

No. 828,437.

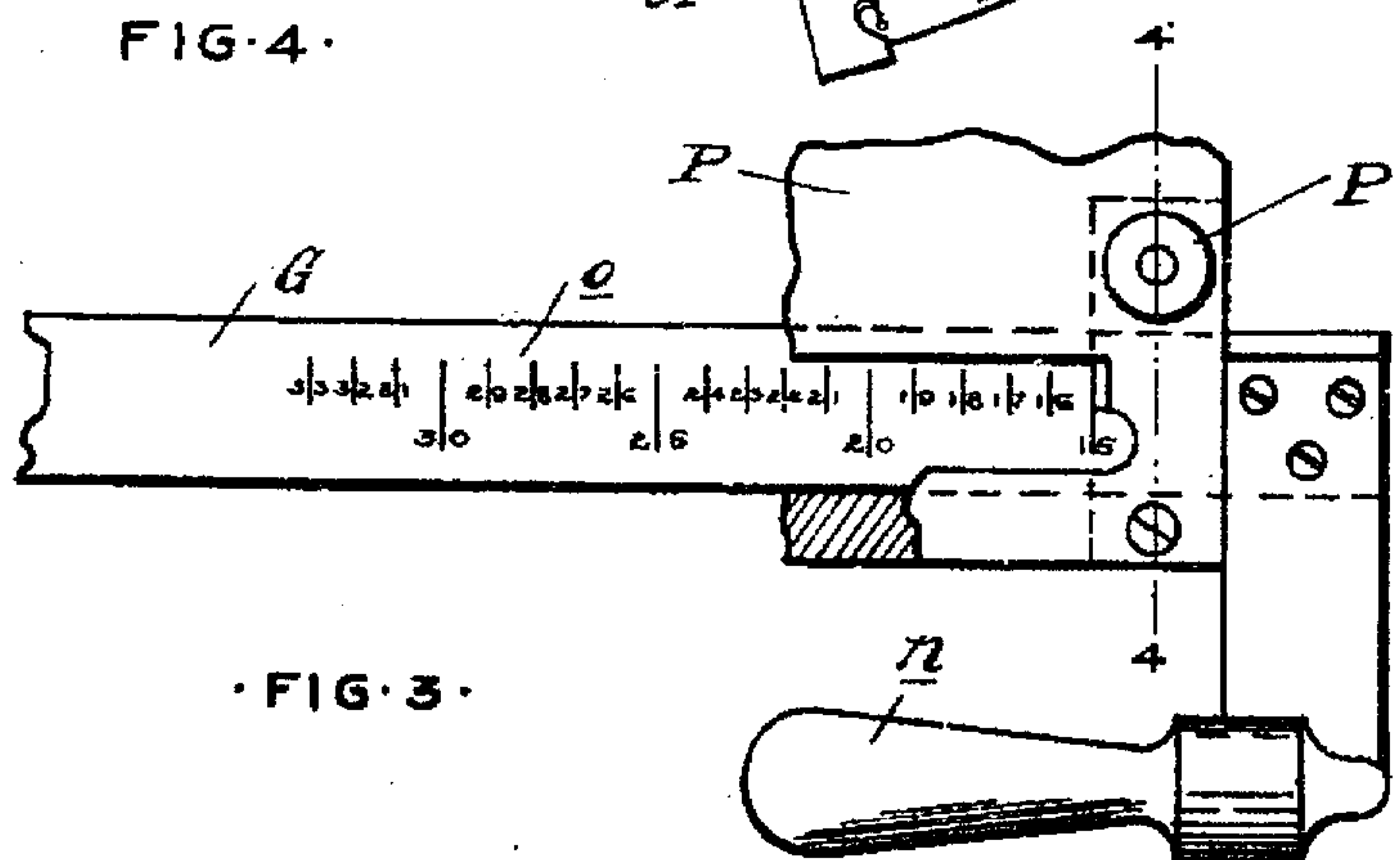
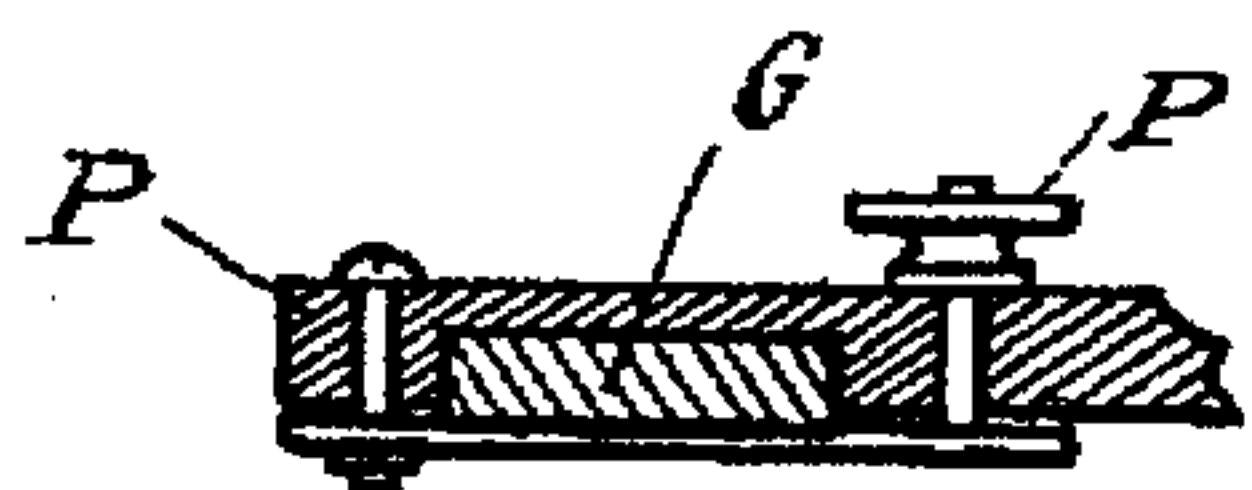
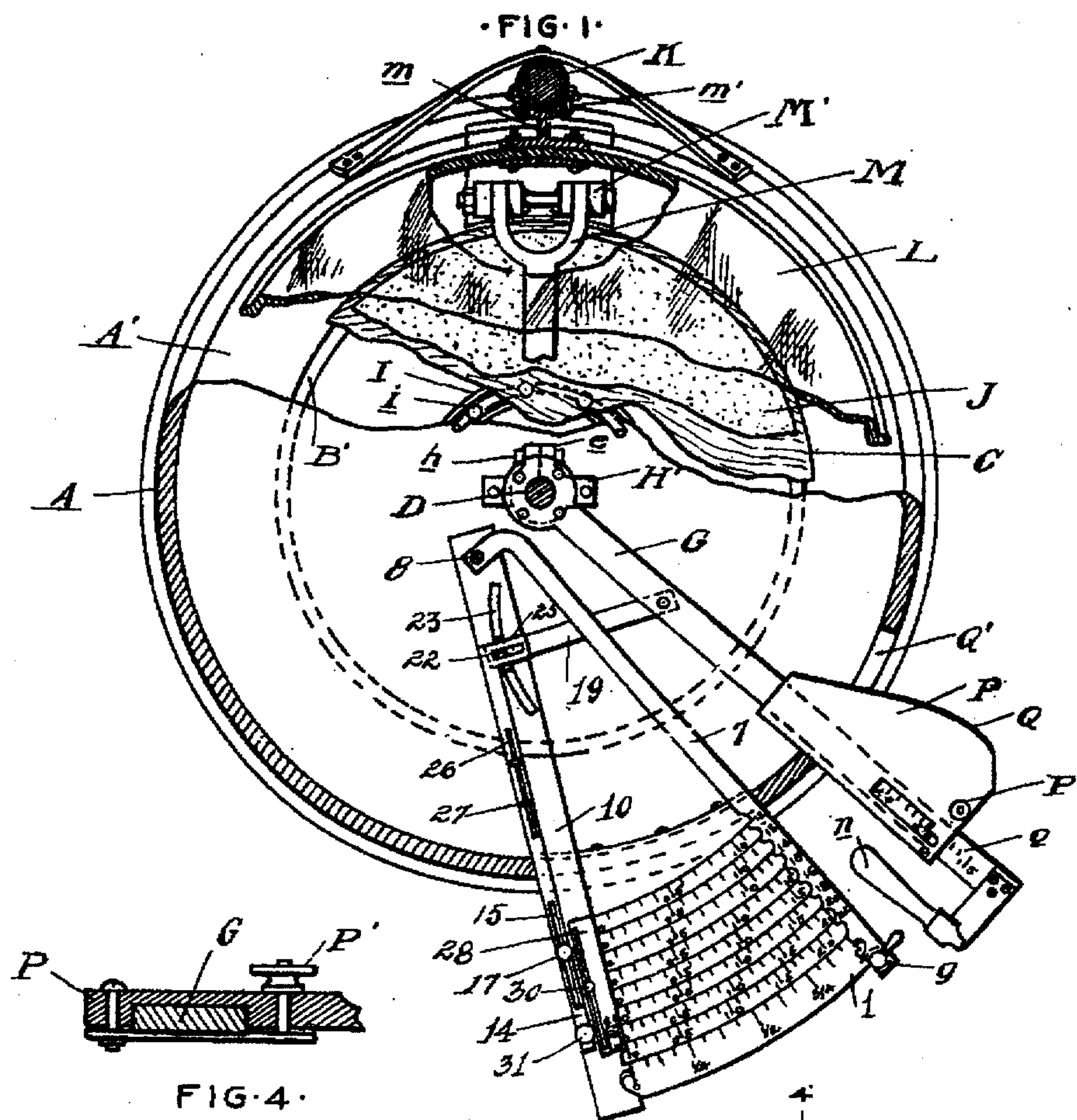
PATENTED AUG. 14, 1906.

W. F. STIMPSON.

CHEESE CUTTER.

APPLICATION FILED SEPT. 13, 1904.

3 SHEETS—SHEET 1.



WITNESSES

Geo. H. Grosvenor
H. C. Smith

H. C. Smith.

INVENTOR

WALTER F. STIMPSON.

BY

James Whittemore ATT'

ATT'Y.

No. 828,437.

PATENTED AUG. 14. 1906.

W. F. STIMPSON.
CHEESE CUTTER.

APPLICATION FILED SEPT. 13, 1904.

3 SHEETS—SHEET 2.

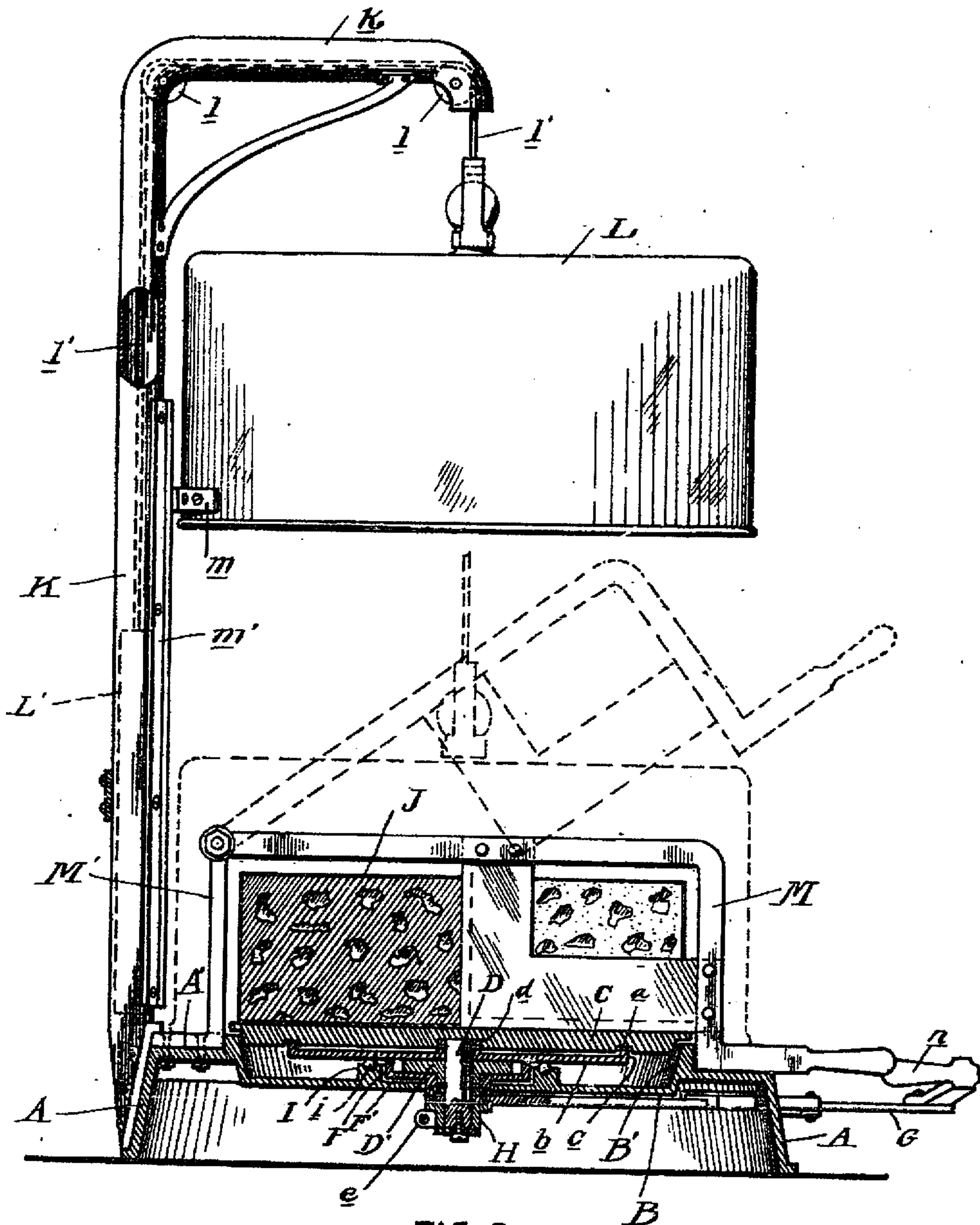


FIG. 2.

WITNESSES

Geo. H. Lyman
H. L. Smith

INVENTOR
WALTER F. STIMPSON.

BY

James Whittemore
ATT'Y.

No. 828,437.

PATENTED AUG. 14, 1906.

W. F. STIMPSON.
CHEESE CUTTER.

APPLICATION FILED SEPT. 13, 1904.

8 SHEETS—SHEET 3.

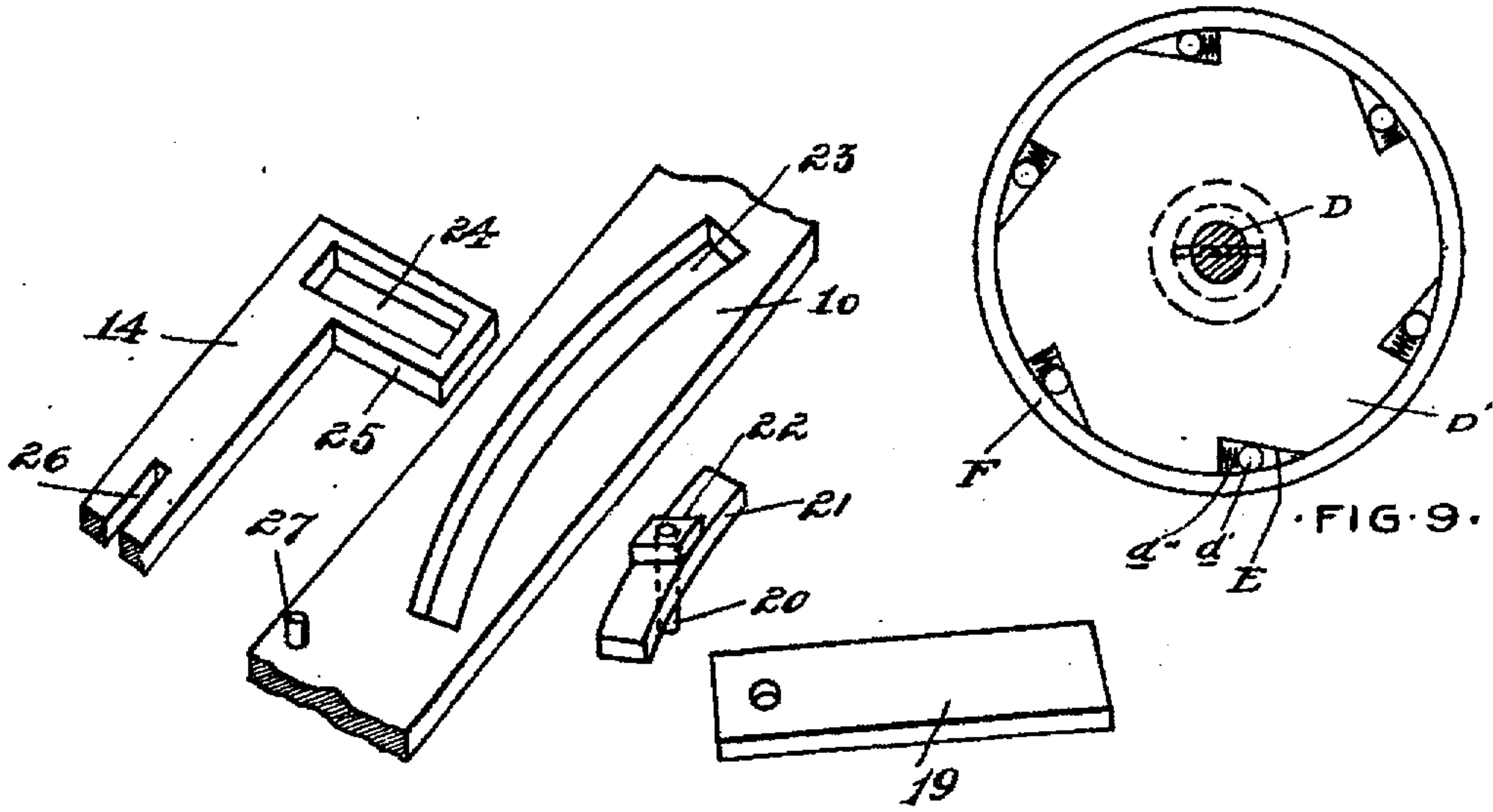


FIG. 5.

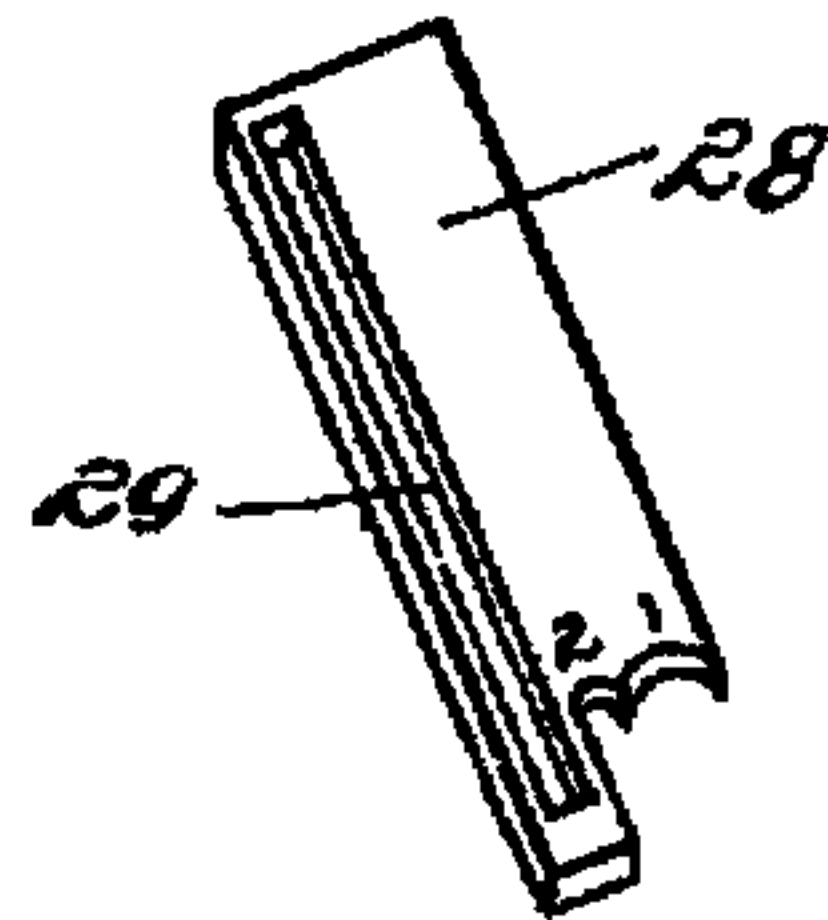


FIG. 7.

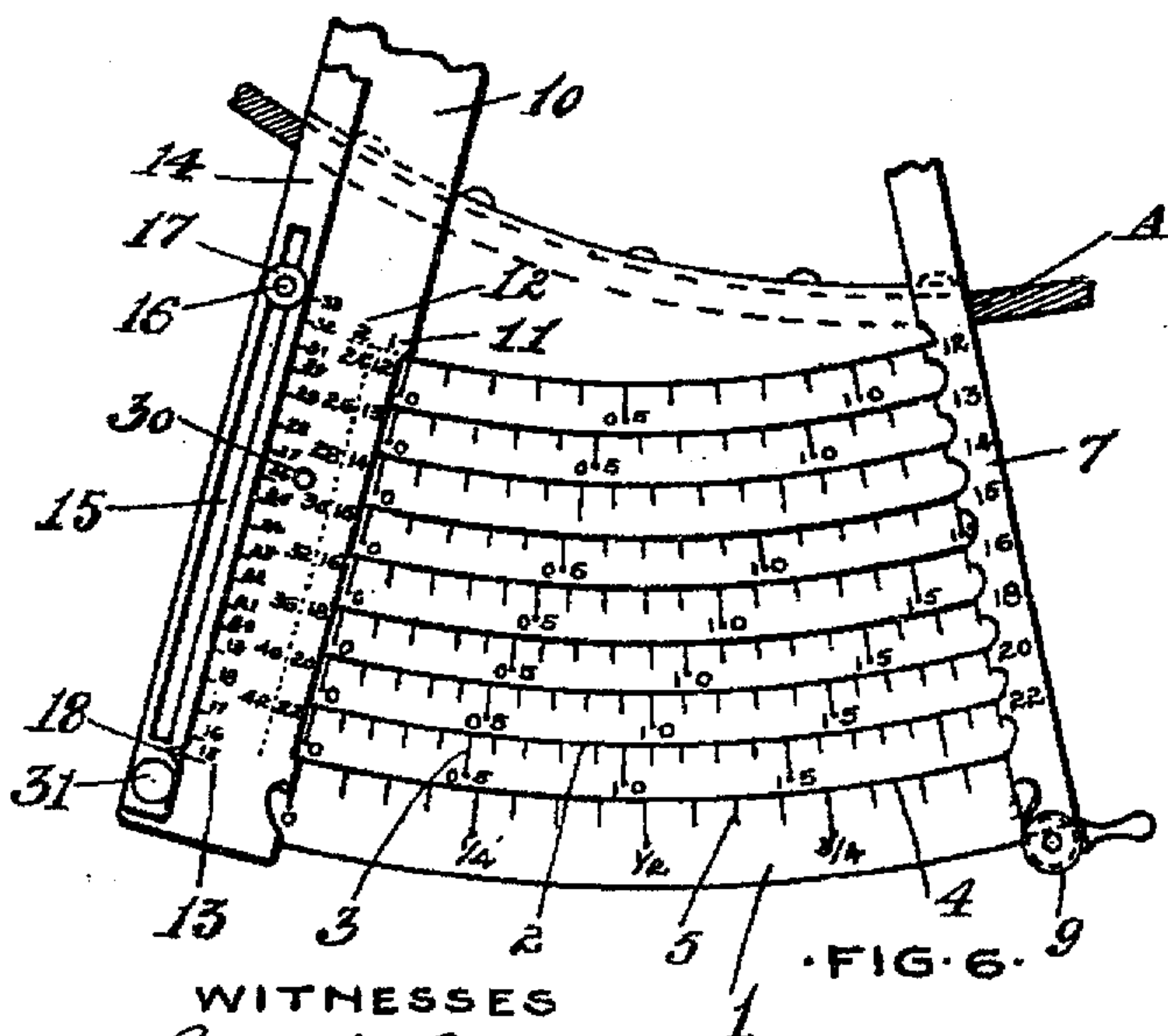


FIG. 6.



FIG. 8.

WITNESSES
Geo. H. George
W. C. Smith

INVENTOR
WALTER F. STIMPSON.

BY

James Whittemore
ATTY.

UNITED STATES PATENT OFFICE.

WALTER F. STIMPSON, OF DETROIT, MICHIGAN.

CHEESE-CUTTER.

No. 828,437.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed September 13, 1904. Serial No. 224,277.

To all whom it may concern:

Be it known that I, WALTER F. STIMPSON, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Cheese-Cutters, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention consists in an improvement in cheese-cutters; and it consists particularly in the construction of a cheese-cutter which has means for moving the cheese in relation to the knife, combined with a price-chart, so
15 that the value of the cheese at any desired price per pound is accurately given at the same time that the proper quantity is moved beneath the knife to be severed from the body of the cheese.

20 The invention further consists in the particular construction of the actuating means for the cheese and the connection between the actuating means and the price-chart, including an indicator which may be set to
25 move across the chart for each movement of the actuating-lever, notwithstanding that the actuating-lever may move different distances.

30 The invention further consists in the construction of a cover and its supporting means, and, further, in the construction, arrangement, and combination of the various parts, as more fully hereinafter described.

35 In the drawings, Figure 1 is a plan of my improved device, various parts being broken away to illustrate the construction of the actuating-lever and price-chart. Fig. 2 is a vertical central longitudinal section, showing the cover and knife in full and dotted
40 lines in different positions. Fig. 3 is an enlarged plan of the outer end of the actuating-lever. Fig. 4 is a cross-section on line 4 4 of Fig. 3. Fig. 5 is a perspective view of the inner end of the indicator-arm, showing the
45 parts by means of which the indicator-arm is connected to the actuating-lever and the means by which the desired adjustment is obtained between the two. Fig. 6 is an enlarged plan of the price-chart. Fig. 7 is a
50 perspective view of the adjustable index adapted to be used in connection with the construction shown in Fig. 6. Fig. 8 is a side elevation of the outer end of the price-chart looking from the right-hand side to
55 illustrate the construction of the clamping

means. Fig. 9 is a plan view of the clutch for connecting the operating-lever to the cheese-plate.

A represents the base, which has the top A'. This top has the central dish-shaped
60 portion B formed within the annular flange B'. The base and the top are preferably cast in a single piece.

C is the cheese-plate, of a size to fit within the flange B'. This cheese-plate has an an-
65 nular groove on its under face, in which is put a ring *a*, preferably of rubber. The cheese-plate rests upon the disk *b*, which has a marginal flange *c*, upon which the rubber ring *a* is adapted to rest. The cheese-plate
70 is provided with the central recess, in which the upwardly-extending hub *d* of the disk *b* is adapted to engage for the purpose of centering the plate and preventing lateral dis-
75 engagement of the plate from the disk. The disk *b* is secured to the vertical shaft D.

D' is a wheel secured to the shaft D below the disk *b* and is provided with a series of inclined notches E, in which are the pawls *d'*,
80 backed by springs *d''*. Surrounding the wheel D' is an annular flange F and a circular plate F'. This plate is secured at its hub portion to an actuating-lever G. The shaft projects below the actuating-lever and
85 through the split sleeve H, which is provided at its sides with the ears H', secured to the bottom face of the portion B of the base. This split sleeve is provided with laterally-
90 projecting lugs *e*, having a clamping-bolt *h* passing therethrough, so that the ring may be clamped to the shaft to produce more or
less frictional resistance to the rotation of the shaft.

I is a ball-race formed beneath the disk *b*, having suitable balls *i* therein upon which
95 the disk is supported.

Without further description it will be obvious that the rocking of the lever G back and forth will rock the plate F' and flange F
100 and, through the pawl-clutch *d'*, will partially rotate the wheel D' in one direction and slide over that plate in the reverse direction without a rotation. The cheese-plate resting with its full weight on the rubber ring
105 *a* on the disk *b* will likewise be rotated partially at each reciprocation of the lever, and likewise the cheese *J* will be moved with the plate, the cheese being supported in the usual manner on top of the cheese-plate. While
110 the disk *b* will be positively driven, the

cheese-plate is driven only because of the frictional contact between the flange *c* and the rubber ring *a*. The object of this is so that under all ordinary circumstances the cheese-plate will be driven forward positively because of its frictional engagement; but if by any chance the cheese is moved farther than desired the operator by grasping the cheese or the cheese-plate can move it backward, in which case the cheese-plate will slide over the disk *b*, the operator simply exerting enough power to overcome the frictional engagement between the two parts.

By having the top *C* a solid plate and employing a cover, which I will hereinafter describe, air is prevented from getting to the cheese either from underneath or from on top.

At the rear of the base is a tubular standard *K*, having a lateral arm *k* at the upper end and provided with suitable sheaves *l*, over which runs a cord *l'*. This cord is connected at one end to the cylindrical cover *L* and at the other end is provided with a counterweight *L'*. This cover I preferably make of glass and provide it at one end with a guide-bracket *m*, sliding in guideways *m'* on the inner face of the standard *K*.

M is a knife of usual construction attached to a bracket *M'* at the rear of the base and within the cover in the closed position thereof, as shown in Fig. 2, the top *A'* being notched beneath the knife, so that the lever may rest below the cover *L*, as shown.

The lever *G* is provided with a suitable handle *n* and is also provided with a scale *o*, which scale represents the weight of the whole cheese before cutting. Slidingly adjustable on the lever is a stop-plate *P*, which may be clamped at any point of adjustment by means of the clamping-nut *P'*, Fig. 4. This stop-plate has an inclined edge *Q*. The lever and the stop-plate work in a slot *Q'* in the base, and by adjusting the stop in or out and clamping it in its adjusted position the amount of throw of the lever in the slot can be varied, the inclined edge *Q* limiting the throw of the plate to the right, and it being obvious that as that plate is adjusted inward there will be a corresponding decrease, and by adjusting it outward the throw of the lever will be increased. 1 is the price-chart, which is mounted on the base *A*, having a series of segmental lines 2 thereon, each of which is provided with an intermediate graduation 3. Below these price-graduations and at the outer edge of the plate is another segmental line 4, having graduations 5, indicating fractions of a pound. In this particular case I have shown the segment-line 4 of a length for one pound and have indicated quarter, half, and three-quarters of a pound and also intermediate fractions between. The graduations 3 are graduations indicating value at different prices per pound. In this case I

have shown graduations in price from twelve to twenty-two cents per pound, skipping seventeen, nineteen, and twenty-one cent marks, which are unusual prices at which to sell cheese. I may mark upon either edge of the plate these prices per pound; but I prefer to make the prices per pound upon the stop-bar 7, which bar is pivoted on the fixed pivot 8 on the base of the cutter and is provided with a clamping-screw 9 to engage the outer edge of the price-plate, so that, if desired, it may be removed to any desired point on the price-chart and there locked by means of the clamping-screw. 10 is an indicator or indicator-bar pivoted, preferably, upon the base 8 and extending through a slot in the pivot over the price-chart. This indicator has marked along one edge the prices per pound, as shown at 11, these prices being arranged opposite the corresponding indication on the price-chart. This column I have headed with the mark "1" to indicate that these are the values of one pound, and beside this column I have arranged a second column, (shown at 12,) marked with the mark "2" to indicate that that is the value of two pounds, or two reciprocations of the lever. I have also arranged beside these two columns a third column of figures, as shown at 13, giving the weights of the cheese corresponding to the marks at *o* on the lever *G*. 14 is an adjusting-bar having a slot 15, through which projects the pin 16, having the clamping-nut 17 at the upper end. This adjusting-bar has the index-point 18, which is designed to be set opposite the figure which indicates the weight of the whole cheese, and in thus setting this bar the connection between the lever *G* and the indicator is also set. This I accomplish by the mechanism shown in detail in Fig. 5, and in Fig. 1. 19 is a link connecting the lever *G* with the indicator 10. This link has engaged with its end the pin 20, which passes through the segmental block 21 and has the squared head 22 at the upper end. The pin is free to rotate or rock in the block 21 and in the link 19. The block 21 slides in a segmental slot 23 in the indicator 10, and the head 22 slides in a straight slot 24 in the offset 25 on the end of the adjusting-bar 14. I have also shown the adjusting-bar as provided with a slot 26, engaging the pins 27, to assist in guiding it accurately in its longitudinal movement. 28 is an index-plate, having a slot 29 engaging the pin 30, Figs. 6 and 7. This index-plate is adapted to be adjusted so as to expose any desired price per pound in the columns 11 and 12, so as to point more accurately to the price at which the cheese is being sold, to assist the operator in more readily following the desired column or series of indications across the price-chart. The operation of this lever and price-chart is as follows: The operator first weighs the cheese and then

places it on the cheese-plate. He then adjusts the plate P to the weight of the cheese, as marked on the lever G. In the drawings it is shown as adjusted to a cheese weighing
 5 twenty pounds, and then locked in position by means of the clamping-nut P'. He then loosens the clamping-nut 17 and taking hold of the small handle 31 slides the adjusting-bar 14 to bring the index 18 opposite the
 10 similar weight indications in the column 13. In this case he would move it opposite the figure "20" in the column 13. In adjusting the bar 14 through the connections described and shown in Fig. 5 the block 21 would be
 15 moved in the slot 23 nearer to the fulcrum or pivot 8 of the indicator, and thus vary the throw of the indicator according as the short arm of the indicator-lever is increased or diminished in length. These parts are so pro-
 20 portioned that after a complete reciprocation of the lever G between its limits of movement at any point of adjustment of the plate P, the adjusting-bar 14 being adjusted to the corresponding weight indication, that the indi-
 25 cator 10 will be moved completely across the price-chart for each complete reciprocation of the operating-lever. For instance, supposing the cheese was a twenty-pound cheese and the plate P was adjusted opposite
 30 the mark "20" and the adjusting-bar 14 had its index opposite the figure "20" and the index-plate 28 was adjusted opposite the columns 11 and 12 to expose the figures "20" and "40" just beneath its lower edge, if
 35 the customer desired a pound of cheese the operator would lift the case, raise the knife to the position shown in dotted lines, and then move the lever G from its left-hand limit of movement to its right-hand limit of move-
 40 ment, which movement would throw the link 19, carrying the indicator 10, clear across the price-chart, and there would be indicated the figure "20" as the price of the cheese. If the purchaser desired only three-
 45 fourths of a pound, the operator would move the lever G until the indicator 10 registered with the figure " $\frac{3}{4}$ " on the lower indication on the price-plate, at which point the indicator would register with the figure "15" in the
 50 row of indications opposite the price "20," and the salesman would thus have indicated before him not only the weight, but the price to be charged for the cheese which the knife would cut off. In case the purchaser desired
 55 two pounds of cheese two reciprocations would be made, and the price would be indicated in the column 12 at forty cents. The salesman might operate in another way, and that is to release the adjusting-screw 9 of the
 60 bar 7 and move that bar across the price-chart to the desired point—say, for instance, to the figure " $\frac{1}{4}$ "—and then lock the bar in position. Then upon operating the lever D it would move until the indicator 10 struck
 65 the bar 7, which would thus act as a stop for

the operating-lever and the indicator at intermediate points on the price-chart and give the value of the weight with great exactness at any price per pound.

What I claim as my invention is—

1. In a cheese-cutter, the combination of the knife, means for giving the cheese a partial rotation in relation to the knife, a price-scale for different prices per pound, an indicator operated by the cheese-actuating
 75 means for indicating on said price-scale the value of the cheese to be cut by the knife, means of varying the limit of throw of said cheese-actuating means, and means for syn-
 80 chronizing said indicator with said cheese-actuating means.

2. In a cheese-cutter, the combination of a knife, a cheese-plate, a lever for giving the cheese-plate a partial rotation in relation to the knife, means for varying the limit of
 85 throw of said lever, a price-chart, an indicator operated by the lever to register upon said chart, and means for adjusting the movement of the indicator to synchronize with the throw of the lever at its different adjust-
 90 ments.

3. In a cheese-cutter, the combination of a knife, a cheese-plate, a lever for giving the cheese-plate a partial rotation in relation to the knife, means for adjusting said lever to
 95 varying distances of throw, a chart giving the price of a cut of cheese at different prices per pound, an indicator registering upon said chart operated by the cheese-operating means, and means for causing said indicator
 100 to move a uniform distance at the various adjustments of said lever.

4. In a cheese-cutter, the combination of a knife, means for giving the cheese a partial rotation in relation to the knife, means for
 105 varying the limit of movement of said cheese-operating means, a price-chart, an indicator adapted to move across said chart, and operated by the cheese-operating means, and an adjustable connection between the cheese-
 110 operating means and the indicator, whereby said indicator may have a constant distance of travel for every complete throw of the cheese-operating means at any adjustment thereof.
 115

5. In a cheese-cutter, the combination of a knife, a cheese-plate, a cheese-plate-operating lever adjustable for different degrees of movement in relation to said knife, a price-
 120 chart, an indicator therefor and a connection between said lever and said indicator adapted to give a constant movement of the price-indicator for varying degrees of throw of the lever.

6. In a cheese-cutter, a knife, a cheese-
 125 plate, a cheese-plate-operating lever, means for varying the limit of throw of the lever in relation to the knife, a price-chart, an indicator, and connections between the lever and indicator whereby the price of the piece
 130

to be cut off will be pointed out by the indicator on the price-chart at any price per pound for various weights of cheese.

7. In a cheese-cutter, a knife, a cheese-plate, a cheese-plate-operating lever for giving the cheese partial rotary movement in relation to the knife, a segmental price-plate, an indicator moved across the price-plate by the lever, an adjustable connection between the lever and indicator, and a radially-arranged adjustable stop-bar and means for securing it at different points on the price-plate, for the purpose described.

8. In a cheese-cutter the combination of a frame and knife with a cheese-table, an operating-handle to rotate the same and operate the indicator, a section-indicator having a movable part, and a connection between the handle and the movable indicator part adjustable to vary their relative motions.

9. In a cheese-cutter the combination of a frame and knife with a cheese-table, an operating-handle to rotate the same and operate the indicator, a section-indicator having a movable part, and a connection between the handle and movable indicator part, such connection pivoted to one part at a definite place and to the other by a movable pivot.

10. In a cheese-cutter the combination of a frame and knife with a cheese-table, an operating-handle to rotate the same and operate the indicator, a section-indicator having a movable part, pivoted at one point, and a connection between the handle and the movable indicator part, such connection pivoted to the handle at a definite place and to the movable part by a movable pivot.

11. In a cheese-cutter the combination of

a frame and knife with a cheese-table, an operating-handle to rotate the same and operate the indicator, a section-indicator having a movable part, a connection between the handle and the movable indicator part adjustable to vary their relative motions, and a cheese total-weight indicator with an adjustable part and a connection therefrom to the first connecting part.

12. In a cheese-cutter the combination of a frame and knife with a cheese-table, an operating-handle to rotate the same and operate the indicator, a section-indicator having a movable part, a connection between the handle and the movable indicator part, such connection pivoted to one part at a definite place and to the other by a movable pivot, and a cheese total-weight indicator with an adjustable part and a connection therefrom to the first connecting part.

13. In a cheese-cutter the combination of a frame and knife with a cheese-table, an operating-handle to rotate the same and operate the indicator, a section-indicator having a movable part pivoted at one point, a connection between the handle and the movable indicator part, such connection pivoted to the handle at a definite place and to the movable part by a movable pivot, and a cheese total-weight indicator with an adjustable part and a connection therefrom to the first connecting part.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER F. STIMPSON.

Witnesses:

GEO. W. GRAVES,
H. C. SMITH.