P. O. PETTERSON.

TOOL WITH REMOVABLE HANDLE.

APPLICATION FILED MAR. 12, 1910.

965,742.

Patented July 26, 1910.

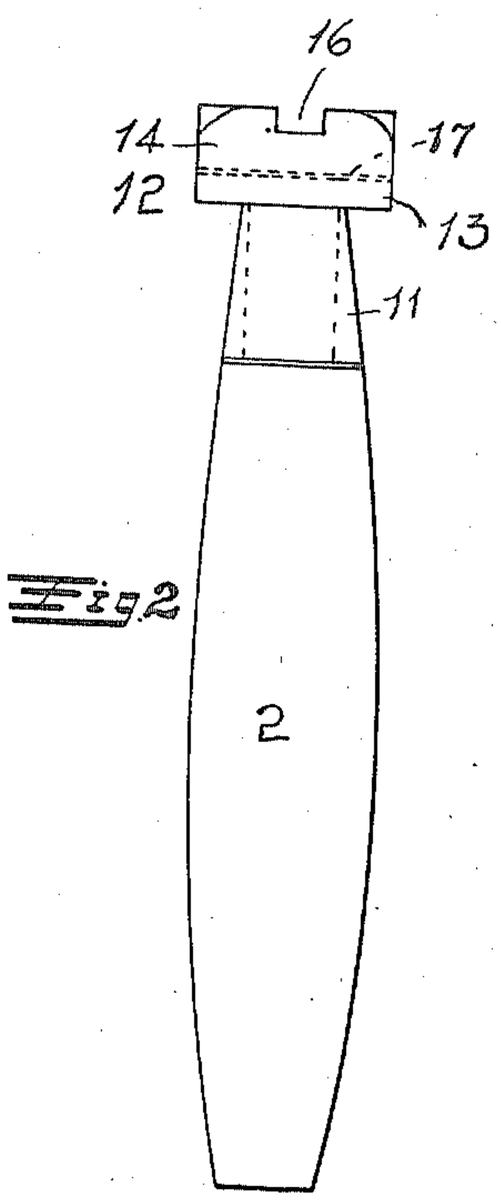


Fig. 2

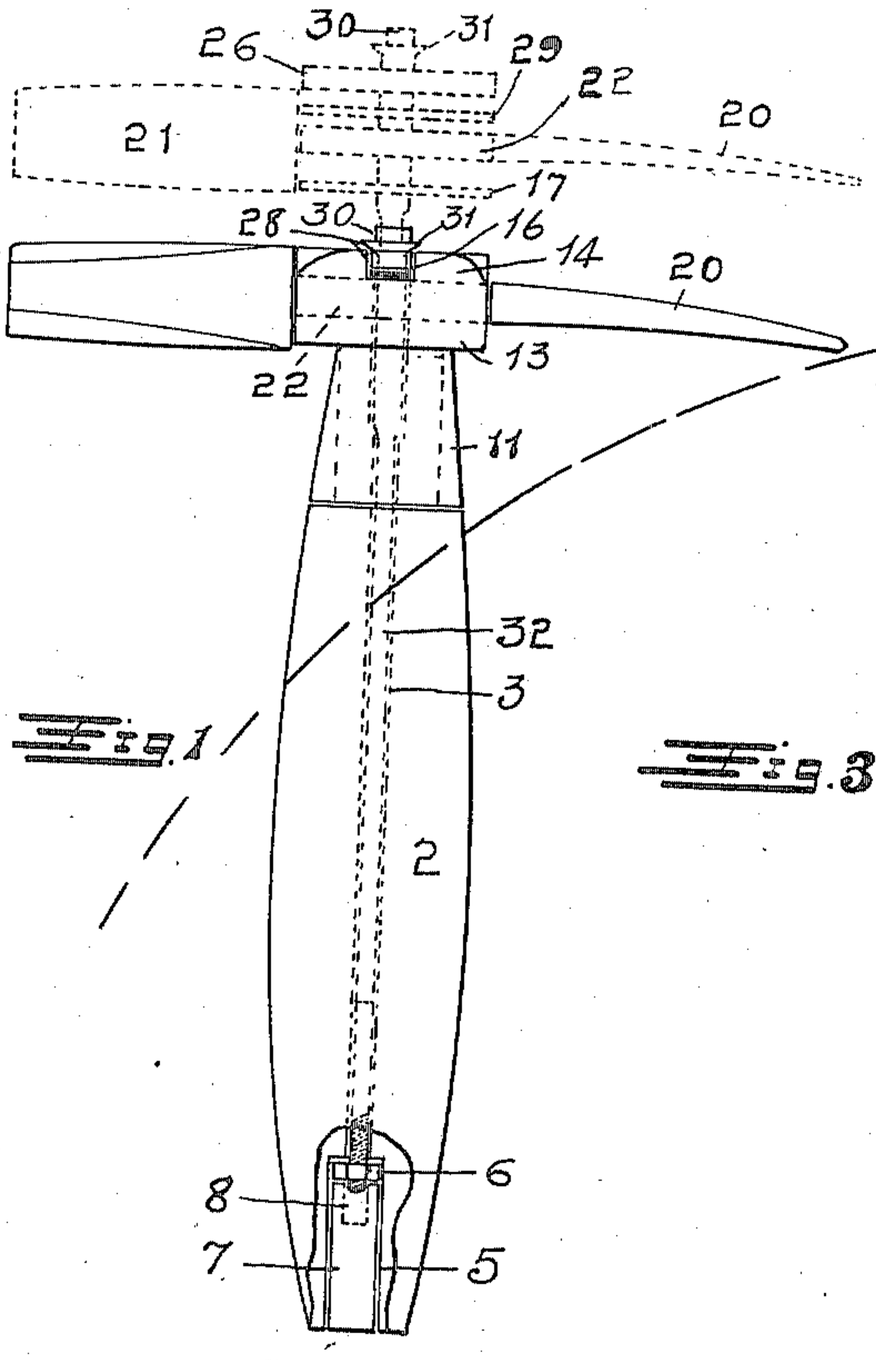


Fig. 1

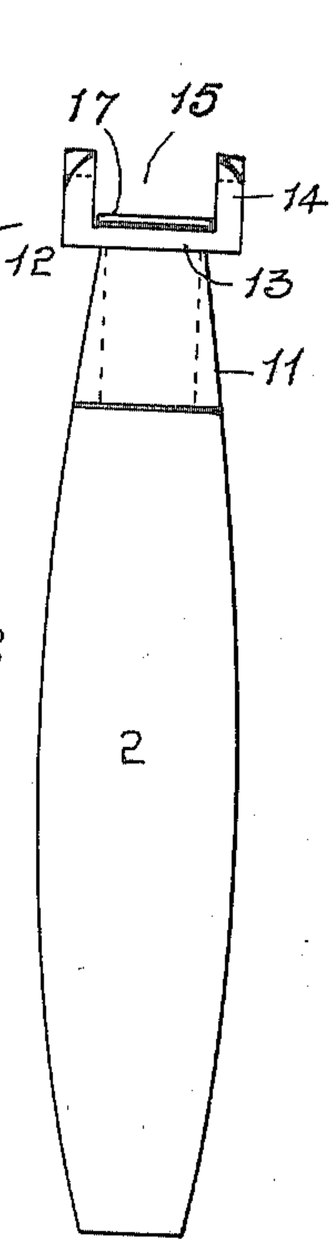


Fig. 3

Fig. 4

Fig. 5

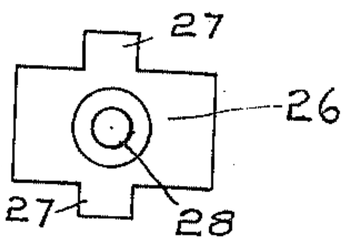


Fig. 6

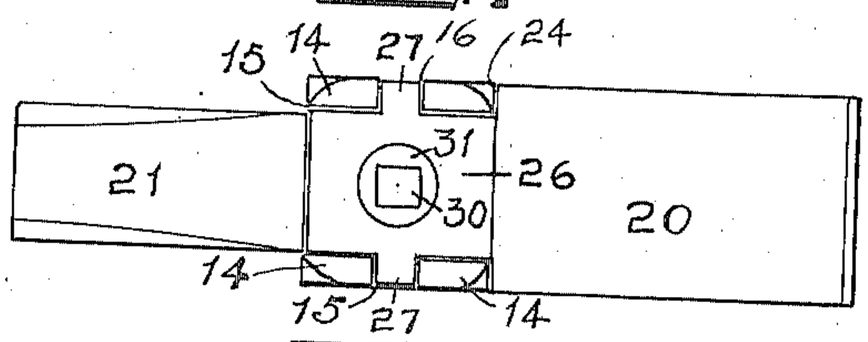


Fig. 8

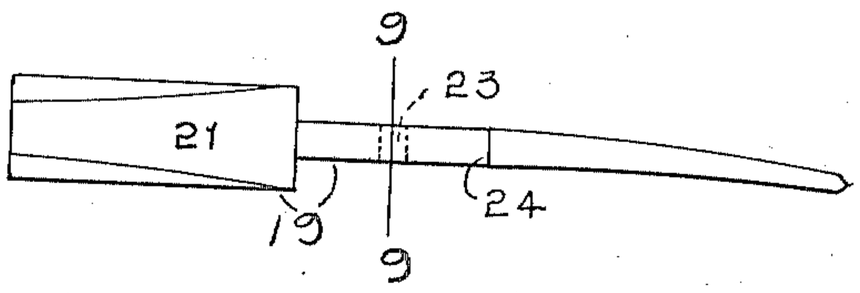


Fig. 7

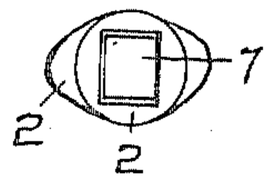
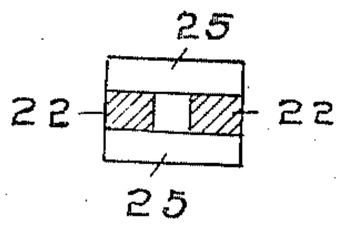


Fig. 9



WITNESSES

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UNITED STATES PATENT OFFICE.

PER OTTO PETTERSON, OF GALESBURG, ILLINOIS.

TOOL WITH REMOVABLE HANDLE.

965,742. Specification of Letters Patent. Patented July 26, 1910.

Application filed March 12, 1910. Serial No. 548,807.

To all whom it may concern:

Be it known that I, PER O. PETTERSON, a citizen of the United States, and a resident of Galesburg, in the county of Knox and State of Illinois, have invented a new and useful Tool with Removable Handle, of which the following is a specification.

The invention has relation to that general class of tools which have a handle, and a head substantially at right angles thereto, and to which class belong hammers, adzes, stone masons' tools and the like. In this class of tools, and more particularly such thereof as have a cutting edge, it becomes frequently necessary to grind or sharpen them, and because of the relative arrangement of the handle and said edge this cannot be effectively done except by removing the head from the handle. Also it is desirable to have several heads, inasmuch as they become quickly dulled, and it is impractical to stop the usual work while they are being ground. Moreover, a "kit" in which are several assembled tools of this character is burdensome, bulky and inconvenient.

The principal object of the invention is, therefore, to provide a tool in which the head is readily separable from or attachable to the handle, in order that either several heads of the same type or heads of different types may be used with the single handle.

Minor objects will be in part obvious and in part pointed out.

A stone-mason's hammer embodying the preferred construction of parts, and their mutual relationship, combination, arrangement, and organization in a concrete body is hereinafter described and made the subject matter of the claims hereto appended, and is illustrated in the accompanying drawing, in which—

Figure 1 is a side elevation of a stone-mason's tool embodying my improvements, the method of assemblage being shown by dotted lines and the lower portion of the handle partly broken away; Fig. 2 a side elevation of the handle and head-receiving member; Fig. 3, a rear elevation thereof; Fig. 4, a top plan of the device; Fig. 5, a top plan of the locking member; Fig. 6, a side elevation thereof; Fig. 7, a bottom plan of the handle; Fig. 8, a side elevation of the head; and Fig. 9, a sectional view in the line 9—9, in Fig. 8.

Referring to said drawings by reference characters, the same one indicating the same part in the different figures, 2 indicates a handle provided with an axial bore 3 and at its lower portion provided with a square socket 5 in which is fitted a threaded nut 6 and a plug 7, the latter having a recess 8 in its upper portion, said recess being adapted to receive the point of the securing bolt hereinafter described.

The socket 11 of the head receiving member 12 receives the reduced portion of the handle in the ordinary manner, and supports at its upper portion a plate 13, (integral therewith,) two opposite sides 14 thereof being turned upwardly to form a channel or way 15. At its median upper portion each side or projection 14 is cut away to provide registering notches 16 extending approximately one-half the depth thereof. The outer corners of said projections are preferably rounded off as shown to provide a smooth surface and a neater appearing tool.

A buffer or shock-absorber 17 having the general outline of the horizontal portion of the base of the plate 13, is laid between the plate 13 and that portion of the tool head 19 which rests thereabove. The head may be of any suitable type or configuration. That shown comprises a peen 20, a driver 21 and a connecting portion 22 provided with a centrally disposed aperture 23. The peen being somewhat broader than the connector 22 provides shoulders 24, and the head being thicker than the connector forms shoulders 25. The shoulders 25 prevent movement of the head forwardly, because of their contact with the rear edge of the base-plate 13 and lugs 14; and rearward movement of said head is prevented by the shoulders 24 which take against the forward pair of lugs.

26 indicates a binding-plate provided with transverse projections 27 and a countersunk central aperture 28.

29 is a buffer, which, like the buffer 17, is preferably of rubber or suitable material, and lies between the connector 22 and plate 26. It is of the same outline as is the binding plate 26 and is centrally apertured.

The securing bolt also may be of any suitable construction. I have shown it raised slightly from its normal position and as provided with a square head, 30, a collar 31

having a frusto-conical lower portion, and a shaft 32, enlarged at its upper and threaded and constricted at its lower portion.

In assembling the device the buffer 17 is positioned, the tool head 19 placed longitudinally of the channel 15 in the socketed handle-head, the buffer 29 placed thereover and the binding plate placed thereon, with its projections 27 lying in the niches 16 in the lugs 14 which constitute the upward projections of the socketed head, whereupon the bolt 32 is passed through the registering apertures in said parts and the handle, and by means of the nut 30 caused to engage the nut 6 in the lower portion of the handle. The conical portion of the collar will rest in the countersunk portion of the binding-plate, to provide a broad and strong support for the parts, and the buffers will absorb a major portion of the shock given by the blow.

In order to show the difficulty of sharpening a tool of the character shown, I have by broken lines at Fig. 1 illustrated a fragment of the periphery of a grindstone.

It will be evident that any preferred type or shape of tool head may be substituted for the one shown. And while I have specifically described the construction and relative arrangement of the several parts of my improvements it will be apparent that various changes may be made in the details without departing materially from the spirit and scope thereof. I therefore desire to be understood as claiming all such advantages as are enforced by or arise out of any similar devices or which may accrue from combinations thereof.

Having thus set forth the preferred construction and operation, the purposes and objects of the invention, I claim as new and desire to secure by Letters Patent the following, to-wit:

1. In a tool, a handle, a head-receiving element mounted thereon and provided with upstanding sides having niches, said sides providing a channel, a tool-head seated in said channel, a binder-plate having transverse projections seated in said niches and above said tool-head, and means for securing said parts together.

2. In a tool, a handle having an axial bore, an apertured head-receiving element mounted thereon and provided with upstanding sides providing a channel, an apertured tool-head seatable therein, a binder-plate seated thereabove, provided with an aperture, shock-absorbing means between said head and head-receiving element, a nut seated in the bore in the handle, and a bolt passed through said elements and engaged with said nut.

3. In a tool, a handle having an axial bore, an apertured head-receiving element mounted thereon and provided with upstanding sides having niches, said sides providing a channel, a tool-head seated in said channel, a binder-plate having transverse projections seated in said niches, a nut seated in said bore, and a bolt passed through said head and head-receiving element and engaged with said nut.

4. In a tool, a handle having an axial bore, an apertured head-receiving element mounted thereon and provided with upstanding sides having niches, said sides providing a channel, a tool-head seated in said channel, a binder-plate having transverse projections seated in said niches, a nut seated in said bore, a plug for retaining said nut in place, and a bolt passed through said head and head-receiving element and engaged with said nut.

5. In a tool, a handle having an axial bore, an apertured head-receiving element mounted thereon and provided with upstanding sides having niches, said sides providing a channel, a binder-plate having transverse projections seated in said niches, a nut seated in said bore, a plug for retaining said nut in place, a bolt passed through said head and head-receiving element and engaged with said nut, and shock-absorbing means disposed between a portion of said elements.

In testimony whereof I have hereunto affixed my signature at Galesburg, Illinois, this 7th day of March, 1910.

PER OTTO PETTERSON.

Witnesses:

CARL A. LARSON,

P. N. GRANVILLE.