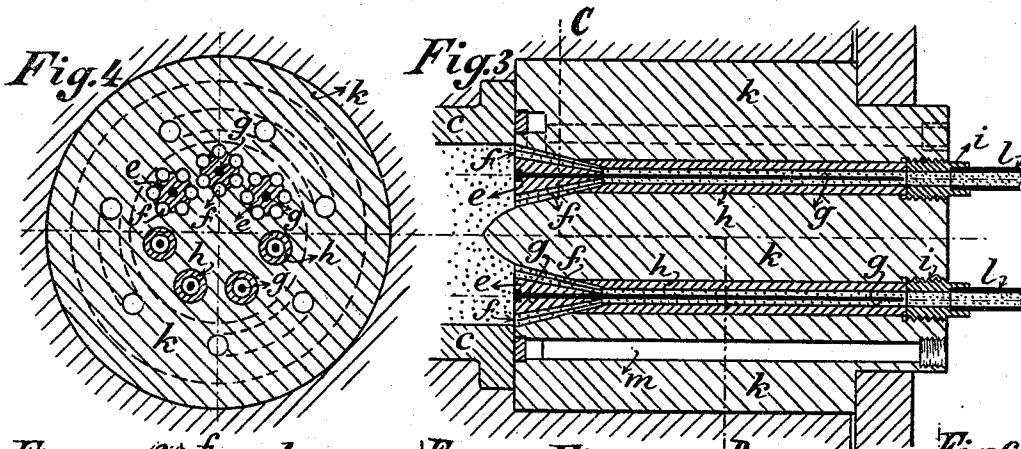
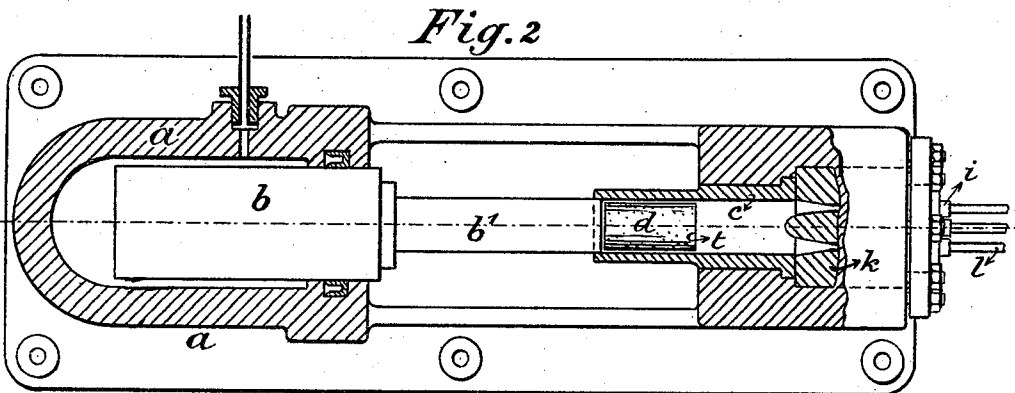
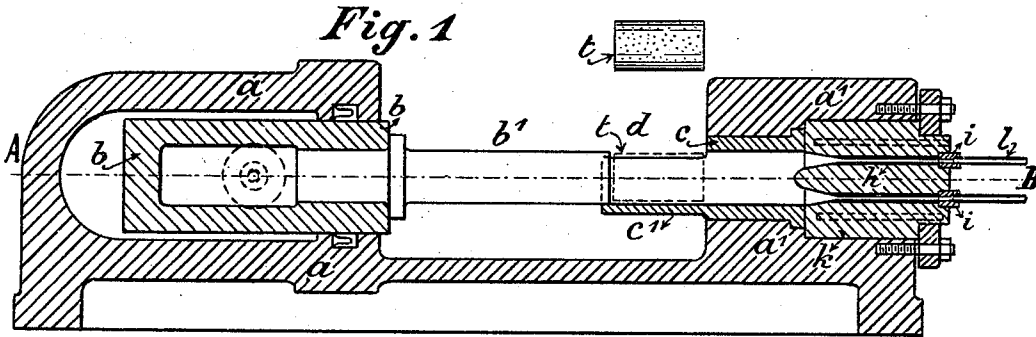


J. W. VON PITTLER.
MACHINE FOR MAKING CIGARS.

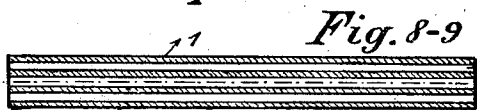
(Application filed Oct. 12, 1898.)

(No Model.)

2 Sheets—Sheet 1.



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No. 685,415.

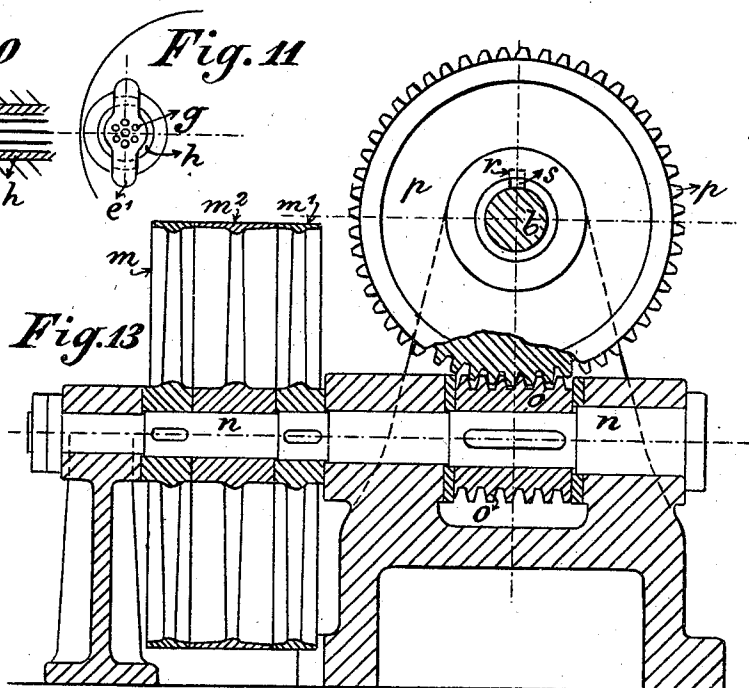
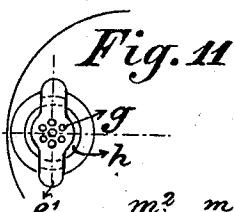
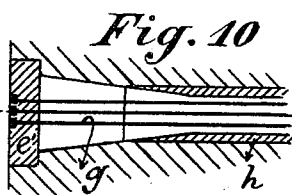
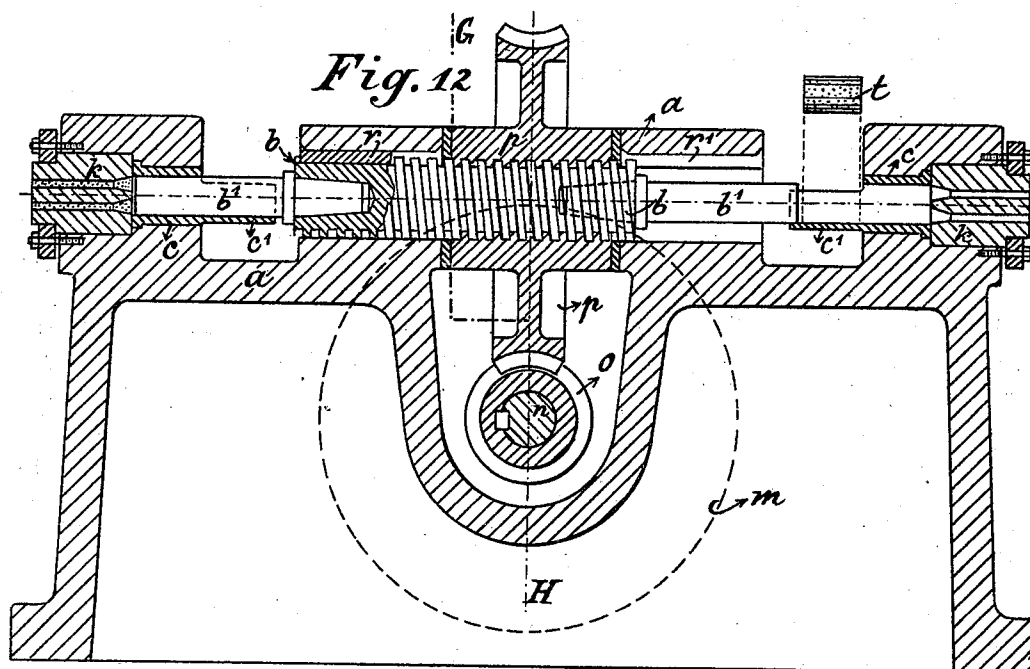
Patented Oct. 29, 1901.

J. W. VON PITTLER.
MACHINE FOR MAKING CIGARS.

(Application filed Oct. 12, 1898.)

(No Model.)

2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

JULIUS WILHELM VON PITTLER, OF LEIPSI-GOHLIS, GERMANY.

MACHINE FOR MAKING CIGARS.

SPECIFICATION forming part of Letters Patent No. 685,415, dated October 29, 1901.

Application filed October 12, 1898. Serial No. 693,343. (No model.)

To all whom it may concern:

Be it known that I, JULIUS WILHELM VON PITTLER, a subject of the German Emperor, residing at Leipsic-Gohlis, Germany, have invented certain new and useful Improvements in Machines for Making Cigars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a machine for manufacturing cigars of compressed tobacco having longitudinal channels; and its object is to provide an efficient and satisfactory mechanism for making cigars from tobacco pressed previously in a preferably cylindrical form adapted to the machine. The machine has a piston pressing the tobacco into a pressing-chamber and from this through one or several channels in which one or more wires are arranged in such a manner that the ends lie freely in these channels, so that the tobacco is pressed around these wires. The tobacco is in this manner formed to a long rod having longitudinal draft-channels corresponding to the said wires, and from this rod the cigars are cut off by a suitable mechanism.

In the drawings, Figure 1 is a longitudinal vertical section through a machine of this kind having a piston which is actuated upon by hydraulic pressure. Fig. 2 is a horizontal section on line A B of Fig. 1. Fig. 3 is a longitudinal section showing, on a larger scale, the fastening of the wires forming the draft-channels. Fig. 4 is a cross-section on line C D of Fig. 3. Fig. 5 is a cross-section, on a larger scale, showing the mold and the arrangement of several wires in the same. Fig. 6 is a view of that side of the mold from which the tobacco is fed to the mold. Fig. 7 is a cross-section through the mold on line E F of Fig. 5. Figs. 8 and 9 show a pressed cigar in longitudinal and in cross section on a larger scale. Figs. 10 and 11 show modifications in the fastening of several wires by means of a cross-bar. Fig. 12 is a longitudinal section through a machine, the piston of which is operated by worm-gearings. Fig. 13 is a cross-section on line G H of Fig. 12.

In referring first to the construction in Figs. 1 and 2, the machine has a plunger *b*, a pis-

ton *b'*, a pressing-chamber *c*, with a prolongation *c'*, and a block *k*, containing the molds for forming the cigars. The block *k*, which is shown in Figs. 3 and 4 on a larger scale, has several molds *h*, which are enlarged conically to that side where they are connected to the pressing-chamber *c*. In the conical enlargement the cones *e* are inserted, in which one, Fig. 3, or several, Fig. 5, wires *g* are arranged, the ends of which lie freely in the molds *h*. On the periphery of the cones *e* several grooves or channels *f*, Figs. 3 to 6, are arranged, forming the communication between the pressing-chamber *c* and the molds *h* of the block *k*, through which channels the tobacco is fed forward, so that it surrounds the wires *g*. It is necessary that the wires *g* are not touched by the pressing-piston *b'*. Instead of the cones *e* a cross-bar *e'*, Figs. 10 and 11, can be arranged for fastening the wires or any other suitable mechanism.

The working of the machine is as follows: The tobacco previously pressed into a cylindrical form (*t*) of a certain length is put through the opening *d* on the prolongation *c'* of the pressing-chamber in the position shown in Figs. 1 and 2, in which the plunger *b* and piston *b'* are in the extreme rearward position. Then by pressure the plunger *b* is pressed forward, so that it presses the body *t* of tobacco into the pressing-chamber *c* against the block *k*. The tobacco is forwarded through the openings *f*, which are partly in the cones *e* and partly in the block *k*, into the molds *h* around the wires *g*, so that in each mold *h* a tobacco-rod is formed having the diameter of the mold *h* and such a number of channels 2, Figs. 8 and 9, as there are wires *g* in the mold. The screw-threaded sleeves *i* form adjustable abutments for the molds, so that the position of the latter can be adjusted. Tubes *l* may be attached to the end of the molds, so that the newly-formed rod of tobacco shall not be permitted to bend.

In Figs. 12 and 13 a modification of the machine is shown, in which the piston is not actuated upon by a hydraulic pressure, but by means of a belt.

The pulleys *m* and *m'* for right and left rotation and the idle pulley *m*² are arranged on the main shaft *n*. The rotation of the latter is transmitted through the worm *o* to the

worm-wheel *p*, which in this case is formed as a screw-nut. The screw *b* is moved to and fro by the right or left hand rotation of the worm *o*. For preventing the rotation of the screw-bolt *b* bars *r* and *r'* are fastened to the frame *a* in such a manner that they engage with a corresponding longitudinal channel of the screw *b*. The machine here shown is double, working in such a manner that the screw *b* has a piston *b'* on both ends. The previously-pressed tobacco *t* is fed to the prolongation *c'* of the pressing-chamber *c* in the same manner as previously described and is pressed by the piston *b'* into the pressing-chamber *c* and the molds *h* of the block *k*. The working of this machine is the same as that of the machine actuated upon by hydraulic pressure.

Having now particularly described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a machine for forming cigars, the combination of a pressing-chamber, a piston or plunger working therein, a mold, and a conical head resting in the end of the mold adjacent to the pressing-chamber, said mold communicating with the pressing-chamber through channels formed on the surface of said conical head, and wires connected to said

head and extended into the mold, substantially as described.

2. In a machine for forming cigars with longitudinal draft-channels, the combination of a pressing-chamber, a piston or plunger working therein, a mold connected with said pressing-chamber through a conical enlargement, a conical head resting in said enlargement and having channels in its surface, and wires connected to said head and extended into the mold, substantially as shown and described.

3. In a machine for forming cigars with longitudinal draft-channels, the combination of a pressing-chamber, a piston or plunger working therein, a mold, a conical head resting in the end of said mold adjacent to the pressing-chamber and provided with channels in its surface registering with corresponding channels in the wall of the mold to form passages communicating with said pressing-chamber and mold, and wires connected to said head and extending into the mold, substantially as shown and described.

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

JULIUS WILHELM VON PITTLER.

Witnesses:

RUDOLPH FRICKE,
B. H. WARNER, Jr.