

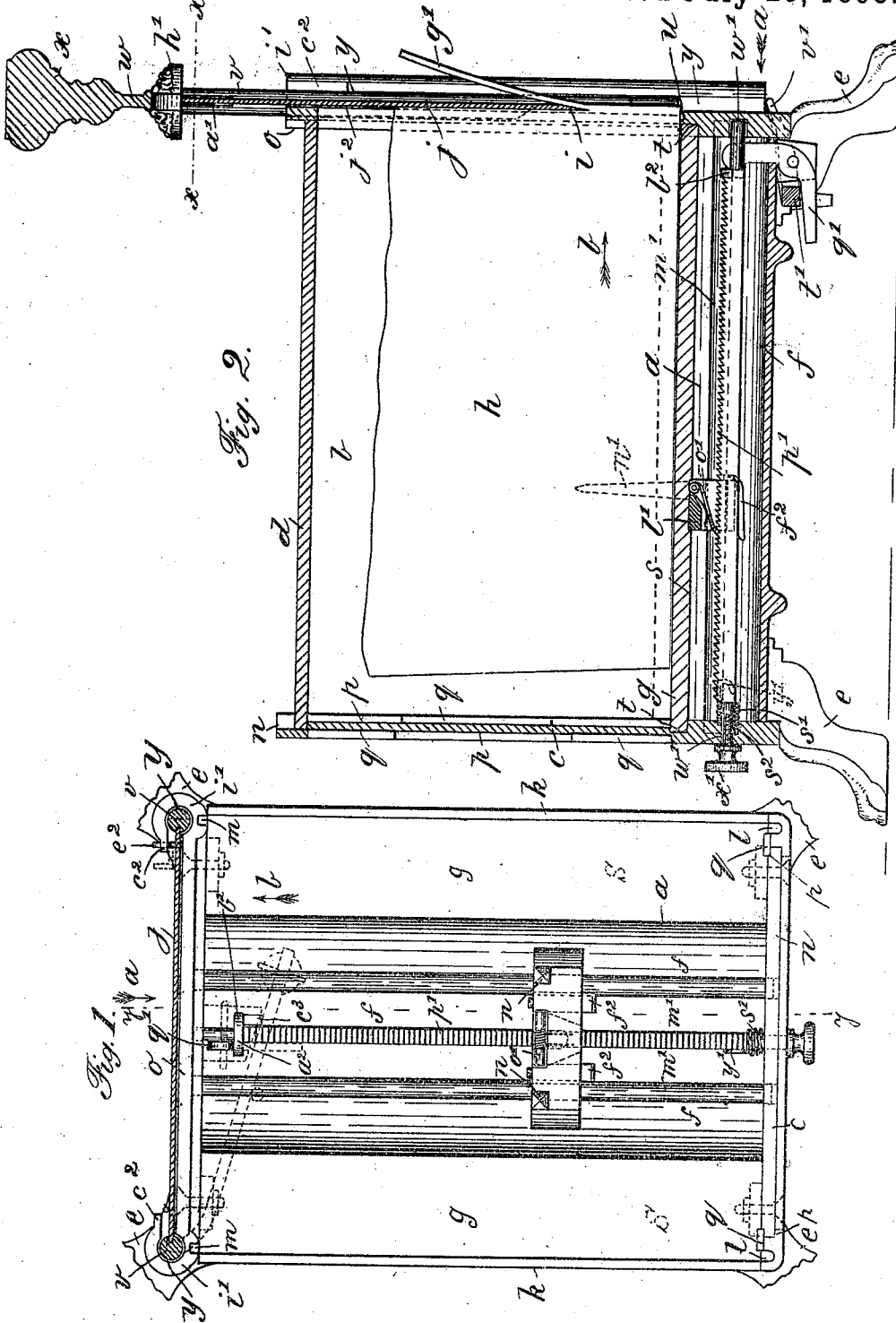
(No Model.)

2 Sheets—Sheet 1.

P. W. BRUNDIN.
CHEESE CASE AND CUTTER.

No. 502,170.

Patented July 25, 1893.



Witnesses:
Ernst Sundgren
O. J. Morgan

Inventor:
Per Walfrid Brundin
By A. Thayer
att'y

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

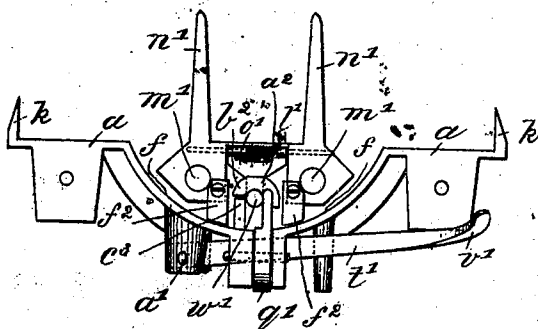
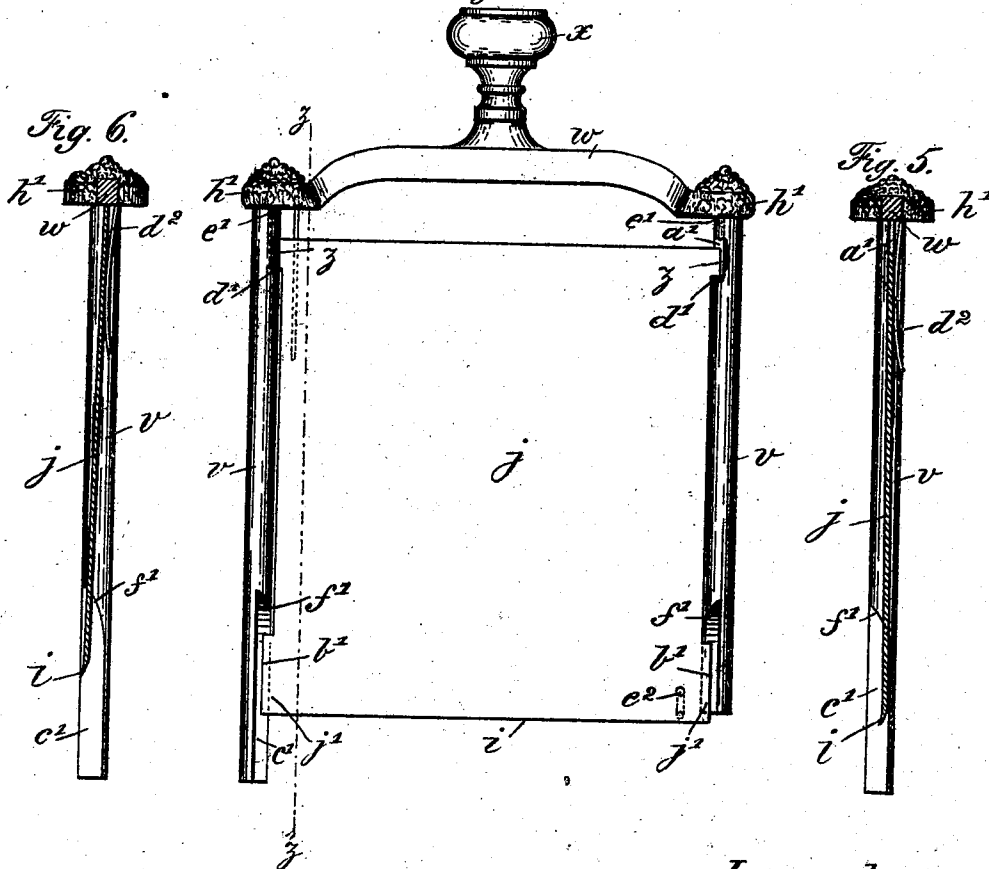


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

PER WALFRID BRUNDIN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF
TO EMIL TORNBLOM, OF SAME PLACE.

CHEESE CASE AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 502,170, dated July 25, 1893.

Application filed August 10, 1892. Serial No. 442,643. (No model.)

To all whom it may concern:

Be it known that I, PER WALFRID BRUNDIN, a subject of the King of Sweden and Norway, and a resident of New York city, in the county and State of New York, have invented certain new and useful Improvements in Cheese Cases and Cutters, of which the following is a specification.

My invention consists in a combined cheese holding and protecting case, and feeding and cutting appliances of novel and improved character whereby a piece of cheese conspicuously exposed to view and effectually protected from insects and dust may be cut in slices and the slices delivered from the case merely by the act of actuating the cutter all as hereinafter fully described reference being made to the accompanying drawings in which—

Figure 1, is a plan view of my improved combined cheese case and cutter with a part in section on line *x x*, Fig. 2. Fig. 2, is a longitudinal sectional elevation on the line *y y*, Fig. 1. Fig. 3 is an elevation of the bed plate and some of the working parts as seen looking in the direction of arrow *a*, Figs. 1 and 2. Fig. 4, is an elevation of the cutter and its carrying slides as seen looking in the direction of arrow *b*, Figs. 1 and 2, and when in the normal position. Fig. 5, is a vertical section of Fig. 4, on line *z z*. Fig. 6, is a like section showing the action of the cutter in use.

I provide a bed plate *a*, preferably of metal, and in rectangular shape with glazed sides *b*, and one end *c*, and of suitable height, and preferably with a glass cover *d*, said cover being removable to put in the cheese. The bed plate which is preferably supported on short legs *e*, has a wide longitudinal depression *f* its entire length, being in this case curved to produce the same but the form may of course be of other approved shape. On the bed plate are glass plates *g*, on which the piece of cheese *h* rests, and is fed along intermittingly to the cutter *i*, which is formed on the lower edge of a plate *j*, which also forms an end plate to the case. The bed plate also has an upwardly projecting flange *k* along the edge of each side within which the lower edges of the glass sides rest, the ends of said sides being confined in the slide

ways *l* and *m* of the metallic end frames *n, o*, respectively.

The glass plate *c* at the back end of the case enters the slide ways *p* between the flanges *q*. The glass bottom plates *g*, rest on the surfaces *s*, of the bed plate and in the rabbets *t* of the end frames *n, o*, flush with the upper edge *u*, of the lower cross bar of end frame *n*, which forms the bed or stationary cutter.

The plate *j* is carried by the slide rods *v*, which are connected at the upper ends to the cross head *w* over the front end of the case, and having the handle *x* projecting upwardly from the center; the said slide rods are fitted to work up and down in the vertical guide ways *y* of the front end frame *o*. The cutter plate *j* is connected to the slide rods by the short spurs *z* projecting from its edges at the upper end into grooves *a'* and by the longer spurs *b'* at the lower end projecting into the rabbet grooves *c'* of the slides. The grooves *a'* and *c'* are longer than the spurs of the cutter plate, and allow a little play of the cutter plate lengthwise of the slide rods which is limited by the shoulders *d'* and *e'* at the ends of the grooves *a'*; the rabbet grooves *c'* are adapted to hold the cutter against the end of the piece of cheese to be cut and the upper ends are so curved at *f'* that when the cutter is raised and its downward movement is momentarily slightly opposed by the cheese, the slides being thrust downward by pressure on the handle *x*, said slides will move in advance of the cutter plate the length of the play of the spurs *z* in the grooves *a'*, and said curved portions *f'* of the rabbet grooves acting on the spurs *b'* of the cutter plate will thrust the cutter backward over the cheese suitably for cutting off a slice *g'* of cheese; the spring *d²* facilitates this movement but good effects are attained without it.

When the slide rods *v* reach the end of their down stroke which is determined by the heads *h'* coming to rest on the upper ends *i'* of the slide ways, the cutter *i* having passed slightly beyond the edge of bed cutter *u*, then falls the length of the grooves *a'* and the spurs *b'* escape from the curves *f'*, falling down where they are free to swing forward to the full extent permitted by the rabbet grooves

c' and thus allow the piece of cheese to be fed forward ready for the next cut. The guide ways j^2 to the edges of the cutter prevent the cutter from cutting too deeply into the cheese. A stud pin e^2 projecting from the cutter plate forms with the projecting spur c^2 , of one of the slide ways a stop to prevent the cutter from being raised too far. It is shaped like a crank to swing clear of said spur when the cutter plate is to be taken out.

To feed the cheese along to the cutter, there is a feed slide l' arranged on the slide ways m' in the depressed portion of the bed plate, said slide having one or more prongs n' projecting upward between the glass plates g to enter the cheese or bear against the hind end of it and push it along. The feed slide has a pivoted feed pawl o' bearing on the upper notched surface of a rack bar p' which is thrust backward lengthwise under the pawl by the lever q' and is thrust forward by the spring s' in the process of feeding. The lever q' is worked by another lever t' pivoted at u' and having its free end v' under one of the slide rods which strikes it just before coming to rest on the down stroke and thus effects the feed motion; the spring s' returns the feed bar and lever q' to the normal positions.

To permit the feed slide l' to be shifted back, the rack bar is mounted on journals w' permitting it to be turned a quarter of a revolution to shift the notched upper side out of connection with the feeding pawl by means of a milled knob x' attached to the journal w' at the hind end. Said slide is then pushed backward by hand. The spring s' employed to shift the feed bar forward is also the means of turning it back to, and retaining the notched side in the normal position, said spring being made fast at one end s^2 to the lower cross bar of the end frame n , and having a loop y' of its other end bearing against the flat side of the bar with suitable tension to so retain and hold the bar; a collar a^2 on the feed bar has a short arm b^2 reaching over the top of the stud c^3 for a stop to prevent the said bar from turning too far. Said collar is also the bearing by which the lever q' takes effect on the feed bar.

The feed slide has friction springs f^2 bearing on the surface of the bed plate to keep it in position when the feed bar shifts back.

I claim—

1. The combined inclosing case, vertically sliding and backwardly shifting cutter, cutter carrying slides, lever subject to the thrust of one of the cutter carrying slides, feed bar, feed slide and pawl, and the intermediate lever and the spring actuating the feed bar substantially as described.

2. The combination of the inclosing case,

cutter, cutter carrying slides, and means for feeding the cheese to the cutter intermittingly, said cutter being connected with one of the inclosing plates of the case adapted to slide suitably for actuating the cutter, and said plate connected to the said cutter slides, and the slides arranged in the vertical slide ways and having limited movement along the cutter plate, and also having the inclines to thrust the cutter back and over the cheese substantially as described.

3. The combination of the bed cutter, the vertical slide ways, vertical slides having the upper and lower grooves, and the cutter plate having the upper and lower spurs engaging said grooves substantially as described.

4. The combination of the bed cutter, the vertical slide ways, vertical slides having the upper straight grooves and lower curved rabbet grooves, the cutter plate having the spurs engaging said grooves and adapted to slide thereon to a limited extent substantially as described.

5. The combination of the bed cutter, the vertical slide ways having the upper straight grooves and lower curved rabbet grooves, the cutter plate having the spurs engaging said grooves and adapted to slide therein to a limited extent, and the spring for thrusting the cutter plate backward over the cheese substantially as described.

6. The combination of the bed cutter, the vertical slide ways having the upper straight grooves and lower curved rabbet grooves, the cutter plate having the spurs engaging said grooves and adapted to slide therein to a limited extent, the spring for thrusting the cutter plate backward, and the guide ways limiting the back thrust of the cutter plate by the spring substantially as described.

7. The combination of the bed plate, vertically sliding cutter, and cutter carrying slides, the feed slide, feed bar, the feed lever subject to the thrust of one of the cutter carrying slides, the intermediate lever acting on the feed bar, and the feed bar actuating spring substantially as described.

8. The combination of the feed bar adapted to be rotated to disconnect the pawl of the feed slide from the notches of said bar, the spring adapted to restore the feed bar to, and hold it in the normal position, and the stop opposing the rotating thrust of the spring on the bar substantially as described.

Signed at New York city, in the county and State of New York, this 19th day of July, A. D. 1892.

PER WALFRID BRUNDIN.

Witnesses:

W. J. MORGAN,
ERIE V. CUMDZEN.