

No. 652,133.

Patented June 19, 1900.

C. MÜLLER.

CUTTER.

(Application filed Sept. 15, 1899.)

(No Model.)

Fig. 2.

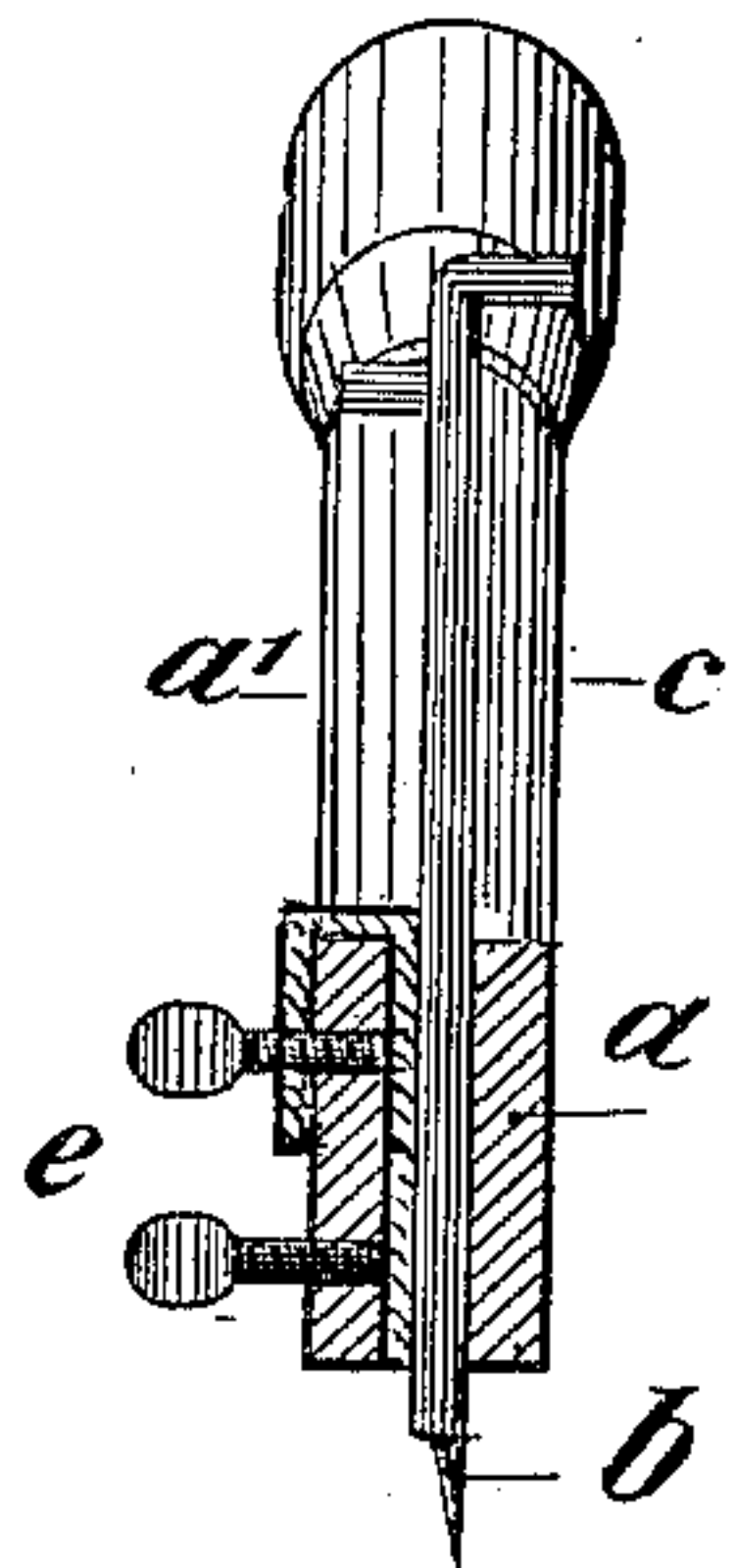


Fig. 1.

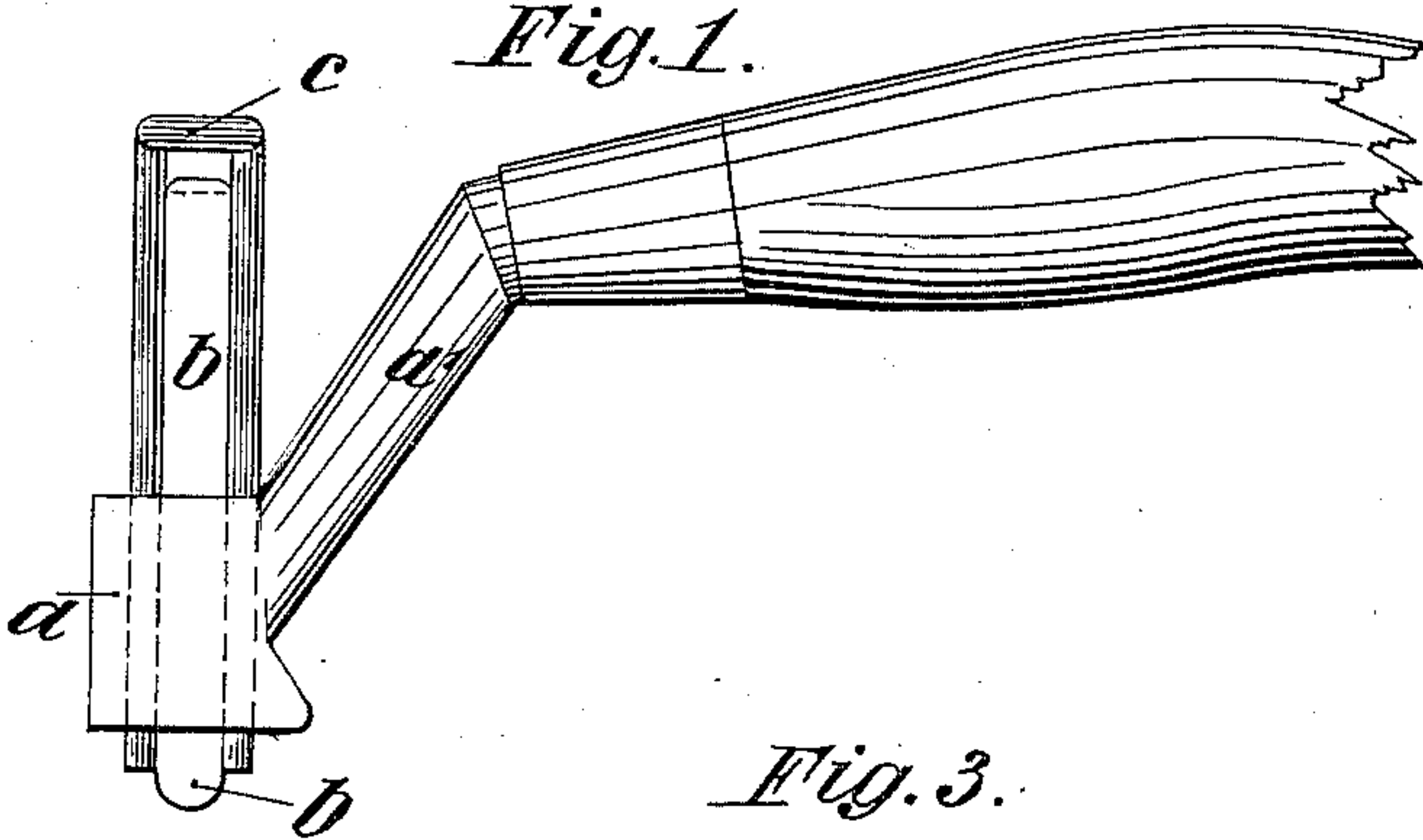


Fig. 3.

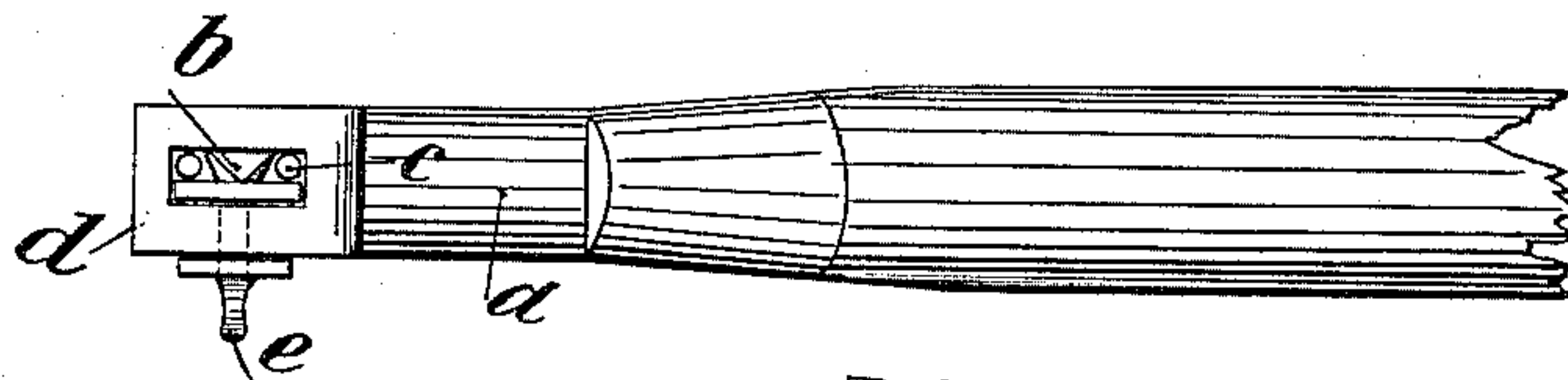


Fig. 4.

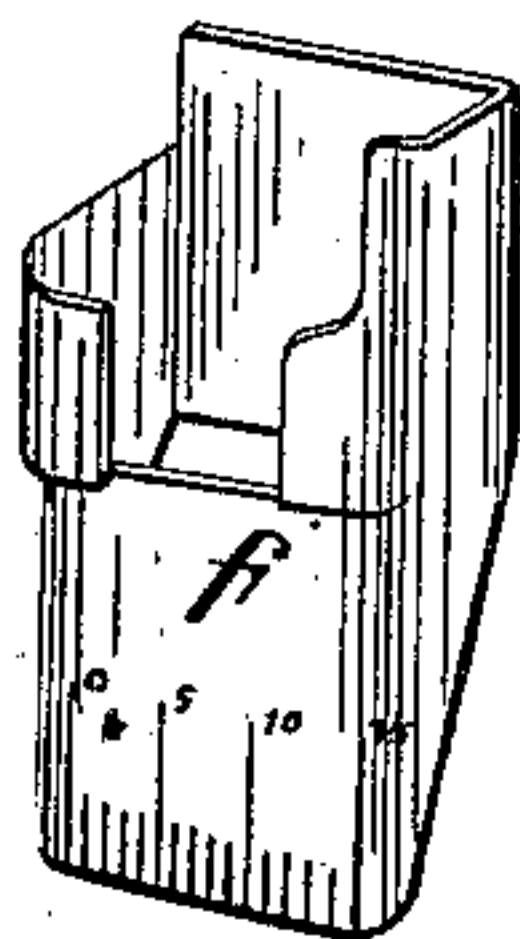


Fig. 5.

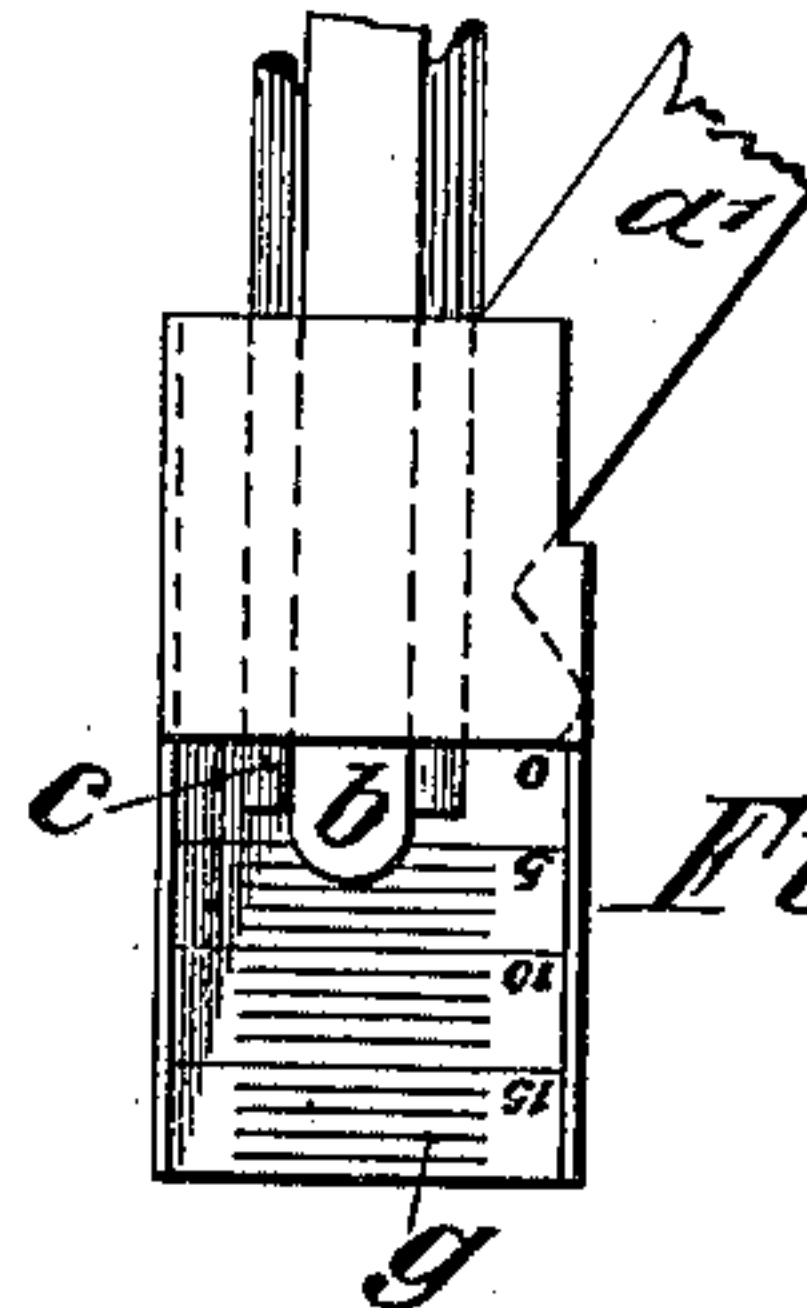
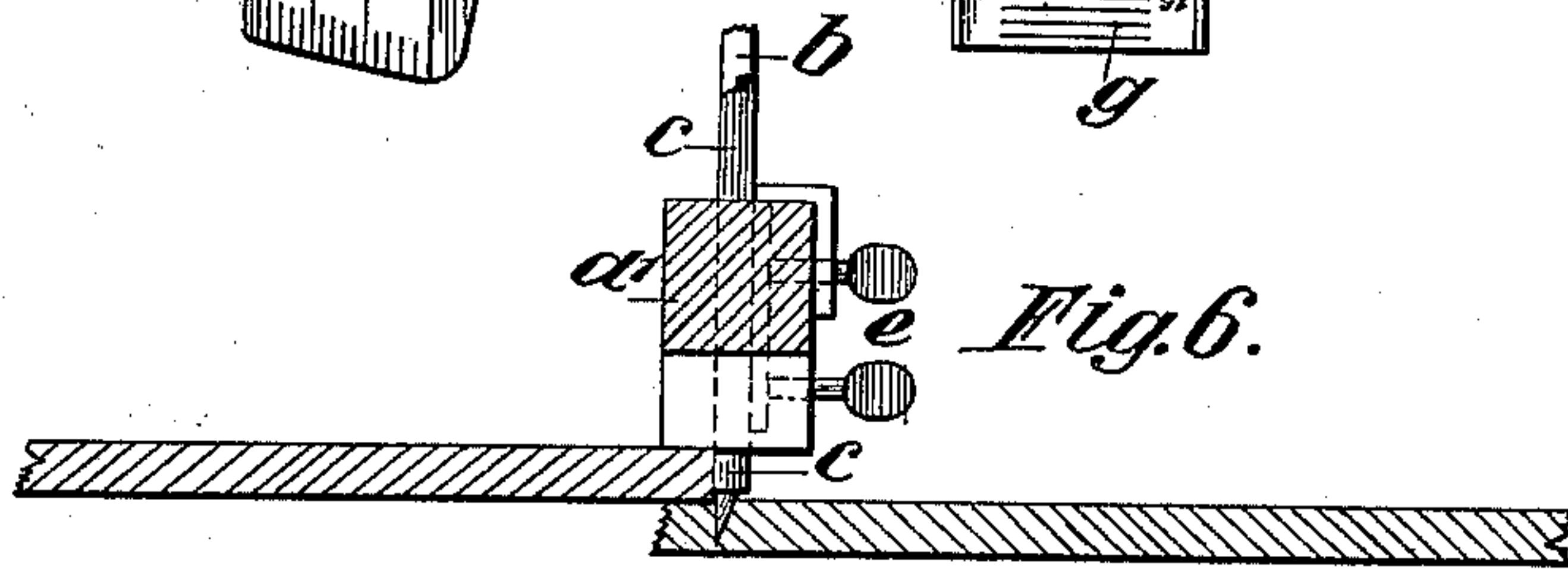


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHRISTOPH MÜLLER, OF MUNICH, GERMANY.

CUTTER.

SPECIFICATION forming part of Letters Patent No. 652,133, dated June 19, 1900.

Application filed September 15, 1899. Serial No. 730,634. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPH MÜLLER, carpet manufacturer, a subject of the King of Bavaria, residing at Frühlingstrasse 19, Munich, in the Kingdom of Bavaria and Empire of Germany, have invented certain new and useful Improvements in Fabric-Cutting Devices, of which the following is a full, clear, and exact description.

Hitherto no suitable instrument has been introduced for the cutting of linoleum, pasteboard, paper, &c., which would meet several simultaneous requirements.

In the cutting of linoleum for covering floors, which first comes into consideration, it frequently happens that the pieces which come into contact with one another are not straight. As it involves a greater labor to make both pieces perfectly straight by trimming than by laying the edge of one piece on the other and then cutting the lower piece exactly according to the edge of the upper one, the latter process is preferred. In this way the pieces fit together as if their edges were perfectly straight, owing to the irregularities therein being mutually compensated, and there is not the least gap between them. In carrying out this operation it happens very frequently, for instance, that the cutter cuts into the upper piece of linoleum serving as a rule or diverges from the proper direction. Further, it happens frequently as soon as the pressure of the hand is relaxed on the upper piece that the latter, being pressed by the cutter, is pushed out of the proper line. Finally, it is prejudicial to the cutting edge when it cuts through the linoleum, together with the flooring on which the linoleum is rolled out, especially when the flooring is of stone. If the cutting be effected only as far as the under piece, the cutting edge is preserved and the under piece can be easily cut by an ordinary cutter. In the cutting of paper, cardboard, &c., similar conditions prevail. The rule or the drawing-board is often exposed to being cut. The trouble taken to avoid this leads, moreover, to the cutter being insecurely held and to improper cuttings being made adjoining the cutting-line. When the pressure on the rule is relaxed, the rule can easily slip, and in this case also improper cutting is impossible. Owing to the cutting being often

too deep the cutter is injuriously affected, as is also the cutting or drawing board. The improved cutting instrument obviates all these disadvantages and fulfils many different requirements. It is shown in the accompanying drawings, in which—

Figure 1 is a side view. Fig. 2 is an end view showing the cutter-head in section. Fig. 3 is an inverted plan; and Figs. 4 and 5 are back and front views, respectively, of a device for facilitating the adjustment of the cutter. Fig. 6 is a sectional elevation of the cutter-head, showing the instrument in use.

Through the cutter-head *a* runs a groove in which the cutter *b*, together with a bent-wire piece *c*, is placed, the two being held in the fixed position by means of a small plate *d*, pressed against them by means of screws, Fig. 2. The cutter can be taken out of or pushed into the bent-wire piece. The cutter-head has an oblique arm or extension *a'*, to which the handle is fixed.

The measuring part, Figs. 4 and 5, is furnished on the side *f* with a vertical measuring-scale and on the side *g* with a horizontal one. The first serves for measuring the thickness of the linoleum, the second after being placed on the cutter-head, Fig. 5, being employed for adjusting the cutting edge and the ends of the bent-wire piece at a certain distance from the under surface of the cutter-head in the manner indicated below. The measuring device is widened at its upper part, forming, as it were, a casing, so that when placed on the cutter-head it incloses the same and is so cut away on one side that room is formed for the end of the small plate *d* and for the screws *e*.

Assuming that the linoleum is only four centimeters thick and of two overlapping pieces the lowermost only has to be cut through, Fig. 6, the cutter must be adjusted downward accordingly, a millimeter, however, being deducted from the depth of the lower piece for clearance, the total depth of the cutter, allowing for the four millimeters corresponding to the thickness of the upper piece, being thus seven millimeters from the cutter-head, as shown in Fig. 5. The ends of the bent-wire piece should project nearly as far as the thickness of the upper piece, nevertheless, with a similar deduction of about one

meter in order that they may not graze the under piece when the cutter in cutting has reached the greatest depth and the cutter-head is pressing on the upper piece. The adjustment being effected, the cutter and bent-wire piece are firmly pressed by tightening the screws *e*, and the measuring-piece is removed. In the cutting operation, Fig. 6, wherein the handle and the arm *a'* are turned toward the workman, the cutter-head is pressed firmly down from above and from the side against the edge of the upper piece. Being kept down by the vertical pressure, the upper piece cannot slip and no incision can occur in the edge, as the front end of the bent-wire piece, which guides the cutter along the edge, prevents any movement of the cutter against the upper edge. Finally, the cutter cannot penetrate farther than to what is beneath the lower piece, as it prevents the cutter-head from lying on the upper piece.

If in consequence of the peculiar conforma-

tion of the room a different position of the instrument or cutter is necessary, the latter can be turned about accordingly.

In the case of paper and the like being cut the cutter is replaced by another with an oblique edge ground for paper cutting.

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

A cutting device consisting of a cutting-head supported by a suitable handle, an adjustable cutting-blade *b* and the bent-wire piece *c*, adapted to slide within the head, means for securing the blade in position and a removable gage having scales indicated on its opposite sides, substantially in the manner set forth.

In witness whereof I subscribe my signature in presence of two witnesses.

CHRISTOPH MÜLLER.

Witnesses:

EMIL HENZEL,
ANTON REISS.