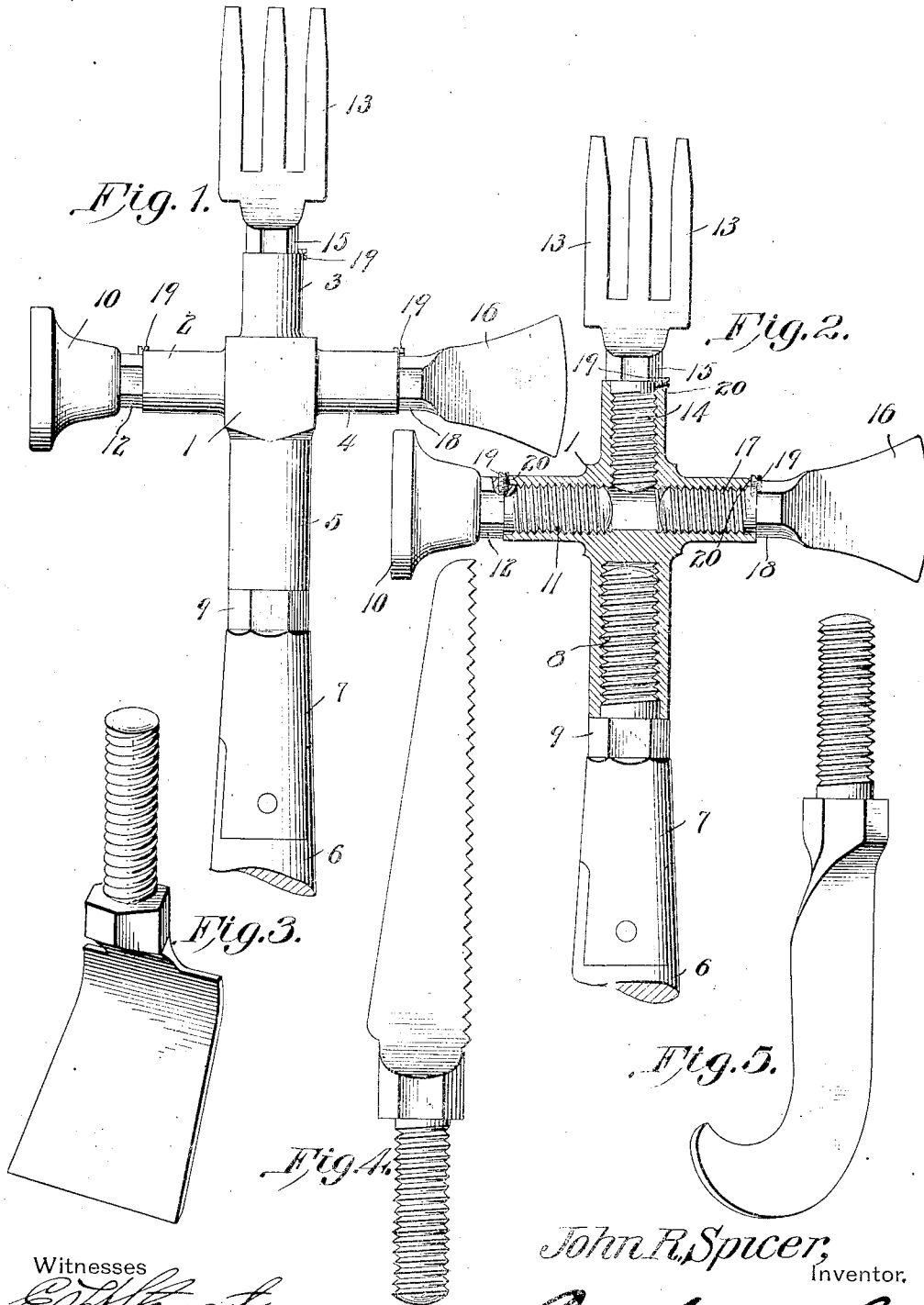


No. 810,987.

PATENTED JAN. 30, 1906.

J. R. SPICER.
COMBINATION TOOL.
APPLICATION FILED SEPT. 1, 1905.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN R. SPICER, OF LOVELADY, TEXAS.

COMBINATION-TOOL.

No. 810,987.

Specification of Letters Patent.

Patented Jan. 30, 1906.

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To all whom it may concern:

Be it known that I, JOHN R. SPICER, a citizen of the United States, residing at Lovelady, in the county of Houston and State of Texas, have invented a new and useful Combination-Tool, of which the following is a specification.

This invention relates to combination-tools; and its object is to provide a novel form of tool-head arranged to interchangeably carry a plurality of tools of different characters, whereby the single tool-head may be employed in various capacities in accordance with the character of the tool or tools carried thereby.

A further object of the invention is to insure a rigid connection of the tools with the head and at the same time to enable the convenient assemblage and detachment thereof without requiring any complicated adjustment of the parts.

It is also proposed to enable the application and removal of each tool without in any manner interfering with the other tool and to enable the carrying of one or more tools at the same time, so as to quickly change the manipulation of the device from one tool to another without requiring any setting or adjustments thereof.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a side elevation of the combination-tool of the present invention. Fig. 2 is a similar view with the head broken away to show the detachable connections between the head and the tools or implements. Figs. 3, 4, and 5 are detail views of some of the tools which may be used with the present head.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The tool-carrying element of the present invention includes a central head 1, from which radiate a series of tubular seats or sockets 2, 3, 4, and 5, all of which lie in substantially the same plane and produce a cruciform head.

The seats or sockets 2, 3, and 4 are substantial duplicates, while the socket 5 is somewhat

longer and also greater in diameter. As clearly shown in Fig. 2, each of the seats is internally threaded. The long seat or socket 5 is designed for connection with a handle, a portion of which has been shown at 6. The handle 6 is provided with a metallic ferrule 7, which has its outer end reduced and formed into a threaded pin or stem 8 of a size to fit within the seat or socket 5, and at the base of the threaded pin or stem the ferrule is faceted to form an annular polygonal portion 9, constituting a wrench head or seat whereby the handle may be conveniently attached and removed.

It will here be explained that the present head is capable of carrying practically any character of tool; but for sake of brevity I have shown in the drawings only a few of such tools, which illustration is deemed to fully disclose the present invention. One form of tool is a hammer-head, (designated 10 in Figs. 1 and 2 of the drawings,) said hammer-head having a threaded shank 11 to engage any one of the seats or sockets 2, 3, and 4, there being a wrench head or a seat 12 at the base of the threaded pin or stem 11, whereby the hammer-head may be conveniently fitted in place and removed by the use of a wrench. Another form of tool is a pitch-fork 13, provided with a threaded shank 14 and a wrench head or seat 15, said fork of course being usually fitted in the seat or socket 3, which is in longitudinal alinement with the handle, so as to enable the use of the fork in the usual manner. Still another form of tool is an ax or chopping blade 16, provided with a threaded shank 17 for engagement with either of the seats or sockets 2 and 4 and having a wrench head or seat 18.

When three tools are assembled with the head, it will be noted that each tool is held in place entirely independent of any of the other tools and may be removed and replaced without in any manner interfering with said other tools. Furthermore, in the use of the device the manipulation thereof may be conveniently changed from one tool to another without requiring any setting or adjusting of the tools, which is a very important feature of advantage of the present invention. The screw-threaded connection between the shank of each tool and the adjacent seat or socket of the head enables the convenient attachment and detachment of the tool, and by reason of the wrench head or seat being of greater diameter than that of the threaded shank said head also constitutes a shoulder capable of

being forced snugly against the outer end of the adjacent seat or socket so as to prevent looseness of the tool upon the head.

A few of the other forms of tools which may be employed in connection with the improved tool-carrying head have been shown in Figs. 3, 4, and 5 of the drawings. The tool shown in Fig. 3 is an adz-blade while that shown in Fig. 4 is a saw-blade and that shown in Fig. 5 is a pruning-hook.

As a means for preventing the several tools from turning in their respective sockets, and thereby becoming accidentally detached from the holder, suitable set-screws 19 are employed, said screws engaging notches or recesses 20 formed in the ends of the sockets, as shown.

From the foregoing description it will be understood that the device of the present invention is exceedingly simple and at the same time effective for the purpose designed; it being proposed to provide a plurality or kit of tools for interchangeable engagement with the present head in order that the device may have a wide range of use.

When the device is not in actual use, the tools may be removed from the head and the latter detached from the handle, whereby all

of the parts of the device may be compactly assembled for storage.

Having thus described the invention, what is claimed is—

A tool including a cruciform head having its arms hollow and internally threaded with their outer ends open and notched, a handle having a threaded shank for engagement with one of the arms of the head and provided with a polygonal wrench-head between the shank and the handle, a set of tools having threaded shanks for engagement with the other arms of the head, each tool having a polygonal wrench-head between the shank and the bit of the tool and provided with a threaded recess between the wrench-head and the threaded portion of the shank, and set-screws carried by the threaded recesses of the shank for engagement with the notches of the tool-head to prevent rotation of the tools.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN R. SPICER.

Witnesses:

J. L. JORDAN,

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