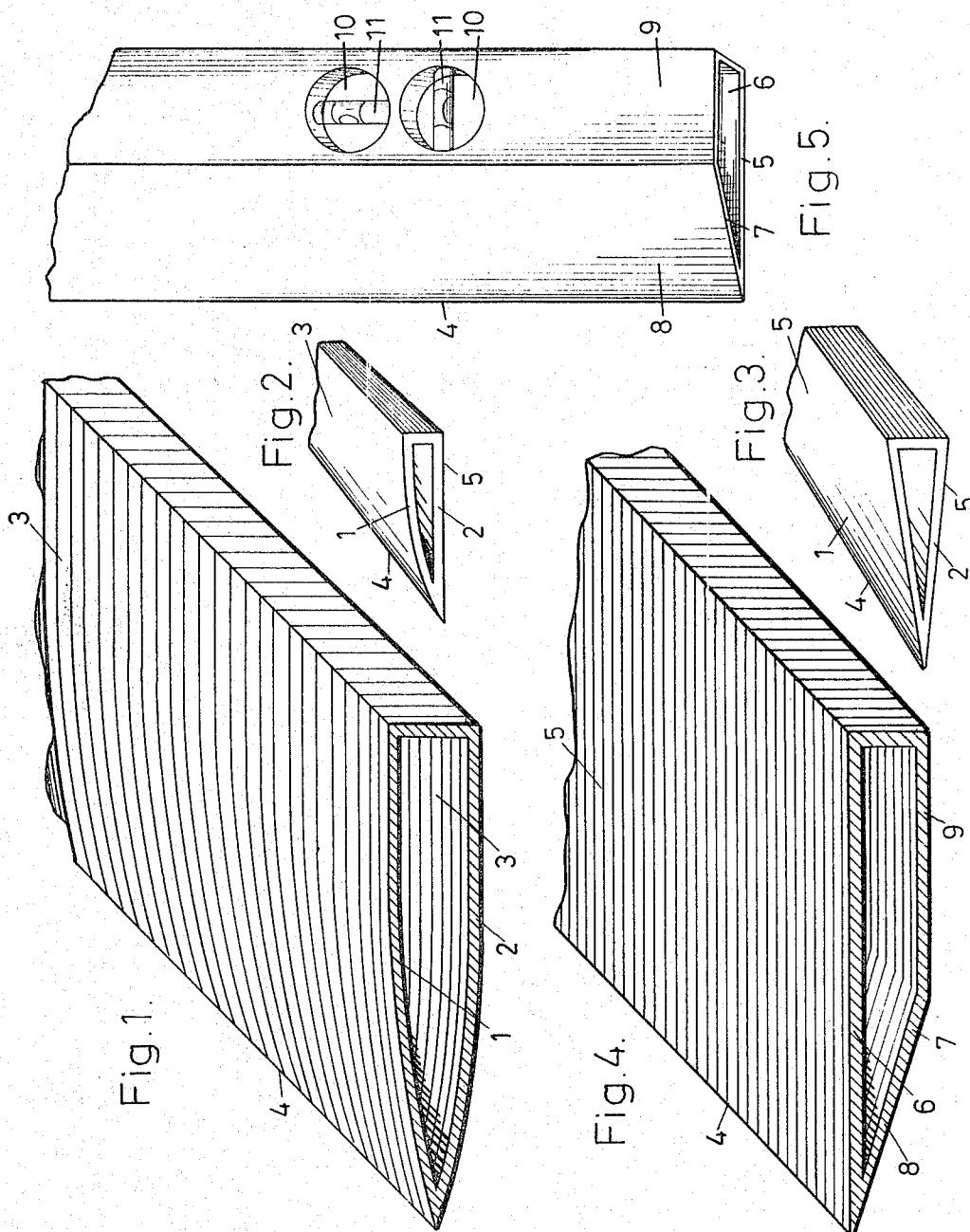


Feb. 7, 1967

M. SEBASTIANI
MORTAR DRESSING DEVICE
Filed Jan. 18, 1965

3,302,233



INVENTOR:
MARTIN SEBASTIANI

By *Toulmin & Toulmin*
Attorneys

1

3,302,233

MORTAR DRESSING DEVICE

Martin Sebastiani, Owingerstrasse 1, Überlingen
(Bodensee), Baden, Germany

Filed Jan. 18, 1965, Ser. No. 426,020

Claims priority, application Germany, Jan. 18, 1964,
S 89,120; Jan. 13, 1965, S 94,991

1 Claim. (Cl. 15—235.4)

The present invention relates to a mortar-dressing device having a hollow section for applying, smoothing and floating of plastic materials, e.g. cementitious mortar.

The previous known devices of above type usually are constructed with a rectangular hollow section, which ordinarily has an intermediate ridge for mechanical strength.

A disadvantage of mortar-dressing devices having flat parallel sides is that they are very difficult for masons to handle. The rectangular construction necessitates gripping holes which, in turn, disrupt the smoothing surfaces. Another disadvantage of the above-mentioned rectangular-shaped hollow sections consists in non-existence of a sharp floating edge suitable for pressing plastic materials, mortar, into the corners of walls. The known dressing devices of rectangular-shaped hollow sections are of substantial weight, especially when they incorporate for the reasons of mechanical reinforcement, an intermediate ridge which forms a hollow section having an internal wall.

Another disadvantage of previous devices is that when they are used to form a level surface a guiding rod levelled by a plummet must be employed. This not only necessitates the use of a second device but requires additional time to orient the guiding rod with corners and edges.

Thus it is an object of the present invention to provide a better hollow-shaped dressing device which, despite great mechanical strength and lack of distortion, is very light in weight and easy to handle thereby greatly facilitating the smoothing of surfaces without breaks in the continuity thereof.

It is another object of the invention to form the device in such a manner as to provide a sharp drawing edge and non-perforated smoothing surfaces, the edges providing a means to press the plastic material into sharp corners.

It is another object of the invention to provide a device which is able to perform the process of applying, smoothing and floating and levelling the plastic surface.

The solution of the objects consists in providing the invention with a hollow section for applying, smoothing and floating of plastic material and having smoothing and/or applying surfaces. The working edge is formed by two acute angular smoothing surfaces running together and the walls are formed of lightweight materials.

According to this main feature of the invention the acute angular surfaces provide good gripping means for the masons, and eliminate, the need to provide additional perforations in the smoothing surfaces. The sharp drawing edge allows mortar to be pressed into corners or joints and final floating of the mortar which was impossible with the previous rectangularly-shaped hollow sectioned tools.

One of the preferred embodiments of the invention is formed with a triangularly-shaped hollow section.

This shape provides an inexpensive and quick means of manufacturing the device, and has an extremely high resistance against longitudinal and vertical torsion. The tool is formed with oblique gripping and smoothing surfaces.

A modified form of the invention has at least one convexly-shaped engaging and smoothing surface.

2

This convex shape also is characterized in having an extremely high resistance to longitudinal and vertical torsion. It provides both slightly curved smoothing surfaces and a sharp drawing edge.

5 According to the invention the hollow section could be in the shape of a rectangular trapezoid.

The base of the trapezoid and the acute angular leg thereof form the smoothing surfaces. A trapezoidal hollow section also provides a high resistance to torsion and can be easily and inexpensively manufactured.

10 According to the invention, the drawing edge is provided with a short radius of curvature to achieve a smooth flow of material at the smoothing edge.

By providing such a curvature at the edge, injury to 15 laborers will be prevented.

It is one of the expedients of the present invention to shape the hollow section of aluminum or the like.

The use of aluminum provides a special saving of weight. It is of great importance for dressing rods of 20 2 meters in length or over. Moreover, the means of manufacturing aluminum tools are simple, e.g., injection and/or pressure molding.

Another form of the invention consists in making the hollow section of synthetic material, the acute angular 25 portion being reinforced with a metal ridge.

As the walls are of even thickness, the acute angular portion will always show a certain accumulation of material, which lends the required stiffness to the drawing edge. If it is desirable to increase the stiffness thus 30 preventing warping, i.e., distortion of longer dressing rods, this can be accomplished by inserting of metallic portions into the interior of the hollow section. It is especially easy to do so, when the smoothing device is manufactured by extrusion molding. In that case a 35 metallic pre-shaped rod will be extruded with synthetic material. It is best to choose from the plurality of the possible synthetic materials one which is abrasion-resistant, stable and easy to handle, e.g., polyurethane. If the synthetic material shows sufficient strength, there 40 is no need for reinforcement-portions and ribs of synthetic material can be provided.

According to another feature of the invention, there is at least one water level for levelling in the vertical and/or the horizontal orientation of the tool which is positioned 45 preferably at the middle of the longitudinal axis of the device.

The use of this dressing rod eliminates the need for a separate air level. Moreover, half of the time previously required for dressing of the rough cast will be saved. 50 For more exact and versatile use, vertical and horizontal levels could be built in, i.e., the usual water or spirit filled levels containing an air-bubble. Yet it is possible, to use one level for both directions by providing a concave covering glass for a circular-shaped level with a cross graduation. It is understood that it is necessary to use 55 only one level if the device is to be used only in one direction.

For a better understanding of the invention, the following explanation in connection with the enclosed drawings is provided which, according to the invention, illustrates the preferred types of the device. You will find 60 further features of the invention included in the description and the drawings.

FIGURE 1 shows a perspective fragmentary view of the device according to the invention, having a triangular 65 hollow section.

FIGURE 2 shows a modified version of the hollow section of FIGURE 1.

FIGURE 3 shows another modification of the device 70 of FIGURE 1.

FIGURE 4 shows a device according to the invention with a trapezoidal hollow section.

3

FIGURE 5 shows a device according to the invention with two levels.

The dressing device according to FIGURE 1 consists of thin-walled aluminum and three walls forming a hollow section; the engaging legs 1, 2 thereof forming smoothing surfaces 3, having convex shape. The engaging smoothing surfaces 3 form an acute drawing edge 4, preferably having a short radius of curvature. As can be seen, a device having relatively thin aluminum walls will provide substantial resistance against torsion. By having slightly convex-shaped smoothing surfaces 3, a safe gripping area is provided laborers, and no additional holds or perforations which could impair the function of the device are necessary in the smoothing surfaces 3.

FIGURE 2 shows a modified version of the device, according to FIGURE 1, wherein only one smoothing surface 3 is of convex shape, while the smoothing surface 5 and the leg thereof are flat planar surfaces.

The device of FIGURE 3 has legs 1, 2 which are straight, while the drawing edge 4 is formed by the acute angular smoothing surfaces 5.

FIGURE 4 shows another modified version of the device according to the invention, having a thin-walled aluminum hollow section shaped as a rectangular trapezoid. The base 6 together with the acute angular leg 7 form smoothing surfaces 5, 8, the intersecting line of which forms the drawing edge 4. Accordingly the trapezoidal shape forms three smoothing surfaces 5, 8, 9. Despite its light weight it is very torque-resistant and has proper gripping means for the laborers.

The hollow section according to FIGURE 5 is also in the shape of a rectangular trapezoid. The base 6 and leg 7 form two smoothing surfaces 5, 8 which meet at the edge 4. Opposite the base 6 lies a third smoothing surface 9. In the surface 9 are two circular perforations 10, to provide for the levels 11. According to the illustrated example, the upper of these levels 11 lies parallel to the longitudinal edges, thus parallel to the drawing edge 4, while the lower level 11 lies parallel to the transverse edge of base 6. Thus one dressing rod could be used for horizontal as well as vertical dressing.

It is also to be seen from the illustrations that there is an accumulation of material behind edge 4 which adds to the torque resistance of the device. It is further understood, that by imbedding an additional metal ridge at this location, further stiffness will be provided.

4

It is of advantage to position the levels in the middle portion of dressing rods of less than 2 meters in length. For dressing devices longer than 2 meters it is best to position the levels at about 160 to 170 cm. off ground, i.e., at eye level.

While the preferred type of the invention combines an aluminum or light weight metal, it is possible to utilize extrusion type hollow sections, with or without metal reinforcement ridges.

The features of this embodiment of the invention include a light weight hollow section having acute angular smoothing surfaces built in levels.

I claim:

A dressing device of the character described comprising, an elongated hollow open-ended member having a pair of longitudinally extending walls and a connecting longitudinally extending back member supporting in spaced relation each of said walls along one longitudinal edge thereof, said walls meeting in an acute angle in a common longitudinally extending intersection portion to provide a longitudinally extending dressing edge, one of said walls being formed to provide a convex smoothing surface between said edge and back member, said walls being of substantially uniform cross-section over their length and being unsupported between said back member and intersecting portion to provide substantially uniform lateral flexibility of said walls between said back member and dressing edge, and said walls and back member terminating on planes substantially perpendicular to the longitudinal axis of said elongated member to define opposed open ends in said hollow member.

References Cited by the Examiner

UNITED STATES PATENTS

474,152	5/1892	Taylor	33—206
999,573	8/1911	Lidholm	33—206
1,768,411	6/1930	Lord	15—235.4
2,450,385	9/1948	Schumock	15—235.4
2,608,852	8/1952	Whalen	15—235.4
3,018,499	1/1962	Levy	15—235.4
3,140,500	7/1964	Pilla	15—235.4

CHARLES A. WILLMUTH, *Primary Examiner*.

S. E. BECK, *Assistant Examiner*.