the carrier may be moved up and down. The left hand flange 8 also carries below the normal plane of the carrier and projecting outwardly therefrom the grooved

projections 12. It will thus be seen that the springs 9 normally move the carrier to the right, or in such a direction as to cause the segmental fingers 4 to move toward the segmental flanges 3. When the carrier is moved toward the left and depressed it will rest in the grooved projections 12 and maintain the fingers 4 and flanges 3 separated.

The action of the segmental fingers in gripping the eyelet funnels against the flanges is slightly to elevate the eyelet heads above the plane of the board, due probably to the slightly conical shape of the eyelet funnel. This slight elevation of the eyelet heads prevents any overflow of the enamel applied to the eyelet head to reach the board and cause the eyelet to be connected to the board during the process of baking the enameling. When this happens the eyelet has to be broken away from the board and this makes the edge of the eyelet head rough and tends to chip the enamel from the eyelets. Hence, the action of the gripping members in slightly elevating the eyelets is important.

The operation of the apparatus will be apparent. The carrier is first drawn toward the left against the action of the springs 9 and kept and held in the grooved projections 12. The eyelets, several of which are shown at 13, are then placed in the various perforations by tumbling upon the board or by being placed therein with the fingers. The carrier is then released from the projections 12 and allowed to move to the right under the influence of the springs 9, bringing each segmental finger 4 against each eyelet funnel and crowding it against each flange 3 so that each eyelet is firmly gripped and held. When the enameling or coating operation is concluded the movement of the carrier to the left releases all the eyelets at once.

The terms "upper surface", "underside", and similar terms used in the specification and claims are to be taken in a relative sense, because, as is well known, shoe eyelets enameled on the top or bell are enameled with the funnel end up and the top or bell down, and the enamel is baked with the eyelets in the same position. The eyelets are, however, inserted in the board right side up, or in the positions illustrated in the drawings, and for that reason the terms referred to have been used as properly describing the invention.

Having fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. An eyelet holding apparatus compris-

ing a perforated board to receive the eyelets with their funnels projecting through the perforations and their heads resting upon the upper surface thereof, flanges depending from the underside of the board at one side of the perforations, and means correlated with said flanges for releasably gripping the funnels of the eyelets.

2. An eyelet holding apparatus comprising a perforated board to receive the eyelets with their funnels projecting through the perforations and their heads resting upon the upper surface thereof, flanges depending from the underside of the board at one side of the perforations, a sliding carrier mounted to slide beneath the board and provided with gripping members correlated with said flanges, and means for causing said carrier to move in the direction of the flanges and releasably grip the funnels of the eyelets between the gripping members and the flanges.

3. An eyelet holding apparatus comprising a perforated board with segmental flanges depending from the underside of the board at one side of the perforations, a carrier mounted to slide beneath the board, means for yieldingly moving the carrier in the direction of said flanges, gripping members carried by said carrier and correlated with said flanges, and means for temporarily holding said carrier in opposition to said means for yieldingly moving said carrier.

4. An eyelet holding apparatus comprising a perforated board with segmental flanges struck down from the underside of said board at one side of said perforations, a U-shaped carrier mounted to slide beneath said board, springs acting to move said carrier toward said flanges, segmental fingers mounted upon said carrier and correlated with said flanges, and grooved projections for holding said carrier away from said flanges in opposition to said springs.

5. An eyelet holding apparatus comprising a perforated board to receive the eyelets with their funnels projecting through the perforations and their heads resting upon the upper surface thereof, and means carried by and located on the underside of the board for slightly elevating the eyelets and releasably gripping the funnels of the eyelets to hold the eyelets in slightly elevated position.

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

WILLIAM F. CORKERY.

Witnesses:

FRANK T. MURPHY,
GEORGE A. TWEEDY.