B. L. SCHMIDT.

WORK HOLDER FOR MACHINES.

APPLICATION FILED JULY 19, 1917.

1,265,818. Patented May 14, 1918.

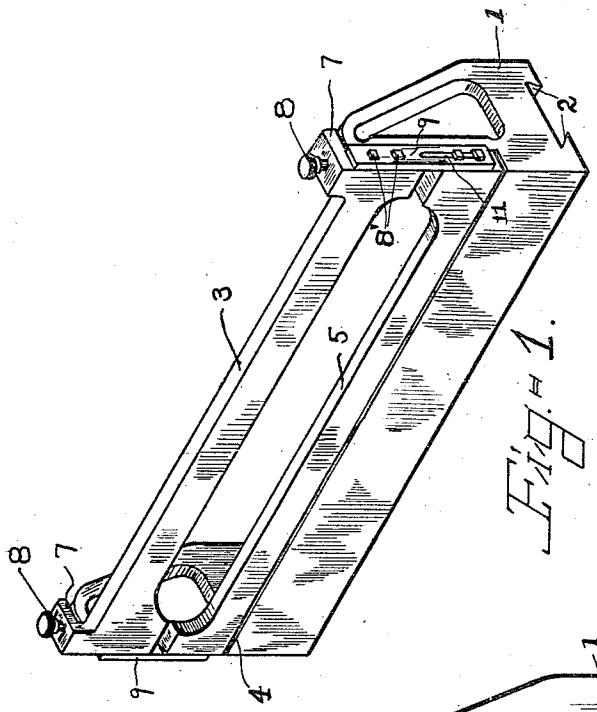


Fig. 1.

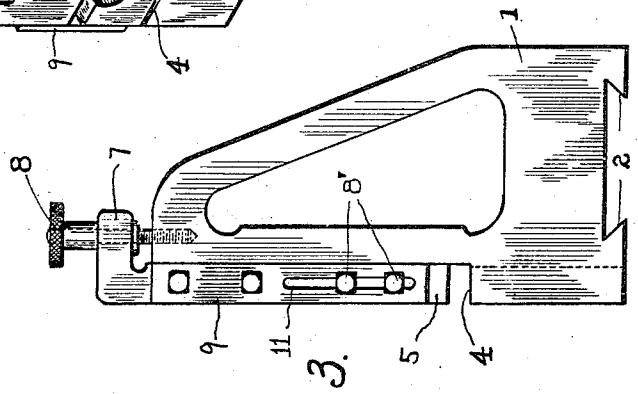
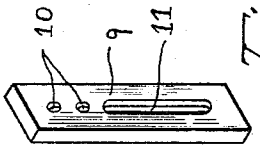


Fig. 2.

Fig. 3.



Witnesses:

Inventor:
BL. Schmidt.
Per Davis & Davis
Attorneys.

UNITED STATES PATENT OFFICE.

BERNHARD L. SCHMIDT, OF DAVENPORT, IOWA.

WORK-HOLDER FOR MACHINES.

1,265,818. Specification of Letters Patent. Patented May 14, 1918.

Application filed July 19, 1917. Serial No. 181,548.

To all whom it may concern:

Be it known that I, BERNHARD L. SCHMIDT, a citizen of the United States of America, and a resident of Davenport, county of Scott, State of Iowa, have invented certain new and useful Improvements in Work-Holders for Machines, of which the following is a full and clear specification.

This invention relates to improvements in grinding machines and more particularly to work-holders or angle plates therefor.

An object of this invention is to provide suitable means which may readily be attached to a grinding machine for holding the work.

Another object is to provide adjustable means for holding the work on a grinding machine.

Other objects will appear as the description proceeds.

In the accompanying drawings which constitute a part of my specification—

Figure 1 is a perspective view of my improved work-holder detached;

Fig. 2 is an end view of the same; and

Fig. 3 is a perspective view of the jaw-adjustment link.

In carrying out my invention, I employ any ordinary type of grinding machine frame, as, for instance, that which is illustrated in my application for grinding machine, filed on this same day and numbered 181,547.

I provide substantially right-angular shaped frames or members 1 having dovetail slots 2 formed in their lower faces, thereby adapting them to be readily moved from side to side in the usual manner across the machine frame. A front connecting bar 3 joins the two end members 1 and holds them in spaced relation with respect to each other.

The face of the angle frame is offset, thereby forming the seat 4. A lower member or jaw 5 is positioned on said seat 4 and is provided with screw-threaded holes in its opposite ends. Another bar-jaw is provided and seats against the offset portion of the angle frame 1 and has lugs 7 formed thereon which extend rearwardly and at right angles thereto. These lugs 7 are each provided with a vertical hole to receive adjusting screws 8 which enter screw-threaded openings in the top of the angular frames 1.

Two flat links or members 9 are provided and each has two holes 10 near one of its ends and a vertical slot 11 at its other end. The links or members 9 are attached to the ends of the two jaws 5 and 3 by suitable bolts 8^1 to adapt the jaw-bars to be relatively adjusted vertically as may be needed to receive and hold cylinders cast *en bloc*, or single cylinders of different sizes, or other work.

It will be seen that the jaws 5 and 3 may be easily adjusted relatively to hold different sizes of cylinders and may also be bodily adjusted transversely as well as vertically of the machine frame, so that all parts of the interior of the cylinder or cylinders may readily be reached for grinding.

It will be understood that minor changes in detail of construction may be resorted to without departing from the spirit of the invention.

The nature and scope of the invention having been thus indicated and its preferred embodiment having been specifically described, what is claimed as new is:

1. The combination with a machine, of a work-holder therefor comprising a frame adapted for adjustment on the frame across the path of the tool, a pair of parallel jaw-bars and means for adjustably connecting them together, and means for adjustably hanging the upper one of said jaw-bars to said frame, so that both bars may be adjusted vertically together, for the purpose set forth.

2. The combination with a machine, of a work-holder therefor comprising a frame adapted for adjustment on the frame across the path of the tool, a pair of parallel jaw-bars and means for adjustably connecting them together, said means for adjustably connecting said jaw-bars together consisting of bars rigidly attached to the uper bar and adjustably connected to the lower bar, and means for adjustably attaching the upper one of said jaw-bars to said frame, for the purpose set forth.

3. The combination with a machine, of a work-holder therefor comprising a frame adapted for adjustment on the frame across the path of the tool, a pair of parallel jaw-bars and means for adjustably connecting them together, and means for adjustably hanging the upper one of said jaw-bars to said frame consisting of a screw swiveled into the upper jaw-bar and tapped into the transversely movable frame, whereby both

bars together may be vertically adjusted, for the purpose set forth.

4. The combination with a machine, of a work-holder therefor comprising a frame adapted for adjustment on the frame across the path of the tool, a pair of parallel jaw-bars and means for adjustably connecting them together, and means for adjustably attaching the upper one of said jaw-bars to said frame, whereby both bars may be vertically adjusted together, said jaw-bars both having their ends slidingly resting against the front face of said frame.

5. The combination with a machine, of a work-holder therefor consisting of a frame adapted for adjustment on the frame across the path of the tool, said frame consisting of end uprights and a top cross-bar, a pair of parallel bars extending from one upright to the other and having their ends resting slidingly against the front edges of said uprights, means at each end of the bars for adjustably hanging the lower bar to the upper bar, and means for adjustably hanging the upper bar upon the aforesaid top cross-bar, whereby both bars may be vertically adjusted together in sliding relation with the front edges of the uprights.

In testimony whereof I hereunto affix my signature.

BERNHARD L. SCHMIDT.

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