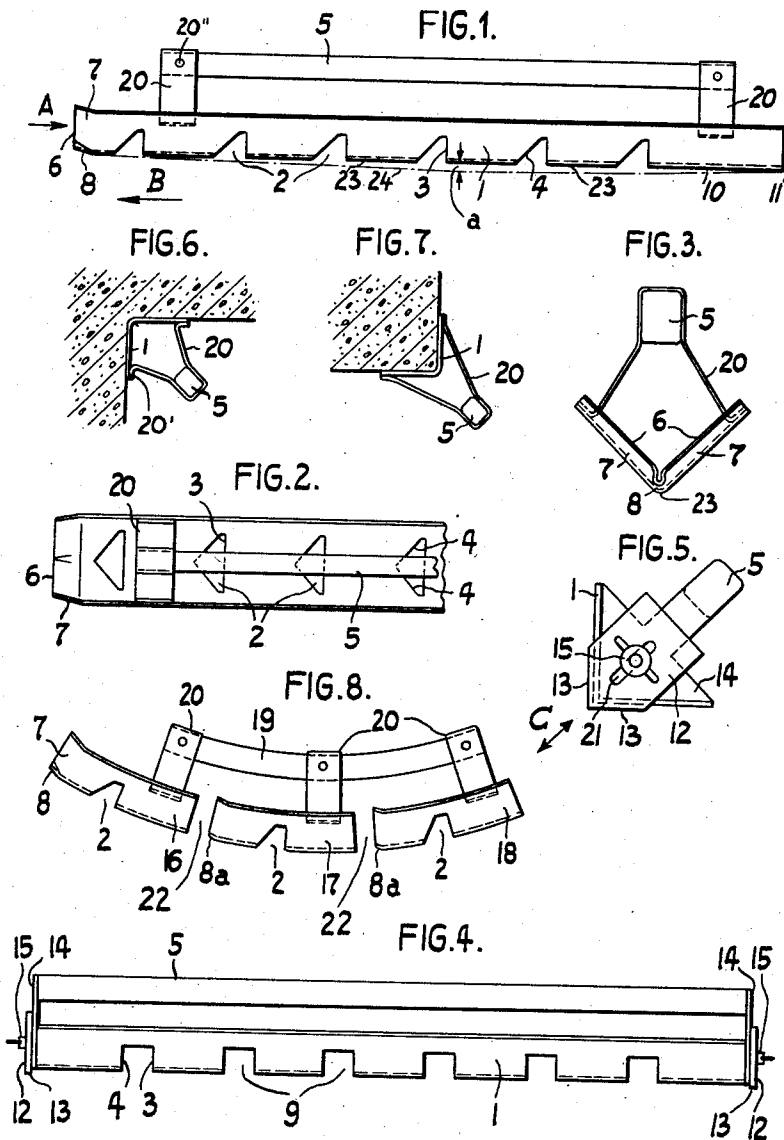


Sept. 8, 1959

K. STOLL
DEVICE FOR THE PLASTERING OF CORNERS
IN THE BUILDING TRADE
Filed April 30, 1956

2,902,855



INVENTOR.

K. Stoll

BY

Glenn Downing Seibold
ATTYS.

1

2,902,855

DEVICE FOR THE PLASTERING OF CORNERS
IN THE BUILDING TRADEKarl Stoll, Augsburg, Germany, assignor to Karl Klager,
Augsburg, Germany

Application April 30, 1956, Serial No. 581,745

Claims priority, application Germany August 26, 1955

5 Claims. (Cl. 72—136)

This invention relates to a device for the plastering of corners in the building trade.

It is an object of the present invention to provide a device permitting the plastering of corners with a minimum expenditure of skill, time and labor and with optimum efficiency as to the smoothness and accuracy of the resulting corners.

A special object of the invention is to provide a device of the type referred to which permits the stuff to be uniformly distributed in the corner and the excessive stuff to be removed from the corner in an easy manner.

With these and further objects in view, according to the present invention the device is constructed similar to a plane and consists of a longitudinal sheet of material, more particularly of metal, of angular cross section having recesses in the form of apertures permitting any excess of stuff to pass through the apertures to the outside and adapted to remove unevennesses in the plaster applied to the wall.

Other and further objects, features and advantages of the invention will be pointed out hereinafter and appear in the appended claims forming part of the application.

In the accompanying drawings several now preferred embodiments of the invention are shown by way of illustration and not by way of limitation.

Fig. 1 is a side view of a device having the invention applied thereto,

Fig. 2 is a plan view thereof,

Fig. 3 is an end view in the direction A of Fig. 1,

Fig. 4 is a side view of modification,

Fig. 5 is an end view thereof,

Fig. 6 is a cross sectional view showing the plastering of an interior corner with my novel device,

Fig. 7 is a similar view but showing the plastering of an outer corner,

Fig. 8 is a side view of a device for plastering concave curved corners of brickwork or the like.

Similar reference numerals denote similar parts in the different views.

Referring now to the drawings in greater detail, and first to Figs. 1, 2 and 3, it will be seen that my novel device comprises a relatively thin metal sheet 1, consisting for instance of steel of a thickness of 1.2 mms. By way of alternative, duralumin or a suitable plastic material of a very high mechanical strength may be used. This sheet 1 is longitudinally bent at right angles, Fig. 3, and formed with several symmetrical recesses or cut-outs 2 of a substantially triangular shape permitting any excess of stuff to pass through the apertures or recesses, and having sharp edges 3 and 4, respectively, acting as cutting edges for removing unevennesses in the plaster. The device is provided with a wooden handle 5 secured to the angle sheet 1 by means of two metal strips 20 which are bent around the handle and provided with flanged or bent-off ends 20' spot-welded to the angle sheet 1, while a pin or rivet 20'' serves to fix the handle to the strips 20. The

2

front edges of the angle sheet 1 are slightly rearwardly bent to prevent these edges from cutting into the plaster. Moreover, by the bending of the front edges 6, inclined surfaces 7 and 8 are formed, which are adapted to distribute the plaster or stuff in the corner of the wall.

My novel planing and smoothing tool is applied on the plastic stuff, after slight setting thereof, say, for 10 minutes or so. It is operated in such a way that it is put into the corner (Fig. 6) or unto the corner (Fig. 7), edge 6 being at the upper end in case of a vertical corner, and moved to and fro in the direction of its longitudinal axis, beginning in the direction indicated by arrow B, Fig. 1. Thus the stuff is pressed unto the wall by the inclined surfaces 7 and 8 while the excessive stuff passes through the apertures 2, uneven portions of plaster being cut off by the edges 3 of the apertures 2 facing in the direction B. Then the planing device is moved in an opposite direction to exert a further smoothing and cutting action by edges 4, and vice versa. Two or three courses are sufficient to produce a satisfactory plastered corner. Finally it is reversed to cut out the end of the corner, by means of the end edge 11 which is not inclined.

The recesses 2 of the planing or smoothing device may take various shapes. In the embodiment of Figs. 1 to 3 they are of a triangular shape, but by way of alternative, they may be of a rectangular shape as shown at 9 in Fig. 4.

It will be seen from Fig. 1 that the end 10 of the planing tool is longer than the interspace between two successive recesses 2. The longer end 10 of the planing tool serves to produce a smooth surface.

By way of alternative, a pair of cutter knives 12 may be provided at both ends of the planing tool, so as to project with their cutting edges beyond the sliding or guiding surfaces of the planing tool. Such cutting knives may be advantageous to work corner plaster which is already set or solidified to some extent. In this way, premature wear of the cutting edges 3 and 4 of the recesses 2 or 9 is avoided simultaneously.

The cutting knives 12 are adjustably secured on triangular end walls 14 spot-welded to the end faces of the angle sheet 1, by flanged portions (not shown) of the sheet 14 or of the sheet 1, respectively. To this end, the cutting knives 12 are formed with a slot 21 for passage of a screw 15 having a winged head and being threadably engaged in a bore of the sheet 14 in such a way that the members 12 can be secured to the walls 14 so as to project from the sliding or guiding surfaces of the angle sheet 1 by an adjustable amount. Guiding means (not shown) may be provided to ensure a symmetrical position of the members 12 on the tool arrow C indicates the direction of adjustment of the members 12.

Fig. 8 shows a tool for curved corners. In this case, the angular sheet is subdivided into several members 16—18 which are secured on a common curved handle 19 by means of members 20, in a spaced relationship. The members 16—18 are constructed in accordance with the invention, i.e. they are provided with recesses 2, at least the front edge of the first member 16 being bent upwards to form inclined surfaces 7, 8. If desired, the front edges of the subsequent members 17, 18 may also be bent upwards, as indicated at 8a. Between the successive members 16, 17 or 17, 18 there are gaps 22 acting similar to the recesses 2 so that excessive stuff can pass out at these gaps also.

The plastering tool shown in Fig. 8 is intended for working circularly curved corners. The handle 19 may consist of a flexible material, e.g. of a thermoplastic synthetic material, so that the tool can be adapted to the curvature of the corner, by bending the handle accordingly. However, it is also possible to use a multi-

3

partite tool of the type shown in Fig. 8 with a straight handle 19, for working straight corners.

It will be understood from the foregoing that my novel plastering tool operates after a principle similar to the planer of a joiner, so that it might well be called a plaster planer.

My novel tool permits to obtain sharp corners or corners of a predetermined rounding which are strictly straight or curved as desired. The handling of the tool requires no special skill and very little time. It is used first for the rough plastering and then again for the fine plastering.

While the invention has been described in detail with respect to certain now preferred examples and embodiments of the invention it will be understood by those skilled in the art after understanding the invention that various changes and modifications may be made without departing from the spirit and scope of the invention and it is intended, therefore, to cover all such changes and modifications in the appended claims.

In the embodiment as per Fig. 1 the lower angular edges 23 of the planer form a straight line. In the practical embodiment however, this edge of the tool is slightly curved in a downward or convex direction as indicated by line 24. The maximum bend or deflection "a" of this edge of the planer from the straight line at a total length of the planer of, for instance, 700 mms. is only 3 mms. This slight bending of the lower edge of the planer has the advantage that the various edges 3 and 4 of the planer produce a uniform cutting effect and that, moreover, a better sliding of the planer in the corner of the walls is ensured.

I claim:

1. In a tool for use in the plastering of wall corners, a handle, a body of thin sheet material secured to the handle, said body being bent longitudinally thereof to provide a pair of angularly disposed wings having planar surfaces adapted to contact the plastering material, the apex of the body and at least a portion of each of the

4

angularly disposed wings being formed with a series of spaced apart recesses extending throughout substantially the length of the body allowing the unobstructed passage therethrough of excess plastering material, cutting edges on each of said recesses serving to remove uneven areas in the plaster, and one end of each wing having a portion bent at an acute angle to define an inclined surface for each wing adapted to distribute the plastering material.

2. A plastering tool as claimed in claim 1 wherein said recesses are symmetrical with respect to the apex of the body.

3. A plastering tool as claimed in claim 1 wherein the distance between the end of the body remote from said curved members and the recess adjacent thereto is greater than the distance between adjoining recesses thereby serving to produce a smooth surface.

4. A plastering tool as claimed in claim 1 wherein the body is defined by a series of individual units, with each unit having a recess therein and each unit being secured to the handle.

5. A plastering tool as claimed in claim 1 wherein the apex of the body is slightly convex between the ends thereof.

References Cited in the file of this patent

UNITED STATES PATENTS

1,083,099	Howg	Dec. 30, 1913
1,216,915	Andersen	Feb. 20, 1917
1,265,860	Zappile	May 14, 1918
1,593,271	Shidler et al.	July 20, 1926
1,654,449	Benzing	Dec. 27, 1927
2,490,304	Huffman	Dec. 6, 1949

FOREIGN PATENTS

50,546	Denmark	Aug. 2, 1935
202,078	Germany	Aug. 4, 1907
25,602	Finland	Oct. 10, 1952