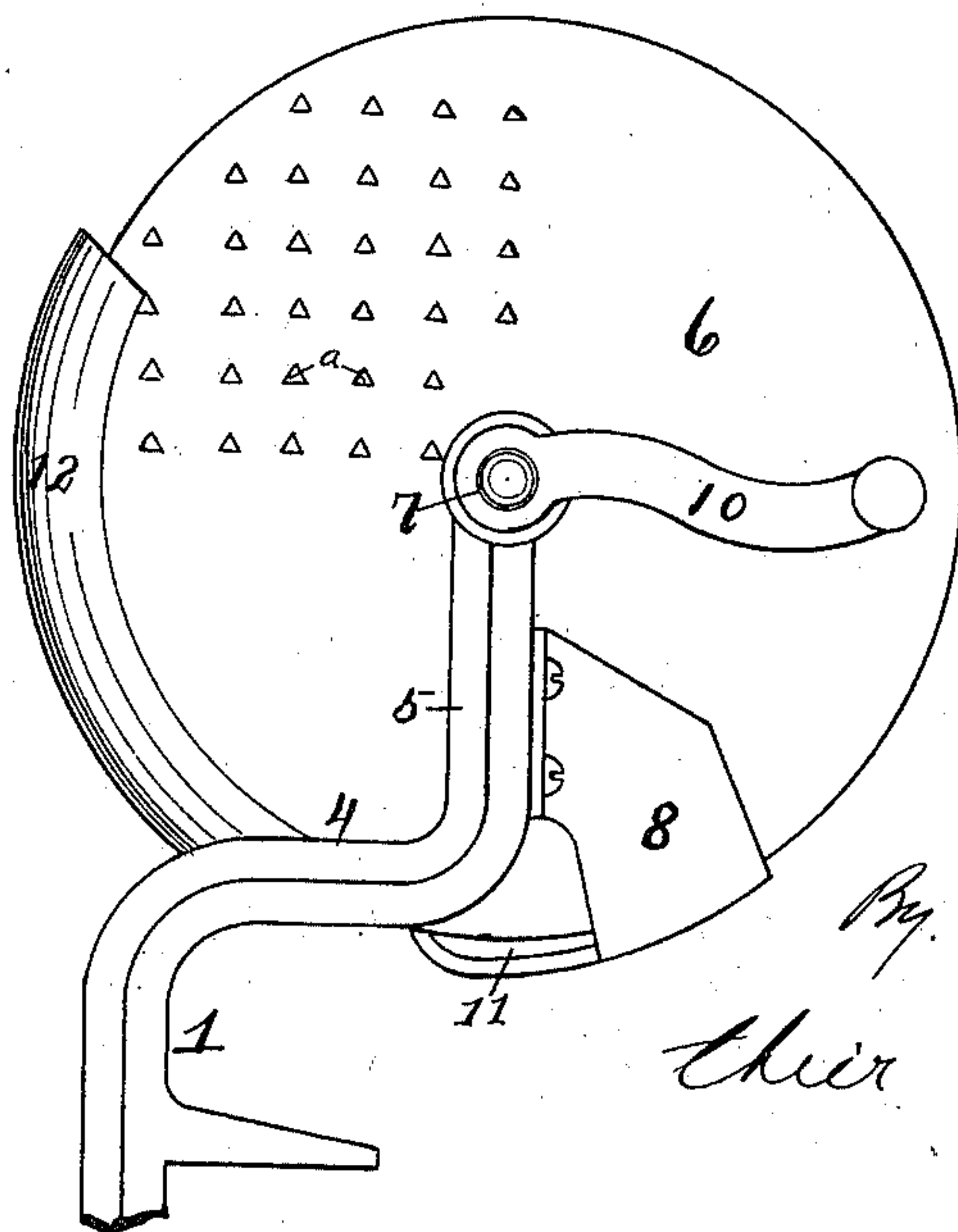
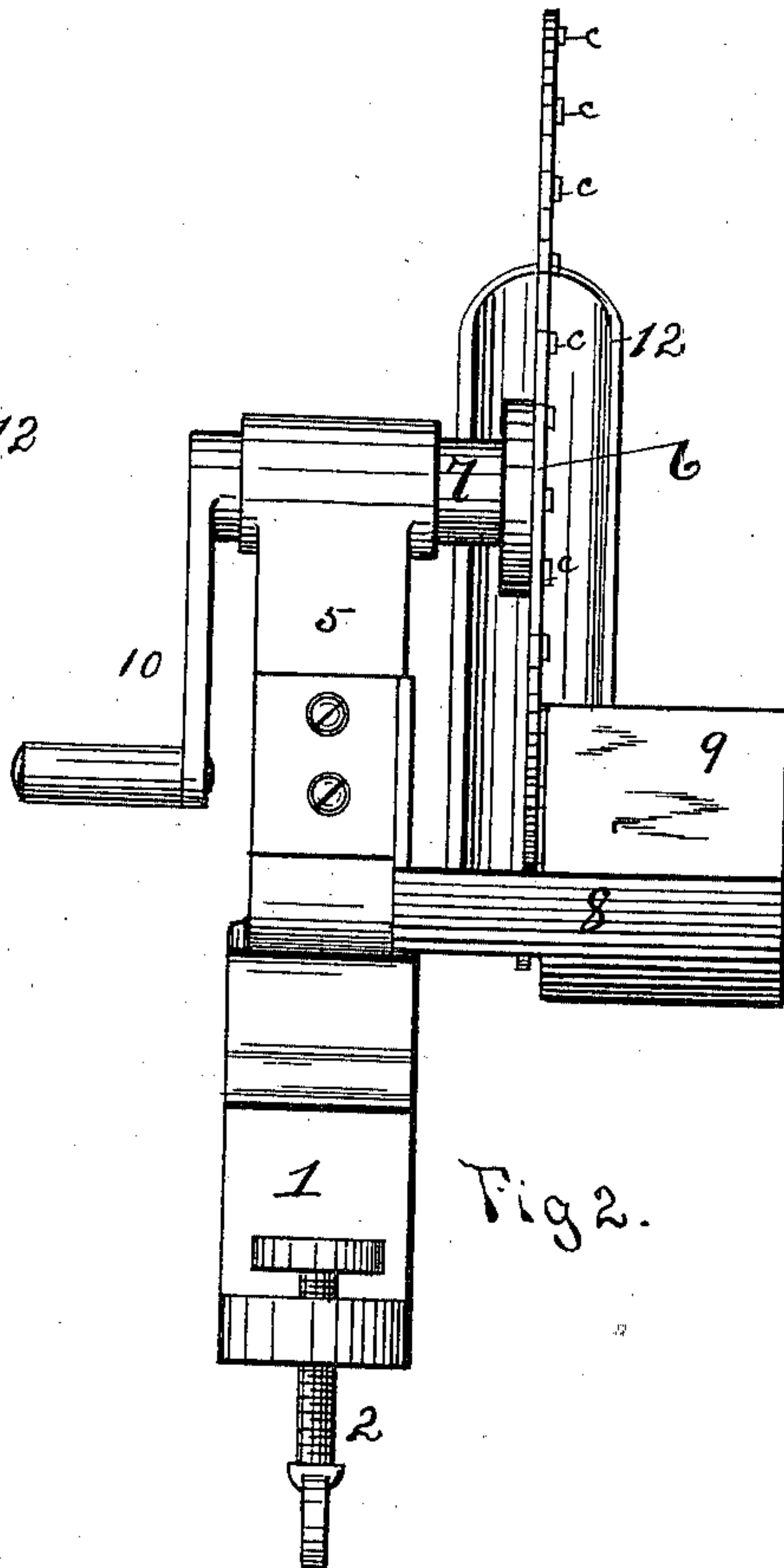
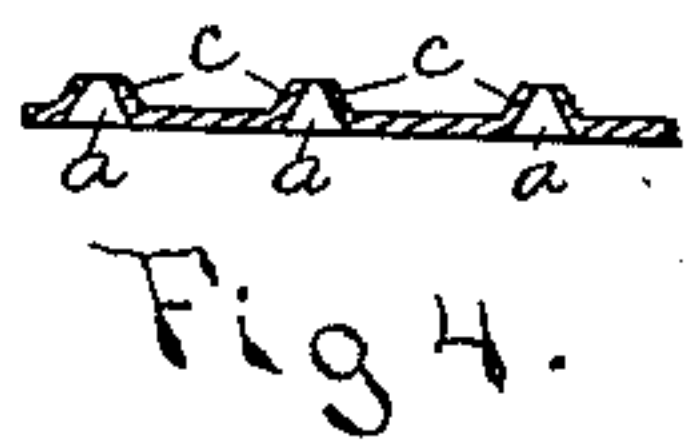
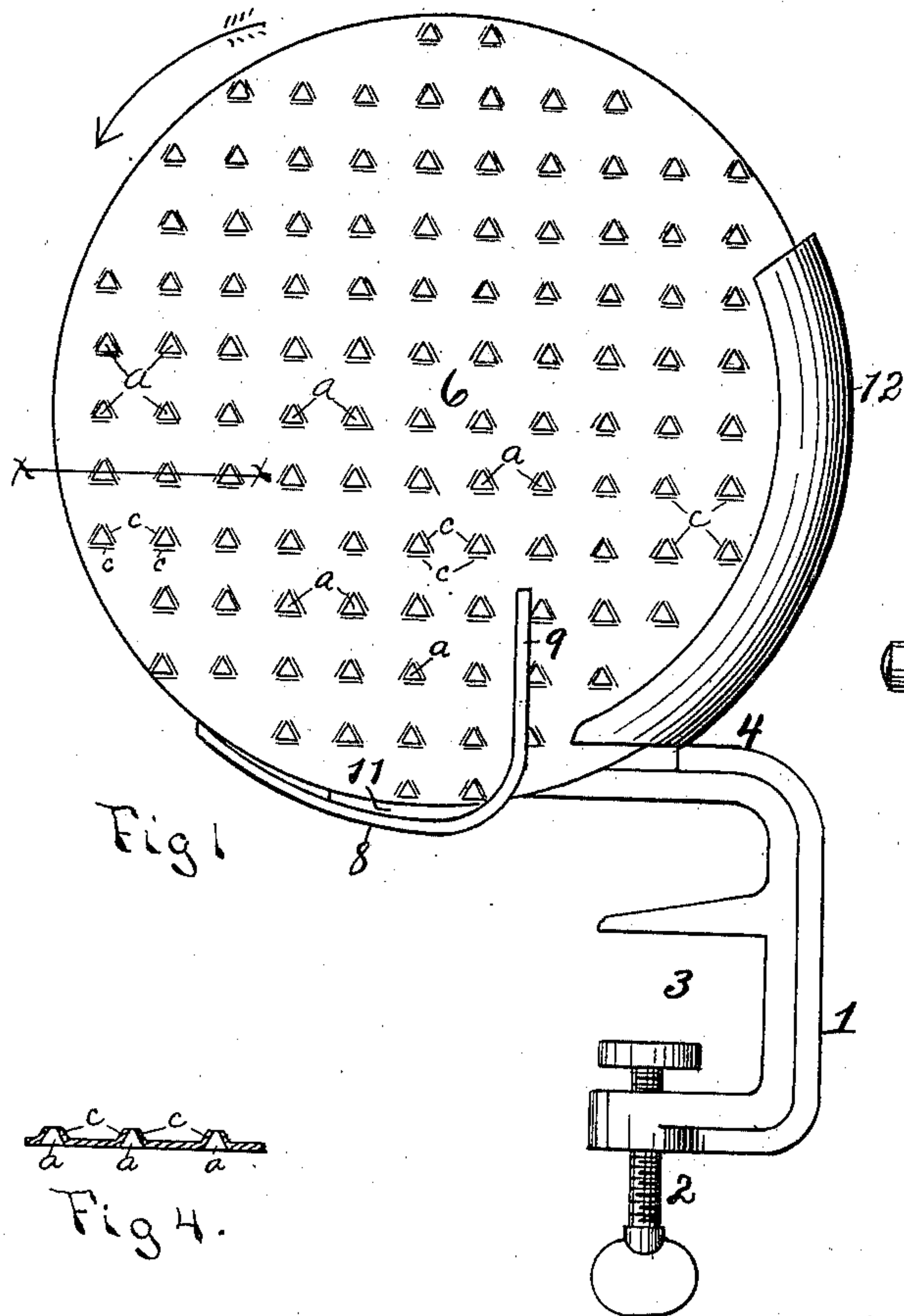


(No Model.)

W. J. DIMLER & C. O. REICHERT.  
GRATER.

No. 566,381.

Patented Aug. 25, 1896.



Witnesses.  
J. Longenecker.  
G. D. Williams.

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their Attorney.



# UNITED STATES PATENT OFFICE.

WILLIAM J. DIMLER AND CHARLES O. REICHERT, OF DAYTON, OHIO.

## GRATER.

SPECIFICATION forming part of Letters Patent No. 566,381, dated August 25, 1896.

Application filed February 24, 1896. Serial No. 580,318. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM J. DIMLER and CHARLES O. REICHERT, citizens of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Graters; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in vegetable or fruit graters. The improvements have reference to the peculiar formation of the teeth in the grating-disk, by means of which the article grated is reduced to fine flakes or particles, which quickly and freely separate from each other as they fall to the receptacle. The improvements have further reference to the mounting of the grating-disk, which permits of the receptacle to catch the grated article being placed entirely under the grater or disk, and has a further reference to the support for the article while being grated, all of which is illustrated in the accompanying drawings, of which—

Figure 1 is a side elevation. Fig. 2 is an edge or front elevation. Fig. 3 is an elevation of the side opposite that shown in Fig. 1, the lower portion of the clamp broken off. Fig. 4 is an enlarged sectional view of a part of the grating-disk on the line  $xx$  of Fig. 1, showing more clearly the construction of the teeth.

Similar letters and figures of reference indicate corresponding parts.

1 designates a clamp by means of which, and a thumb-screw 2, the device may be rigidly secured to a table, the edge of said table projecting into the opening 3 and tightened therein. The said clamp 1 assumes an angular form, extending horizontally, as at 4, and thence vertically, as at 5, and terminating on a line with the axis of the grating-disk 6, the shaft 7 of which has a bearing therein. The disk 6 is detachable from its shaft. As shown in Fig. 1, it will be observed that only the part 5 of the clamp 1 is on a

vertical line with the axis of said disk. Therefore ample room is provided below said disk for a receptacle in which the grated article falls.

8 designates a support or holder for the article to be grated. This holder is rigidly mounted on the vertical part 5 of the clamp-arm, extending downwardly in a vertical line with the center of the disk, and occupies a position at the bottom thereof, so that the grated particles have but little fall in entering the receptacle. As shown in Fig. 1, the holder takes an upward curve 9, that forms a guard that prevents the grated particles from being carried around by the momentum of the disk as the latter is turned in its normal direction by the crank 10.

11 designates an open space through which the grated article falls.

12 is a curved guard, the lower end of which is rigidly attached to the horizontal part 4 of the clamp-standard and which incloses the edge of the disk nearest the operator. This guard is additional means for preventing any of the grated article from leaving the disk while the latter is in motion.

The disk 6 is cut from a blank and provided with a series of teeth  $c$  that project from one side thereof. Each of said teeth consists, essentially, of three spurs formed or pushed out by a punch which leaves a triangular opening  $a$ . All of said teeth stand in the same direction and at equal distances apart. Therefore there is given to said teeth in the rotation of the disk a variation of distance from the center of the disk and a progressive variation of angle to the radii of said disk and to the material being grated, while also the whole of the surface of said material is acted upon by the irregular succession of the teeth. The article grated will not be reduced to fibrous threads or chunks, but to fine separate particles resembling flakes. This is an important feature of our invention and was obtained after considerable experimental effort.

Having fully described our invention, we claim—

1. In a vegetable or fruit grater, a clamping arm or standard having its upper portion extending in horizontal and vertical planes, and a grater-disk mounted on said vertical



part of the standard and having a guard inclosing a portion of its rim, of a support upon which the material to be grated is held, consisting of a plate 8 having a rigid attachment  
5 to said standard on one side of the disk, the said plate projecting downwardly below the lower edge of the disk at which point it is enlarged and assumes a form concentric to the rim of the disk, and from which point it extends upwardly in a vertical plane with the  
10 center of the disk and on the other side thereof as at 9, as herein shown and described.

2. In a vegetable or fruit grater, a grating-disk cut from a blank and provided with a  
15 series of teeth projecting from one side thereof; each of said teeth consisting essentially of three side spurs inclosing a triangular open-

ing, and all of said teeth standing in the same direction and at equal distances apart so that in the rotation of the disk there is a variation  
20 in the distance of each tooth from the center of the disk, and a progressive variation of the angle of said teeth to the radii of the disk, and to the material being grated, whereby the whole surface of said material is acted upon  
25 by an irregular succession of teeth, substantially as herein shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM J. DIMLER.

CHARLES O. REICHERT.

Witnesses:

GEO. W. MANNIX, Jr.,

R. J. McCARTY.