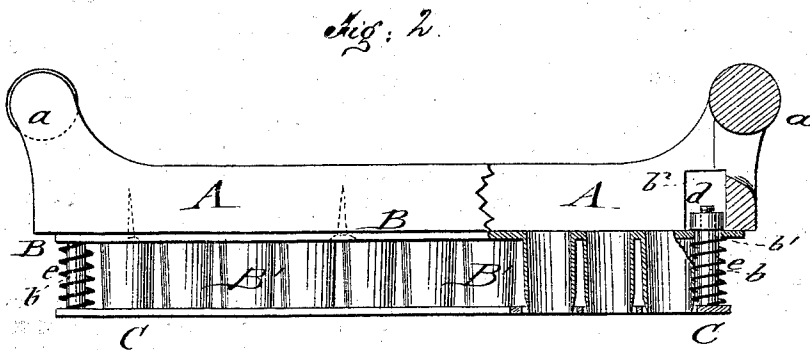
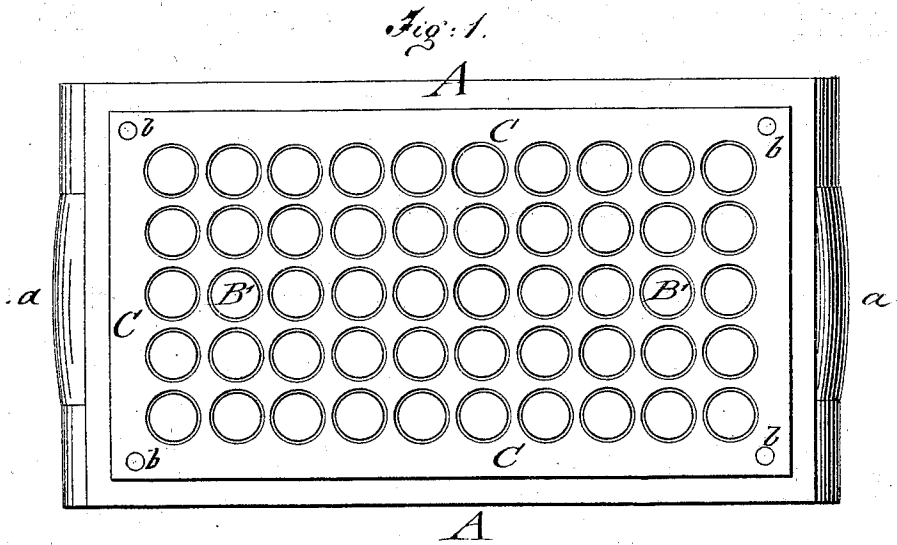


J. A. DINGWALL.  
Lozenge-Cutters.

No. 147,831.

Patented Feb. 24, 1874.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JAMES A. DINGWALL, OF NEW YORK, N. Y.

## IMPROVEMENT IN LOZENGE-CUTTERS.

Specification forming part of Letters Patent No. **147,831**, dated February 24, 1874; application filed January 5, 1874.

*To all whom it may concern:*

Be it known that I, JAMES A. DINGWALL, of the city, county, and State of New York, have invented a new and Improved Lozenge-Cutter, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a bottom view of my improved lozenge-cutter; and Fig. 2, a side elevation of the same, partly in section.

Similar letters of reference indicate corresponding parts.

My invention relates to improvements in lozenge-cutters, by which the lozenges may be cut with great rapidity, either by hand or machine power; and consists of a supporting-frame, to which the perforated main plate, with tubular cutters, is attached, which guides, in suitable holes and recesses of the frame, the perforated spring-plate, which passes up around the tubes on pressing the cutter into the dough, and detaches, by its downward motion, the waste parts from the cutter-tubes, while the cut lozenges are carried upward in the same.

In the drawing, A represents the supporting-frame, of suitable shape and material, provided with handles *a*, if intended to be used by hand, or attached in suitable manner to the connecting machinery, if set in motion by other power. To the lower side of frame A is screwed, or otherwise applied, the metallic main plate B, which is provided with perforations of the shape of the lozenges, and downward-extending tubes B', of the same shape, which are of suitable length, and sharpened at their lower ends. These cutter-tubes B' are so arranged in plate B that the smallest amount of waste

consistent with the sharp and clear cutting of the lozenges is obtained.

The number of cutter-tubes and the size of the main plate may be increased to any required extent, and thereby the working capacity of the cutter multiplied.

The perforated spring-plate C passes around the cutter-tubes B', and corresponds in size with the main plate B. It slides, by its fixed guide pins or bolts *b*, in perforations *b*<sup>1</sup> of plate B and recesses *b*<sup>2</sup> of frame A, while spiral springs *c*, of suitable strength, placed around bolts *a* and between plates B and C, force the latter down till arrested slightly below the cutting-edges of the tubes B' on plate B by the broader heads *d* of bolts *b*.

The cutter is carried down on the dough or mass from which the lozenges are manufactured; the tubes cut them out; the spring-plate slides up along the same, and is forced down instantly on the rising of the cutter, so that the waste parts of the dough surrounding the tubes are detached, and thereby the cutter ready for continued use. The lozenges pass up through the cutter-tubes, and are taken out, for the purpose of drying and finishing the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of frame A, perforated plate B, tubes B', and spring-plate C, as and for the purpose specified.

JAMES A. DINGWALL.

Witnesses:

T. B. MOSHER,  
ALEX. F. ROBERTS.