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J. T. MACCIOCCHI ETAL

3,138,821

TUCK POINTING BAG

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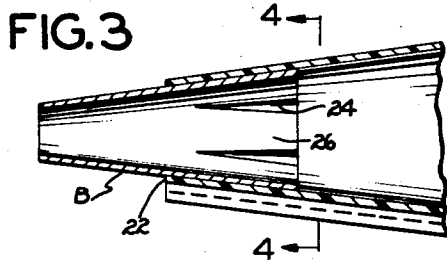
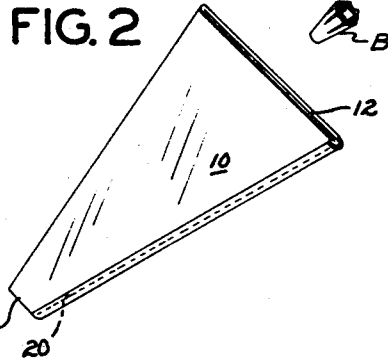
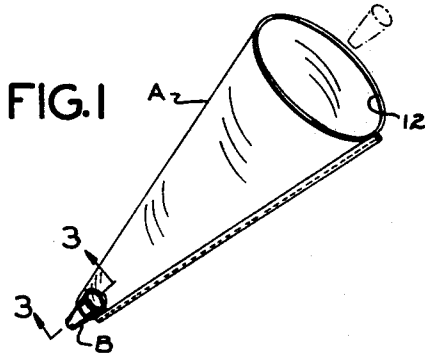


FIG. 4

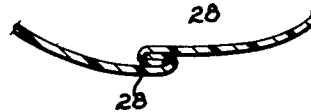
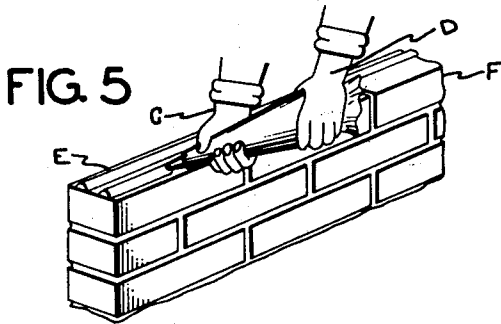
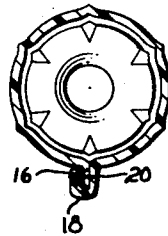


FIG. 8

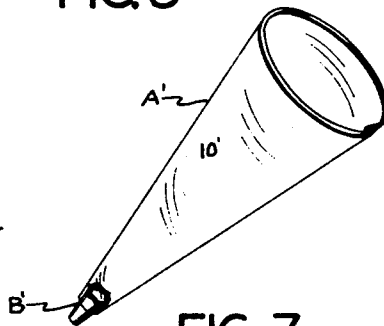
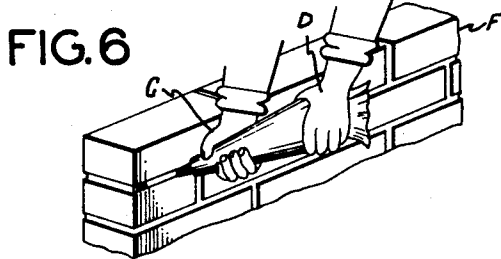


FIG. 7

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TUCK POINTING BAG

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The present invention relates generally to the construction field, and more particularly to a new and improved device for applying mortar or concrete in a plastic condition to a desired confined area.

In masonry work where either stone or brick are laid to form a wall or floor surface and joined together by mortar, the application of such mortar to restricted areas on the brick or stone has, in the past, been a slow and time-consuming operation. Likewise, when mortar joints between brick or stone in existing walls are repaired, application of the mortar to the joints heretofore has been a tedious and somewhat messy operation.

A major object of the present invention is to provide a tuck pointing device that includes a pliable container in which mortar or cement in a plastic condition may be retained, and an applicator through which the mortar or cement is extruded onto a desired restricted area of stone or brick, and by means of which the mortar or cement can be so extruded into normally inaccessible and narrow spaces between the brick or stone to connect and effectively seal the same against moisture and weathering conditions.

A further object of the invention is to supply a tuck pointing bag in which the applicator is removable from the plastic container whereby the device may be easily washed at the end of the day's work.

A still further object of the invention is to provide a tuck pointing tool of extremely simple mechanical structure which can be fabricated from standard commercially available materials, and due to the low cost thereof, retailed at a sufficiently low price as to encourage its widespread use not only in the building trades, but by those who upon rare occasions are required to apply mortar or cement in a plastic condition to repair or bond brick or stone.

Yet another object of the invention is to provide a tuck pointing tool that requires little or no skill for the operation thereof whereby an untrained person can bond brick or stone together in a neat and workmanlike manner.

These and other objects and advantages of the invention will become apparent from the following description of a preferred form thereof, and from the accompanying drawing illustrating that form, in which:

FIGURE 1 is a perspective view of the invention showing the applicator and mortar-holding bag in assembled, operative condition;

FIGURE 2 is a side elevational view of the applicator and bag which have been separated;

FIGURE 3 is an enlarged fragmentary longitudinal, cross-sectional view of the tuck pointing bag taken on line 3—3 of FIGURE 1;

FIGURE 4 is a transverse cross-sectional view of the tool taken on line 4—4 of FIGURE 3;

FIGURE 5 is a perspective view of the device being used in laying up a sequence of brick to form a wall structure;

FIGURE 6 is a perspective view of the bag being used to tuck point or repair an existing brick structure;

FIGURE 7 is a perspective view of the first alternate form of the invention; and

FIGURE 8 is a fragmentary end elevational view of the tool illustrated in FIGURE 7 showing the manner in

which the seam is formed in the mortar-holding portion thereof.

With continued reference to the drawings for the general arrangement of the preferred form of the invention, it will be seen to include a downwardly and inwardly tapering container A in which mortar or plastic cement may be disposed, which container can be conveniently fabricated from a pliable plastic sheet material 10. Container A, as may best be seen in FIGURES 1 and 2, has a relatively large upper open end 12 and a lower tapered end portion 14, which is also open. The sheet material 10 defining the container A is so formed as to provide an outward longitudinally extending edge 16 having a longitudinal edge portion 18 of U-shaped cross section positioned therearound, as illustrated in FIGURE 4. These two edge portions are rigidly joined by stitching 20. It will be apparent that if desired, the container A could be formed from a continuous sheet of material 10 and the edge portions 16, 18 and stitching 20 eliminated.

The tuck pointing bag of the present invention also includes an applicator B as shown in FIGURES 1-3 inclusive, which is in the form of a frusto-conical rigid shell that may be fabricated from sheet copper, brass or other rigid material that is not adversely affected by moisture or contact with mortar or plastic cement. The applicator B (FIGURE 3) tapers downwardly and inwardly, and has a smooth-walled side portion 22 that snugly engages the lower interior surface of the end portion 14 to effect a fluid-tight seal therewith when a force is exerted on the applicator in a direction which tends to move it outwardly from the container A. A number of circumferentially spaced, longitudinally extending ribs 24 are preferably formed on the upper portion of applicator B which define spaces 26 therebetween. When the applicator B is disposed in the container A as shown in FIGURE 3, and the container filled with mortar or the like, and when pressure is applied to a portion of the mortar, it moves into the spaces 26 but cannot move forwardly therefrom as the portion 22 seals with the interior surface of the container whereby the container, in effect, forms a confined space extending around the exterior portions of the ribs 24.

The lower portion 14 of the container A, together with the ribs 24 and spaces 26 therebetween, cooperatively provide pockets that are initially filled with mortar when the device is first used during the day, and this mortar in the spaces 26 solidifies to the extent that it holds the applicator in place within the lower portion of the container. However, these portions of mortar in spaces 26 never completely solidify during a day's use, and as a result it is possible to easily separate the container A from applicator B at the end of a day's use in order to cleanse them.

When it is desired to use the preferred form of the invention above described, the applicator B and container A are disposed in the position shown in FIGURE 1. Thereafter the container A is partially filled with mortar or plastic concrete to a desired degree, and the container grasped by the hands C and D of the user in the manner shown in FIGURES 5 and 6. The right hand C of the user grasps the forward portion of the container A and the left hand D then imparts a twisting motion to the rear of the container. This twisting motion causes the container A in which the mortar is disposed to contract in volume and the mortar is extruded from the applicator B at a desired rate. The rate of flow of mortar from applicator B can be controlled by the hand C which can restrict the forward portion of the container A to a desired degree, or by the hand D in twisting the bag or container at such speed as to extrude the mortar from the applicator at a desired rate.

In FIGURE 5 the invention is shown being used to ex-

trude two longitudinally extending strips of mortar E on a sequence of bricks F that are being laid to define a wall.

In FIGURE 6 it will be seen that the invention is being used to tuck point or repair an existing brick wall to provide a new protective layer of mortar between the bricks, with the mortar being discharged into this confined space easily and without waste or dripping of mortar over the bricks that have already been repaired.

A modified form of the invention is shown in FIGURES 7 and 8 in which the container A' for the mortar and the applicator B' are identical to the container A and applicator B previously described, except that the sheet material 10' has the edges folded over one another in overlapping U-shaped configurations 28 as best shown in FIGURE 8. These portions 28 of sheet 10' are either stitched together or bonded together by a suitable commercially available agent.

The use and operation of the invention have been described in detail hereinabove and need not be repeated.

Although the present invention is fully capable of achieving the objects and providing the advantages hereinbefore mentioned, it is to be understood that it is merely illustrative of the presently preferred embodiments thereof and we do not mean to be limited to the details of construction herein shown and described, other than as defined in the appended claim.

We claim:

In a mortar dispensing device that includes a pliable sheet formed in the shape of the frustum of a cone and having a first open end from which said sheet tapers inwardly to terminate in a restricted second opening, the combination with said sheet of an applicator:

(a) a rigid hollow frusto-conical applicator of thin-

walled structure having a plurality of circumferentially spaced ribs that project outwardly therefrom, which ribs originate at the larger end of said applicator and extend longitudinally therealong to terminate at positions intermediate the larger and smaller ends of said applicator, with said applicator being of such size and tapered configuration that a smooth-walled external surface portion thereof adjacent said smaller opening therein seals with an interior surface portion of said sheet adjacent said second opening when said applicator is disposed in said sheet, and with said ribs and the external surface areas of said applicator between said ribs cooperating with the interior surface of said sheet to define a plurality of longitudinally extending spaces which fill mortar that partially sets during the dispensing of mortar from said sheet, which mortar in said spaces serves to frictionally grip said applicator and sheet to prevent inadvertent dislodgment of said applicator therefrom, as well as tending to prevent the extrusion of said mortar between the external surface of said applicator and the interior surface of said sheet in contact therewith.

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