

(No Model.)

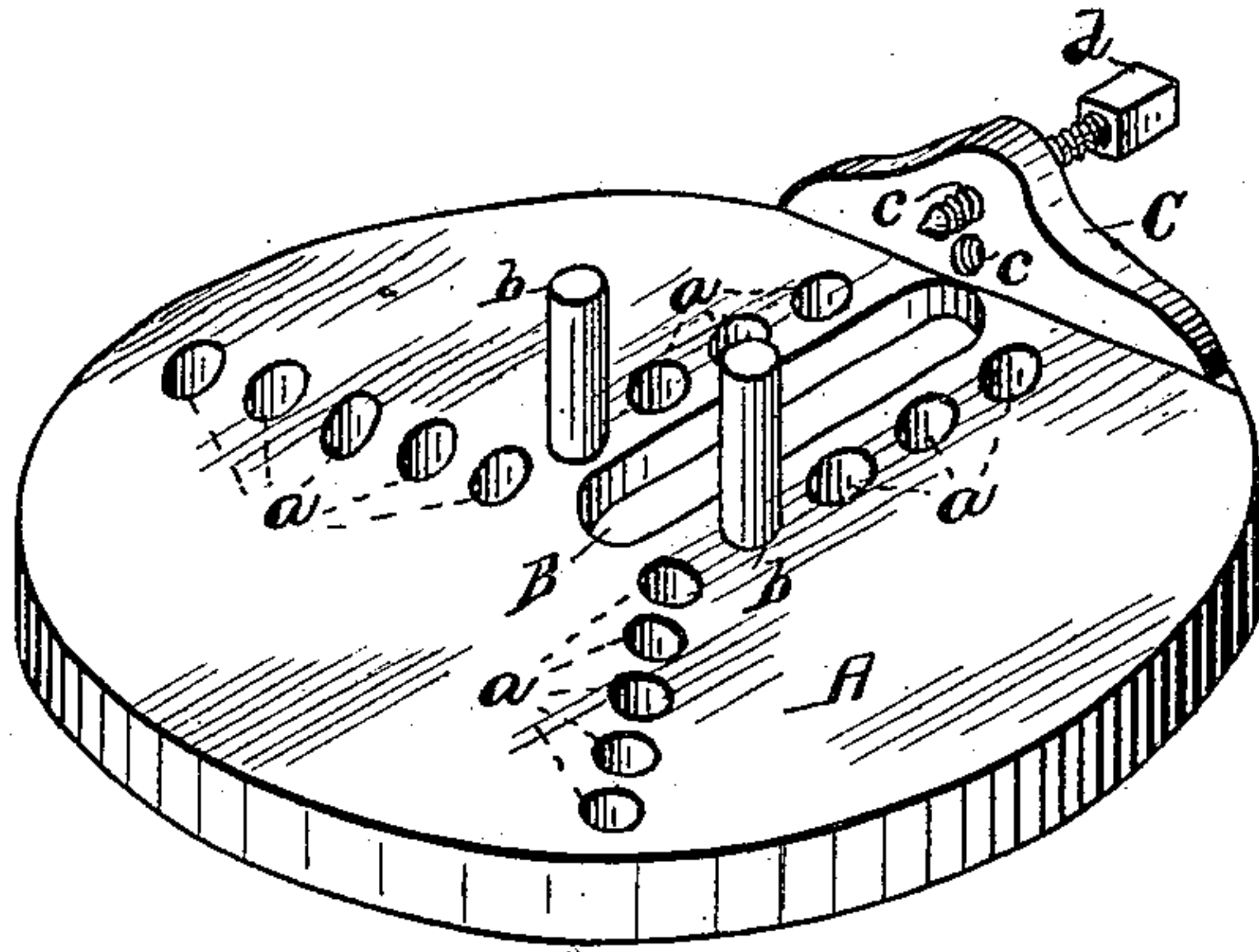
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WORK HOLDER FOR DRILLING MACHINES.

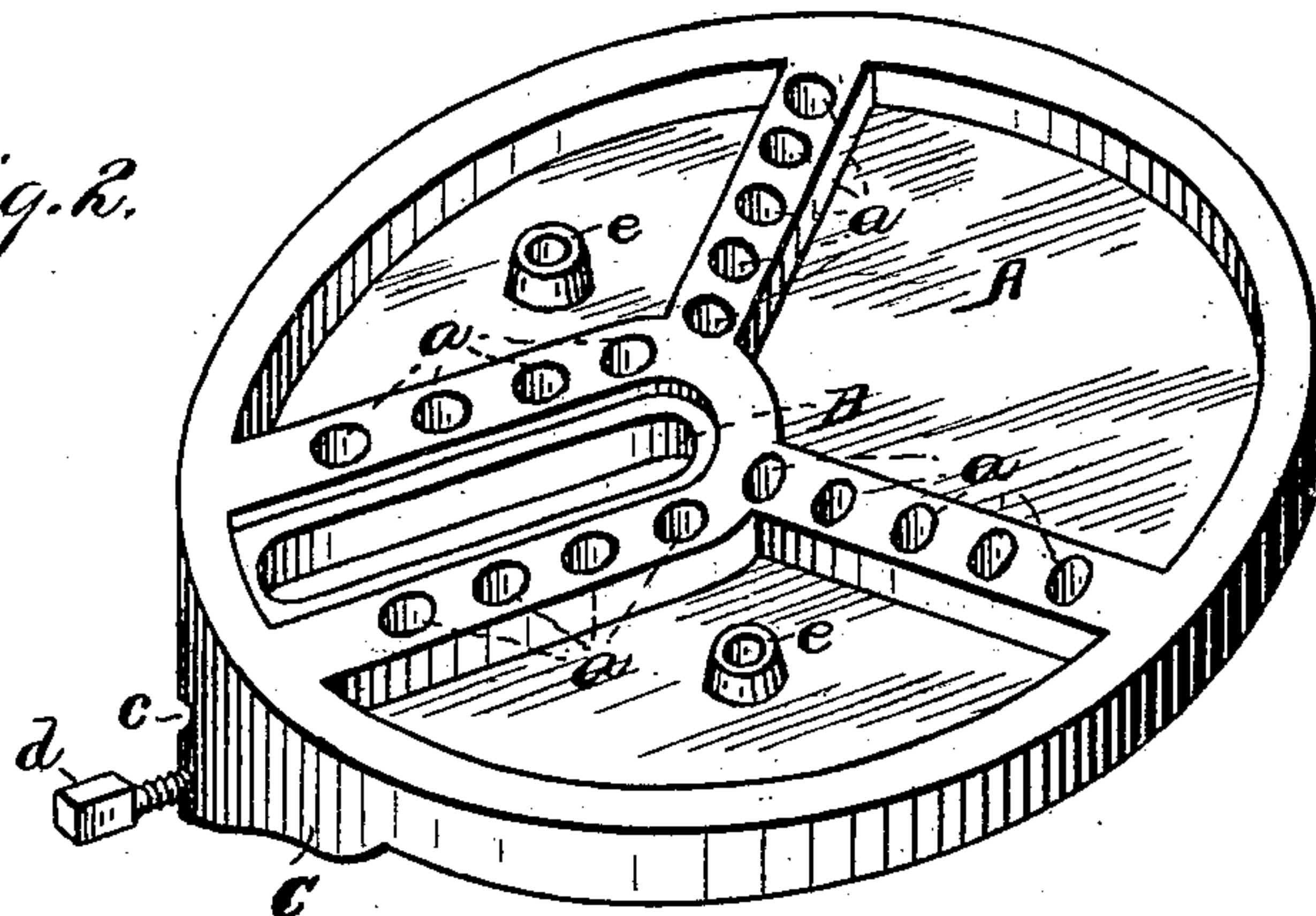
No. 246,350.

Patented Aug. 30, 1881.

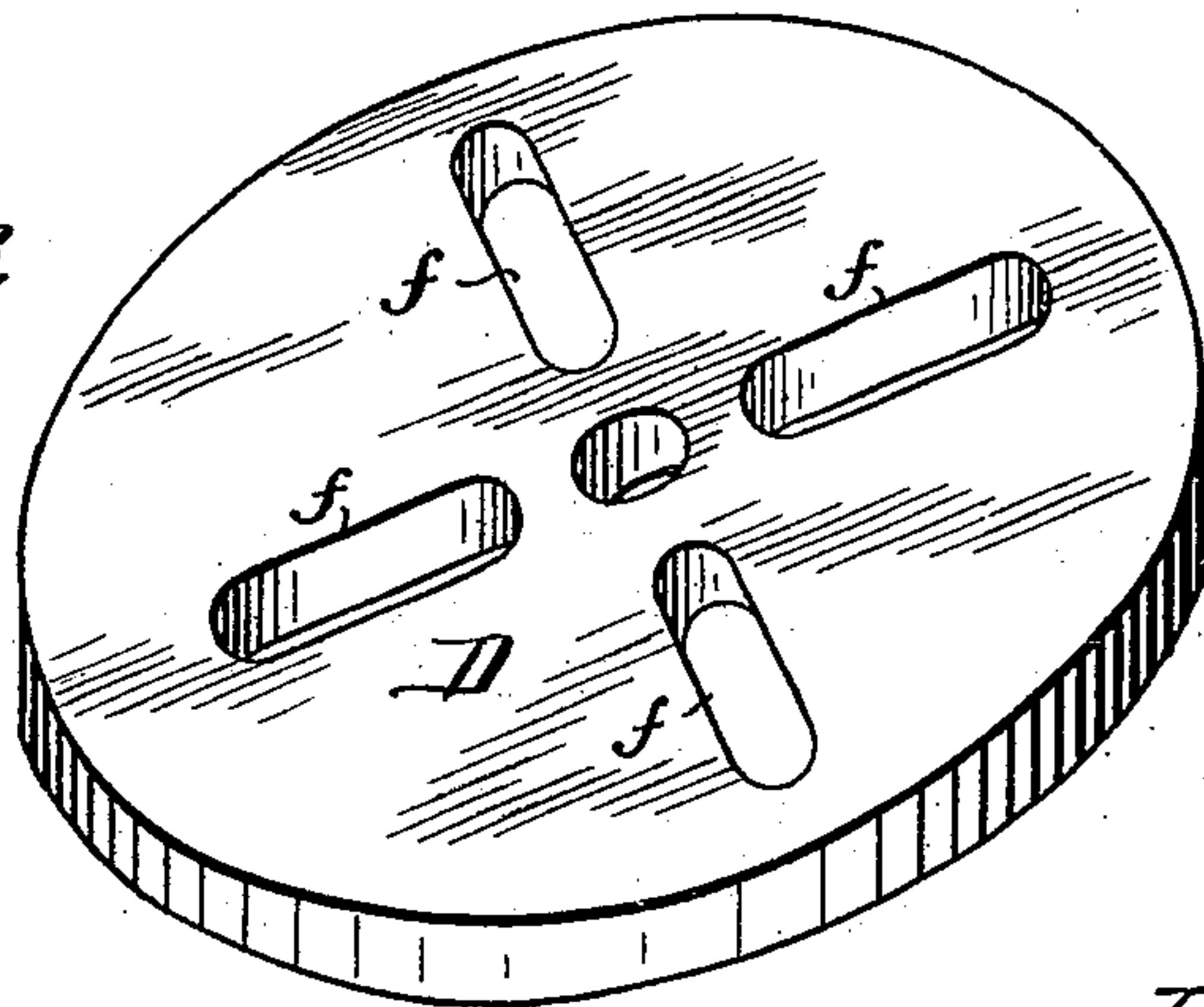
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

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## WORK-HOLDER FOR DRILLING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 246,350, dated August 30, 1881.

Application filed June 20, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL C. STOVER, of the city of Freeport, county of Stephenson, and State of Illinois, have invented a new and useful improvement in work-holders for holding work upon the bed-plate of a drill.

As it is necessary that the bed-plate should have a smooth, flat, even surface, without obstructions of any kind thereon, in order to accommodate it to large or small work, it is to a great extent impracticable to attach any kind of device permanently thereto.

The object of my invention therefore is to provide a cheap and simple attachment that may be readily placed upon the bed-plate (or removed therefrom, as necessity may require) for the purpose of holding irregular pieces of metal in any required position under the tool.

The following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings, of which—

Figure 1 is a perspective view, showing the top of my work-holder. Fig. 2 is a bottom view of the same, and Fig. 3 is a top view of the bed-plate of a drill upon which my work-holder is designed to be placed.

Like letters represent like parts of the different figures.

A, Fig. 1, represents a circular iron plate, preferably cast at or near the size of a drill-bed, and of sufficient thickness to give it the proper strength.

*a a a a* indicate holes bored into the same, and *b b* iron or steel pins, made to fit loosely therein, so that they may be removed by hand to fit work of varying size and shape.

B represents a slot cut in the plate and extending radially from its center nearly to its periphery. At the outer end of this slot, and at right angles thereto, forming a cord to the periphery of the plate, and cast solidly thereto, is a raised lug, C, through which, in the direction of the center of the plate A, are screw-holes *e e*, in either one of which may be inserted the set-screw *d*.

On the bottom of the plate A are cast or otherwise rigidly attached thereto the lugs *e e*. These lugs are placed in such position upon the plate A as to drop loosely into the radial slots *fff*, Fig. 3, of the bed D.

When the plate A is placed upon the bed D the work may be laid thereon and secured in any desired position by adjusting the pins

*b b* in such of the holes *a a* as may be found necessary and turning the set-screw *d*, thereby forcing the work firmly against the pins *b b*; also, when the shape of the work admits thereof, a part may be inserted in the slot B, to give additional security.

Any number of holes *a* may be used and placed in any desired position; but I prefer to place them radially, in the manner indicated in Fig. 1, as I believe this arrangement sufficient to accommodate work of any shape.

The adjustment of the lugs *e e* permits the use of the work-holder upon any-sized bed, and the turning of the drill by bringing the lugs *e e* firmly against the sides of the radial slots *fff* prevents any movement or variation of the holder.

It is obvious that by the use of my improved work-holder the workman may be enabled to save much time in securing pieces of irregular shape in proper position for drilling. Moreover, by its use and its perfect adaptability to thoroughly secure the work in position, the drill readily finds its own center, and a great saving from breakage of drills and bending of drill-shanks is the result.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A work-holder consisting, essentially, of a detachable plate provided with holes arranged substantially as described, and pins fitting therein, together with an elevated lug, with a set-screw therein, substantially as and for the purpose set forth.

2. A work-holder consisting of a plate provided with holes arranged substantially as described, and pins fitting therein, together with an elevated lug, with a set-screw therein, and also provided with lugs beneath the same for insertion into radial slots of a drill-press bed, substantially as described.

3. The combination of a drill-press bed with a detachable work-holder, provided with holes upon the upper side thereof, and pins fitting therein, together with an elevated lug, with a set-screw therein, substantially as and for the purpose set forth.

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