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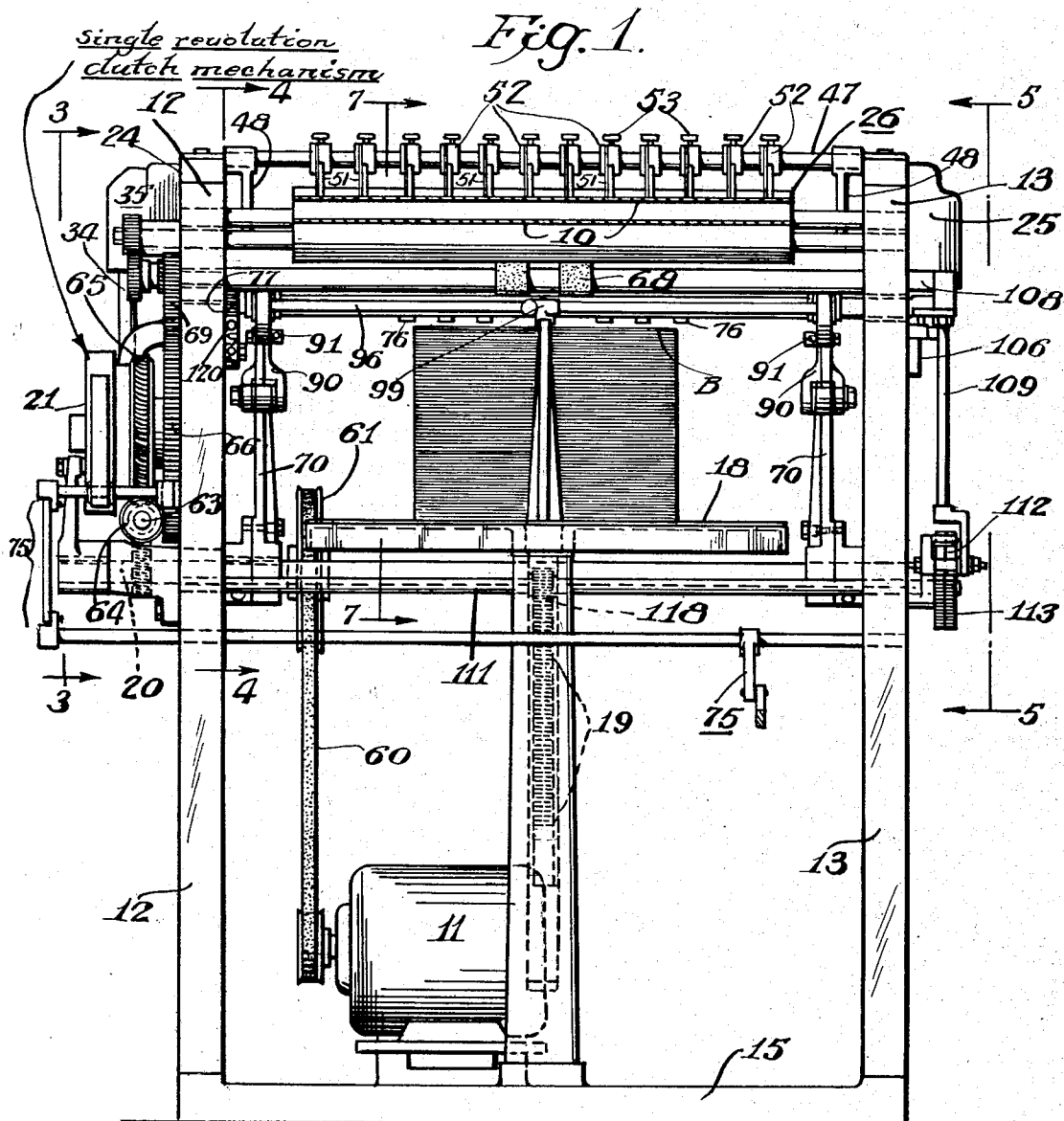
W. J. HAESSLER

**2,368,759**

AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 1



Inventor:—  
William J. Haessler  
by his attorneys  
Hanson & Hanson

**Feb. 6, 1945.**

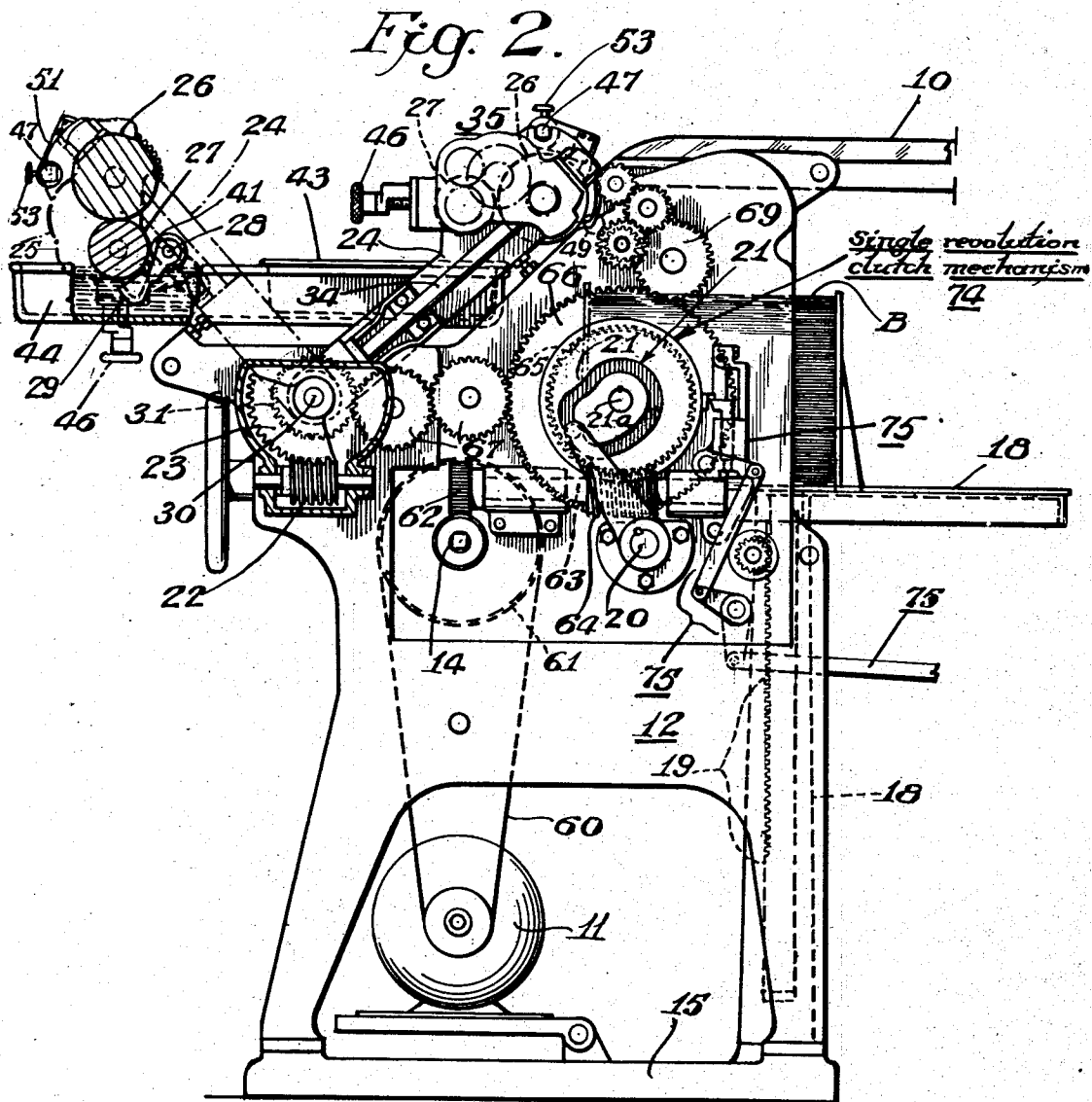
**W. J. HAESSLER**

**2,368,759**

# AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 2



Inventor:-  
William J. Haessler  
by his Attorneys  
Hansen & Hansen

Feb. 6, 1945.

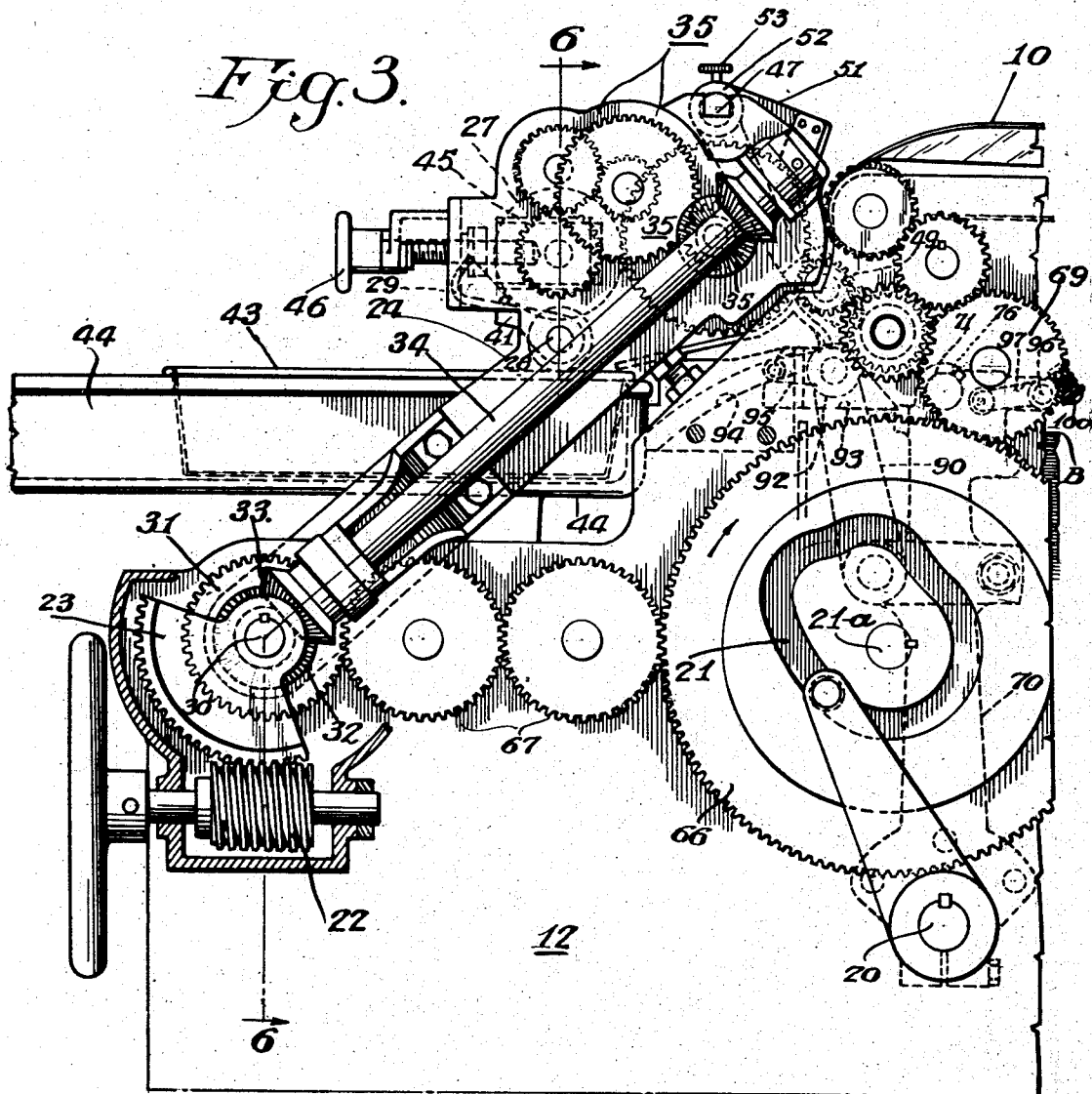
W. J. HAESSLER

2,368,759

AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 3



*Inventor:—*  
*William J. Haessler*  
*by his attorney*  
*Hovson & Hovson*

**Feb. 6, 1945.**

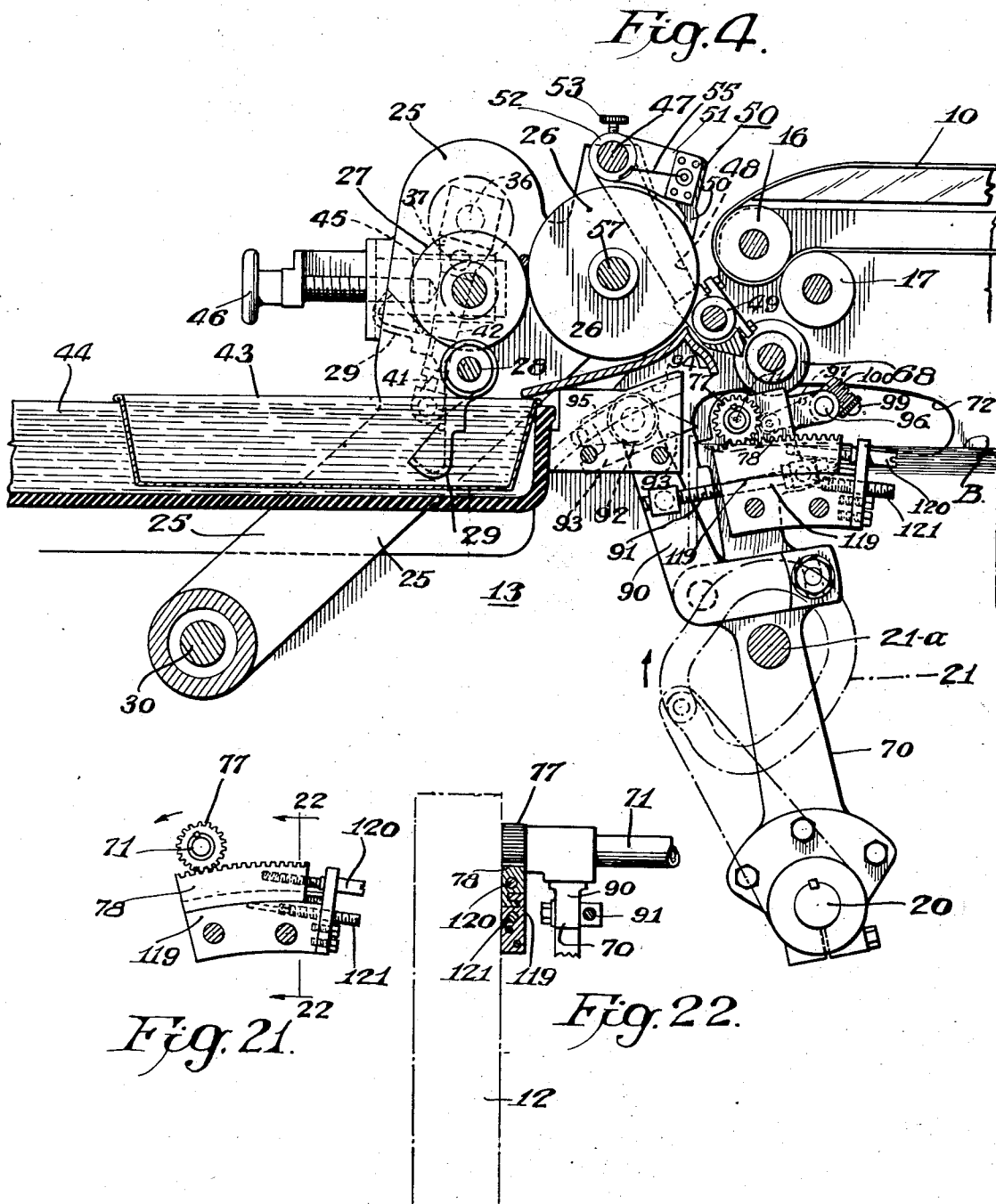
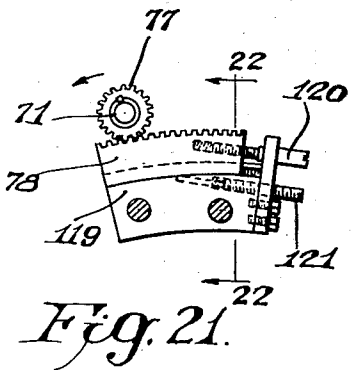
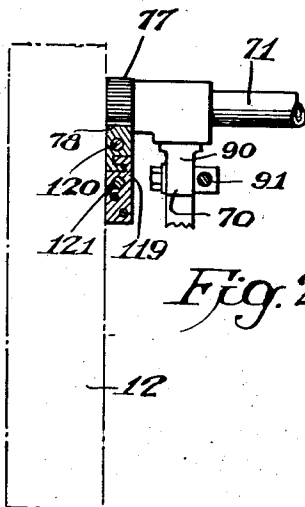
W. J. HAESSLER

**2,368,759**

AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 4



Inventor:—  
William J. Haester  
by his Attorneys  
Hewson & Hewson

W. J. HAESSLER

AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 5

Fig. 20.

Inventor:  
William J. Hoessler  
by his atty.

*Fig. 20.*

Inventor:-

William J. Haessler  
by his Attorneys  
Horton & Horton

Feb. 6, 1945.

W. J. HAESSLER

2,368,759

AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 6

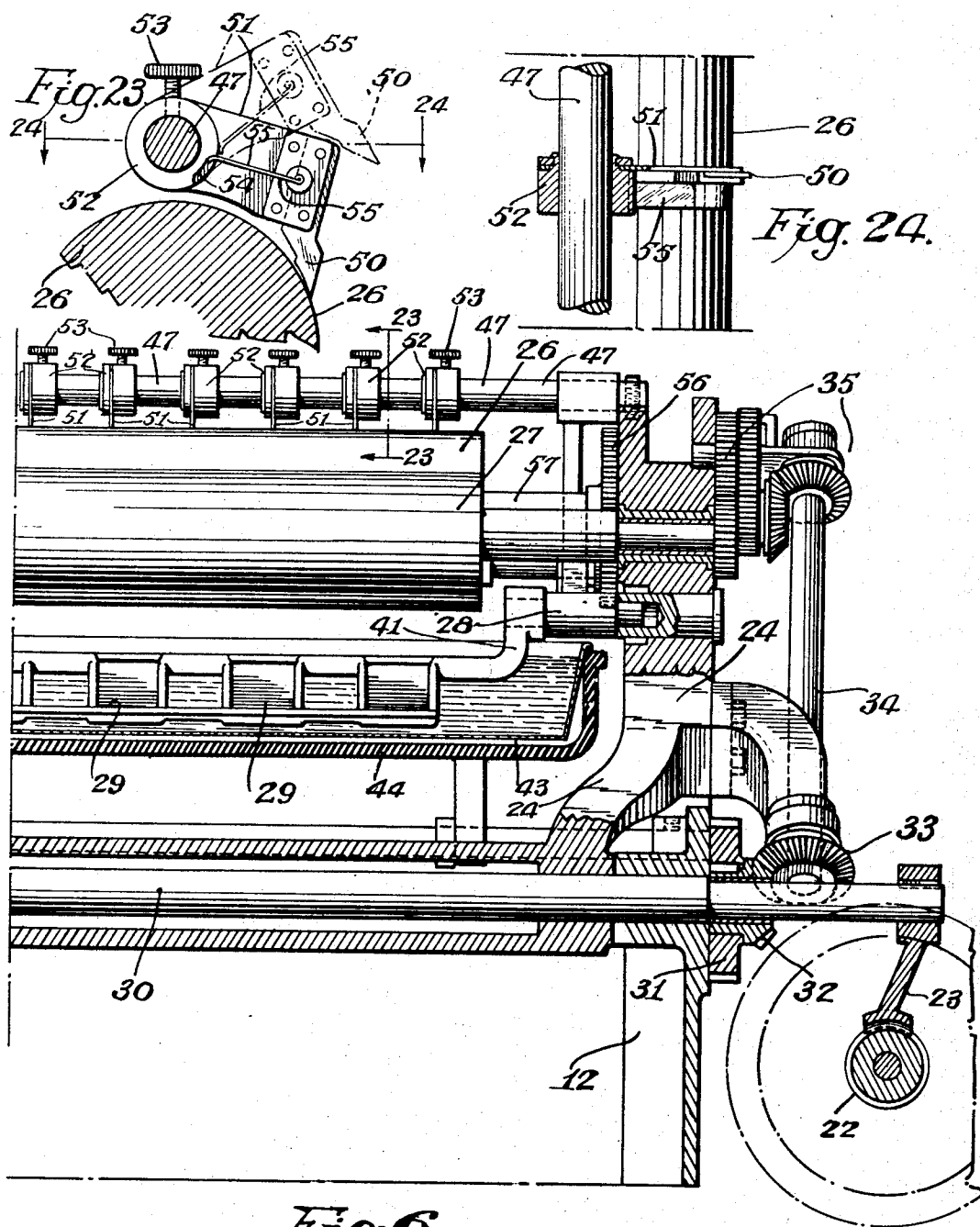


Fig. 6.

Inventor:—  
William J. Haessler  
by his Attorneys  
Hewson & Hewson

Feb. 6, 1945.

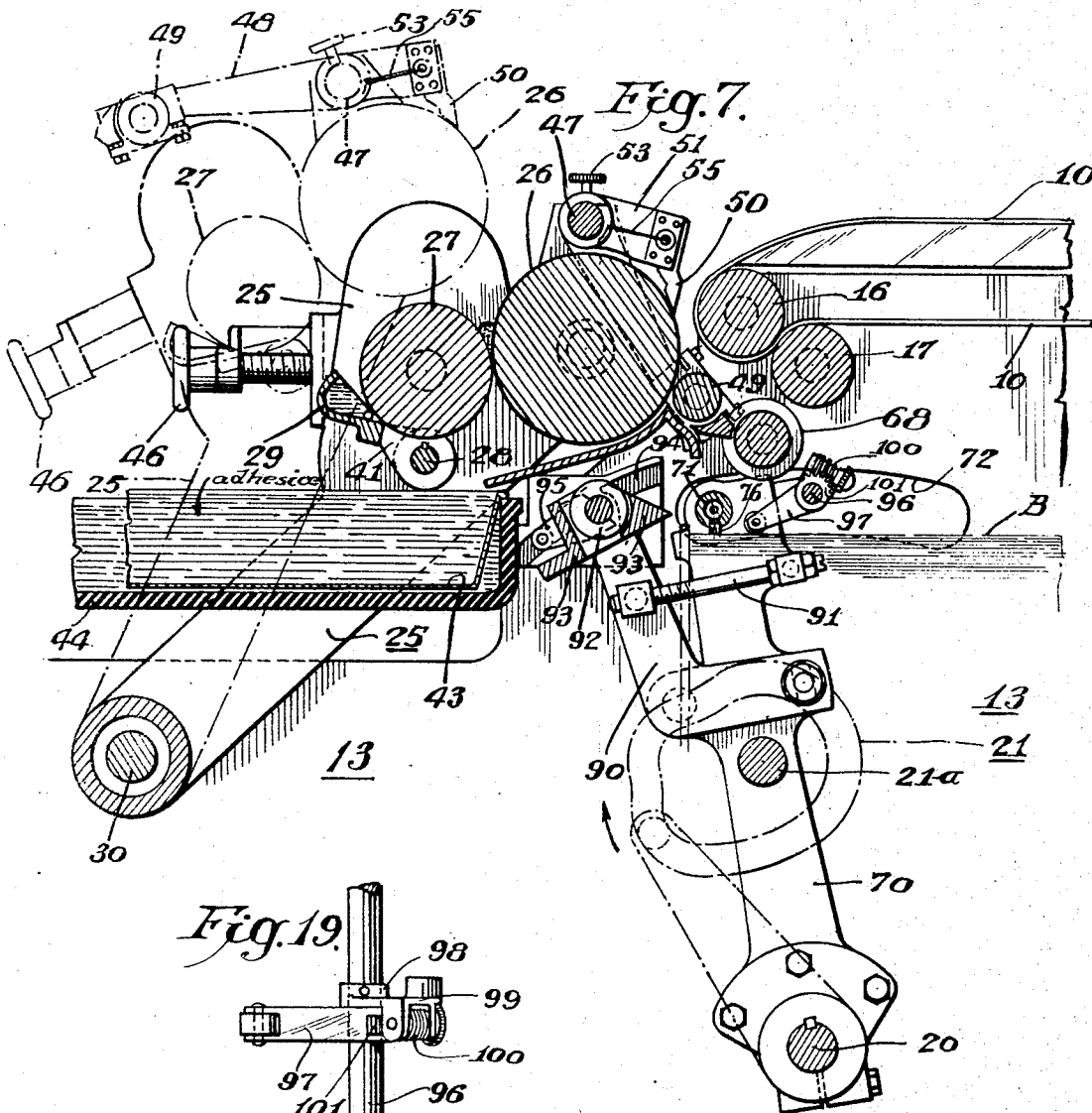
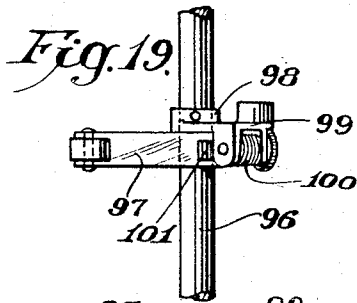
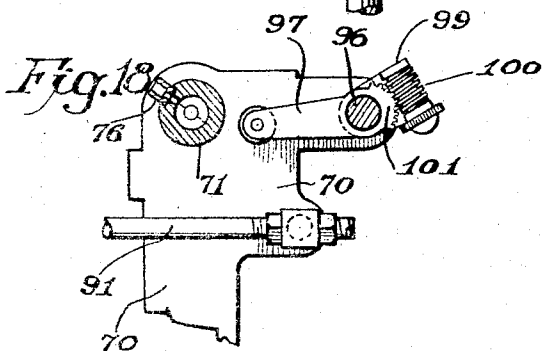
W. J. HAESSLER

2,368,759

AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 7



Inventor:—  
William J. Haessler  
by his attorneys  
Houder & Houder

**Feb. 6, 1945.**

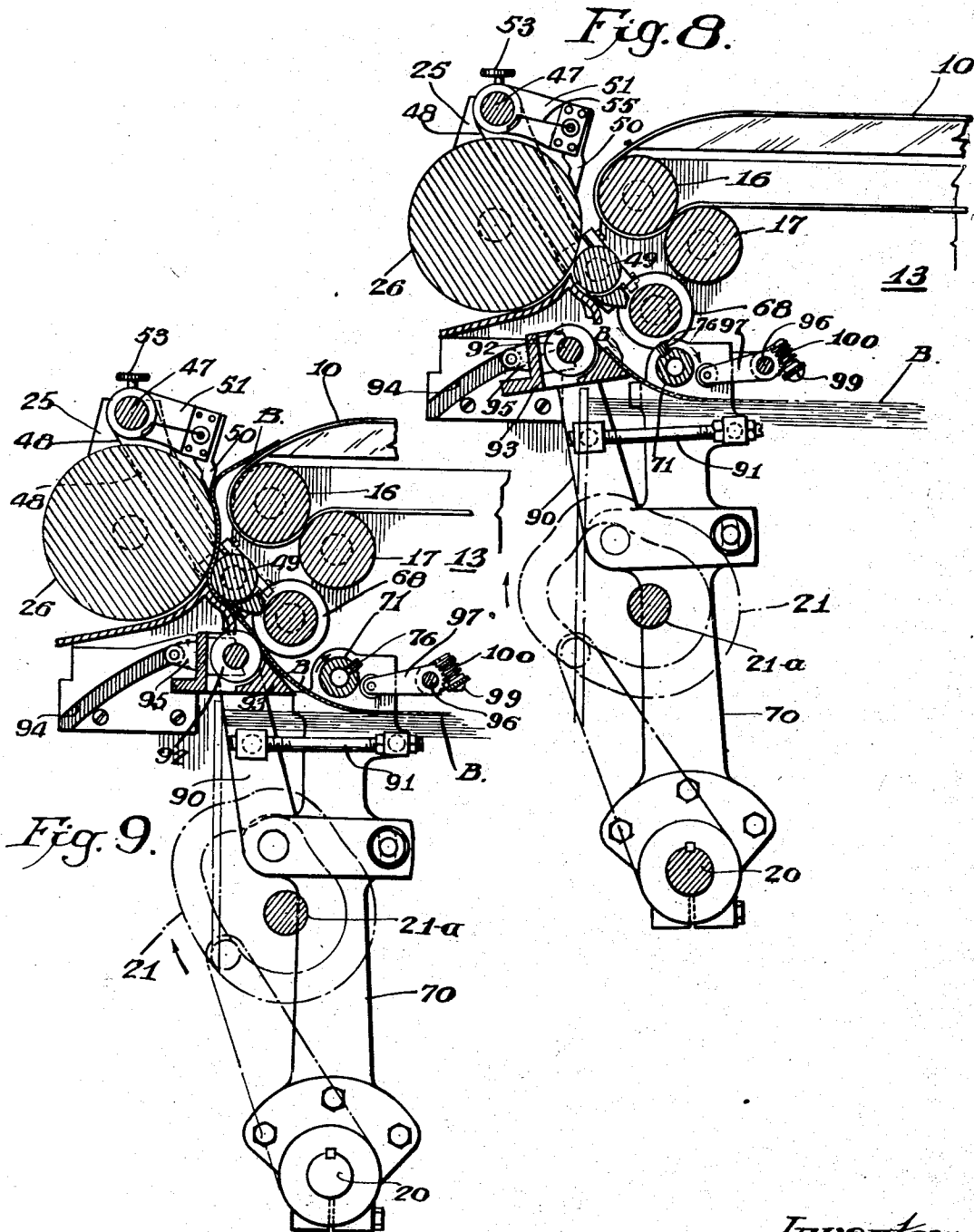
**W. J. HAESSLER**

**2,368,759**

AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 8



*Inverdor-*  
*William J. Haessler*  
*by his Attorneys*  
*Hewson, Hewson*

Feb. 6, 1945.

W. J. HAESSLER

2,368,759

AUTOMATIC GLUE APPLYING MACHINE

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Fig. 10.

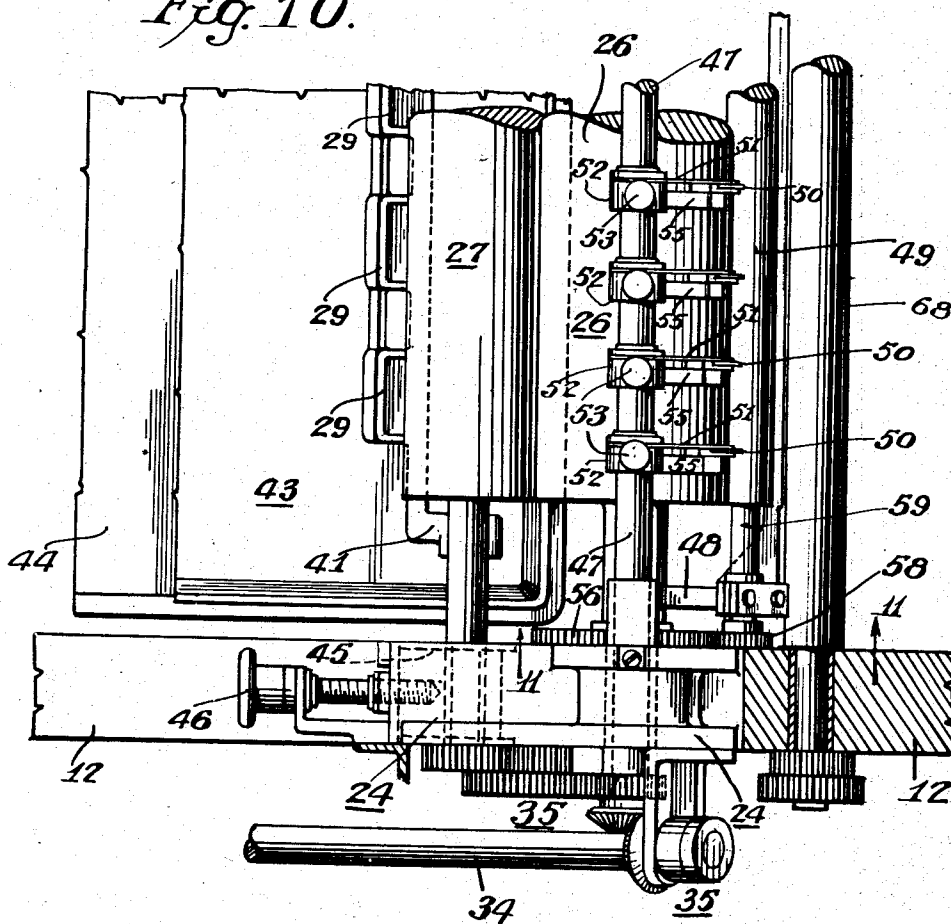
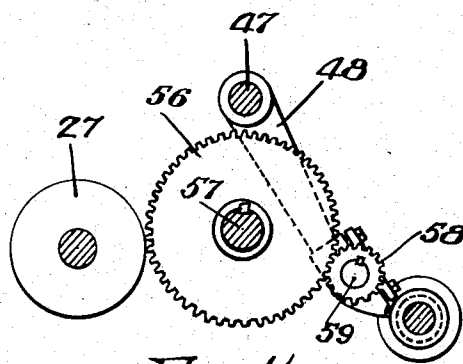


Fig. 11.

Inventor:  
William J. Haessler  
by his attorneys  
Houston, Houston

Feb. 6, 1945.

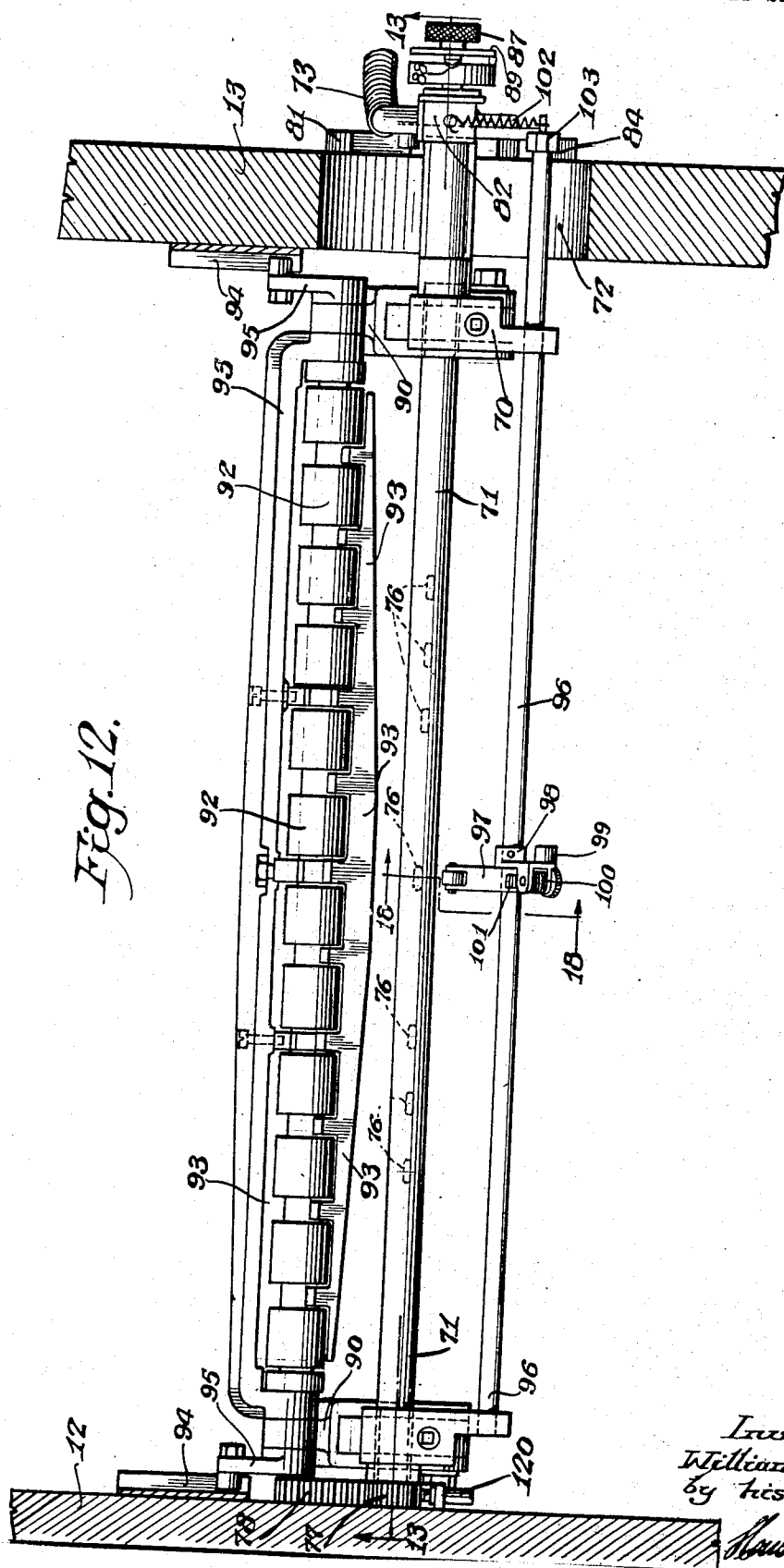
W. J. HAESSLER

2,368,759

AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 10



Inventor:  
William J. Haessler  
by his Attorneys  
Hanson & Hanson

Feb. 6, 1945.

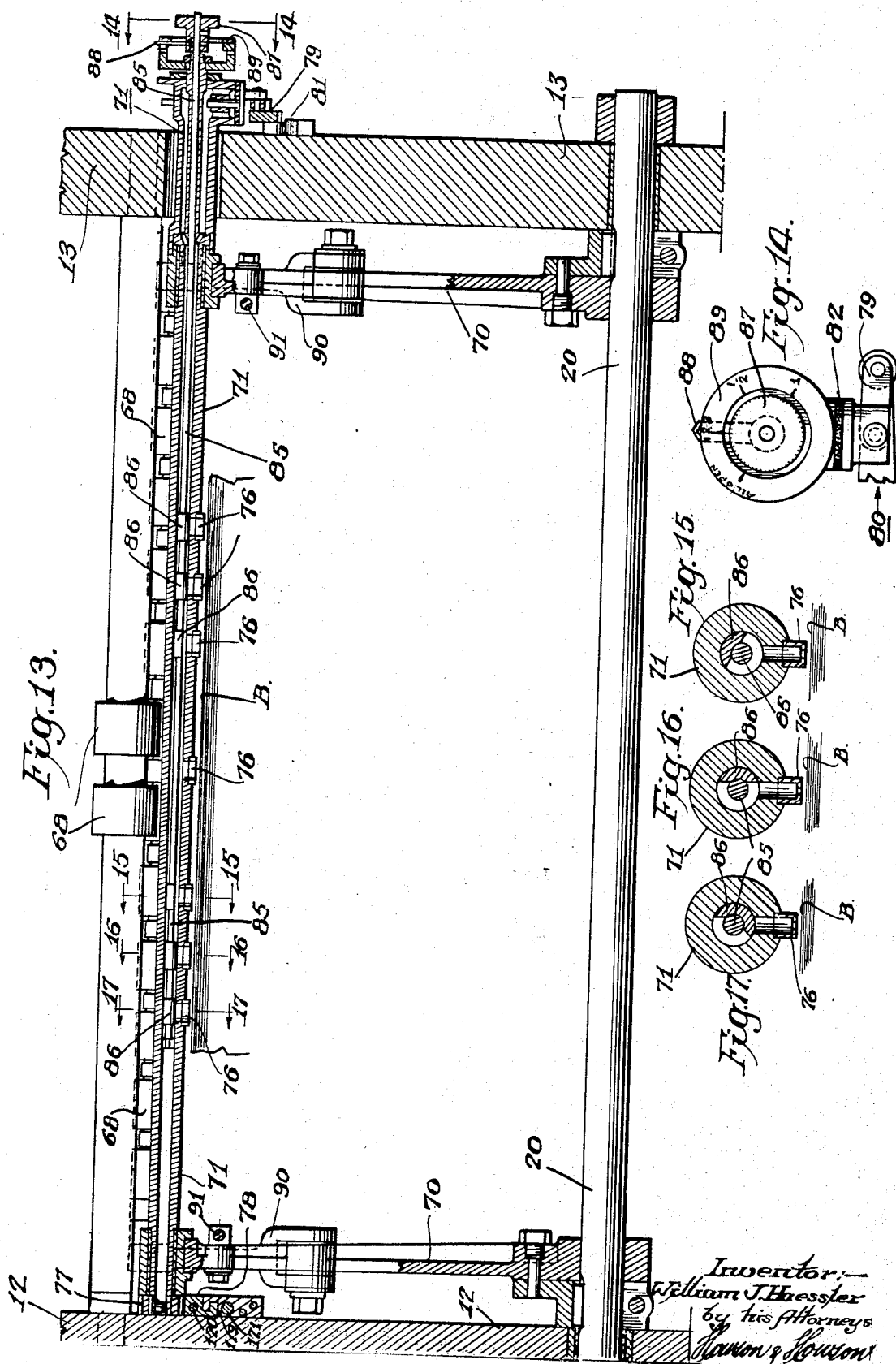
W. J. HAESSLER

**2,368,759**

AUTOMATIC GLUE APPLYING MACHINE

Filed March 12, 1942

11 Sheets-Sheet 11



## UNITED STATES PATENT OFFICE

2,368,759

## AUTOMATIC GLUE APPLYING MACHINE

William J. Haessler, Philadelphia, Pa., assignor  
to High Production Machine Co., Inc., Phila-  
delphia, Pa., a corporation of Pennsylvania

Application March 12, 1942, Serial No. 434,431

18 Claims. (Cl. 91—48)

This invention relates to gluing machines, and more particularly to an ordinary gluing machine of the type employed in conjunction with label-applying or wrapping machines for placing upon the inner facing of the label or wrapper the adhesive by which it is attached to a package.

An important object of the invention is the provision in this type of machine of an arrangement whereby cleansing of the glue-applying roller, or rollers, the gluing roll itself and of the remaining portions of the mechanism is greatly simplified and the accessibility of the various elements of the machine is greatly improved.

Another and important object of the invention is the provision in this type of mechanism of means whereby the gluing mechanism may be bodily shifted from an operative position where it overlies a glue receptacle to an inoperative position where it overlies, and is partially immersed in, a receptacle for a washing fluid, or to any position intermediate the operative and inoperative positions, thereby increasing the accessibility of the mechanism and facilitating cleansing thereof.

Another object of the invention is the provision of a driving means for the glue-applying roll and the liquid-applying means which is operable in all positions of the glue-applying roll.

A further object of the invention is the provision of a novel and improved means for supplying glue to the glue-applying roll which is readily adjustable to determine the amount of glue delivered to the glue-applying roll and which is so constructed that it serves as a means for agitating the glue in the glue-supplying reservoir without causing the frothing thereof ordinarily resulting from the use of the ordinary partially immersed glue-applying roll.

Another object of the invention is the provision of a novel and improved means for supplying the blanks to be glued to the gluing roll, including a vacuum pick-up having associated therewith means whereby the extent through which vacuum is applied to the wrappers or the like may be regulated and distributed across the width of the same.

A still further object of the invention is the provision of means whereby the vacuum pick-up may be regulated as to the point of application of vacuum thereto so that the time of pick-up and release of the sheet may be closely regulated.

A still further object is the provision of means whereby the height of an associated stack of wrappers or the like may be closely regulated to

thus insure proper operation of the vacuum pick-up means.

These and other objects I attain by the construction shown in the accompanying drawings wherein, for the purpose of illustration, I have shown a preferred embodiment of my invention and wherein:

Fig. 1 is a rear elevation of a gluing machine constructed in accordance with my invention;

Fig. 2 is a side elevation thereof, portions of the casing being removed or broken away;

Fig. 3 is a section on line 3—3, Figure 1;

Fig. 4 is a section on line 4—4, Fig. 1 and showing the elements of the machine in the position of rest;

Fig. 5 is a section on line 5—5, Fig. 1;

Fig. 6 is a fragmentary section on line 6—6, Fig. 3;

Fig. 7 is a section on line 7—7, Fig. 1;

Figs. 8 and 9 are sections similar to that of Fig. 7 but showing additional positions of the mechanism;

Fig. 10 is a fragmentary plan view of the glue-applying mechanism;

Fig. 11 is a section on line 11—11, Fig. 10;

Fig. 12 is a fragmentary plan view of the paper feeding mechanism;

Fig. 13 is a section on line 13—13 of Fig. 12; Figs. 14, 15, 16 and 17 are sections on lines 14—14, 15—15, 16—16 and 17—17 of Fig. 13;

Fig. 18 is a section on line 18—18, Fig. 12;

Fig. 19 is a fragmentary plan view illustrating the construction of the paper feeder;

Fig. 20 is a section on line 20—20, Fig. 5;

Fig. 21 is an elevational view of the pneumatic feed roll adjustment;

Fig. 22 is a section on line 22—22, Fig. 21;

Fig. 23 is a section on line 23—23, Fig. 6; and

Fig. 24 is a section on line 24—24, Fig. 23.

Referring now more particularly to the drawings, the machine illustrated operates as a feeder of glued blanks to a wrapping machine (not herein shown) supplying glued blanks to the wrapping machine by a conveyer belt 10. The machine comprises a base 15 mounting a suitable drive motor 11 from which base arise frame elements 12 and 13 in which are mounted for rotation a main drive shaft 14, a blank feeding roll 16, and conveyer driving rolls 16 and 17 for conveyer 10. At the rear or discharge end of the machine the frames support a vertically movable blank support 18 vertical movement of which is provided through racks 19, control of which is through mechanism hereinafter fully described. The actual feeding of the blank is controlled by

an oscillatory shaft 20 mounted in frame elements 12 and 13, an actuating cam 21 and associated mechanisms hereinafter described.

### *Glue-applying mechanism*

The gluing mechanism (Figs. 4 to 7) comprises a structure mounted at the front of the machine in frame elements 12 and 13 for oscillation, and to which oscillation may be imparted by a hand-wheel-operated form 22 and segment 23. This structure includes arms 24 and 25 journaling for rotation a gluing roll 26 and a glue-applying roll 27, and for oscillating stub shaft 28, actuating buckets 29 supplying glue to rolls 26 and 27. The oscillatory pivot of the structure is at present shown as comprising a shaft 30 upon which, at the outer face of frame element 12, a gear 31 is mounted for rotation. Gear 31 through pinions 32 and 33 drives a shaft 34 (Figs. 3 and 6) which extends along arm 24 and at its outer end has driving connection as at 35 with gluing roll 26 and glue-applying roll 27. Arm 25 has projecting from its outer face a pivot pin 36 (Figs. 5 and 20) and mounted on this pin is a crank 37 driven by shaft 38 of glue-applying roll 27. The driving connection, indicated generally at 39, includes a friction clutch 40 arranged to yield in event anything materially resists rotation of crank 37 or oscillation of stub shafts 28 or their associated buckets 29. The crank of pivot pin 36 is connected to a crank 41 on the associated stub shaft 28 by a connecting rod 42, adjustable as to length. Crank 41 is longer than crank 37, with the result that stub shafts 28 oscillate alternately withdrawing buckets 29 from and moving them into proximity to roll 27. The mechanism just described constitutes a quadric-crank train of that type ordinarily employed when it is desired that motion of a train actuated element be accelerated in one direction and the acceleration be, insofar as possible, uniform. In the present instance, the buckets in their movement approach the roll at a constantly increasing speed so that there is little tendency to spill the contents until the movement toward the roll is abruptly checked. A substantially corresponding deceleration occurs in opposite movement of the buckets.

As the buckets 29 are withdrawn from roll 27, they are submerged either in glue pan 43 or in the water pan 44 if the gluing mechanism is at either limit of its motion as determined by hand-wheel-operated worm 22 and segment 23. The buckets have their outer ends in the form of relatively deep receptacles and have a sloping bottom wall which, when the bucket is in its elevated position, has its inner edge arranged in close proximity to the roll 27 so that the glue elevated by the bucket is caused to flow against the surface of the roll 27 and thus be transferred to the roll 26. The extent of the approach of the inner edge of the bucket to the roll 27 may be regulated through the adjustable connecting rod 42 hereinbefore noted. Glue-applying roll 27 is, as illustrated more clearly in Figure 4, mounted in adjustable bearing blocks 45 adjustment of which is effected through hand screws 46 so that proximity of the applying roll to gluing roll 26, and accordingly the thickness of the applied glue layer upon the roll 26, may be regulated. The arms 24 and 25 support, above gluing roll 26, a shaft 47 upon which are pivotally mounted arms 48 rotatably supporting at their outer ends the ends of a guide roll 49 coacting with the gluing

roll to hold the paper thereagainst during the glue-applying operation.

Once the paper has contacted properly with the glue, the paper will tend to cling to the gluing roll 26 and for this reason the gluing roll is equipped with a series of stripper blades 50. Each stripper blade 50 has its shank 51 rotatably mounted in a collar 52 adjustably secured to the shaft 47 as by means of thumb screw 53. The surface of collar 53 has formed therein a notch 54 against the upper wall of which bears the free end of a spring 55 secured to the blade 50 adjacent the outer end of the shank thereof. As long as this spring is engaged with this wall, the stripper blade will bear with a given tension against the surface of the roll 26, the applied tension being regulated entirely by spring 55. It will be noted that the inner end of the spring is, at a desired maximum tension, engaged with what may be termed radially outer portion of the upper end wall of notch 54. If any attempt is made to increase the tension of the spring beyond this desired maximum as, for example, by loosening thumb screw 53 and rotating the collar 52 clockwise, the spring will recede from the notch 54 and will cease to apply its pressure to the blade and will hold it away from the surface of the roll. The holding feature of the construction is highly important in an ordinary machine of this character in that probably a dozen stripper blades will be employed. In an ordinary structure where movement of the stripper blade to an inoperative position involves a change in the spring setting, adjustment of the tension of blades newly applied to the roll is essential. If, on the other hand, unused blades are left in contact with the roll they must be cleaned as frequently as those actually used in the stripping operation. When the spring is in the groove but out of engagement with the end wall thereof, all pressure is removed from the blade. This structure serves to prevent damage to the rolls quite commonly resulting from attempts by operatives to increase the tension of the doctor blades which tend to dig into the surface of the roll and groove them, necessitating frequent turning down of the roll to eliminate the grooves. Roller 49, since it is hinged to shaft 47 by arms 48, may be swung clear of roll 26, as more clearly shown in Fig. 7, and thus rendered readily accessible for cleansing to free the same from accumulated glue.

In its operative position, shown in solid lines in Fig. 7, the guide roll 49 is driven through a gear 56, secured to the shaft 57 of roll 26 at the inner face of the arm 24, and a pinion 58 secured to the shaft 59 of guide roll 49 (see Figs. 10 and 11).

During operation of the machine, the gluing apparatus is continually driven. Motor 11 drives main drive shaft 14 through belt 60 and pulley 61 which may be, if so desired, of the ordinary clutch type. Shaft 14, through worm gearing 62, drives a shaft 63 bearing a worm 64. Worm 64 drives a worm gear 65 rotatable upon the shaft 21a on which is arranged cam 21 and to gear 65 there is secured a gear 66. Gear 66, through a gear train generally designated at 67, drives the gear 31 and, consequently, rolls 26 and 27 and the stub shafts 28.

### *Blank-feeding mechanism*

Operation of the blank-feeding mechanism, with the exception of main feeding roll 68 which is driven from gear 66 through idler 69, is controlled by cam 21 actuating rock shaft 20. Rock

shaft 20 has secured thereto a pair of arms 70 the upper ends of which rotatably support a vacuum pick-up tube 71 an end of which projects through a slot 72 in the frame member 13 and is flexibly connected, as at 73, with a source of suction. Cam 21 is connected on demand to gear 65 through a single revolution clutch mechanism 74 tripping of which is effected through a link-and-lever mechanism operated from the wrapping machine and indicated generally at 75. In Fig. 2 the cam is illustrated in what may be termed the rest position, at which it is halted upon completion of each revolution of clutch 74, the corresponding position of the associated mechanism being shown in Fig. 4. In this position of the mechanism the suction nozzles 76 of vacuum tube 71 are arranged above and directed downwardly toward the stack of blanks B from which individual blanks are to be fed to the glue-applying mechanism, being held in this position by engagement of a pinion 77 on tube 71 with a rack 78 secured to the frame member 12. Initial movement of the cam shifts the tube 71 in the direction of the arrow of Fig. 21, this movement bringing the mechanism to the position shown in Fig. 7, and bringing one arm 79 of a toggle mechanism, generally designated at 80, into engagement with the cam 81 and tripping the toggle mechanism causes closure of a valve 82 normally open to the atmosphere thereby instituting suction in the vacuum tube 71. The succeeding movement of the cam reverses the direction of operation of the tube and this reversed operation rotates the tube to cause the same to pick up, through nozzles 76, the top blank of the pile and elevate the forward edge thereof. The continued rearward movement of the tube completes the feeding of the blank and finally brings the second arm 83 of toggle mechanism 80 into engagement with a cam 84 which trips the toggle and opens the valve 82 breaking the vacuum to release the blank. The final movement of the cam restores the tube 71 to the rest position illustrated in Fig. 4.

The tube 71 includes a constantly open central nozzle and a plurality of nozzles arranged at either side thereof which are controlled by a valve mechanism comprising a small rod 85 extending longitudinally of the bore of tube 71 and equipped with segmental valve elements 86 for controlling the nozzles. As more clearly seen from a comparison of Figs. 15, 16 and 17, these valve elements are so constructed that one, or three of the side nozzles of the tube may be opened as desired. The end of the rod is projected through one end of tube 71 and equipped with an operating knob 87 having a pointer 88 coacting with a dial 89 serving as an indication as to which of the nozzles is effective.

Pivotally supported upon arms 70 is a pair of brackets 90 adjustment of these brackets about the pivots thereof being effected as by means of control rods 91. Rotatably mounted in the upper ends of brackets 90 is an idler feeding roll 92 and pivotally supported from the shaft of this roll is a feed plate 93. In order that the forward edge of the feed plate upon which a feed blank initially engages may be maintained at a common horizontal level despite the arcuate movement imparted to the feed roll, cams 94 are secured to the standards 12 and 13 and the feed plate is equipped with arms 95 having rollers engaged in grooves in these cams. As the mechanism including tube 71 moves rearwardly from the position in Fig. 7, the suction nozzles elevate the top

blank of the pile and feed the blank upwardly between the forward edge of feed plate 93 and the main or driven feed roll 68. As the rearward motion continues, the forward edge of the blank is clamped between the driven feed roll and idler feed roller 92 and thus fed between the gluing roll 26 and the guide roll 49. The blank is removed from the gluing roll by the doctor blades 50, coming to rest upon conveyer 10 by which it is delivered to the wrapping machine.

#### Blank level control

In order that the upper surface of the pile of blanks B may be maintained at the proper level for coaction with the vacuum pick-up tube 71, the upper ends of the arms 70 rotatably mount a feeler shaft 96 about which a centrally located feeler 97 is mounted for rotation. Secured to the shaft, as at 98, is a bracket 99 bearing a hand-operated worm 100 coacting with a segment 101 on the feeler 97. A spring 102 extending between the housing of valve 82 and an arm 103 on shaft 96 urges rotation of shaft 96 in a direction to cause the feeler to engage the upper surface of the blank stack B. Projecting rearwardly from the shaft is an arm 104 bearing a trip 105 and having its terminal adapted for coaction with an inclined cam 106 which, after a predetermined rearward movement of the paper-feeding mechanism, causes the arm 104 to depress and thus elevate the feeler from the stack. This same depression releases the trip 105 from engagement with a pawl 107 which controls the feed of the blanks upwardly provided the same shall have been engaged by the trip. If the level of the blank stack is sufficiently low, spring 102 will cause an elevation of the trip to a point such that it will engage the lower end of the pawl, thereby releasing the same from its engagement with one end of a lever 108. The opposite end of lever 108 is pivotally connected to a depending rod 109 the lower end of which is connected to an oscillatory pawl carrier 110 pivoted about shaft 111 and bearing a pawl 112 coacting with a ratchet wheel 113 secured to shaft 111. This ratchet wheel has likewise associated therewith a holding pawl 114. The tail 115 of the ratchet carrier 110 extends toward rock shaft 20 and into the path of movement of a tappet arm 116 secured thereto. When lever 108 is released by pawl 107, the ratchet carrier drops until its movement is checked through an adjustable stop 117. Upon the next rearward movement of arms 70, the tappet 116 will engage with the tail of the lever advancing the shaft 111 through one rotative step and, accordingly, elevating racks 19 which are engaged by pinions 118 on shaft 111.

Attention is directed to the fact that contact of the feeler finger with the stack occurs at the moment of alignment of the vacuum mechanism therewith, thus insuring an accurate determination of the stack level at the time when determination of this level is most essential. It will be noted that by use of a mechanism of the character just described it is not necessary that any real pressure be applied to the stack, the actual pressure exerted on the stack by the feeler finger being of an order of a few ounces as compared to approximately one and one-half pounds pressure applied to the usual feelers utilized in this connection.

#### Operation

In the operation of the machine, the gluing mechanism, as previously stated, operates con-

tinuously to apply a thin layer of glue to the gluing roll 26. Assuming that the parts are in the position illustrated in Figs. 2 and 4 and that the single revolution clutch 74 is tripped, the blank-feeding mechanism first moves forwardly toward the gluing mechanism thus engaging arm 79 of the vacuum control mechanism with cam 81 and bringing the vacuum pick-up tube into operation, the nozzles of this tube at this time being substantially vertically directed and extending downwardly to the upper surface of the blank stack. Continued operation of the cam 21 causes a rearward movement of the blank-feeding mechanism accompanied by a rotation of the tube 71 in the direction of the arrows of Figs. 8 and 9. This motion results in the blank being picked up and elevated into engagement with the main feeding roller 68, following which the idler feed roller 92 clamps the blank to the main feeding roller and causes it to be fed between gluing roll 26 and guide roll 49. The paper-feeding mechanism then returns to its normal position illustrated in Figs. 2 and 4. The glued blank is doctored from the gluing roll by blades 50 and is removed by conveyor 10.

In the event it becomes necessary to cleanse the gluing or glue-applying rolls, or any other portion of the gluing mechanism, the operator through hand-wheel-operated worm 22 shifts the gluing mechanism to the dotted line position of Fig. 2. In this position of the mechanism, as more clearly shown in Fig. 2, the roll 27 is partially immersed in the washing fluid, provided this fluid is at its normal level. Should the fluid be slightly below its normal level, the buckets 29, which at this time will be immersed in the liquid of the washing fluid container, although ineffective to actually distribute liquid across the face of the roll 27 through a "baling" action, will set up a wave action of the liquid in the container, bring the surface thereof into contact with this roll. Liquid picked up by the roll 27 will serve to cleanse the surface of the same and will be transmitted to the roll 26, likewise, cleansing this roll. Obviously, the immersion of the buckets in the cleansing liquid will cleanse the same. Attention is directed to the fact that with the parts in the dotted line position of Fig. 2, all portions of the mechanism which are subjected to collection of glue are made readily accessible since at this time the main feed roll and idler feed rolls will be fully exposed.

In some cases it may become desirable to regulate the point at which the suction nozzles come into effective engagement with the blank. This may be accomplished by making rack 78 adjustable upon a curved track 119. Longitudinal adjustment is attained through screw 120, and adjustment retained through a wedging screw 121.

Since the structure illustrated is, obviously, capable of considerable modification without departing from the spirit of the invention, I do not wish to be understood as limiting myself thereto except as hereinafter claimed.

I claim:

1. In gluing apparatus of the type described, a stationary receptacle for glue, a stationary receptacle for a washing fluid, a gluing roll, means to selectively arrange the roll above either receptacle, means to supply liquid from either of said receptacles to the roll, means to rotate the roll in either of said positions, and means

to operate the liquid-supplying means in either of said positions.

2. In gluing apparatus, a roll, a receptacle for glue, a receptacle for a washing fluid, means to selectively position the roll above either receptacle, means moving with said roll from either to the other of said positions to supply liquid from either of said receptacles to the roll, means to rotate the roll in either of said positions, and means to operate the liquid-supplying means in either of said positions.

3. In gluing apparatus, a roll, a receptacle for glue, a receptacle for a washing fluid, means to selectively position the roll above either receptacle, means moving with said roll from either to the other of said positions to supply liquid from either of said receptacles to the roll, and a common means for rotating the roll and operating the liquid-supplying means in both said positions.

4. In gluing apparatus of the type described, a stationary receptacle for glue, a stationary receptacle for a washing fluid, a roll positionable above either receptacle, means to supply liquid from either of said receptacles to the roll, means to rotate the roll in either of said positions, means to operate the liquid-supplying means in either of said positions, stationary blank feeding means with which the roll is associated when operatively positioned above the glue receptacle, and means to move the roll to either of said positions or to any intermediate position therebetween.

5. In gluing apparatus of the type described, an assembly comprising a gluing roll, a glue-applying roll associated with the gluing roll to apply liquid thereto, a stationary glue receptacle, a stationary washing fluid receptacle, means to selectively position the assembly above said receptacles, means to rotate the rolls of the assembly when associated with either receptacle, and means to transfer liquid from either receptacle to the gluing roll.

6. In gluing apparatus of the type described, an assembly comprising a gluing roll, a glue-applying roll associated with the gluing roll to apply liquid thereto, a glue receptacle, a washing fluid receptacle, means to selectively position the assembly above said receptacles, means to rotate the rolls of the assembly when associated with either receptacle, the assembly when positioned above the glue receptacle having both said rolls arranged above the level thereof, and when positioned above the washing fluid receptacle having said glue-applying roll partially immersed therein, and means for supplying glue from the glue receptacle to the glue-applying roll when said assembly is positioned above said glue receptacle.

7. In gluing apparatus of the type described, an assembly comprising a gluing roll, a glue-applying roll associated with the gluing roll to apply liquid thereto, a glue receptacle, a washing fluid receptacle, means to selectively position the assembly above said receptacles, means to rotate the rolls of the assembly when associated with either receptacle, the assembly when positioned above the glue receptacle having both said rolls arranged above the level thereof, and when positioned above the washing fluid receptacle having said glue-applying roll partially immersed therein, and means for supplying glue from the glue receptacle to the glue-applying roll when said assembly is positioned above said glue receptacle comprising an oscillatory bucket ele-

ment which when the assembly is disposed above the washing fluid receptacle is immersed in the washing fluid.

8. In gluing apparatus of the type described, an assembly comprising a gluing roll, a glue-applying roll associated with the gluing roll to apply liquid thereto, a glue receptacle, a washing fluid receptacle, means to selectively position the assembly above said receptacles, means to rotate the rolls of the assembly when associated with either receptacle, the assembly when positioned above the glue receptacle having both said rolls arranged above the level thereof, and when positioned above the washing fluid receptacle having said glue-applying roll partially immersed therein, means for supplying glue from the glue receptacle to the glue-applying roll when said assembly is positioned above said glue receptacle comprising an oscillatory bucket element which when the assembly is disposed above the washing fluid receptacle is immersed in the washing fluid, a shaft bearing said oscillatory member, and a quadric crank train connecting one of said rolls and said shaft and adapted to move the bucket elements toward the glue-applying roll with an accelerated motion.

9. In apparatus of the type described, a roll, and means to doctor a sheet from the roll comprising a support adjacent the roll, a plurality of members adjustable longitudinally of the support, a blade oscillatably mounted upon each of said members, and a spring extending between each blade and its associated member, the member having a notch, and said spring when engaged in said notch urging the blade toward the roll, and when disengaged from said notch, releasing pressure on the blade and acting to hold the blade in any selected position.

10. In gluing apparatus of the type described, an assembly comprising a gluing roll, a glue-applying roll associated with the gluing roll to apply liquid thereto, a stationary glue receptacle, a stationary washing fluid receptacle, means to selectively position the assembly above said receptacles, means to rotate the rolls of the assembly when associated with either receptacle, means to transfer liquid from the glue receptacle to the glue-applying roll and to supply liquid from the washing fluid receptacle to the gluing roll.

11. In gluing apparatus of the type described, an assembly comprising a gluing roll, a glue-applying roll associated with the gluing roll to apply liquid thereto, a glue receptacle, a washing fluid receptacle, means to selectively position the assembly above said receptacles, means to rotate the rolls of the assembly when associated with either receptacle, the assembly when positioned above the glue receptacle having both said rolls arranged above the level thereof, and when positioned above the washing fluid receptacle having said glue-applying roll partially immersed therein, and means for supplying glue from the glue receptacle to the glue-applying roll when said assembly is positioned above said glue receptacle, the last named means being immersed in the washing fluid when the assembly is positioned in operative relation to the washing fluid receptacle.

12. In apparatus of the type described, a roll, and means to strip a sheet from the roll comprising a support adjacent the roll, a plurality of members adjustable longitudinally of the support, a stripper blade oscillatably mounted upon each of said members, and a spring extending

between each stripper blade and its associated member, the member having a notch, and said spring when engaged in said notch and against the end wall thereof urging the stripper blade toward the roll, and when disengaged from said notch, releasing pressure on the stripper blade and acting to hold the blade in any selected position, said member being rotatably adjustable to thereby regulate the pressure engagement between the blade and roll.

13. In apparatus of the type described, a roll, and means to strip a sheet from the roll comprising a support adjacent the roll, a plurality of members on the support, a stripper blade oscillatably mounted upon each of said members, and an elastic element extending between each blade and its associated member, said elastic element having engagement with the blade and member in one relative position of the blade and member exerting pressure urging the blade toward the roll, and in all other relative positions thereof acting to release such pressure on the blade.

14. In apparatus of the type described, a roll, and means to strip a sheet from the roll comprising a support adjacent the roll, a plurality of members on the support, a stripper blade oscillatably mounted upon each of said members, and an elastic element extending between each blade and its associated member, said elastic element having engagement with the blade and member in one relative position of the blade and member exerting pressure urging the blade toward the roll, and in all other relative positions thereof acting to release such pressure on the blade and in certain of such relative positions to hold the blade in the selected position.

15. In gluing apparatus of the type described, a stationary receptacle for glue, a stationary receptacle for a washing fluid, a roll positionable above either receptacle, means to supply liquid from either of said receptacles to the roll, means to rotate the roll in either of said positions, means to operate the liquid-supplying means in either of said positions, blank feeding means with which the roll is associated when operatively positioned above the glue receptacle, and means to move the roll to either of said positions or to any intermediate position therebetween, said blank feeding means including a roll directly cooperating with the first-named roll and moving therewith as the first-named roll is shifted to position it above either receptacle.

16. In gluing apparatus of the type described, a stationary receptacle for glue, a stationary receptacle for a washing fluid, a roll positionable above either receptacle, means to supply liquid from either of said receptacles to the roll, means to rotate the roll in either of said positions, means to operate the liquid-supplying means in either of said positions, stationary blank feeding means with which the roll is associated when operatively positioned above the glue receptacle, and means to move the roll to either of said positions.

17. In gluing apparatus of the type described, a stationary receptacle for glue, a stationary receptacle for a washing fluid, a roll positionable above either receptacle, means to supply liquid from either of said receptacles to the roll, means to rotate the roll in either of said positions, means to operate the liquid-supplying means in either of said positions, blank feeding means with which the roll is associated when operatively positioned above the glue receptacle, and

means to move the roll to either of said positions, said blank feeding means including a roll directly cooperating with the first-named roll and moving therewith as the first-named roll is shifted to position it above either receptacle.

18. In apparatus of the type described, a roll, and means to strip a sheet from the roll comprising a support adjacent the roll, a plurality of members on the support, a stripper blade oscillatably mounted upon each of said mem-

bers, and an elastic element extending between each blade and its associated member, said elastic element having engagement with the blade and member in one relative position of the blade and member exerting pressure urging the blade toward the roll, and in certain relative positions thereof acting to hold the blade in a selected position where it is in selected relation to the roll.

WILLIAM J. HAESSLER.