Jan. 27, 1953 E. A. WHALEN 2,626,520

PLASTERER'S DARBY

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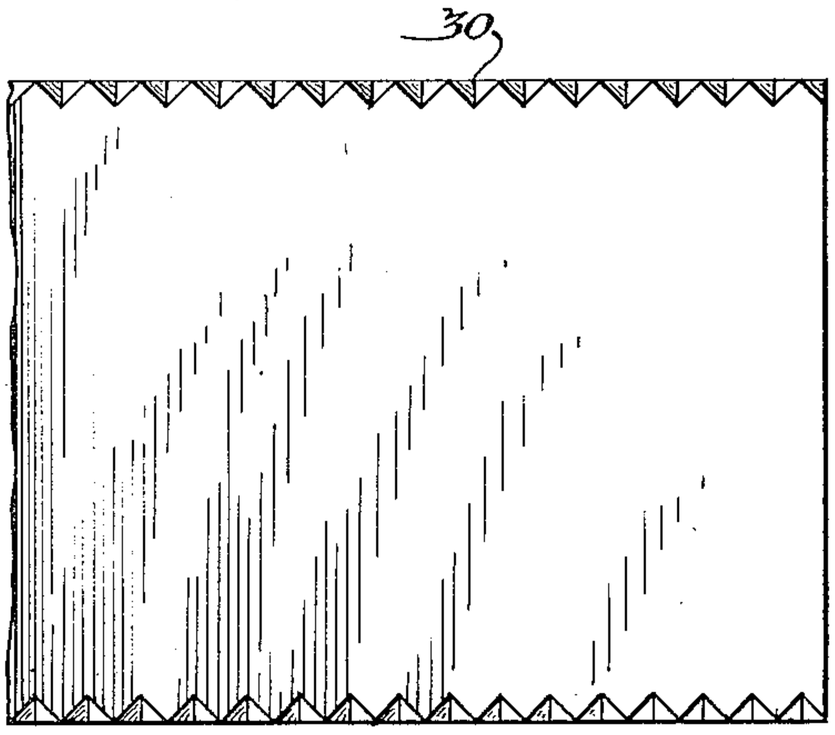


Fig. 2.

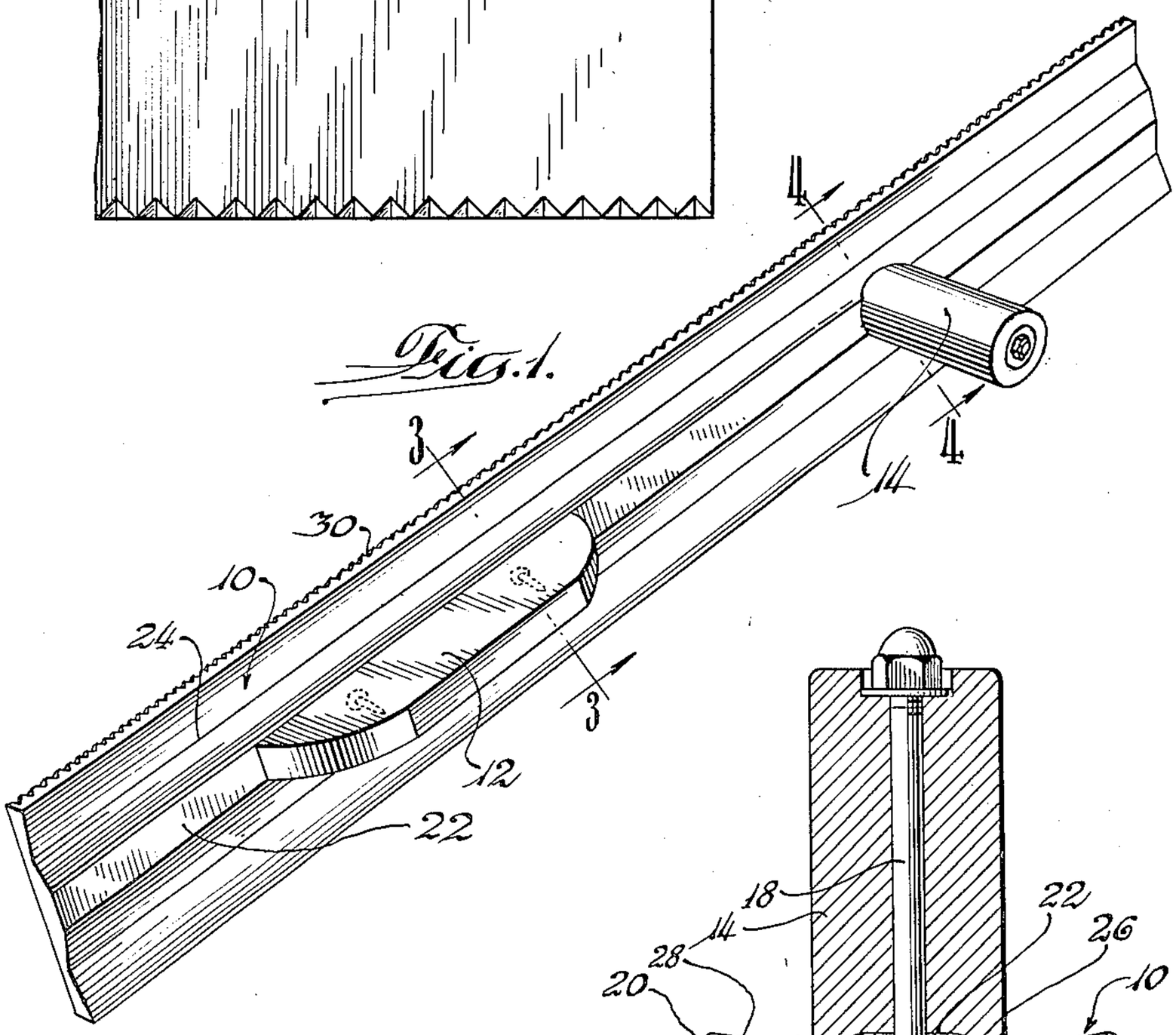


Fig. 1.

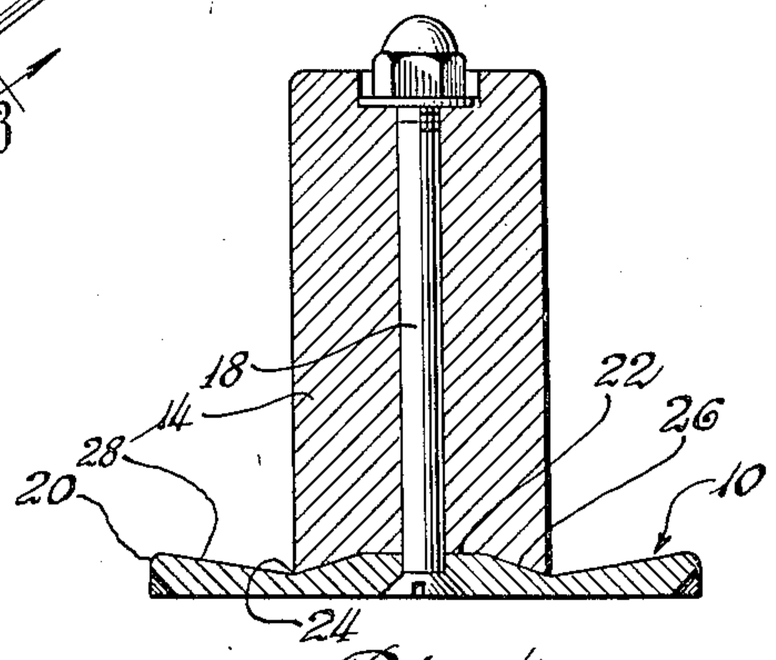


Fig. 4.

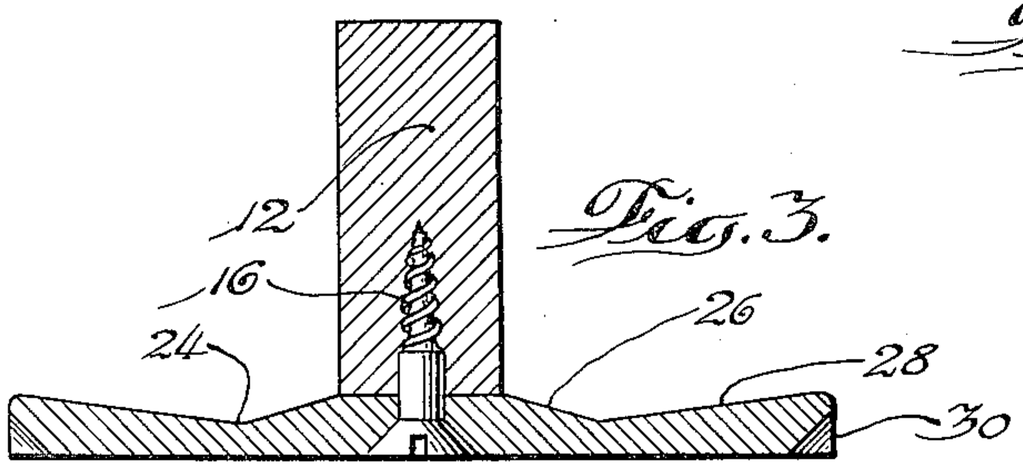


Fig. 3.

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# UNITED STATES PATENT OFFICE

2,626,520

## PLASTERER'S DARBY

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3 Claims. (Cl. 72—136)

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The present invention relates to plasterers' darbies.

One of the objects of the present invention is to provide an improved plasterer's darby which is lighter and more convenient in use, which has a much greater useful life, which prepares a better "brown coat" than darbies with which I am familiar, which will not warp and which in general is a great improvement over the conventional darby.

Other objects and advantages will become apparent from the following description of a preferred embodiment of my invention, which is illustrated in the accompanying drawings.

In the drawings:

Fig. 1 is a perspective view of a darby constructed according to the teachings of the present invention;

Fig. 2 is a plan view of a portion of the working face thereof;

Fig. 3 is a transverse sectional view that may be considered as taken in the direction of the arrows substantially along the line 3—3 of Fig. 1; and

Fig. 4 is a transverse sectional view which may be considered as taken in the direction of the arrows substantially along the line 4—4 of Fig. 1.

In a typical plastering operation the lath, which is usually of the gypsum board or expanded metal type, is first coated with a comparatively thin layer which plugs up the openings and gives a surface to which the next succeeding layer can be bonded. This first coat commonly known as the scratch coat is then roughed up with a bundle of steel wires or the like, and is then covered with a comparatively thick layer known as the brown coat. Subsequently the brown coat is covered by the finish coat. The purposes of the brown coat are largely to smooth out irregularities in the wall surfaces, to provide sufficient body and strength to the wall and to provide a good foundation or base for the application of the finish coat. In order to fulfill these objectives it is necessary to work the brown coat considerably so as to give a true surfaced compact mass. The tool used for this purpose is commonly known as a "darby" and ordinarily consists of a length of wood with handles attached to the back surface thereof. The working surface is flat and by rocking the tool from side to side, a quantity of plaster can be gathered under the working face and deposited where wanted.

The conventional darby has an extremely short life because even carefully selected wood soon warps because of the constant wetting and drying the tool receives in service. Surface coatings offer little protection since they are quickly worn away by the constant abrasion. Further, the wood becomes water soaked after a time so that conventional darbies become heavy and therefore tiresome to use.

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So far as I know, wood has always been used for this purpose in spite of the above objections since it seems to combine the proper degree of flexibility with the appropriate amount of rigidity.

According to the present invention, the darby is made up of a blade 10 provided with a longitudinally extending medially disposed handle 12 at one side of the center, and a vertically extending medially disposed cylindrical handle 14 at the other side of the center. These handles are secured to the blade by countersunk wood screws 16 and a nut and bolt 18 respectively. The blade is formed of a long, narrow piece of magnesium metal, approximately 42 inches long by 3¾ inches wide and of varying thickness transversely. This strip of magnesium is flat upon one side and about ¼ inch thick at its side edges 20. The central portion of the strip also has about this same thickness. The longitudinally extending central rib 22 thus formed is flat and about ¾ inch wide. Between the central rib and each side edge there is a longitudinally extending depression 24 formed by tapering the intermediate surfaces downwardly, these tapering portions sloping more sharply downwardly from the central rib 22 than from the edges 20 so as to form inclined surfaces 26 and 28, respectively. Thus the depressions 24 are closer to the central rib 22 than to the side edges. These depressions have a depth such that the metal at its thinnest portions is about ⅛ inch thick.

Although such a strip can be formed by several processes, I prefer to provide special dies and extrude the magnesium metal in long strips which are simply cut to appropriate length.

The cylindrical handle has a diameter about equal to the distance between the two depressions 24, thus by notching its lower end so that the end has a shape complementary to the surface of the rib 22 and inclined faces 26, the handle is locked against rotation when the nut is tightened upon the bolt 18. This is best seen in Fig. 4.

A darby constructed as described is admirably suited to the work. It is extremely light, cannot warp, has the right degree of flexibility, is easy to clean and has an extremely long useful life. Also it can be manufactured at relatively

low cost because very little work is required to form the darby from the extruded strip which can be given the proper shape during the extruding process.

Often difficulty is encountered in obtaining good adherence between the brown coat and the finish coat. I have corrected this difficulty with the darby of the present invention by providing one or both edges with a multiplicity of contiguous notches **30** formed at about 45 degrees to the working surface, the adjacent surfaces of the notches being at about 90 degrees to each other. These notches are about ⅛ inch wide and give a sharply ribbed surface to the brown coat when the leading edge of the darby is tilted upwardly. Such a surface I have found is well suited as a base for the finish coat and good adhesion between the coats is easy to obtain.

Having described an embodiment of my invention, what I believe to be new and useful and desire to secure by Letters Patent of the United States is:

1. A darby comprising a long narrow strip of light weight metal having the same lateral cross-section over its length, the front or working surface of said strip being flat and the back of said strip having thickened longitudinal edges and a central upstanding longitudinal rib, said back surface sloping downwardly from said rib and from said edges to provide longitudinally extending depressions between said rib and said edges, said depressions being closer to said rib than to said edges, said strip having substantially the same thickness at said rib and said edges, a pair of handles secured to the back surface of said strip, one of said handles being generally cylindrical and having one end formed so as to be complementary to the portion of said back surface between said depressions, said one handle having its complementarily formed end secured against said last mentioned back surface portion to inhibit rotation of said handle relative to said



strip, at least one of said edges being serrated, the serrations being formed in the intersection of the said one edge and the front or working surface by a multiplicity of substantially right angular notches formed at substantially 45 degrees to the front or working surface of said strip.

2. A darby comprising a long narrow strip of light weight metal, the front or working surface of said strip being flat and the back of said strip having thickened longitudinal edges and a central upstanding longitudinal rib, a pair of handles secured to the back surface of said strip, at least one of said edges being serrated, the serrations being formed in the intersection of said one edge and the front or working surface by a multiplicity of substantially right angular notches formed at substantially 45 degrees to the front or working surface of said strip.

3. A darby comprising a long narrow strip of light weight metal, the front or working surface of said strip being flat and the back of said strip having thickened longitudinal edges, a pair of handles secured to the back surface of said strip, and at least one of said edges being serrated by notches formed therein at an angle of about 45° to the working surface, each of said notches having substantially flat adjacent surfaces arranged at about 90° to each other.

EDWARD A. WHALEN.


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