(No Model.) 2 Sheets—Sheet 1.

A. G. MEAD.

MACHINE FOR ROLLING FLANGED EYELETS.

No. 383,403. Patented May 22, 1888.

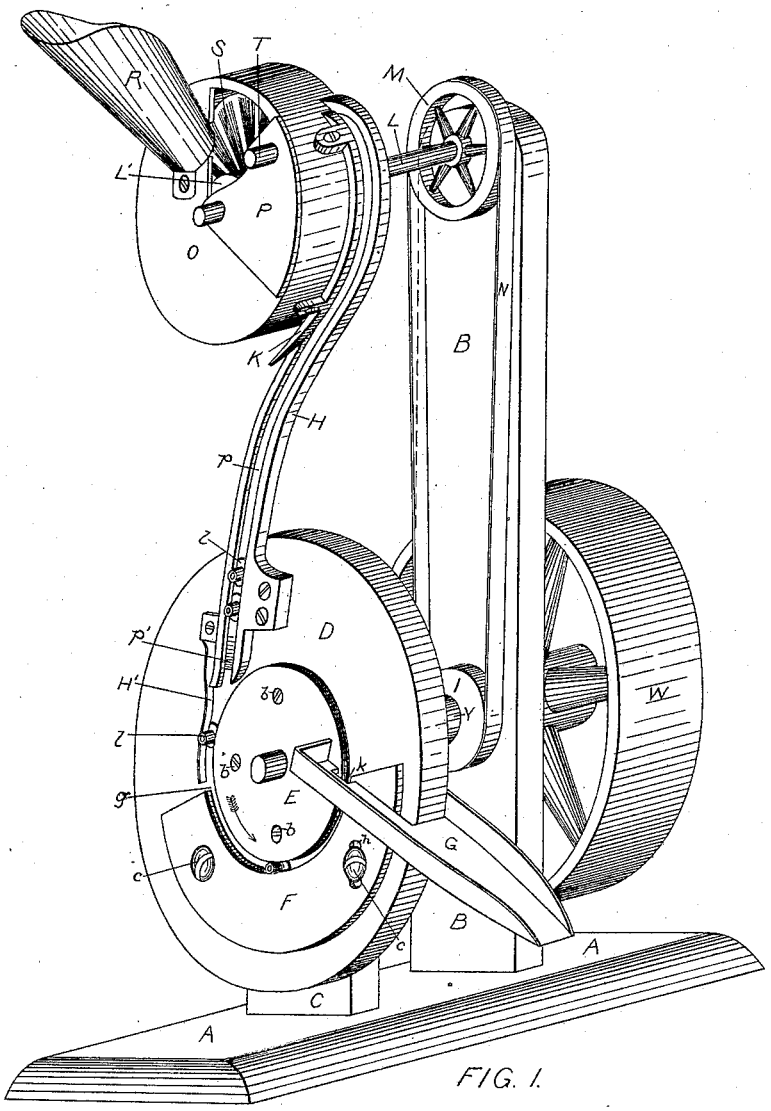

FIG. 1.

WITNESSES
Albert E. Leach
M. H. Thompson.

INVENTOR,
Albert G. Mead,
By his Attorney,
Wm. B. H. Down

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

A. G. MEAD.

MACHINE FOR ROLLING FLANGED EYELETS.

No. 383,403. Patented May 22, 1888.

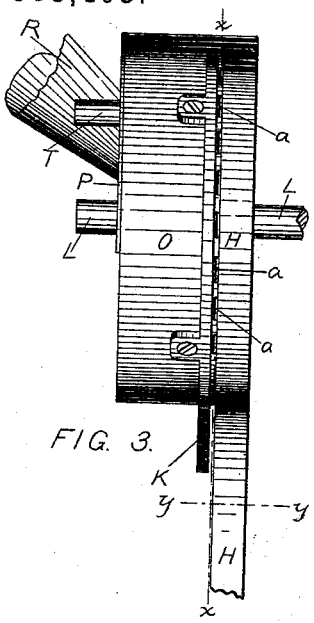

FIG. 3.

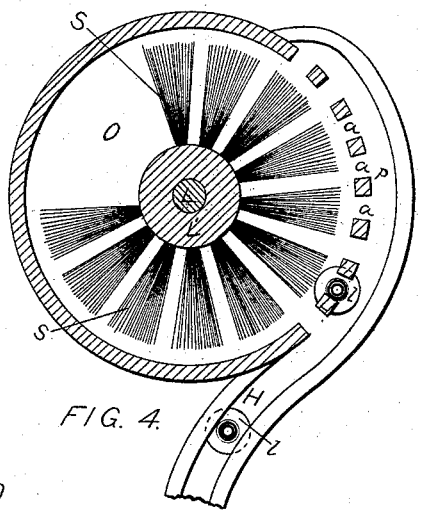

FIG. 4.

FIG. 5.

FIG. 2.

FIG. 6.

FIG. 7.

WITNESSES,
Albert E. Leach
M. H. Thompson.

INVENTOR.
Albert G. Mead
By his Attorney,
Wm. H. Dowson.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ALBERT G. MEAD, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE INTERNATIONAL FASTENING COMPANY, OF PORTLAND, MAINE.

MACHINE FOR ROLLING FLANGED EYELETS.

SPECIFICATION forming part of Letters Patent No. 383,403, dated May 22, 1888.

Application filed November 28, 1887. Serial No. 256,305. (No model.)

To all whom it may concern:

Be it known that I, ALBERT GALLATIN MEAD, a citizen of the United States, residing at Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a certain new and useful Machine for Rolling Studs and Eyelets, of which the following is a full specification.

My invention consists of a machine to be used especially in the manufacture of eyelets, studs, and other articles, the object of the mechanism being to roll in or form a contracted neck around said eyelets, studs, &c. The machine is particularly useful for forming such a contracted neck on flanged eyelets used as studs in many glove-fasteners.

Figure 1 of the accompanying drawings is a perspective view of my improved machine. Fig. 2 shows, in section, the circular dies and their arrangement, the section being taken on a vertical plane through the axis of the main axle. Figs. 3 and 4 are views of the feeding mechanism employed, Fig. 4 being a section on *x x*, Fig. 3. Fig. 5 is a cross-section on *y y*, Fig. 3. Fig. 6 shows, in elevation and section, a common form of flanged eyelet before being rolled in; and Fig. 7 shows the same after passing through the machine.

In the form of machine shown in the drawings, A is the base from which rise the two uprights B and C, supporting the working parts. Attached to the upright C is the stationary circular plate D, the center of which is bored out to receive the revolving plate E′, whose outer surface is preferably flush with that of the stationary plate. The said revolving plate E′ is keyed or otherwise secured to the main axle Y, to revolve with the same, motion being imparted in any desired manner, as by the pulley W. The revolving circular die E is a thin plate attached by screws *b* to the plate E′, so as to revolve with it, but whose inner surface is separated from the outer surface of the said plate E′ by the washers *d*. The annular stationary die F, of the same thickness as E, is secured in like manner by screws *c* and washers *d′* to the stationary plate D.

When the machine is used for rolling in flanged eyelets, the latter are fed automatically, by means shortly to be described, into the chute H, a transverse section of which is shown in Fig. 5, the shape being such that the eyelets are held therein by the flanges. Passing by gravity from the bottom of the chute H the eyelet is guided downward, its flanged bottom moving along the face of the plate D, kept in proper position by the metal guide H′ on the one side and the circular die E on the other, which bear loosely against the upper side of the flange. The eyelets are thus guided between the circular dies E and F, which are raised sufficiently above the plane of the surface of the plate D, by means of the washers *d* and *d′*, to admit the flange of the eyelet to pass loosely behind the said dies. The stationary die F is adjustable by means of one or more slots, *h*, so that the distance between the edges of the two dies may be varied. These edges are rounded or formed to the proper shape for accomplishing the work required. In this case the edges of both are slightly beveled and at the same time convexly rounded. The stationary die F is adjusted so that its inner circle or forming edge is eccentric to the circumference or forming edge of the die E, the distance between them being at *g* sufficient to admit the eyelets between the forming-edges of the two dies, but gradually diminishing to considerably less than the diameter of the eyelets. The circular die E, revolving in the direction indicated by the arrow, rolls the eyelets around between its edge and that of the stationary die F from the receiving-point *g* to the discharging-point *k*, forming thus the contracted neck around the said eyelets, as shown in Fig. 7. The eyelets are discharged at *k* into the delivery-trough G, secured to the back of the stationary plate D.

The form of feeding device here shown (see Figs. 3, 4, and 5) is that commonly used in various eyelet-manufacturing machines, and consists of the drum or barrel O, in which revolves the brushes S. The back part of the periphery of the drum O is provided on one side with a number of openings, *a*, of suitable shape for the passage of the eyelet in the proper position into the chute H, which is so secured to the drum that the surface *p*, Fig. 5, is a continuation of the back of the drum O. The metal strip K, secured to the drum, serves as a guide and bears against the barrel portion of the eyelet, which, as has already been ex-

plained, is confined in the chute H by its flange. The lower part of the said chute H is screwed or otherwise secured to the face of the plate D. Motion is imparted to the revolving brushes S through the pulley I on the main shaft, the endless belt N, and the pulley M on the same spindle as the hub L′ of the said brushes. The eyelets are poured in quantity into the tunnel trough or hopper R, whence they are conducted into the interior of the drum O. Here they come in contact with the revolving brushes S and are swept around the interior of the drum, a sufficient number passing through the guiding-openings *a* into the chute H, as to cause, practically, a steady stream of eyelets to fall by gravity through the chute. At its lower end the surface *p*, against which the flanged bottom of the eyelet bears, tapers down, as shown at *p′*, to the surface of the plate D, allowing the eyelet to pass along that surface to the circular dies.

The working-edges of the circular dies E and F may obviously be of many different forms for accomplishing a variety of purposes, and I do not by any means limit myself either to the particular form or to the exact arrangement of mechanism herein described.

I claim—

1. In a machine for rolling flanged eyelets, the combination of a stationary plate, a revolving circular plate let into the surface of said stationary plate and flush therewith, a circular die secured to said revolving plate, and a curved die adjustably secured to said stationary plate, whereby a flange-receiving space is left between said dies and the surfaces to which they are secured, all constructed, arranged, and operated substantially as and for the purposes described.

2. In a machine for rolling eyelets and other articles, the combination of a feeding device consisting of a drum provided with a discharge mechanism, substantially as described, with a revolving die, E, and a stationary die, F, whereby flanged eyelets or studs are automatically fed and rolled, substantially as set forth.

3. In a machine for rolling eyelets, a feeding device consisting of a drum provided with a revolving brush and a chute, substantially as described, in combination with the guide H′, the stationary plate D, the revolving plate E′, and the circular dies E and F, all constructed, arranged, and operated substantially as and for the purposes set forth.

In witness whereof I have hereunto set my hand.

ALBERT G. MEAD.

Witnesses:
WM. B. H. DOWSE,
ALBERT E. LEACH.