

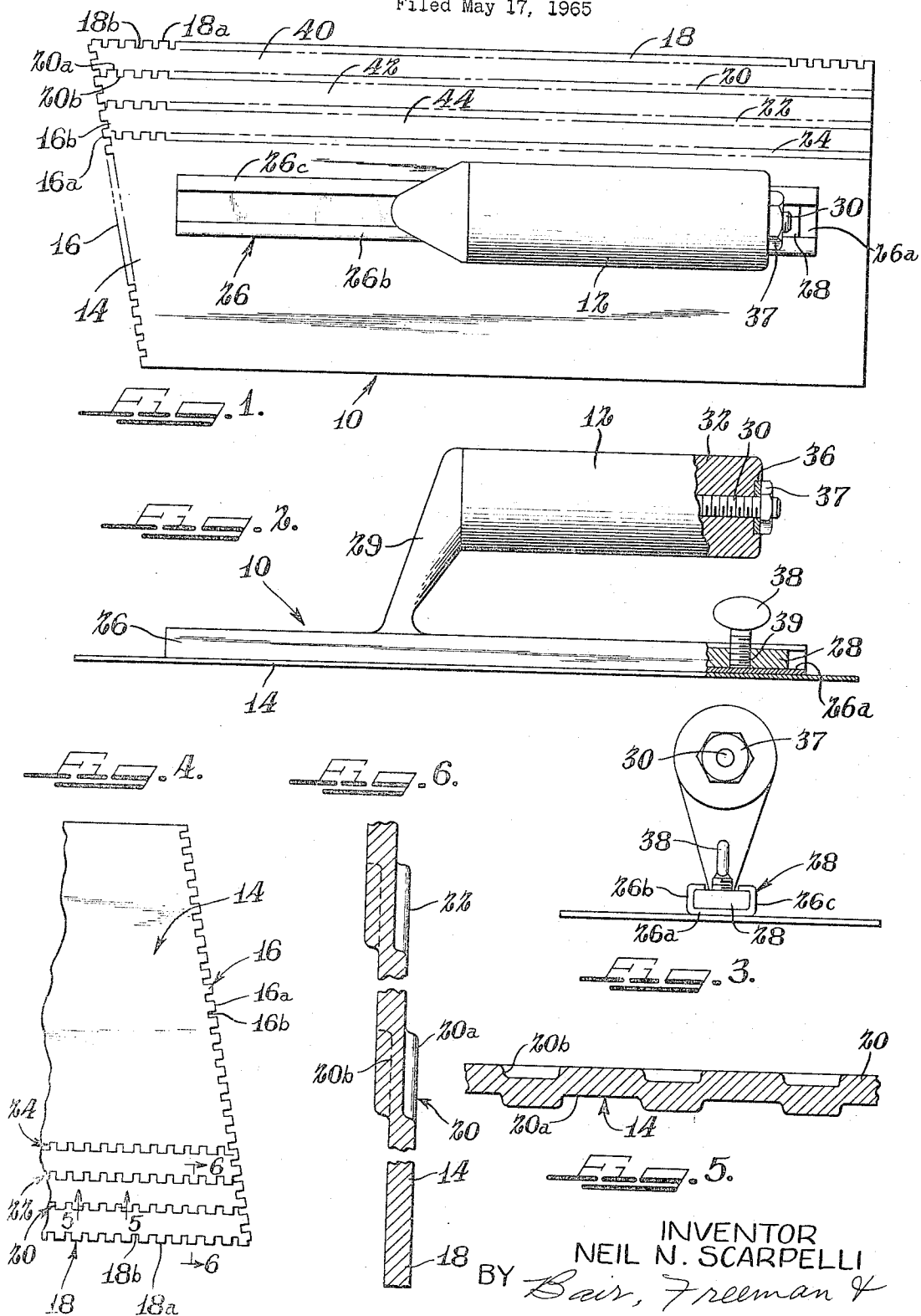
Oct. 17, 1967

N. N. SCARPELLI

3,346,905

TROWEL

Filed May 17, 1965



INVENTOR
NEIL N. SCARPELLI
BY *Bair, Freeman & Molivare* Attys.

1

3,346,905

TROWEL

Neil N. Scarpelli, 1234 N. Pulaski Road,
Chicago, Ill. 60651

Filed May 17, 1965, Ser. No. 456,376

4 Claims. (Cl. 15—235.6)

ABSTRACT OF THE DISCLOSURE

A trowel comprising a handle affixed to a planar blade member. Two edges of the blade member are formed with undulations forming teeth and spaces. One or more rows of teeth and spaces are formed in the blade member parallel to an edge. If the outermost edge is damaged, the blade member can be renewed by breaking off the strip between the outermost edge and the next adjacent row of teeth and spaces.

This invention relates to a trowel and, more particularly, to a manually manipulable trowel of the type used to spread an adhesive for bonding a resilient floor covering to a floor.

In order to bond a resilient floor covering, such as asphalt or vinyl tile or linoleum, to a floor, it is necessary to spread a thin coat of adhesive, such as a latex or alcohol base cement, uniformly over the floor. The trowel for spreading the adhesive generally includes a handle member fixedly connected to a blade member. Two adjacent sides of the blade member are notched so as to define a plurality of uniformly shaped and spaced notches or recesses in the side of the blade member. In use the cement or adhesive will pass through the notches or recesses in the side of the blade member and be spread upon the floor in thin ribbons.

The ridges or teeth defining the recesses may wear out or be broken, thus resulting in uneven distribution of adhesive upon the floor. Excess adhesive may ooze through between adjacent tiles as they are laid upon the floor. The workman will be required to spend time and effort in unnecessary clean up. Further, the blades are formed of a relatively expensive hard material, such as steel. If one tooth or ridge is broken or damaged, repair can be made by filing a new depression from the remaining material. After a number of teeth have been damaged, repair of individual teeth or ridges by filing is unfeasible. The tool is essentially useless and replacement of the trowel is necessary. Such replacement of both blade and handle is, of course, expensive and undesirable.

Another difficulty encountered in prior art devices is that of cleaning the blade member after use each day. The handle is ordinarily not removable from the blade and thus, it is sometimes difficult to immerse the entire trowel in a suitable solvent for cleaning.

An object of this invention is to provide an improved trowel wherein the disadvantages and deficiencies of prior constructions are obviated.

Another object of this invention is to provide an improved trowel having a blade with a notched edge that is readily renewable.

Still another object of this invention is to provide an improved trowel having a handle member that is detachably affixed to the blade member so as to permit ready separation of the handle member from the blade member to facilitate cleaning and renewal of the blade member. Further objects and advantages of this invention will become more apparent hereinafter.

The specific details of a preferred embodiment of the invention and their mode of functioning will be particularly pointed out in clear, concise and exact terms in conjunction with the accompanying drawing, wherein:

2

FIGURE 1 is a plan view of an improved trowel embodying the principles of my invention;

FIGURE 2 is a side view of the improved trowel shown in FIGURE 1, with portions being broken away for clarity;

FIGURE 3 is an end view of my improved trowel;

FIGURE 4 is a plan view of a portion of a presently preferred form of blade member;

FIGURE 5 is a detail cross-sectional view taken generally along the line 5—5 of FIGURE 4; and

FIGURE 6 is a detail cross-sectional view taken generally along the line 6—6 of FIGURE 4.

Referring now to FIGURES 1, 2 and 3, there is illustrated an improved trowel 10 embodying the present invention. The trowel 10 comprises a handle member 12 that is detachably connected to a substantially planar base member or blade member 14.

As seen generally in FIGURE 1, the blade member 14 is substantially rectangular as viewed in plan. Two adjacent sides 16 and 18 of the blade member are perforated or notched to define undulating edges having ridges 16a and 18a, respectively, and valleys or depressions 16b and 18b, respectively. In use, the adhesive utilized to bond a resilient floor covering, such as linoleum or asphalt or vinyl tiles to the floor, will be spread through the recesses 16b or 18b in a ribbon-like form uniformly over the area worked by the trowel. The width and height of the notches or valleys 16b and 18b may be changed to accommodate selected adhesives and the specific dimensions are believed to lie within the skill of a person versed in the art. A plurality of renewable edges 20, 22 and 24 may be formed on the blade member 14. The detail of this feature of the invention will be more fully considered hereafter.

Disposed generally centrally of the blade member and affixed thereto is an elongated trackway 26 that is generally channel-shaped in cross section. The base 26a of the channel-like trackway is affixed to the blade member 14 and the sides of the channel include flanges 26b and 26c, which extend toward one another to define a partially enclosed trackway.

The handle member 12 comprises an elongated follower 28, generally rectangular in cross-section, that is complementary in shape to and adapted to slide within the trackway 26. Extending upwardly and outwardly from the follower 28 is a support post 29 which includes an elongated stud-like portion 30. The handle grip 32, which provides for manual manipulation of the trowel, has a bore therethrough which receives the portion 30 of post 29 snugly. The handle grip may be formed from wood or plastic and, if desired, can be provided with finger-receiving recesses to facilitate gripping thereof. Suitable fastening means are provided to join the handle grip 32 to the post 29. Such fastening means may comprise a washer member 36 and a nut 37 carried on the threaded end of the portion 30 of the post 29.

Means are provided for detachably connecting the elongated follower 28 in place in the trackway 26 (FIGURES 2 and 3). Such means may comprise a thumb screw 38 that extends through a threaded opening 39 in the elongated follower 28 and bears against the base 26a of the trackway 26 to detachably hold the follower in place in the trackway. It will be understood from the construction of the follower and the trackway that the follower may be introduced into the trackway only from an end thereof. Thus, in use, the handle member 12 will be positively and rigidly affixed to the blade member 14. When it is desired to separate the two members, the thumb screw 38 may be loosened, by screwing same outwardly from engagement with the follower, and the handle 12 may be readily slid from the trackway 26 to separate the handle member 12 from the blade member 14.

Turning now to FIGURES 4, 5 and 6, there is better illustrated the blade member 14 and the construction of the renewable edges. The peripheral edges 16 and 18 may be suitably stamped or otherwise formed at the time of manufacture of the blade 14. At the same time that the undulating edges 16 and 18 having uniformly spaced and uniformly sized ridges and valleys are formed on the blade member 14, a plurality of rows 20, 22 and 24 of semi-perforated teeth and spaces may be formed on the blade member. Such rows 20, 22 and 24, which may be stamped into the blade member 14, are spaced from the edge 18 and from one another and are substantially parallel to the edge and to one another. The blade member 14 is constructed and arranged so that the rows 20, 22 and 24 do not materially weaken the blade member 14.

As seen from FIGURES 5 and 6, the teeth and spaces therebetween defined for the rows 20, 22 and 24 are perforated approximately one-half of the distance through the thickness of the blade 14. It has been found that by perforating the rows 20, 22 and 24 no more than this amount, the strength of the blade will not be unduly weakened. A blade so perforated will not yield along one of the rows 20, 22 or 24 when the edge 18 is in use to spread adhesive or cement on a floor. The semi-perforations defining the rows 20, 22 and 24 define uniformly spaced and uniformly shaped ridges and valleys. Therefore, as each tear strip or breaking strip 40, 42 and 44 is removed successively, a new edge having the same configuration as edge 18 is formed on blade 14.

In the event that the edge 18 is damaged in use, the workman may renew the edge by applying a wire gripping tool having jaws formed to the configuration of the teeth and spaces 20a and 20b, respectively, and by bending and/or cutting the strip 40 defined between the edge 18 and the row 20 with respect to the plane of the planar blade member 14, the strip 40 can be separated from the blade 14 to expose a new row 20 having the desired undulating edge configuration of ridges and valleys. Similarly, at a later time, the strip 42 may be bent with respect to the blade to effect renewal of the row 22 and the strip 44 may be bent and removed from the blade 14 to expose the row 24 for use. The strips 40, 42 and 44 are essentially tear strips that can be removed to provide a new trowel edge.

Thus, it is seen that there has been provided a novel renewable blade member for a trowel. It will be noted in the preferred form of the invention shown in FIGURE 4 that the edge 16 makes an acute angle with respect to the edge 18. Such formation of the edges 16 and 18 is desirable in order to permit entry of the trowel into a right angle corner of a room. The angle between the sides may be on the order of 80 degrees to effect the desired result.

The present invention further provides novel means for detachably affixing a handle to a blade member in a

trowel. The trowel can be inexpensively fabricated and reduced operating costs are obtainable because of the fact that the blade edges are renewable and further because the handle is reusable with new blades.

While I have described a preferred embodiment of the present invention, it will be understood that the invention is not so limited since it may be otherwise embodied within the scope of the following claims.

I claim:

1. A trowel for use in spreading an adhesive type material on a planar surface comprising, in combination: a substantially planar blade member and a handle member connected to said blade member, said handle member including a grip portion spaced from said blade member for permitting manual manipulation of said trowel, said blade member having first and second adjacent sides each formed with an undulating peripheral edge that defines a plurality of uniformly spaced teeth and spaces, at least one row of teeth and spaces formed in said blade member without adversely weakening the structure of said blade member, said one row being spaced from said first peripheral edge, said blade member being constructed and arranged so that when said first peripheral edge is damaged, said blade member can be renewed by removing the strip of material between said first peripheral edge and said one row.

2. A trowel as in claim 1 wherein said one row is defined by semi-perforated teeth and spaces stamped into said blade member.

3. A trowel as in claim 2 wherein said one row is substantially parallel to said first peripheral edge.

4. A trowel as in claim 1 wherein said handle member includes an elongated follower and a grip portion, said blade member having a channel member affixed thereon defining a trackway for receiving said follower member, said follower member being insertable into and removable from said trackway only from an end of the trackway, and fastening means for detachably retaining said follower member in said trackway.

References Cited

UNITED STATES PATENTS

88,712	4/1869	Hogan	15—235.8
954,497	4/1910	Bemis	15—236 X
1,473,546	11/1923	Eiermann	15—236 X
2,360,004	10/1944	MacLean	29—193.5 X
2,736,963	3/1956	Seiter	30—320 X
2,845,706	8/1958	Aciego	30—320 X
3,041,724	7/1962	Bobkowski	30—320 X
3,166,776	1/1965	Selck	15—235.6

CHARLES A. WILLMUTH, *Primary Examiner*.

L. G. MACHLIN, *Assistant Examiner*.