

UNITED STATES PATENT OFFICE.

MOSES NICHOLLS, OF LIBERTYVILLE, ILLINOIS, ASSIGNOR OF ONE-HALF TO MILTON J. WOLCOTT, OF EXELAND, WISCONSIN.

HAMMER.

Application filed March 3, 1924. Serial No. 696,631.

To all whom it may concern:

Be it known that I, MOSES NICHOLLS, a citizen of the United States, and a resident of Libertyville, in the county of Lake and State of Illinois, have invented a new and useful Improvement in Hammers, of which the following is a full, clear, and exact description.

My invention relates to improvements in hammer constructions, and is an improvement over the hammer construction set forth in my copending applications for patent on hammer, Serial Nos. 604,927 and 677,790, in which hammer handles were disclosed and shown provided with fiber inserts in that portion of the handle intended for projection through the hammer head for the purpose primarily of preventing the shrinkage of the hammer handle adjacent to the head.

An object of my present invention is to provide a hammer construction in which an insert is provided for reenforcing the handle of the hammer adjacent to the head, and which not only prevents shrinkage of the handle at that point, but which provides great strength to the handle at that point, thereby precluding the possibility of the handle breaking at that point where it joins the head.

A further object of my invention is to provide a hammer construction in which means is provided for securely fixing the head against unintentional removal from the handle by the use of a single wedge member.

A further object of my invention is to provide a hammer construction of the type described in which great strength is given to the handle adjacent to the head, yet without sacrificing the necessary resiliency of the handle necessary to provide a hammer efficient in operation.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claim.

My invention is illustrated in the accompanying drawings, forming part of this application, in which—

Figure 1 is a sectional view of an embodiment of my invention,

Figure 2 is a side elevation of a portion of the mechanism illustrated in Figure 1,

Figure 3 is a sectional view along the line 3—3 of Figure 2, and

Figure 4 is a sectional view along the line 4—4 of Figure 1.

In carrying out my invention I make use of the ordinary type of wooden hammer handle 1. The handle 1 has a tapered rabbeted portion 2 on each side of its outer end extending from a point to the rear of the neck 3 of the handle to the extreme outer end thereof. The configuration of this rabbeted portion may be more clearly seen from inspection of Figure 2, and extends entirely across the handle 1, at that point thereof intended for projection through a hammer head 4, and partially across the neck portion 3 of the handle.

A pair of steel inserts 5, substantially the same shape as the rabbeted portions 2 of the handle 1, is disposed against the inner wall of the rabbeted portion, and fiber strips 6 are disposed on top of the steel inserts 5. The thickness of the steel inserts 5 and the fiber inserts 6 is sufficient to cause the outer surface of the fiber strips 6 to lie contiguous with the outer side walls of the handle 1 and thereby completely fill the rabbeted portions 2 of the handle.

A pair of spaced apart rivets 7 project through the fiber strips 6, steel inserts 5, and the neck portion 3 of the handle 1, and serves to securely bind the steel and fiber elements to the handle 1.

The outer end of the handle 1 is projected through a tapering opening 9, provided in the hammer head 4, and a steel wedge 10 is driven into the outer end of the handle 1, there being a slot 11 provided in the steel inserts 5, and fiber strips 6 to permit the entrance of the wedge 10. When the wedge 10 is driven so that it is entirely embedded in the hammer handle, the adjacent portions will be crowded into close engagement with the opening 9 and thereby prevent withdrawal of the handle from the head 4.

A locking pin 12 is projected through the head portion 4 and through the wedge 10 for the purpose of securely fixing the wedge against dislodgment from the handle, and to further assist in the permanent fixing of the head 4 upon the handle 1.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. My improved hammer construction as described

provides a hammer in which great strength is given to the handle at its normally weakest point i. e., that point adjacent to the head 4. My improved construction therefore provides a hammer that is exceptionally well fit for use in withdrawing nails, spikes, or the like, with the portion 13. This use, if excessive, will render the ordinary type of hammer handle inefficient in a very short time, and finally result in the breaking of the handle due to the fact that no reinforcing medium is employed in the ordinary handle.

My improved handle construction will not entirely lack resiliency, since the portion of the steel inserts 5 extending through the neck of the handle are relatively narrow and therefore possess slight but adequate degree of resiliency in the handle.

There will be no shrinkage or undue expansion of the wooden part of the handle 1 in the head 4, since this part of the handle comprises an extremely small percentage of the handle construction at the head 4.

The major portion of the handle at the head 4 is constructed of steel, and fiber, as reference to Figure 3 will show.

The last, and one of the most important advantages obtained in the operation of my improved hammer construction, is that the possibility of the unintentional dislodgment of the head 4 is entirely precluded, due to the fact that the head is actually keyed to the steel inserts, and is fitted upon separate steel inserts forming a part of the handle and incapable of shrinkage or distortion by normal usage.

I claim:

In a device of the type described, a handle for supporting a tool head, superimposed metal and fiber inserts disposed at the side of said handle at the tool head supporting end thereof, said inserts being of uniform thickness throughout their length, said handle tapered toward the tool supporting end to a relatively narrow extremity, and said inserts being further fashioned to the same width as said handle at the outer end and being relatively narrow in width at the neck portion of the handle, and means for securing said inserts against removal from said handle.

MOSES NICHOLLS.