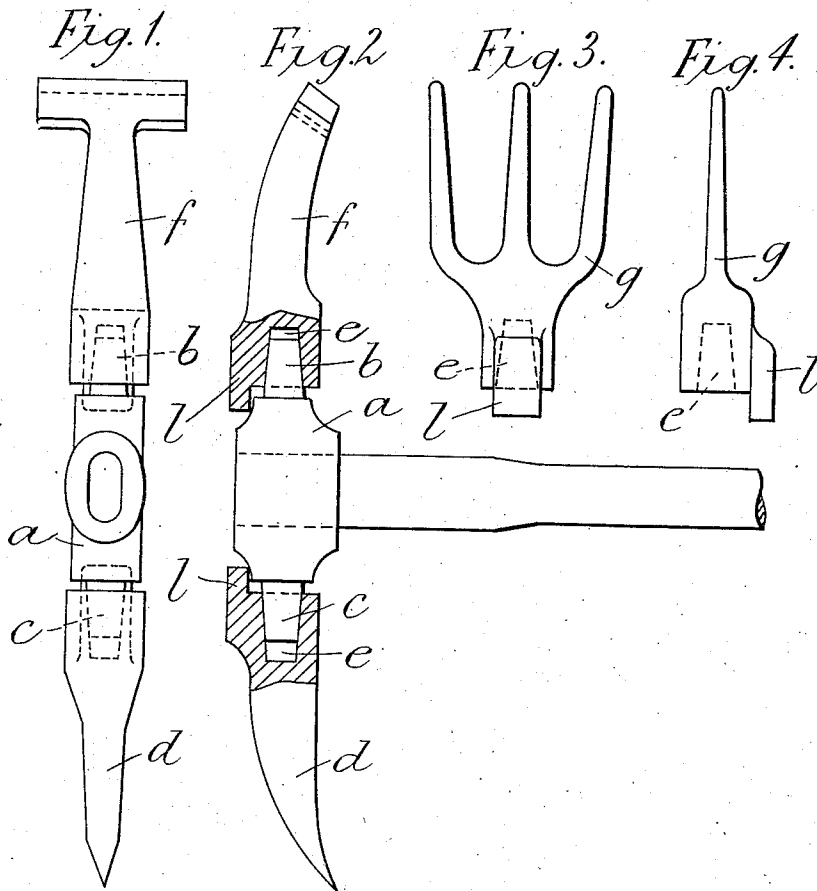


F. GLÄSER.
EARTH WORKING IMPLEMENT.
APPLICATION FILED NOV. 2, 1911.

1,049,574.

Patented Jan. 7, 1913.



WITNESSES
W. W. Nairn Jr.
James A. Stone.

INVENTOR
Ferdinand Gläser
By Julian C. Howell
ATTORNEY

UNITED STATES PATENT OFFICE.

FERDINAND GLÄSER, OF LIMBACH, GERMANY.

EARTH-WORKING IMPLEMENT.

1,049,574.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed November 2, 1911. Serial No. 653,250.

To all whom it may concern:

Be it known that I, FERDINAND GLÄSER, a subject of the Emperor of Germany, residing at Limbach, Saxony, Germany, have invented Improvements in Earth-Working Implements, of which the following is a specification.

The object of this invention is to provide an earth working implement and comprising a handle to which can be readily fixed in an easily removable manner, a number of interchangeable tools such as a pickax, spike, sand rammer head, fork, grubbing hoe, mattock and hammer head.

Tool handles adapted to be fitted with interchangeable working parts or tools have already been made, but as heretofore constructed there is no certainty of the interchangeable parts being held in place in an absolutely firm manner.

According to this invention the handle is provided with a socket or holder having a projecting boss or bosses tapering outwardly and the tools are each formed with a corresponding recess that tapers inwardly so that use of a tool when fitted on the boss or one of them tends to tighten it thereon.

Figures 1 and 2 of the accompanying drawings illustrate in front and side elevation respectively the handle of a universal tool according to this invention fitted with a pickax head *d* and with a sand rammer *f*. Figs. 3 and 4 illustrate in front and side elevation respectively a fork or tined hoe tool or fitting *g*.

The socket or holder *a* of the improved universal tool or appliance is provided on

opposite sides with tapered bosses *b* and *c* of round cross section on which there can be mounted as may be required at the moment any desired kind of special tool fittings formed with corresponding conical recesses *e*, such as a pick-point *d*, a sand rammer *f*, (Figs. 1 and 2) or a tined hoe or fork *g* (Figs. 3 and 4).

The use of the conical bosses as means of connection renders it unnecessary to employ any additional fastening means such as a screw, pin or the like, as the bosses are caused to fit the tools tightly by working with the tool and are only loosened by the socket or holder being tapped on the side.

To prevent the special tool fittings from partially rotating out of the proper position after being put on the socket or holder each such tool or fitting is formed with a projecting nose *l*, adapted to engage the square central portion of the socket or holder *a*.

What I claim is:—

An earth working implement comprising a handle, a socket or holder fixed to said handle, a conical boss on said socket or holder and a number of interchangeable tools each formed with a conical hole adapted to fit said boss and with a lug adapted to bear against one side of said socket or holder.

Signed at Chemnitz, Saxony, Germany, this eighteenth day of October, 1911.

FERDINAND GLÄSER.

Witnesses:

SIDNEY RICH,
MAX J. BENNDORF.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."