

June 17, 1941.

J. M. HARDESTY

2,245,666

METHOD OF MAKING MORTAR BANDAGES

Filed Nov. 30, 1937

2 Sheets-Sheet 1

FIG. 1

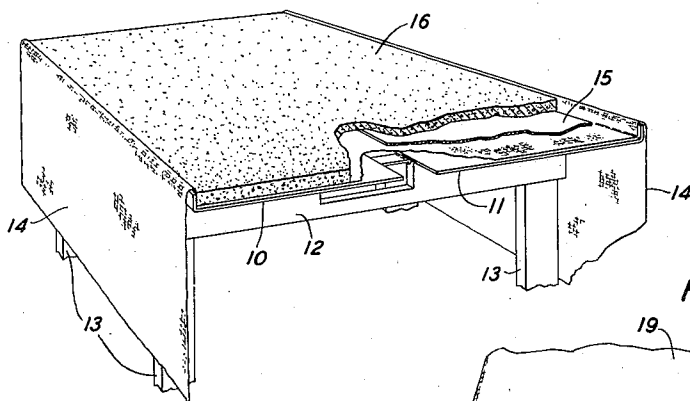


FIG. 7

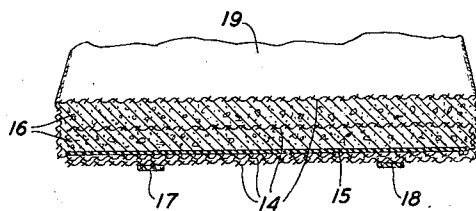


FIG. 2

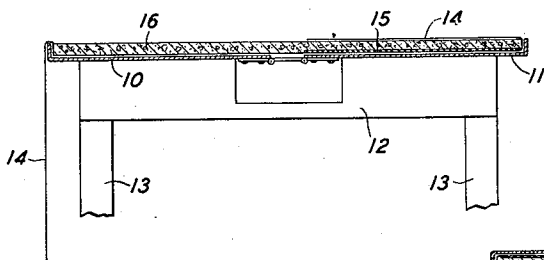


FIG. 3

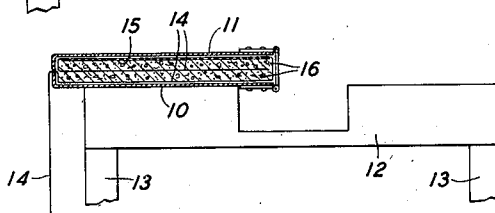


FIG. 4

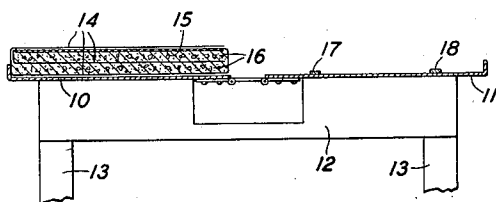


FIG. 5

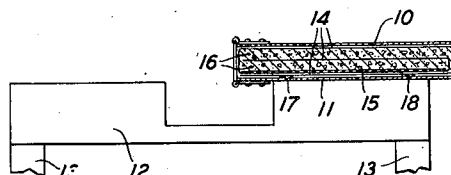
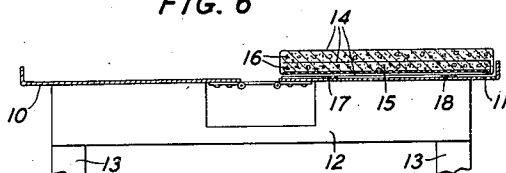


FIG. 6



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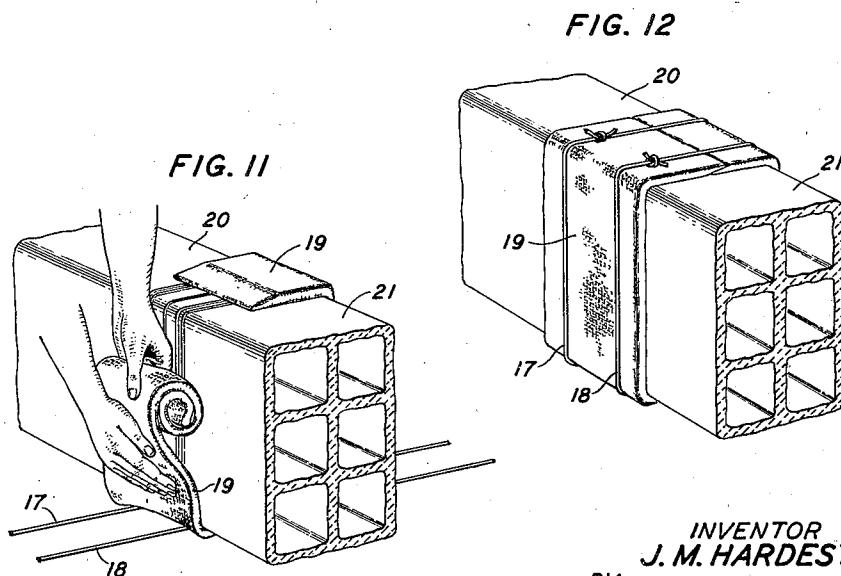
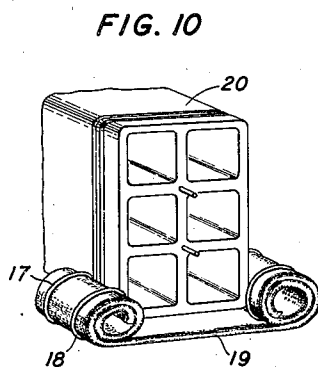
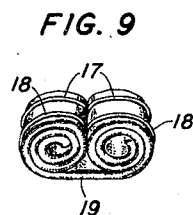
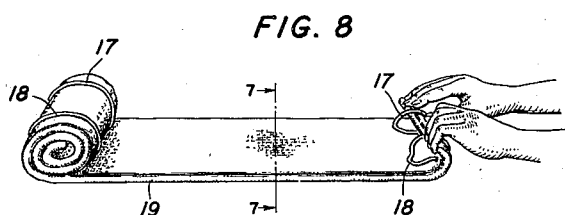
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2 Sheets-Sheet 2



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METHOD OF MAKING MORTAR BANDAGES

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Application November 30, 1937, Serial No. 177,194

3 Claims. (Cl. 154—2)

This invention relates to the making of joints in underground conduits and more particularly to a method and means for making mortar bandages used in making such joints.

An object of the present invention is the provision of a mortar bandage or wrapper which comprises a single piece of fabric so folded that it will confine and reinforce the cementitious material which forms the bandage.

Another object of the invention is the provision of a mortar bandage which can be made with a minimum amount of skill and labor.

A further object of the invention is the provision of a mold or form for making mortar bandages which will expedite the work and assure a uniform finished product.

A still further object of the invention is to provide a method of making a mortar bandage, for joining conduits and the like, which utilizes a single piece of fabric for the envelope and for the reinforcing means on the interior thereof.

In accordance with the present invention, my improved mortar bandage comprises a single sheet of cheesecloth, or some similar fabric, the length of which is sufficient to surround the conduits to be joined and allow for a slight overlap. The bandage is formed by placing a sheet of fabric in a suitable tray or mold which may comprise two longitudinal sections hinged together at their meeting edges and spaced a slight distance apart. Each section or tray is of a length sufficient to accommodate the sheet of fabric and of a width sufficient to overlap the abutting ends of the conduits to be joined. After the fabric has been placed in the mold or form with sufficient material overhanging each edge thereof, a strip of water-proof paper, or some similar material, is positioned over the fabric in one of the hinged sections. Mortar or some other cementitious material is then introduced into the mold on top of the fabric and paper strip until the mold is completely filled. After the cementitious material is troweled evenly the overhanging edges of the fabric are folded over onto the cementitious material and the sections of the mold are folded over in proper sequence to provide a mortar bandage which is a complete envelope having a strip of water-proof material adjacent one side thereof and a central reinforcing strip of fabric and a double layer of fabric adjacent the water-proof paper strip.

The mortar bandage or wrapper of this invention is applied to the conduits to be joined, in the manner disclosed in my previous Patent 1,959,421, dated May 22, 1934, and the bandage and method

of making the same is an improvement over the bandage and method of making such bandage as described therein.

The invention will be clearly understood from the following description when read in connection with the following drawings, of which:

Fig. 1 is a fragmentary perspective view, partially in section, with the fabric positioned in the mold, the water-proof strip in place in the right-hand section of the mold and a quantity of cementitious material filling the mold;

Fig. 2 is an end view partly in section, showing a portion of the fabric folded over the cementitious material in the right-hand section of the mold;

Fig. 3 shows the right-hand section of the mold, with the fabric over the cementitious material, folded over and in contact with the cementitious material in the left-hand section of the mold;

Fig. 4 is a view similar to Fig. 2 with the mold sections in their original position but with the bandage now in the left-hand section and the remaining piece of fabric folded thereon, and tying tapes in position in the right-hand mold section;

Fig. 5 shows the bandage now in position in the right-hand section of the mold with the tying tapes underneath;

Fig. 6 is a view similar to Fig. 5 but with the left-hand section of the mold back in its original position and the completed bandage now in position in the right-hand section of the mold, ready for removal;

Fig. 7 is a fragmentary cross-section of view of the completed bandage, taken of line 7—7 of Fig. 8;

Fig. 8 illustrates the completed bandage being rolled in order that it may be conveniently handled;

Fig. 9 is a view of the completely rolled bandage;

Fig. 10 illustrates the bandage in position beneath the end of a conduit;

Fig. 11 illustrates the method in which the bandage is applied to the abutting ends of the conduit; and

Fig. 12 illustrates the completed joint with the mortar bandage of this invention in place and held thereby means of tapes.

As shown in Figs. 1 to 6, inclusive, there is provided a mold or form which comprises two tray sections 10 and 11 hinged together and spaced apart at their meeting edges. These tray members are mounted on a suitable support which

comprises the cross-members 12 and the supporting legs 13. The tray sections 10 and 11 are positioned on the cross-members 12 so that their outer edges overhang and each section may be folded one over the other.

In Fig. 1 I have shown the tray members 10 and 11 in their open or normal position with a sheet of fabric 14, which may be cheesecloth, positioned in the trays and overhanging the edges thereof. The fabric 14 is of sufficient length to completely surround the conduits to be joined and allow for a slight overlap, and the width is approximately four times that of each of the sections 10 or 11 of the mold. After the fabric 14 has been positioned in the mold, as shown in Fig. 1, as heretofore described, a strip of water-proof material 15, such as paper, is placed over the fabric and in the tray section 11. A quantity of cementitious material 16 sufficient to fill the trays 10 and 11 is then introduced over the paper strip 15 and the fabric 14, which is then troweled off smoothly, as shown in Fig. 1. The next step, as shown in Fig. 2, is to fold the right-hand overhanging portion of the fabric 14 over onto the cementitious material 16 in the tray 11 and pat it down into contact therewith. The tray 11 with the cementitious material 16 therein, and the fabric 14 in contact therewith, is then folded over onto the tray section 10, as shown in Fig. 3. This operation places the right-hand overhanging strip of fabric in the center of the mold with the cementitious material 16 on each side thereof. After the tray section 11 has been firmly pressed into engagement, it is folded back into its normal position and the left-hand overhanging portion of the fabric 14 is laid over the top of the bandage, as shown in Fig. 4. As shown in this figure, tapes 17 and 18 are positioned in the tray 11 preparatory to the next operation, which is the folding over of the tray section 10 onto the tapes 17 and 18 in the tray section 11, as shown in Fig. 5. The tray section 10 is then folded back into its normal position, as shown in Fig. 6, and the bandage 19 is now ready to be rolled up with the tapes 17 and 18 inside thereof as shown in Figs. 8 and 9.

After the bandage 19 has been rolled up as shown in Fig. 9, it is then ready to be applied to the conduit end and as shown in Fig. 10, it is unrolled a sufficient amount to allow the conduit 20 to be placed thereon. It will be noted that the end of the conduit 20 is placed on the bandage in such a manner that it overlaps the bandage approximately one-half its width. As shown in Fig. 11, the conduit 20 is in place with another section of conduit 21 abutting, and the mortar bandage 19 is being applied around the ends thereof so as to completely cover the joint therebetween. After the bandage 19 is smoothed out and placed around the ends of the conduits 20 and 21, it is secured in place by means of the tapes 17 and 18. (See Fig. 12.)

The method of making the mortar bandages as herein described and which forms the subject-matter of this invention results in a uniform product and one which is not difficult to handle and which requires little skill on the part of the installer.

While there is shown and described herein the preferred embodiment of my invention, it is understood that it is not limited or confined to the precise method herein disclosed, as modifications and variations may be made therein with-

out departing from the spirit of the invention and that I am only limited by the scope of the appended claims.

What is claimed is:

1. A method of making a bandage or wrapper for joining conduits and the like which comprises placing a piece of fabric in a hinged tray-like mold, comprising front and rear sections, with the front and rear portions of said fabric overhanging the edges of said sections, placing a layer of cementitious material over said fabric to fill up both sections of said mold, folding the rear overhanging portion of the fabric over into contact with the cementitious material located in the rear tray section to form an envelope for said material, folding over said rear tray section so that the envelope contained therein contacts the remaining layer of cementitious material located in the front tray section, restoring the rear tray section to its normal position and then folding the remaining front overhanging portion of the fabric over into intimate contact with said envelope located in the front tray section.
2. A method of making a bandage or wrapper for joining conduits and the like which comprises placing a piece of fabric in a hinged tray-like mold, comprising front and rear sections, with the front and rear portions of said fabric overhanging the edges of said sections, placing a layer of cementitious material over said fabric to fill up both sections of said mold, folding the rear overhanging portion of the fabric over into contact with the cementitious material located in the rear tray section to form an envelope for said material, folding over said rear tray section so that the envelope contained therein contacts the remaining layer of cementitious material located in the front tray section, restoring the rear tray section to its normal position, folding the remaining front overhanging portion of the fabric over into intimate contact with said envelope located in the front tray section, placing a pair of tapes in said rear tray section and then folding said front tray section, with the envelope contained therein, over the rear tray section so that the tapes in the rear tray section are positioned on the bottom of said envelope.
3. A method of making a bandage or wrapper for joining conduits and the like which comprises placing a piece of fabric in a hinged tray-like mold, comprising front and rear sections, with the front and rear portions of said fabric overhanging the edges of said sections, positioning a strip of waterproof material over a portion of said fabric, placing a layer of cementitious material over said fabric and said waterproof material to fill up both sections of said mold, folding the rear overhanging portion of the fabric over into contact with the cementitious material located in the rear tray section to form an envelope for said material, folding over said rear tray section so that the envelope contained therein contacts the remaining layer of cementitious material located in the front tray section, restoring the rear tray section to its normal position and then folding the remaining front overhanging portion of the fabric over into intimate contact with said envelope located in the front tray section.

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