V. PŘIBÁŇ.

SAUSAGE STUFFING MACHINE.

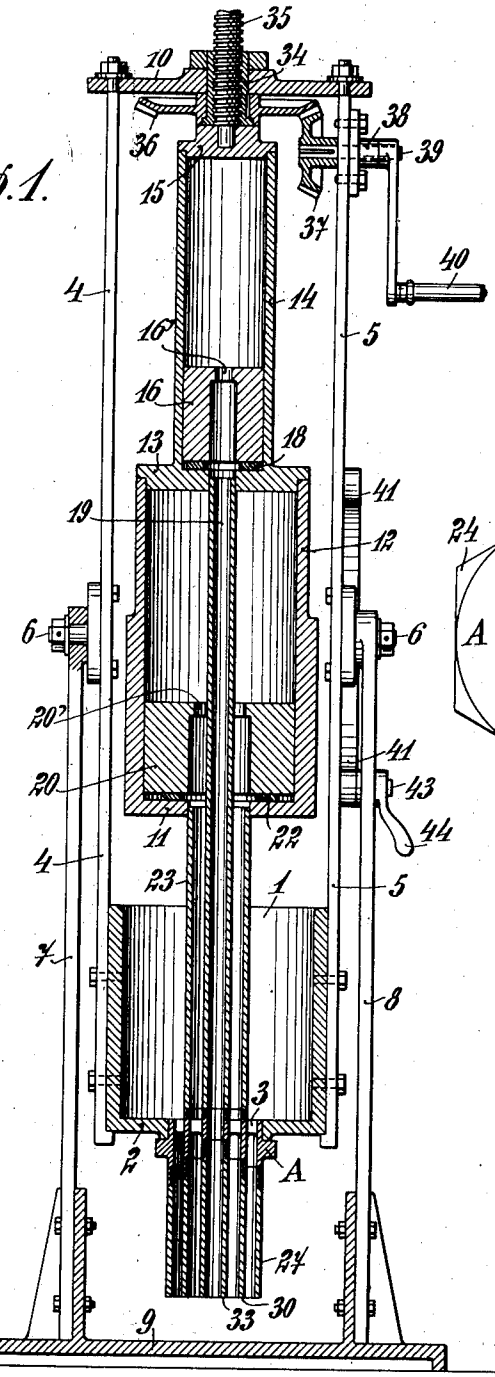
APPLICATION FILED MAR. 11, 1912.

1,107,184.

Patented Aug. 11, 1914.

2 SHEETS—SHEET 1.

Fig. 1.



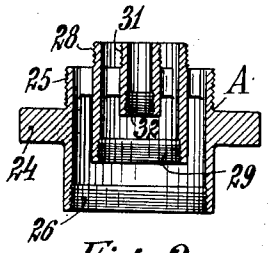


Fig. 2.

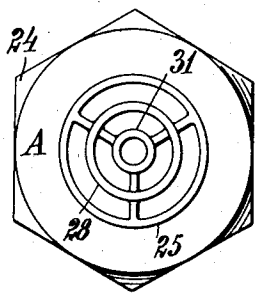


Fig. 3.

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2 SHEETS—SHEET 2.

Fig. 4.

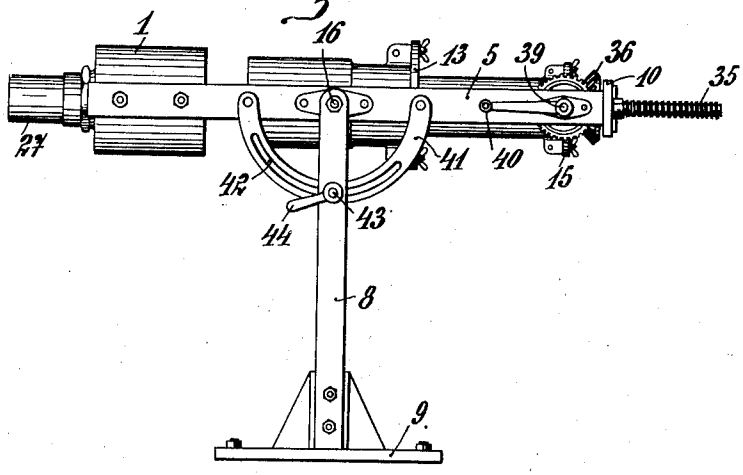


Fig. 5.

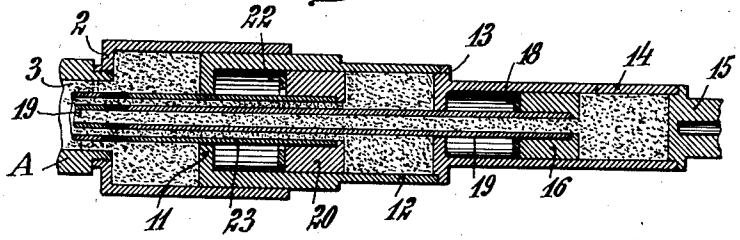


Fig. 6.

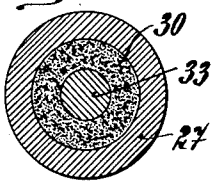


Fig. 7.

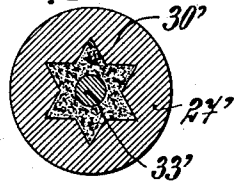
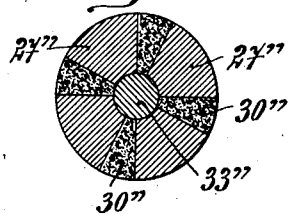


Fig. 8.



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UNITED STATES PATENT OFFICE.

VÁCLAV PŘIBÁŇ, OF PRAGUE, AUSTRIA-HUNGARY.

SAUSAGE-STUFFING MACHINE.

1,107,184. Specification of Letters Patent. Patented Aug. 11, 1914.

Application filed March 11, 1912. Serial No. 683,079.

To all whom it may concern:

Be it known that I, VÁCLAV PŘIBÁŇ, a subject of the Austro-Hungarian Emperor, residing at Prague, in the Kingdom of Bohemia, Austro-Hungarian Empire, have invented certain new and useful Improvements in Sausage-Stuffing Machines, of which the following is a specification.

My invention relates to improvements in sausage-stuffing machines for the manufacture of sausages, having a multicolor conaxial fancy-design in cross-section. This class of sausages has hitherto been generally made by hand, lacking a suitable machine, with which the more complicated designs could be executed: this hitherto customary method of manufacture is however, expensive, unhygienic, and does not permit of an accurate and uniform execution of more complicated fancy-designs.

The object of my invention is to provide a machine, which will facilitate a hygienic and economical manufacture of sausages with accurately and uniformly executed cross-sectional fancy-designs whereby one machine may be used for executing various designs.

My invention consists in the novel construction, combination and arrangement of its component parts, as will be hereinafter more fully explained in connection with the drawings and pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a longitudinal section of one form of machine according to the invention, Figs. 2 and 3 are details of the machine in longitudinal section and in plan view, respectively; Fig. 4 is a side elevation of the machine; Fig. 5 is a longitudinal section through a part of the machine; Figs. 6, 7 and 8 show by way of example various multicolor sectional fancy-designs for sausages.

The essential part of the machine is a cylindrical piece A, shown in Figs. 2 and 3, containing a plurality of conaxial cylindrical spaces or chambers, which are open on both ends. The conaxially arranged cylindrical walls which separate the several annular spaces are interconnected by suitable bridges and are threaded on both ends. This piece A, which is provided with a hexagonal flange, is screwed on to the body of the machine, which contains a number of bins or receptacles, equal to the number of differently colored sorts of minced meat of which the sausage is to consist. Each of these bins, which are preferably formed in the shape of cylinders provided with pistons, discharges into one of the above mentioned annular spaces of the piece A. To the threaded ends 26, 29, 32 of the annular walls of the piece A are screwed metal forms 27, 30, 33 (Fig. 1) all of which, with the exception of the outer form 27, merge gradually from a circular section to such shape or section as it is desired to impart to the sausage. The outer form 27 retains a circular cross section of a diameter equal to the required diameter of the sausage. Thus, according to Fig. 6, all three forms will have circular cross sectional form, and according to Fig. 7, the middle form 30′ will gradually change into the sectional shape of an asterisk, while if a pattern according to Fig. 8 is desired, the middle form 30″ will be changed into four separate divisions of a wedge-like sectional shape. The bins or cylinders from which the different kinds of minced meat are pressed into the openings of the piece A can be arranged, either conaxially, behind each other, or parallel to each other. In either case a composite discharge tube, consisting of so many ducts as there are bins, will conduct the separated streams of minced meat to the piece A.

According to one form of the machine (Figs. 1, 4 and 5), cylinder 1 open on one side, is carried on bars 4, and 5, which are pivoted at 6 on a suitable frame 7, 8, 9, and are interconnected on their free ends by a yoke 10. The bottom 2, of the cylinder 1, is provided with a central bore 3 having female threads, into which the threaded end 25 of said piece A is turned. The outer annular space of said piece A communicates with the inner space of cylinder 1, while as continuations of the other openings of said piece A, tubes 19, 23 are provided, which are screwed on to the threaded upper ends 28, 31, of the cylindrical walls of said piece A. A cylinder 12, closed on both ends and provided with concentrical bore both in its bottom 11 and in its lid 13, is guided on said tubes 19, 23, in such a manner that the outer tube 23 fits into the bore in the bottom 11, while the inner longer tube 19 fits in the bore in the lid 13. A second cylinder 14, of a smaller diameter, is firmly and axially attached to the lid 13, of cylinder 12, and is closed by a lid 15, to the outer surface of which a threaded spindle 35 is attached,

which engages with the female threads of a bushing 34, revolubly mounted in the yoke 10. A bevel-wheel 36 is keyed on the bushing 34 and meshes with a second bevel-wheel 37, which is fastened on the spindle 39, mounted in a bearing 38, on the bar 5, and can be operated by means of the crank 40.

The lower part of the cylinder 12 is turned so as to fit accurately in the open cylinder 1. The closed cylinders 12 and 14 are provided with freely acting pistons 20 and 16 which have central openings 21 and 17, of such diameters as to allow the tubes 23 and 19 to pass therethrough up to their abutting rims 20′ and 16′. Elastic rings 22 and 18 can be attached to the pistons 20 and 16 to eliminate noise. The whole machine can be tilted and secured in any desired angle, with respect to the frame, by means of a screw 43, which engages into a semicircular slot 42, of a segment 41, attached to the bar 5, the screw 43 being held in an opening of the frame piece 8 by the nut 44, by means of which the segment 41 can be secured to the frame (Fig. 4).

The operation of the machine is as follows: For the purpose of filling the cylinders with variously colored minced meat, the machine is swung into a vertical position on the frame 7—8—9, as illustrated in Fig. 1, and the lids of the closed cylinders are removed sufficiently to permit of filling the cylinder, whereupon each cylinder receives a measured charge. When the lids are fastened, the connected cylinders 12, 14 are anchored by means of the handle 40, till the bottom 11 comes in contact with the charge contained in the cylinder 1. At the same time the pistons 20 and 16 are engaged by the tubes 23 and 19, which bear upon the abutting rims 20′ and 16′, as shown in Fig. 5. The machine having been tilted and secured in the desired operating position preferably horizontal, a suitable metallic form 27, 30, 33 is screwed on to the threaded open ends 26, 29, 32 of the piece A. The skin, into which the sausage is to be filled, is attached to the metallic form 27, and by operating the handle 40, a continuous stream of minced meat, having a cross-section of the desired multicolor concentrical pattern (as shown for instance in Figs. 6, 7 and 8) is pressed into the skin, the variously colored charges of the several cylinders or bins being simultaneously discharged at a uniform rate of speed through the several concentric openings of the piece A. It is evident, that this machine can be constructed with any desired number of bins or cylinders, within reasonable limits, without departing from the mode of construction and operation set forth. The described mode of construction allows of easy transport of the machine.

It is understood that no limitation is necessarily made to the precise structural details exhibited in the appended drawings, but that the right is reserved to any alterations and modifications to which recourse may be had within the scope of the appended claims.

I am aware that prior to my invention machines with concentrical tubes have been made, particularly for the manufacture of ornamented cakes, sweets and other confectionery, and I therefore do not claim such a combination broadly, but

What I claim and desire to secure by Letters Patent, is:

1. A sausage stuffing machine, comprising cylinders having pistons, independent outlet tubes for said cylinders adapted to engage said pistons, means effecting relative movements of said cylinders with respect to said outlet tubes to actuate said pistons and effect discharge of material through said tubes, and the die chambers having a common point of discharge communicating with said outlet tubes.

2. A sausage stuffing machine comprising a cylinder provided with an axial opening, an outlet tube extending from said opening, a second tube concentrically mounted rigidly within the first tube and extending through the cylinder, said second tube having its wall in spaced relation to the wall of the first tube, a second cylinder mounted to telescope within the first cylinder having an opening through which the second tube passes, a piston in the second cylinder so connected to the second tube that it will be advanced in said second cylinder as the second cylinder telescopes within the first cylinder, said piston having an opening communicating with the second tube, and means to move the second cylinder whereby when said second cylinder is advanced to telescope within the first cylinder said piston will be advanced in said second cylinder and material contained in the cylinders will be expressed through the respective outlet pipes, said second cylinder acting as a piston within the first cylinder.

In testimony whereof I have hereunto affixed my signature in presence of two witnesses.

VÁCLAV PŘIBÁŇ.

Witnesses:
JAN B. VOJÁČEK,
LUDVIK PEŘNOCH.