W. PRELLWITZ.

BRACE ATTACHMENT FOR FLUID PRESSURE OPERATED TOOLS.

APPLICATION FILED AUG. 20, 1907.

898,679.

Patented Sept. 15, 1908.

2 SHEETS—SHEET 1.

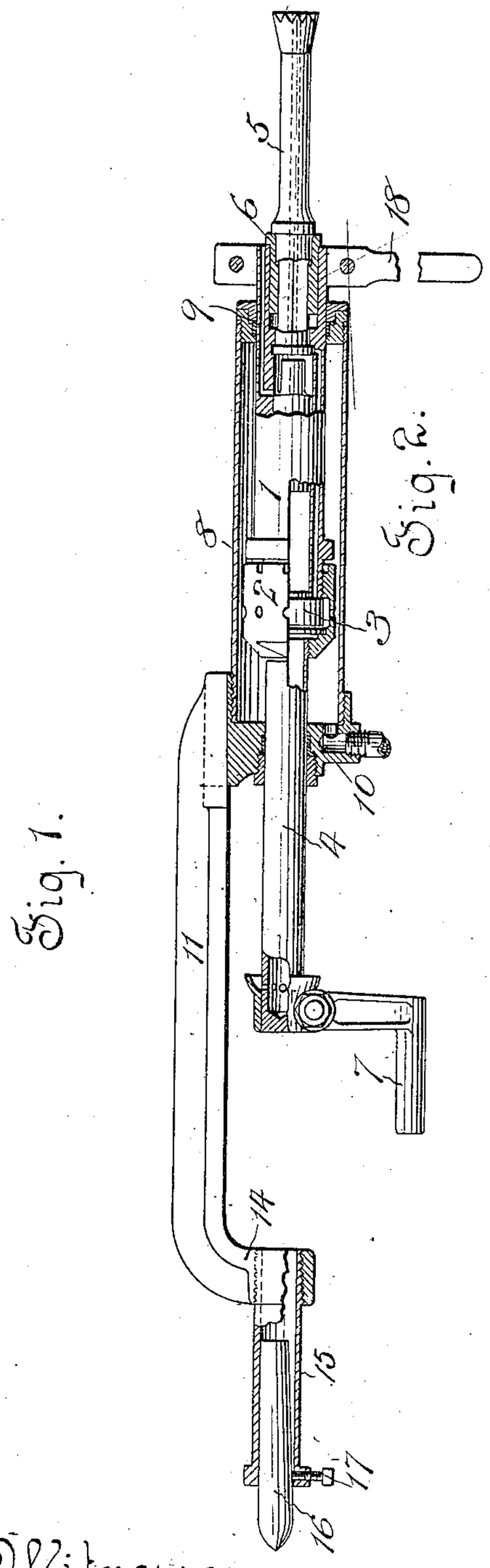

Fig. 1.

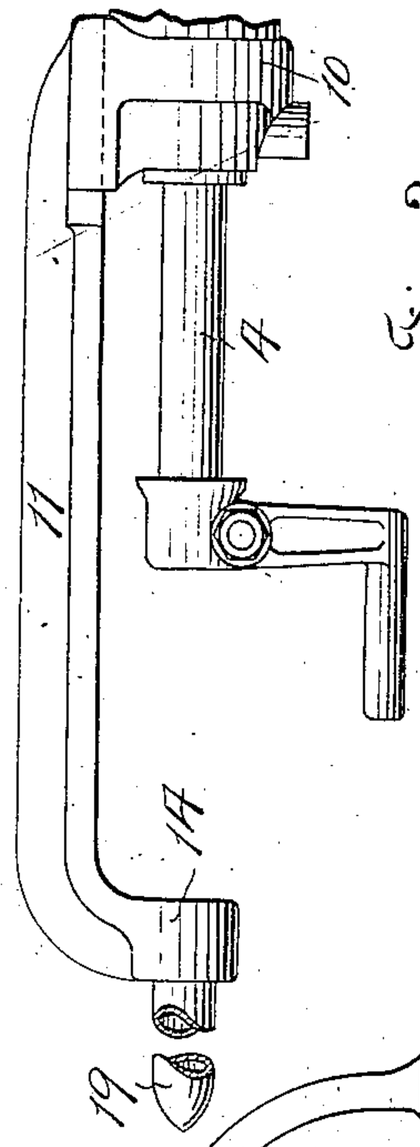

Fig. 2.

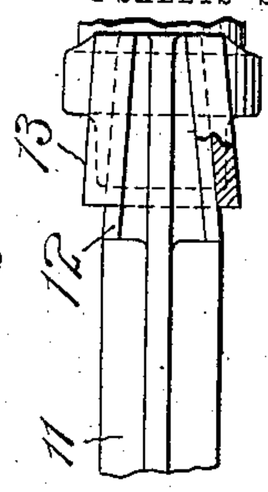

Fig. 3.

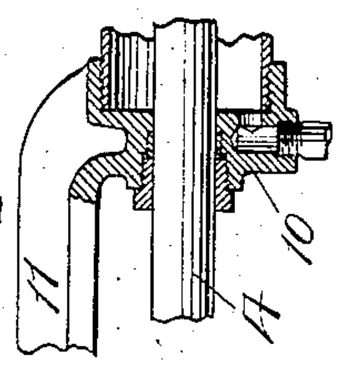

Fig. 4.

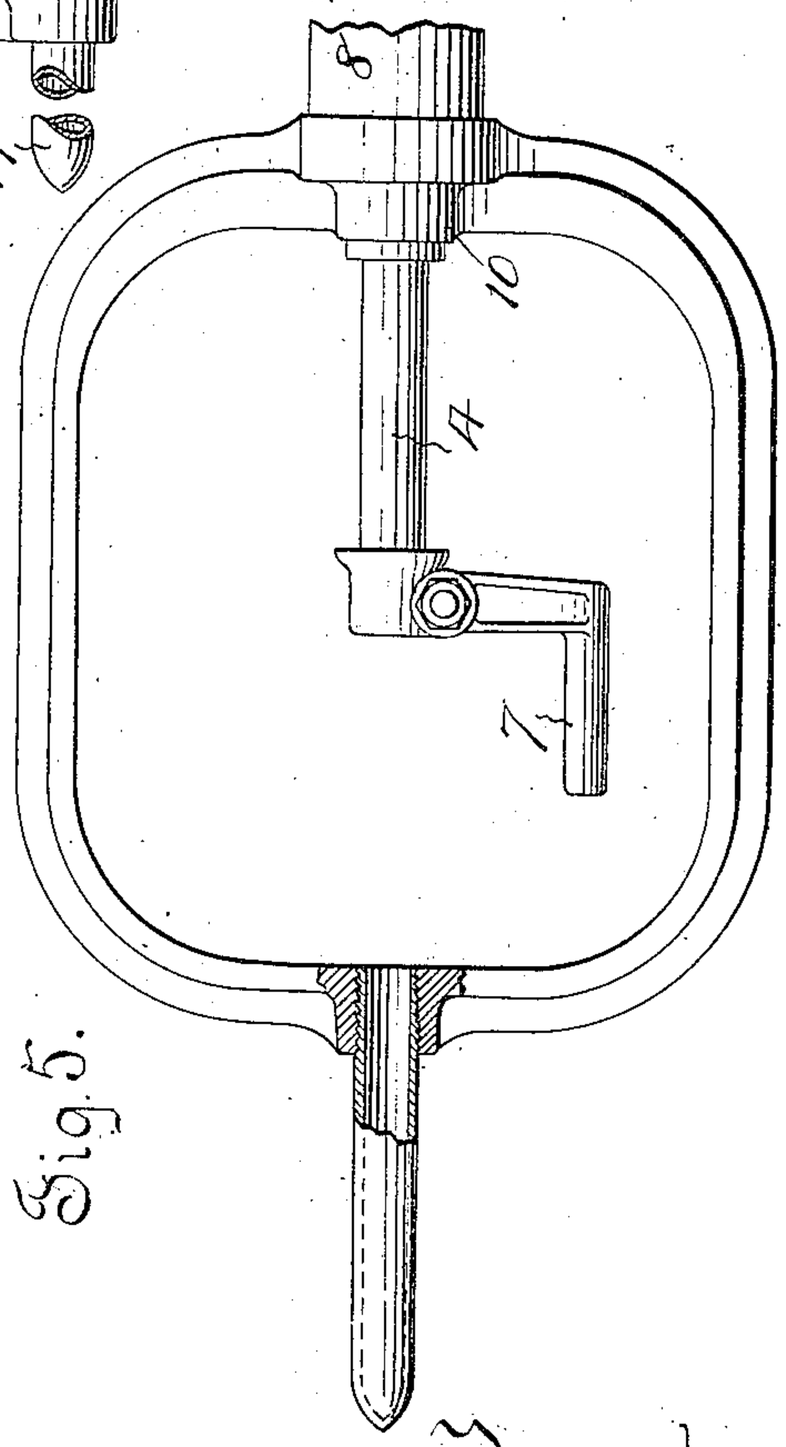

Fig. 5.

Witnesses:
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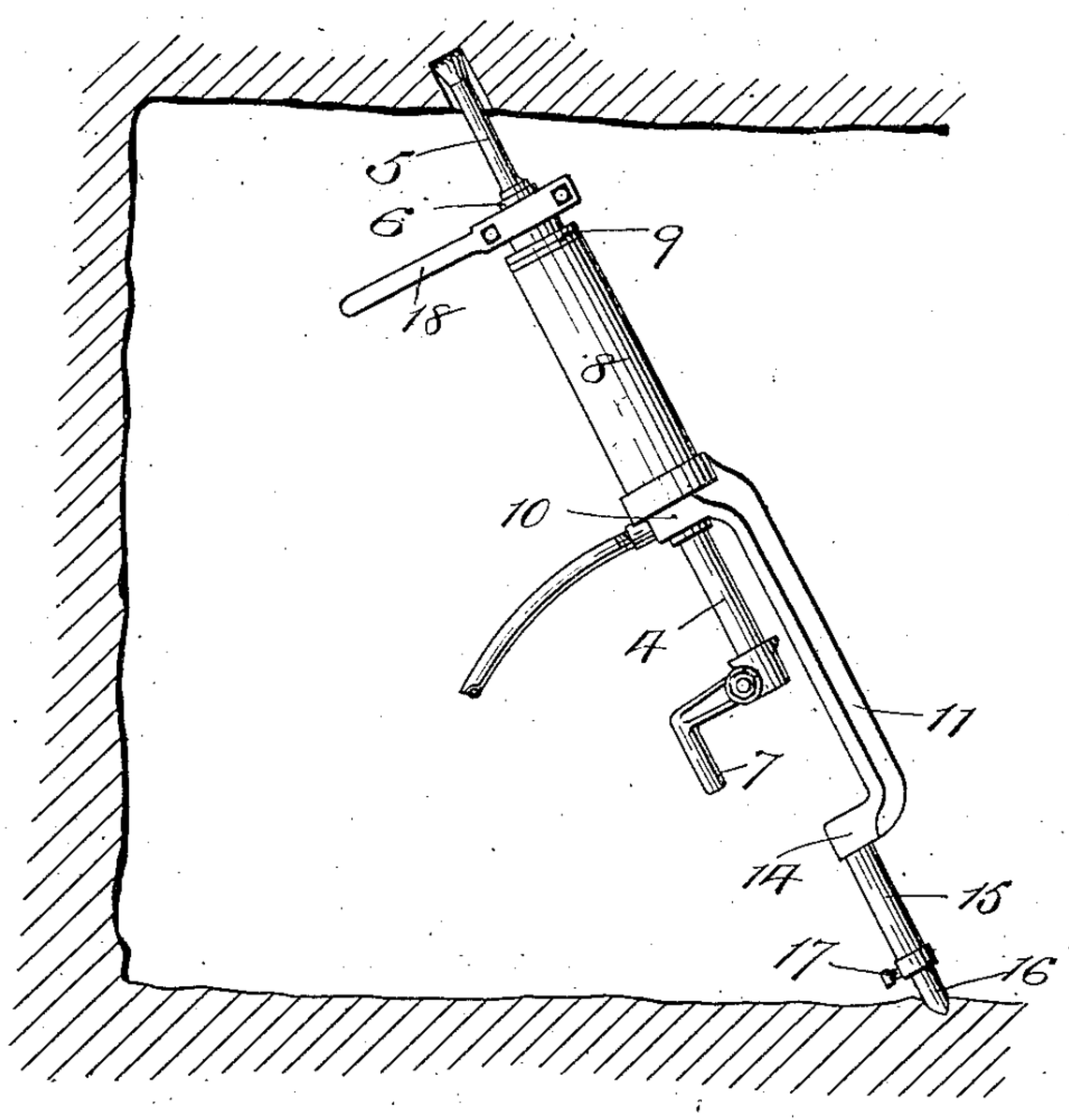
Fig. 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM PRELLWITZ, OF EASTON, PENNSYLVANIA, ASSIGNOR TO INGERSOLL-RAND COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

BRACE ATTACHMENT FOR FLUID-PRESSURE-OPERATED TOOLS.

No. 898,679. Specification of Letters Patent. Patented Sept. 15, 1908.

Application filed August 20, 1907. Serial No. 389,379.

To all whom it may concern:

Be it known that I, WILLIAM PRELLWITZ, a citizen of the United States, and resident of Easton, in the county of Northampton and State of Pennsylvania, have invented a new and useful Brace Attachment for Fluid-Pressure-Operated Tools, of which the following is a specification.

The object of my invention is to provide the protective casing of a fluid pressure operated tool with a brace which may rest upon the ground or other surface to form an end support therefor and which will, at the same time, permit the free manipulation of the tool within its protective casing.

The invention is particularly well adapted for use in connection with percussive tools of the air feed hand rotation type, in which the tool is carried by and free to be moved longitudinally and axially in a protective casing, the brace which is carried by the casing being extended to the rear of the tool handle and there provided with an end piece arranged in alinement with the axis of the tool.

Practical embodiments of my invention are represented in the accompanying drawings, in which the invention is shown as applied to a hammer drill such as that shown, described and claimed in United States Letters Patent No. 818,638, dated April 24, 1906.

Figure 1 represents one embodiment of my invention in side elevation, partially in section, in which the brace is removably carried by the protective casing and the end piece is adjustably carried by the brace, Fig. 2 is a detail side view in which the end piece is permanently carried by the brace, Fig. 3 is a detail plan view of the removable wedge connection between the brace and the protective casing, Fig. 4 is a detail section showing the brace as permanently carried by the rear head of the protective casing, Fig. 5 is a detail plan view partially in section showing a brace of loop form instead of the single arm shown in the other figures, and Fig. 6 is a view showing the application of the device.

The fluid pressure operated tool shown herein is a hammer drill, the tool cylinder of which is denoted by 1, the head block by 2, the valve box by 3, the tail rod by 4, the drill tool by 5 and the bushing by 6. The tail rod is provided with the usual handle 7 for manipulating the tool.

The protective casing is denoted by 8 and is of cylindrical form and provided with front and rear heads 9 and 10.

The front end of the cylinder 1 of the tool slides freely through the front head 9 of the protective casing and the tail rod 4 slides freely through the rear head 10 of the said casing. The tool is thus supported with the casing spaced therefrom.

The brace, which is carried by the casing for forming an end support therefor, comprises an arm 11 which is herein shown as of T form in cross section to give it the required strength, which arm is provided at its front end with a wedge 12 arranged to be removably inserted in a taper socket 13 on the rear head 10 of the protective casing 8. This brace extends to the rear of the handle 7 of the tool and is provided with an inwardly turned end 14 from which extends a socket piece 15 within which is adjustably secured an end piece 16 which is in alinement with the axis of the tool and is fitted to engage the ground or other surface when the tool is in operation.

The means which I have shown for adjustably securing the end piece within the socket piece 15 is a set screw 17. The front end of the cylinder 1 of the tool, exterior to the protective casing, may be provided with a handle 18 if so desired for assistance in the manipulation of the tool. In the form shown in Fig. 2, the end piece 19 is shown as permanently secured thereto. In the form shown in Fig. 4, the brace is shown as forming an integral part of the rear head 10 of the protective casing. In the form shown in Fig. 5, I have shown the brace as of loop form, so as to permit the complete rotary movement of the handle of the tool.

By the use of the brace in connection with tools having a protective casing, I am enabled to provide a very simple and effective end support for the casing in alinement with the tool thus relieving the operator of the weight of the tool and yet at the same time permitting the tool to be readily manipulated to produce the most satisfactory results.

What I claim is:—

1. A hollow protective casing, a tool slidably supported therein, a brace carried by the casing forming an end support therefor

and an adjustable end piece carried by the brace for engaging the ground or other surface.

2. A hollow protective casing, a tool slidably supported therein, a brace removably carried by the casing forming an end support therefor and an adjustable end piece carried by the brace for engaging the ground or other surface.

3. A protective casing, a percussive tool supported therein having its handle located exterior to said casing and a brace carried by the casing extended to the rear of the handle and forming an end support for the casing.

4. A protective casing, a percussive tool supported therein having its handle located exterior to said casing, a brace carried by the casing extended to the rear of the handle and forming an end support for the casing and an end piece carried by the brace for engaging the ground or other surface.

5. A fluid pressure feed hand rotated percussive tool, a protective casing therefor, a brace carried by the casing and an end piece carried by the brace in alinement with the axis of the tool.

6. A fluid pressure feed hand rotated percussive tool, a protective casing therefor, a brace removably carried by the casing and an end piece carried by the brace in alinement with the axis of the tool.

7. A fluid pressure feed hand rotated percussive tool, a protective casing therefor, a brace carried by the casing and an adjustable end piece carried by the brace in alinement with the axis of the tool.

8. A fluid pressure feed hand rotated percussive tool, a protective casing therefor, a brace removably carried by the casing and an adjustable end piece carried by the brace in alinement with the axis of the tool.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this 16th day of August, 1907.

WILLIAM PRELLWITZ.

Witnesses:

WARD RAYMOND,

CHAS. T. MILLER.