Sept. 13, 1927. 1,642,199

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METHOD OF MAKING INKING PADS

Filed Jan. 24, 1927

Fig. 1.

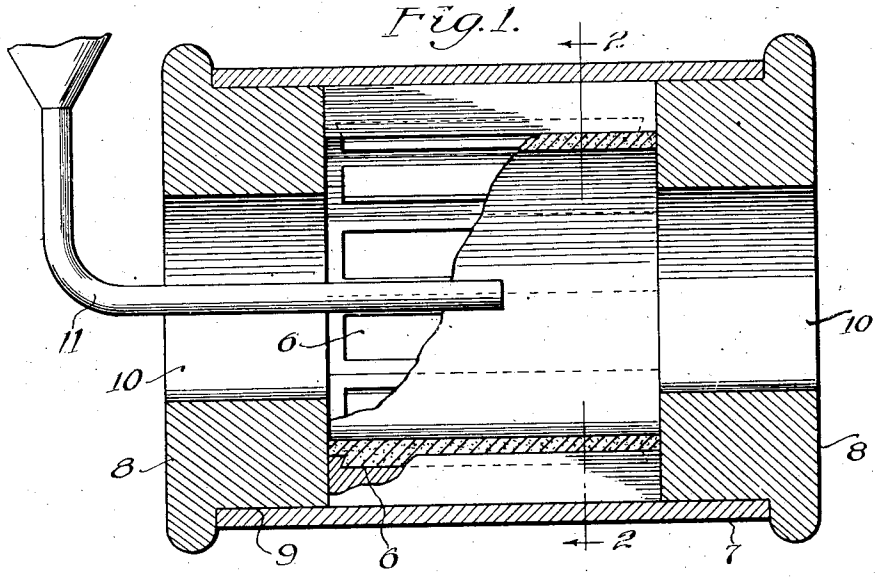


Fig. 2.

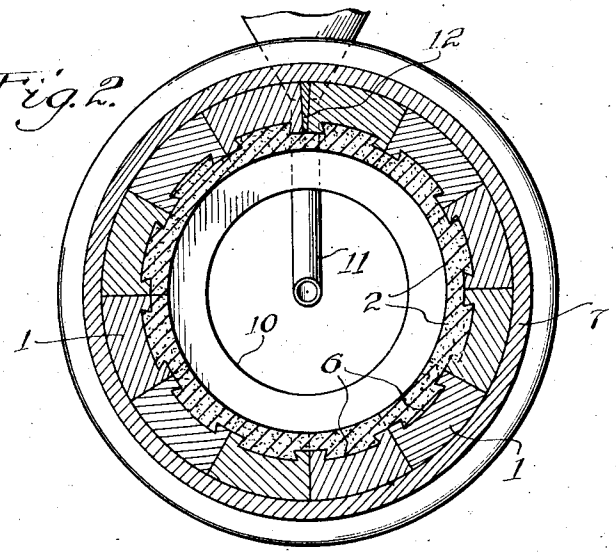
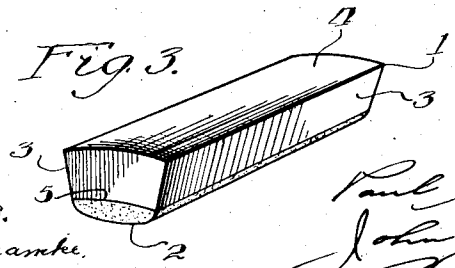


Fig. 3.



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Patented Sept. 13, 1927. 1,642,199

UNITED STATES PATENT OFFICE.

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METHOD OF MAKING INKING PADS.

Application filed January 24, 1927. Serial No. 163,171.

This invention relates to methods of making impression elements for inking mechanisms and particularly to methods for making inking pads for use in addressing machines and analogous devices.

Inking pads and rollers are generally made of a gelatinous composition which is sufficiently elastic to exert a uniform pressure on the type or stencil and which is tough enough to withstand the wear to which it is subjected. A common composition for this purpose consists of glue or gelatine, water, linseed oil, molasses or sugar, calcium chloride, rosin, and sulphuric acid. These ingredients are mixed in liquid form and then permitted to harden or set in the mold. In order to obtain the necessary coherence of these different ingredients in the making of an inking roller, it has been customary to rotate the cylindrical mold at high speed so as to subject the material to centrifugal action while it is setting.

Inking pads generally comprise a metal base having a facing of elastic material. These facings or pads of block or strip form have been molded usually in a stationary form, and for this reason they have not been made of the aforementioned ingredients which require a continuous centrifugal action while the composition is setting.

The main objects of this invention are to provide an improved method of making inking pads; to provide an improved method of applying an elastic facing to the base member of an inking pad; and to provide an improved method of applying an elastic composition material to a metal base strip for making an inking pad adapted for use in addressing machines.

An illustrative embodiment of an apparatus adapted for carrying out this improved process is shown in the accompanying drawings, wherein,—

Fig. 1 is a longitudinally section of a centrifugal device wherein a plurality of base segments are arranged to form a cylindrical mold for receiving the elastic facing, part of the facing being broken away for the sake of clearness.

Fig. 2 is a transverse section taken on the line 2—2 of Fig. 1.

Fig. 3 is a perspective of one of the finished pads.

The inking pads herein shown, which are adapted to be made by this improved method, comprise base segments 1, preferably made of suitable metal, to which are supplied facings of elastic material 2. The lateral edges 3 of the segments 1 are slightly convergent so as to permit a plurality of the segments to be arranged in cylindrical form to provide a shell or mold, as shown in Figs. 1 and 2. The outer faces 4 and the inner faces 5 of the pad segments herein shown are slightly curved so as to present cylindrical contours when the segments are assembled.

Formed in the inner faces 5 of the segments, are undercut recesses 6 for receiving portions of the facing material which anchor the facings to the base parts.

In the form shown, the centrifugal apparatus for applying the elastic facing to the base segments of the pads comprises a drum 7 having a pair of caps 8 in the ends thereof, which are adapted to be supported in a suitable machine (not shown) for rotating the drum at high speed. The caps 8 are provided with annular seats 9 for receiving the ends of the drum 7, and axial bores 10.

The caps 8 are spaced apart so as to permit the base segments 1 to be arranged in cylindrical form within the drum 7 between the inner ends of the caps. Extending inwardly through the bore 10 of one of the caps 8, is a spout 11, through which the facing material is injected into the mold in liquid form.

To assemble the mold, the base segments 1 are placed within the drum 7 in the manner shown in Figs. 1 and 2 and a wedge 12 is then driven between the opposed edges of two adjacent segments for securing the segments of the mold against creeping. The drum is then rotated at high speed while the facing material flows into the mold through the spout 11. The liquid drops from the spout and spreads over the entire inner surface of the mold, entering the undercut recesses 6 to form the anchoring portions. When material of sufficient quantity to form a facing of the desired thickness has been admitted to the mold, the flow through the spout 11 is stopped and the drum is permitted to continue its rotation until the facing material has set.

The mold is then removed from the drum 7 and, by means of a knife or other suitable instrument, the facing material is then divided along lines coincident with the abutting edges of the base segments. The facing material 2 of each segment may then be trimmed to produce a pad of the desired shape.

Although but one specific method of making inking pads has been herein described, it will be understood that certain steps thereof may be varied without departing from the spirit of this invention.

We claim:

1. The method of making inking pads which consists in arranging a plurality of independent base segments to form a shell, applying a facing material to the shell, and then dividing said facing material along adjacent edges of said base segments.

2. The method of making inking pads which consists in arranging a plurality of independent base segments to form a cylindrical shell mold, applying a facing material to the shell, and then dividing said facing material along lines coincident with the adjacent edges of said base segments.

3. The method of making inking pads which consists in lining a cylindrical mold with a facing material, and then dividing said facing material along lines extending axially of the mold.

4. The method of making inking pads which consists in lining a cylindrical mold with a facing material, and then dividing said facing material and mold along lines extending axially of the mold.

5. The method of making inking pads which consists in arranging a plurality of independent base segments to form a shell, applying a facing material to the inner wall of the shell by centrifugal action to produce a lining, and then dividing said lining along the adjacent edges of said segments.

6. The method of making inking pads which consists in arranging a plurality of independent base segments to form a cylindrical shell, applying a facing material to the inner wall of said shell, and then dividing said facing material along lines extending axially of the shell.

7. The method of making inking pads which consists in arranging a plurality of independent base segments in abutting relation to form a cylindrical shell, applying a facing material by centrifugal action to the inner wall of said shell to produce a lining, and then dividing said lining along lines coincident with the abutting edges of said base segments.

8. The method of making inking pads which consists in forming a shell mold with undercut recesses in the inner wall thereof, applying a facing material to said inner wall by centrifugal action to produce a lining having anchoring portions in said recesses, and then dividing said lining and mold along lines extending longitudinally thereof.

9. The method of producing inking pads which consists in forming a cylindrical shell mold of a plurality of independent base segments having undercut recesses in the faces thereof, applying a facing material by centrifugal action to the inner wall of the mold to produce a lining having anchoring portions in said recesses, and then dividing said lining along lines coincident with the adjacent edges of said base segments.

Signed at Chicago this 20th day of Jany., 1927.

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