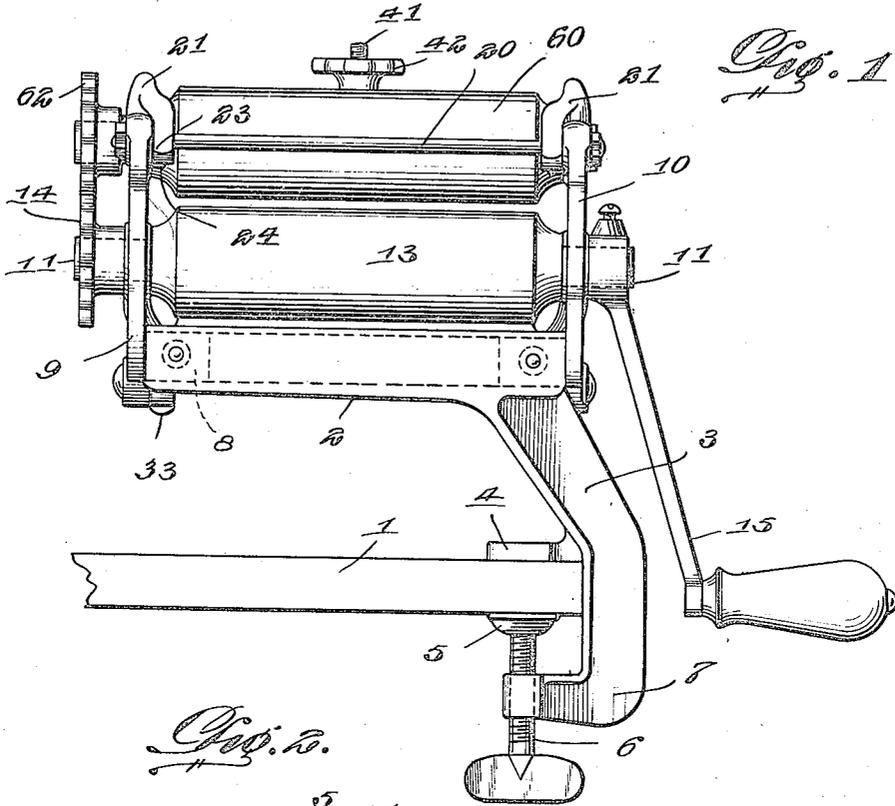


L. DE VITO.  
MACHINE FOR MAKING FLAT MACARONI.  
APPLICATION FILED MAY 20, 1919.

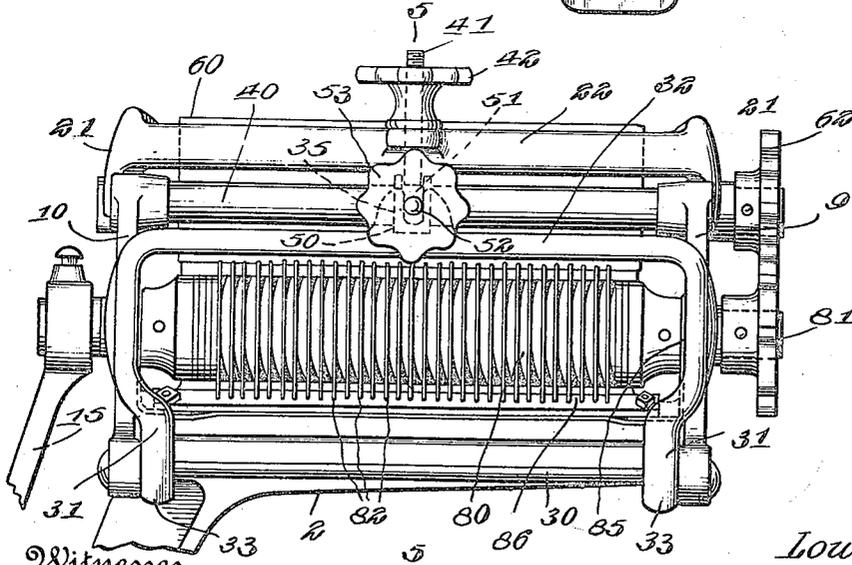
1,332,435.

Patented Mar. 2, 1920.  
2 SHEETS—SHEET 1.



*Fig. 1.*

*Fig. 2.*



Witnesses

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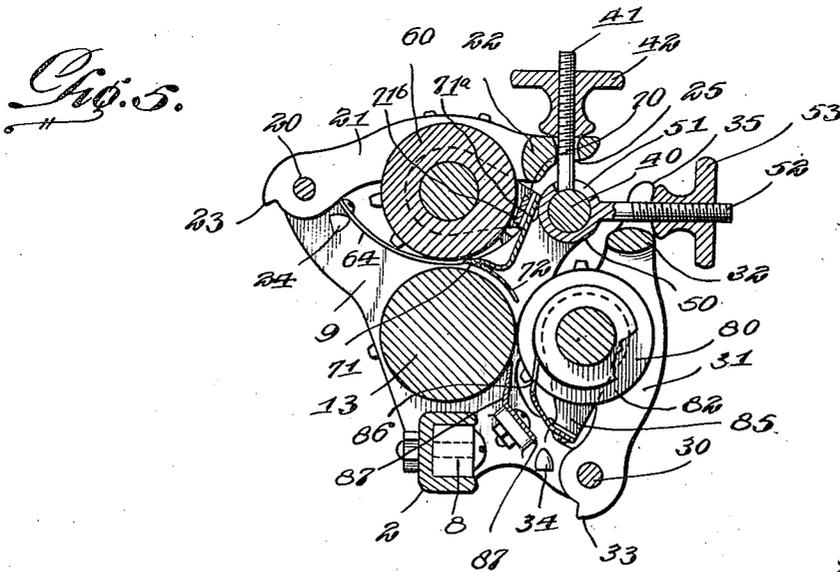
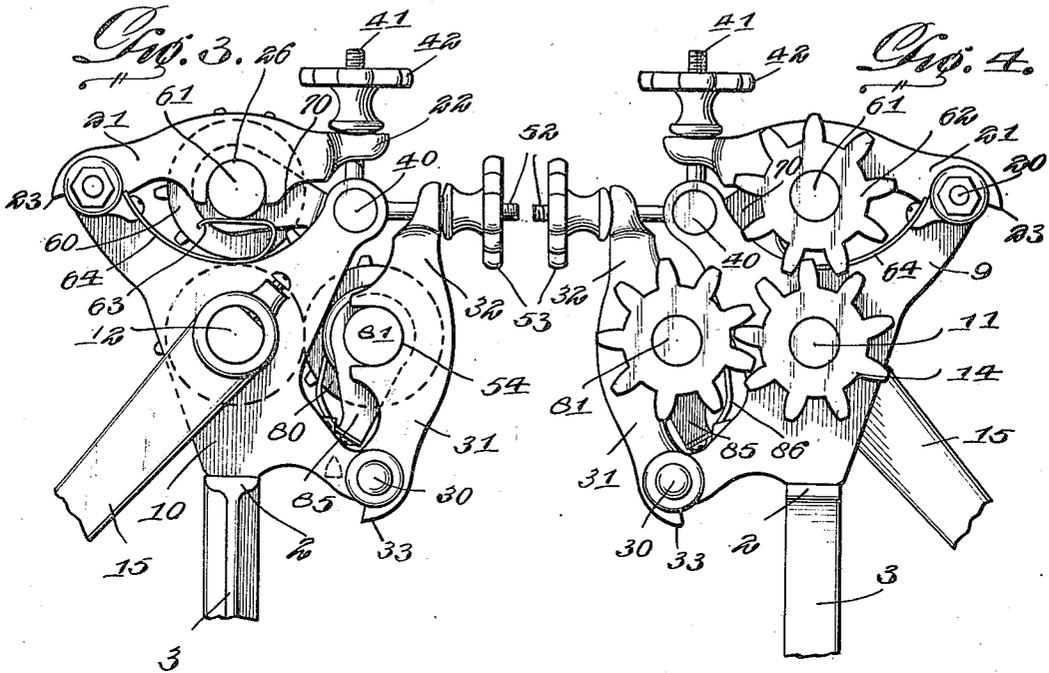
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

LOUIS DE VITO, OF CLEVELAND, OHIO.

MACHINE FOR MAKING FLAT MACARONI.

1,332,435.

Specification of Letters Patent.

Patented Mar. 2, 1920.

Application filed May 20, 1919. Serial No. 298,353.

*To all whom it may concern:*

Be it known that I, LOUIS DE VITO, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Machines for Making Flat Macaroni, of which the following is a specification.

The object of my present invention is the provision of an efficient machine for making flat or ribbon-like macaroni.

To the attainment of the foregoing, the invention consists in the peculiar and advantageous machine and novel combinations thereof as hereinafter described and definitely claimed.

In the accompanying drawings, hereby made a part hereof:

Figure 1 is a rear elevation of the machine constituting the best practical embodiment of my invention of which I am cognizant.

Fig. 2 is a front elevation of the machine.

Figs. 3 and 4 are elevations of the ends of the machine.

Fig. 5 is a transverse section taken in the plane indicated by the line 5—5 of Fig. 2.

Similar numerals of reference designate corresponding parts in all of the views of the drawings.

The present embodiment of my invention is designed to be clamped to and supported on a table top 1, and the body bar 2 of the machine is therefore provided adjacent to one of its ends with a depending arm 3, Fig. 1, having at 4 a lateral clamp member to which is opposed an adjustable clamp member 5, carried by an adjusting screw 6 that is threaded through a lateral portion 7 of the arm 3. The said depending arm 3 is preferably integral with the body bar 2, and the body bar is designed to be disposed horizontally and is of channel form in cross-section, as will be understood by comparison of Figs. 1 and 5.

Arranged in the end portions of the body bar 2, and secured thereto by bolts and nuts or other suitable means, are lateral inwardly-extending lugs 8 on end frame members 9 and 10.

Journalled in the frame members 9 and 10 are the trunnions 11 and 12 of a roll 13, preferably of steel, and on the trunnion 11 is fixed a spur gear 14, while the trunnion 12 has fixed thereto a hand crank 15.

Carried by and extending between the upper rear portions of the end frame members

9 and 10 is a rod 20, and mounted to swing on the said rod 20 are the end arms 21 of an upper locking member 22; the said arms 21 being provided with extensions 23, designed to bring up against lugs 24 on the members 9 and 10, with a view to limiting the opening movement of the locking member. In the central portion of the forward bar of the locking member 22 is a vertically disposed aperture, Fig. 5, and in the under sides of the arms 21 are bifurcations 26, Fig. 3.

In the lower forward portions of the end frame members 9 and 10 is carried a rod 30, and mounted to swing on the said rod 30 are the end arms 31 of a front locking member 32; the arms 31 having extensions 33 to bring up against stops 34 for the purpose of limiting the opening movement of the locking member 32, and the cross-bar of said locking member 32 having at an intermediate point in its length a bifurcation 35, Fig. 5.

Supported in the upper forward portions of the frame members 9 and 10 is a transverse rock-shaft 40 on the central portion of which is an upstanding threaded stem 41 that is designed to be received in the aperture 25 of the upper locking member 22, and is equipped with a nut 42.

Mounted upon the rock-shaft 40 and capable of turning about the axis thereof, is a sleeve 50 in which is a slot 51 to enable the sleeve to play or rock, irrespective of the stem 41, the stem 41 being received in the slot 51, as clearly appears in Fig. 5. On the sleeve 50 is a threaded stem 52, designed to be positioned in the bifurcation 35 of the locking member 32, and equipped with a nut 53. In common with the upper locking member 22, the lower and forward locking member 32 is provided in the inner edges of its arms 31 with bifurcations; the said bifurcations being numbered 54, and being best shown in Fig. 3.

At 60 is a roll, preferably, though not necessarily, of wood, and designed to cooperate with the roll 13 in reducing a mass of dough to a flat form of the thickness desired. The said roll 60 is provided with trunnions 61, designed to be disposed in the bifurcations 26 of the locking member 22. One of the said trunnions 61 is provided with a spur gear 62, Fig. 4, intermeshed with the spur gear 14, so that the roll 60 will derive motion from the lower roll 13.

As clearly appears in Figs. 3 and 5, the trunnions 61 of the roll 60 are superimposed upon the reversely arranged terminals 63 of springs 64. By virtue of this provision, it will be manifest that when the nut 42 is turned downwardly to press the roll 60 toward the roll 13, the springs 64 will be tensioned, and consequently when the nut 42 is turned upwardly, the springs will cause the roll 60 and the locking member 22 to follow the upward movement of the nut. From this it follows that the roll 60 may be nicely adjusted and positioned to determine the thickness of the layer of dough that is formed between the rolls 60 and 13.

Mounted on the trunnions 61 of the roll 60 are the arms 70 of a scraper 71 that is opposed to the perimeter of said roll 60, with a view to taking the layer of dough off the same. The scraper 71 is connected by bolts 71<sup>a</sup> to intumed portions on the arms 70, and the said bolts 71<sup>a</sup> also serve for the connection of a backing strip 71<sup>b</sup> that is interposed between the arms 70, and is arranged back of the scraper 71, with a view to lending increased stiffness and strength to the scraper 71. The said scraper 71 is peculiar in that its portion that is opposed to the perimeter of the rolls 60 is merged into a curvilinear guide 72 that is opposed in spaced relation to the perimeter of the roll 13 so as to cause the layer of dough taken off the roll 60 to follow the roll 13 and pass between said roll 13 and the rolling cutter 80. Said rolling cutter 80 has trunnions 81 at its ends, and also has spaced cutting disks 82. The trunnions 81 are removably arranged in the bifurcations 54 of the lower and forward locking members 32, and consequently the said rolling cutter 80 may be expeditiously and easily removed and as readily replaced with a rolling cutter, the disks 82 of which are arranged at a greater or less distance apart according to the width of the macaroni sections that it is desired to produce. Mounted on the trunnions 81 of the rolling cutter 80, Fig. 5, are the arms 85 of a scraper 86, of comb formation, which is designed and adapted to prevent the cut strips of macaroni from adhering to the rolling cutter. The said comb-like scraper 86 serves in conjunction with a scraper 87 carried by the end members 9 and 10 and opposed to the perimeter of the roll 13, to form a throat through which the strips of macaroni may pass to a receptacle placed for their reception.

In the practical operation of my novel machine, the dough is fed forwardly between the rolls 60 and 13, the nut 42 being adjusted to regulate the thickness of the layer of dough. The said layer is removed by the scraper 71 from the roll 60 and is guided by the guide 72 between the roll 13, on the one hand, and the rolling cutter 80 on the other, after which the strips of macaroni are dis-

charged through the throat formed between the comb-like scraper 85 and the scraper 87. Manifestly when the nut 53 is loosened, and the stem 52 is swung upwardly to release the upper portion of the locking member 32, the rolling cutter may be readily removed to give place to another rolling cutter having spaces of greater or less width between their disks 82 as occasion demands.

It will further be apparent from the foregoing that notwithstanding its efficiency and the facility with which it may be adjusted to bring about the best results, my novel machine is compact and simple in construction, is susceptible of being easily operated by unskilled labor, and is free of delicate parts such as are likely to get out of order after a short period of use.

While I have illustrated a crank for the manual operation of my novel machine, it is to be understood that power means may be employed for driving the roll 13; the power means of course being employed when the machine is made large in size.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. In a dough-rolling and cutting machine, a frame, a roll journaled therein and equipped at one end with a spur gear, locking members hingedly connected with the frame; one of said members having an aperture and the other having a bifurcation, a transverse rod carried by the frame and having a threaded stem extending through the aperture in one locking member, a sleeve capable of turning about said rod and having a slot receiving the threaded stem and also having a threaded stem adapted for arrangement in the bifurcation of the other locking member, nuts mounted on said stems at the outer sides of the locking member, a roll interposed between one of the locking members and the first-named roll and having a spur gear intermeshed with that of the first-named roll, a rolling cutter interposed between the other locking members and the first-named roll and having a spur gear intermeshed with that of said first-named roll, a scraper connected with the trunnions of the first-named roll and opposed to the perimeter of said roll and having a reversely arranged guide portion opposed in spaced relation to the perimeter of the first-named roll, a second scraper carried by the frame and opposed to the perimeter of said first-named roll, a comb-like scraper connected with the trunnions of the rolling cutter and opposed to said cutter and spaced from the second-named scraper complementary to the first-named roll to form a discharge passage, and springs carried by the frame and arranged to be put under tension by the inward adjustment of the locking member complementary to the second-named roll.

2. In a dough-rolling and cutting machine, a frame, a roll journaled therein and equipped at one end with a spur gear, locking members hingedly connected with the frame; one of said members having an aperture and the other having a bifurcation, a transverse rod carried by the frame and having a threaded stem extending through the aperture in one locking member, a sleeve capable of turning about said rod and having a slot receiving the threaded stem and also having a threaded stem adapted for arrangement in the bifurcation of the other locking member, nuts mounted on said stems at the outer sides of the locking member, a roll interposed between one of the locking members and the first-named roll and having a spur-gear intermeshed with that of said first-named roll, and a rolling cutter interposed between the other locking member and the first-named roll and having a spur gear intermeshed with that of said first-named roll.

3. In a dough-rolling and cutting machine, a frame, a roll journaled therein, locking members movably connected with the frame and disposed at approximate right angles to each other, means for independently adjusting and holding each of said locking members in working position, a roll interposed between one of the locking members and the first-named roll, and a rolling cutter interposed between the other locking member and the first-named roll.

4. The combination of a frame, locking members hingedly connected therewith, and one having an aperture and the other having a bifurcation, of a rock-shaft mounted in the frame and having an angularly disposed threaded stem to extend through the aperture in one locking member, a nut mounted on said stem at the outer side of the locking member, a sleeve mounted to turn about its axis on the rock-shaft and having a slot receiving the stem thereof and also having a threaded stem adapted to be positioned in the bifurcation of the other locking member and a nut mounted on said stem at the outer side of the locking member; said locking member being adapted to hold rolling elements to their work.

5. The combination of a frame, a locking member hingedly connected therewith, springs connected with the frame, means for adjusting the locking member inwardly and holding the same against outward movement, a rolling-element having trunnions interposed between the locking member and the said springs, and a roll to cooperate with said rolling element.

6. The combination of a frame having end members, springs connected with said end

members and having reversely directed portions, a roll having trunnions opposed to said reversely-directed portions of the springs, a locking member hingedly connected with the frame and arranged at the opposite sides of the roll trunnions with reference to the springs, and means for adjusting the locking member inwardly against the action of the springs and holding the roll to its work.

7. The combination of a frame having end members, springs connected with said end members and having reversely directed portions, a roll having trunnions opposed to said reversely-directed portions of the springs, a locking member hingedly connected with the frame and arranged at the opposite sides of the roll trunnions with reference to the springs, a threaded stem carried by the frame and extending through an apertured portion of the locking member, and a nut mounted on said stem at the outer side of the locking member.

8. The combination of a frame, a roll mounted therein, a roll mounted in the frame and opposed to the first-named roll, and a scraper connected with the trunnions of the second-named roll and opposed to the perimeter of said roll and having a reversely extending portion spaced from the first-named roll and adapted to serve as a guide in conjunction therewith.

9. The combination of a frame, a roll mounted therein, a second roll mounted in the frame and adapted to serve in conjunction with the first-named roll in reducing a mass of the dough to a layer, a locking member hingedly connected with the frame, a rolling cutter removably arranged in said locking member and interposed between the same and the first-named roll, and means detachably connecting the outer portion of the locking member with the frame to normally hold the rolling cutter to its work.

10. The combination of a frame, a roll mounted therein, a second roll mounted in the frame and adapted to serve in conjunction with the first-named roll in reducing a mass of the dough to a layer, a locking member hingedly connected with the frame, a rolling cutter removably arranged in said locking member and interposed between the same and the first-named roll, means detachably connecting the outer portion of the locking member with the frame to normally hold the rolling cutter to its work, and a comb-like scraper connected with the trunnions of the rolling cutter and opposed to the disks of the cutter and the portions thereof between the disks.

In testimony whereof I affix my signature.  
LOUIS DE VITO.