March 22, 1927. 1,621,761

A. E. TAYLOR

NAIL DRIVING IMPLEMENT

Filed Aug. 5. 1925

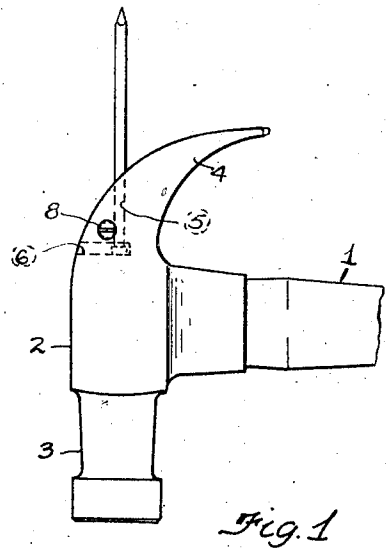

Fig. 1

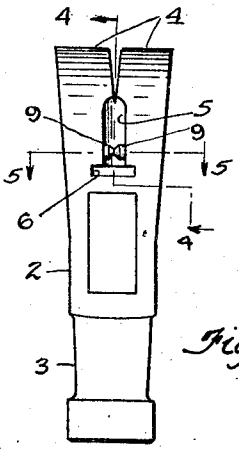

Fig. 2

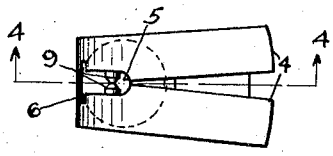

Fig. 3

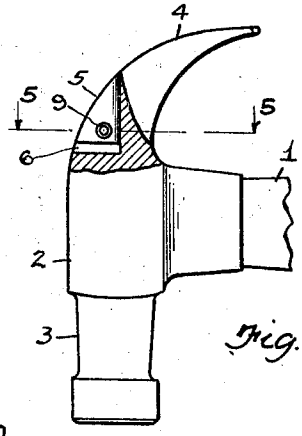

Fig. 4

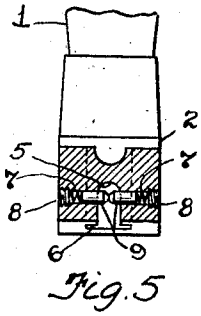

Fig. 5

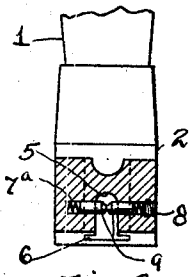

Fig. 6

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UNITED STATES PATENT OFFICE.

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NAIL-DRIVING IMPLEMENT.

Application filed August 5, 1925. Serial No. 48,248.

I am aware that attempts have heretofore been made to incorporate nail retaining means in a nail driving implement, such as a hammer, i. e. means whereby a nail may be detachably secured to the hammer head in order to be started in the material in which it is to be driven. No device of this sort, however, to my knowledge has ever been commercially exploited and one reason for this may be that they have usually taken the form of attachments or excrescenses on the hammer head which is objectionable from the standpoint of the practical carpenter who is accustomed to a hammer that is more or less standardized in shape and, what is more important, carefully balanced in the matter of weight.

One object of the present invention, accordingly, is to provide a nail retaining device for use in conjunction with a hammer or like implement which will lie wholly within the normal contour of the implement head. Another object is to so locate and dispose such device as to support the nail substantially in line with the center of gravity of the head or with the axis of the poll.

To the accomplishment of the foregoing and related ends, the invention, then, consists of the means hereinafter fully described and particularly pointed out in the claim, the annexed drawing and the following description setting forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing:—

Fig. 1 is a side elevation of a hammer embodying my present improved nail retaining device, a nail being shown as held by the latter; Fig. 2 is a front elevation of said hammer; Fig. 3 is a plan or top view thereof; Fig. 4 is partly a side elevation and partly a central vertical section of the hammer head, the plane of the section being indicated by the lines 4—4, Figs. 2 and 3; Fig. 5 is a transverse section taken on the plane indicated by the lines 5—5, Figs. 2 and 3; and Fig. 6 is a view similar to that of Fig. 5 but showing a modification in construction.

The hammer shown in the foregoing figures of the drawing it will be understood is illustrative of any standard type of nail driving implement, such hammer comprising the usual handle 1 and a head 2 that includes a poll 3 and an oppositely directed pair of claws 4. Adjacent the base of the claws at the convex side is a forwardly opening slot 5, the bottom of which is substantially parallel with the axis of the hammer head and is converging or rounded, as shown in Figs. 3, 5 and 6, while the proximal or closed end portion 6 is wider than the rest of the slot, providing in effect an undercut portion. Lying transversely of such slot 5 and aligned with each other are two bores or apertures 7. These recesses, in the constructional form shown in Fig. 5, are identical, the outer end of each such recess being closed by a threaded plug 8 or equivalent member so as to hold in place in such slots respectively two spring pressed plungers 9. The plungers are thus seen to be spaced from or lie forwardly of the back wall or bottom of the slot. The exposed ends of these plungers are preferably beveled, or rather, conoidally pointed, as shown, and should normally contact approximately at a mid-point in slot 5. They thus act to center nails of various sizes and hold them firmly by reason of pressing them against the bottom of the slot. At the same time, the tapered or rounded ends of the plungers allow of a universal gripping action, and a nail can be presented either way and can be as readily released by a straightaway relative movement, as engaged.

The only change in construction illustrated in Fig. 6 is that the one plunger receiving recess 7^a is dead-ended instead of extending entirely through the corresponding side of the hammer head. In other words, both plungers with their corresponding springs are designed to be inserted through the recess 8 which does thus extend to the outer surface of the head.

Due to the fact that the ends of the spring pressed plungers 9 are beveled on both their inner and outer faces and due to the location of such plungers with reference to the converging bottom of slot 5, nails that vary considerably in diameter will be held against such wall when inserted between same and the beveled or conoidal plunger ends. The undercut portion 6 of the slot, furthermore, renders it possible to accommodate nails or spikes with large heads. As clearly shown in Fig. 1, the nail when held in place in the slot in the manner just described is substantially in line with the axis of the poll 3 or, in other words, with the center of gravity

of the hammer head. Such nail may accordingly be driven with the same degree of accuracy as though it were held with the one hand while the hammer was wielded with the other. Furthermore, the contour of the hammer is not changed, the nail retaining means lying wholly within the boundary lines of the hammer. This is not only advantageous from the standpoint of appearance, but also preserves the natural balance of the hammer which is an important consideration. It is possible to incorporate my improved nail retaining device in any hammer as at present made wthout affecting its use in the ordinary manner at all. For the same reason no special dies or other forging equipment will be required to manufacture the hammer.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by the following claim or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

In a nail-driving implement of the hammer type, the combination with a head including a poll and an oppositely directed pair of claws, of nail-holding means including a slot at the base of said claws at the convex side, the bottom of the slot being substantially parallel with the axis of the hammer head, two aligned recesses, one at either side of said slot spaced from the bottom of said slot, and conoidally pointed nail-engaging plungers yieldably projecting from such recesses for pressing a nail toward the bottom of said slot, and forming a three-point engagement therewith.

Signed by me this 1" day of August, 1925.

ARTHUR E. TAYLOR.