April 12, 1938. M. PLÖN 2,113,901

RELEASABLE HANDLE FASTENING DEVICE ON TOOLS

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Fig. 1

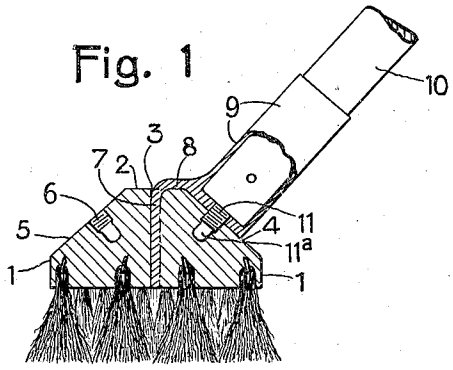
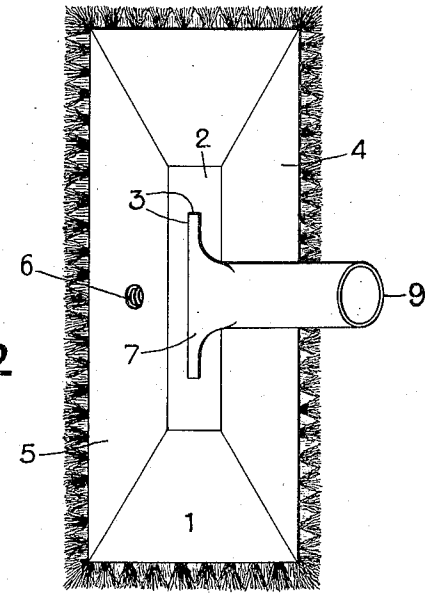


Fig. 2



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RELEASABLE HANDLE FASTENING DEVICE ON TOOLS

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2 Claims. (Cl. 306—6)

A device for the releasable attachment of a handle to a tool, for example a brush body or the like, is described in the U. S. Patent No. 2,057,914, in which a handle holder engages by means of a supporting or carrying plate in a slot-like recess in the body of the tool and is fastened to the tool by means of a securing member, for instance a screw, on the fastening end of the handle, which when the handle is put in place projects through the supporting or carrying plate and cooperates with a holding member, for example a screw threaded hole, in the body of the tool.

The bodies of brushes, in particular of scrubbing brushes, are commonly provided with a hole on two opposite sides to enable the handle to be fastened on one side or other of the brush to take care of wear of the brush. If the device described in the said patent is used for a releasable attachment of a handle to a body, the body for example of a scrubbing brush is provided with two slot-like recesses for reception of the supporting or carrying plate.

The object of the present invention is to construct such a device for releasably fastening the handle to a brush body or any other tool body so that only one slot needs to be provided in the said body.

According to the invention the main supporting or carrying member is constructed in the form of a plate which is connected with the handle holder in such a way that the plane in which the plate lies and the plane in which the bottom of the handle holder lies, include an acute angle between them, and so that when the plate is inserted either way round in a downwardly directed slot provided in the upper part of the brush body or the like the under face of the handle holder bears against a sloping side face of the said body, fastening in place being obtained, as in the aforesaid patent, by a screw or other securing member entering a hole in said body.

The invention will further be described with reference to the accompanying drawing illustrating an example.

Figure 1 is a vertical section of a scrubbing brush with the fastening device.

Figure 2 is a plan view of Figure 1.

In the figures, 1 is the body of a scrubbing brush provided in its upper part 2 with a downwardly directed slot 3. In each of the two opposite sides 4, 5 inclined downwards from the top surface of the body is a threaded hole 6. These sides 4, 5 are at the same acute angle to the vertical slot 3 and the holes 6 are symmetrically disposed in relation to the slot 3.

A supporting or carrying member in the form of a plate 7 is inserted in the slot 3 which it fits; the upper part of this member is bent over at 8 and rigidly connected with a handle holder 9. As shown more particularly in Figure 1 the plate 7 lies in a plane which with the plane of the underside of the handle holder 9 includes an acute angle equal to the angle between sides 4, 5 and the slot 3, while the holes 6 are positioned to register the one or the other with a central aperture in the bottom of the holder 9. Into the handle holder 9 is inserted a handle 10 provided at its lower end with a screw 11 which can be screwed into either one of the holes 6.

The attachment of the handle 10 to the body 1 is carried out as follows. The plate 7 which serves as supporting or carrying device is thrust into the slot 3 in the body part 2 until the bottom of the handle holder 9 rests upon the surface 4 of the body 1. The handle 10 with the end screw 11 is inserted in the holder 9 and the screw 11 screwed into the hole 6 thus completing the attachment.

If owing to wear it is desired to secure the handle to the other side wall 5 of the body 1, the handle is first unscrewed and removed from the holder 9. The device is removed from the body, for which purpose the plate 7 merely has to be withdrawn from the slot 3, and is then turned and replaced but with the bottom of the handle holder 9 against the side wall 5, whereupon the handle 10 is fastened in the manner above described.

In contradistinction to the device according to the aforesaid patent, the brush body requires only a single slot 3 for attaching the handle 10 to the brush body by means of the attaching device.

Advantageously the screw 11 of the handle 10 is provided with an unthreaded forward portion 11^a (Fig. 1) for centering purposes.

What I claim is:—

1. A releasable handle fastening device for a tool body, such as for example a brush body, comprising a body the upper surface of which has a downwardly directed slot therein, a pair of side surfaces on said body sloping downwardly from said upper surface, a holding means in each said side surface, said side surfaces and holding means being symmetrically disposed in relation to said slot, a supporting member in the form of a plate fitting within said slot, a handle holder rigid with said plate and having its bot-

tom face at an acute angle to said plate equal to the angle between one of said side surfaces and said slot, a handle entering said holder, and means on the end of the handle cooperating with one of said holding means for securing said handle, body and supporting plate firmly together.

2. A releasable handle fastening device for a tool body, such as for example a brush body, comprising a body the upper surface of which has a slot therein, a pair of side surfaces on said body sloping downwardly from said upper surface and making equal acute angles with said slot, a supporting member in the form of a plate fitting within said slot, a handle holder rigid with said plate and having its bottom face at the same angle to said plate as the angle between said slot and said side surfaces, the bottom of said holder being centrally apertured and said side surfaces each having a screw threaded hole therein positioned to register the one or the other with said central aperture in said holder, a handle entering said holder, and a screw centrally projecting from said handle, traversing said central aperture and screwed into the registering threaded hole.

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