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METHOD OF MAKING CORN PLASTERS

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This invention relates to a method of manufacturing corn plasters and other like articles. The object of the invention is to provide an improved method by which these articles may be rapidly manufactured in quantity; the method employed resulting in a uniform, improved product so made that the sanitary characteristics desirable in an article of this character are fully preserved.

Specifically, the invention contemplates making the several layers which form the plaster from webs or strip material; the layers or parts of the plasters being stamped out from the strips and adherently attached together with accuracy and speed coincident with the stamping operations.

In the accompanying drawing, Fig. 1 is a diagrammatic view indicating the relative positions of the several webs or strips during the manufacture of the plasters; Fig. 2 is a face view of one of the completed plasters; Fig. 3 is a sectional view on the line 3—3 of Fig. 2, looking in the direction of the arrows; Fig. 4 is a sectional view through the strips which form the medicated disks, the adhesive tape and the foraminous backing, showing the dies for assembling the plaster elements; and Fig. 5 is a view through the felt strip from which the ring-shaped pads are stamped, showing the dies for stamping these pads out of the felt strip and affixing them to the foraminous backing.

The corn plaster manufactured in accordance with the improved process is shown in Figs. 2 and 3. The plaster consists of a ring-shaped pad 1 having its face provided with an adhesive which detachably affixes the pad to the face of a carrier strip 2 of an open-mesh foraminous textile fabric which is preferably impregnated with a preparation serving to prevent the plaster from being too firmly attached to prevent a ready separation when the plaster is to be detached and put to use. Attached to the back of the ring pad 1 is a strip of adhesive tape 3 which is adapted to be stripped with the pad, from its adhesive attachment to the backing 2, and wrapped about the toe of the user to hold the ring-shaped pad in place over the corn. That portion of the adhesive tape 3 which overlies the pad 1 is provided with a medicated area or disk 4 which is positioned in the central opening 5 of the pad and is thus brought in contact with the corn located therein when the plaster is worn.

The strip from which the annular pads 1 are formed is shown at 1a and consists of a relatively thick soft material, such as heavy felt and has its under face 5 coated with an adhesive. The felt strip 1a is fed transversely across a strip of foraminous or open textile fabric 2a. The felt strip 1a is formed with the spaced perforations 5, these perforations being those found in the finished pads 1 shown in Figs. 2 and 3. These perforations 5 are formed by dies 6 and 7, which cut out the perforations and force the disk-shaped material from out of the holes 5. The dies 6 and 7 are so positioned relative to the strip that the strip when fed across the foraminous strip 2a is perforated as shown in Fig. 1.

At a suitable point above the strips 1a and 2a is located a pair of dies as shown at 9 and 10 in Fig. 5. These dies stamp the ring-shaped pad members 1 out of the strip 1a and force the pads downwardly so that their sticky lower face is brought in contact with the strip 2a as shown in Fig. 5 and adheres thereto. A base plate 11 is located below the dies 9 and 10 and serves as a support for the open-mesh fabric strip 2a during the operation of applying the ring-shaped pads 1 on the face of the strip 2a.

The strip 2a is moved by any suitable feeding means with an intermittent motion in the direction of the arrow shown in Fig. 1, so that the rings 1 adheres to the upper face of the strip 2a are successively lifted beneath a strip 3a from which the tapes 3 are stamped. The strip 3a is made of a thin textile fabric having its under face 14 coated with an adhesive. Before the tapes 3 are stamped out from the strip 3a, medicated disks such as shown at 4 in Fig. 3, are applied to the upper adhesive face of the strip 3a and are carried by the strip so that when one of the tapes 3 is stamped out from the strip 3a a disk carried by it is located in registration with the central opening 5 in a pad 1 attached to the face of the foraminous backing.
nous strip 2a. The medicated disks 4 are stamped from a strip or web 4a which is moved transversely across the under side of the web or strip 3a as indicated by the arrow in Fig. 1. Dies 12 and 13 punch the disks 4 out of the strip 4a and force them upward against the adhesive on the under face 14 of the strip 4a causing them to adhere thereto and be carried away by the strip.

A plate 15 overlies the upper face of the strip 3a so that the die 12 presses the strip 3a against the plate 15 during the act of sticking a disk 4 on the adhesive face 14 of the strip 3a. The web or strip 3a travels intermittently across the web 2a and during pauses in its movement a tape 3 is stamped out from the strip 3a, said tape when stamped out, carrying with it one of the disks 4 and forcing it downward and locating it in the opening 5 in one of the ring-shaped pads 1. Since the under face of the strip 3a is adhesive-coated a tape 3 stuck therefrom will adhere to the upper face of the ring-shaped pad 1 then located beneath it and will also adhere to the face of the strip 2a so that on the next movement of the foraminous strip 2a toward the right of Fig. 1 the strip 2a will carry a completed plaster adhesively attached on its face. The dies for stamping out the tapes 3a are indicated at 16 and 17 in Fig. 4, these dies co-operating with a base 18 on which the strip 2a is moved and against which pressure is exerted to adhesive-ly attach a tape 3 to one of the pads 1 and to the upper face of the foraminous strip 2a. The base 18 is provided with a pressure plate 19 which is resiliently supported by the spring 20 to equalize the pressure of the dies against the face of the pad 1 and strip 2a. The strip 2a, bearing the finished corn plasters in spaced relation thereon, as shown at the right of Fig. 1, may be carried to suitable knives, each bearing one or as many more corn plas ters as may be desired.

What I claim is:

1. The method of making corn plasters, consisting in the steps of feeding a foraminous web with an intermittent movement, feeding a pad-like strip provided with an adhesive face, transversely across the face of the foraminous web, cutting ring-shaped pads from the pad-like strip and adhesively applying them to the face of the foraminous web.

2. The method of making corn plasters, consisting in the steps of feeding a foraminous web with an intermittent movement, feeding a pad-like strip provided with an adhesive face transversely across the upper face of the foraminous web, stamping ring-shaped pads from the pad-like strip while it is located over the foraminous web and forcing said pads downwardly into adhesive attachment with the upper face of the foraminous web, feeding a strip of adhesive-coated textile fabric over the pads while carried by the foraminous web, stamping tapes from said adhesive-coated strips and forcing the strips out of the adhesive-coated strip and into adhesive attachment with pads carried by the foraminous web.

3. The method of making corn plasters, consisting in the steps of feeding three traveling webs relative to one another, moving two of said webs transversely across the third, stamping pads from one of the webs and adhesively attaching them to the face of a second web, and stamping tapes from the third web and adhesively attaching them over the faces of the pads and the face of the web on which the pads are attached.

4. The method of making corn plasters, consisting in stamping plaster pads from a continuous web, forcing the pads from the body of the web and against the face of an open-mesh fabric web, applying medicated areas to the face of an adhesive-coated web, stamping tapes, each bearing a medicated area, from the adhesive-coated web, and forcing said tapes against the pads held on the open-mesh fabric web, to adhesively secure said tapes to the pads and to the face of the web on which said pads are attached.

5. The method of making corn plasters, consisting in the steps of feeding three traveling webs relative to one another with two of said webs moving transversely across the upper face of the third, stamping ring-shaped pads from one of the webs and pressing them into adhesive attachment with the face of the second web, and stamping adhesive tapes from the third web and adhesively attaching them over the faces of the pads and the face of the web to which the pads are attached.

6. The method of making corn plasters consisting in stamping plaster pads from a web, forcing the stamped-out pads from the body of the web, and pressing them against the face of an open-mesh fabric web, to adhesively attach them thereto, applying spaced medicated disks to the face of an adhesive-coated web, stamping tapes each bearing a medicated disk from the adhesive-coated web, and forcing said tapes against pads held on the open-mesh fabric web to position the disks within the pads and to adhesively attach the tapes to the pads and to the face of the web on which said pads are secured.

7. The method of making a corn plaster in the form of a ring-shaped pad carrying an adhesively attached tape, consisting in feeding two webs at right angles to one another, stamping pads from one of the webs and affixing the pads to a second web, feeding a
third web across that on which the pads are attached, stamping tapes from the third web, and affixing said tapes to the pads and to the web on which the pads are attached.

8. The method of making a corn plaster in the form of a ring-shaped pad having a medicated central part and carrying an adhesively attached tape, consisting in feeding two webs at right angles to one another, stamping pads from one of the webs and affixing the pads to a second web, feeding a third web across that on which the pads are attached, feeding a fourth web across the third web, stamping medicated disks from the fourth web and affixing them to the third web, stamping tapes and medicated disks from the third web, and affixing said tapes and disks to the pads and to the web on which the pads are attached.

Signed at the city, county and State of New York, this 17th day of June, 1932.

GEORGE H. PERRYMAN.