S. Fawcett,

Cutter Head,

No. 82,211, Patented Sep. 15, 1868.

Fig. 1.

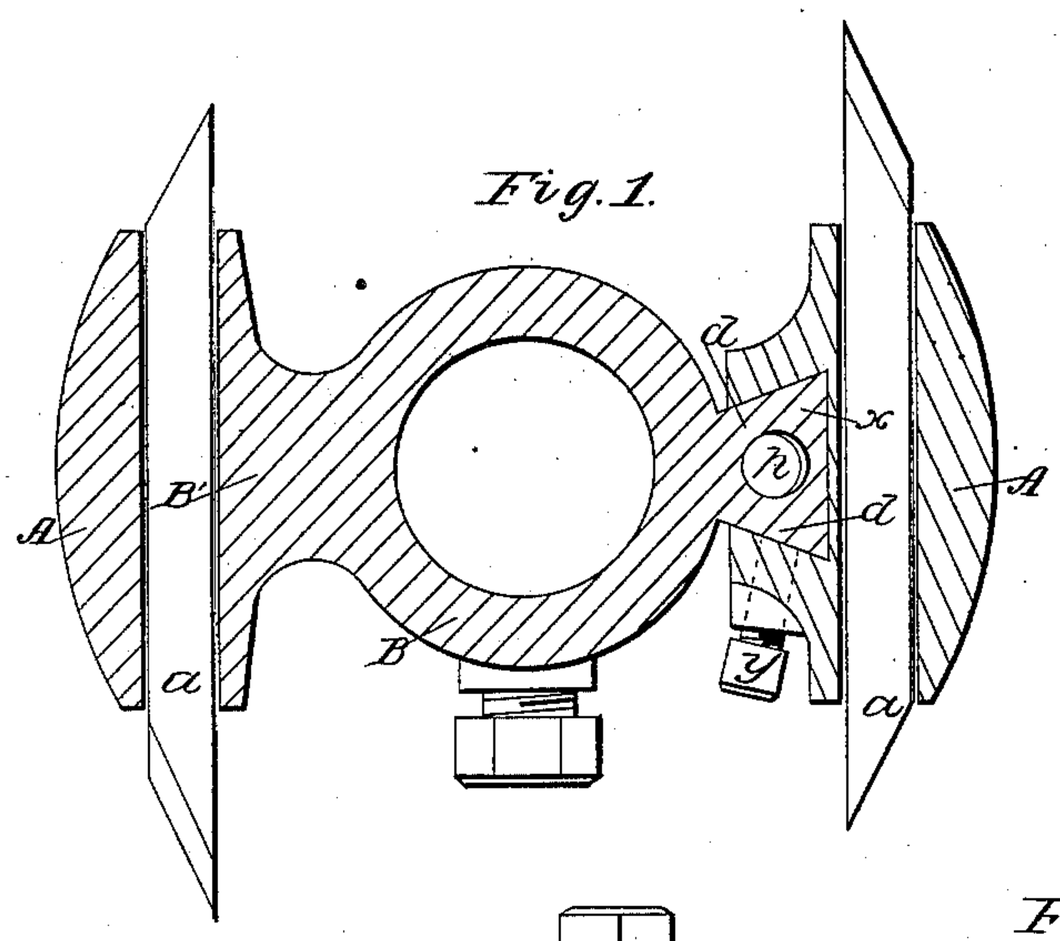


Fig. 2.

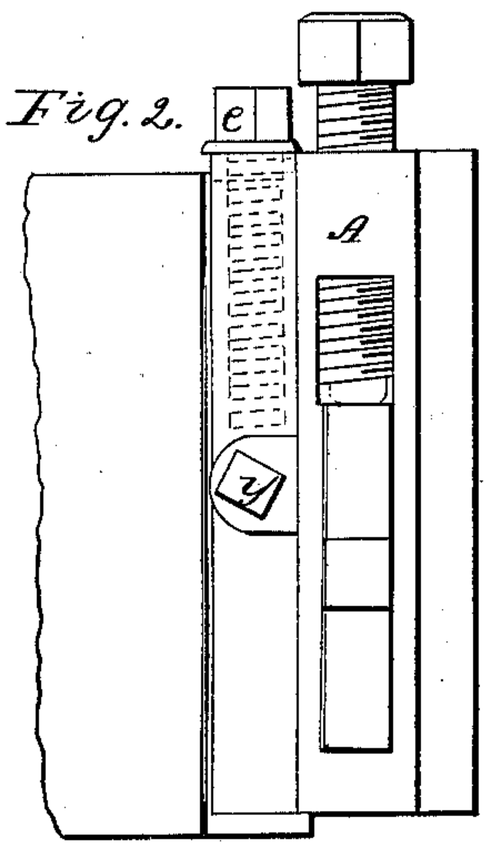
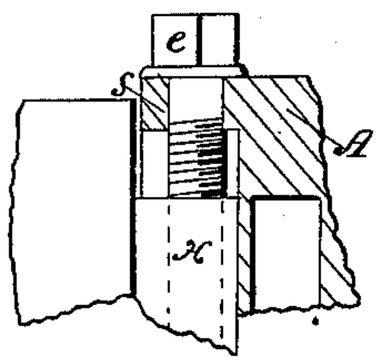


Fig. 3.



Witnesses.

Sol Gaff
Geo. A. Page.

Inventor:

Samuel Fawcett.

United States Patent Office.

SAMUEL FAWCETT, OF ROCHESTER, NEW YORK.

Letters Patent No. 82,211, *dated September* 15, 1868.

IMPROVEMENT IN CUTTER-HEADS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, SAMUEL FAWCETT, of Rochester, in the State of New York, have invented a new and useful Cutter-Head; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a transverse section, taken through near the chisels.

Figure 2 is a side elevation of wings, and a part of the head, as far as the red lines in fig. 1.

Figure 3 is a vertical section of the upper part of the wing, showing the position of the adjusting-screw.

The nature of my invention will be understood from the drawings and specifications.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

The wings A, of common rotary planer-heads B, which carry the chisels *a*, are, with the head, made in one piece, as shown at B′. This arrangement is inconvenient for adjusting the chisels *a*, so that they will travel directly in the same line; the only means of making them do so being by loosening the set-screw *c*, that holds the chisels, and packing them. To avoid this, I cast the wings A and head in separate parts. The head B has a projection, *x*, on each side, which is dove-tailed, as shown at *d*. The wings have dove-tail grooves, that are fitted to the dove-tail projection *x* of the head B. The dove-tailed projections are shorter than the head.

In making the dove-tailed grooves in the wings, they may be planed the entire length, and a piece, *f*, fig. 3, fitted in the top, to sustain the adjusting-screw *e*, or the upper end of the groove can be closed in casting, which will form a rest for the screw *e*.

In the top of the projection *x*, a hole, *h*, fig. 1, is made, into which the adjusting-screw *e* is fitted, shown in dotted lines, fig. 2. This screw has a square head for a wrench, and, just below the square part, a shoulder is formed. Below the shoulder, a recess is turned, sufficiently wide to receive the edge of the seat supporting the screw. The edge of the seat for the screw is also recessed to receive the same. By this arrangement, the screw is held in its place, and, when it is turned, it causes the wings to move longitudinally with the shaft.

The arrangement for holding the chisels is the same as in common cutter-heads of this class. A set-screw, *y*, is put into the side of the wings, to clamp them when adjusted.

The object of this invention is to adjust the chisels of rotary planers without loosening the chisels, and one or both wings may be made in accordance with this device.

The operation is as follows:

The wings A being attached to the head B, by entering the projection of the head into the groove of the wing, the adjusting-screw is inserted into the hole in the top of the projection the upper collar of the adjusting-screw resting on the seat formed for it on top of the grooves in the wings, as shown in fig. 3.

In making mouldings, one of the wings with the chisels being set, the other can be adjusted to follow in its track exactly, by turning the adjusting-screw *e*, without loosening the screw *v* that clamps the chisels.

In cutting out grooves, it is often desirable to vary the width of the groove, which can be done by this cutter-head, without changing the chisels, simply by raising one wing up until the combined cut of both chisels gives the proper width. This can be carried nearly to the width of the two chisels.

In the common heads, the chisel for cutting grooves is made slightly tapering from the cutting-edge, so that they will not bind. By my arrangement, this is not necessary. The chisels being made a trifle narrower than is desired to make the groove, one wing is raised, which causes the line of cut of the one to be above, and of the other to be below the line of cut, where the chisels are directly in range, thus cutting a wider groove than the width of one chisel, and relieving the tendency to bind in the cut. The clamping-screw *y* is tightened, when the wings are adjusted, and holds them rigidly.

What I claim as my invention, and desire to secure by Letters Patent, is—

The rotary cutter-head, having one or more wings for holding the knives, made adjustable longitudinally, constructed to operate substantially as described.

SAMUEL FAWCETT.

Witnesses:

JAS. S. GAGE,

GEO. H. GAGE.