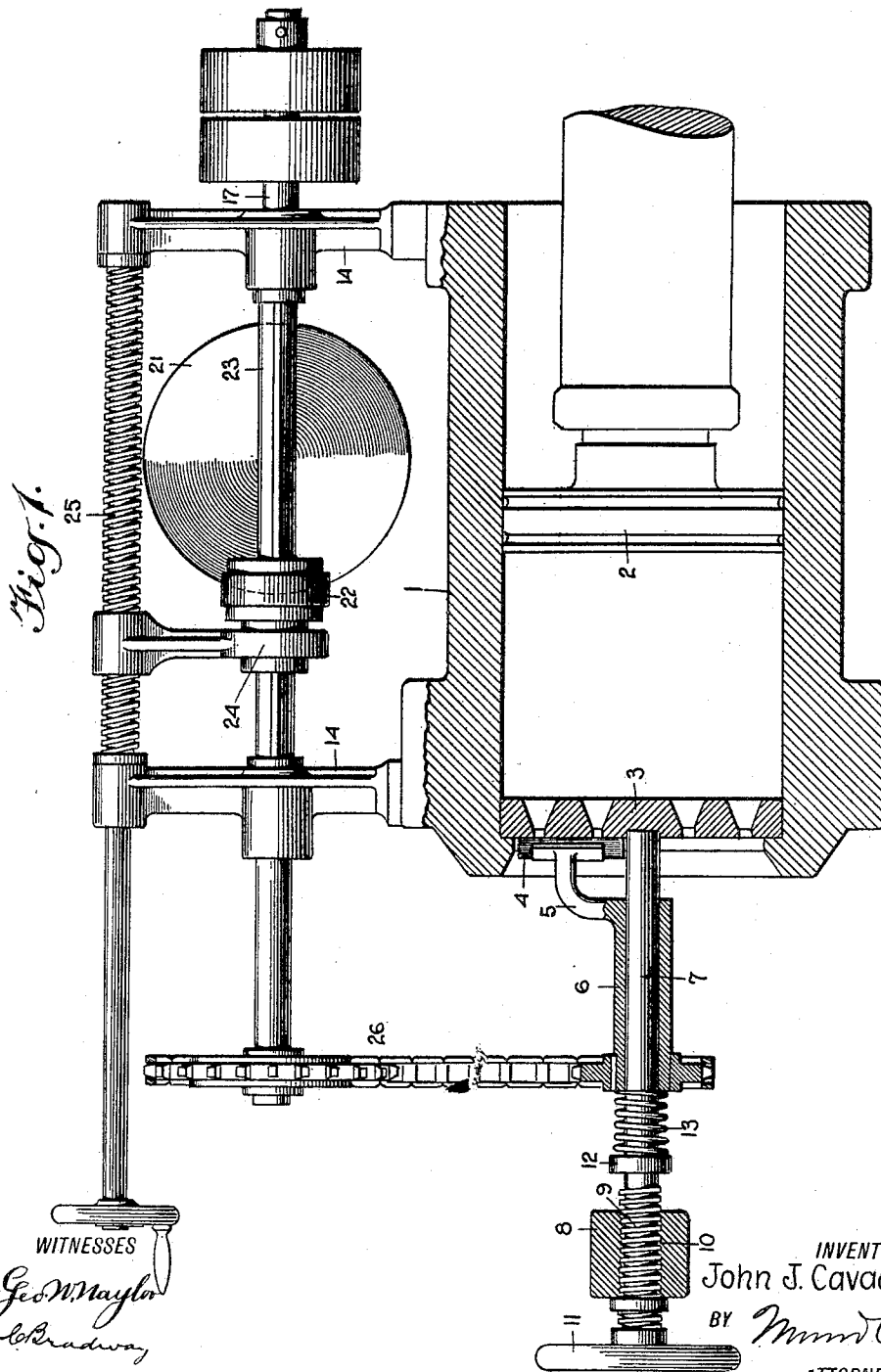


J. J. CAVAGNARO.
DOUGH PRESS.
APPLICATION FILED MAR. 24, 1915.

1,205,710.

Patented Nov. 21, 1916.

2 SHEETS—SHEET 1.



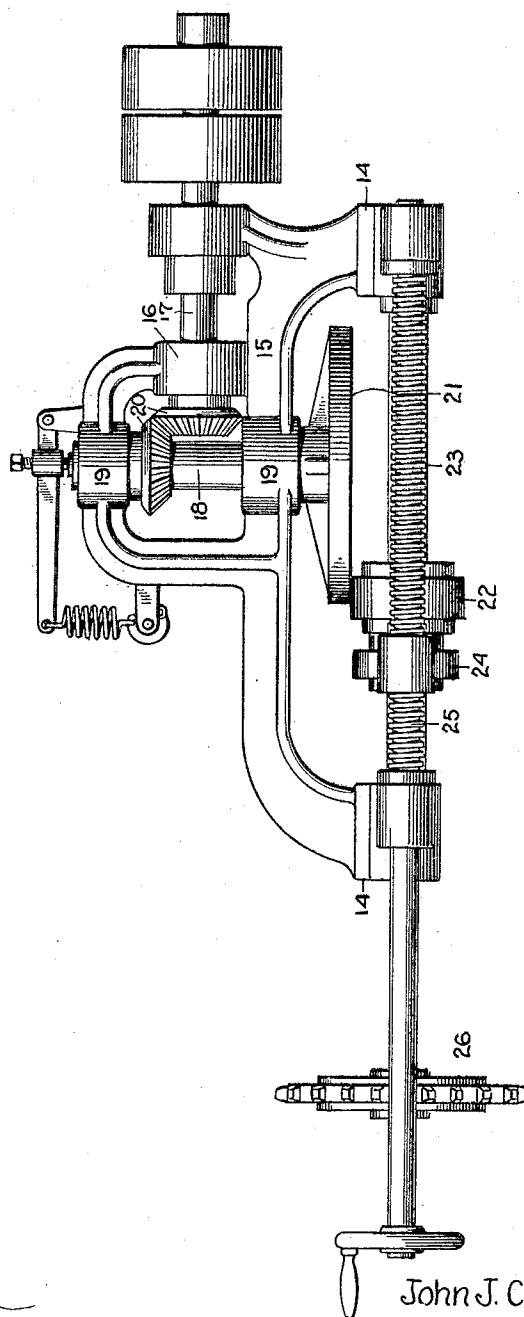
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Fig. 2.



WITNESSES

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JOHN J. CAVAGNARO, OF HARRISON, NEW JERSEY.

DOUGH-PRESS.

1,205,710.

Specification of Letters Patent.

Patented Nov. 21, 1916.

Application filed March 24, 1915. Serial No. 16,615.

To all whom it may concern:

Be it known that I, JOHN J. CAVAGNARO, a citizen of the United States, and a resident of Harrison, in the county of Hudson and State of New Jersey, have invented a new and Improved Dough-Press, of which the following is a full, clear, and exact description.

This invention relates to a press for operating on dough and other plastic material, and has to deal more particularly with a change speed driving gear for the rotary knife which severs the material intermittently as it is forced out of the die of the press, whereby products of different length can be obtained at will.

The invention has for its general objects to provide a comparatively simple, durable, reliable and variable driving mechanism for the revolving knife that is associated with the die, the said mechanism being driven by the same source of power that drives the piston, so that by changing the speed of rotation of the knife with respect to the feed of material through the die, the material can be cut off in different lengths.

A further object of the invention is the provision of a driving attachment of the variable speed friction type which can be applied to or adjacent the press and operatively connected with the revolving knife without any change in the construction or design of the present form of presses.

With such objects in view, and others which will appear as the description proceeds, the invention comprises various novel features of construction and arrangement of parts which will be set forth with particularity in the following description and claims appended hereto.

In the accompanying drawings, which illustrate one embodiment of the invention and wherein similar characters of reference indicate corresponding parts in both the views, Figure 1 is a sectional view of a portion of a press with the cutter operating means attached thereto; and Fig. 2 is a plan view of the variable speed driving means for the cutter.

Referring to the drawing, 1 designates the press cylinder in which reciprocates the piston 2 that forces the dough or other plastic material through a suitable die 3 positioned in the cylinder 1. The operating means for the piston or plunger 2 is not shown, but it is to be understood that the same is of stand-

ard design and that the cutter operating mechanism is operatively connected therewith so that the cutter will operate in timed relation to the movement of the plunger, but this timed relation can be varied so that the material forced through the die can be cut off in different lengths.

Coöperating with the die 3 is a revolving cutter 4 carried by an arm 5 on a rotating sleeve 6, which sleeve is mounted on a reciprocatory shaft 7 disposed in a fixed bearing 8 forming a part of the press, and the shaft 7 has screw-threads 9 engaging a threaded opening 10 in the bearing 8, so that by turning of the shaft 7 through a handwheel or equivalent means 11, the shaft 7 can be advanced to facilitate the loosening of the die 3. On the shaft is a collar 12, and interposed between this collar and end of the sleeve 6 and surrounding the shaft 7 is a helical compression spring 13 which yieldingly urges the cutter 4 toward and maintains it against the outer face of the die 3.

The variable driving means for the cutter will now be described.

On the cylinder are standards 14 carrying a laterally extending frame 15, as shown in Fig. 2, and on this frame are bearings 16 in which a drive shaft 17 is journaled, such drive shaft having pulleys or equivalent means for receiving power from the drive shaft of the dough press. A transversely extending shaft 18 is journaled in bearings 19 on the bracket or frame 15, and this shaft is connected with the shaft 7 by bevel gears 20. On the shaft 18 is a friction disk 21 with which coöperates a frictionally driven wheel 22 slidable longitudinally of a secondary shaft 23 disposed parallel with the face of the friction disk 21, so that the frictionally driven element 22 can be moved toward and from the center of the disk 21 for varying the speed of rotation of the secondary shaft 23. The driven element 22 is shifted by an arm 24 carried by a screw 25 that is rotatably mounted in the upper ends of the standards 14, and this screw is manually turned when the speed of rotation of the cutter 4 is to be varied. The secondary shaft 23 is connected by a sprocket chain transmission 26 with the sleeve 6 that carries the cutter 4. In operation it is merely necessary to turn the screw 25 in one direction or the other to vary the speed of rotation of the cutter to thereby regulate the length of the severed material forced out of the die,

From the foregoing description taken in connection with the accompanying drawings, the advantages of the construction and method of operation will be readily understood by those skilled in the art to which the invention appertains, and while I have described the principle of operation, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as fall within the scope of the appended claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a press, the combination of a cylinder, a piston therein, a die through which the piston forces material out of the cylinder, a revolving cutter, a device movable axially of the cylinder and disposed outside the latter to form a support for the cutter and a supporting device for the die, means

carried by the said device for yieldingly urging the cutter into engagement with the die, and a variable speed transmission means for actuating the cutter.

2. In a press of the class described, the combination of a cylinder, a die therein, a plunger in the cylinder for forcing material through the die, a shaft axially alining with the cylinder, a support in which the shaft is screwed for longitudinal adjustment for holding the die, a sleeve on the shaft, a spring on the shaft urging the sleeve toward the die, a cutter carried by the sleeve and maintained by the spring in contact with the die, a shaft, a driving connection between the last mentioned shaft and cutter-carrying sleeve for rotating the latter, and a variable speed device for driving the second-mentioned shaft.

In testimony whereof I have signed my name to this specification.

JOHN J. CAVAGNARO.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."