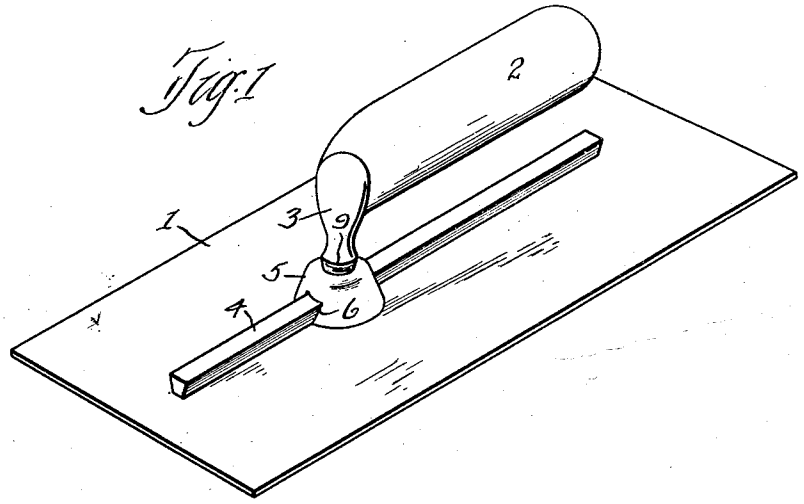
June 10, 1930. J. ROONEY 1,763,066

PLASTERER'S TROWEL

Original Filed Oct. 7, 1912

Fig. 1



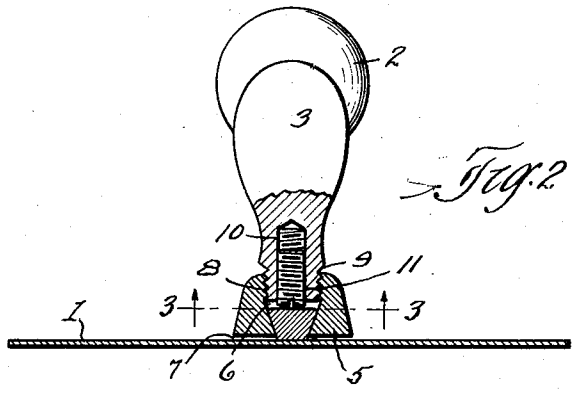
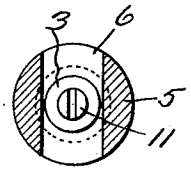


Fig. 2

Fig. 3



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UNITED STATES PATENT OFFICE

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PLASTERER'S TROWEL

Substitute for application Serial No. 724,409, filed October 7, 1912. This application filed November 23, 1927. Serial No. 235,160.

This invention relates to plasterers' trowels and has for its object the provision of a device of this nature in which the handle can be rapidly and easily shifted about thereon, reversed, or entirely removed, entirely without the use of any tools. The plasterers' trowel as is well known, is a device whereby plasterers apply and spread mortar upon a wall and consists of a flat plate of metal, generally of an oblong shape, and having a handle secured to the back thereof, the handle being spaced a short distance therefrom and turned parallel to the major axis thereof. This handle is generally set substantially at the middle of the plate in order to balance the same and permit the more easy operation thereof, but in some cases, as for instance when it is necessary to lay plaster behind pipes, in corners, or in like inaccessible places it is necessary to use a trowel having a handle near one end thereof so that places otherwise inaccessible may be reached with the opposite end of the plate. Formerly plasterers were obliged to carry at least two trowels, one for ordinary use and a second one for use in less accessible places. It was later proposed to employ but a single plate and having a handle adjustable to different positions thereof, but previous devices, so far as I am aware, have been awkward, inefficient, unreliable, and very difficult to operate inasmuch as they have required the use of a wrench, screw driver, or other tool. Most plasterers are very rapid workers and consequently the delay occasioned by the resetting of their trowels has worked very strongly against their efficiency. It is therefore the object of this invention to provide a device of this character which can be operated entirely without the use of tools, and which will be stiff and serviceable at all times. Further objects of the invention relate to particular features of construction and will be pointed out as the specification proceeds.

This application is a substitute for applicant's application Serial No. 724,409, filed October 7, 1912.

Generally speaking my invention may be defined as consisting of the combinations and constructions recited in the claims hereto annexed and illustrated in the drawing accompanying and forming part of this application wherein Fig. 1 is a perspective view of a complete trowel made in accordance with my invention; Fig. 2 is a transverse cross-sectional view thereof; and Fig. 3 is a detail cross-sectional view taken upon the line 3—3 of Fig. 2.

Describing the parts by reference characters, 1 represents the flat metal plate which forms the working portion of all such devices, 2 the handle, and 3 the shank by means of which the handle is secured to the plate. To the middle of the back of the plate I secure a longitudinally extending rail 4, fastening the same in place by riveting, welding, or other like convenient expedient. The top of this rail is of greater width than the bottom as is shown in Figs. 1 and 2, either being made of plain dovetail shape as shown or undercut in any other well known manner. Upon this rail I mount a slidable nut 5, said nut being preferably of substantially frusto conical shape as shown in Figs. 1 and 2, and having at its larger end a transverse notch or groove 6 receiving the rail 4. The bottom or larger end of the nut is preferably spaced slightly from the rear face of the plate 1 as shown at 7 so that the nut may slide freely along the rail.

The opposite face of the nut is formed with an axial threaded socket 8 intersecting the notch or groove 6 and the shank 3 is formed with a threaded extension 9 adapted to enter said socket with its forward end in opposed relation to the wider face of the rail. With this construction it is obvious that a slight turn of the handle 3 will release the nut and permit the same to be shifted longitudinally along the rail 4 while a slight reverse movement of the hande will clamp the nut firmly against the undercut surfaces of the rail.

Inasmuch as it is necessary that the handle 2 should lie when adjusted substantially parallel with the axis of the plate 1, it is necessary that a definite relation exist between the end of the shaft 3 and the phase of the screw thread. In order to permit this relation to be easily obtained, I preferably form

the shank 3 with an axial threaded aperture 10 receiving the screw 11. The end of the screw which contacts with the rail is preferably rounded slightly so as to prevent the corners thereof from digging into the rail which would tend to disturb the adjustment. Likewise the threads of the screw are preferably made very fine compared to the pitch of the nut thread, while, as a further precaution, the threads of the screw may be made left handed and those of the nut right handed. It is obvious that many other expedients for obtaining this fixed relation may be employed and that many other modifications in construction and arrangement may be made without departing from the scope of my invention.

Having thus described my invention, what I claim is:—

1. In a plasterer's trowel, the combination, with a metal plate, of a rail secured thereto and having its sides undercut, a handle for said trowel and having a threaded shank perpendicular thereto, and a nut having a notch receiving said rail and conforming to the shape thereof, also having a threaded socket intersecting said notch and adapted to receive said shank.

2. In a plasterer's trowel, the combination, with a metal plate, of a rail secured thereto and having undercut sides, a nut having a notch receiving said rail and conforming to the shape thereof and also having a threaded socket intersecting said notch, a shank threaded into said socket, an adjustable member carried by said shank and adapted to engage said rail, and a handle carried by said shank.

3. In a plasterer's trowel, the combination, with a metal plate, of a rail secured thereto and having undercut sides, a nut having a notch receiving said rail and conforming to the shape thereof and also having a threaded socket intersecting said notch, a shank threaded into said socket and having a longitudinal threaded recess, a screw threaded into said recess and having a head adapted to press against the face of said rail, and a handle carried by said shank.

4. In a plasterer's trowel, the cambination, with a metal plate, a rail secured thereto and having undercut sides, a nut having a notch receiving said rail and conforming to the shape thereof and also having a threaded socket intersecting said notch, a shank threaded into said socket and having a longitudinal threaded recess opening through the end thereof, the threads of said recess being of materially smaller pitch than those of said socket, a screw threaded into said recess and having a head adapted to engage the face of said rail, and a handle carried by said shank.

5. In a plasterer's trowel, the combination, with a metal plate, of a rail secured thereto and having undercut sides, a nut having a notch receiving said rail and conforming to the shape thereof and also having a threaded socket intersecting said notch, a shank threaded into said socket and having a longitudinal threaded recess opening through the end thereof, the threads of said recess being inclined oppositely to those of said socket, a screw threaded into said recess and having a head adapted to engage the face of said rail, and a handle carried by said shank.

6. In a plasterer's trowel, the combination, with a metal plate, of a fixed securing member attached to the rearward face thereof and having undercut portions, a handle for said trowel and having a threaded shank perpendicular thereto, a removable member having a notch receiving said securing member and conforming to the shape thereof, said shank being pivoted to said removable member, and means actuated by the movement of said shank about its pivot for wedging said removable member away from said plate and clamping the sides of its notch to the sides of said first member.

In testimony whereof, I hereunto affix my signature.

JOHN ROONEY.