

No. 840,806.

PATENTED JAN. 8, 1907.

W. H. SCOTT.  
CHEESE CUTTING MACHINE.  
APPLICATION FILED MAY 5, 1905.

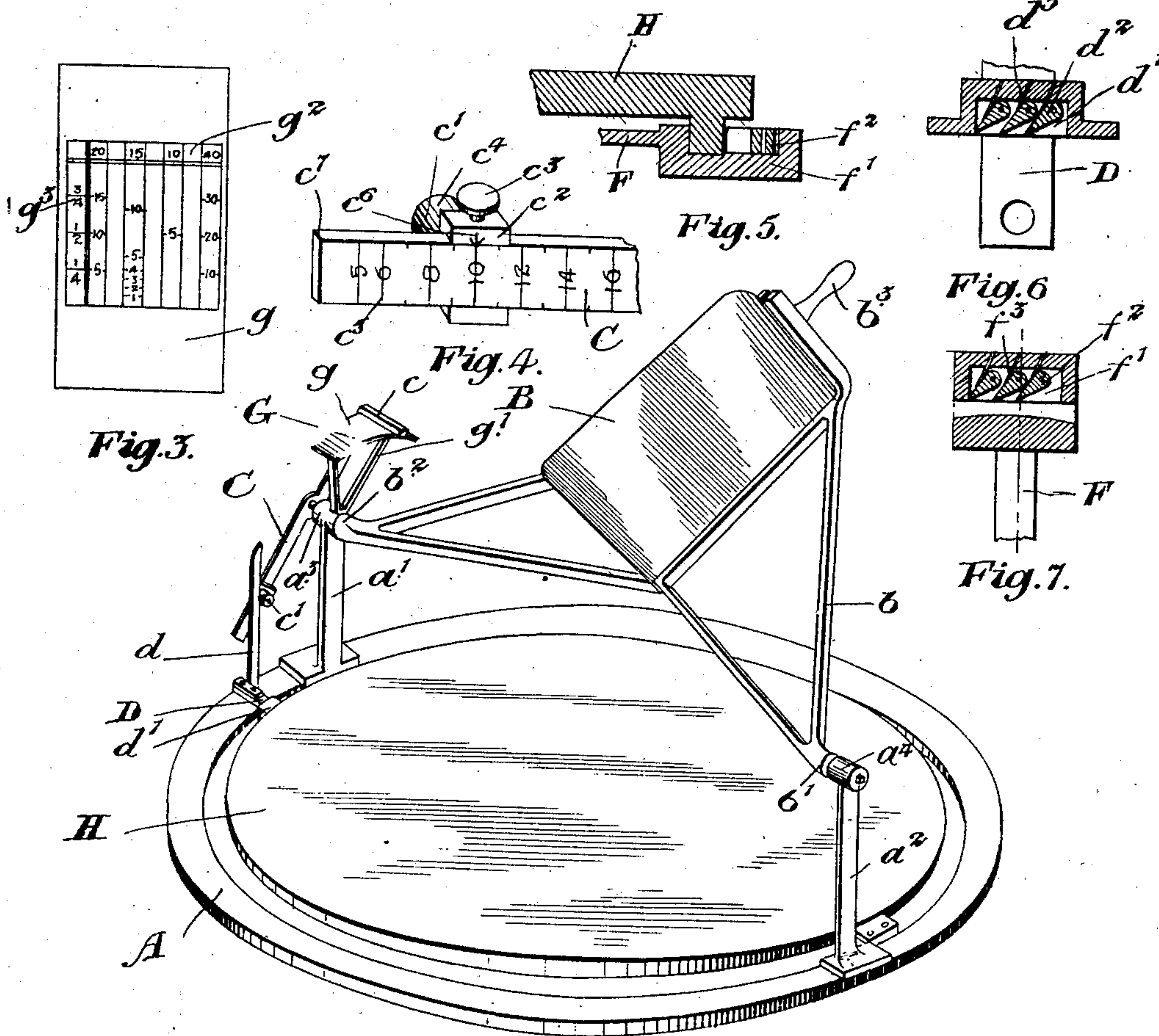


Fig. 1.

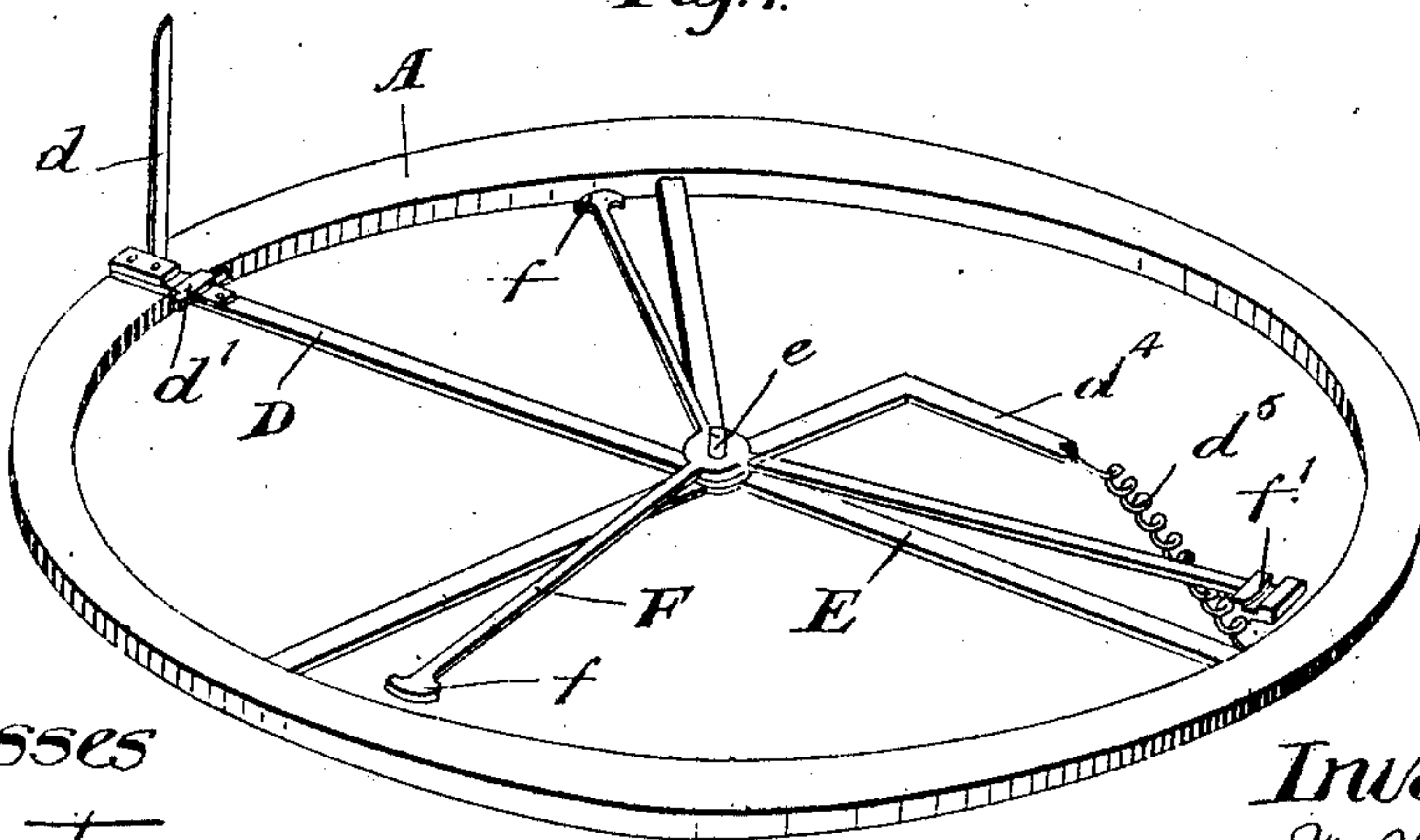


Fig. 2.

Witnesses

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## CHEESE-CUTTING MACHINE.

No. 840,806.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed May 5, 1905. Serial No. 259,042.

*To all whom it may concern:*

Be it known that I, WILBER HUNTER SCOTT, merchant, of the city of Ottawa, in the county of Carleton, Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Cheese-Cutting Machines, of which the following is a specification.

My invention relates to improvements in cheese-cutting machines of the class in which a pivotally-supported cutting-knife coacts with a rotatable cheese-carrier; and the objects of my invention are to devise a cheap and simply-constructed machine of this class in which the raising of the handle, in addition to the moving of the cheese-carrier, will operate an index-finger over an indicator-dial in such a manner as to indicate the weight of cheese which would be cut at any point were the knife there lowered; and it consists, essentially, of a revolubly-supported cutting-knife, a lever integral with the supporting-trunnions, an index-finger on one end of the said lever adapted to coact with the indicator-card provided on the frame, an adjustable tappet secured on the other end of the lever and a graduated scale provided on said lever to correspond to the total weights of the cheese, an index-mark on said tappet to coact with said graduation-scale, a cheese-carrier, means for communicating the motion of the tappet to the said carrier, and means for preventing the rotation of said carrier except in one direction; the various parts of the device being constructed and arranged in detail as hereinafter more particularly described.

Figure 1 shows a perspective view of my cheese-cutter with the knife raised. Fig. 2 shows a perspective view with the carrier, knife, and supports therefor removed. Fig. 3 is a plan of one form of indicator-card which may be advantageously used with my device. Fig. 4 is an enlarged perspective detail showing a portion of the lever and adjustable tappet thereon. Fig. 5 is an enlarged vertical section showing a detail of the spring-held pawls which prevent the rotation of the cheese-carrier except in one direction. Fig. 6 is an enlarged detail showing a horizontal section through a plurality of spring-held pawls and casing therefor which grip

and rotate the carrier. Fig. 7 is an enlarged detail showing a horizontal section of the construction shown in Fig. 5.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the base of the cutter, which may be of any desirable form, preferably as shown. Standards  $a'$   $a^2$  upwardly extend from two portions of the circumference thereof.

B is the cutting-knife, secured in the frame  $b$ , provided with trunnions  $b'$  and  $b^2$ , which are journaled in bearings  $a^3$  and  $a^4$ , provided on the standards  $a'$  and  $a^2$ . A handle  $b^3$  is also provided at one end thereof for convenience in operation.

C is a lever made integral with an extension of the trunnion  $b^2$ , provided at one end with an index-pointer  $c$ , adapted to coact with an indicator-card  $g$ , contained on a frame G, supported by standards  $g'$ .

$c'$  is a tappet slidably secured on the lever C, of any desirable form, but preferably substantially as shown, which consists of a frame  $c^2$ , adapted to fit around three sides of the lever C, a thumb-screw  $c^3$  to lock it at any desirable point thereon, and an antifriction-roller  $c^4$ , revolubly supported on a shaft integral with the said frame  $c^2$ . The edges  $c^7$  of the lever C are preferably beveled, as shown, whereby the tappet may be more readily secured thereon. Graduations  $c^5$  to correspond with the total weight of the cheese on the carrier are provided on the face of the lever C, and an index-mark  $c^6$  is provided on the tappet adapted to coact with such graduations.

E is a spider integral with the base A and provided with an upwardly-extending pin-tle  $e$ .

D is a lever or frame rotatably supported by the pintle  $e$  and provided at one end thereof with an upwardly-extending standard  $d$  and near the end thereof with a plurality of pawls  $d^2$ , pivoted in the casing  $d'$  and resiliently held against the cheese-carrier by means of the springs  $d^3$ , as shown in detail in Fig. 6. In this manner when the lever D is rotated in one direction the cheese-carrier will be forced to rotate with it, but will not rotate with it in the other direction. An extension  $d^4$  is provided at the opposite end of the said lever D, and a spring  $d^5$  connects



said extension to the base A, whereby the lever D will be held in its normal position, with the standard  $d$  abutting the standard  $a'$ .

The position of the standard  $d$  is so arranged that the tappet  $c'$  will in its motion come in contact therewith, and so rotate the lever D.

H is a cheese-carrier of any suitable or desirable construction pivoted on the pintle  $e$ .

F is a second non-rotatable spider secured to the pintle  $e$  and provided with extensions  $f$  at the extremities thereof, which are adapted to engage a track provided in the cheese-carrier and so steady and hold it in position. At the end of one of these arms a plurality of ratchet-teeth  $f^2$ , pivoted in a frame  $f'$ , are resiliently held in contact with the cheese-carrier H by means of springs  $f^3$ , as shown in Figs. 5 and 7. It will thus be seen that these ratchet-teeth will only permit of rotation of the carrier H in one direction.

Having now pointed out the various elements in the mechanism, I will briefly describe the method of operation of the same.

The indicator-card G has a plurality of columns  $g^2$ , in which the prices of the cheese are placed in such a manner as to indicate by reference to the column  $g^3$ , giving the weights of the cheese, the price that should be charged for the amount cut. In operating the device the first thing to do is to place the tappet  $c'$  on the lever C so that the index-mark  $c^6$  will be opposite the graduation on the scale  $c^5$  corresponding to the weight of the cheese which is on the cutter. The handle is then raised. During the first portion of the stroke the cheese-carrier is not rotated; but as soon as the tappet  $c'$  comes in contact with the standard  $d$  the lever D is rotated, carrying with it the cheese-carrier H. At the same time as the tappet  $c'$  comes in contact with the standard  $d$  the index-finger  $c$  comes into position at the bottom of the indicator-card  $g$ . The motion being continued, the carrier will be rotated and the index-finger will simultaneously move farther on the indicator-card  $g$ . To ascertain the price of the cheese to be cut, were the knife to be lowered at any point, reference is made to the indicator-card  $g$ . For instance, supposing the index-finger  $c$  had moved up to the position " $\frac{1}{2}$ " in the column  $g^3$  and that the index on the tappet had been set at the graduation corresponding to a ten-pound cheese, reference to the card would show in the column of the indicator-card corresponding to ten cents, or whatever might be the price of the cheese per pound, and opposite the figure " $\frac{1}{2}$ ," at which the index-finger stood, would be found the price, in this case five cents. When the knife is lowered, the tappet  $c'$  is brought out of contact with the standard  $d$ , and the

spring  $d^5$ , acting on the extension  $d^4$ , returns the frame D to its normal position abutting the standard. The spring-held pawls  $f^2$  prevent the carrier H moving with the frame. It will thus be seen that each time the handle is raised and lowered the cheese is advanced a certain distance and at the end of the operation is left with the segment which has been cut off on one side of the cutting-knife and the remainder of the cheese on the other.

By means of the tappet  $c'$  the cutter may be used on any weight of cheese, all the change necessary to make for the various weights being to move the tappet  $c'$ .

The chief advantage of my device is that it enables the fraction of pounds of the cheese to be accurately measured, which has hitherto not been possible in other forms of cheese-cutters. It is evident that any fraction whatever of a cheese could be cut on my cutter.

It is to be understood that in carrying out my device various changes may be made in the details of construction without departing from the spirit of my invention.

What I claim as my invention is—

1. In a cheese-cutter, the combination with the cheese-carrier, of a pivotally-supported knife, an arm connected with the knife so as to move therewith, and a tappet-roller adjustably carried by the arm, and means operated by said tappet-roller serving to rotate the carrier, substantially as described.

2. In a cheese-cutter, in combination a cheese-carrier, a knife, a handle for operating the same, a lever connected to and operating with the knife, an index-finger on the lever, a dial coöperating with the finger and means for transmitting the movement of the lever to the carrier and means for varying the amount of motion so transmitted.

3. In a cheese-cutter the combination with the pivotally-supported cutting-knife, of a lever connected thereto, graduations indicating the various weights of cheese placed on said lever and a tappet slidably secured on said lever, an indicator on said tappet adapted to coact with said graduations a cheese-carrier, and means for communicating the motion of said tappet to the cheese-carrier as and for the purpose specified.

4. In a cheese-cutter the combination with the pivotally-supported cutting-knife, of a lever connected thereto, a cheese-carrier, a pivotally-supported member, a standard upwardly extending therefrom, and adapted to be engaged by said lever in its motion, means for changing the point of engagement of the said lever with the said standard and means for communicating motion of said standard and member to the cheese-carrier as and for the purpose specified.



5. In a cheese-cutter, in combination a cheese-carrier, a knife, a lever for operating the knife, means for transmitting the motion of said lever to the carrier and means for varying the amount of motion so transmitted.

6. In a cheese-cutter in combination a carrier, a carrier-operating lever, a tappet-roller slidably supported on said lever and adapted to transmit the motion of the lever to the carrier, an index-finger connected to said lever, and an indicator-card adapted to coact with said index-finger as and for the purpose specified.

7. In a cheese-cutter the combination with the cheese-carrier, a carrier-operating lever having graduations indicating various weights of cheese placed on the carrier of a tappet-roller slidably secured on the lever and provided with an indicator adapted to coact with said graduations and means for transmitting the motion of the tappet-roller to the carrier as and for the purpose specified.

8. In a cheese-cutter the combination with the knife, base and rotary carrier of a non-rotary spider carried by the base, a pintle integral therewith supporting the carrier, a plurality of spring-held pawls permitting rotation of the carrier in one direction only, a pivoted member supported below said carrier, a plurality of spring-held pawls on said member adapted to press against said carrier and cause it to rotate with the aforesaid member only when moved in one direction and means for simultaneously operating the knife and said member as and for the purpose specified.

9. In a cheese-cutter the combination with the knife, base and rotary carrier, of an arm connected to said knife, a tappet on said arm, a non-rotary spider carried by the base, a pintle integral therewith supporting the car-

rier, a plurality of spring-held pawls permitting rotation of the carrier in one direction only, a pivoted member mounted below said carrier, a stop on said member adapted to engage with the tappet a plurality of spring-held pawls on said member adapted to press against said carrier and cause it to rotate with the aforesaid member only when rotated in one direction and resilient means for keeping said member in engagement with the tappet as and for the purpose specified.

10. In a cheese-cutter in combination a pivotally-supported cutting-knife, a lever integral therewith, an indicator-card, an index-finger integral with said lever and adapted to coact with said card, a scale of graduations placed on said lever corresponding to the total weight of the cheese, a tappet-roller slidably supported on said lever and provided with an index-mark adapted to coact with said graduated scale, a pivoted member, a spider secured to the base of the cutter, a pintle integral therewith and supporting said member, a standard upwardly extending from said member and adapted to engage said tappet, a cheese-carrier, a plurality of spring-held pawls secured to the base, and bearing on said carrier whereby rotation of the same is permitted in one direction only, and a plurality of spring-held pawls secured to the aforesaid member and adapted to press against the carrier and cause it to rotate with the said member only when moved in one direction as and for the purpose specified.

Signed at the city of Ottawa, in the Province of Ontario, this 25th day of April, 1905.

WILBER HUNTER SCOTT.

Witnesses:

RUSSEL S. SMART,  
MAY LYON.