

J. Gage, *Cutter Head.*

No. 94,590.

Patented Sep. 7. 1869.

Fig. 1

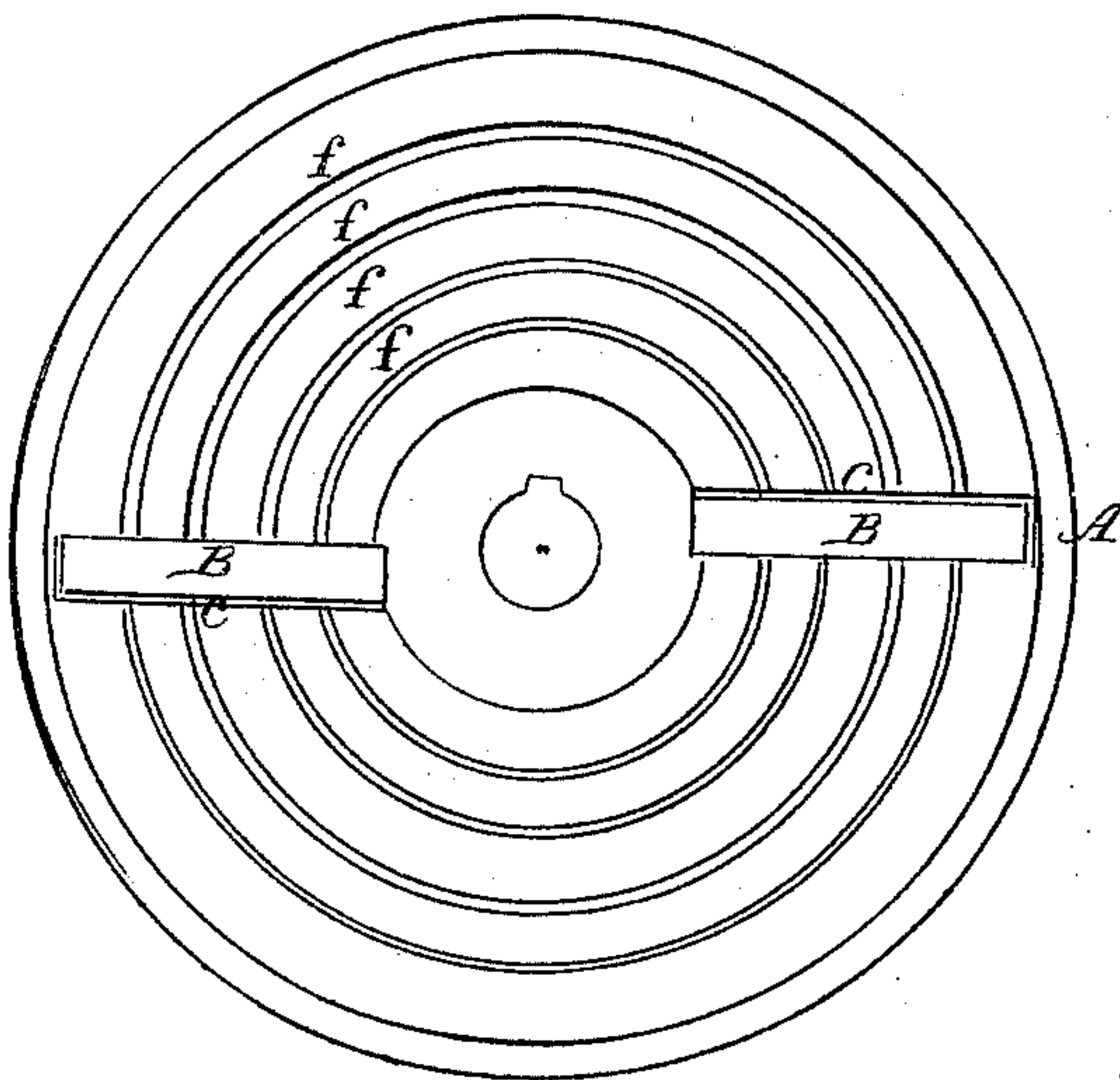


Fig. 3

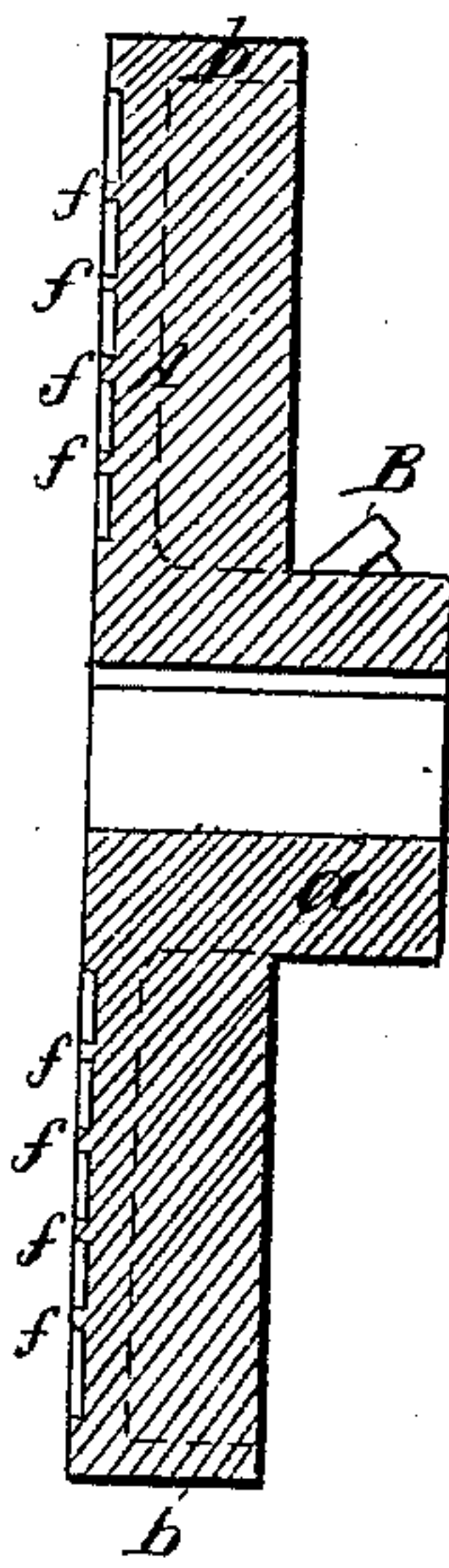
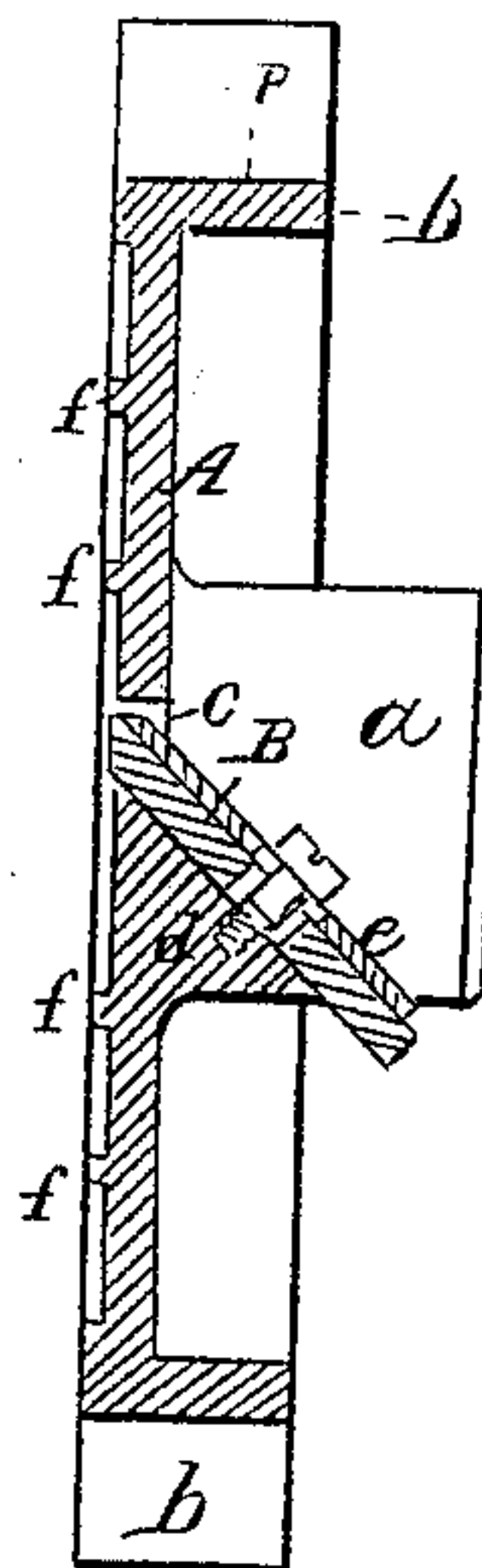
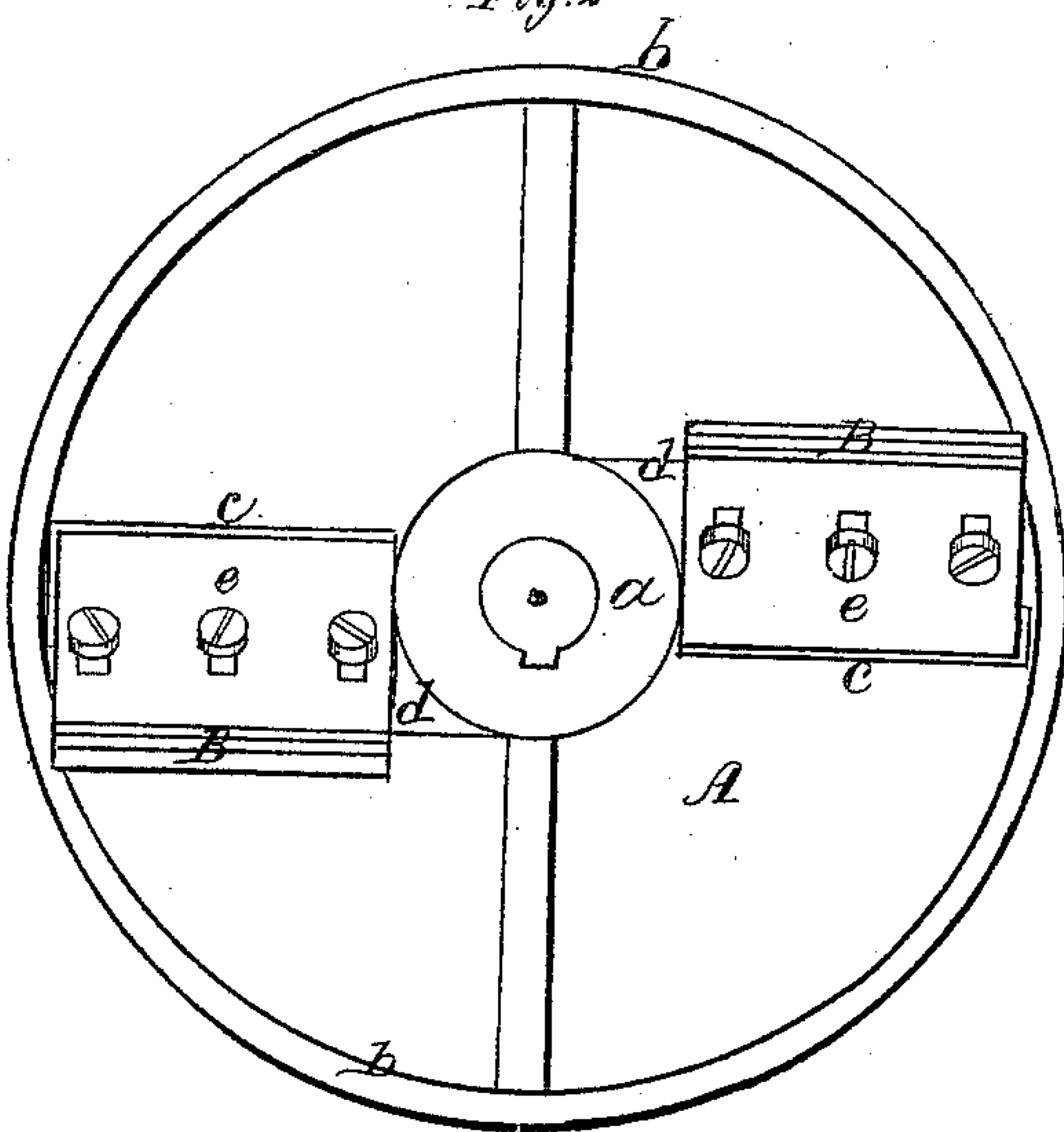


Fig. 2



Witnesses
S. N. Piper
J. McNamee

John Gage.
by his attorney
H. W. Waddy

United States Patent Office.

JOHN GAGE, OF HENNIKER, NEW HAMPSHIRE.

Letters Patent No. 94,590, dated September 7, 1869.

IMPROVEMENT IN CUTTER-HEAD.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, JOHN GAGE, of Henniker, of the county of Merrimac, of the State of New Hampshire, have invented an improved Cutter-Head for reducing or trimming the edges of the shells of "dry measures;" and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a face or front view,

Figure 2, a rear elevation, and

Figure 3, a transverse section of it.

In such drawings—

A denotes a flat disk, provided with a hub, *a*, at its central part, and also with a flange, *b*, at its circumference, the whole being arranged as represented.

The disk or "cutter-head," as it may be termed, is furnished with two cutters or knives B B, which are placed in throats *c c*, opening through the face of the disk.

Each cutter or knife is inclined to the face of the disk and supported on an abutment, *d*, by means of set-screws, which go through the knife, and a clamp-plate, *e*, arranged on it, the whole being as shown in the said figures, and particularly in Figure 4, which is a section taken through the knife, the abutment, and the disk.

The face of the disk or head has a series of concentric annular projections, *f f f*, arranged upon and extended from it in manner as shown in figs. 1 and 3.

Each projection is to extend the same distance from the face of the head, and their outer edges are to be in the same plane with the cutting-edges of the two knives.

The improved cutter-head so made, when used, is to be supported on the end of a shaft having appliances for putting it in revolution, so as to rotate the head with great velocity.

Now, if we suppose the shell of a "dry measure" to project beyond the bottom of the vessel, as it usually will when first fastened thereto, and we may desire to trim or cut down to the bottom the part so projecting beyond it, in order to have them even with each other, we should place and press the part to be reduced against the face of the wheel or cutting-head while the latter may be in revolution.

The knives will reduce the projecting part until the bottom may come into contact with the annular projections, which will prevent any further reduction of

it, and will also estop the knives from cutting into the bottom.

The series of annular projections on the face of the cutter-head enables the head to be used for trimming the shells of measures of different diameters.

I am aware of the invention described in the United States Patent No. 18,007, it being a rotary cutter-head for planing and polishing boards. It has a circular recess made concentrically with and on the face and at the periphery thereof of the disk for reception of the cutters, they being arranged so as to extend into such recess or groove, and to the plane of the face of the wheel or disk.

This cutter-wheel was intended for use in a very different manner from that in which my cutter-head is used, and was also for a different purpose, for, in operating with it, the board to be cut was pushed endwise against the wheel and diametrically across its face, and there is no evidence that it ever was used as my cutter-head is used. Furthermore, if it could be so used, its construction is such that it can be employed to reduce the edges of dry measures of one diameter only. It is not applicable for the reduction of the edges of those of different sizes.

Although my improved cutter-head involves an arrangement of circular recess and knife found in the said patent, it goes beyond this, as it combines and arranges with each of the knives a series of concentric recesses, or a series of annular projections, whereby it is fitted to reduce dry measures of different sizes, and thereby accomplish what cannot be accomplished by the rotary planing-wheel described in the patent.

The patented cutter-wheel has no series of annular and concentric projections on its face, as is the case with my wheel or cutter-head. Consequently, my said wheel is not only different from the other and productive of greater results, but it has one knife for several of those projections and the concentric grooves between them; therefore,

What I claim, is—

The cutter-head, as made with the series of annular projections arranged on its face, and with reference to the cutting-edges of its knives, in manner substantially as specified.

JOHN GAGE.

Witnesses:

R. H. EDDY,

SAMUEL N. PIPER.