Sept. 12, 1944. C. M. BANGHART 2,357,992

PORTABLE WALLPAPER PASTE APPLICATOR

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FIG. 1.

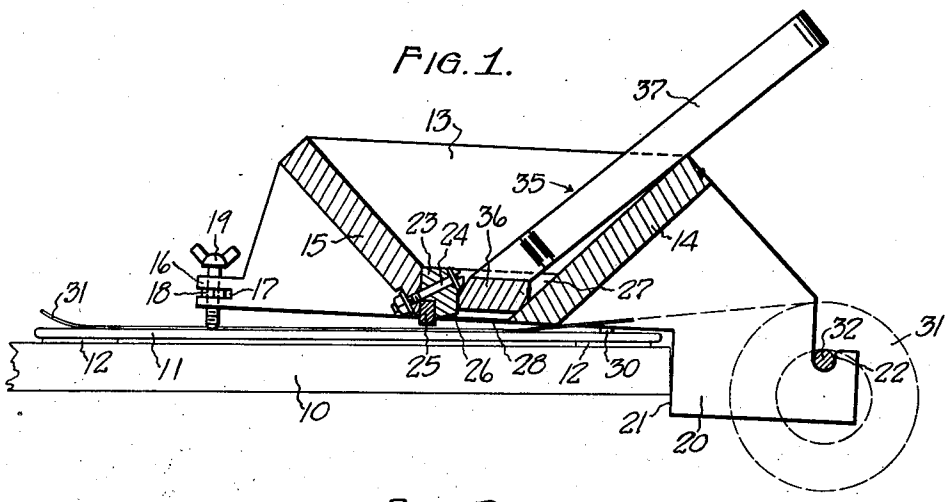
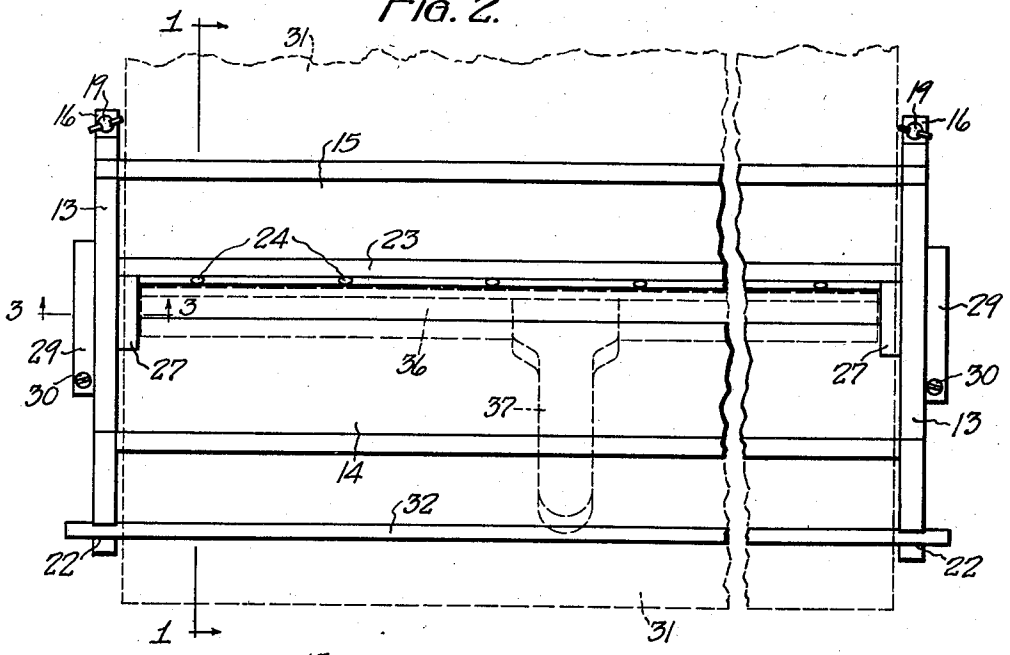


FIG. 2.



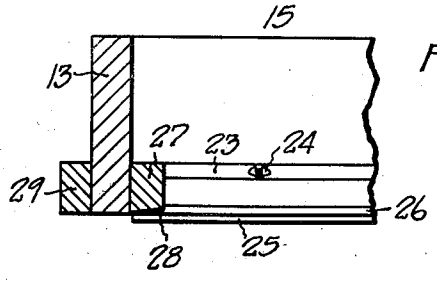


FIG. 3.

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PORTABLE WALLPAPER PASTE APPLICATOR

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9 Claims. (Cl. 91—30)

This invention relates to a portable wall paper paste applicator.

The primary object of the invention is to provide a device of this character which is inexpensive, simple in construction, and easy to operate.

A further object is to provide a device of this character by means of which paste may be quickly and uniformly applied to wall paper in a continuous, smooth layer of uniform regulated thickness.

A further object is to provide a device of this character which is light in weight and small in size whereby it may be carried about easily and installed or conditioned for use quickly by simply placing it upon a table or other support.

A further object is to provide a device of this character by means of which paste may be flowed upon a predetermined portion of a strip of wall paper without danger of excessive lateral flow around the edges of the paper.

A further object is to provide a device of this character by means of which a paste may be flowed upon paper evenly and without lumps.

Other objects will be apparent from the description, drawing and appended claims.

In the drawing:

Fig. 1 is a vertical transverse sectional view taken on line 1—1 of Fig. 2.

Fig. 2 is a top plan view drawn on a smaller scale than Fig. 1.

Fig. 3 is a fragmentary detail sectional view taken on line 3—3 of Fig. 2 and on the same scale as Fig. 1.

Referring to the drawing, which illustrates the preferred embodiment of the invention, the number 10 designates the top of a work table upon which is mounted a member 11, such as a glass plate, which has a smooth surface, and which may rest upon pads 12.

The paste applicator is adapted to be loosely and removably mounted upon surface plate 11, and comprises a pair of parallel end members or walls 13 of similar size and shape. End members 13 are interconnected by inclined downwardly converging cross members or side walls 14 and 15, which are spaced apart at their lower edges and cooperate with the end members to form a paste-receiving trough.

Each of the end members 13 is of the configuration best illustrated in Fig. 1. At the lower portion of one end, each is provided with a reduced dimension longitudinal projection 16. Projection 16 may be slotted at 17 to tightly receive a nut 18. A vertical bore is formed in projection 16 concentric with nut 18, whereby a thumb screw 19 may be adjustably positioned for the purpose of holding one end of the applicator at desired elevation above surface plate 11. The opposite end of each of the end members 13 has a downwardly projecting portion 20 defining a shoulder 21 adapted to bear against an edge of table top 10. The last named end portion is generally downwardly tapered, and a notch or recess 22 is formed therein at a level below the plane of the portion of the bottom edge of said member adjacent the paste trough.

Inclined cross member 14 terminates in a lower edge substantially flush with the lower edges of the adjacent portions of end members 13. The lower end of cross member 15 is defined by a vertical edge. A bar 23 of substantially inverted L-shape in cross section is secured to the lower end of cross member 15 by bolts 24. A spreader strip 25, formed of felt, rubber or other yielding or flexible material, is clamped between the lower edge of cross member 15 and the bar 23. Strip 25 projects a slight distance below the level of the lower edges of end members 13. The bottom edge 26 of bar 23 is preferably inclined downwardly at a slight angle toward the spreader strip 25 relative to the bottom plane of the device. The bar 23 is spaced from the lower portion of cross member 14 sufficiently to provide a wide mouth for free flow of thick paste therethrough.

A block 27 is secured to each end member 13 between cross members 14 and 15 at the mouth of the trough. These blocks 27 define the ends of the mouth of the paste trough. The bottom face 28 of each block 27 inclines outwardly and downwardly at a slight angle relative to the bottom plane of the device.

A block 29 is secured on the outer face of each end member 13 and mounts a set screw 30 which is positioned slightly forwardly of the shoulder 21, whereby it rests upon the surface plate 11 to support the side of the trough opposite the spreader at a desired elevation relative to said surface plate.

In use, the device is mounted on surface plate 11 as shown in Fig. 1 by simply placing it upon said plate with shoulder 21 engaging an edge of table 10. This simplicity of mounting, eliminating need for brackets, platforms, etc., and also eliminating manipulation of parts, is one of the primary advantages of the device. A roll of wall paper 31 is mounted on a rod 32 passed therethrough with its projecting ends seated in the notches 22. The paper web is then passed beneath the trough. The device is of a dimension such that the selvage edges of the paper pass

beneath blocks 27. The set screws 19 and 30 are then adjusted to position the device at a proper elevation to permit the paper to pass freely thereunder. A thick, slow-running paste is used in the device, and the set screws are adjusted to allow the flow of paste onto the paper and the retension thereon of a paste layer of requisite thickness after passage of the paper below the spreader 25. In order to prevent free flow of paste below the bottom edges of blocks 27 and trough member 14, the device is positioned at a slight inclination relative to the surface plate 11, as illustrated in Fig. 1. The inclination of the bottom faces 28 of blocks 27 permits outward flow of paste to a limited extent below said blocks, to insure application of paste to the full width of the design-bearing portion of the paper, and including limited application to the selvage margins of the paper, but not extending to the edges of the web. Thus the flow of paste to the design-bearing lower face of the paper is avoided. The clearance between the paper web and the spreader is also limited to prevent normal free flow of the paste thereunder. The operation of paste application normally entails adherence of paste to the paper while passing below the mouth of the trough, with the adhesion so effected being sufficient to retain a layer of paste on the paper as the paper is pulled beneath the spreader, even though the paste will not flow freely beneath the spreader when the paper is stationary.

It will be observed that the operator need only pull on the end of the paper web, once the device has been adjusted properly, and the paper will unroll and pass beneath the applicator for proper uniform application of paste thereto. The device is held stationary by the engagement of shoulder 21 with the table edge while the paper is being pulled. When paste has been applied to a portion of required length, the same may be cut, trimmed and applied, without requiring operation or manipulation of the device. In other words, the device automatically retains paste therein and prevents undesirable flow or leakage of paste for short periods of time if the paste is of the proper heavy or thick consistency. Hence, the operator need not give the device his constant careful attention, and is free to perform the operations of cutting and trimming the paper and applying it to the wall, while leaving the device unattended.

The provision of a wide discharge mouth is important to insure good adhesion of heavy paste with the paper, and also to permit absorption of lumps which may exist in the paste. The lump absorption feature is particularly valuable, since unabsorbed lumps occurring in a device of the flow type can lodge against a spreader and produce streaks in the paste face at which the paste is of inadequate thickness.

When the device is left to stand for an extended period of time, as to change or apply rolls, or when it is to be carried about, as from room to room, while containing paste, a closure member 35 may be applied thereto as illustrated in Fig. 1. The closure member 35 preferably comprises an elongated bar 36 and a handle 37. Bar 36 is preferably of a cross sectional configuration as illustrated in Fig. 1 to fit snugly in the mouth of the trough, as in a generally wedged relation, and yet has sufficient clearance between its ends and blocks 27 to facilitate its ready application and removal. Handle 37 rests against the cross member 14 when bar 36 is positioned in sealing relation within the mouth of the trough. Member 35 may be positioned within the trough resting upon the upper edge of bar 23 with handle 37 resting against cross member 15 when the device is in use. It will be noted also that member 35 forms a convenient tool for scraping the side walls of the trough from time to time as the paste level therein lowers.

The device has been illustrated as formed of wood, but it will be understood that it can be constructed from other materials, such as metal or plastic, with equal facility and without changes other than such obvious changes as are permitted or occasioned by the nature of the material employed. Among such changes may be the formation of parts 27 and 29 integral with end walls 13.

I claim:

1. A portable wall paper paste applicator adapted to be mounted on a flat substantially horizontal support, comprising a paste receiving trough having a transverse paste discharge opening at its lower end, supporting means extending below said trough and adapted to bear on said support, a spreader strip carried by said trough in parallel laterally spaced relation to said opening, a positioning member carried by and projecting below said trough in longitudinally spaced relation to said discharge opening for engagement with an edge of said support, and means for mounting a roll of paper in outwardly spaced relation to said positioning member.

2. A portable wall paper paste applicator adapted to be mounted on a flat substantially horizontal support, comprising a trough having a transverse paste discharge slot and including end members and inclined cross members, supports projecting below said trough for engaging said support, a spreader strip carried by one cross member adjacent said slot, said end members each having a downward projection spaced longitudinally from said slot for engagement with an edge of said support, and means carried by said end members adjacent and spaced longitudinally outwardly from said depending means for rotatably supporting a paper roll.

3. A portable wall paper paste applicator adapted to be mounted on a flat substantially horizontal support, comprising a trough having side and end walls and a wide transverse paste discharge slot, vertically adjustable members carried by said end walls for positioning said trough at selected elevation above said support, a spreader strip depending from one side wall adjacent said slot, projections depending from said end walls in longitudinally spaced relation to said slot for engagement with an edge of said support, and means carried by said end walls for rotatably supporting a paper roll in longitudinally outwardly spaced relation to said projections.

4. A portable wall paper paste applicator adapted to be mounted on a flat substantially horizontal support, comprising a trough having elongated end walls and inclined side walls centrally spanning said end walls and defining a transverse paste discharge slot, vertically adjustable means carried by an end of each end wall for positioning said trough in selected tilted position above said support, a spreader strip depending from one side wall adjacent said slot, means depending from the opposite end of said end walls and spaced longitudinally from said slot for engagement with an edge of said support, and means carried by said end walls and spaced longitudinally outwardly from said de-

pending means for rotatably supporting a paper roll.

5. A portable wall paper paste applicator adapted to be mounted on a flat substantially horizontal support, comprising a trough having side and end walls and a transverse paste discharge slot, vertically adjustable means carried by the ends of said trough for selectively positioning said trough elevated above said support, a spreader strip depending from one side wall adjacent said slot, and a member projecting inwardly from each end wall within said trough to define the ends of said slot, the bottom faces of said members being inclined upwardly and inwardly at a slight angle relative to the bottom plane of said trough, said members being adapted to overlie the selvage edges of wall paper fed below said trough between said end walls.

6. A portable wall paper paste applicator adapted to be mounted on a flat substantially horizontal support, comprising a trough having longitudinal and transverse walls and a transverse paste discharge slot, vertically adjustable means carried by the longitudinal walls for selectively positioning said trough above said support, a spreader strip, means for clamping said spreader strip to one of said transverse walls in depending relation thereto and adjacent said slot, depending means carried by said longitudinal walls and spaced longitudinally outwardly from said slot for engagement with an edge of said support, and means for rotatably supporting a paper roll longitudinally outwardly from depending means.

7. A portable applicator for thick wall paper paste adapted to be mounted on a flat substantially horizontal support, comprising a trough having longitudinal and transverse walls and a wide transverse paste discharge slot, vertically adjustable means carried by said longitudinal walls for selectively positioning said trough above said support, a spreader strip, means carried by one transverse wall for clamping said strip in depending relation to said trough, said clamping means being positioned within said trough to partially define said slot, and a T-shaped member having a cross bar adapted to seal said slot, said clamping means being adapted to support said member in said trough spaced above said slot.

8. A portable device adapted to rest upon a flat substantially horizontal support and to apply a slow-flowing liquid to sheet material on said support, comprising horizontally elongated substantially planar and vertical end walls of substantially L-shape, inclined walls spanning said end walls centrally thereof to define a transverse discharge opening, a transverse spreader strip carried by one inclined wall, the angularly extending portions of said L-shaped end walls projecting downwardly to bear against an edge of said support, and means carried by the end walls for positioning the opposite end portions thereof at selected elevation above said support.

9. A portable unitary device adapted to rest upon a horizontal support and to apply a viscous liquid to sheet material on said support, comprising a trough having a transverse discharge opening, transverse spreading means carried by said trough, said trough having horizontally elongated end walls of L-shape including a depending portion adapted to bear against an edge of said support, means carried by said end walls longitudinally outwardly of said support for rotatably mounting a roll of sheet material between said walls, and means carried by said walls for positioning said walls in selected longitudinally tilted position to space said trough above said support.

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