

No. 667,423.

Patented Feb. 5, 1901.

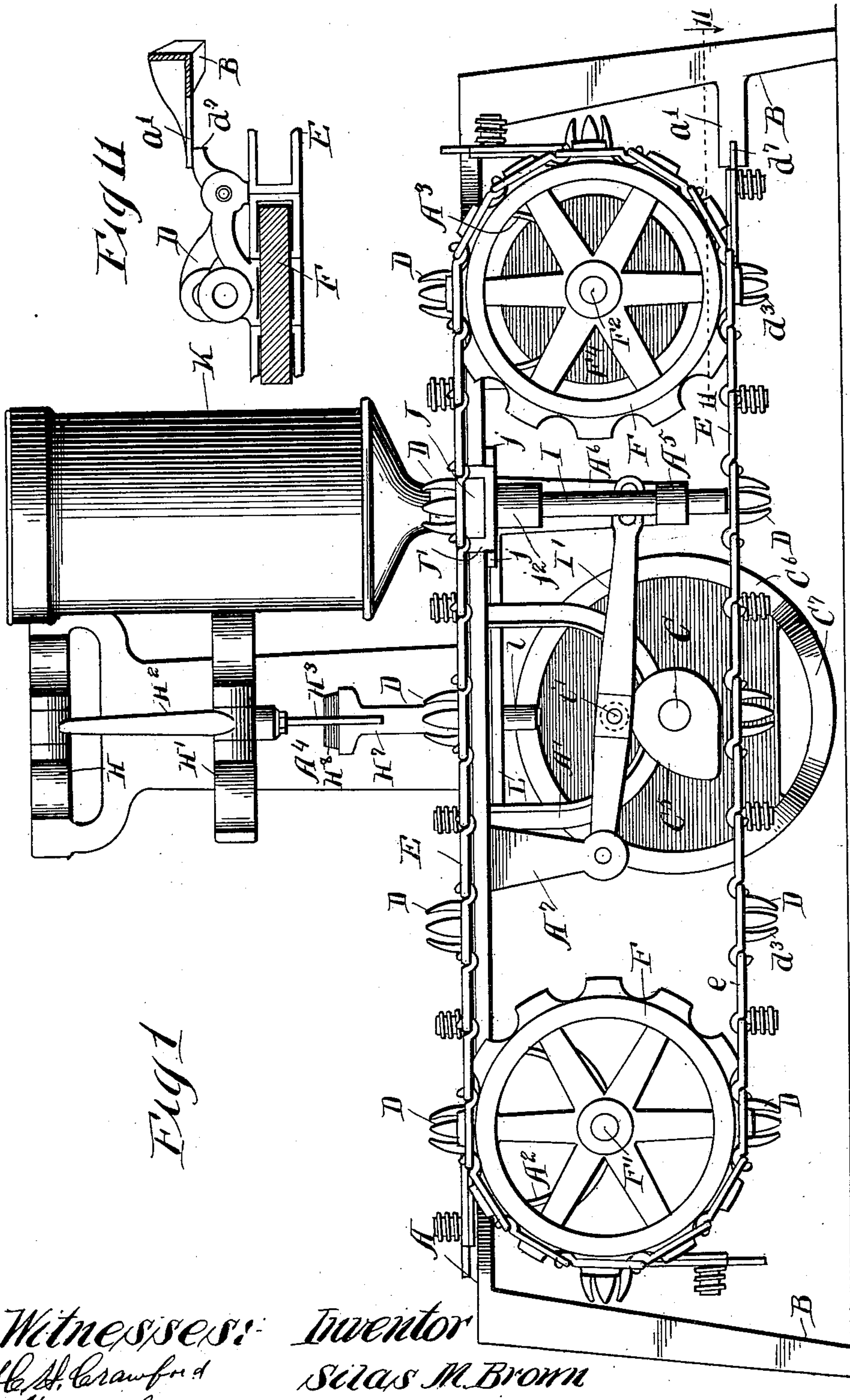
S. M. BROWN.

MACHINE FOR PITTING AND STUFFING FRUITS, &c.

(Application filed Aug. 25, 1900.)

5 Sheets—Sheet 1.

(No Model.)



Witnesses: Inventor
C. A. Crawford Silas M. Brown
William H. Hall, by Poole & Brown
His Attorneys

No. 667,423.

Patented Feb. 5, 1901.

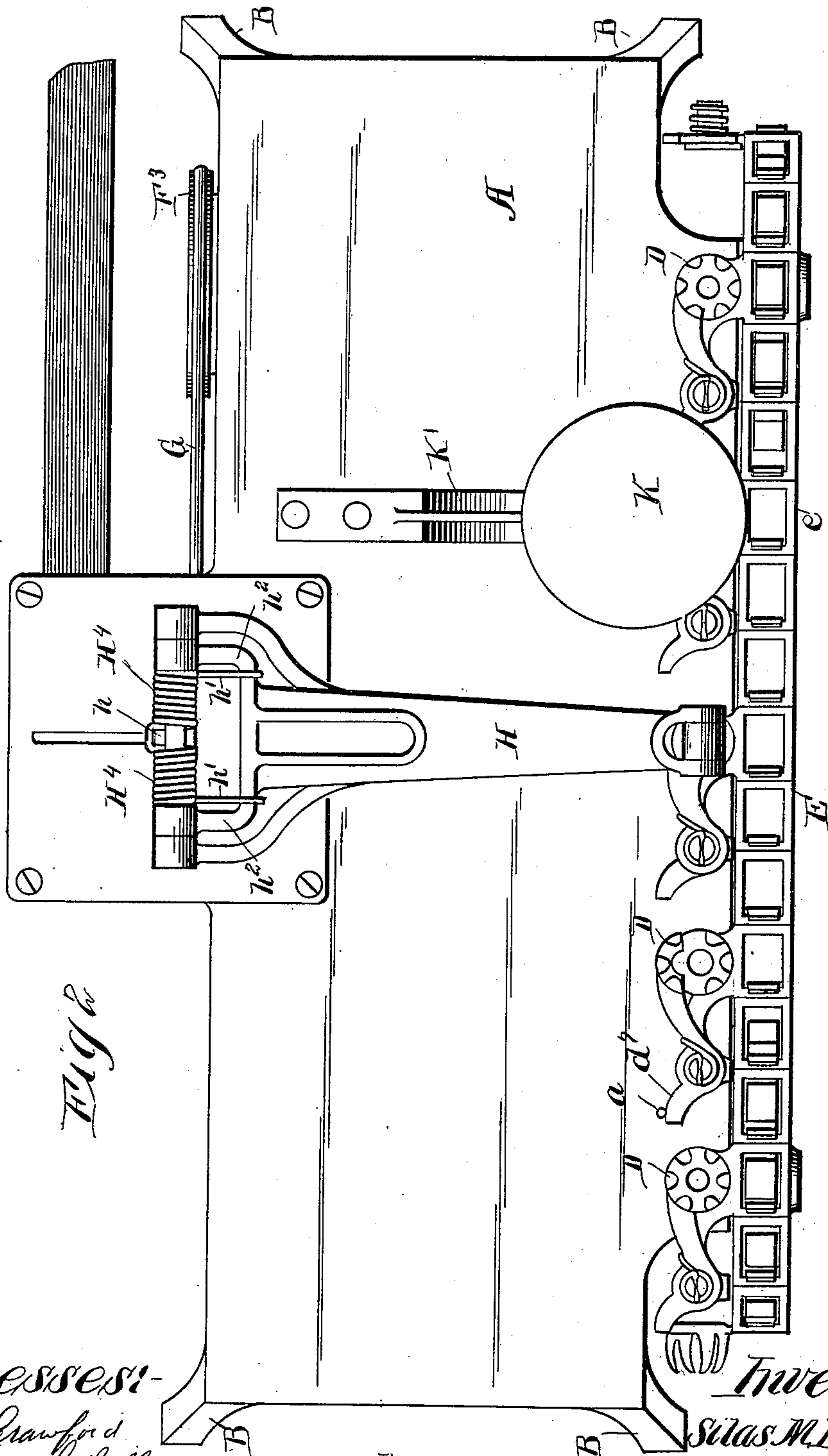
S. M. BROWN.

MACHINE FOR PITTING AND STUFFING FRUITS, &c.

(Application filed Aug. 25, 1900.)

(No Model.)

5 Sheets—Sheet 2.



Witnesses:
C. H. Crawford
William H. Hall

by Poole & Brown

Inventor:
Silas M. Brown
his Attorneys

No. 667,423.

Patented Feb. 5, 1901.

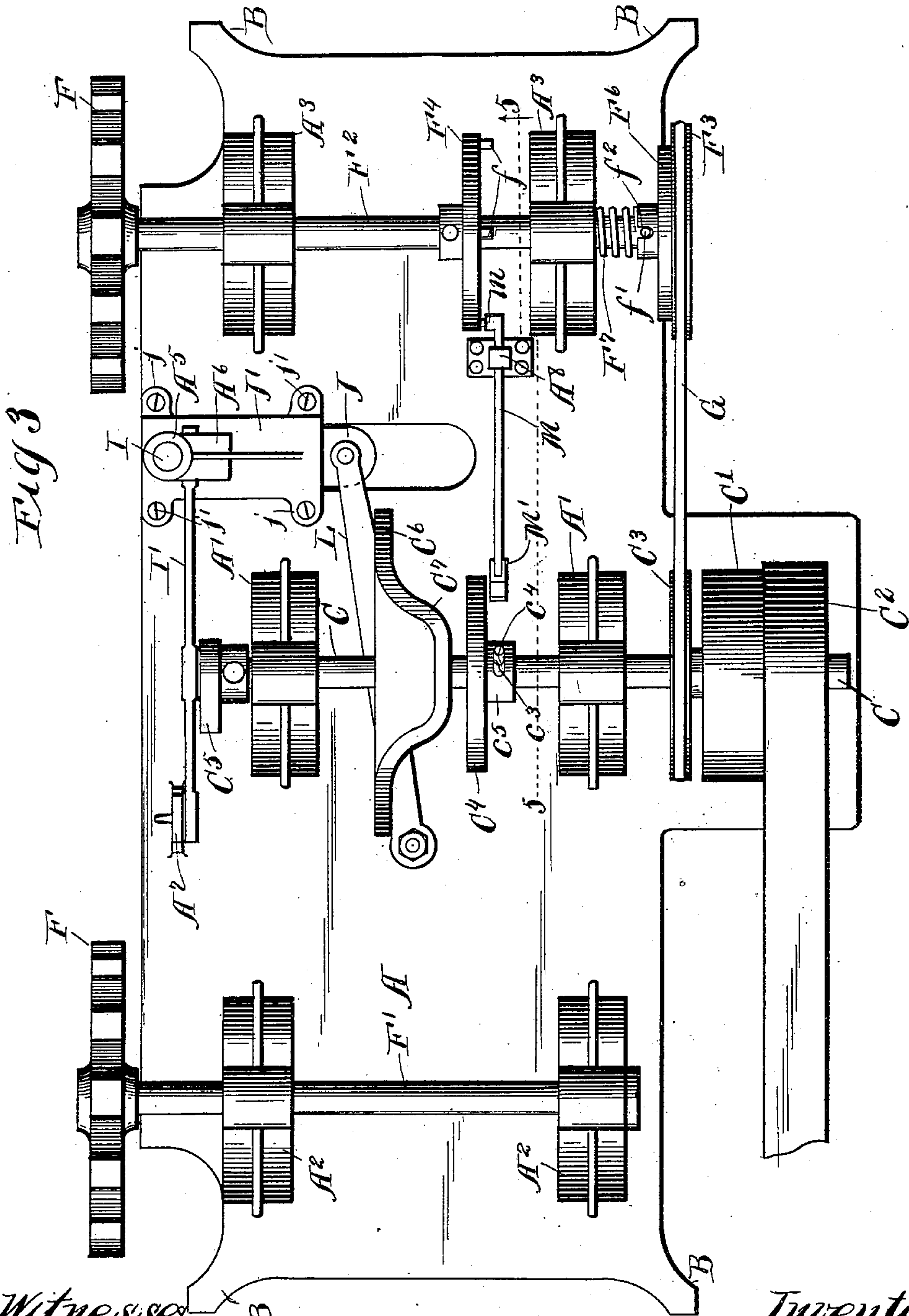
S. M. BROWN.

MACHINE FOR PITTING AND STUFFING FRUITS, &c.

(Application filed Aug. 25, 1900.)

(No Model.)

5 Sheets—Sheet 3.



Witnesses
Carl H. Crawford
William H. Hall

by

Inventor:
Silas M. Brown
Poole & Brown
his Attorneys

No. 667,423.

Patented Feb. 5, 1901.

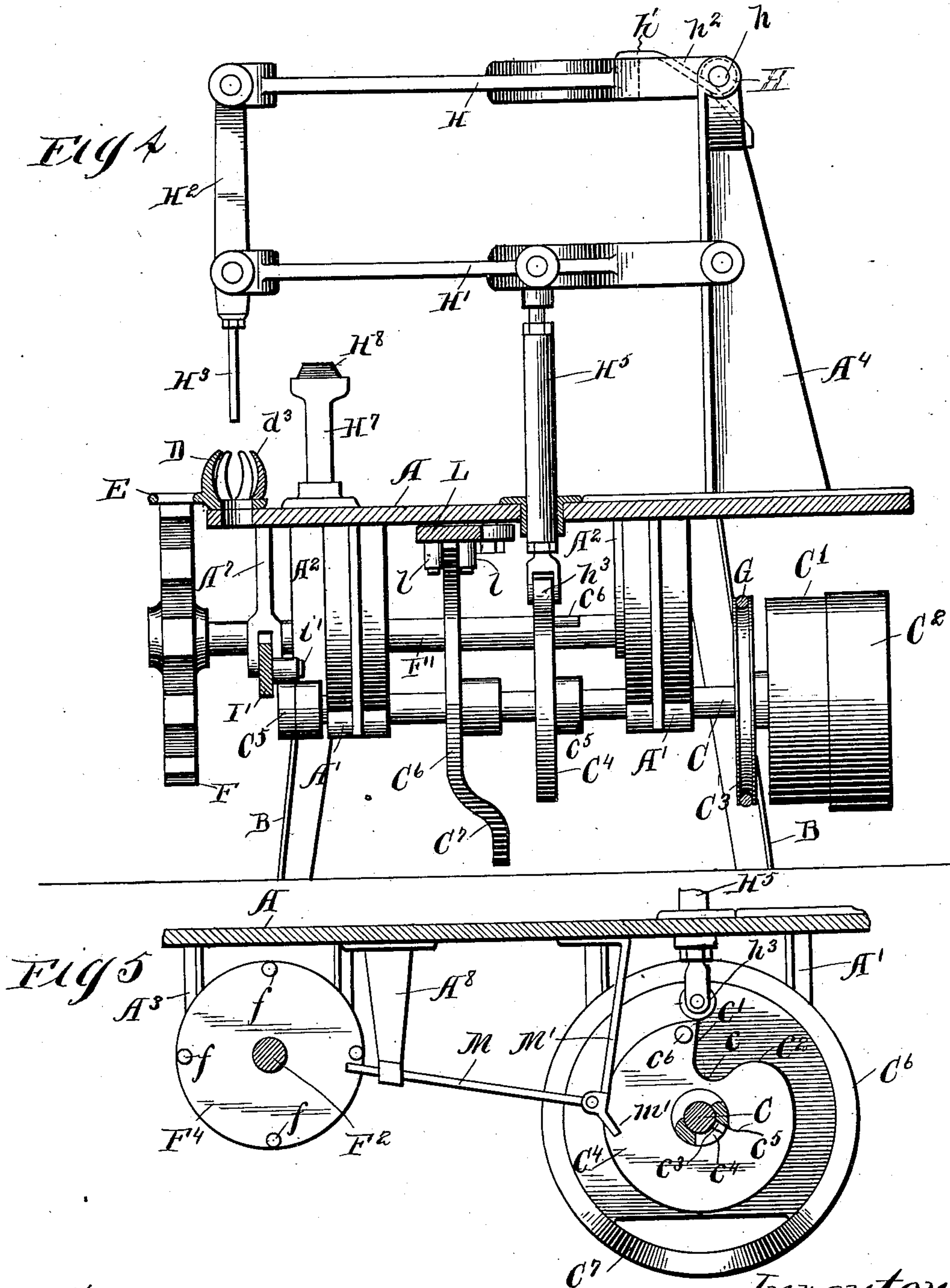
S. M. BROWN.

MACHINE FOR PITTING AND STUFFING FRUITS, &c.

(Application filed Aug. 25, 1900.)

5 Sheets—Sheet 4.

(No Model.)



Witnesses:-

Carl H. Crawford
William H. Hall

by

Boole & Brown

Inventor:

Silas M. Brown

His Attorneys

No. 667,423.

Patented Feb. 5, 1901.

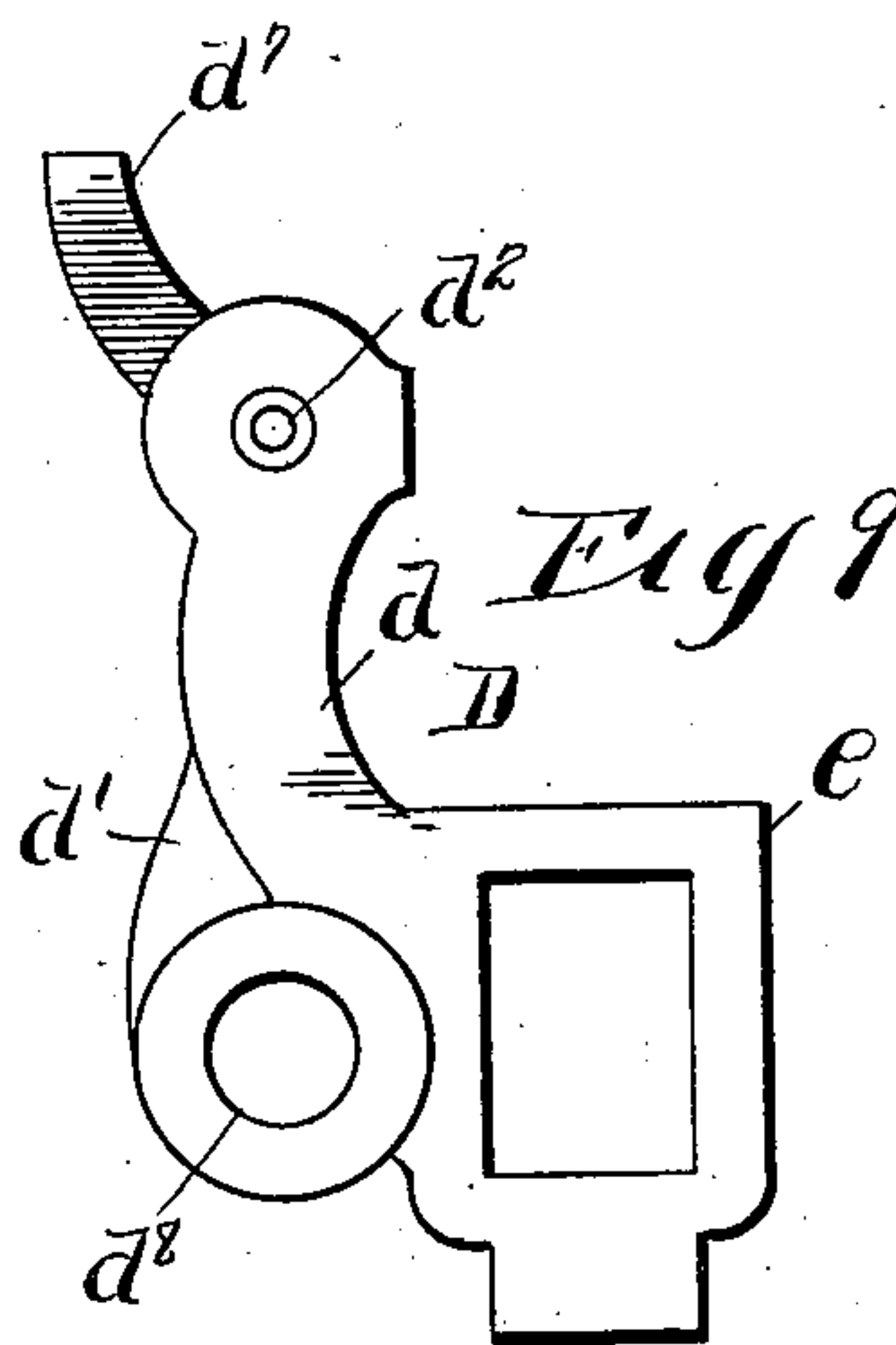
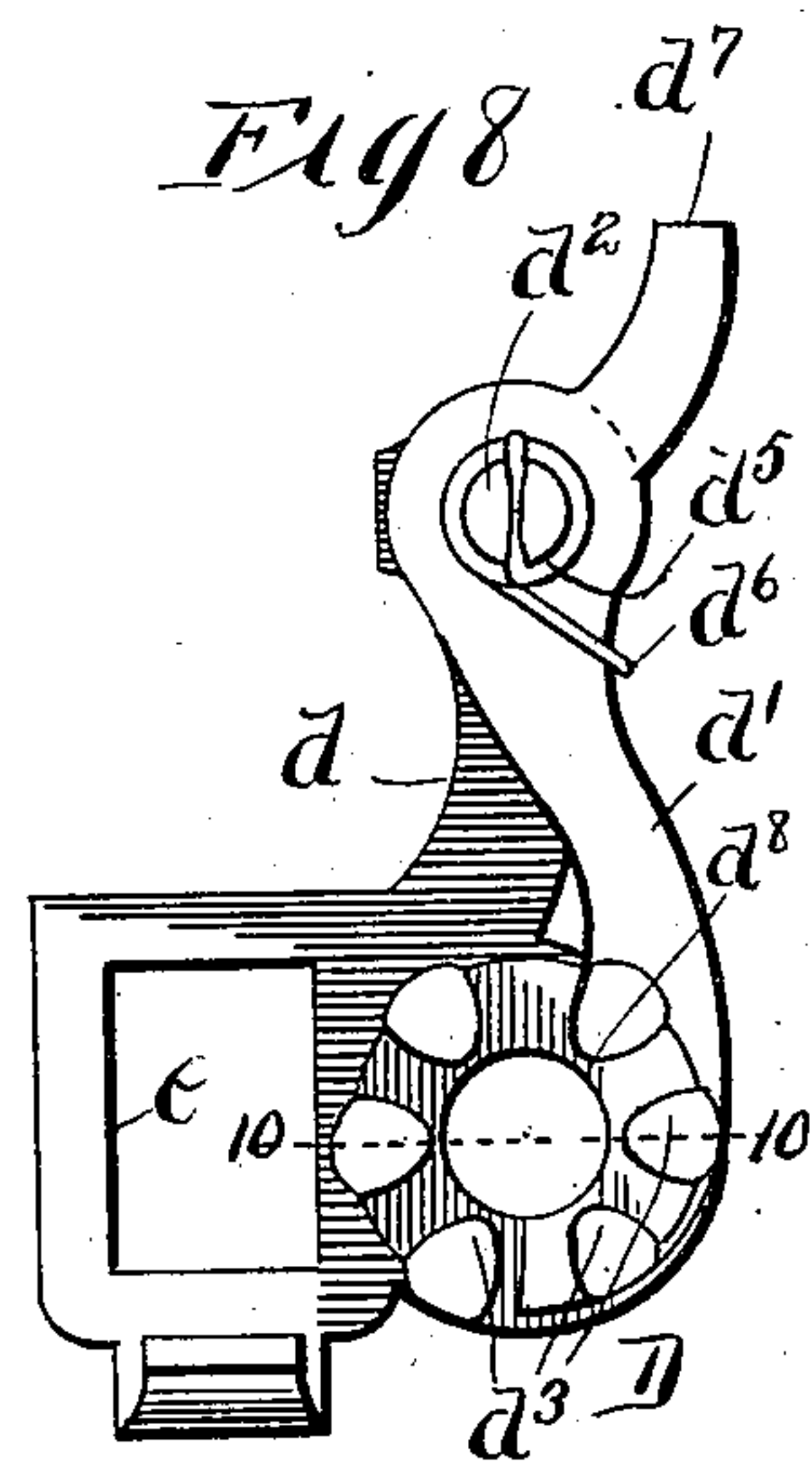
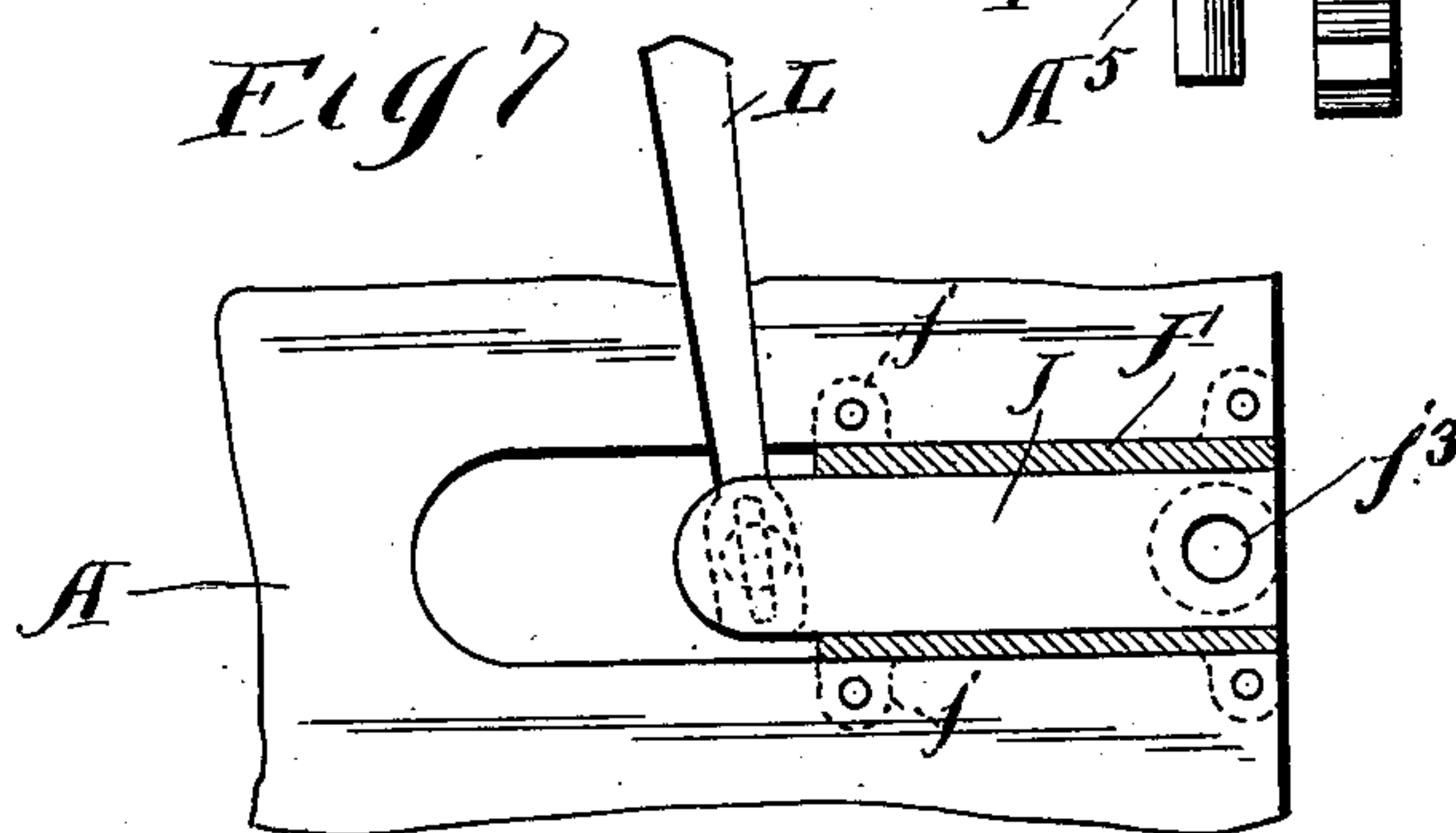
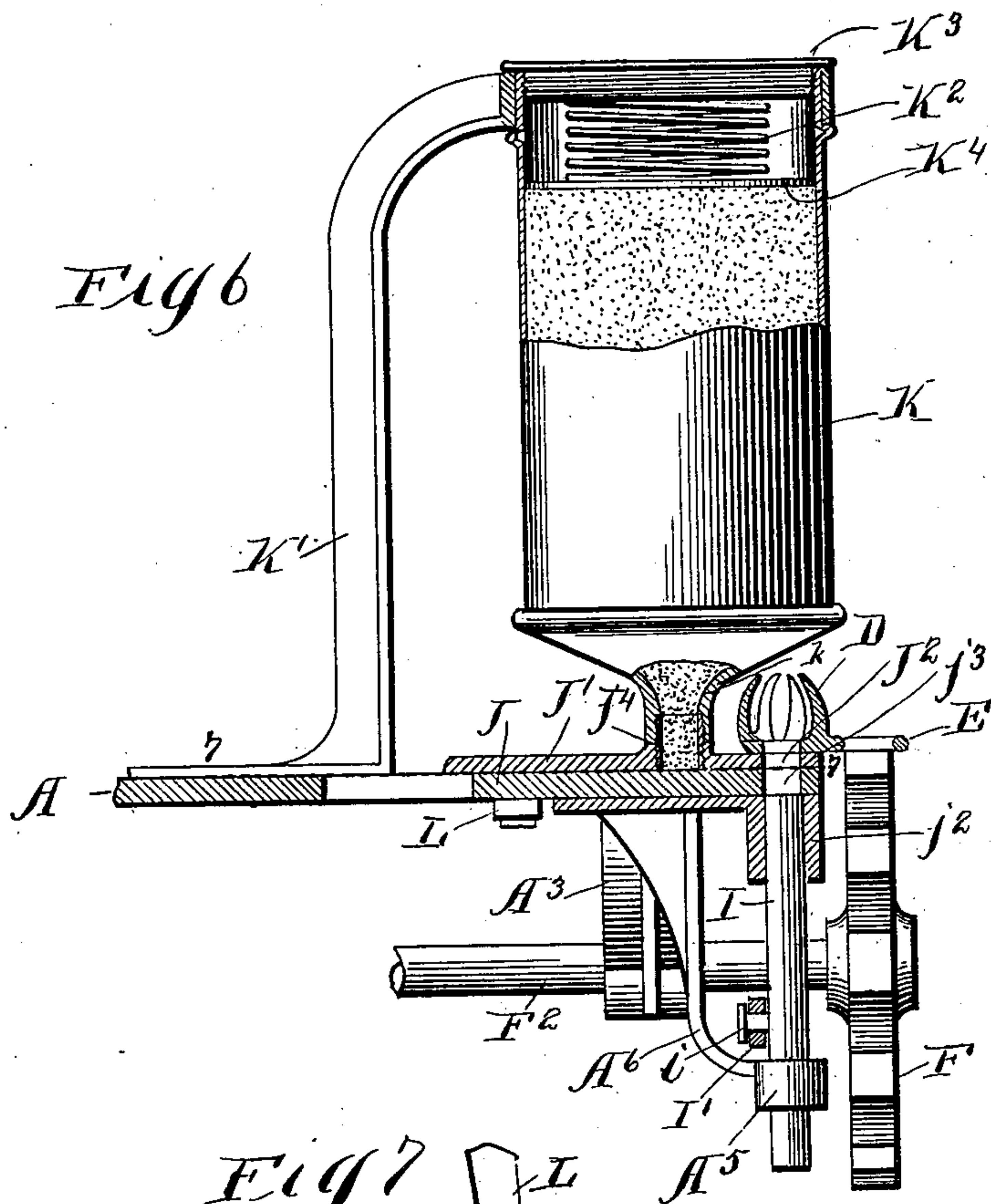
S. M. BROWN.

MACHINE FOR PITTING AND STUFFING FRUITS, &c.

(Application filed Aug. 25, 1900.)

5 Sheets—Sheet 5.

(No Model.)



Witnesses:

C. H. Crawford
William Hall

by

Boole & Brown

Inventor:

Sebas M. Brown

his Attorneys

UNITED STATES PATENT OFFICE.

SILAS M. BROWN, OF CHICAGO, ILLINOIS.

MACHINE FOR PITTING AND STUFFING FRUITS, &c.

SPECIFICATION forming part of Letters Patent No. 667,423, dated February 5, 1901.

Application filed August 25, 1900. Serial No. 27,981. (No model.)

To all whom it may concern:

Be it known that I, SILAS M. BROWN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Pitting and Stuffing Fruits and the Like; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a machine for pitting and stuffing fruits or the like; and the machine herein shown has been devised more especially for pitting olives and afterward stuffing them with a suitable material.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a side elevation of the machine made in accordance with my invention. Fig. 2 is a top plan view thereof. Fig. 3 is a bottom plan view of the machine. Fig. 4 is a transverse vertical section of the machine, taken through the pitting device and showing parts of the machine above and below the said plate in elevation. Fig. 5 is a detailed section taken on line 5 5 of Fig. 3. Fig. 6 is a fragmentary transverse vertical section of the stuffing mechanism, showing the parts of the machine in elevation. Fig. 7 is a plan section on the line 7 7 of Fig. 6. Fig. 8 is a top plan view of one of the olive-holders, showing the same in connection with one link of the chain-belt. Fig. 9 is a bottom plan view thereof. Fig. 10 is a fragmentary cross-section through the holder proper on line 10 10 of Fig. 8, showing in dotted lines the olives therein. Fig. 11 is a detail showing the means for opening the holders to discharge the contents of the same, taken on line 11 11 of Fig. 1 looking downwardly.

The machine herein shown embodying my invention consists generally of mechanism for removing the pits from the articles to be operated upon, such as olives or other fruit, mechanism for stuffing or filling the cavities therein with a suitable stuffing material from which the pits have been expelled, and means for carrying the articles successively in position to cooperate with the pitting and stuff-

ing mechanisms, the said means carrying the olives from the pitting mechanism directly to the stuffing mechanism and being constructed to discharge the olive after it has been stuffed and moved away from the stuffing mechanism.

A preferred construction of the machine embraces a plurality of holders arranged one in advance of the other on an endless carrier, whereby the holders may be brought successively into operative relation to the pitting and stuffing mechanisms.

A designates the generally rectangular bed-plate of the machine, which is supported on legs or standards B, located one at each corner thereof, and which supports above and below the same the various parts of the mechanism constituting the machine. C designates a main driving-shaft located transversely under the bed-plate, centrally thereof, and which is supported in brackets A' A', depending from the said plate. Said driving-shaft is operatively connected with and drives the various parts of the machinery and is provided at one end thereof with fast and loose driving-pulleys C' C².

First describing the holders and mechanism for moving the same, these parts are made as follows: D D designate a plurality of holders which are mounted on a carrier E, which is located just outside of one side margin of the bed-plate, with the upper lap thereof in the same general plane as the bed-plate, and is trained about wheels or pulleys F, mounted rigidly on shafts F' F², which extend transversely under the bed-plate and are journaled in depending bearing-brackets A² A³. The shaft F² is driven from the main driving-shaft C through the medium of a driving-belt G, trained about a pulley C³ on said main shaft and a pulley F³ on the shaft F².

The construction of the holders D is shown more clearly in Figs. 8, 9, and 10 and are made as follows: Said holders consist each of two jaws *d d'*, pivoted at their rear ends to swing in parallel planes through the medium of a pivot-pin *d²*. Said jaws are provided at their forward ends with elevated fingers *d³*, which are so disposed with respect to the jaws and to each other as to form a generally oblong-shaped pocket of suitable shape to receive an olive, but which may be otherwise formed to receive other shaped fruits. The

lower jaw d is provided at the end adjacent to the said fingers with a base-flange d^4 , which when the jaws are in their closed position constitutes the base of said pocket. Said base is provided with a central opening d^8 . The jaws are held in their closed position through the medium of a spring d^5 , which is wound at one end about the pivot-pin d^2 and is provided with a hooked end d^6 , which engages the side margin of the jaw d' . The jaw d' is provided at its rear end with an extension d^7 , adapted to engage a tripping-lug on the frame and swing said jaw in a manner to open the pocket to permit an olive to be inserted therein or to be dropped away therefrom. The carrier E preferably consists of a sprocket-chain made of a series of suitable links e in the usual manner, and conveniently the stationary jaw of each holder is made integral with one of the links of said chain. The carrier wheels or pulleys F have, therefore, the form of sprocket-wheels. The said holders are spaced at equal distances from each other along the carrier, there being in the present instance twelve holders; but a larger or smaller number thereof may be employed, as desired. The pitting and stuffing mechanisms, which coöperate with said holders, are spaced at such distances apart that when one of the holders is in position to coöperate with the pitting mechanism the next holder in advance is in position to coöperate with the stuffing mechanism. It will be understood that when any two of said holders are brought to their operative positions with respect to the pitting and stuffing mechanisms, respectively, the movement of the carrier and holders will be arrested until the pitting and stuffing operations are completed, after which the movement of the carrier and holders will be resumed until the holder containing the olive last pitted is brought under the stuffing mechanism and the next succeeding holder is brought under the pitting mechanism. The holders are thus given a step-by-step movement, and the length of each movement is equal to the distance between adjacent holders.

Means are provided for opening the holder next in rear of the holder in operative position with respect to the pitting mechanism when the holders are arrested in the manner stated, and consists in this instance of a tripping-pin a , Fig. 2, which is located in position to strike the rearwardly-extending part d^7 of the movable jaw of the holder at the time of such stoppage of the carrier and the holder. When the said last-mentioned holder is opened, as indicated in Figs. 1 and 2, it will be charged with an olive to be pitted, and when movement of the carrier and holders is again resumed and the extension d^7 passes out of contact with the stop-pin a said holder will be closed upon the olive therein to hold it in position to be pitted in the next operation of the pitting mechanism. After each holder passes the stuffing mechanism and has received a charge of the stuffing material it is automat-

ically opened to discharge the olive. The discharging means consists in this instance of a tripping lug or arm a' , formed on or attached to one of the supporting legs or standards of the machine adjacent to the stuffing mechanism, as shown in Figs. 1 and 11, and adapted to strike the rearward extension d^7 of each holder as it passes. At this time the holder is in a vertical position, so that when opened the olive will fall therefrom to a receptacle or the like placed thereunder for the reception thereof.

Next describing the pitting mechanism and the parts associated therewith and the operation of the same, said parts are made as follows: A^4 designates an upright standard rising from the bed-plate at the rear thereof, and H H' designate two horizontally-disposed levers pivoted to said standard one above the other to swing in a vertical plane. To the outer ends of said levers H H' is pivoted a vertically-disposed bar H^2 , said levers being pivoted to said bar at vertically-separated points thereon. Said bar H^2 carries at its lower end a pitting-punch H^3 , which is located vertically over the holders D. The means for depressing said levers H and the punch-bar H^2 to insert the punch into the holders consists in the present instance of a spiral spring H^4 , which is wound about the pivot h , by which the lever H is connected with the standard A^4 , said spring being provided with arms h' , which bear downwardly against the upper faces of said lever. Conveniently the lever H is bifurcated at its pivoted end and the spring H^4 is interposed between the laterally-separated arms h^2 thereof. The punch-bar H^2 and associated levers are moved into their elevated positions and held therein through the medium of a cam-wheel C^4 , mounted on the shaft C, and a vertically-disposed lifting-bar H^5 , which is pivoted at its upper end to the lever H' between the ends thereof and adapted for actuation at its lower end by said cam. The lifting-bar H^5 passes upwardly through an opening in the bed-plate, which serves as a guide-aperture for said bar, and the bar is provided at its lower end with an antifriction-roller h^3 , journaled between laterally-separated arms on said bar and engaging the periphery of the cam-pulley C^4 . Said cam-pulley C^4 is provided in its periphery with a cam-notch c , which notch is formed with a straight edge c' on one side thereof and with a curved edge c^2 on its other side. The parts are so organized that the straight edge of the notch c is in advance of the curved edge c^2 thereof with respect to the direction of rotation of the cam-wheel, so that when the antifriction-roller or the lifting-bar H^5 enters said notch it may drop abruptly in the bottom of the notch and permit the spring H^4 to depress the needle H^3 with a rapid stroke. In order to facilitate the movement of the parts just described, the said cam-wheel C^4 has a slight angular movement of the shaft C, thereby permitting the cam-wheel to shift forwardly with re-

spect to the shaft and the antifriction-roller of the lifting-bar to drop more rapidly into the cam-notch, with a result of a more prompt depression of the pitting-punch under the action of the spring H⁴. This result is secured by attaching the cam-wheel to the shaft by means of a radial pin c³, which passes through a slot c⁴ in the hub c⁵ of the cam-wheel. The organization of the machine is such that the cam-wheel C⁴ rotates once during the time that the carrier-belt is moving a distance equal to the distance between the pitting mechanism and the stuffing mechanism, so that one of the holders with a contained olive will always be located vertically thereunder at the time the pitting-punch is depressed by the mechanism just described. The machine is provided with a suitable buffer designed to limit the movement of the pitting mechanism at a time when the pitting-punch has passed through the olive, and thereby take the end thrust of the lifting-bar H⁵ off the cam-wheel C⁴. Such buffer consists of a standard H⁷, which has screw-threaded engagement at its lower end with a lug on the upper surface of the bed-plate and provided at its upper end with a cushioning member H⁸, against which the outer end of the lever H¹ strikes.

Next describing the stuffing mechanism and the parts associated therewith for its operation, these parts, as shown, embrace generally a receptacle or hopper K, adapted to contain a mass of stuffing material, a device which includes a movable charging-plate J, provided with a recess to contain the charges of stuffing material for segregating the mass of stuffing material in separate charges thereof, and a plunger for ejecting such charges from the recess in the charging-plate and forcing them into the olive. As herein shown, these features are made as follows: The plunger I is constructed to reciprocate vertically and is located under the bed-plate at the side thereof adjacent to the holders and passes at its upper end through an opening in said bed-plate and at its lower end through a guide-socket A⁵ at the lower end of a bracket A⁶, depending from said bed-plate. Said plunger is located vertically under a position in which one of the holders stops at each operation of the stuffing mechanism and is operatively connected with parts actuated by the driving-shaft C, whereby it is moved upwardly through the opening in said bed-plate and the holder and a contained olive brought to rest thereover to force a charge of stuffing material into the space from which the pit of the olive has been previously expelled, said stuffing material being delivered by suitable mechanism, hereinafter to be described, between said holder and the plunger just before the plunger is moved upwardly. The mechanism for raising said plunger in the manner described consists of an oscillatory lever I¹, which is pivoted at one end to the lower end of a depending bracket A⁷, formed on or attached to the under face of the bed-plate, and

is pivoted at its opposite end by means of a pivot-pin i to the plunger I. Said lever is provided between its ends with a laterally-extending pin i¹, carrying an antifriction-roller, and which roller is adapted to be engaged by a rotative eccentric C⁵, which is fixed to the main driving-shaft C. The highest portion of said rotative eccentric C⁵ is so located with respect to the cam-notch of the wheel C⁴ that the plunger I is elevated at the time the pitting-punch is depressed, and vice versa.

As before stated, means are provided for segregating charges of stuffing material from the mass of the same in the hopper and for delivering such charge between the holder and the plunger just before the plunger is elevated in the manner described, so that upon elevation of the plunger said charges of stuffing material will be forced into the olive contained in said holder. The means for so segregating and delivering the charges of stuffing material, as herein shown, are made as follows: The charging-plate J is horizontally disposed and arranged to reciprocate horizontally in a transverse groove located at the edge of the bed-plate adjacent to the plunger. The groove in which said plate J slides in the present instance is formed in a separate casting J¹, which is detachably connected with the said plate, said casting fitting within an inwardly-extending notch in said bed-plate and overlapping at its upper part the upper face of said bed-plate and provided on its lower part with lugs j, by which the casting is attached to the plate through the medium of screws j¹ or the like. Said casting is provided in its upper and lower walls with openings in line with the plunger I, and through which the plunger passes, and is provided on its lower wall with a guide-nipple j², which engages the upper end of the plunger I. The outer end of the longitudinally-reciprocating plate J is provided with a charging-recess j³, which is made of the same size as the openings J² in the upper and lower walls in the casting J¹ and is adapted to be moved in line with said plunger just before the actuating mechanism for the plunger operates to elevate the same. When the charging-plate is at the inward limit of its movement—that is to say, when it is moved out of line with the opening in the casting J¹—it is in line with a feed-opening J⁴, formed in an upwardly-projecting nipple on the upper wall of said casting. Said feed-opening communicates with the discharge-opening k of the hopper K. Said hopper is supported in place by means of an arm or bracket K¹, rising from the upper face of the bed-plate.

The charging-plate J is moved endwise in its groove through the medium of a horizontal oscillatory lever L, which is pivoted at one end to said charging-plate and at its other end to the under side of the bed-plate A and is adapted for operative connection between its ends with a cam-wheel C⁶, which is fixed

to the driving-shaft C. The cam-wheel C⁶ is provided in one part of its periphery with a laterally-deflected portion C⁷, which acts to oscillate the lever L and move the charging-plate inwardly and outwardly in each operation of the machine. The operative connection between said lever L and cam-wheel C⁶ consists of two antifriction-rollers *l l*, journaled on depending pins attached to the under side of said lever and engaging the opposite faces of said cam-wheel near the periphery thereof. During the greater part of the revolution of the cam-wheel C⁵ the antifriction-roller of the lever L is engaged with the straight part of the cam-wheel, at which time the charging-plate is in its outermost position, with the charging-recess *j*³ thereof in line with the plunger. When the rollers are engaged with the cam portion of said wheel, the charging-plate is in its innermost position, with the charging-recess located under the discharge-opening of the hopper K. The angular position of the cam portion C⁷ of said wheel with respect to the cam-notch *c* of the cam-wheel C⁴ and the highest part of the eccentric C⁵ is such as to oscillate the lever L and move the charging-plate inwardly at a time when the plunger I and pitting-punch H³ are retracted, and at which time the actuating mechanism of the machine is moving the carrier and holders forwardly to bring the successive holders into operative position with respect to said pitting and stuffing mechanisms. At the time the pitting and stuffing devices are in operation the antifriction-wheels of the lever L will be engaged with the straight portion of the cam-wheel C⁶, so as to hold the charging-plate in its forwardmost position. A weight or pressure is applied to the mass of the stuffing material in the hopper to force the same through the discharge-opening thereof. As here shown, such feeding device consists of a spiral spring K², interposed between the removable cover K³ of the hopper and a follower-plate K⁴, resting on the stuffing material.

The driving-shaft C is designed to be continuously rotated through the medium of the driving-pulley C² in the usual operation of the machine, and means are provided between said driving-shaft and other parts of the machine for intermittently arresting the movement of the carrier and holders at the time the pitting and stuffing mechanisms are brought into operation. A convenient means for effecting this result, as shown in the drawings, is made as follows: F⁴ designates a disk or wheel which is fixed to the shaft F² in line with the cam-wheel C⁴. Said disk is provided on one face thereof, near its periphery, with a plurality of stop-pins *f*, herein shown as four in number. M designates an endwise-reciprocating stop-bar which has guiding engagement at one end with an aperture located at the lower end of a depending bracket A⁸ on the under face of the bed-plate and is con-

nected at its other end with an arm M', depending from the bed-plate. Said arm is made of spring metal or placed under the influence of a spring and is designed to permit the stop-bar M to be moved forward through a part moving synchronously with the driving-shaft and retract the bar to and hold it in its rearmost position. Said stop-arm is provided at its end adjacent to the disk F⁴ with a laterally-projecting lug *m*, (shown in Fig. 3,) which lug is normally in the path of the stop-pins *f* on said disk. The stop-bar M is also provided on its end remote from said lug with a rearward projection *m'*, which is adapted for engagement by a laterally-projecting pin or lug *c*⁶ on the adjacent face of the cam-wheel C⁴. The relation of the parts described is such that the lug *m* is normally in the path of the pins *f*, and when the lug *c*⁶ engages the rearwardly-projecting part *m'* of said stop-bar it moves said stop-bar endwise against the action of the spring-arm M', and thereby moves the lug *m* of said stop-bar out of the path of the stop-pins *f* on the disk F⁴ and permits the said disk and shaft to rotate freely. When said lug or pin *c*⁶ passes out of engagement with the projection *m'* of the stop-bar, the spring M' returns said stop-bar to its normal position, with the lug *m* thereof in position to engage the stop-pins on the disk F⁴ and arrest the rotation of said disk and the shaft connected therewith. The parts are so arranged that the lug *m* of the stop-bar will be in the path of the stop-pins *f* and engage one of said pins to arrest the motion of said disk and the shaft F² at the time of the operation of the pitting and stuffing mechanisms, whereby at this time the movement of the carrier E and holders D will be arrested. After the operation of the pitting and stuffing mechanisms is terminated the pin or lug *c*⁶ of the cam-wheel C⁴ will by its engagement with the projecting end *m'* of the stop-bar throw the stop-lug out of the path of the stop-pin *f* and again permit rotation of said shaft a distance sufficient to move the carrier and bring the next succeeding holder in operative position with respect to the pitting mechanism and the holder containing the olive last pitted in line with the stuffing mechanism.

In view of the fact that the pulley F³ on the shaft F² is rotated continuously from the driving-shaft and the said shaft F² is intermittently arrested in its movement said pulley F³ is connected with the shaft F² in such manner as to drive the shaft at the time the latter is free to move, but which permits relative movement of said pulley and shaft at the time the rotation of the said shaft is arrested. Such result is effected through means in the nature of a clutch mechanism, consisting of a plate or disk F⁶, which yieldingly engages the pulley F³ and which is non-rotatively mounted on the shaft F², but has endwise movement thereon, said plate being secured to the shaft by means of a radial pin *f'* passing through said

shaft and engaging a longitudinal slot f^2 in the hub of said plate. Said plate is provided with a smooth contact-face which engages the correspondingly-finished face of the pulley F^3 and is held in contact with said pulley through the medium of a spiral spring F^7 , surrounding said shaft and interposed between the hub of said plate and the adjacent hanger-bracket A^3 , to which said shaft F^2 is journaled. Said plate is pressed against the pulley F^3 with sufficient force to drive the belt-carrier E , when the shaft F^2 is free to rotate; but when said shaft is arrested through the stop mechanism described the friction between the disk and pulley, due to the pressure exerted by said spring, is overcome, so that said pulley moves relatively to the disk until the shaft F^2 is again free to rotate.

In the organization of the machine here shown the operations of the pitting and stuffing mechanisms will be completed during about one-fourth of the period of rotating of the driving-shaft C . During the remaining three-fourths of the said rotative period the segregating and charging operation and the movement of the holders one step forward are effected. The movement of the holders does not, however, occupy the remaining portion of the period of rotation of the shaft; but it is desirable in order to give the operator ample time for charging the holders with unpitted olives that the holders be stationary for the greater part of this period. With the construction shown such period of rest is approximately three-fourths of the period of rotation of the shaft. This result is effected by making the pulleys C^3 and F^3 of equal diameters and providing the disk F^4 with four stop-pins, so that the disk will be arrested after it has moved through one-fourth of a rotation. During the period of rest of the shaft F^2 and disk F^4 it will be understood that the pulley F^3 slips on the clutch-plate F^6 .

The operation of the machine will be apparent from the foregoing description, but may be briefly stated as follows: The unpitted olives are placed in each holder D at the time the carrier is stopped and the holder is opened by engagement thereof with the tripping-pin a . At this time the lug m of the stop-bar is engaged with one of the stop-pins on the disk F^4 . In the further operation of the machine the stop-lug m of the stop-bar M is moved out of the path of the stop-pins on the disk F^4 , and the carrier and holder are moved forwardly a distance to bring the holder containing the olive just placed therein in line with the pitting-punch, when the movement of the carrier and holders is again arrested. At this time the lifting-bar H^5 enters the notch of the cam-wheel C^4 and the spring H^4 forces the pitting-punch into the olive to eject the pit therefrom. The stop mechanism is again released, which permits further movement of the carrier and holders and brings the pitted olive beneath the stuffing mechanism and an

unpitted olive in line with the pitting-punch. During the time the pitted olive is being moved to the stuffing mechanism the charging-plate is moved by the mechanism described to its innermost position to segregate a charge of the stuffing material from the mass in the hopper and deliver the same in line with the plunger I to be forced into the cavity in said olive. When said pitted olive reaches the stuffing mechanism, the eccentric C^4 , which operates the lever I' and plunger I , is actuated to force the charge of stuffing material into the pitted olive, while the actuating mechanism for the pitting mechanism is operating to again depress the pitting-punch to eject the pit from another olive. As the olive leaves the stuffing mechanism and passes the lower part of the adjacent wheel or pulley F the holder containing the same is opened by engagement with the tripping lug or arm a' and the stuffed olive is dropped therefrom into a receptacle placed to receive the same. It will therefore be seen that the machine requires the attention of only a single attendant, whose work it is to place an olive in each holder as it comes to a stop just before it reaches the pitting mechanism, and after the olive has been placed in said holder in the manner described the operation of pitting and stuffing the same is entirely automatic and requires no further attention from the person supplying olives to the machine.

By reason of the construction of the holders D , embracing an olive-receiving pocket which is adjustable as to size, it will be evident that said holder will accommodate olives or other fruits of different sizes and at the same time hold the same firmly in place when being operated upon by the pitting and stuffing mechanisms. This is an important feature of my invention and is hereinafter claimed without restriction to the character of the machine in which it may be used.

The main or principal feature of the invention is embraced in a machine comprising a pitting mechanism and a stuffing mechanism constructed to fill with a suitable material the cavity in the article operated upon by the pitting mechanism. A further and important feature of the invention is embraced in the mechanism for delivering the olives or other fruits successively to the pitting and stuffing mechanisms, whereby the operation of the machine is rendered automatic after the olive has been delivered to the machine.

While I have herein shown a desirable form of machine for carrying out my invention, I do not wish to be restricted thereto except as hereinafter made the subject of specific claims, as it will be evident that the details of construction herein shown may be widely varied without departing from the spirit of the invention. Moreover, while I have shown the machine as designed for pitting and stuffing olives it will be evident that so far as the broader features of the invention are con-

cerned the same may be adapted to remove the pits from other fruits or a core from vegetables and stuff the resulting cavity with a desired substance either of the character herein mentioned or other suitable material, and I desire such modifications of my invention to be considered within the broad spirit thereof.

I claim as my invention—

1. A machine for the purpose stated comprising pitting mechanism, stuffing mechanism, and a movably-supported holder for carrying the article operated upon from one mechanism to the other.

2. A machine for the purpose stated comprising pitting mechanism, stuffing mechanism, a plurality of holders located one in advance of the other and a carrier constructed to move said holders successively to and past the said pitting and stuffing mechanisms.

3. A machine for the purpose stated comprising pitting mechanism, stuffing mechanism, a plurality of holders one in advance of the other, and a carrier designed to move said holders successively to and past the pitting and stuffing mechanisms said holders being located a distance apart equal to the distance between the pitting and stuffing mechanisms, whereby two of said holders may be moved simultaneously into operative position with respect to said mechanisms.

4. A machine for the purpose stated, comprising pitting mechanism, stuffing mechanism, a plurality of holders one in advance of the other, a carrying device constructed to move said holders successively to and past the pitting and stuffing mechanisms, and means for automatically opening each of said holders before it has reached the pitting mechanism.

5. A machine for the purpose stated, comprising pitting mechanism, stuffing mechanism, a plurality of holders one in advance of the other, a carrier designed to move said holders successively to and past the pitting and stuffing mechanisms, and means for automatically discharging the contents of said holders after they have passed the stuffing mechanism.

6. A machine for the purpose stated, comprising pitting mechanism, stuffing mechanism, a plurality of holders arranged one in advance of the other, a carrier designed to move said holders successively to and past the pitting and stuffing mechanisms, means for stopping said holders in line with the pitting and stuffing mechanisms, and means for automatically opening the holder next in rear of the holder in line with the pitting mechanism when said holders are thus stopped.

7. A machine for the purpose stated comprising pitting mechanism, stuffing mechanism, a plurality of holders arranged one in advance of the other, an endless carrying-belt upon which said holders are mounted and spaced at equal distances apart thereon, a driving-shaft, and an operative connection be-

tween said driving-shaft and endless carrier, said means being constructed to stop the holders when in line with the pitting and stuffing mechanisms.

8. A machine for the purpose stated comprising pitting mechanism, stuffing mechanism, and a movably-supported holder for carrying the article to be operated upon from one mechanism to the other comprising two yieldingly-connected jaws constructed to form a pocket to receive the article.

9. A machine for the purpose stated comprising pitting mechanism, stuffing mechanism, and a movably-supported holder comprising yieldingly-connected jaws constructed to form a pocket for the article to be operated upon, one of said jaws being provided with an extension adapted to engage a stationary tripping lug or pin in the path of said holder.

10. A machine for the purpose stated comprising pitting mechanism, stuffing mechanism, a plurality of holders and a carrier for said holders, said carrier embracing a link chain trained over the pulleys, and the holders each embracing two yieldingly-connected jaws, one of which is attached to or formed integral with one of the links of said chain, said jaws being constructed to form a pocket for the product to be operated upon.

11. A holder for the purpose set forth comprising two yieldingly-connected jaws constructed to form a pocket for the article to be operated upon, one of said jaws being provided with a flange which forms the bottom of said pocket, said flange being provided centrally thereof with an aperture.

12. A machine for the purpose stated, comprising a reciprocating punch, and mechanism constructed to deliver stuffing material to and forcing it into the hole made by the punch, embracing a tubular part which surrounds and holds the material in line with the hole made by the punch, while said material is being forced thereinto.

13. A machine for the purpose stated comprising a reciprocating punch, a receptacle for stuffing material and mechanism constructed to segregate charges of stuffing material from the mass thereof contained in the receptacle and for inserting such charges into the holes made by the punch.

14. A machine for the purpose stated comprising a reciprocating punch, mechanism for inserting charges of stuffing material into the hole made by the punch and means for feeding the articles to be operated upon successively to the punch and charge-inserting mechanism.

15. A machine for the purpose stated comprising a reciprocating punch, means for inserting charges of stuffing material into the holes made by the punch, a holder for the articles to be operated upon, and means for supporting and moving said holder constructed to carry the holder successively to the punch and charge-inserting mechanism.

16. A machine for the purpose stated comprising a receptacle for stuffing material, a reciprocating plate having an aperture to receive a charge of stuffing material from the
 5 receptacle, a plunger to eject the stuffing material from the aperture, holders for the articles to be operated upon, a carrier for said holders, and means for operating the plate and plunger and for intermittently moving
 10 the carrier constructed to move the plate while the holders are moving and to advance the plunger while the holders are at rest.

17. A machine for the purpose set forth comprising pitting mechanism, and a movably-
 15 supported holder, said pitting mechanism embracing an endwise - reciprocating punch, mechanism for reciprocating said punch comprising a spring which acts to depress the punch, a rotative cam provided with a cam-
 20 notch, and a lifting-bar operatively connected with said punch, having a part which rides on the periphery of said cam and is designed to enter said notch.

18. A machine for the purpose set forth comprising a pitting mechanism, and a movably-
 25 supported holder, said pitting mechanism comprising a reciprocating punch, and mechanism for reciprocating said punch comprising a spring acting to depress the punch, a
 30 rotative shaft, a cam on said shaft provided in its periphery with a cam-notch, a lifting-bar operatively connected with the punch and having a part which rides on the periphery of the cam and adapted to enter said notch,
 35 said cam having a limited angular movement on said shaft.

19. In a machine for the purpose stated, the combination with the punch, and a spring acting thereon, of a rotative shaft a notched cam-
 40 wheel thereon, and a lifting-bar operatively connected with the punch and engaging the periphery of the wheel, said wheel having a limited angular movement on the shaft.

20. A machine for the purpose stated comprising pitting mechanism and a movably-sup-
 45 ported holder, said pitting mechanism comprising an endwise-reciprocating bar, a punch therein, parallel levers pivoted at their outer ends to said bar, and at their other ends to a
 50 stationary part on the machine-frame, a spring acting on one of said levers to depress the bar, a rotative shaft, a cam thereon provided with a peripheral cam-notch, a lifting-bar pivoted to one of said levers and having a
 55 part adapted to engage the periphery of said cam.

21. A machine for the purpose stated comprising stuffing mechanism, and a movably-
 60 supported holder comprising two yieldingy-connected jaws constructed to form a holder for the article to be operated upon, said stuffing mechanism comprising a hopper, a charging-plate provided with a charging-recess and means for actuating said plate constructed
 65 to bring said recess opposite to the discharge-

orifice of said hopper to receive a charge and to move the recess opposite to the holder, and means for inserting said charge into the holder when the recess is moved opposite thereto.

22. A machine for the purpose stated com- 70
 75 comprising a stuffing mechanism and a movably-mounted holder, said stuffing mechanism comprising a hopper having a discharge-orifice, an endwise-reciprocating charging-plate provided with a charging-recess, means for moving
 80 said plate to bring the recess opposite to said discharge-orifice of the hopper to receive a charge and for moving said recess opposite to the holder, and a plunger adapted to pass through said charging-recess into the holder
 85 to insert said charge from the recess into the holder.

23. A machine for the purpose stated comprising stuffing mechanism, and a movably-
 85 supported holder, said stuffing mechanism comprising a hopper provided with a discharge-orifice, a charging-plate provided with a charging-recess, means for reciprocating said plate to alternately bring the recess opposite
 90 to the discharge-orifice of the hopper and the holder, a plunger which, when the recess is opposite the holder, is adapted to be moved through the recess, and force the charge from the recess into the holder, and means for recip-
 95 rocating said plunger comprising a lever pivoted to one end of the machine-frame and at its other end to the plunger, a rotative shaft and an eccentric on said shaft for oscillating said lever.

24. A machine for the purpose stated com- 100
 105 comprising pitting mechanism, stuffing mechanism, a series of holders arranged one in advance of the other, a carrier for said holders constructed to move the said holders successively to and past the pitting and stuffing
 110 mechanisms, said pitting mechanism embracing an endwise-reciprocating punch adapted to be inserted into said holders, and the stuffing mechanism embracing a hopper to contain a stuffing material, mechanism constructed
 115 to segregate charges of said stuffing material from the mass contained in the hopper and for inserting such charges into the holes made by the punch, a driving-shaft and operative connection between the driving-shaft
 120 and the punch of the pitting mechanism, and the segregating devices of the stuffing mechanism constructed to simultaneously operate the same.

25. A machine for the purpose stated com- 120
 125 comprising pitting mechanism, stuffing mechanism, a series of holders arranged one in advance of the other, a carrier for successively moving said holders to and past the pitting and stuffing mechanisms, a main driving-
 130 shaft, operative connections between both the pitting and stuffing mechanisms, and said driving-shaft to simultaneously operate the said mechanisms and operative connections between said driving-shaft and the carrier to

move said carrier when the pitting and stuffing mechanisms are at rest, said last-mentioned connections embracing a stop mechanism constructed to disconnect the carrier from
5 the driving-shaft during the operations of the pitting and stuffing mechanisms.

In testimony that I claim the foregoing as

my invention I affix my signature, in presence of two witnesses, this 22d day of August, A. D. 1900.

SILAS M. BROWN.

Witnesses:

WILLIAM L. HALL,
C. R. STICKNEY.