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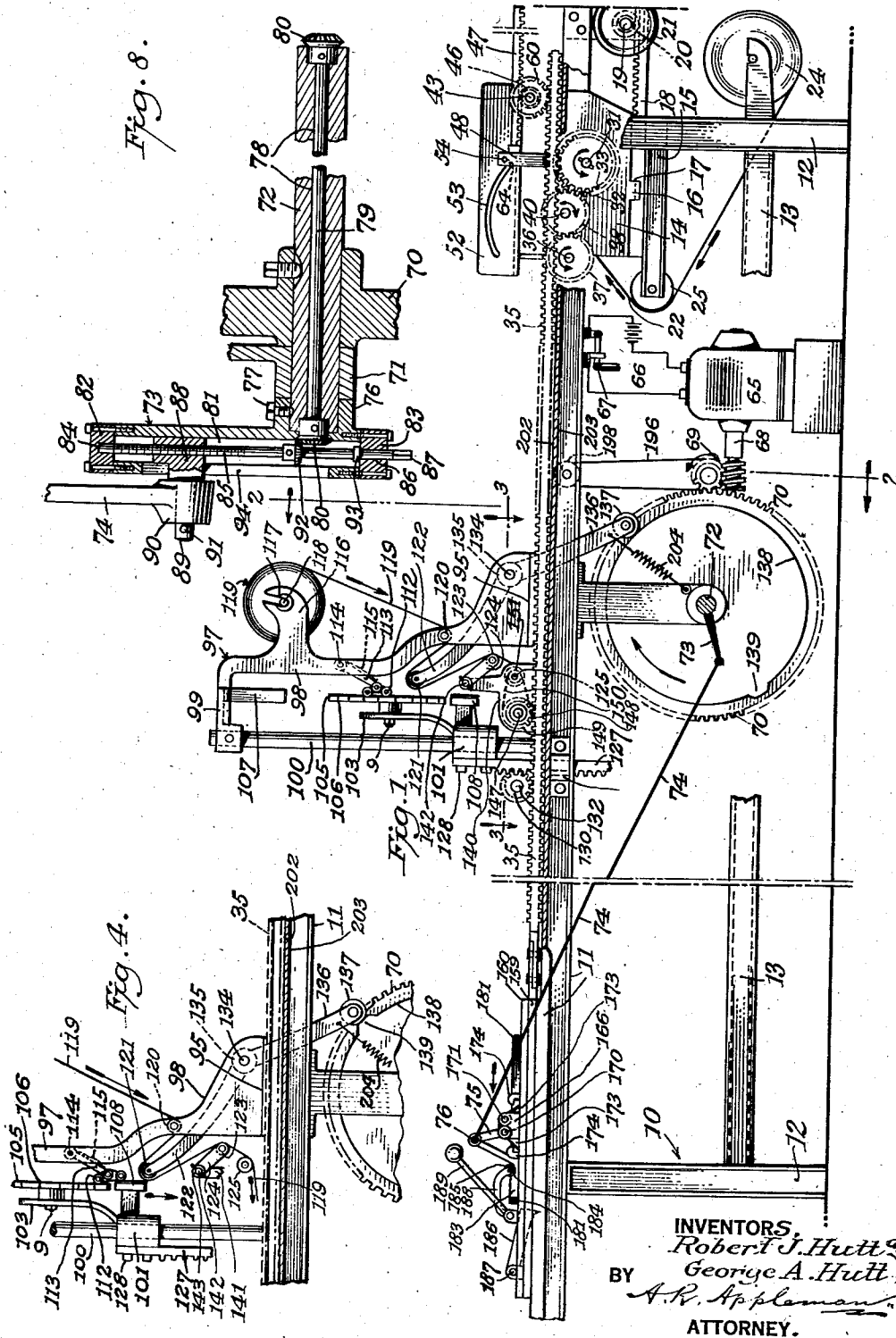
R. J. HUTT ET AL

2,027,232

PACKAGING MACHINE

Filed March 24, 1933

5 Sheets-Sheet 1



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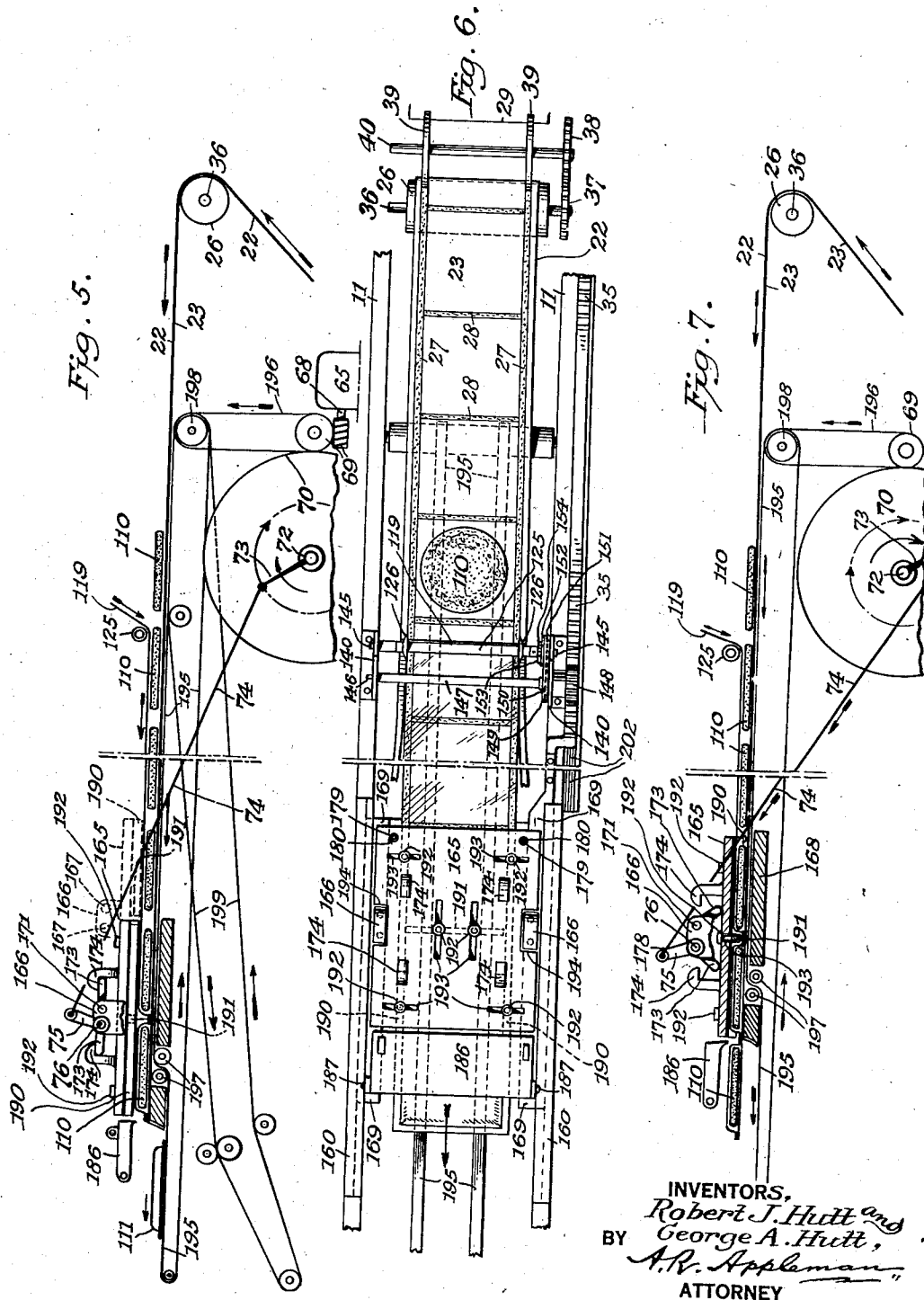
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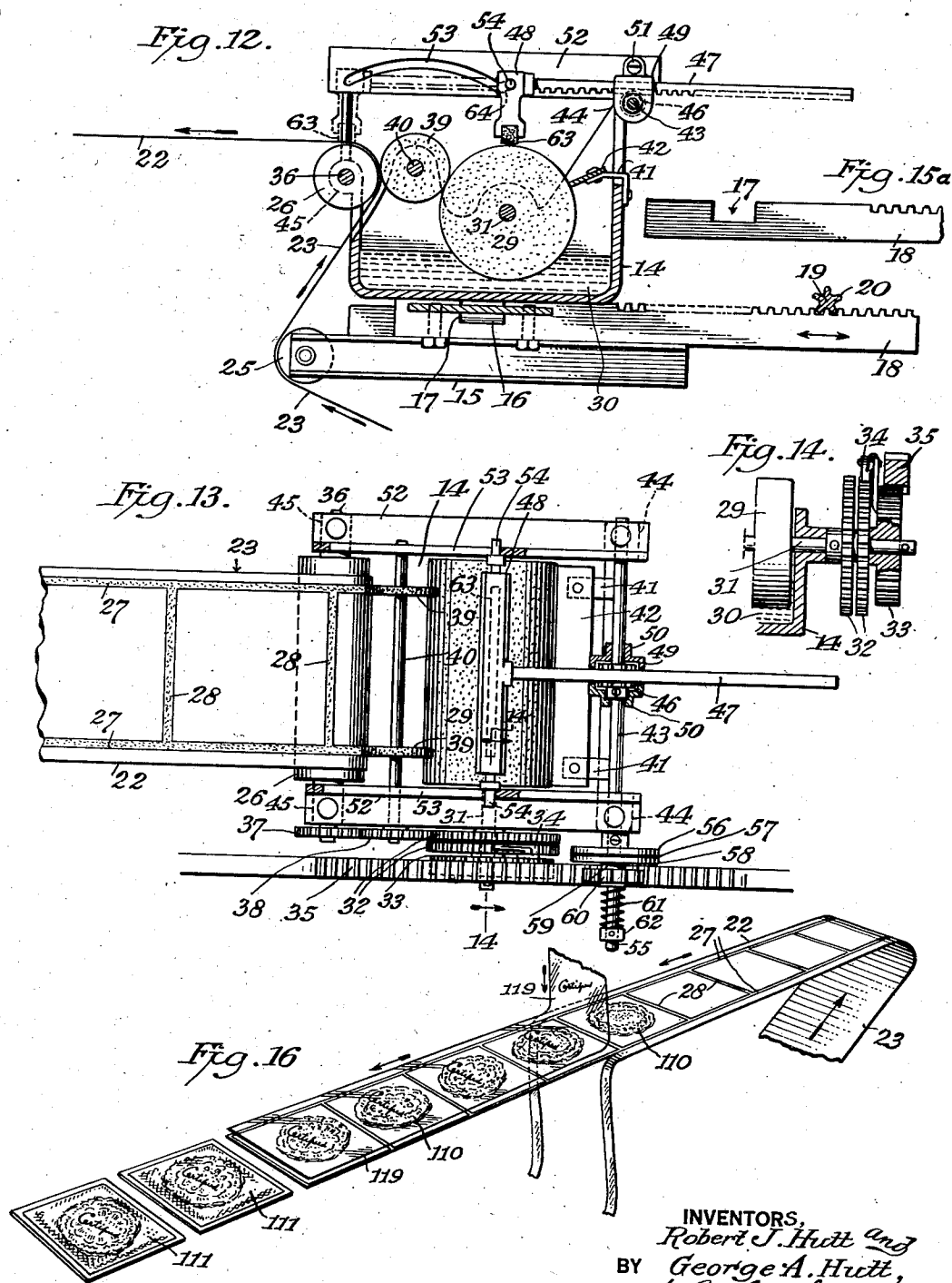
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5 Sheets-Sheet 5



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UNITED STATES PATENT OFFICE

2,027,232

PACKAGING MACHINE

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Application March 24, 1933, Serial No. 662,492

7 Claims. (Cl. 93—2)

Our present invention relates to certain new and useful improvements in packaging machines and it is the object of this invention to greatly simplify certain organization of parts in machines of this type, to obtain higher efficiency in both production and costs; and further to produce such a machine having automatic actions to perform all of its principal functions.

A further object of the invention resides in means for imparting an intermittent drag feeding action of the material which is to form the packages and also the material comprising the contents of said packages, said feeding action occurring simultaneously with the hermetically sealing operation, and with the cutting operation for progressively severing the finished packages from a composite web train of connected portions divided by adhesive lines, each portion constituting a package when sealed and cut free from said web train.

A further object being to provide cutting means for simultaneously trimming the side edges of package forming webs, said cutting means also functioning as guides for maintaining the web train in true alignment in its passage or movement through the machine.

A still further object being to provide means for printing a trade name or other matter upon the upper web or cover sheet of the web train immediately following the disposition of the contents of a package upon the base web and before the introduction of said upper web upon said contents as a cover therefor.

A still further object being to provide means for applying marginal lines of adhesive to the base-web and means for applying predetermined spaced transverse lines thereto and controlled by devices operated by the intermittently drag-feed mechanism.

A further object of the invention being to provide means automatically operable when the drag feed mechanism is moving in the feeding direction for progressively cutting the finished packages from the web train.

We will now enter into a detailed description of the construction as disclosed in the drawings in which similar reference characters are employed to designate corresponding parts throughout the several views, it being understood that variations and modifications may be made within the scope of the broader claims herewith submitted.

In the drawings:

Fig. 1 is a general side view of the improved packaging machine, parts being in section, others diagrammatic and some parts being omitted for clearness, the general position of parts being at near the end of the drag-feed movement.

Fig. 2 is a partial vertical section about on

the broken line 2—2 of Fig. 1 and with parts omitted and parts broken away.

Fig. 3 is an enlarged partial sectional plan view about on the broken lines 3—3 of Figs. 1 and 2, with parts omitted and parts broken away.

Fig. 4 is a fragmentary side view of parts of the printing mechanism in the position just prior to the printing operation.

Fig. 5 is a diagrammatic side elevation of a portion of the machine, showing certain supporting belts for the web-train and belts for discharging waste material; the sealing and feeding means being elevated at the start of the backward pick-up movement.

Fig. 6 is a skeletonized plan view of parts of the machine and showing the presser plate and its supporting carriage at the finish of its forward pick-up movement.

Fig. 7 is a diagrammatic fragmental side view, showing the sealing and feeding plate, dropped into its sealing position, just prior to the forward thrust of crank rods to force the plate forwardly in a drag-feed movement to draw the web train toward the forward end of the machine a distance of the length of one package, and simultaneously with the cutting off of a finished package.

Fig. 8 is an enlarged fragmental section of one of the adjustable cranks of the machine.

Fig. 9 is a fragmental side elevation showing features of the sealing and feeding means and the automatic cutting means.

Fig. 10 is a view similar to Fig. 9, but showing the operation of raising the cutter to the inoperative position, during the brief rest of the carriage at this point.

Fig. 11 is an enlarged partial vertical section of the carriage and sealing means with parts broken away, said section being taken about on the line 11—11 of Fig. 9.

Fig. 12 is a fragmental detail of the paste-box and associated parts.

Fig. 13 is a top or plan view thereof.

Fig. 14 is a detail sectional elevation taken about on the line 14—14 of Fig. 13.

Fig. 15 is an enlarged fragmental detail plan view showing the cutter shaft and its driving means.

Fig. 15a shows a fragment of one of two rack bars employed, through which a glue box may be adjusted.

Fig. 16 is a composite perspective view, showing graphically the manner of forming the web-train of united unfinished packages and two sealed finished products.

The improved packaging machine may include a suitable supporting frame 10, comprising top side bars 11, corner legs or posts 12, and lower side bars 13, together with cross bars, rods or shafts if required to brace the frame laterally

but in practice, the many operative cross shafts of the mechanism may act to tie the side frames or bars together.

At the rear end of the machine is a paste box 14, preferably mounted for forward and backward adjustment on supports 15 at each side of the machine (but one being shown) and on the opposite bottom corners of the paste box 14, are appropriate lugs or projections 16, which rest each in a pocket 17 formed in opposite rack bars 18, which are slidable on the supports 15, and are operated by a cross-shaft 19, having gear parts 20 to mesh with the rack bars 18, and said shaft is manually turned through a hand-wheel 21, fast thereto, for the purpose of adjustably sliding the paste-box 14, forwardly or backwardly on the frame 15, to change the tension or length of the horizontal pasted portion 22, of a comparatively heavy web or back-sheet 23, taken from a convenient source of supply 24, and drawn around an idler roller 25 upwardly and over a platen-roller 26, then forwardly to printing, sealing and feeding devices hereafter described.

Longitudinal, and spaced cross lines of paste 27 and 28, respectively, are applied to the back-sheet web 22 as it traverses the platen roll 26, in the following manner and by devices which will now be described:

A feed-roller 29, dips into the paste 30 in paste-box 14 and is mounted on a cross-shaft 31, having fixed on an extended end thereof, a pair of gears 32, and loosely mounted to rotate freely on this extended end is a third gear 33, carrying a spring-pressed dog 34, in contact with the teeth of the outer of said fixed gears.

Constantly in mesh with the free running gear 33, is a reciprocating rack 35, hereinafter referred to.

The platen-roller 26, is driven through its shaft 36 and a gear 37, thereon by a central gear 38 of a train including the inner one of the double gears 32; thus the longitudinal paste lines 27, are applied to the upper face of the back-sheet or web 23, by disk paste applying rollers 39 which are supported on a shaft 40, carrying the said central gear 38, said disk rollers having constant operative contact with the paste feed roll 29 and the said back-sheet 23, as it is drawn over the platen-roller 26.

In operation, the rack 35 when moving backward or to the right in Fig. 13, rotates the loose-gear 33 and drags the dog or pawl 34 inoperatively over teeth of the outer one of the double gears 32, but when the said rack starts forwardly the dog 34 picks up the double-gears 32, and through the said gear train, including the inner of the double-gears 32, central gear 38, and platen-roller gear 37, the rollers 29, 39 and 26 are turned to permit a determined length of the back-sheet 23 to be drawn around and over the platen-roll 26, the length of the shift being the longitudinal dimension of a determined package to be formed by the machine.

Attached to suitable brackets 41, secured to the back of the paste-box 14 is a scraper-blade 42, extending longitudinally of the feed-roll 29 and in constant contact therewith, for arresting excessive paste carried upwardly on said roll which paste excess flows back into said pan 14.

Referring yet to Figs. 1, 12 and 13 of the drawings, a rock-shaft 43, is journalled in bearings 44, extending upwardly from the rear corners of the paste-box 14, front bearings 45 on this box serv-

ing as journals for the platen-roller 26, as will be obvious.

The rock-shaft 43, has a gear 46 keyed thereto, with which a gear-rack 47, secured to a cross-head 48, is meshed, and these parts are operatively held in mesh by a suitable two-part box casting 49, having opposite tubular bosses 50 loosely encompassing the said rock-shaft for permitting the gear-rack 47 and the attached cross-head 48 to have oscillating movements for the purpose presently set forth; the two-part box casting being held together by a cross-bolt or screw 51, see Fig. 12.

Fixedly supported above the ends of the paste-box, 14, are angle plates 52, each having an arcuate slot 53, through which, pins 54 extending from the ends of the cross-head 48 operate to guide and limit the movements of the said cross-head, when it is manipulated in the operation of the rock-shaft 43 through said gear-rack 47.

The rock-shaft 43 (Fig. 13) is extended at one side as at 55, and keyed to the shaft extension just outward of the corresponding bearing 44, is a friction gear or disk 56 provided with a frictional facing 57 adapted for coaction with a second friction gear or disk 58, united by a hub 59 with a spur gear 60 resting on and in constant mesh with the main power gear rack 35.

The unit constituted by the said second friction gear 58, the spur gear 60 and the connecting hub 59, is free on the shaft extension 55, and to maintain the said friction gears and facing in proper operative contact for driving shaft 43, a charged spiral spring 61 is interposed between the spur gear 60 and a collar 62, pinned to said shaft extension 55.

The transverse paste lines 28, are applied to the back-web 23 in the following manner: A paste pad 63, (Fig. 12), is carried by the cross-head 48, and in the back or the dead stroke of the gear rack 35, when the back-web is at rest, the gears 60, 58, 56 and 46 on shaft 43, and the gear rack 47, cooperate to move the cross-head forward to cause the projecting pins 54 to abut the forward ends of the arcuate slots 53, in the angle-plates 52, and assume the positions indicated in dotted lines in said Fig. 12, with the paste-pad 63, resting on said back-sheet over the platen roller 26, and when the power-rack 35 is reversed in a manner hereafter described, the motion of the above described cooperating gears and gear-rack will be reversed for drawing the cross-head 48 backwardly, causing the pins 54 to abut the rear ends of said arcuate slots 53 and support the cross-head and paste pad slightly above and over the axis of the feed roller 29.

The arcuate slots have upturned rear ends as at 64, to suspend the head in a manner to cause the pad 63 to clear the feed roller 29; but at the beginning of its forward movement, to apply a transverse paste line on the back-web, said cross-head takes a sharp drop to permit contact of the paste pad 63 with the feed roller 29, to pick up a fresh supply of paste therefrom.

The supporting frame 15 of the paste box and its associated parts, may be of any desired construction to permit of horizontal adjustment, through the operation of the gear or gears 20 and gear rack or racks 18.

Our primary power means may comprise an electric motor 65, having an operating circuit 66, controlled by a convenient switch 67; the motor shaft 68, having worm and gear connections 69, with a master gear 70, keyed on a crank-shaft 72 extending across the frame 10 and journalled

as at 71, to maintain accurate respective power drive for opposite cranks 73, each having cooperative adjustable means for assuring synchronous movement of their connected driven elements, including directly connected crank rods 74, in turn connected to rock-arms 75, through a cross-bar 76, connecting both of said rock-arms, at opposite sides of the machine.

Each of the cranks 73, Fig. 8, is of box-like form, having an integral tubular boss 76', into which the ends of the crank-shaft 72 project and are locked by a bolt or screw 77. The crank-shaft has a central bore 78, extending entirely through from end to end, to receive a coupling shaft 79, having bevel gears 80, fast on its opposite ends.

The cranks 73 have each a longitudinal chamber 81, closed at its ends by bolt-secured caps 82 and 83, the former having a socket 84, in which one end of an adjusting screw 85 may rotate, the opposite end of the adjusting screw passes through a bore 86 in the bolted cap 83 and is squared at 87 to receive a socket-wrench or the like for turning the screw for adjusting a threaded crank-pin block 88, having a crank-pin 89 extending outwardly therefrom, and passing through the eye 90 of a crank rod 74, which is held on said crank pin 89 by a cross pin 91. This adjusting operation is transmitted to a similar screw of a similar crank on the opposite side of the machine, through a bevel gear 92, in mesh with one of said bevel gears 80 and through said coupling shaft 79 rotatable in crank-shaft 72; said coupling shaft having keyed thereto another of said bevel gears 80 to mesh with another of the bevel gears 92 (not shown) on the opposite side of the machine.

The adjusting screw 85 may have a thrust shoulder 93, and the outside walls of the cranks 73, may be formed with slots 94 in which the crank pin blocks 88 operate.

The printing mechanism, preferably located about centrally of the packaging machine, will now be described in detail with reference to Figs. 1, 2, 3 and 4 of the drawings:—

Secured to the top of the frame 10, through flanges 95 by bolts 96, is an upright frame 97, comprising parallel side members 98, securely braced by a top bar 99, secured to the top portions of rounded guide posts 100, which are secured to and rest on the top face of the side bars 11 of the frame 10. Slidable on these posts 100, are sleeves 101, connected by a cross-bar 102 formed centrally of its length with an upstanding bracket 103, having a slot 104 for adjustably supporting, through a pivoting bolt 9, a revoluble inkplate 105 having peripheral ratchet teeth 106, which in operation are progressively contacted, by a spring finger or dog 107, for turning said ink-plate in step movements, when said cross-bar 102 is operatively reciprocated as and for the reasons presently described.

Fixed on the cross-bar 102, at the base of the upstanding bracket 103, is a printing block 108, for carrying printing type or characters 109, of any desired pattern, see Fig. 3.

The contents of the packages are designated at 110, and the finished packages are shown at 111, said contents may preferably comprise a stack of lace paper doilies smaller than the paper pocket enclosing them, but the contents and packages may be of other material and design if desired.

Printing ink carried on the ink plate 105 may be transferred at intervals to the type 109

of the printing block 108, by a set of inking rollers 112, mounted on a swingable frame 113, suspended from a cross-rod 114; the frame being urged forwardly by a looped spring 115, or the like, see Figs. 1, 2 and 4.

For supplying the upper or cover sheet, preferably of glassine, a transparent material, and to impose said cover sheet upon the contents of packages to be formed, the following means are employed:—

Backwardly directed bracket arms 116, extending from each side member 98 of the upright frame 97, are formed with bearing slots 117, to receive the journals of a cross shaft 118, on which a supply roll 119, of glassine or other cover sheet material is led down under a direction roll 120, thence over a platen roll 121, bodily swingable on a tiltable frame 122; thence over a tension roller 123, rotatable on adjustable arms 124; thence under a roller 125, supporting cutters 126 and then forwardly over the progressive contents of packages to be made, said contents resting on the lower web or base-sheet 23, in spaced relation.

The printing means, including the cross-bar 102, parts thereof and the elements supported thereby, have operative vertical reciprocatory movements on said guide posts 100 and to impart these movements in a positive manner, the upper ends of gear racks 127, are bolted as at 128 to the sleeves 101 of the cross bar 102, said racks passing through suitable guides 129, on the side rails 11, of the frame 10, and are held in constant mesh with gears 130 and 131, (Fig. 3) locked on a cross-shaft 132, operating in bearings 133 also fixed on the frame 10; the gear 130 having an operative face wider than gear 131, to overlap the reciprocating rack-bar 35 and mesh with it to take driving power therefrom, thus the printing sequences are perfectly timed with the feeding movements of the machine.

A rock-shaft 134, is mounted in the side members 98 of the upright frame 97, near its base and said rockshaft is pinned to hubs 135 of said arms of the tiltable frame 122, one of the side arms having an extension or arm 136, which carries a roller 137 at its free end, which runs on a circumferential shoulder 138, on the master gear 70; the shoulder being provided at a point along its face with a short cam 139, which contacts with and elevates the roller 137 at the proper time, for tilting the frame 122, to move the glassine sheet traversing the platen-roller 121 into the path of the printing block 108 to receive an imprint therefrom, the said block moving downwardly with the identical speed of said glassine sheet, to avoid smearing the printed result, the above tilting operation being shown in Fig. 4, showing the roller 137, riding over the cam 139, and the printing block 108, entering into contact with the glassine sheet 119 moving downwardly over the platen roller 121 at equal speeds, as above set forth.

Bearing plates 140, are bolted to the opposite side rails 11, of the frame and have upstanding portions 141, for supporting a threaded cross-rod 142, on which the tension arms 124 are clamped to a desired angle by thumb nuts 143, a spacing sleeve 144, on said cross-rod 142, taking the locking thrust of said thumb nuts to hold the arms where put. The cutter supporting shaft 125, also has its journals 145, mounted in the bearing plates 140, as are the journals 146, of a sprocket shaft 147, which has pinned thereto a power driven gear 148, meshing with the power

rack 35, and a sprocket 149, carrying a chain connection 150 to a smaller sprocket 151 loose on an end of said cutter shaft, said sprocket 151, being formed with a side flange 152, which carries a pawl or dog 153, engaging in ratchet wheel 154, fast with said cutter shaft 125. This arrangement permits the cutters to be driven in the feeding direction only by the forward movement of the power rack-bar 35, the ratchet riding the ratchet teeth as the said rack is moving backward in its partially dead movement, the only part of the machine operatively activated in that movement are the rack-bars 127, which are raised for a new printing operation.

In vertical alignment with the cutter shaft 125, and free to rotate in proper bearings in the side rails or bars 11, of the frame 10, is a cross-shaft 155, having adjustable shearing disk cutters 156 thereon, for operative coaction with the other disk cutters 126, said disk cutters operating in relative overlapping relation for trimming the side edges of the package forming base and cover webs 23 and 119, respectively, and for confining said webs against lateral movement in their run to the sealing and feeding devices, as hereinbefore set forth.

We will now proceed to describe the mechanism for feeding the composite web train; for sealing the webs thereof to provide packages, for cutting said packages progressively from said web train and for delivering the individual packages to a point remote from the packaging machine:

Referring to Figs. 1, 5 and 11 of the drawings, we supply a carriage 157, preferably constructed as best shown in Fig. 11, and mounted on the side bars 11 of the frame 10, said carriage being actuated by the power cranks 73, through the crank rods 74, to impart intermittent reciprocating movements thereto, said movements being regulated, through the adjustability of the cranks 73, to a distance equal to that between the centers of the transverse paste lines between the particular packages being formed; the size of the packages as here shown being about eleven inches square. Of course, the adjustability of the parts hereinafter described make it possible to form packages of various dimensions within certain limits; the adjustability of the crank actions hereinbefore described being the main essential to the machine's capacity of adjustment.

In Fig. 11 the carriage 157 is shown in enlarged partial cross section, and includes slide plates 158, confined within spacing strips 159, both resting on the upper faces of the side bars 11, of the frame, the outer portions of the slide plates 158 and the spacing strips 159, being held in position by gib plates 160, secured by bolts 161, extending through the spacing strips and into threaded sockets in the side rails 11, as shown in said figure.

The slide plates 158 are each preferably formed with one or more sockets 162, to receive friction plugs 163, backed by charged springs 164, for constantly urging said plugs against the under faces of the gib plates 160, to create sufficient friction to retard the movement of the slidable parts of said carriages until a sealing plate 165, is raised from sealing contact with the edges of the package in the making, as will appear hereinafter.

Disposed upon the inner portions of the slide plates, about centrally of the length thereof, are oppositely located bearing blocks 166, having horizontally aligned bores 167. These blocks are

secured to the slide plates 158, and to a base table 168, by bolts 169, and mounted in said bearing blocks are companion rock-shafts 170 and 171, each supporting a pinned gear 172, and oppositely movable pinned fingers 173, to operate with said shafts 170 and 171, said gears being intermeshed in opposite pairs.

The oppositely directed fingers 173 are arranged to oscillate under fixed hooks 174, fast to the sealing plate 165, to raise and lower said plate through the rock-arms 75, attached to the ends of the rear rock-shaft 170. The free ends of said rock-arms 75 having bearings 176 for the cross shaft 76, which shaft is connected at its ends to the upper ends 178, of the crank-rods 174, at the opposite sides of the carriage 157.

For maintaining the sealing plate in constant moving relation with the base table 168, upright pins 179, threaded into said table, pass loosely through holes 180, in said sealing plate, permitting the plate to rise and fall as power is applied to the rock-arms 75, as will be obvious.

Fixed to a side of the frame 10 of the machine, is an angle bar 181, having a recess 182 therein. A gate-piece 183 is loosely suspended from the 25 cross bar 76, and has a curved recess 184, which underlies a roller 185, riding on the edge of the angle bar, as the carriage 157 is being forced forwardly in its sealing and web feeding movement; near the end of this forward movement the 30 roller 185, will drop into and quickly ride out of said recess 182, which action permits the downward movement of a cutter 186, hingedly connected at 187, with the movable carriage 157, said cutter carrying a fixed arm 188, supporting said 35 roller 185, and a weighted arm 189 also carried on said cutter, assures a positive quick cut of the web material laterally between the finished packages.

When the power cranks 73 are forcing the carriage forwardly in the sealing and feeding movement, as in Fig. 9, the thrust of the crank-rods 74, through the rock-arms 75 and intermeshed gears 172, will force the oppositely movable fingers 173 into downward thrusting contact with 45 the top of the sealing plate 165 to grip the edges of the packages with great force, thus assuring air-tight sealing of the webs.

Following the movement of the cranks past their feeding dead centers, and just prior to the 50 pick-up movement of the carriage for its backward return movement, the rock-arms 75, are swung to the left in Fig. 10, dragging the wide end of the gate-piece 183, to the left and raising the roller 185, to the level of the top of the angle 55 bar and thus raising the cutter to the inoperative position. In the backward swing of the rock-arms 75, the companion shafts 170 and 171 are rocked in opposed directions through the interlocked gears 172 and the oscillatory fingers 173, 60 now moving upwardly, will engage the shoulders of the hooks 174 and raise the sealing plate above the packages on the base table 168, prior to its backward movement with the carriage a distance 65 determined by the throw of the power cranks 73, after which another cycle is begun with the release and drop of the sealing plate upon the next coming unsealed portion of the web train of packages to be made, and these cycles are repeated 70 over and over again, it being understood that one finished package is delivered at the forward end of the machine as each complete intermittent operation of the parts of the machine occurs, the dead movements occurring as the cranks are 75

passing the far and near dead centers, thus being of short duration for speed in production.

The sealing plate 165, may be and preferably is of heavy metal for its gravitational sealing value and, as best shown in Figs. 6 and 11, may carry sealing bars 190 near its sides and a transverse bar 191 at or near a central position of its length and on its underface, and these bars are made adjustable to coincide with various size packages by bolts 192, fixed in slots 193. Of course two or more transverse sealing bars may be employed if desired and more than two longitudinal sealing bars may be used if the nature of the work demands it.

Preferably, the sealing plate 165 may be cut to produce a guide notch 194 at either side to receive the bearing blocks in vertically movable relation.

Figs. 1, 2, 5 and 7 disclose more or less diagrammatically, belts which may be employed in the operation of the packaging machine.

These belts may all be driven from the motor shaft through transmission rolls or pulleys if desired.

The most important are shown or indicated as package supporting belts 195, driven as at 196 from the motor 65, and which after acting as means for supporting the web train of packages to the sealing station, are passed between direction rollers 197, to a lower level, to function as out-carriers or conveyors for delivering the finished products to a remote point for packing or storage. These belts may be carried out as far as desired, over a pulley and returned to traverse a general drive roller 198. Other belts 199, in Fig. 5, driven from the same source, may be employed for carrying off the waste trimmings cut from the edges of the webs for making up the packages.

The rack bar 35, is appropriately connected to the base table 168, or to one of the slide plates 158 of the carriage 157, and is operated thereby through a suitable groove 202, formed with the side rail 11 of the frame, or said groove may be formed by bolting a properly formed rail 203, (see best Fig. 2) to the side rail of the frame 10, said gear rack 35 being effectively held in its groove by the overlapping gears 60, 130 and 148, and by its connection to a part of said carriage.

A pull-spring 204, draws the roller 137 into constant contact with the shoulder 138 of the master gear 70.

What we claim and desire to secure by Letters Patent is:

1. In a packaging machine, a sealing plate having longitudinal and lateral slots; presser bars; means for adjustably supporting the bars against the underside of said plate, the bars being located in registration with paste lines on webs to be sealed to form packages; hooks on said plate; opposed fingers for engagement with the top of said plate for applying added sealing pressure to the said webs and inversely for engagement with said hooks for lifting the sealing plate after the sealing action; and cranks and connecting rods for operating said fingers.

2. In a packaging machine, the combination with a reciprocating carriage for feeding webs and contents, of a gear rack fixed to said carriage and extending rearwardly past printing and paste applying mechanisms; rotary devices in each mechanism engaging said rack; a sealing plate; a power shaft, and cranks thereon; parallel cross shafts rockable on said carriage, in-

termeshed gears, one on each shaft; arms at the opposite ends of one shaft; crank rods connecting the cranks with said arms and devices on the shafts contactable with devices on the plate for lifting the same and inversely contactable with said plate for sealing strips of packages and means operable with a movement of the carriage for dividing said packages.

3. In a packaging machine the combination of a carriage; a rack bar extending backwardly 10 therefrom at one side of the machine past printing and paste applying mechanisms; operative connections between the rack and parts of the said mechanisms, power means for operating the carriage and said rack bar; means for feeding 15 webs and contents through the machine; and a cutter operable coincidently with the end of a web feeding and sealing action of said carriage.

4. In a packaging mechanism the combination with a carriage for feeding and sealing opposed 20 webs in the presence of an adhesive, of a cross shaft; crank rods loosely confined on the ends of the cross shaft for imparting reciprocatory power movements to the carriage; a fixed supporting frame; a platform slidable in said frame; spring 25 pressed friction pieces urged against the frame for imparting a drag against the action of the crank rods; a presser plate; means for guiding the plate vertically; bars on the underside of said plate for sealing the webs; a secondary shaft 30 movable with said platform; means on the said secondary shaft for raising and lowering the presser plate prior to a powered movement of the carriage; a cutter and a track having a depression for controlling its operation. 35

5. In a packaging machine, the combination of a carriage, a power transmitting bar fixed to said carriage and extending backwardly at one side of the machine past printing and paste applying mechanisms; devices on said mechanisms and 40 operatively connected to said bar; power means for operating the carriage, bar and said mechanisms; means on said carriage for feeding and sealing webs with contents, through the machine; and a cutter operable coincidently with 45 the end of each web feeding and sealing action.

6. In a packaging machine, a frame, a carriage reciprocally guided thereon; means for slightly retarding the sliding movements of the carriage; a gravity plate guided in vertical movements on 50 said carriage for feeding and sealing running webs of paper for forming packages, a pair of parallel interlocked rock-shafts, arms on one of said rock-shafts and means on each of said rock-shafts for contacting means on said gravity plate 55 for raising and lowering the same at intervals of progressive power direction changing imparted to said arms; and means for automatically cutting said webs into packages at the end of each alternate power direction change. 60

7. In a packaging machine having a frame for supporting running webs of sheet material; in combination, a carriage; a rack bar on said carriage and extending along one side of the frame past printing and coating mechanisms; a master 65 gear; means driven by the rack bar and by said master gear for printing one of said webs; means driven by the rack bar for applying paste lines to the other web; means for simultaneously sealing and feeding said webs and means operable 70 by the feeding action for cutting the webs; and power means for driving the machine.

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