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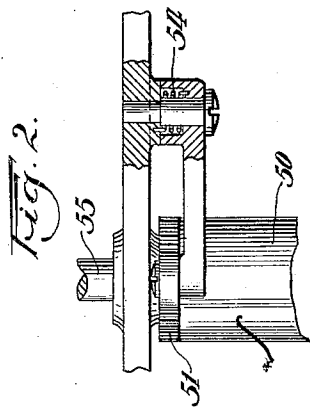
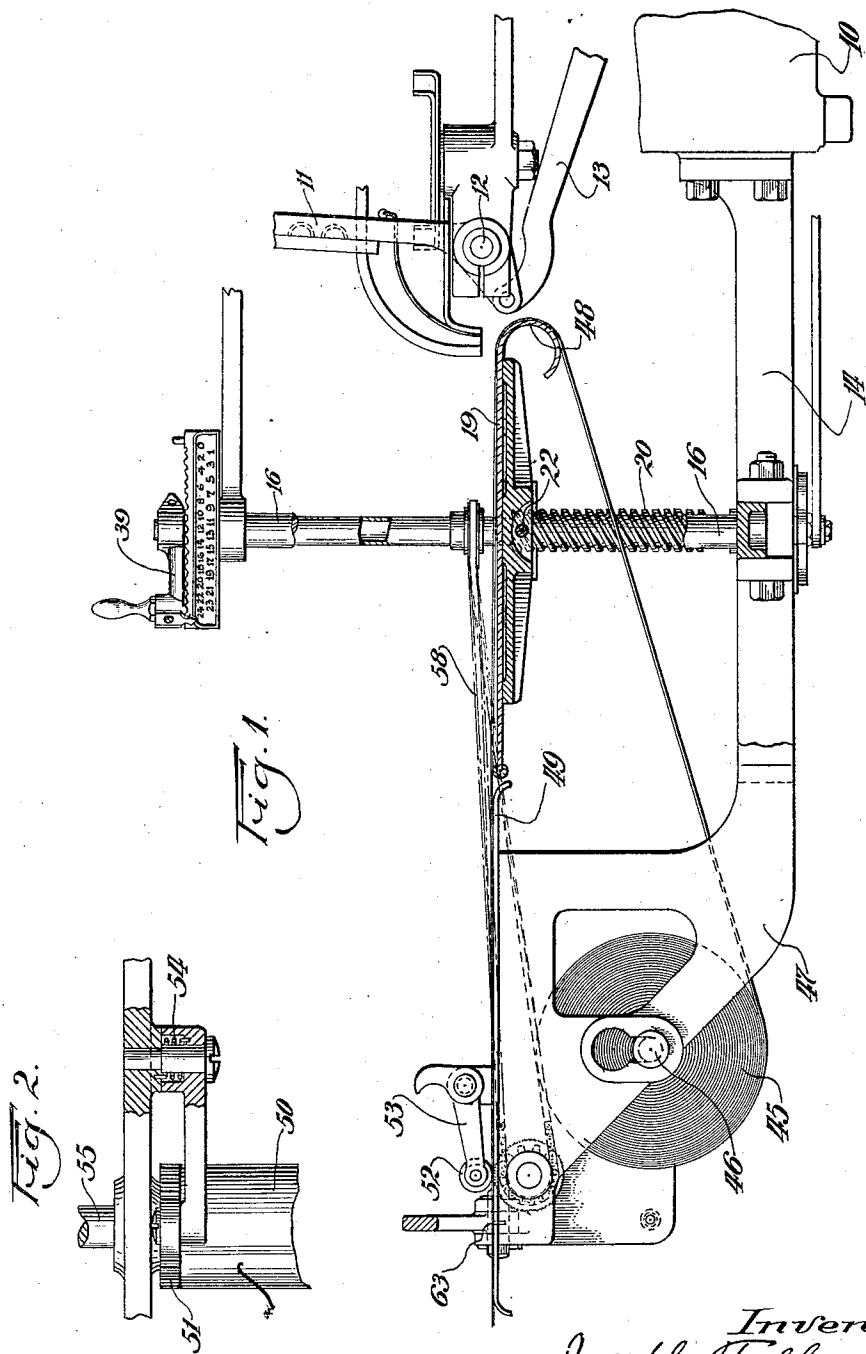
1,525,929

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SLICE RECEIVER FOR SLICING MACHINES

Filed June 23, 1922

4 Sheets-Sheet 1



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By Nissen & Crane Attys

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SLICE RECEIVER FOR SLICING MACHINES

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4 Sheets-Sheet 2

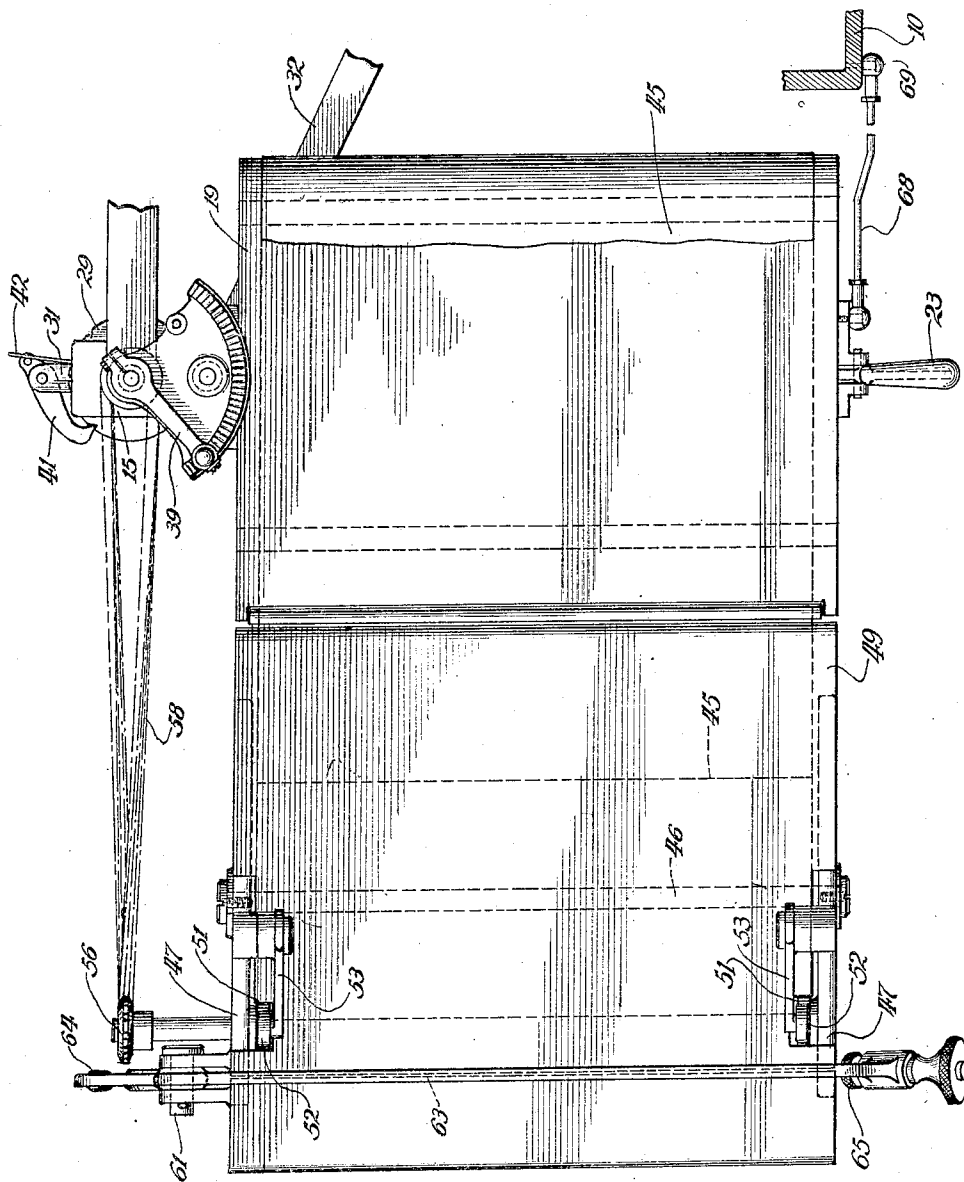


Fig. 3.

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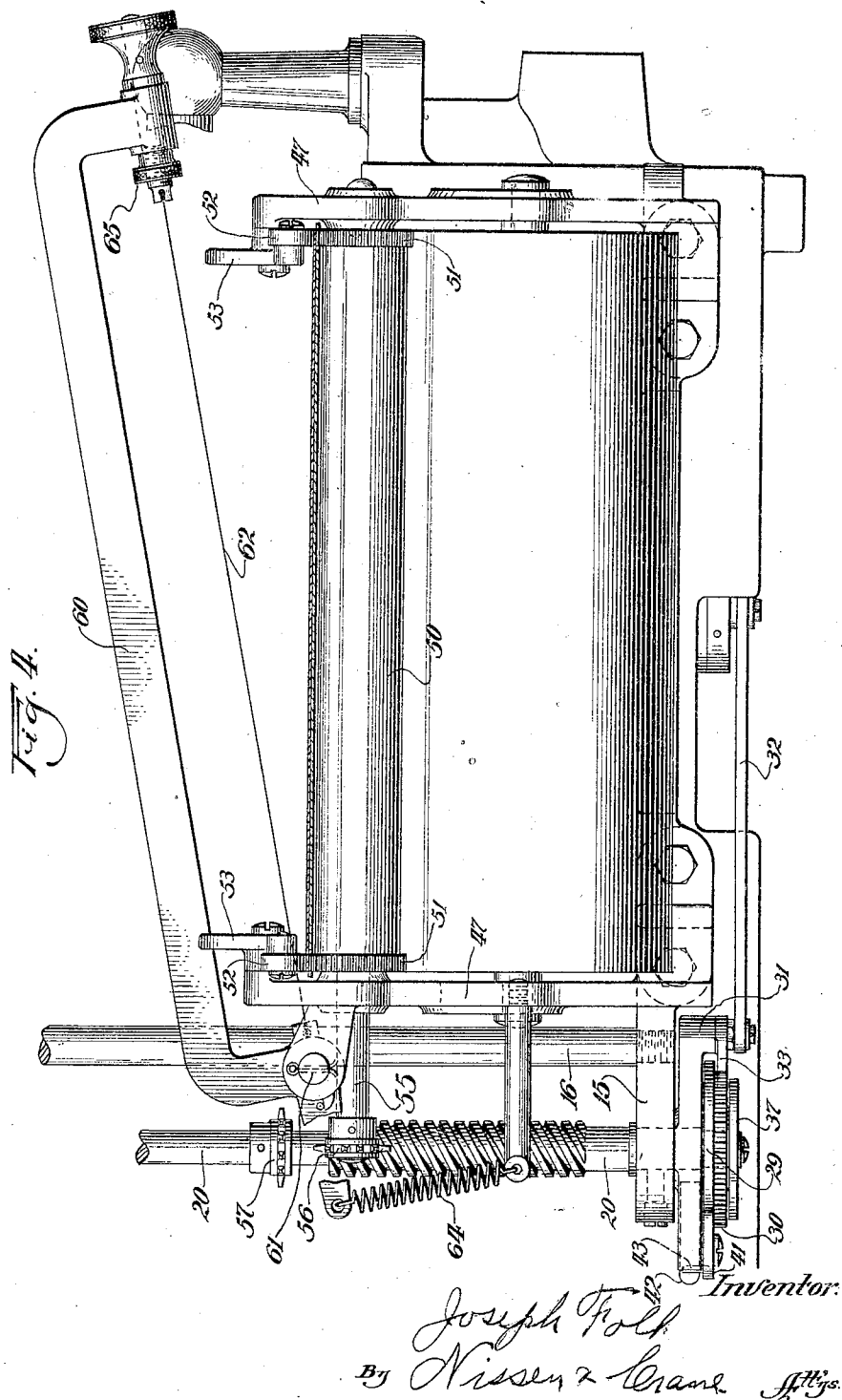
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SLICE RECEIVER FOR SLICING MACHINES

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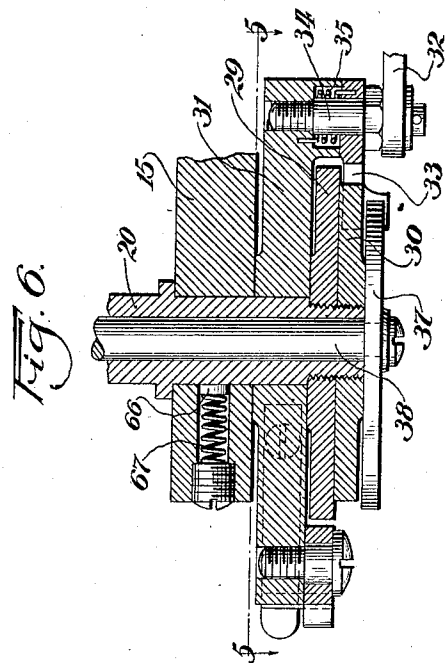
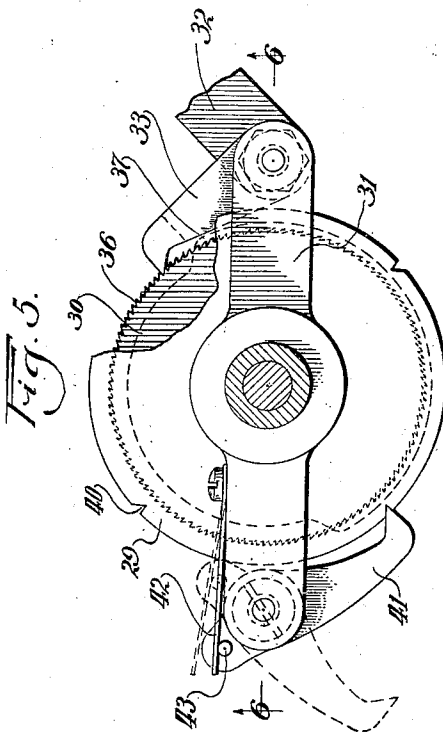
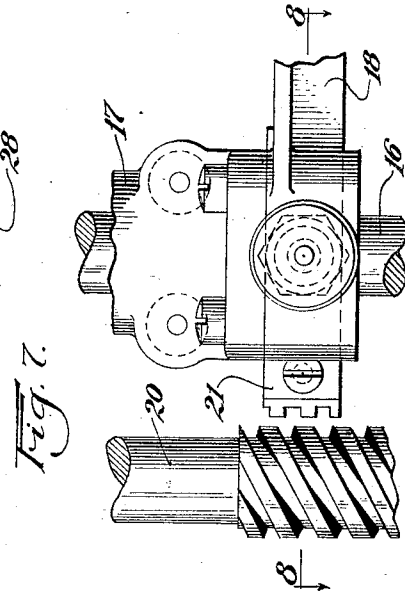
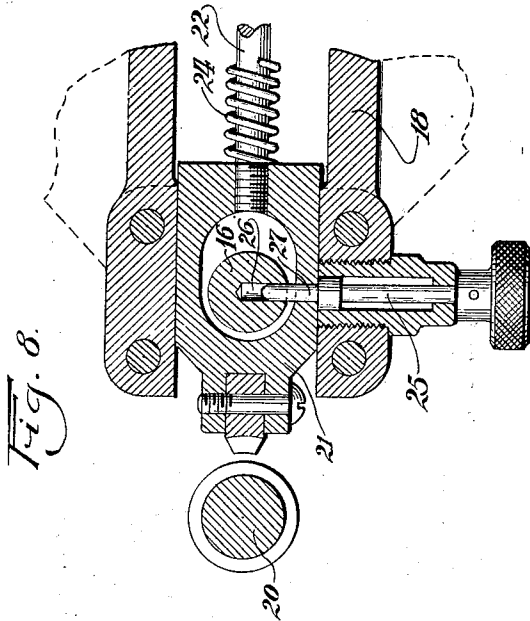
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SLICE RECEIVER FOR SLICING MACHINES

Filed June 23, 1922

4 Sheets-Sheet 4



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Patented Feb. 10, 1925.

1,525,929

UNITED STATES PATENT OFFICE.

JOSEPH FOLK, OF LAPORTE, INDIANA, ASSIGNOR TO U. S. SLICING MACHINE COMPANY, OF LAPORTE, INDIANA, A CORPORATION OF INDIANA.

SLICE RECEIVER FOR SLICING MACHINES.

Application filed June 23, 1922, Serial No. 570,363.

To all whom it may concern:

Be it known that I, JOSEPH FOLK, a citizen of the United States, residing at Laporte, in the county of Laporte and State of Indiana, have invented certain new and useful Improvements in Slice Receivers for Slicing Machines, of which the following is a specification.

This invention relates to a receiving table upon which slices are deposited as they are formed by a slicing machine, and it has for its object the provision of such a table which may be operated to arrange the slices in various relations to one another, and which shall be of improved construction and convenient and efficient in operation.

The invention is exemplified in the combination and arrangement of parts shown in the accompanying drawings and described in the following specification, and it is more particularly pointed out in the appended claims.

In the drawings,—

Fig. 1 is a side elevation of one embodiment of the invention, having parts shown in section.

Fig. 2 is a detail of one of the features shown in Fig. 1.

Fig. 3 is a top plan view of the slice receiver shown in Fig. 1.

Fig. 4 is a front elevation of the receiver shown in Fig. 1, with parts in section.

Fig. 5 is a plan section on line 5—5 of Fig. 6, showing the ratchet mechanism comprised in the invention.

Fig. 6 is a vertical section on line 6—6 of Fig. 5.

Fig. 7 is a fragmentary elevation of one feature of the invention.

Fig. 8 is a horizontal section on line 8—8 of Fig. 7.

The present invention is especially applicable for receiving slices from a machine which deposits the slices broad side down on a receiving table. One such machine is shown in Patent No. 1,376,775, granted May 3, 1921.

In the drawings, the numeral 10 designates the frame of a slicing machine of any approved construction, having a reciprocating fly 11 for discharging slices therefrom in the manner described in the patent referred to above. The fly 11 is pivoted at 12 on the frame of the machine and is operated by a link 13. A pair of bracket

bars 14 are secured to the frame 10 and project forwardly therefrom. The bracket bars 14 are connected by a transverse bar 15, having a standard 16 mounted thereon. A runner 17 (Fig. 7) is mounted for vertical movement along the standard 16 and carries a horizontal bar 18, having a table 19 mounted thereon in the manner explained in the patent mentioned above. A threaded shaft 20 is arranged adjacent the upright 16 and extends parallel therewith. A sliding toothed member or half-nut 21 is connected with the runner 17 in position to engage the threads on the shaft 20. A rod 22 connects the half-nut 21 with a hand lever 23, by which the half-nut may be disengaged from the shaft 20 to permit movement of the table 19 vertically along the standard 16. A spring 24 normally presses the half-nut into mesh with the threads on the shaft 20. A plunger 25 (Fig. 8) is slidably connected with the bar 18 below the runner 17 and may be moved into and out of engagement with the opening 26 in the standard 16. To enter the opening 26 the plunger 25 must be projected through an opening 27 in the sliding half-nut 21. When the plunger is in the position shown in Fig. 8 the half-nut will be locked in its retracted position, and the bar 18 with the table thereon will be held against movement along the standard 16. The opening 26 is arranged at the uppermost position of the table 19, so that the plunger 25 may be used for locking the table in its uppermost position and for holding the half-nut out of engagement with the screw shaft 20 at this position. A knob or finger-piece 28 is connected with the plunger 25 for moving it into and out of its holding position.

The shaft 20 is journaled in the lower end of the bar 15, as shown in Fig. 6, and carries a pair of ratchet wheels 29 and 30 fixed on the lower end thereof. An arm 31 is pivoted on the shaft 20 above the ratchet wheels 29 and is connected by a link 32 with operating mechanism on the slicing machine, as described in the patent referred to. A pawl 33 is journaled on a pivot screw 34, which connects the arm 31 and the link 32, and a spring 35 normally presses the pawl 33 into engagement with teeth 36 on the ratchet wheel 30. Each movement of the pawl 33 will thus impart a slight rotary

movement to the ratchet wheel 30 and consequently to the shaft 20. The amount of this movement is controlled by a shroud or cam 37 carried by a shaft 38 extending centrally through the shaft 20 and adjustable by means of a lever 39 at the top of the shaft, Fig. 1. The disc 29 is provided with spaced notches 40 upon its periphery, which cooperate with a dog 41 carried on the arm 31 opposite the dog 32. A flat spring 42 engages a pin 43 on the dog 41 and presses the nose of the dog against the disc 29 when the dog is in the full line position shown in Fig. 5. The dog 41 is movable into inoperative position shown in broken lines in that figure and when thus moved it is held out of engagement with the ratchet 29 by the spring 42. When the dog 41 is in its operative position the shaft 20 will be rotated in short steps by the dog 32 until one of the notches 40 comes to a position adjacent the nose of the dog 41. The next oscillation of the arm 31 will cause the dog 41 to rotate the shaft 20 an amount corresponding to the full movement of the arm 31. In this way the shaft 20 may be rotated in short steps which are interspersed periodically by longer movements. The shaft may be used for feeding the table 19 in the manner described in the patent referred to. This operation is produced when the dog 41 is moved to its inoperative position, the plunger 25 is out of engagement with upright 16, and the half-nut 21 is permitted to engage the screw 20. When thus operated, the slices will be piled in a single stack upon the table 19.

A different arrangement of the slices may be secured by sliding a paper 45 horizontally across the table 19. A roll of paper 45 is carried on a bar 46 supported by an extension 47 of the bracket members 14. The paper strip extends rearwardly from the roll 45 about a rounded edge 48 of the table 19 and thence forwardly across the top of the table and also across the top of the plate 49, which is arranged substantially in the plane of the table 19 when that table is in its uppermost position. Adjacent the forward end of the plate 49 a roller 50 is journaled in the frame 47 and is provided with corrugated ends 51, which engage the lower face of the paper at opposite edges thereof. The paper is pressed downwardly upon the corrugated ends 51 by rollers 52 carried on arms 53 and pressed against the roller 50 by springs 54. The rollers 50 are secured to a shaft 55, which carries a sprocket wheel 56, as shown in Fig. 4. A second sprocket wheel 57 is secured to the shaft 20 above the threaded portion thereof and a sprocket chain 58 connects the two sprocket wheels. Since the sprocket wheels are in planes at right angles to one another the chain 58 will be given a quarter turn,

but the parts move slowly and it has been found in practice that no difficulty is experienced in operating the chain in this position. It will be seen that rotation of the shaft 20 by the ratchet mechanism described will impart rotation to the shaft and consequently will feed the paper 45 forwardly over the tables 19 and 49 with a step by step movement in timed relation with the rotation of the shaft 20. Since this shaft is rotated after the deposit of each slice upon the table, it will be seen that the paper 45 will be moved horizontally over the table after each slice is deposited thereon and the amount of such movement may be controlled by the handle 39 and the cam 37. In this way the slices will be arranged upon the paper in overlapping relation to one another, which is an arrangement desired by the trade for the reason that it produces an attractive appearance and permits each slice to be seen by the customer. It will be understood that during this operation the plunger 25 will be in the position shown in Fig. 8, to hold the table 19 in its uppermost position and prevent downward movement thereof by the screw 20. The slices may be arranged upon the paper 45 in a continuous series of overlapping positions. It is sometimes desirable, however, to separate the slices into groups to be wrapped in packages. To do this the dog 41 will be moved to its operating position which will then periodically impart an extended movement to the shaft 20 and consequently to the roller 50 through the sprocket chain 58. The number of slices in a group will depend upon the spacing imparted to the slices by the dog 32 and upon the number of notches in the ratchet 29. The groups of slices thus formed may be separated from one another by severing the paper between the groups. For this purpose a frame 60 is pivoted at 61 adjacent the forward end of the plate 49 and carries a wire 62 in position to enter a slot 63 formed in the plate 49. When the wire 62 is moved downwardly into the slot 63 it severs the paper positioned above the slot. A spring 64 normally holds the frame 60 in its uppermost position and a tension nut 65 is employed for regulating the tension in the wire 62. In order to prevent overthrow of the parts driven by the screw 20 and to hold the screw against backward movement a friction shoe 66 may be pressed against the surface of the shaft 20 by the spring 67, as shown in Fig. 6. The end of the cross-bar 18 is guided in its vertical movement by a radius rod 68 pivoted to the frame of the machine at 69, as shown in Fig. 3.

I claim:

1. In combination, mechanism for periodically depositing slices of meat, means for supporting a sheet of thin material in position to receive such slices, and means for

moving said sheet independently of said support to move said slices relative to said support.

2. The combination with mechanism for periodically depositing slices, of a stationary support for receiving said slices, and means for moving a sheet of wrapping material relative to said support to change the position of slices deposited upon said support.

3. The combination with mechanism for periodically depositing slices broad side down upon a support, of means for moving a sheet of wrapping material across the face of said support while said support remains stationary.

4. The combination with a stationary support, of means for periodically depositing slices upon said support, means for directing a sheet of wrapping material across the top of said support, and means for exerting tension on said sheet to shift the position of slices deposited thereon.

5. The combination with a support, of means for directing a sheet of wrapping material across the face of said support, means for periodically depositing slices upon said wrapping material, and mechanism for periodically exerting tension on said wrapping material to impart intermittent movement to said wrapping material in timed relation to deposit slices thereon.

6. The combination with a support, of mechanism for periodically depositing articles upon said support, means for directing a sheet of thin material across the face of said support, and means for periodically exerting tension on said material to impart intermittent motion thereto and cause the articles to assume an offset relation relative to one another as they are deposited thereon.

7. The combination with a slicing machine, of a discharge device for periodically discharging slices flat side down therefrom, a table for receiving said slices, means for directing a sheet of wrapping material across the surface of said table, mechanism for imparting step-by-step movement to said wrapping material to cause the slices deposited thereon to assume an offset relation relative to one another, and means for imparting an extended movement to said wrapping material at greater periods than those of the movement first mentioned for the purpose of separating the slices into groups.

8. The combination with mechanism for periodically discharging slices, of a receiving means for said slices, and mechanism for alternatively imparting periodic horizontal rectilinear movement or periodic vertical movement to said receiving means.

9. The combination with mechanism for periodically depositing slices, of a receiver for said slices, means for imparting vertical movement to said receiver, means for directing a sheet of thin material across the top

of said receiver, and means for imparting horizontal movement to said material.

10. The combination with a slicing machine having periodically operating discharge mechanism, of a vertically movable table for receiving slices, means for holding said table against vertical movement, and means for moving a sheet of thin material across the top of said table.

11. The combination with slice discharging mechanism, of a table for receiving slices therefrom, means for imparting vertical movement to said table to permit slices to be arranged in stack formation thereon, means for holding said table against vertical movement, and mechanism for moving a sheet of thin material across the top of said table in timed relation to the operation of said slice discharging mechanism to cause the slices deposited on said sheet to be arranged in offset relation relatively to one another.

12. The combination with a slice receiving table, of an upright screw for feeding said table in a vertical direction, means for holding said table against vertical movement, means for directing a sheet of wrapping material across the top of said table when so held, and mechanism for imparting intermittent movement to said sheet to cause slices deposited thereon to be arranged in offset relation to one another.

13. The combination with a periodically operating slice discharging device, of a table for receiving slices therefrom, an upright screw for feeding said table in a vertical direction to permit slices to be arranged in stack formation thereon, means for holding said table against vertical movement while permitting rotation of said screw, and means actuated by said screw for periodically moving a sheet of wrapping material across the top of said table to cause slices deposited thereon to be arranged in offset relation to one another.

14. The combination with a receiving table, of mechanism for depositing articles on said table, means for drawing a sheet of wrapping material along the top of said table while said table remains stationary, and a severing device for dividing said sheet into detached portions.

15. The combination with a slice depositing device, of a table for receiving slices therefrom, a roller for engaging a sheet of wrapping material supported on said table, and means for driving said roller to draw said sheet along the top of said table to move the slices deposited thereon.

16. The combination with a periodically operating slice depositing device, of a table for receiving slices from said depositor, means for supplying a strip of wrapping material to the surface of said table, a pair of rollers for gripping said wrapping ma-

terial adjacent the edge thereof, and means for periodically actuating said rollers to impart intermittent movement to said wrapping material and cause the slices deposited thereon to be arranged in offset relation to one another.

17. The combination with a slice receiving table, of means for supplying a sheet of wrapping material to the surface of said table, rollers for feeding said wrapping material relative to said table, a pair of ratchet wheels for driving said rollers, and mechanism for operating said ratchet wheels at different intervals.

18. The combination with a slice receiv-

ing table, of means for supplying a sheet of wrapping material to the surface of said table, rollers for feeding said wrapping material relative to said table, a pair of ratchet wheels for driving said rollers, said ratchet wheels having differently spaced teeth, a pair of pawls for engaging said teeth, and means for operating said pawls in timed relation with the operation of said slice depositor.

In testimony whereof I have signed my name to this specification on this 20th day of June, A. D. 1922.

JOSEPH FOLK.