F. ROCHOW.

Sugar-Cutting Machine.

No. 164,767. Patented June 22, 1875.

Fig: 1

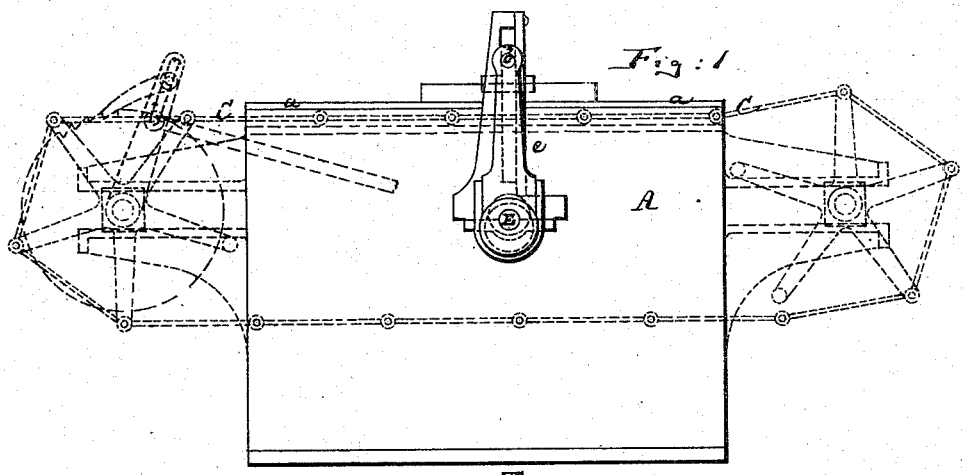


Fig: 2

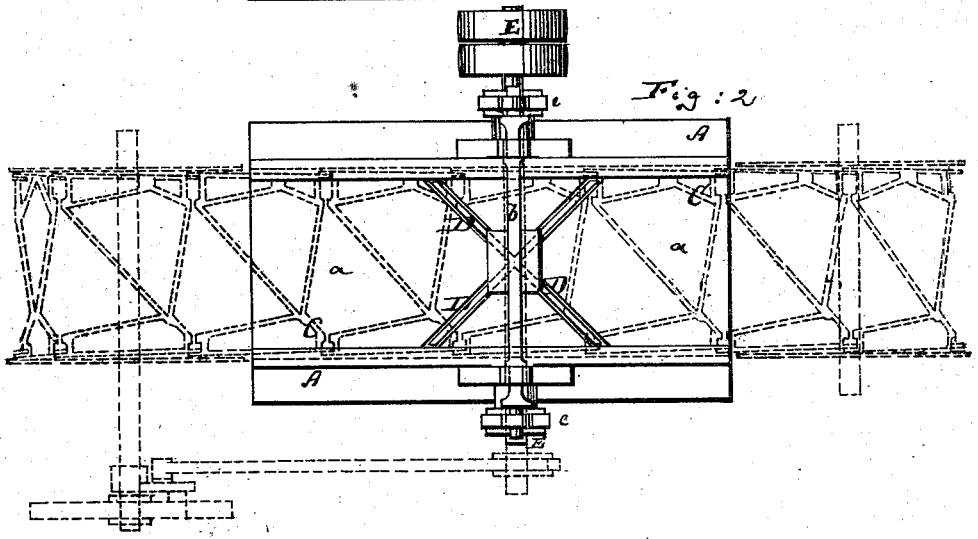
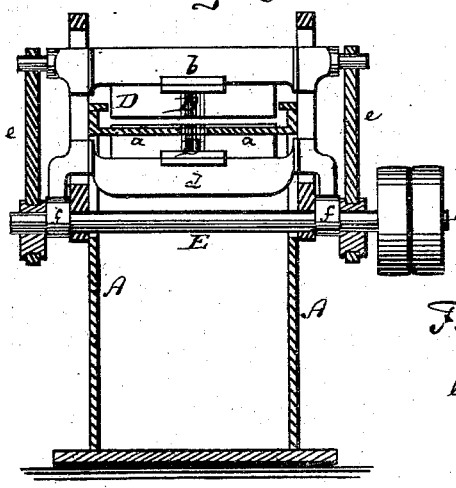


Fig. 3



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

FERDINAND ROCHOW, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SUGAR-CUTTING MACHINES.

Specification forming part of Letters Patent No. **164,767**, dated June 22, 1875; application filed May 26, 1875.

CASE C.

To all whom it may concern:

Be it known that I, FERDINAND ROCHOW, of Brooklyn, Kings county, New York, have invented Improved Machinery for Cutting Sugar-Slabs into Blocks, of which the following is a specification:

Figure 1 is a side view of my improved machine for cutting sugar into blocks. Fig. 2 is a top view of the same, and Fig. 3 a vertical transverse section of the same.

Similar letters of reference indicate corresponding parts in all the figures.

This invention has for its object to combine with a perforated carrier for conveying slabs of sugar over a table, and between cutting or clipping tools, a cutting or clipping mechanism by which, with a single pair of cutters, the slabs of sugar held in said carrier can be cut into cubes or blocks while the sugar is moved in one direction only. The invention is intended as a modification of the improved machine for cutting sugar into slabs described in another application, marked A, filed by me at the same time with this.

The invention consists principally in the application of a pair of **X**-shaped clipping-tools, arranged respectively above and below the perforated carrier, as hereinafter more fully described.

In the accompanying drawing, the letter A represents the frame of the sugar-cutting machine. C is the carrier, perforated to receive a slab of sugar in each of its perforations, and carry the same within reach of and between the cutting-tools. D D are the cutting-tools or clippers, one being fastened to a cross-bar, *b*, above the table *a* of the frame A, while the other cross-bar, *d*, carrying the other cutter, D, is below said table. The two cross-bars are parallel with each other, and each of the two knives or cutters D D is in shape of a cross, or letter **X**, so that the incisions made by them will also be cross-shaped. The cutting-blades of the upper cutter D are, of course, exactly in line with those of the lower cutter D, and while the slab of sugar passes between the two cutters it is reduced into blocks of the required size by the cutting or clipping action of the knives. The table *a* is, of course, slotted to allow the lower cutter to reach the sugar that is placed on the table. The upper cross-bar *b* is, by rods *e*, connected with eccentrics on the rotary driving-shaft E, while the lower cross-bar *d* rests on cams *f* of this driving-shaft, as shown in Fig. 3. By the action of this driving-shaft E the lower cutter D is moved up at the same time that the upper cutter is moved down, and the sugar is thus clipped on opposite sides, and it is quite evident that, owing to the cross-shaped form of the cutters, a rectangular or nearly rectangular slab of sugar must be cut into cubes when fed by intermittent motion between the said cutters. It will also be observed that by the use of the single pair of **X**-shaped clippers I produce a very simple machine, yet I leave room for play, and do not clamp the sugar, as would be the case if hollow prismatic cutters were employed. A single cross-shaped cutter, D, may also be advantageously used above the stationary table *a* to cut the sugar, without the use of a lower cutter, D.

I claim as my invention—

1. In a sugar-cutting machine, the combination of a reciprocating cutter, D, with the intermittently-moving carrier C, which is provided with apertures that grasp the edges of the slabs of sugar to be cut, and with the stationary table *a*, substantially as herein shown and described.

2. The combination of the **X**-shaped cutter D, placed beneath the slotted table *a*, with the carrier C, and with the upper **X**-shaped cutter D, all substantially as herein shown and described.

The above description of my invention signed by me this 25th day of May, 1875.

F. ROCHOW.

Witnesses:
E. C. WEBB,
F. V. BRIESEN.