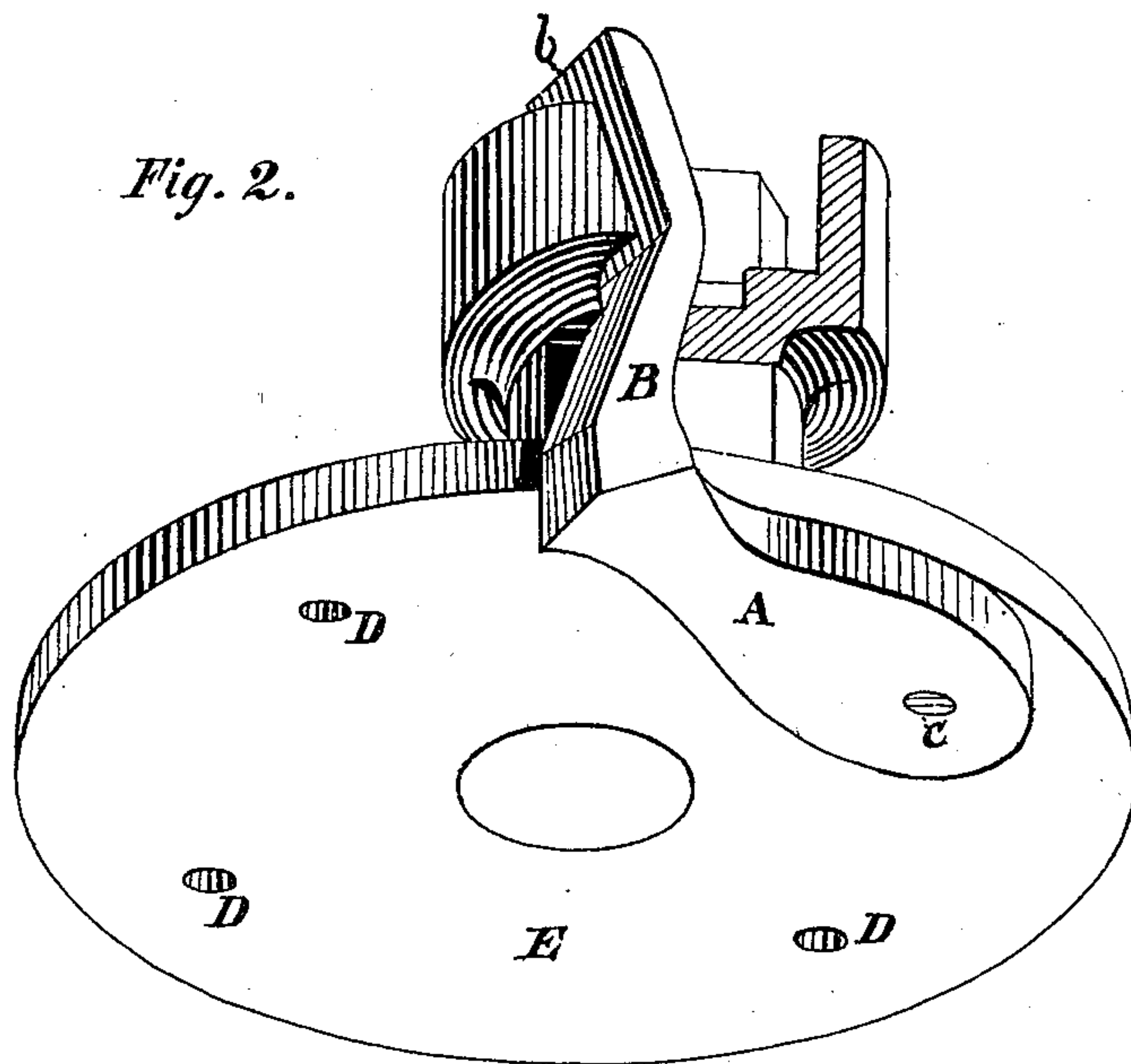
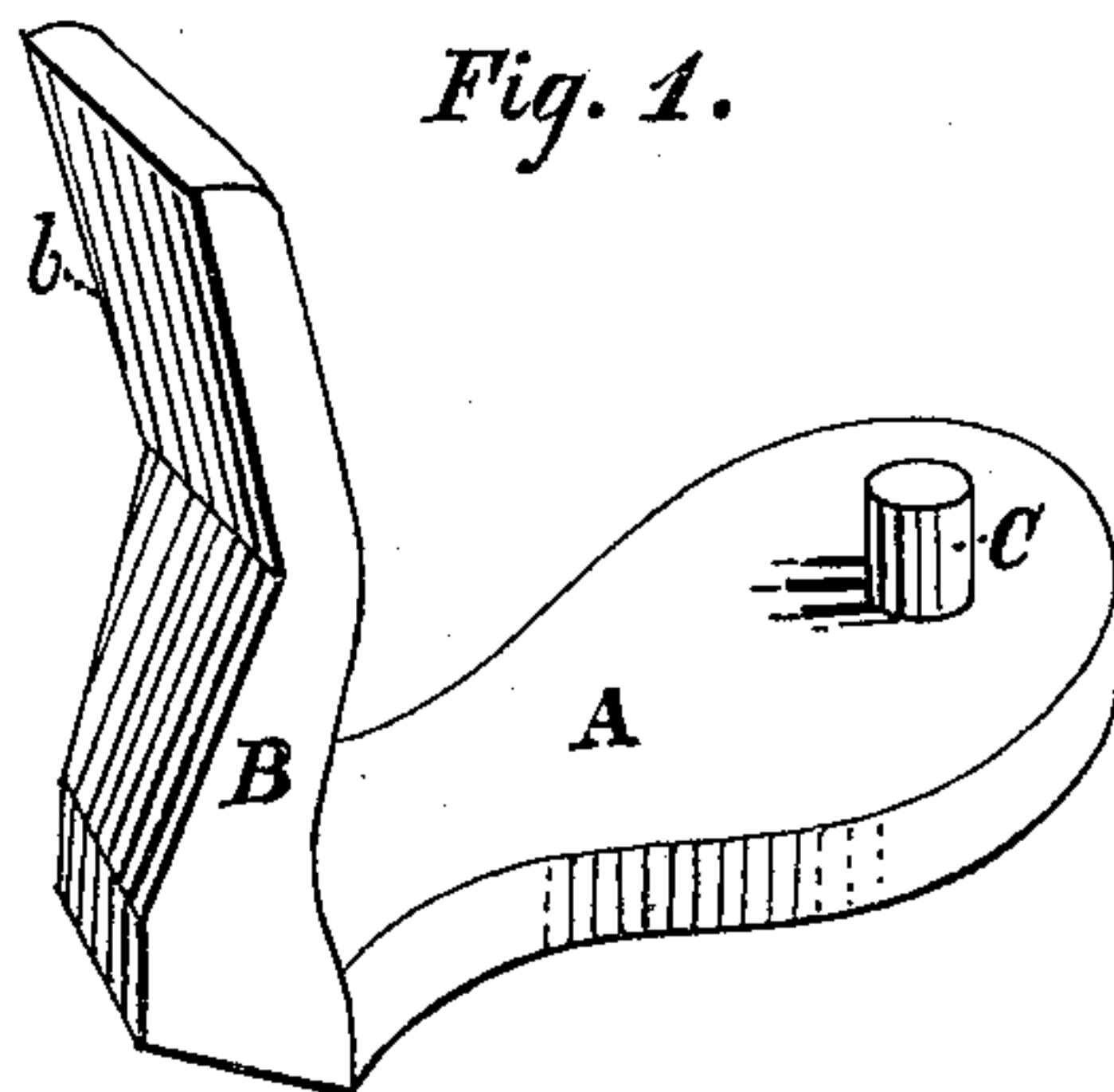


(No Model.)

G. W. AMESBURY.
Setting Gage for Cutter Heads.

No. 230,914.

Patented Aug. 10, 1880.



WITNESSES:

William Graf
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INVENTOR:

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UNITED STATES PATENT OFFICE.

GEORGE W. AMESBURY, OF PHILADELPHIA, PENNSYLVANIA.

SETTING-GAGE FOR CUTTER-HEADS.

SPECIFICATION forming part of Letters Patent No. 230,914, dated August 10, 1880.

Application filed April 28, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. AMESBURY, of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in
5 Setting-Gages for Cutter-Heads, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

10 Figure 1 is a perspective view of the gage with my improvement attached. Fig. 2 shows one flange of a cutter-head with the gage attached.

The object of my invention is to form a setting-gage for cutter-heads to swing from a
15 fixed point on the flanges for each cutter to be set, and so constructed that when in position it will remain firmly in its place, thus insuring perfect accuracy in keeping the cutters set in their proper position on the head.

It consists of a plate of suitable form and material, having an upright arm on one end, which arm is so shaped on the outside face as to suit the shape and angle of any cutter to
25 be set. The other end of the plate is provided with a projecting pin for the purpose of engaging holes in the flanges of the cutter-heads, which are located at a proper distance from each cutter.

30 To enable those skilled in the art to make and use my invention, I will proceed to describe the manner of its construction.

In the drawings, A, Fig. 1, is a plate, formed in any desirable shape, having on one
35 end the upright arm B, with its outside face, *b*, shaped to suit the face and angle of the cutters when in their proper position on the head. On the other end of the plate is a projecting pin, C, for the purpose of engaging in
40 the holes D of the flange E, Fig. 2.

Fig. 2 is intended to represent the bottom of the flange of a circular bit-cutter head, with one cutter with its cutting-edge set in its proper position against the face *b* of the upright arm of the gage. The cutters are set at
45 a uniform distance apart and fastened to the top of the flange by bolts running through the center of the cutters and into the flange.

The cutters are first set in their proper position on the head, and then the plate is laid
50 on the flange with the outside face, *b*, of the

upright arm resting evenly against the face of the cutter. A hole is then made through the plate and into the flange, and as the gage is fitted to each of the cutters in the same manner, a hole is made in the flange opposite to the hole in the plate. A pin is then fitted
55 firmly in the hole in the plate. As the gage now swings on its pin from the holes in the flanges, which is a fixed point for each cutter, and when its upright arm rests firmly against the rim or edge of the flange, it will be evident that as the cutters are worn away or get out of position they can be quickly and accurately adjusted by simply bringing the edges
60 of the cutters forward to the gage.

The gage may be used on both sides of the head in the same manner and with the same results, as in sash and door heads the cutters are set and adjusted from each side of the
65 head; also, the pin may be attached to the heads and the hole left in the plate with the same results.

I am aware that gages have been used having an upright arm to fit the cutters and the
75 end of the plate engaging in notches cut in the edge or rim of the flanges, and I make no claim to any such device.

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

1. A setting-gage for cutter-heads, consisting of an angular arm having the inner face of one leg provided with a pin and the outer face of the other leg shaped to fit the edge of
85 a cutter, in combination with the flange of a cutter-head provided with holes to receive said pin, and adjustable cutters arranged to present their cutting-edges to the shaped face of the gage, substantially as described. 90

2. A setting-gage for cutter-heads, having the plate A, provided with the pin C, constructed to swing from fixed points on the flange or face of a cutter-head, in combination with the arm B and the flange E, having the
95 holes D to receive said pin and cutters to adjust to the face of the gage, substantially as described.

GEORGE W. AMESBURY.

Witnesses:

M. F. OSLER,
WM. THEGEN.