(No Model.)

2 Sheets—Sheet 1.

B. E. CLARKSON.

ORANGE ASSORTER AND SIZER.

No. 548,865. Patented Oct. 29, 1895.

Fig. 1.

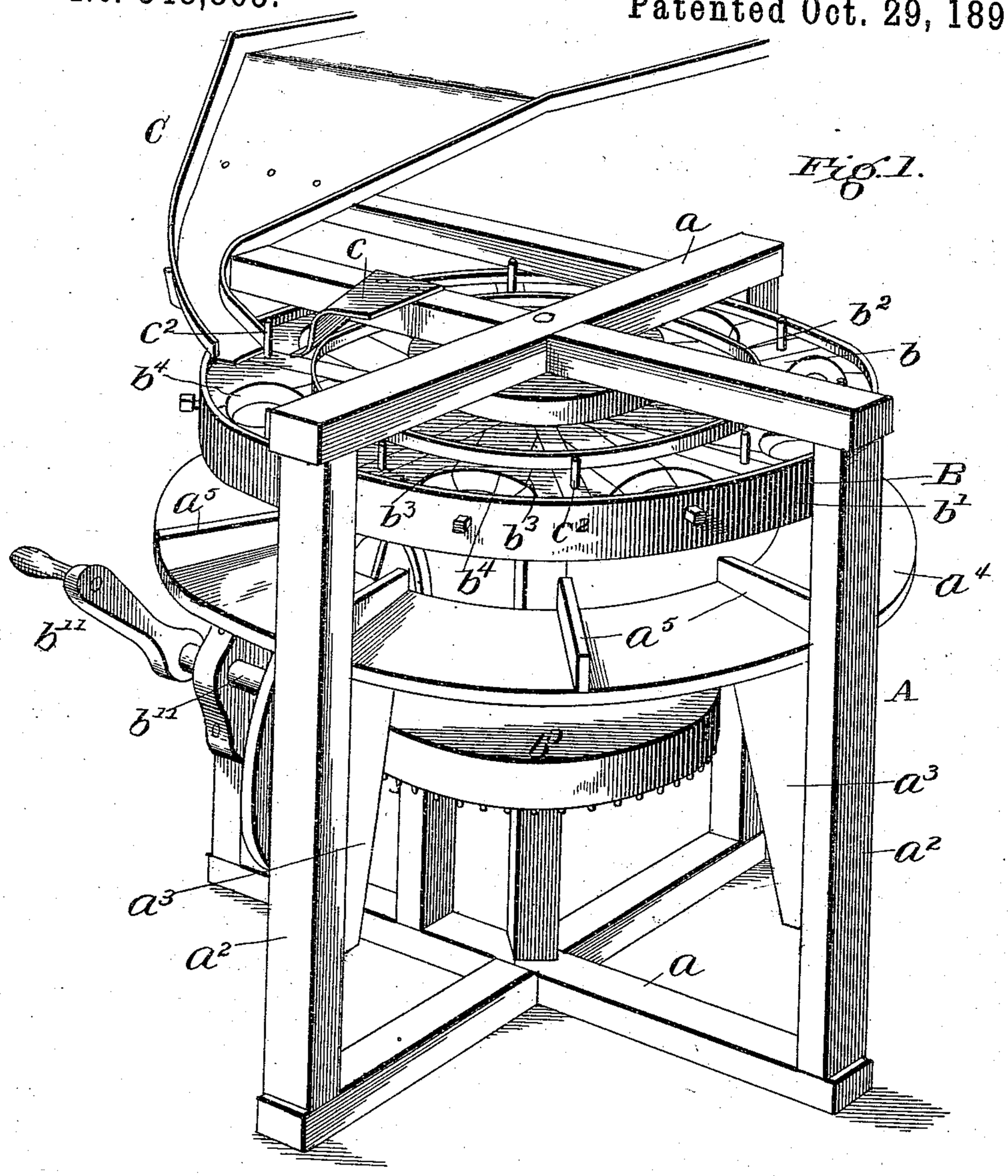
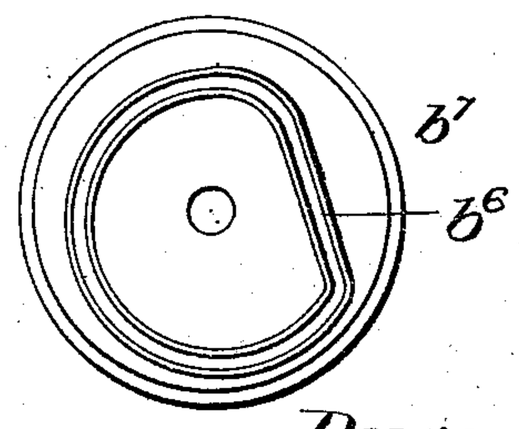


Fig. 4.



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(No Model.)

2 Sheets—Sheet 2.

B. E. CLARKSON.

ORANGE ASSORTER AND SIZER.

No. 548,865. Patented Oct. 29, 1895.

Fig. 2.

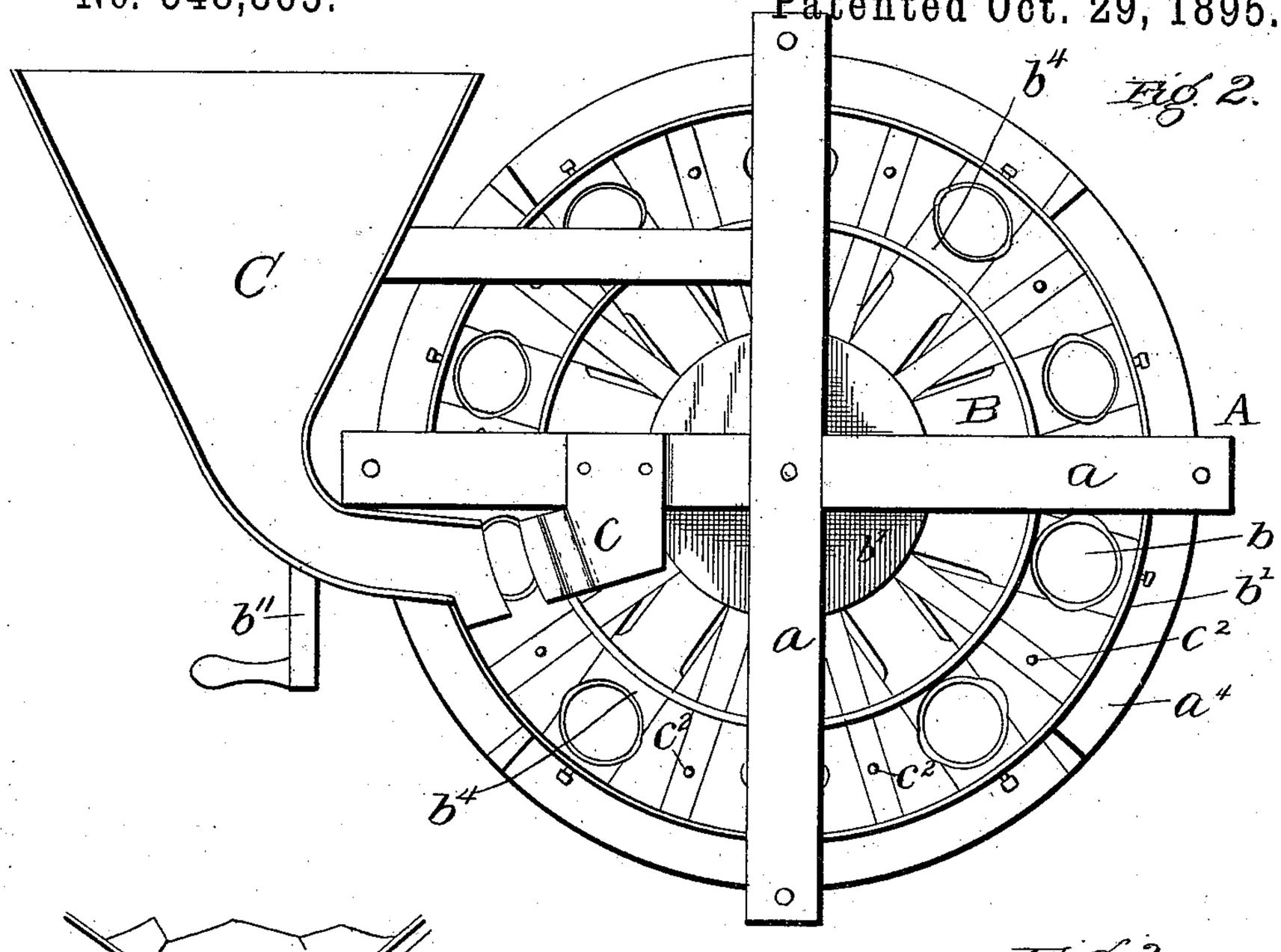
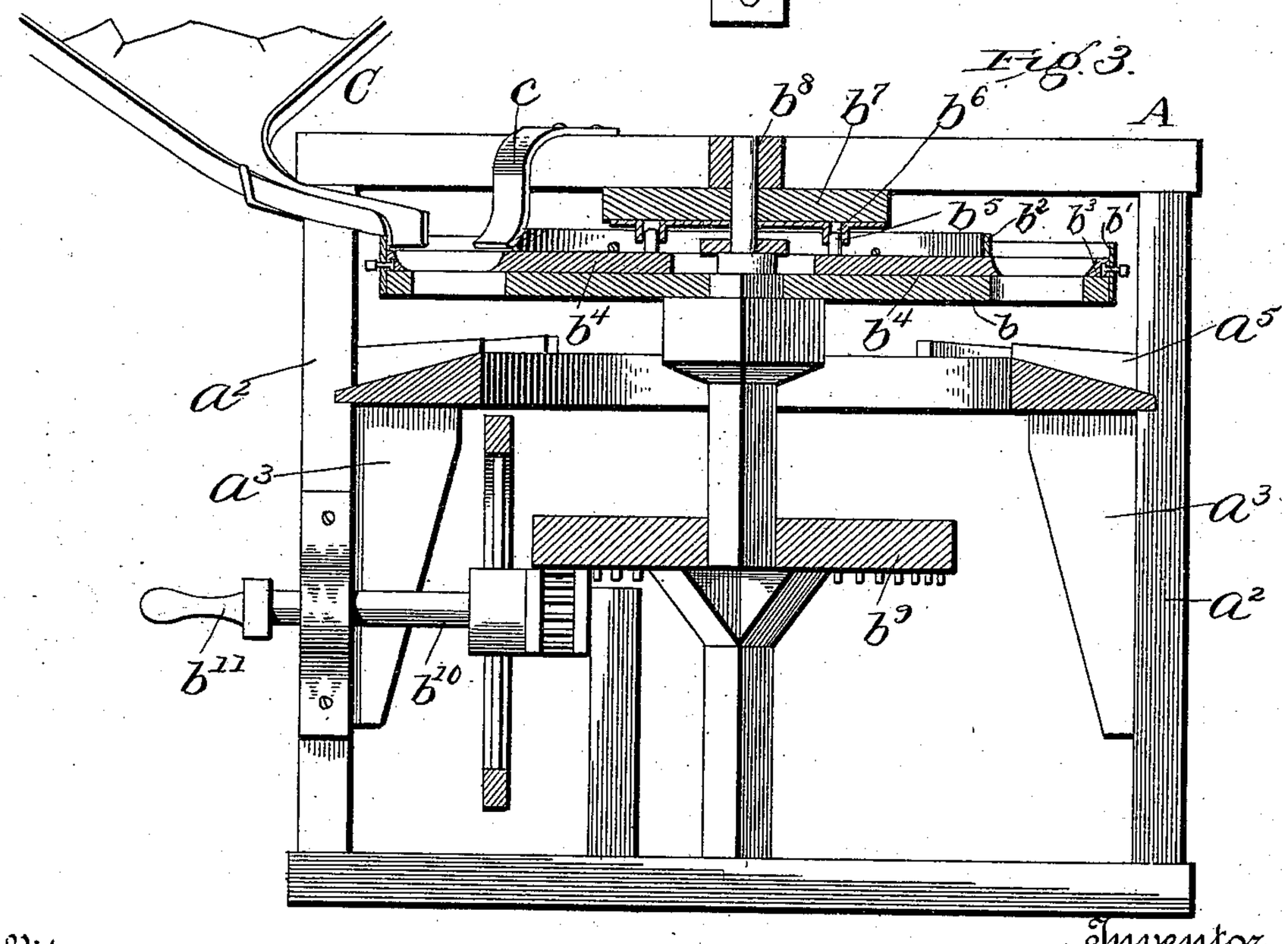


Fig. 3.



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UNITED STATES PATENT OFFICE.

BOWEN ELIPHA CLARKSON, OF SUTTON'S, SOUTH CAROLINA.

ORANGE ASSORTER AND SIZER.

SPECIFICATION forming part of Letters Patent No. 548,865, dated October 29, 1895.

Application filed February 7, 1895. Serial No. 537,631. (No model.)

To all whom it may concern:

Be it known that I, BOWEN ELIPHA CLARKSON, a citizen of the United States, residing at Sutton's, in the county of Williamsburg and State of South Carolina, have invented certain new and useful Improvements in Orange Assorters and Sizers, of which the following is a specification.

The invention relates to orange assorters or sizers.

The object is to produce a machine by which oranges or other approximately spherical fruit will be automatically fed from a hopper or other receptacle and assorted according to the size thereof.

With this object in view the invention consists in the improved construction and combination and arrangement of parts to be hereinafter described and claimed.

In the accompanying drawings, forming part of this specification, in which like letters indicate corresponding parts in the several views, Figure 1 is a view in perspective of one embodiment of the invention. Fig. 2 is a top plan view thereof. Fig. 3 is a central vertical section taken on the line $x\ x$ of Fig. 2. Fig. 4 is a face view of the cam.

In the drawings, A represents a frame, which may be of any suitable form, shape, or construction, but, as shown, comprises upper and lower cross-beams a, connected at their ends by uprights a^2, which are provided with brackets a^3, designed to serve as supports for the inclined guide-ring a^4. The upper inclined surface of this ring is divided off into equal spaces by radially-extended strips a^5.

B represents the assorter-wheel, which is in the form of a disk b, having a circumferential rim or flange b' and an inner flange b^2, concentric therewith. The disk is provided with equispaced radially-disposed openings and grooves forming continuations of the openings. In the openings adjacent the periphery of the disk blocks b^3 are adjustably secured by means of thumb-screws, preferably swiveled in the block and screw-threaded in the outer flange, (see Fig. 3,) and movably mounted in the grooves are blocks b^4. The adjoining ends of these blocks are concaved or cut out to form, when combined, an opening approximately circular. The inner ends of the blocks b^4 are turned up at a right angle or provided with upward-projecting studs b^5, which enter the cam or guide way b^6, formed in the lower face of a disk b^7, which is fixed to the cross-bars of the frame. The assorter-disk is rotatably mounted upon a spindle b^8, which is stepped in the upper and lower cross-bars. This spindle carries a crown-gear b^9, which is driven from a shaft b^{10}, upon which is mounted a fly-wheel, power being applied to the shaft by means of a hand-crank b^{11}.

C represents a hopper, which is suitably supported upon the frame and is provided with a contracted neck or chute, which extends downward and terminates adjacent the periphery of the disk.

In use oranges or other fruit are placed in the hopper, and by reason of the contracted neck are fed one at a time to the disk, the feed being regulated by a deflector c and stop-pins c^2, which are arranged between the openings in the assorter-disk.

In operation oranges are fed one at a time upon the disk and by means of the stop-pins are caused to enter the openings, which when the oranges become lodged therein are contracted to their greatest extent by the sliding blocks being forced outward by the action of the pin in the guide or cam way. Upon rotation of the disk, however, the blocks are drawn inward, and the openings thereby gradually enlarged until the orange falls through, when it strikes upon the inclined face of the ring, which is directly beneath the openings, and is thereby directed to its proper receptacle. By a proper adjustment of the blocks by the thumb-screws the machine will be adapted for assorting very large or small fruit, as will be obvious.

Having thus described my invention, what I claim as new is—

An orange assorter, comprising a frame, a rotatably mounted assorter disk having openings therein, a block adjustably secured to the rim of the disk, and in combination therewith, a second block having its end provided with a stud, by which the block is reciprocated in the openings, the adjoining ends of

the blocks being concaved as described, a disk secured to the frame and having a continuous guideway formed on its lower face, in which the stud of the slide operates, as the carrying disk, carrying the slide, is revolved, as and for the purpose described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

BOWEN ELIPHA CLARKSON.

Witnesses:
W. S. COOPER,
J. C. SANDERS.