

No. 752,017.

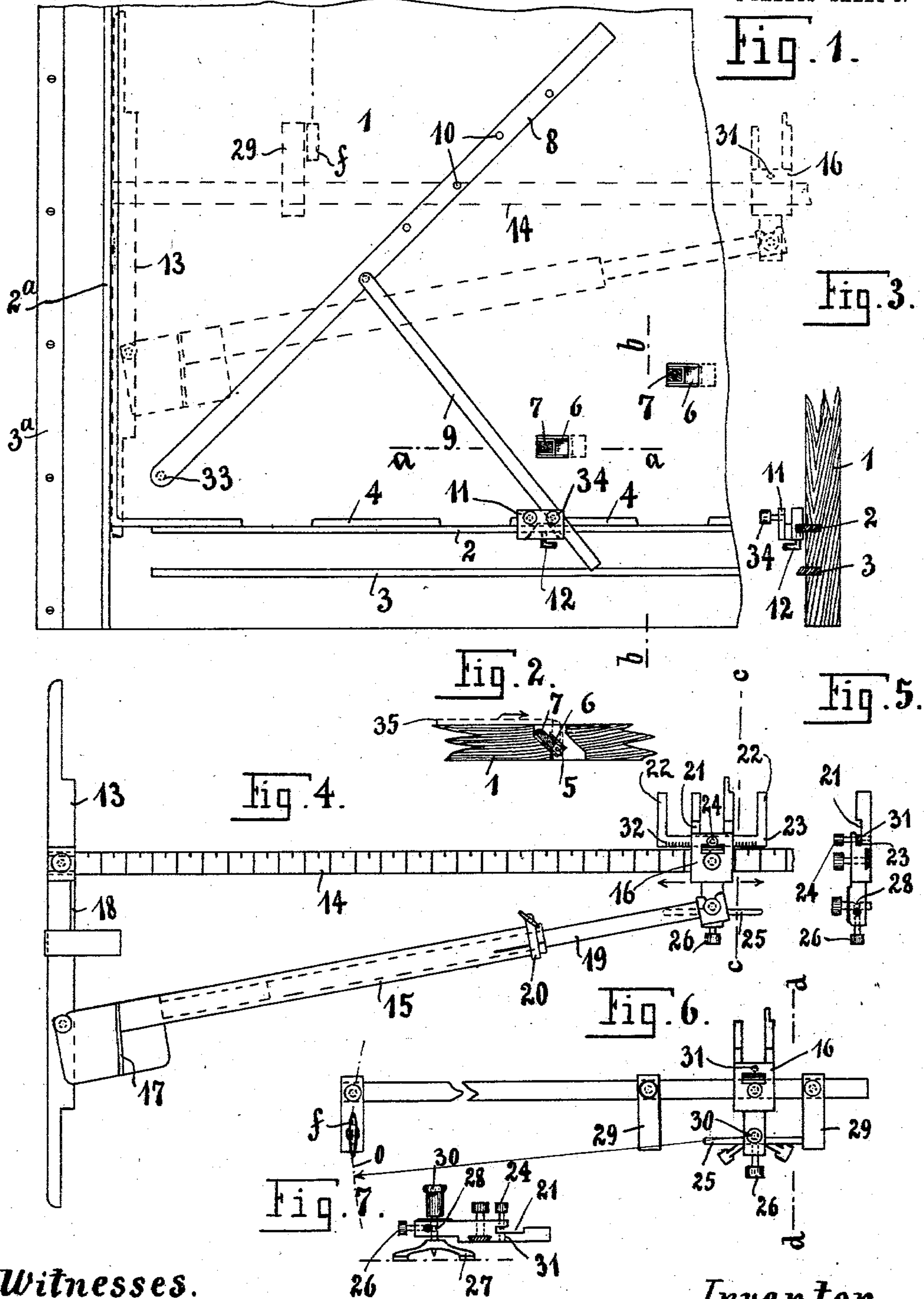
PATENTED FEB. 9, 1904.

W. PANCKOKE.
APPARATUS FOR CUTTING GLASS.

APPLICATION FILED SEPT. 18, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses.
Carl Sattler.
Carl Guenther.

Inventor.
Wilhelm Panckoke.

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2 SHEETS—SHEET 2.

Fig. 8.

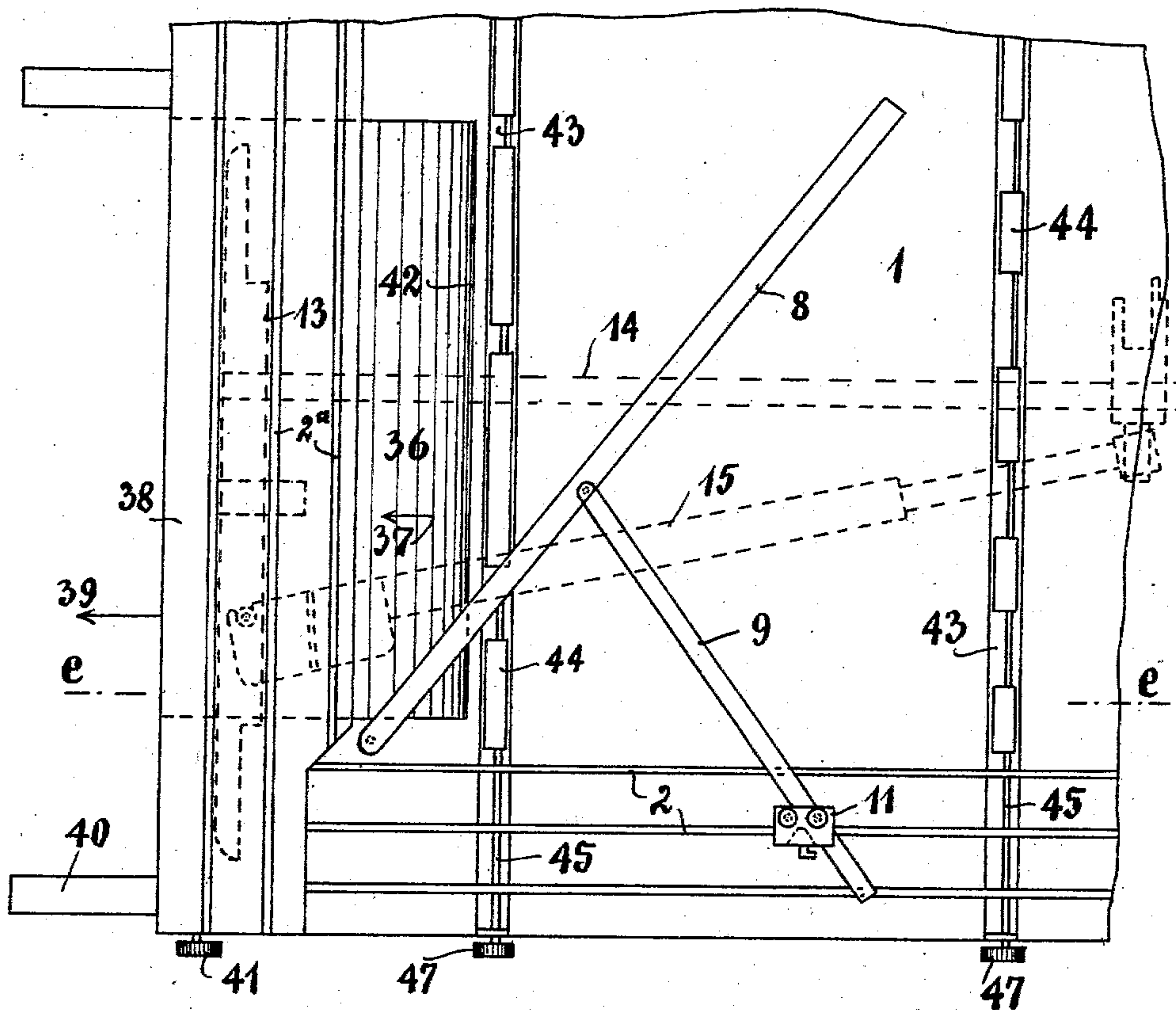
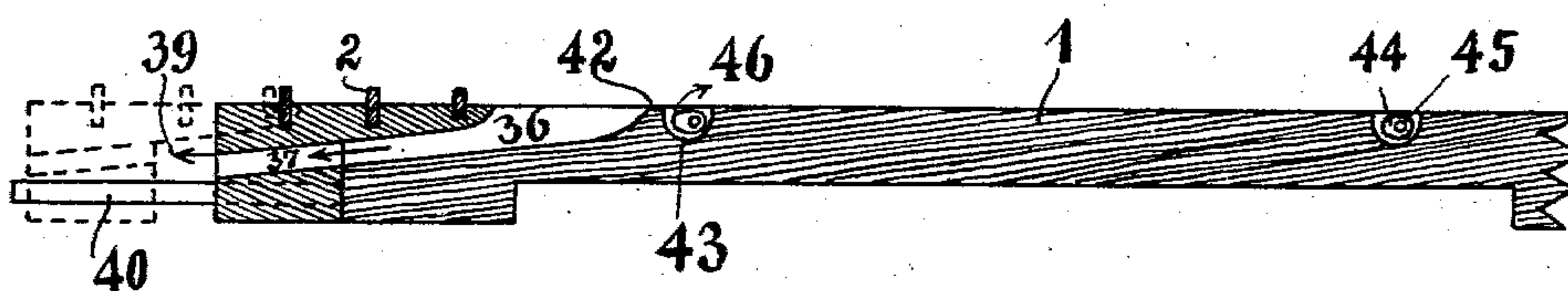


Fig. 9.



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UNITED STATES PATENT OFFICE.

WILHELM PANNKOKE, OF BERLIN, GERMANY.

APPARATUS FOR CUTTING GLASS.

SPECIFICATION forming part of Letters Patent No. 752,017, dated February 9, 1904.

Application filed September 18, 1902. Serial No. 123,837. (No model.)

To all whom it may concern:

Be it known that I, WILHELM PANNKOKE, a subject of the King of Prussia, German Emperor, and a resident of Berlin, in the Kingdom of Prussia and German Empire, have invented new and useful Improvements in Apparatus for Cutting Glass, of which the following is a specification.

My invention relates to improvements in apparatus for cutting glass; and the object of my improvements is to facilitate cutting pieces of glass of all kinds, particularly of diamond and other similar shapes.

The invention consists of the combination of parts hereinafter described with reference to the accompanying drawings, in which—

Figure 1 is a plan of the glass-cutting surface board or table; Fig. 2, a section of the same on the line *a a*, and Fig. 3 a section on the line *b b* of Fig. 1; Fig. 4, a plan of the cutting device; Fig. 5, a section on the line *c c* of Fig. 4; Fig. 6, a plan showing the manner of using the scaled rule for cutting circles or arcs of circles; Fig. 7, a section on the line *d d* of Fig. 6; Fig. 8, a plan showing a modified construction of the surface board; Fig. 9, a section on the line *e e* of Fig. 8.

The invention comprises a surface board or table and a cutting device. The surface board or table 1, Fig. 1, is provided with straight-edged guides 2 2^a 3 3^a, fixed at an angle to each other. Several such straight-edges may, if desired, be arranged parallel to each other, Fig. 8, each being of equal width throughout its length, so that both edges may be used as guides for the cutting device. Inside the straight-edges can be provided in the board or table grooves 4, Fig. 1, which serve for the reception of glass splinters, &c. The board is also provided with stops 6, which in an upright position project above the surface of the board, in which position they serve as stops for the glass during the cutting operation. These stops can be turned down below the surface into slots provided in the board for the purpose. Each stop consists of a sleeve 6, Fig. 2, pivoted on a pin 5 and provided with a plug 7, of wood or other suitable material. Interchangeable with the pins 6 and plugs 7 disks 44 are used as stops for the sheet

of glass. Said disks are fixed on shafts 45, disposed in grooves 43 in the board and provided with thumb-screw heads 47, by which they can be turned. On turning the heads 47 the eccentric disks raise the glass, so that it can be more easily taken hold of and removed when the cutting operation is finished. To the board can be pivoted a rail 8, Fig. 1, which can be secured at any angle to the straight-edges by means of a strut 9, pivoted to the rail. The rail 8 is used to guide the cutting device (hereinafter described) when producing a number of oblique cuts in the same manner as the rail 2^a is used to guide the apparatus when making a number of cuts at right angles to the left edge of the board. The pivot 33 is secured to the end of the rail 8 and turns in a hole provided in the board. At one end of the strut 9 is fastened a pin, which fits any one of a number of holes 10 in the rail 8. The other end of the strut can be secured by screws 34 to a slide 11, adapted to slide on one of the straight-edges 2, to which it may be fastened by means of a screw 12.

The glass-cutting device, which is shown in Fig. 4 and in dotted lines in Fig. 1, consists of a straight-edge 13, a scaled rod or ruler 14, a strut 15, and the slide 16, which has an opening whose edge is provided with a scale. All these parts are detachably secured together by means of screws, so that each one may be used separately—as, for example, when cutting curves, Fig. 6. The strut 15 and straight-edge 13 are provided with thumb-pieces 17 and 18, respectively, by means of which the cutting apparatus is moved along one of the rails 2, 2^a, or 8 when cutting a sheet, during which operation the diamond moves with and is fixed with regard to the cutting apparatus. The strut 15 consists of the sleeve 15 and rod 19, adapted to slide in said sleeve. By means of a shackle 20 and screw the rod 19 can be secured in any desired position. In the groove 21 of the slide 16 slides an angle-piece 23, whose limbs 22 can be adjusted any desired distance from the slide 16 within the limits of the scale, so that by placing the diamond first against one of the limbs 22 and then against the slide 16 and correspondingly moving the whole cutting apparatus parallel cuts can be

made at a predetermined distance apart. The angle-piece 23 is fixed in the desired position by means of a screw 24. To the slide 16 is secured a stop or pin 25 by means of a screw 26. This pin serves either to hold the pin of the set-screw for the strut, Fig. 5, or to prevent longitudinal movement of the pivot-pin of a foot 27, used as center piece in cutting curves, Fig. 6. The pin 25 rests in the latter case in the groove 28, Fig. 7, of the pivot-pin of the foot 27. In Fig. 6, in which the manner of using the scaled rod or ruler 14 for cutting curves is shown, the foot 27 forms the center about which the rod 14 is turned, f being the diamond, which projects through a hole in a slide or stop secured to said rod. On each side of the slide 16 is fixed a stop 29. When the rod 14 is pushed through the slide 16, the left end of the pin 25, Fig. 6, will bear against one of the stops 29. In this position of the parts the diamond f can describe one arc. If now the rod 14 is pulled to the left through the slide 16, the right end of the pin 25, Fig. 6, will bear against the other stop, in which position of the parts an arc of greater radius can then be cut by the diamond f . By means of a set-screw the rod 14 and slide 16 can be fixed relatively. While cutting such arcs one hand is placed on the sleeve 30 of the slide 16, which, as just explained, together with the rod 14, can turn freely on the pin of the foot 27. After removing the foot the hole 31 of the slide 16, Figs. 5 to 7, can be placed over a pin driven in the board and used as a center for describing arcs; but, still, arcs of smaller radius can be described with the foot as center.

In the construction shown in Figs. 8 and 9 an opening 36 is provided in the surface board. Through this opening the glass pieces may be brushed in the direction of the arrow 37. The edge 42 of the opening may be used to break off the pieces cut by the diamond. A side rail 38, forming the left side of the board, is adapted to be pulled out in the direction of the arrow 39, guides 40 projecting from the board for the purpose. The rail can be secured in the desired position upon guides 40 by the set-screw 41, which bears against one of the guides 40. By means of this arrangement the board may be adjusted to break off glass pieces of different widths. As shown in Fig. 8, three rails 2 can be used instead of one, as in Fig. 1. By means of these rails several parallel cuts can be made successively with the cutting device without altering the position of the slide 16 on the rod 14, inasmuch as the distance between the rails 2 is greater than the width of the straight-edge 13, and the latter projects below the scaled rod 14 and strut 15.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. An apparatus for cutting glass compris-

ing in combination a surface board, straight-edges secured to said board, a rail pivoted to said board and adapted to be moved parallel to the surface thereof, a strut pivoted to said rail, stops provided in said board, and a cutting device consisting of the combination of a straight-edge, a scaled ruler adapted to be secured to said straight-edge, a slide on said ruler, and an extensible strut adapted to be connected to said straight-edge and said ruler, substantially as set forth.

2. In an apparatus for cutting glass the combination of a surface board, straight-edges secured on said board, slots in said board, stops pivoted in said slots adapted to project above the surface of said board in the vertical position and to be turned down below the surface of said board, substantially as set forth.

3. In an apparatus for cutting glass the combination with a surface board of a cutting apparatus comprising in combination a straight-edge, a scaled ruler, an extensible strut adapted to be secured to said straight-edge and said ruler, a slide on said scaled ruler an angle-piece adapted to slide in said slide, and a stop 25 in said slide, substantially as set forth.

4. In an apparatus for cutting glass the combination of a ruler, a slide mounted on said ruler and provided with a hole, an angle-piece provided with a scale slidable in said slide, a surface board, substantially as set forth.

5. An apparatus for cutting glass comprising in combination a surface board, straight-edged guides secured on said board, slots in said board, stops pivoted in said slots, and adapted to project above the surface of said board in the vertical position and to be turned down below the surface of said board, and a cutting apparatus consisting of the combination of a straight-edge, a scaled ruler, an extensible strut adapted to be secured to said straight-edge and said ruler, and a slide on said ruler, an angle-piece adapted to slide in said slide, and a stop 25 in said slide, substantially as set forth.

6. In an apparatus for cutting glass the combination of a surface board having an opening near one side thereof and a rail forming the outer edge of said opening and adapted to be moved toward and away from said board, substantially as set forth.

7. In an apparatus for cutting glass the combination of a surface board having slots therein, shafts, in said slots, eccentric disks fixed on said shafts, and means to facilitate the rotation of said shafts, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILHELM PANCKOKE.

Witnesses:

CARL SATTLER,
CARL GOEDKE.