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N. B. POWTER & E. R. EDSON.

SLICING APPARATUS.

(Application filed Apr. 2, 1900.)

(No Model.)

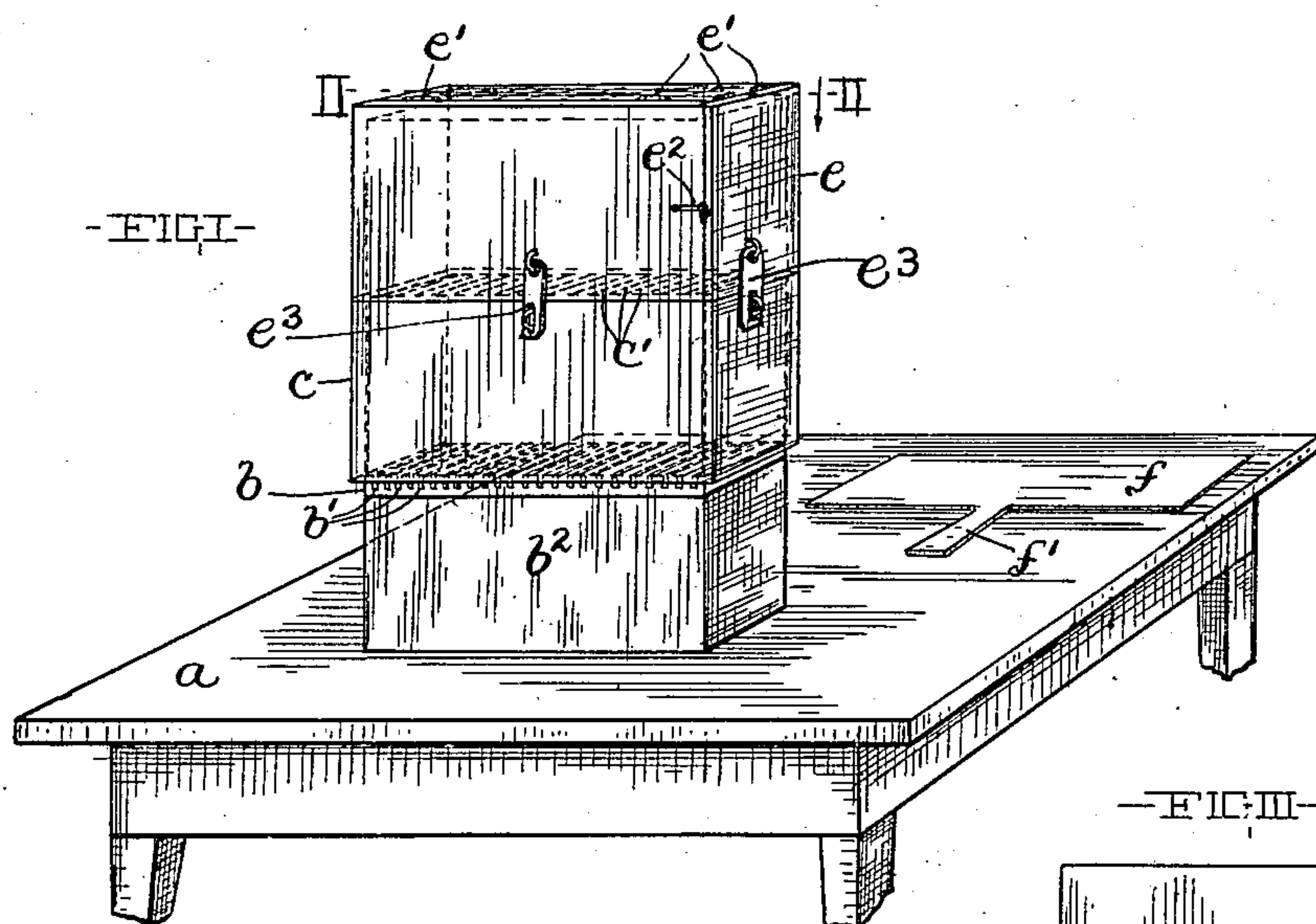


FIG. II



FIG. IV

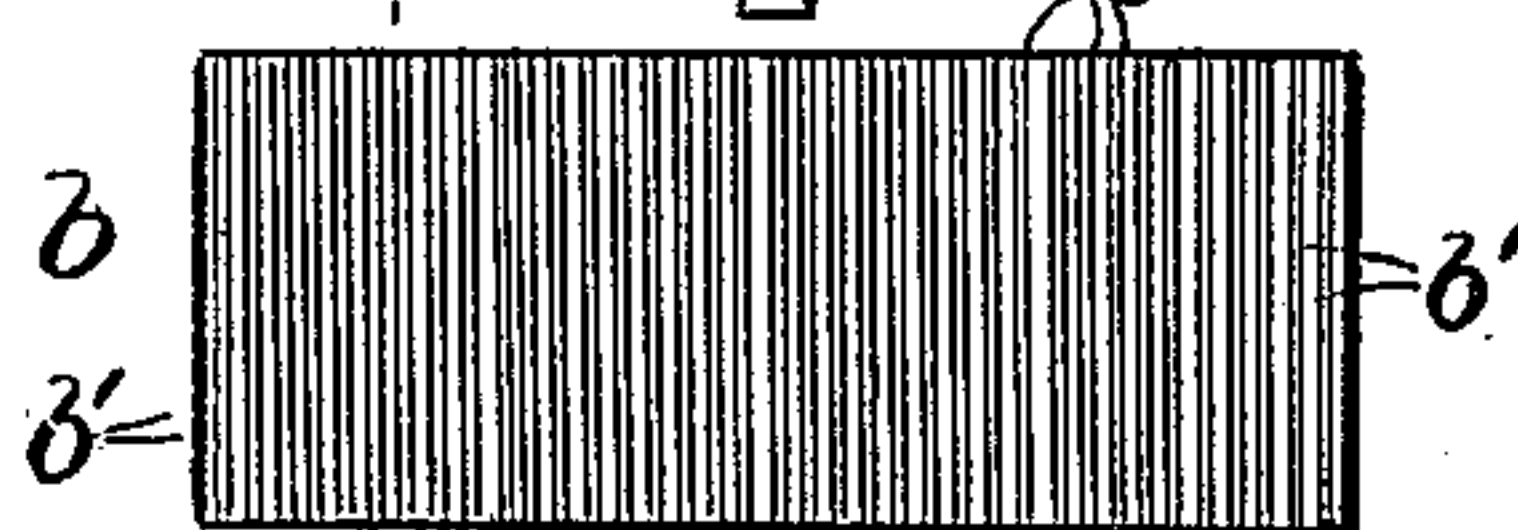


FIG. V

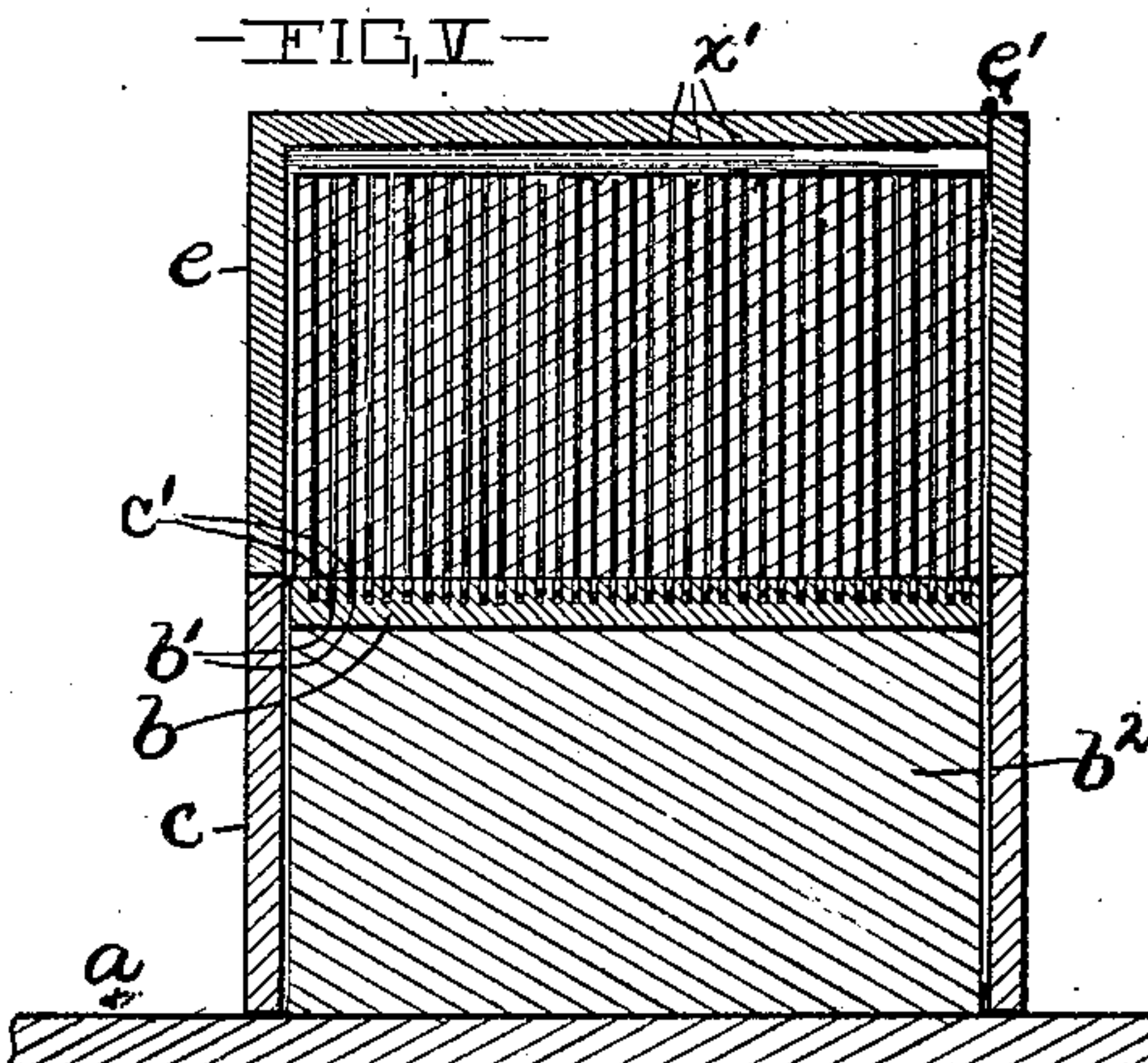


FIG. II

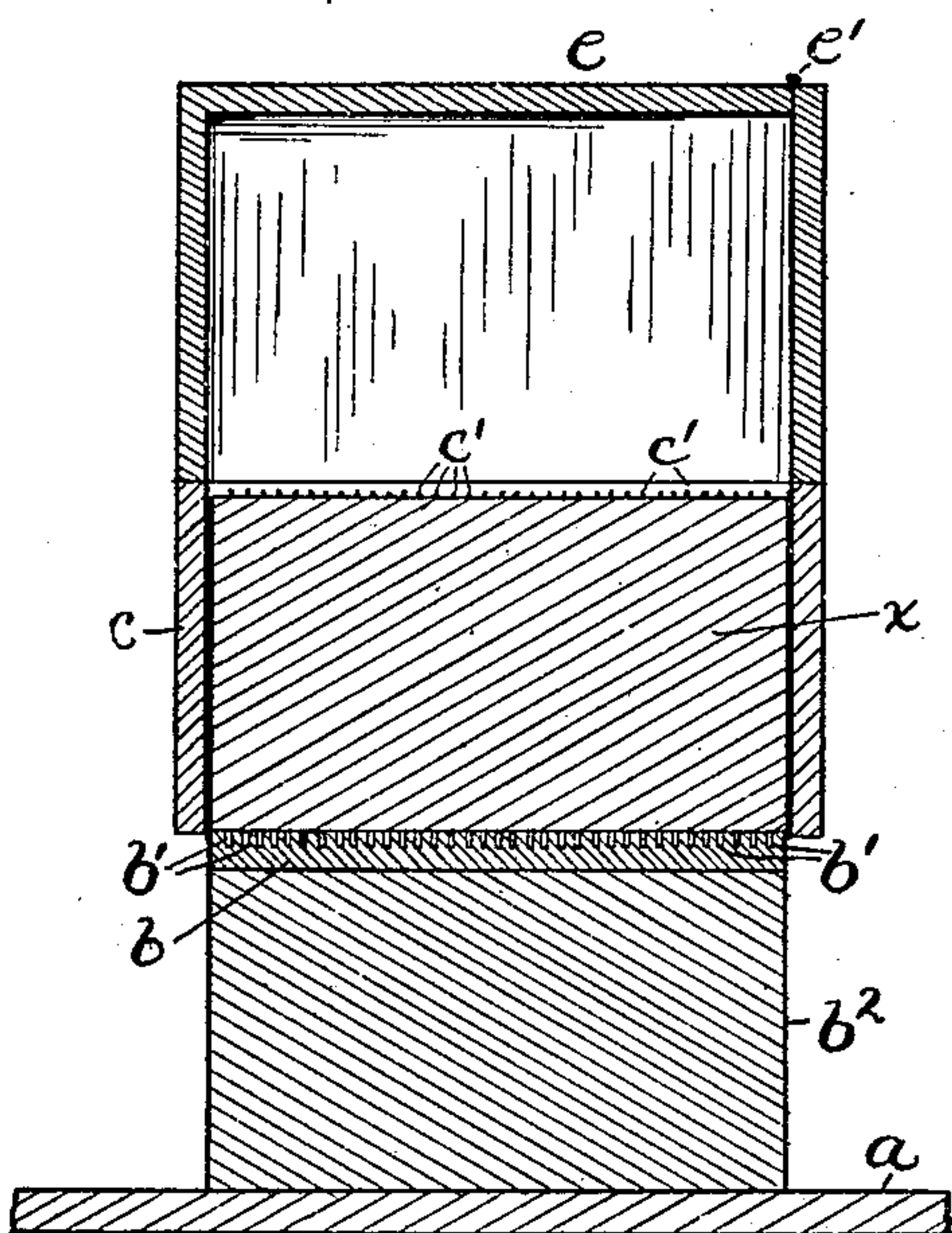
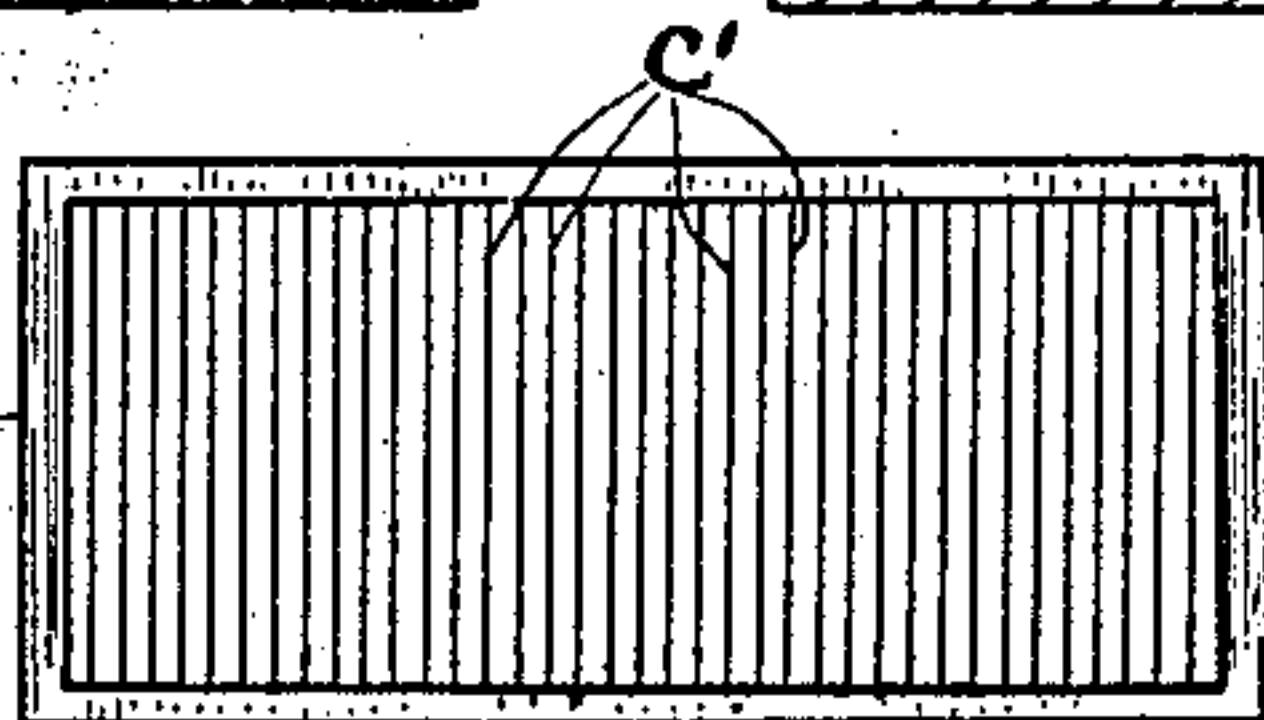


FIG. VI



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## SLICING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 667,251, dated February 5, 1901.

Application filed April 2, 1900. Serial No. 11,108. (No model.)

*To all whom it may concern:*

Be it known that we, NATHANIEL B. POWTER and EUGENE R. EDSON, residents of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Slicing Apparatus; and we do hereby 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 pertains to make and use the same.

Our invention relates to improvements in apparatus for slicing a severable cake or block of glue or gelatin or other matter preparatory to a thorough drying of the latter.

The object of this invention is to provide apparatus whereby the said cake or block can be severed into numerous thin uniform slices at one time and whereby displacement of the cake or block or any portion thereof is not only prevented preparatory and during the severing operation, but the resulting slices are prevented from falling apart or from being injured or mutilated after the severing operation.

With this object in view and to the end of realizing other advantages hereinafter appearing the invention consists in certain features of construction and combinations of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure I is a perspective view of apparatus embodying our invention. Fig. II is a vertical section on line II II, Fig. I. Fig. III is a top plan of a plate employed in freeing the slices from the table-top that bears the cake or block preparatory to and during and after the severing or slicing operation and that is grooved or channeled to receive the severing-wires upon the completion of the severing operation. Fig. IV is a top plan of the said table-top. Fig. V corresponds with Fig. II, except that in Fig. V the movable parts of the apparatus are shown in the position they occupy at the completion of the severing operation preparatory to the introduction of the plate shown in Fig. III between the upper surface of the wire-receiving table and the slices upon the said table. Fig. VI is a top plan of the slicing device.

Referring to the drawings, *a* designates an

ordinary table that supports our improved apparatus for severing a severable cake or block *x* of glue or gelatin or other matter into slices. Upon the table *a* is placed another table, whose top *b*, preferably, exactly corresponds in plan to the cake or block *x* that is to be operated upon and has its upper surface provided with numerous parallel grooves or channels *b'*, that are arranged at short and equal intervals and extend transversely of the said top. The elevated table, of which the top *b* forms a part, consists, preferably, of a quadrangular board or plate that forms the said top and rests upon a stand-forming block *b<sup>2</sup>*, that preferably exactly corresponds in plan to the top *b* and rests upon the table *a*.

The slicing device employed in severing into slices the cake or block that is to be operated upon comprises, preferably, a quadrangular mantle or cage *c*, that has the contour and dimensions required to render it capable of snugly, but easily laterally, embracing the said cake or block and the elevated table. The cage or mantle *c* is open at its upper and lower ends and has its upper end provided with as many severing-wires *c'* as there are grooves or channels *b'* formed in the table-top *b*. The relative arrangement of the wires *c'* corresponds to the relative arrangement of the grooves or channels *b'* of the table-top *b*—that is, the wires *c'* are parallel or approximately parallel and arranged horizontally or approximately horizontally and at short and equal intervals and extend transversely of the mantle or cage *c*. The arrangement of parts is such that when the wire-carriage is placed in an operative position over the elevated table, as shown in Figs. I and II, and over the cake or block *x* upon the said table the severing-wires are in registry with the grooves or channels formed in the top of the said table, and the mantle or cage *c* when it has descended, upon the completion of the severing operation, will rest upon the table *a*, and its wires will engage the different grooves or channels, respectively, in the top of the elevated table, as shown in Fig. V. Figs. I and II show the severable cake or block in position upon the elevated table, and in these figures, as al-



ready indicated, the severing-wires are in position to commence the severing or slicing operation. The mantle or cage *c* descends by gravity during the severing operation, and as the cake or block *x* that is to be operated upon is not hard and dry, but contains considerable moisture that can be readily evaporated after the conversion of the said cake or block into thin slices, obviously the weight of the said mantle or cage and of course the weight of the said mantle or cage and any load upon it are sufficient to effect the slicing operation.

The provision of a slicing device having the severing-wires located at the upper end of its mantle or cage that is adapted to embrace and laterally support the unsliced portion of the cake or block *x* preparatory and during the severing operation is important, not only in order to prevent displacement or mutilation of the cake or block immediately before and during the severing operation, but to properly guide the severing-wires, in conjunction with the elevated table, during the severing operation—that is, the cage or mantle *c* laterally protects and supports the cake or block *x* upon all sides, and the said mantle or cage and the elevated table are instrumental in guiding the severing-wires during the severing operation. The result is the production of uniform and uninjured slices.

Means for sustaining the upper or sliced portion of the cake or block *x* during the severing operation and preventing falling apart of the resulting slices after the severing operation comprises, preferably, an inverted box or receptacle *e*, that is placed upon or against the top of the mantle or cage *c*, and has the dimensions required to render it capable of descending over and embracing the cake or block *x*, as shown in Figs. I and II, and surrounds and laterally sustains or supports the sliced portion of the cake or block during the severing operation and prevents falling apart of the resulting slices *x'* after the severing operation, as shown in Fig. V—that is, the row of unseparated but separable slices is laterally supported upon all sides upon the completion of the severing operation.

The arrangement of parts is preferably such that the lower end of the inverted box or receptacle *e* shall upon the completion of the severing operation be flush or approximately flush with the upper surface of the table-top *b*.

Upon the completion of the severing operation a thin plate *f*, that is provided with a handle *f'*, is introduced between the upper surface of the table-top *b* and the slices within the receptacle *c*, whereupon the latter, laden with the slices, is removed from the said top and placed right side up, and thereupon the slices are removed in any approved manner and separated and laid out to dry.

One or more sides of the receptacle *e* are preferably hinged, as at *e'*, to the bottom of

the receptacle and detachably secured together in any approved manner—as, for instance, by a hook-and-eye fastening *e*<sup>2</sup>. The hinging of one or more sides of the receptacle *e* to the receptacle's bottom accommodates an enlargement of the opening or access to the receptacle and facilitates the removal from the receptacle of the slices contained therein. The receptacle *e* is also shown removably attached to the mantle or cage *c* by means of hasps *e*<sup>3</sup> or other fastenings that are readily rendered inoperative or operative, as required, and preferably the hinged sides of the receptacle, as shown in Fig. I, are attached to the said cage or mantle by the said fastenings.

What we claim is—

1. Apparatus of the character indicated, comprising a cage or mantle for embracing a severable cake or block, which mantle or cage is open top and bottom and provided with a series of parallel or approximately parallel severing-wires, an inverted box or receptacle mounted upon the aforesaid cage or mantle and having the dimensions required to render it capable of laterally embracing the sliced portion of the said cake or block during the severing operation and sustaining the severed slices after the severing operation.

2. Apparatus of the character indicated, comprising a cage or mantle that is adapted to embrace a severable cake or block that is to be operated upon, which mantle or cage has its lower and upper ends open and is provided, at its upper end, with a series of parallel or approximately parallel severing-wires, and an open box or receptacle arranged with its open end contiguous or adjacent to and connected and movable with the aforesaid cage or mantle and having the dimensions required to render it capable of laterally embracing the sliced portion of the aforesaid cake or block during the severing operation, and sustaining the resulting slices after the severing operation.

3. Apparatus of the character indicated, comprising an elevated table, a mantle or cage having the dimensions and contour required to render it capable of descending over and embracing the severable cake or block and provided with severing-wires, and means for laterally supporting and sustaining the unsliced portion of the cake or block during the severing operation and for laterally sustaining or supporting the row of resulting slices upon the completion of the severing operation.

4. Apparatus of the character indicated, comprising an elevated table for receiving the severable cake or block that is to be operated upon, a mantle or cage movable vertically, open top and bottom, and having the dimensions required to render it capable of descending over and embracing, firstly, the said cake or block and, subsequently, the aforesaid table, which cage or mantle is provided, at the top, with a series of parallel or



approximately parallel severing-wires arranged at short intervals, and an inverted box or receptacle adapted to rest upon the slicing-carriage and having the dimensions  
5 required to render it capable of descending over and embracing and laterally supporting the sliced portion of the cake or block during the severing operation and laterally supporting the row of resulting slices upon the completion of the severing operation.

10 5. Apparatus of the character indicated, comprising an elevated table having a horizontally or approximately horizontally arranged top provided with numerous parallel  
15 or approximately parallel grooves or channels arranged at short intervals and extending transversely of the said top, a cage or mantle having the dimensions and contour required to render it capable of descending over and  
20 embracing, firstly, the severable cake or block, and, subsequently, the aforesaid table, which mantle or cage is provided, at the top, with numerous severing-wires arranged to register with the different grooves or chan-  
25 nels, respectively, of the aforesaid table-top, and means for laterally supporting or sustaining the unsliced portion of the cake or block during the severing operation, and for laterally sustaining or supporting the row of  
30 resulting slices upon the completion of the severing operation.

6. Apparatus of the character indicated, comprising an elevated table having a horizontally or approximately horizontally arranged top provided with numerous parallel  
35 or approximately parallel grooves or channels arranged at short and equal intervals and extending transversely of the said top, a cage or mantle adapted to descend over and embrace, firstly, the severable cake or block that  
40 is to be operated upon, and, subsequently, the aforesaid table, which mantle or cage is provided, at the top, with numerous severing-wires arranged to register with the different  
45 grooves or channels, respectively, of the aforesaid table-top, and an inverted box or receptacle resting upon the wire-carriage and having the dimensions required to render it capable of descending over and embracing and  
50 thereby laterally sustaining or supporting the sliced portion of the cake or block during the

severing operation and laterally supporting the row of resulting slices upon the completion of the severing operation.

7. Apparatus of the character indicated, 55 comprising a table consisting of the block or stand  $b^2$  having the removable top  $b$  grooved transversely, as at  $b'$ ; the mantle or cage  $c$  open top and bottom and having its upper end provided with the severing-wires  $c'$ ; the 60 inverted box or receptacle  $e$  resting upon the carriage  $c$ , all relatively arranged, proportioned and operating substantially as shown, for the purpose specified.

8. Apparatus of the character indicated, 65 comprising a cage or mantle that is adapted to embrace the severable cake or block that is to be operated upon, which mantle or cage is open top and bottom and has a series of parallel or approximately parallel severing- 70 wires, an inverted box or receptacle mounted upon the cage or mantle and having the dimensions required to render it capable of laterally embracing the sliced portion of the aforesaid cake or block during the severing 75 operation, which receptacle has its side or sides thereof hinged to its bottom and is provided with means for securing the hinged side or sides in their closed position, substantially as and for the purpose set forth. 80

9. Apparatus of the character indicated, comprising a cage or mantle that is adapted to embrace the severable cake or block that is to be operated upon, which mantle or cage is open top and bottom and is provided with 85 a series of parallel or approximately parallel severing-wires, an inverted box or receptacle mounted upon the cage or mantle and having the dimensions required to render it capable of laterally embracing the sliced portion of 90 the aforesaid cake or block during the severing operation, and means removably attaching the aforesaid receptacle to the aforesaid mantle or cage, substantially as and for the purpose set forth. 95

Signed by us at Cleveland, Ohio, this 21st day of March, 1900.

NATHANIEL B. POWTER.  
EUGENE R. EDSON.

Witnesses:

C. H. DORER,  
A. H. PARRATT.