Sept. 15, 1931. A. K. SMITH 1,823,476

DATE FITTING MACHINE

Filed Nov. 25, 1927 5 Sheets-Sheet 1

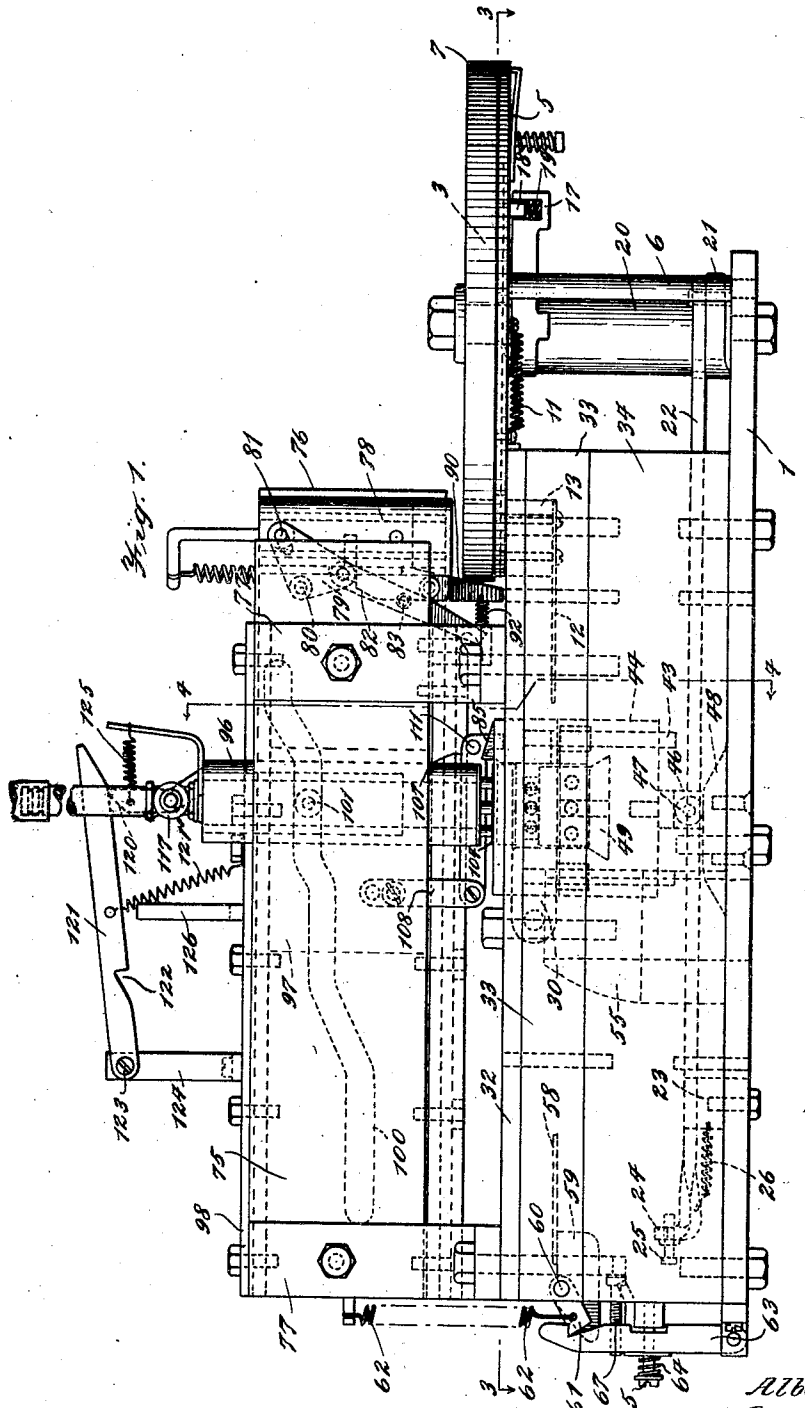


Fig. 1.

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DATE PITTING MACHINE

Filed Nov. 25, 1927 5 Sheets-Sheet 2

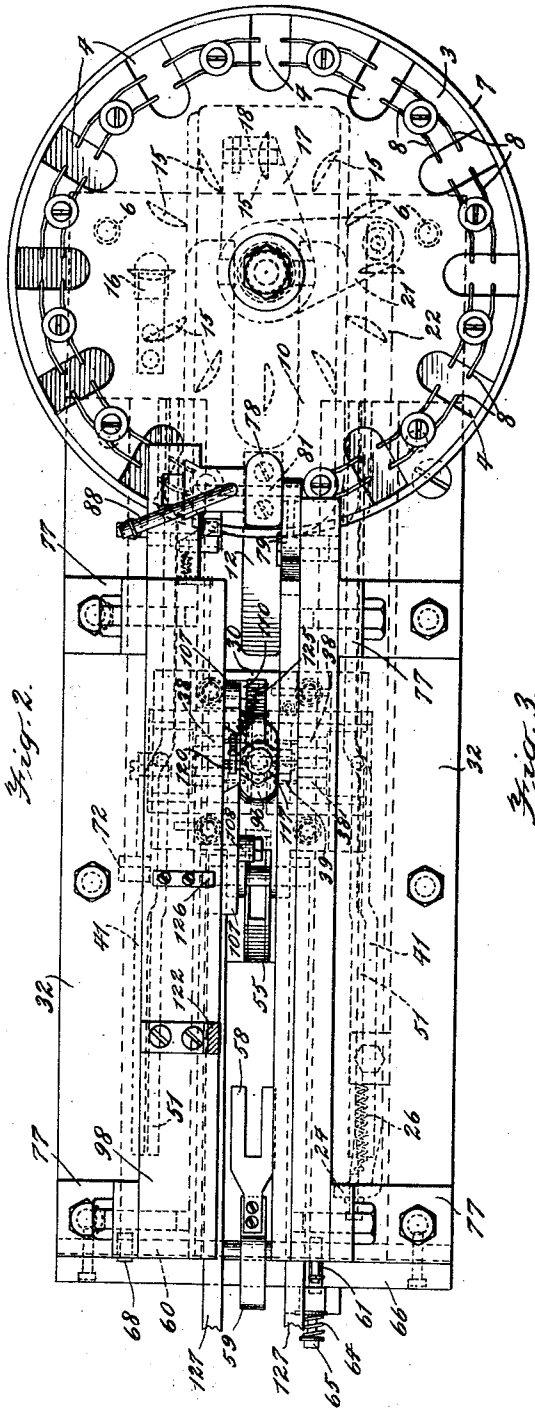


Fig. 2.

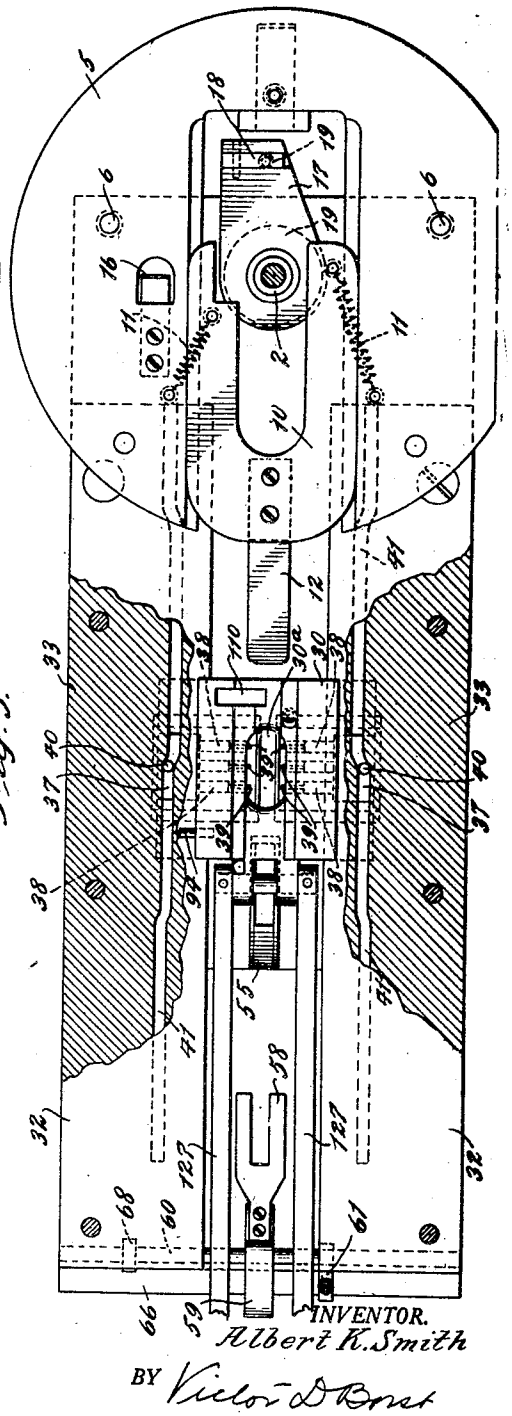


Fig. 3.

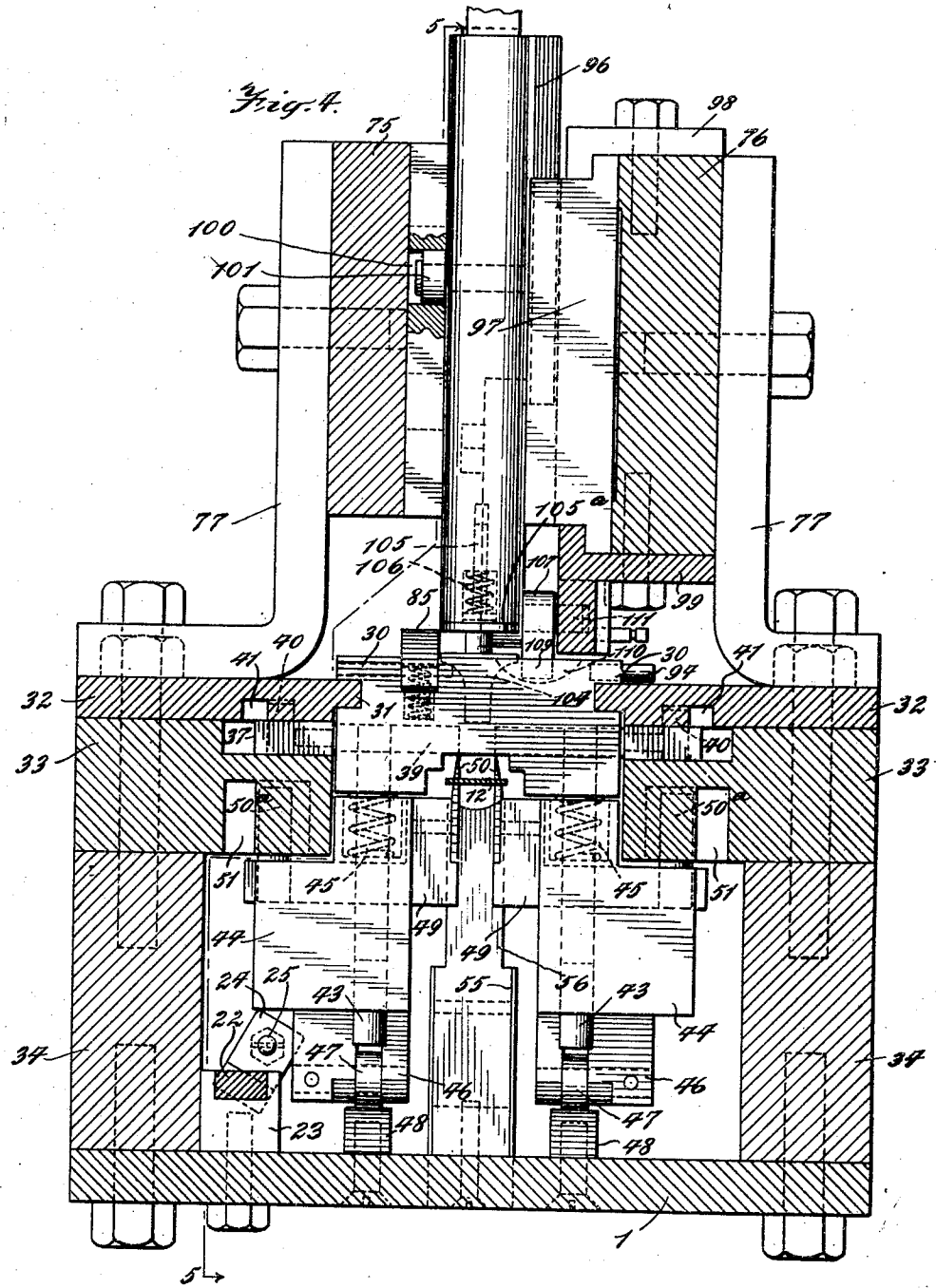
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DATE PITTING MACHINE

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Fig. 4.



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DATE PITTING MACHINE

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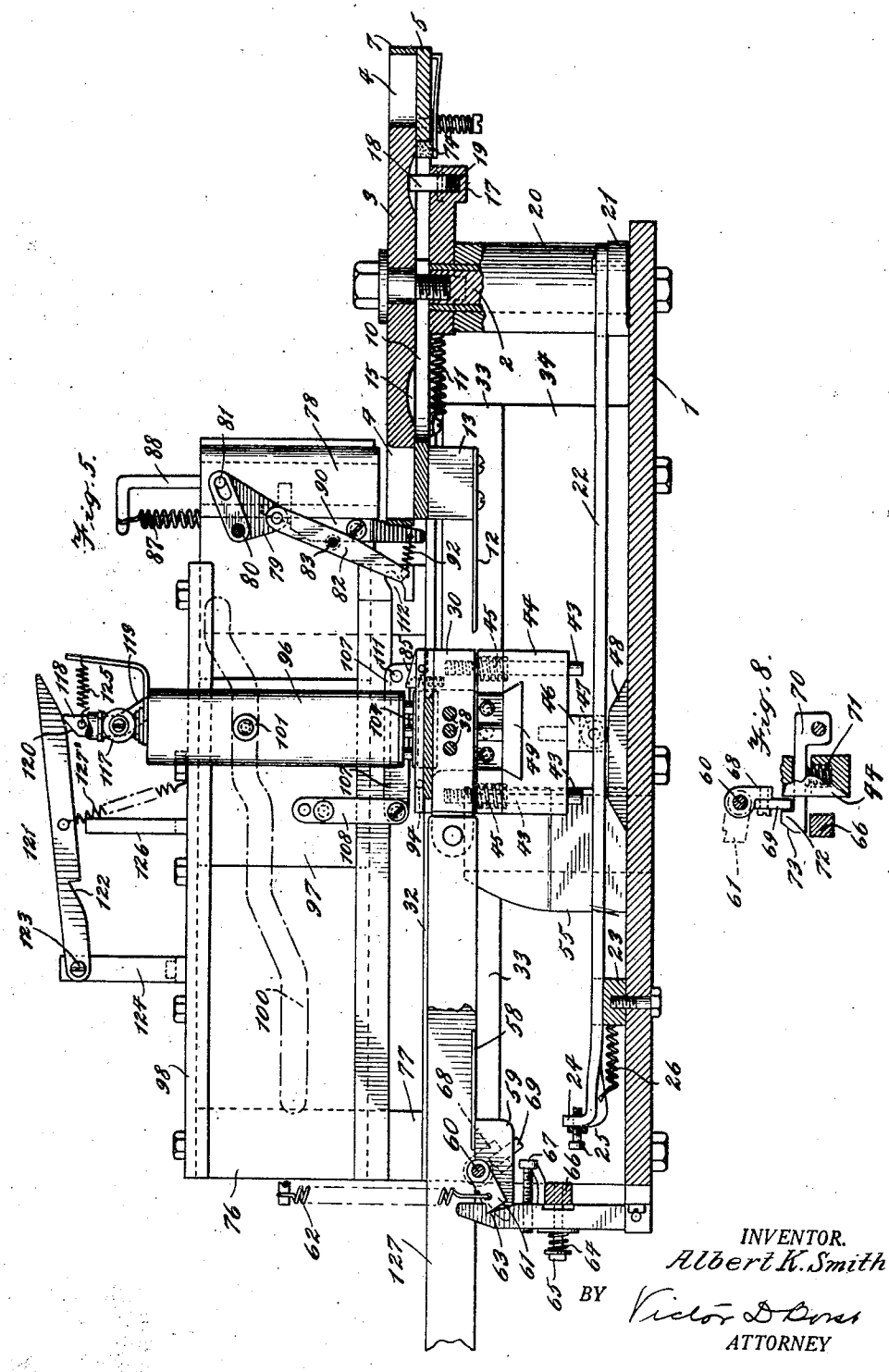


Fig. 5.

Fig. 8.

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Sept. 15, 1931. A. K. SMITH 1,823,476

DATE PITTING MACHINE

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Fig. 6.

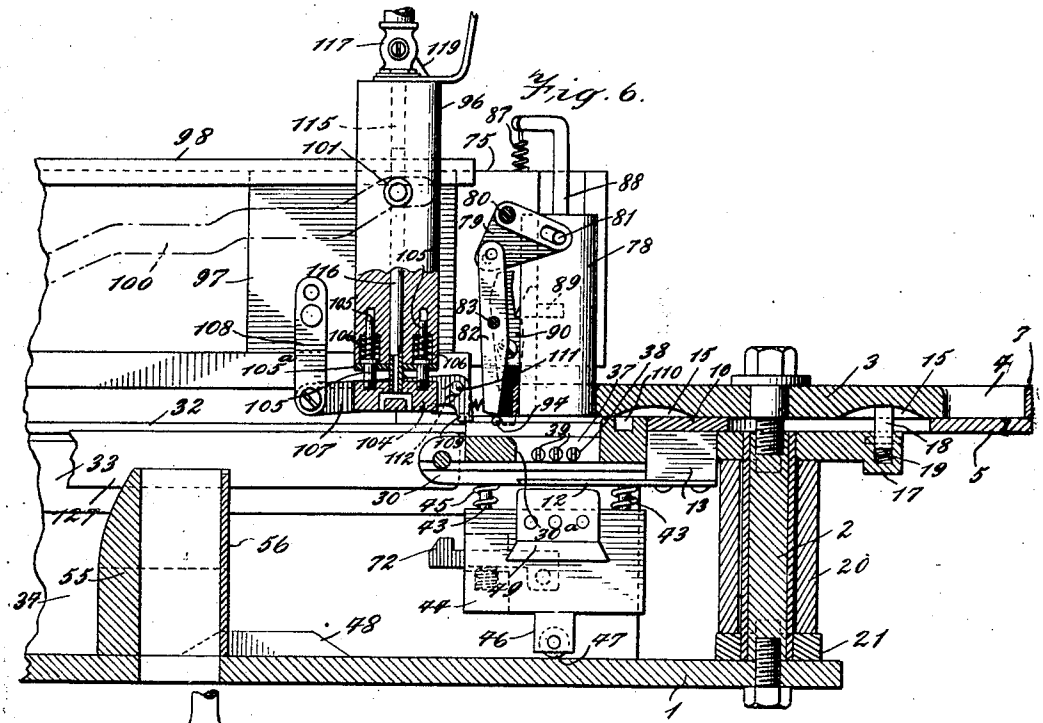
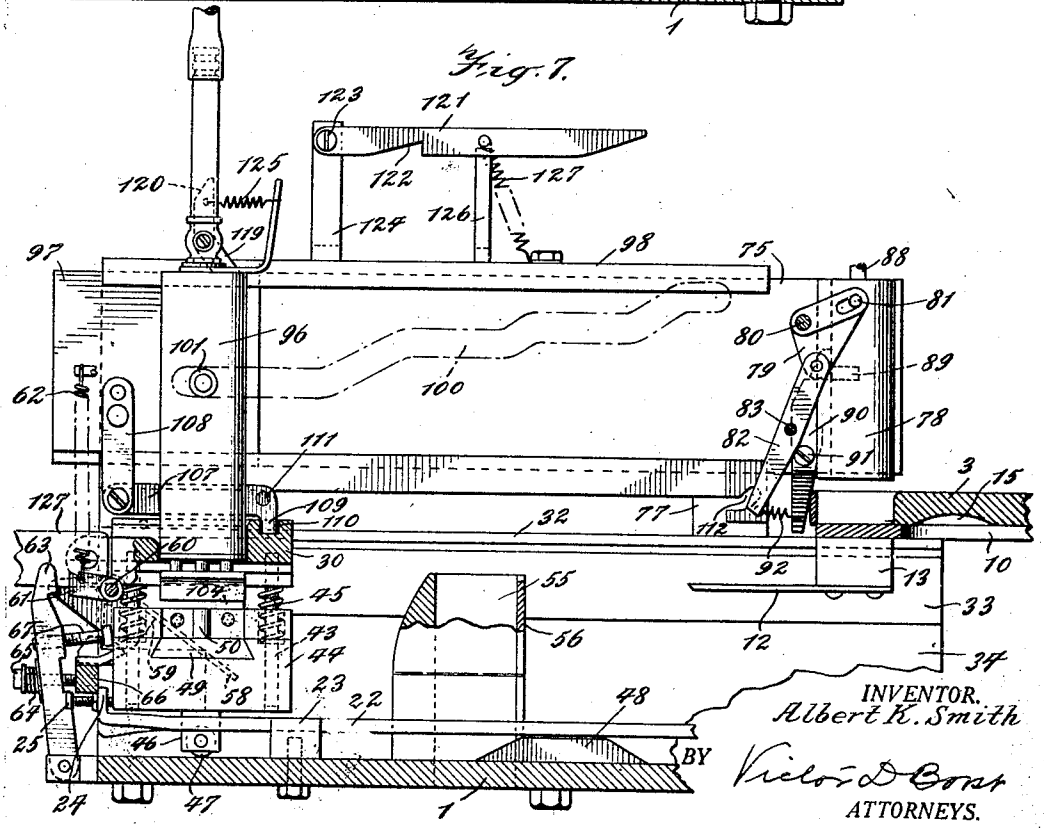


Fig. 7.



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Patented Sept. 15, 1931

1,823,476

UNITED STATES PATENT OFFICE

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DATE PITTING MACHINE

Application filed November 25, 1927. Serial No. 235,416.

This invention relates to date pitting machines of the type disclosed in my copending applications Serial No. 125,358, filed July 28, 1926, and Serial No. 234,082, filed November 18, 1927.

In my copending applications I have shown and described date pitting machines in which the dates are supported in a carrier and the pit removed by first definitely centering the pit, slitting the date longitudinally from end to end, spreading the date and then removing the pit from the date through the slit made therein. In these machines I have provided means for passing the date over a cutting edge which is stationary relatively to the direction of movement of the date, and have provided means for thereafter spreading the split date and removing the pit therefrom.

In my present application I disclose a machine employing the same steps as disclosed in my prior applications and in which the date is similarly passed over the extracting elements by means of a moving carrier, but in which the date is slit and spread by the same instrumentality, such as a knife moving in a direction at an angle to the direction of movement of the carrier. For this purpose I provide a sectional knife each part of which is given a compound movement, one movement toward the date for making an incision therein and a second movement away from the date for spreading the cut date to permit extraction of the pit through the incision. There is also provided a transfer conveyor for conveying the dates to the carrier which cooperates with a separate transfer member for passing the date from the conveyor to the date pocket in the carrier. Additional means are provided for retaining the date in the carrier during the pit extraction, for maintaining the extracting elements clean and free from date meat, and for positively discharging the pitted date from the carrier.

The machine will be described with more particularity with particular reference to the drawings in which:

Fig. 1 is a side eelvation of a machine constructed in accordance with my invention;

Fig. 2 is a plan of the same;

Fig. 3 is a horizontal section taken on line 3—3 of Fig. 1;

Fig. 4 is a vertical section taken on line 4—4 of Fig. 1 and illustrating the spreading action of the sectional knife;

Fig. 5 is a longitudinal section on line 5—5 of Fig. 4;

Fig. 6 is a longitudinal section through the center of the front end of the machine illustrating the transferring action;

Fig. 7 is an off center section taken through the rear end of the machine illustrating the date ejecting operation, and

Fig. 8 is a detail of the date ejector return mechanism.

The entire machine is mounted upon a bed plate 1 which has a vertical spindle 2 secured to the front end thereof, upon which a rotary disk transfer conveyor 3 having a series of radially disposed date pockets 4 arranged around the periphery thereof is mounted for rotation above and parallel to the bed plate, this conveyor serves to automatically feed dates to a reciprocating carrier slidingly mounted over said bed plate later to be described. A substantially circular plate 5 having the center and rear portion thereof cut away is supported upon studs 6 threaded into the bed 1 supporting the plate so as to underlie the major portion of conveyor 3 and in position to close the bottoms of pockets 4 with the exception of the rearmost pocket. A band 7 surrounds the periphery of the conveyor 3 and thereby closes the outer ends of the pockets. Wire springs 8 (Fig. 2) are provided and project into the pockets to center the dates therein and to aid in retaining the dates in the pockets. A substantial flat U-shaped slide 10 is mounted for sliding movement within the center cut away portion of plate 5 and is disposed therein flush with the upper surface of the plate and is normally urged rearwardly, or to the left, by springs 11 thus completing the continuity of the periphery of plate 5. A rearwardly projecting flat finger 12 is secured to the rear edge of the slide 10 and is spaced substantially below the lower surface thereof by a block 13 for reasons appearing hereafter. The under surface of conveyor 3 has arcuate notches

15 formed therein of equal number to the date pockets 4 which notches have an abrupt side wall upon one side thereof approached by an inclined arcuate surface from the other side thereof. A leaf spring 16 projecting upwardly through an aperture in plate 5 engages in notches 15 and limits rotation of the conveyor to one direction. The conveyor is rotated by means of an arm 17 having a small finger-like plunger 18 pivotally secured in the outer end thereof and constantly urged upwardly by a spring 19 in a position to engage in notches 15. Arm 17 is secured to the top of a sleeve 20 rotatable about spindle 2. The lower end of sleeve 20 carries another arm 21 to which is pivotally attached an actuating rod 22 extending rearwardly above the face of plate 1 and is spaced therefrom by rests 23. Rod 22 is normally urged forward by a spring 26 and terminates in an upturned end 24 into which is threaded a stud 25 for a purpose later to be described.

A substantially rectangular shaped carrier 30 having a date pocket 30*a* in the center thereof is mounted for reciprocation for substantially the entire length of bed plate 1 and for this purpose has its longer sides thereof grooved to receive tongues 31 constituting the side edges of two horizontal guide plates 32 bolted indirectly to each side of the bed plate and spaced therefrom by two horizontal cam bars 33 positioned above two spacing strips 34 extending substantially the full length of the bed plate along each side thereof but stopping slightly short of the front end. Tongues 31 extend sufficiently far forward to permit carrier 30 to slide under the rear portion of conveyor 3 to a position where pocket 30*a* will be directly under the rearmost pocket 4 in the conveyor. As carrier 30 moves forward to this position it will strike the slide 10 and carry it forward against the force of spring 11 and uncover the bottom of the rearmost pocket 4 lying directly over pocket 30*a*. Tongue 12 will then underlie pocket 30*a* and close the same.

The side walls of the carrier 30 opposite the pocket 30*a* are chambered and bored to receive two sliding pin blocks 37 each having three horizontal inwardly projecting pins 38 terminating in vertically disposed positioning blades 39 extending therefrom and adapted to reach into pocket 30*a* and penetrate the date therein to cen er the pit within the date. The pin blocks are also provided with upwardly projecting cam pins 40 (Figs. 3 and 4) which travel in cam grooves 41 cut into the under-surface of rails 32. At the front end of the machine where the rails underlie the conveyor, the grooves are relatively widely separated, but as they extend rearwardly and reach a point to the rear of the conveyor they converge and approach the center of the machine, thus moving blocks 37 and consequently blades 39 toward each other and into pocket 30*a* to center the pit of the date therebetween. After a short distance, the grooves again diverge to withdraw the pins from the date and out of the pocket in the carrier. Depending from carrier 30 guided upon dowel studs 43 threaded into the carrier are two knife blocks 44 constantly urged downwardly by springs 45 surrounding studs 43 and interposed between blocks 44 and carrier 30. The lower portion of blocks 44 have a lug 46 secured thereto each of which carries a cam roller 47 adapted to travel along the upper surface of bed plate 1 and over cam blocks 48 secured to the bed to simultaneously raise the lower blocks 44 at predetermined points along the reciprocatory path of the carrier. Each block 44 is also chambered to provide a transverse dovetailed groove to accommodate therein a similarly shaped knife slide 49 each of which carries a blade 50 upon the inner face thereof which blades are adapted to come together and form a single cutting knife terminating in a common cutting edge along the top thereof. The outer ends of slides 49 carry pins 50*a* (Fig. 4) projecting upwardly therefrom and engaging in cam grooves 51 cut into the under surface of cam bars 33. At the front of the machine grooves 51 are relatively widely separated as are grooves 41. As grooves 51 recede to the rear of the machine they converge toward the center of the machine to bring the blades 50 of the knife together just prior to the time when rollers 47 ride up upon cam blocks 48 thus holding the blades together as the knife is raised to make an incision in the date. At a point opposite to the high point of cam block 48 cam grooves 51 diverge a distance approximately equal to that of the diameter of the date pit which separates blades 50 to spread the side walls of the date. Grooves 51 remain relatively widely separated for the rest of their length.

A pit ejector for extracting the pits from dates is secured to the bed plate beneath the carrier and in the path thereof and takes the form of a rectangular chute 55, the width of which is approximately the diameter of a date pit. The front edge 56 is concaved at the upper end to permit the date to pass thereover and is of proper width to scrape the inner surfaces of blades 50 as they are carried past the extractor. The rear wall of the extractor is straight across the upper edge thereof and is adapted to contact with the pit in the date as the slit and spread date is carried by the carrier over the ejector, the pit thereby falling down into the chute and through an aperture in the bed of the machine. A suction device (not shown) may be attached to this aperture if so desired to aid in the extraction of the pits, as disclosed in application Serial No. 234,082, filed November 18, 1927.

A flat U-shaped sheet metal date ejector 58 is rigidly secured to an arm 59 fast upon a rock shaft 60 rotatably supported at each end in the ends of cam blocks 33 and extends forward to underlie pocket 30*a* when the carrier is in its rearmost position to engage a date therein and discharge it from said pocket. Adjacent one end of the rock shaft 60 there is rigidly secured thereto another arm 61 projecting rearwardly thereof and to which is secured a tension spring 62 under tension to normally urge shaft 60 in a clockwise direction and accordingly ejector 58 downwardly. Ejector 58 is retained in its horizontal position by engagement of arm 61 in the hooked end of a pawl lever 63 extending upwardly from and pivotally secured to the bed. Lever 63 is normally urged in contact with arm 61 by means of a spring 64 surrounding a stud 65 extending from a cross rod 66 and projecting through an aperture in pawl 63. Pawl 63 is also provided with a set screw 67 which projects inwardly from the pawl and is adapted to be struck by carrier 30 as it reaches the limit of its rearward motion to rotate pawl 63 about its pivot to release arm 61 and allow spring 62 to rotate shaft 61 and throw the ejector downwardly. Shaft 60 has rigidly secured thereto upon its opposite end a third arm 68 to which is secured a lug 69 adapted to be engaged by a lever 70 pivoted to the rear end of one of the knife blocks 44. Lever 70 is constantly urged upwardly by a spring 71 and has formed in the end thereof a finger 72 inclined upwardly at its rear surface 73. As carrier 30 moves rearwardly and approaches the end of its stroke, the inclined surface 73 will strike lug 69 and force lever 70 downwardly rocking it about its pivot. Upon the return stroke, however, the lug 69 will be positively engaged by finger 72 and shaft 60 will be positively engaged by finger 72 and shaft 60 will be rotated counter-clockwise thus restoring ejector 58 to its horizontal position to be relatched by pawl 63 and arm 61. As carrier 30 nears the rearmost limit it also strikes stud 25 thus carrying rod 22 rearwardly rotating conveyor 3 against the retarding action of a resiliently mounted frictional drag 74, a circumferential distance equal to the distance between two pockets 4 therein.

A pair of longitudinal side plates 75 and 76 are supported vertically on edge, spaced from and parallel to cam bars 33, above and on each side of the path of carrier 30 by means of angle brackets 77 bolted to the side plates and to the spacing strips 34 through guide bars 32. The front end of plate 76 has a dovetailed groove cut vertically therein to permit a sliding connection with a transfer plunger 78 having a similar shaped extension sliding in the groove. Plunger 78 serves to transfer the dates from conveyors to pocket 30*a* in the carrier, when pocket 30*a* is in its foremost position and underlying the rearmost pocket in the conveyor. Plunger 78 is reciprocated under control of the carrier, by means of a triangular link 79 pivoted at its apex 80 to plate 75. One arm of the link is pivotally connected to plunger 78 by pin 81 which engages in a slot in the end of the arm and the other arm is pivotally attached to the end of a lever 82 pivoted intermediate its ends at 83 to plate 75. The free end of lever 82 projects downwardly into the path of a finger 85 pivotally mounted in a recess in the top of carrier 30, and having its rear edge spring pressed upwardly, thus presenting an inclined surface adapted to ride under the end of lever 82 upon forward movement but to positively engage lever 82 upon rearward movement and to rotate lever 82 clockwise about its pivot 83 thereby rotating link 79 counter-clockwise and raising plunger 78 against the action of spring 87. Spring 87 is secured at one end to an angular bent rod 88 extending from and attached to the top of plunger 78 and is secured at the other end to plate 75, thus constantly urging plunger 78 downwardly. Plunger 78 is normally held up above conveyor 3 by engagement of a tapered dog 89, projecting outwardly from the extension of said plunger, with a trip lever 90 pivoted within its length at 91 to plate 76 and constantly urged in a clockwise direction by spring 92. The lower end of lever 90 lies in the path of a pin 94 extending laterally from carrier 30. As carrier 30 approaches the forward end of its stroke, pin 94 strikes the end of lever 90 thus rotating lever 90 counter-clockwise and freeing it from engagement with dog 89 and allowing spring 87 to force plunger 78 downward just as pocket 30*a* reaches a position directly under the rear pocket 4 in conveyor 3. Carrier 30 on its rear stroke, rotates lever 82 clockwise thus raising plunger 78 again and causing it to be relatched in its raised position by trip lever 90.

A second plunger 96 is provided to retain the date in the carrier after being deposited therein by plunger 78 and to aid in the extraction of the pit from the date during its passage over the extracting elements. Plunger 96 is slidingly mounted on a slide block 97 for vertical movement relative to the slide block by means of a dovetailed sliding jointure. Block 97 in turn is mounted for horizontal sliding movement along the inner surface of plate 76 and is held thereagainst by an upper guide strip 98 and a lower guide strip 99. Vertical movement of the plunger during this horizontal movement is controlled by a cam track 100 formed in plate 75 and in which a cam roller 101 travels. Cam track 100 is relatively high i. e. spaced from carrier 30,

at its beginning at the forward end but immediately drops a slight vertical distance when in a position corresponding to that where cam tracks 41 converge to bring the centering pins together. Track 100 takes a further drop when in a position over the pit ejector and takes a still further drop when over the date extractor thus forcing the plunger 96 downwardly, first to hold the date while the pit is being centered, the date cut and spread, secondly, while the pit is being ejected to insure its engagement with the ejector, and thirdly, to free the pitted date from the carrier and to cause it to be engaged by the date ejector. Plunger 96 is provided upon its lower end with a resiliently mounted tip 104 suspended from the plunger by means of two dowel studs 105 (Fig. 6) threaded into the tip and having shoulders intermediate their length engaged by plate 105 secured to the plunger. A pair of springs 106 around the pins between the shoulders and plunger 96 and resiliently urge the tip downwardly at all times. Plunger 96 and slide 97 are adapted to be connected to the carrier to be attached to and reciprocated therewith after plunger 78 has been raised and carrier 30 has passed from beneath said plunger and are adapted to be released from the carrier upon its return stroke to enable the carrier to travel under conveyor 3 to have another date deposited therein. For this purpose a locking link 107 is pivoted to a stationary link 108 secured fast to slide 97 and has a hook 109 upon its free end projecting downwardly to engage in a recess 110 in the top surface of carrier 30. This locking connection also serves to position plunger 96 directly over pocket 30*a* in carrier 30. The forward hooked end 109 of locking link 107 also has a pin 111 projecting laterally therefrom and adapted to ride under the rear edge of lower guide strip 99, which strip has an upwardly inclined slot 112, formed at its forward end. Thus as carrier 30 makes its forward stroke, pin 111 will engage in slot 112 and raise locking link 109 out of engagement with recess 110 thus permitting carrier 30 to continue the stroke without the accompaniment of plunger 96 and receive another date from conveyor 3.

In order to maintain the knife, ejector, and centering pins clean and free from date meat and syrup, plunger 96 has a central bore 115 extending the full length thereof which bore has a sliding connection through tube 116 to the tip 104 also bored both vertically and transversely to provide a plurality of openings leading from the tube 116 to the lower surface of the tip. The upper end of the bore in plunger 96 is connected to any suitable source of steam or water through a cock 117. The rotary core of cock 117 has an arm 118 rigidly secured thereto having a lower stop portion 119 engaging the top of plunger 96 to limit the rotation of the core of the cock in a clockwise rotation and an upper portion having an inclined edge 120 adapted to engage the lower edge of a horizontal lever 121 having a notch 122 cut therein within its length and being pivoted at one end 123 to a post 124 secured to the top of guide strip 98. Arm 118 is constantly urged in a clockwise direction by spring 125 whereas lever 121 is constantly urged in a clockwise direction against the stop 126 by spring 121′. As plunger 96 moves to the left or rearwardly the inclined edge 120 will ride under lever 121 raising it upon its pivot 123. Upon the forward stroke, the top of arm 118 will engage in notch 122 and arm 118 will thereby be rotated counterwise opening cock 117 and permitting steam or water, as the case may be, to flow down through plunger 96 and tip 104 to thoroughly cleanse the ejecting elements.

For operating the carrier, conveyor and associated parts, a pair of links 127 are pivotally connected to the rear end of the carrier at one end thereof and extend rearwardly of the machine and may be connected to any suitable source for imparting reciprocatory motion thereto of a throw equal to the stroke of the sliding movement of carrier 30, which is from a position with pocket 30*a* directly under the rearmost pocket 4 in conveyor 3 to a position directly under the rear end of cam track 100.

In summarizing the operation of the machine; an operator places dates in pockets 4 of conveyor 3 as it is rotated in accordance with reciprocations of carrier 30, which dates are carried rearwardly by rotation of conveyor 3 in a position directly over pocket 30*a* in carrier 30 when in its foremost position. At this point slide 10 is also in its foremost position thus uncovering the bottom of the rearmost pocket 4, and plunger 78 has been tripped by contact of pin 94 with lever 90 and plunger 78 has accordingly forced a date from the rearmost pocket 4 into pocket 30*a*. Carrier 30 then travels rearwardly, plate 10 receding therewith to again cover the rearmost pocket 4 and pin 110 descends in slot 112 and permits hook 109 to drop into recess 110 thereby joining plunger 96 and slide block 97 to carrier 30. During this movement of carrier 30, cam grooves 41 have forced pins 40 together to bring centering blades 39 into the pocket 30*a* and into the date therein to center the pit. Finger 85 has also engaged the lower end of lever 82 to raise plunger 78 upwardly which plunger is locked by engagement of lever 90 with dog 89. During this movement with the carrier 30 the date is retained in pocket 30*a* by finger 12 therebelow. As carrier 30 is moved rearwardly and is joined by plunger 96 in slide 97, cam grooves 51 converge and bring pins 50*a* to-

gether thus closing together the two blades 50 of the knife. Simultaneously therewith plunger 96 has made its first descent carrying tip 104 into pocket 30*a* to firmly hold the date therein. As carrier 30 continues its rearward movement rollers 47 travel up cam blocks 48 thereby forcing the knife into the date to make an incision therein and while the rollers are still on blocks 48 cam grooves 51 diverging at this point cause the blades 50 to be separated to spread the side walls of the date. Cam grooves 41 also diverge at this point to withdraw centering blades 39. The carrier then passes over pit ejector 53, the front edge of which scrapes the inner surfaces of the blades clean and the rear edge of which engages the pit to extract it from the date. At this point plunger 96 has descended further into pocket 30*a* thus insuring engagement of the pit with the rear edge of the ejector. In continuing its rearward movement, carrier 30 travels over date ejector 58 at which point plunger 96 has taken a still lower drop thus causing the date to be ejected from the carrier or at least engaged by the ejector 58. As carrier 30 approaches the rear limit of this stroke it engages stud 25 and stud 67. Engagement with stud 25 causes rod 22 to be moved rearwardly, thus rotating sleeve 20 and arm 17, plunger 18 of which engages in a notch 15 in conveyor 3 and rotates conveyor 3 clockwise to move another pocket 4 having a date therein toward the rear. Engagement with stud 67 rotates pawl 63 counter-clockwise thus releasing arm 61 and permitting spring 62 to rotate ejector 58 clockwise to positively discharge the date from the carrier. Upon the return stroke of carrier 30 toward the right, lug 69 will be engaged by finger 72 and shaft 60 will be rotated counter-clockwise thus returning ejector 58 to its horizontal position. Upon further forward movement of the carrier arm 118 will engage in notch 122 and thereby be rotated counter-clockwise opening cock 117 and permitting a flow of water or steam down through plunger 96 thus cleansing the ejecting elements, after which hook 109 will be raised out of recess 112 thus freeing the carrier. On reaching the forward end of its stroke, carrier 30 will again trip plunger 78 and the cycle of operations will be repeated.

It is obvious that various changes may be made in the detail of construction without departing from the spirit and scope of the invention as defined in the appended claims.

I claim:

1. In a date pitting machine, a date carrier mounted for movement along a predetermined path, a knife made up of a pair of relatively movable cutting members, means for imparting relative movement between said carrier and said knife in a direction toward said path to cause said knife to slit the date on said carrier, means for moving said members apart after they have entered the date, and an ejector to extract the pit from the date, said ejector being disposed independently of the carrier and beyond said knife in the direction of movement of the carrier.

2. In a date pitting machine, a movable date carrier, means for centering the pit of a date therein, a slitting knife, means for moving the knife toward and away from the date in the carrier to slit the date and move clear of the slit date, means for extracting the pit from the slit date, and means for moving the carrier and extracting means relatively to cause extraction of the pit.

3. In a date pitting machine, a date carrier mounted for movement along a predetermined path, means for centering the pit within the date, a slitting knife, means for imparting relative movement between said carrier and said knife in a direction toward said path to cause said knife to slit the date and an ejector to extract the pit from the date.

4. In a date pitting machine, a date carrier, means for centering the pit within the date, a reciprocating slitting knife mounted for movement toward said carrier, means for extracting the pit from said slit date and means for discharging the pitted date from said carrier.

5. In a date pitting machine, a date carrier, means for opening the date in said carrier including a pair of movable members entering said date for spreading the date open, means for ejecting the pit from the opened date and means for discharging said pitted date from said carrier.

6. In a date pitting machine, a movable date carrier, means for centering the pit within the date in said carrier, means for opening the date including a pair of movable members for piercing the side of the date on the carrier and spreading the date open, means adjacent the path of travel of the carrier for ejecting the pit from the opened date and means for discharging said pitted date from said carrier.

7. In a date pitting machine, a movable date carrier, a knife for slitting and spreading the date in said carrier including a pair of movable members, means for actuating said members, first to make an incision in the date and then to spread the side walls of the cut date, and an ejector for extracting the pit from the date, said ejector being disposed independently of said carrier and beyond said knife in the direction of movement of said carrier.

8. In a date pitting machine, a movable date carrier, means for centering the pit within the date in said carrier, a knife for slitting and spreading said date including a pair of movable members, means for actuating said members first to make an incision in the date and then to spread the side walls of the cut

date, an ejector for extracting the pit from the date, and means for discharging the pitted date from said carrier.

9. In a date pitting machine, a movable date carrier, means for opening the date in said carrier including a pair of movable members for spreading the side walls of said date, means for cleaning the surfaces of said members during their movement, and means for ejecting the pit from the opened date.

10. In a date pitting machine, a movable date carrier, provided with a pocket for a date, a knife for slitting and spreading the date in said pocket including a pair of separable blades meeting in a common cutting edge, and means for extracting the pit from the date in said pocket after said date has been slitted.

11. In a date pitting machine, a movable date carrier, a knife for slitting and spreading a date in said carrier including a pair of separable blades meeting in a common cutting edge, means for actuating said knife to cause said members to enter said date and move apart to spread the meat of the date, and the means for cleaning the interior contacting surfaces of said blades.

12. In a date pitting machine, a date ejector, a plurality of horizontal pins terminating in vertically disposed blades adapted to project into said carrier and to penetrate said date to center the pit therein, a knife for slitting the date, and a pit ejector for removing the pit from the date through the slit.

13. In a date pitting machine, a date carrier having a pocket therein to receive a date, a transfer conveyor for automatically feeding dates to said carrier, a plunger for transferring the dates from said conveyor into said pocket, means for retaining the dates in said pocket, and pit removing elements disposed adjacent said carrier to remove the pits from the dates supported therein.

14. In a date pitting machine, a date carrier having a pocket therein to receive a date, a transfer conveyor for automatically feeding dates to said carrier, a plunger for transferring the dates from said conveyor into said pocket, means for retaining the dates in said pocket, and pit removing elements including pit centering elements disposed adjacent said carrier to remove the pits from the dates supported therein.

15. In a date pitting machine, a reciprocating date carrier having a pocket therein to receive a date, a transfer conveyor for automatically transferring dates to said carrier, means for retaining the dates in said carrier, means operable after a predetermined movement of said carrier to connect said retaining means to said carrier, and pit extracting elements disposed adjacent said carrier operable to remove pits from the dates in said carrier as the carrier passes said elements.

16. In a date pitting machine, a reciprocating date carrier having a pocket therein to receive a date, a transfer conveyor for automatically transferring dates to said carrier, means for retaining the dates in said carrier, means operable after a predetermined movement of said carrier to connect said retaining means to said carrier, means for discharging a cleaning fluid through said means and over said carrier and associate parts at each reciprocation of said carrier, and pit extracting elements disposed adjacent said carrier operable to remove pits from dates in said carrier as the carrier passes said elements.

17. In a date pitting machine, a reciprocating date carrier having a pocket therein to receive a date, a transfer carrier for automatically feeding dates to said carrier, a plunger for transferring the dates from said conveyor to said pocket, and a second plunger for retaining the date in said pocket, means for connecting said latter plunger to said carrier to reciprocate therewith for a certain portion of the travel of said carrier, and pit extracting elements for removing the pit from the date as the carrier carries the date therein past said elements.

18. In a date pitting machine, a carrier for supporting a date, a knife for slitting the date, and a date ejector for discharging the date from the carrier comprising a pivoted finger, means for urging said finger in one direction and a latch for retaining said finger against the effect of said latter means, and means controlled by said carrier for tripping said latch to cause the finger to discharge the date from the carrier.

19. In a date pitting machine, the combination of a carrier having a pocket for receiving a date, means mounted in openings in the walls of the pocket and having a plurality of surfaces disposed in a row lengthwise of the date and adapted to engage the meat of the date for centering the pit, actuating means for said centering means, and means operable to engage and extract the centered pit from the date.

20. In a date pitting machine, a carrier having a pocket for receiving a date, plungers movable in openings in the walls of the pocket and having relatively long narrow end surfaces adapted to engage the meat of the date for centering the pit, means for moving said plungers on opposite sides of the date toward each other to center the pit, and means operable to engage and extract the pit from the date during movement of said carrier.

21. In a date pitting machine, the combination of a carrier having a pocket for receiving a date, said carrier being movable in a horizontal plane, plungers movable in openings in opposite walls of the pocket and having relatively long narrow end surfaces,

means for moving said plungers on opposite sides of said date toward each other in a horizontal plane to cause the ends of said plungers to press against the meat of the date and center the pit therein, and means operable to engage and extract the centered pit from the date.

22. In a date pitting machine, the combination of a carrier having a pocket for receiving a date, plungers movable in openings in opposite walls of the pocket and having relatively long narrow ends, said plungers being operable on movement toward each other to engage the meat of said date at their ends to center the pit, means including cams for effecting movement of said plungers, and means for engaging and extracting the centered pit.

In witness whereof, I hereunto subscribe my signature.

ALBERT K. SMITH.