

Oct. 22, 1929.

C. H. OHLSSON

1,732,948

MACHINE FOR LINING PAPER BOX BLANKS

Filed Sept. 10, 1927

7 Sheets-Sheet 1

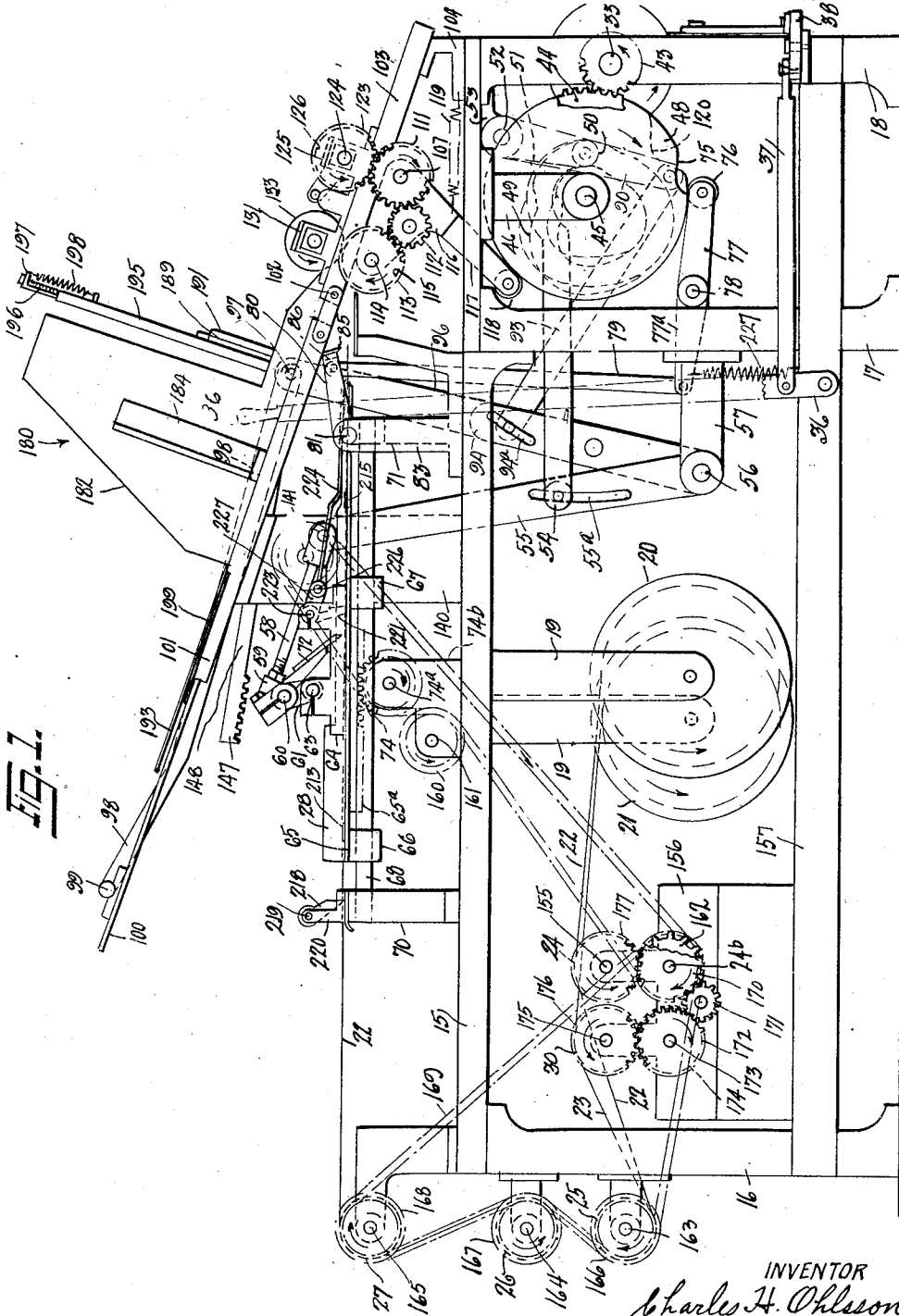


FIG. 1.

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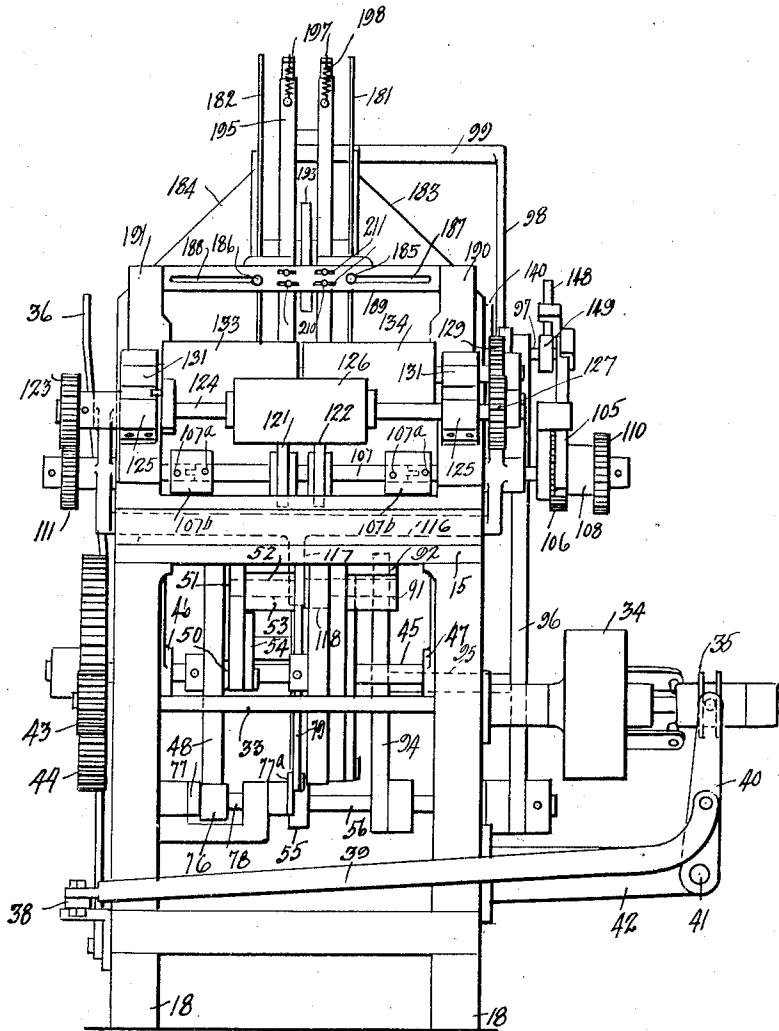
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Fig. 2.



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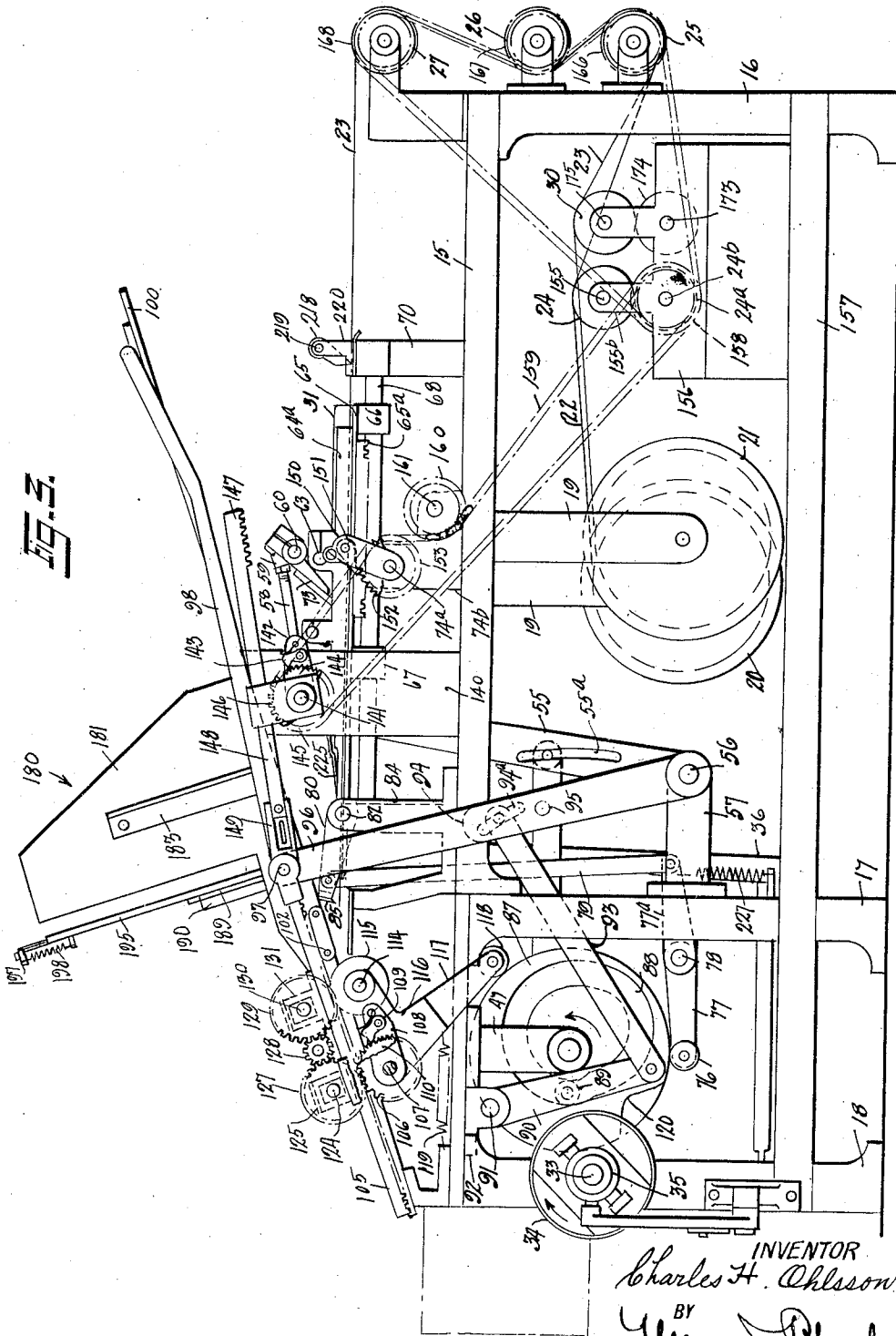
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MACHINE FOR LINING PAPER BOX BLANKS

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MACHINE FOR LINING PAPER BOX BLANKS

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FIG. 4.

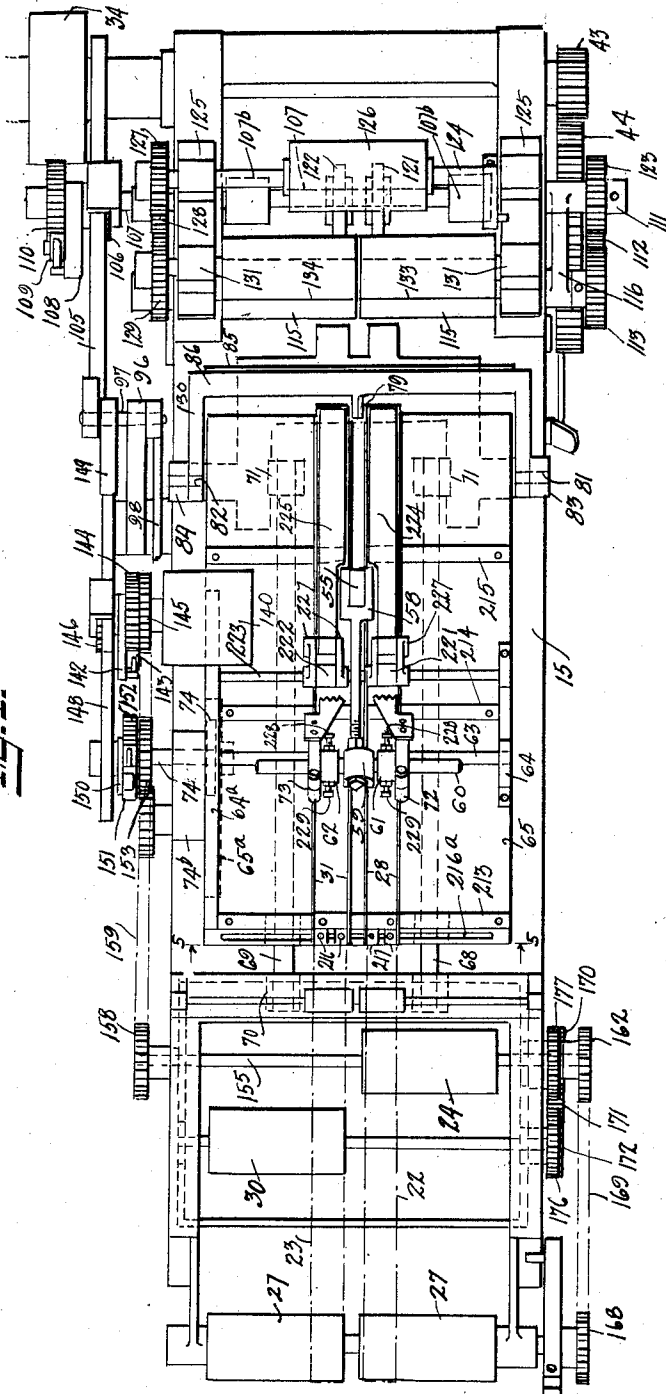
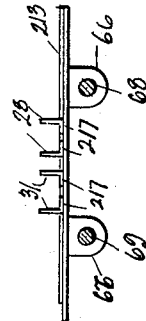


FIG. 5.



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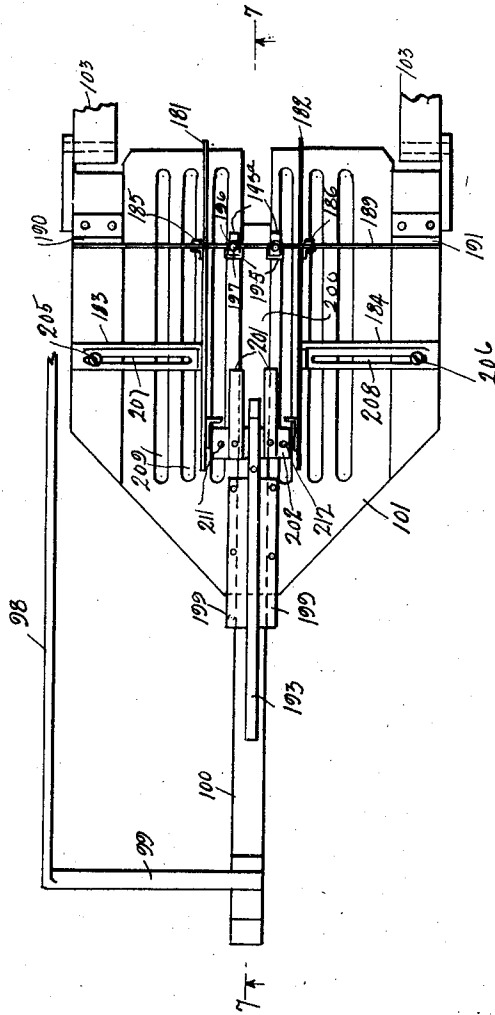
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MACHINE FOR LINING PAPER BOX BLANKS

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FIG. 6.



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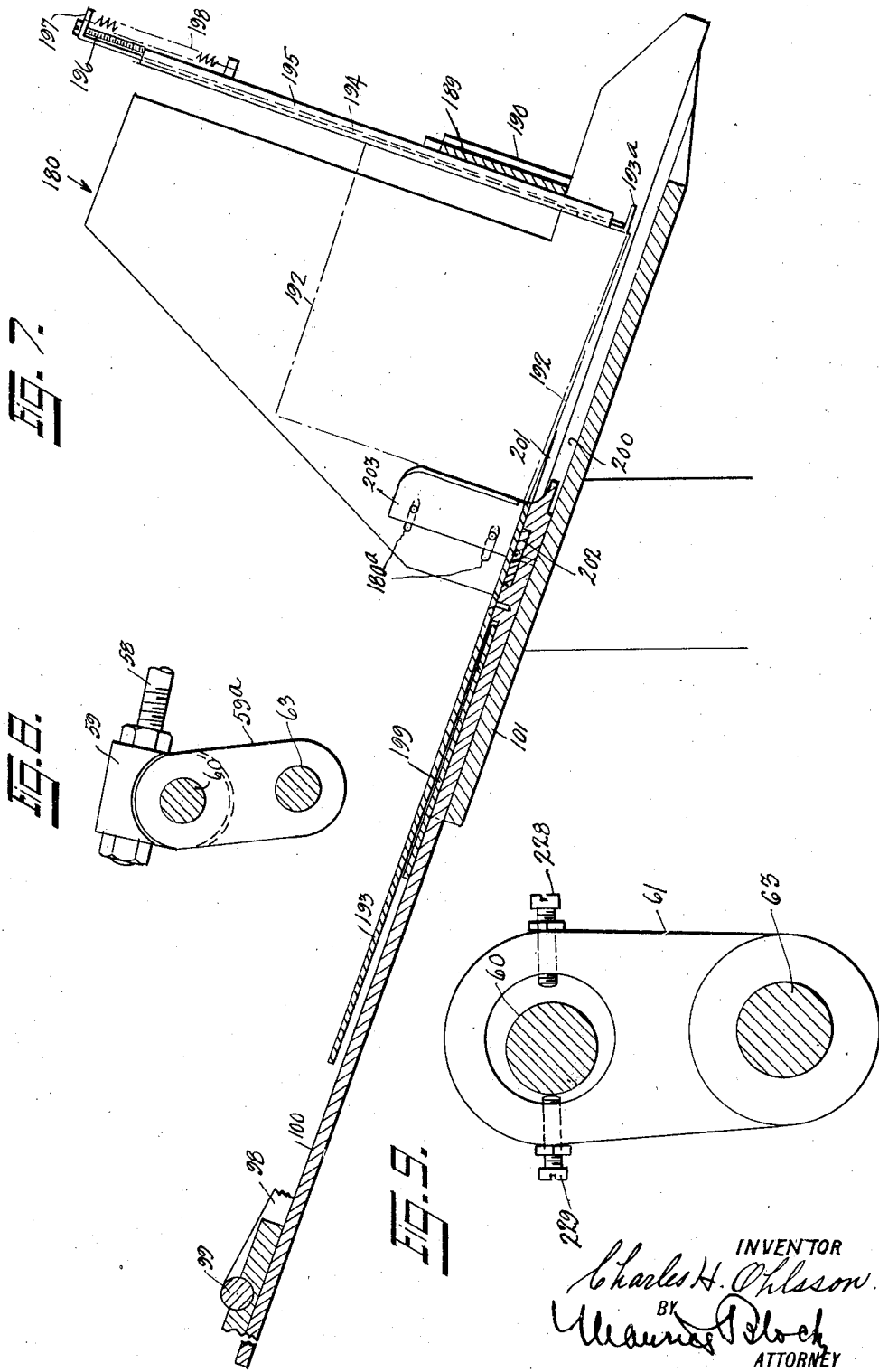
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MACHINE FOR LINING PAPER BOX BLANKS

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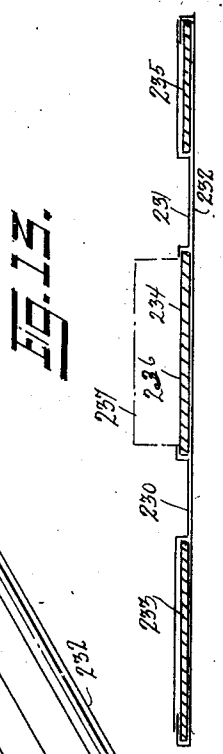
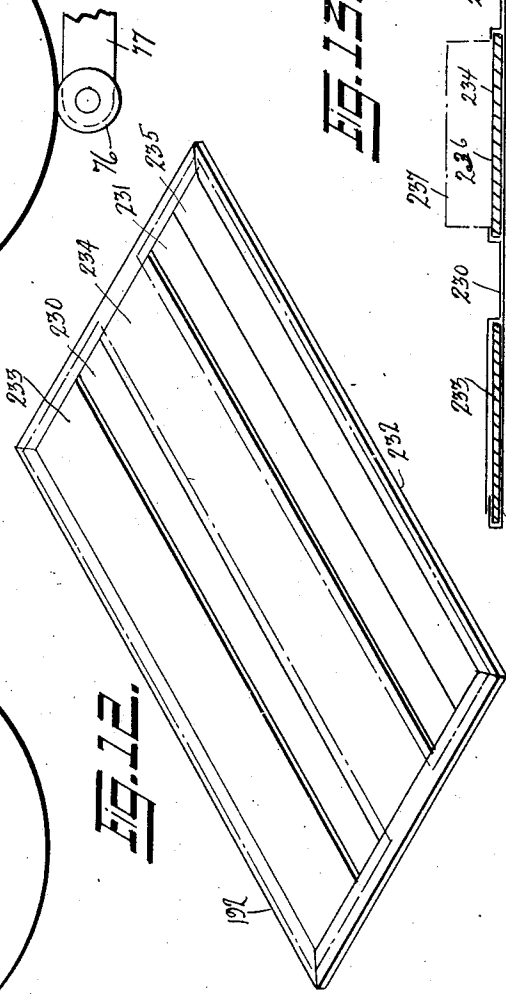
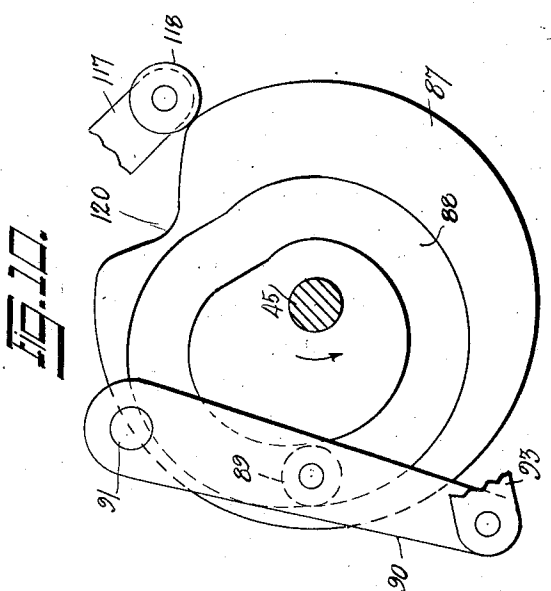
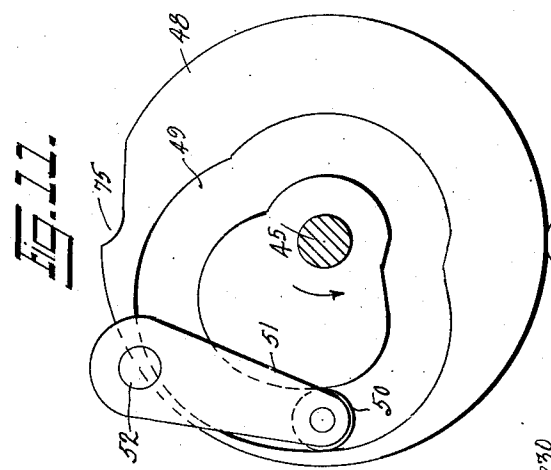
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MACHINE FOR LINING PAPER BOX BLANKS

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UNITED STATES PATENT OFFICE

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MACHINE FOR LINING PAPER-BOX BLANKS

Application filed September 10, 1927. Serial No. 218,622.

This invention relates to machines for lining cover blanks in general and more particularly cover blanks for paper boxes, such as, for instance, pencil cases made of cardboard, the covers of which are lined on the inside thereof.

Heretofore, this lining operation was generally performed in the following manner: A machine having a roll of paper mounted thereon was utilized for this purpose. The paper roll was drawn along by hand through gluing rolls and then placed over the cover blank where it was severed from the paper roll to form the lining for the said blank. This, as will be seen, was a slow operation, as the speed of the machine depended upon how rapidly the operator could draw the paper therethrough and align it with the cover. It also necessitated the using of a roll of paper of a width sufficient to overlie the entire surface of the cover. The said lining paper, as a rule, has a glossy surface which in practice, makes it difficult for gluing the pencil box thereto.

One of the objects of this invention is to provide a machine wherein the lining material, which may be of paper, cloth, leather, or the like, may be automatically drawn off a roll and thus hasten the operation of the machine.

Another object of the invention is to provide a plurality of rolls of such lining material to line the paper boxes in such a manner as to partially expose the cardboard surface of the cover itself, to provide a proper gluing surface of the pencil box.

A further object of the invention is to provide a machine of this nature having a hopper to contain cover blanks therein that will be fed simultaneously with the feeding of the lining material to a predetermined point, where the lining material will be severed from the rollers and glued or pasted to the blank.

A still further object of the invention is to provide a machine wherein the lining material may be cut off to a length slightly less than the length of the blank, so that the said lining material will not become separated

from the blank due to any friction at the ends thereof.

Further objects and novel features of construction of my invention will become more apparent as the specification proceeds.

In the drawings forming a part of this specification,

Figure 1 is a side view of a machine embodying my invention shown partly diagrammatically.

Figure 2 is an end view thereof looking from the delivery end of the machine.

Figure 3 is a side view of the machine looking from the right of Figure 2.

Figure 4 is a top plan view of the machine with the hopper supporting table and cover blank slide removed.

Figure 5 is a sectional view taken on line 5-5, Figure 4, showing the manner in which the lining material guides are supported on the slide.

Figure 6 is a top plan view of the cover blank slide and hopper mechanism.

Figure 7 is a sectional view taken on line 7-7, Figure 6, showing the construction of the cover blank slide and hopper.

Figures 8 and 9 are detail views of portions of the lining material slide operating mechanism.

Figure 10 is a detail view of the cover blank feeding and feeding roller lowering and raising cam shown on the return end of the stroke.

Figure 11 is a detail view of the lining material feeding and cutting off cam also shown on the return stroke.

Figure 12 is a perspective view of the paper box cover before the lining material has been applied thereto and creased with the lining strips indicated thereon in dot and dash lines and

Figure 13 is a sectional view thereof with a pencil box glued to the center portion thereof after the lining material has been pasted and creased.

The cover plate shown in Figs. 12 and 13 before the lining material is applied thereto consists of a plurality of card board sections or the like with their lower surface glued or pasted to an outer covering of any suitable

material as for instance paper or cloth, the ends of which are folded over and pasted to the opposite side of the card board sections.

Referring to the drawings in detail, in which similar parts are indicated by the same numerals throughout the various views, 15 indicates a bed plate supported upon uprights 16, 17 and 18. Supported upon the bedplate 15 intermediate its ends are a plurality of depending brackets 19 upon which are rotatably mounted rollers 20 and 21 containing lining material 22 and 23. The lining material 22 passes over a glue applying roller 24 and around rollers 25, 26 and 27 and thence through guideways 28 towards the rear or delivery end of the machine. In like manner, the strip of lining material 23 passes over a gluing roller 30 and around similar rollers 25, 26 and 27, mounted in proper alinement with the said roller 30 and through guideways 31.

At the rear of the machine and in the uprights 18 there is journaled a shaft 33 upon which there is loosely mounted a drive pulley 34. This pulley 34 may be brought into engagement with a clutch 35 slidingly mounted on the shaft 33 and secured thereto for rotation therewith and operated by means of a starting lever 36, a link 37, a bell crank 38, link 39 and lever 40 mounted upon a stud 41 in a supporting bracket 42 secured to one of the uprights 18 at the rear or delivery end of the machine. Secured to the shaft 33 at the opposite end of the clutch mechanism there is a pinion 43 in mesh with a gear 44 secured to a cam shaft 45 journaled in bearings 46 and 47 depending from the bedplate 15. Secured to said shaft 45 is a paper or lining material feeding and cut-off cam 48 provided with a cam groove 49 in which operates a roller 50 mounted upon a lever arm 51 swingingly mounted upon a stud 52 journaled in a bracket 53 secured to the underside of the bedplate 15. Secured to the lever 51 is a link 54 at one end thereof, the said link being secured at its opposite end to a lever 55 swingingly mounted on a rod 56 journaled in brackets 57 secured to the uprights 17. This lever 55 is connected by means of a forked rod 58 to an arm 59 loosely mounted on a shaft 60 and fitting into a forked arm 59^a loosely mounted on a shaft 63 and fast to the shaft 60 which passes through arms 61 and 62 secured to the shaft 63 journaled in brackets 64 and 64^a secured to a plate 65 supported on members 66 and 67 slidingly mounted on rods 68 and 69 supported in brackets 70 and 71. Secured to the shaft 60 there are paper feeding or gripping arms 72 and 73. A rack 65^a is secured to the underside of the plate 65 and is in mesh with a gear 74 secured to a short shaft 74^a journaled in a bracket 74^b. The cam 48 is provided at its periphery with a cutout 75 which operates a roller 76 mounted on a lever 77

secured to a pin 78 and connected to a link 79 at one end thereof by means of a lever 77^a also secured to the pin 78, said link being in engagement with a bail 80 swingingly mounted on studs 81 and 82 journaled in uprights 83 and 84 of the bracket 71. A knife 85 is secured through the cross-bar 86 of the bail 80. The shaft 45 has also mounted thereon a cam 87 provided with a cover blank feeding cam groove 88 in which operates a roller 89 intermediate the ends of a lever arm 90, swingingly mounted on a stud 91 journaled in a bracket 92 secured to the underside of the bedplate 15. Secured to the free end of the lever 90 is a link 93 connected at its opposite end to a lever arm 94 loosely mounted on the rod 56 and joined by means of a rod 95 to another lever 96 loosely mounted on the rod 56. A stud or pin 97 passes through the upper end of the arm 96 and has mounted thereon an arm 98 having an extension 99 which is secured to a slide bar 100 slidingly mounted in a plate 101 hingedly secured as at 102 to a plate 103 supported on a cross bracket 104 which is in turn secured to the bedplate 15 at the rear or delivery end of the machine. The pin or stud 97 has also mounted thereon a rack 105 in mesh with a gear 106 loosely mounted on a shaft 107 extending the entire width of the machine. Fast to the gear 106 or integral therewith there is an arm 108 upon which is mounted a spring pressed pawl 109 in engagement with a ratchet wheel 110 secured to the right hand end of the shaft 107 looking from the rear or delivery end of the machine (see Figs. 2 and 4). Secured to the other end of the shaft 107 is a gear 111 in mesh with an idler 112 which is in turn in mesh with a gear 113 secured to a shaft 114 also extending the entire width of the machine. This shaft 114 has mounted thereon rollers 115 (see Figs. 3 and 4) and the said shaft is supported in the ends of a lever 116 swingingly mounted on a shaft 107, the said lever 116 being provided near the center thereof with an arm 117 on which there is rotatably mounted a roller 118 in contact with the periphery of the cam 87 and the said bracket may be swung downwardly by a spring 119 when the cutout 120 on the periphery of the cam 87 comes in alinement with the roller 118. The shaft 107 is further provided with rollers 121 and 122 near the center thereof. The gear 111 is in mesh with a gear 123 mounted on a shaft 124 supported in bearings 125 and has secured thereto at the center thereof a roller 126 in contact with the rollers 121 and 122 and at the extreme right end of the said shaft there is a gear 127 in mesh with an idler 128 which in turn is in mesh with a gear 129 mounted on a shaft 130 journaled in bearings 131 and has secured thereto rollers 132 and 134. A bracket 140 is secured to the bedplate 15 and acts as a support for the plate

101 the said bracket being provided with an opening to receive a shaft or stud 141 upon which there is secured an arm 142 having a spring pressed pawl 143 mounted thereon and in engagement with a ratchet wheel 144 connected to a sprocket wheel 145. Integral with the arm 142 is a gear 146 which periodically engages a toothed portion 147 on a rack bar 148 secured to an arm 149 mounted on the pin 97. The shaft 74^a has secured thereto an arm 150 upon which is mounted a spring pressed pawl 151 in engagement with a ratchet wheel 152 which has secured thereto a sprocket wheel 153. The ratchet 152 and sprocket 153 are both loosely mounted upon the said shaft 74^a.

The glue is applied to the roller 24 which is mounted upon a shaft 155 journalled in ears 155^b of a glue pot 156 by a second roller 24^a mounted on a shaft 24^b and extend into the said glue pot 156 and supported on supporting-bars 157 secured to uprights 16, 17 and 18. Secured to the shaft 24^b is a sprocket wheel 158. A sprocket chain 159 passes around the sprocket wheels 145, 153 and 158 and is kept in engagement with the said sprocket wheels by an idler 160 mounted on a stud 161 journalled in the bracket 74^b. To the opposite end of the shaft 24^b there is secured a sprocket wheel 162 (see Figs. 1 and 4) and to the shafts 163, 164 and 165 upon which are mounted the rollers 25, 26 and 27, there are secured sprocket wheels 166, 167 and 168 and a sprocket chain 169 passes over these said sprocket wheels to drive the said rollers. The shaft 24^b has also secured thereto a gear 170 in mesh with a pinion 171 which meshes with a second gear 172 mounted on a shaft 173 carrying the glue applying roller 174 in contact with the gluing roller 30 mounted on a shaft 175, which shaft is provided with a gear 176 in mesh with gear 172. A like gear 177 on a shaft 155 is in mesh with gear 170 and derives rotary movement therefrom.

Upon the plate 101 there is mounted a hopper 180, said hopper comprising side walls 181 and 182 secured to brackets 183 and 184 which are adjustably secured to the said plate 101. The said walls 181 and 182 may also be guided sideways for adjustment by means of studs 185 and 186 in the said side plates passing through slots 187 and 188 in a cross-bar 189 secured to brackets 190 and 191 fast to the plate 101. The said hopper may be filled with a stack of cover blanks 192 which are fed to the rollers 115, 133 and 134, in the following manner: The slide 100 is pulled backward towards the delivery end of the machine by the arm 98 and the said slide bar has mounted thereon a plate 193 which abuts the bottom cover blank 192 and causes the said cover blank to move outwardly underneath projecting legs 193^a projecting from bars 194 resiliently mounted in guide-

ways 195. The said legs 193^a will permit of but a single cover blank to pass therebetween and the top surface of the plate 101. This space may be adjusted for various thicknesses of cover blanks by a stud 196 passing through projections 197 on the bars 194 and abutting the top surface of the guideways 195, against the tension of the spring 198. Gibs 199 maintain the slide bar 100 in proper alinement in a slide-way 200 cut in the top surface of the plate 101. Should the space between the legs 193 and the top surface of the plate 101 however, be insufficient to permit of the passage of a single cover blank, tapering plates 201 secured to a cross plate 202 secured to the slide bar 100 will raise the said legs 193^a and permit the passage of the said cover blank. The stack of cover blanks 192 are held between the rear surface of the guides 195 and the front edge of brackets 203 adjustably secured to the side walls 181 and 182 of the hopper 180. Provision is made so that blanks of various widths may be inserted into the hopper. As before stated, the hopper walls are adjustably mounted by means of the brackets 183 and 184. To increase the width of the hopper, screws 205 and 206 which pass through slots 207 and 208 may be loosened and the side walls may be moved outwardly. Likewise a longer plate, similar to the plate 202 may be secured to the slide bar 100 and a plurality of plates 193 may be secured to the said plate 202 so that they may abut the ends of the said blanks near their extreme ends. To permit of this, I have provided grooves 209 in the top surface of the plate 101 (see Fig. 6). The guiding legs 193 may also be adjusted by loosening screws 210 and removing the said legs inwardly or outwardly as the case may be, and when the said legs are moved to increase the space between them, the tapering or wedge-shape plates 201 may then be secured to the plates 202 at points 211 and 212. Likewise, provision is made for the use of wider lining material than that shown. The said lining consists of strips 213, 214 and 215 secured to the slide plate 65. These plates 213, 214 and 215 project into cut-outs in the paper guides 28 and 31 and act as guiding means for the said paper guides 28 and 31 when they are moved inwardly or outwardly as desired. These paper guides are maintained on the plate 65 by means of screws 216 passing through angular projections 217 on the said paper guides 28 and through a slot 216^a in the plate 65.

The lining material 22 and 23 is prevented from raising up from its normal position by means of weights 218 suspended from a rod 219 supported in brackets 220 secured to the supports 70 and also by weights 221 and 222 on a shaft 223 journalled in the brackets 64 and 64^a. This lining material is further prevented from raising up by means of plates 224 and 225 hingedly suspended from studs

226 in arms 227 hingedly mounted on the shaft 223 (see Figs. 1 and 4). It will be understood in this connection that these weights bear but lightly upon the said lining material, the only gripping of the paper is

5 done by the paper gripping arms 72 and 73. The operation of the machine is as follows: The lining material is first threaded around the rollers as described in the first part of
10 the specification and as indicated in Figures 1 and 3 so that same comes in line with the forward edge of the cut-off knife 85. The hopper is filled with blanks and the starting lever 36 is operated to throw the clutch mechanism 35 to drive the machine. Both the
15 lining material 22 and 23 as well as the cover blanks 192 are fed forwardly towards the rollers 115, 133 and 134, the cover blanks starting to feed slightly in advance of the lining material, the roller 115 having mean-
20 while dropped into a position to permit of the said lining material and cover blanks to enter between the said roller 115 and the upper rollers 133 and 134. This dropping of the
25 roller 115 is accomplished by the weight of the bracket 116 or by the spring 119 when the cut-out 120 comes into alinement with roller 118 mounted upon the lever arm 117 of the roller carrying bracket 116. The feed-
30 ing then ceases temporarily, the rollers 115 and the rollers 133 and 134 being out of engagement. The roller 115 then comes up to grip both the lining material and the cover blank and the blank and lining material are
35 then further fed by the rollers 115 and 133 and 134 until sufficient lining material to nearly cover the entire blank has been fed from the rollers 20 and 21. It will be under-
40 stood in this connection that the initial feeding of the lining material as well as the blanks only brings the said materials far enough to be gripped by the rollers 115 and 133 which is not the entire length of the blank, consequently additional feeding means must be
45 provided to feed sufficient lining material to cover the entire length of the said blanks as these are fed through the delivery rollers. The further feeding of the lining material during this period is accomplished by the
50 toothed rack portion 147 in engagement with the gear 146, the said rack having been brought in mesh with the said gear 146 by the lever 96. The said rack bar 148 is out of mesh with the gear 146 until the lining material and cover blanks are brought into position to be gripped by the rollers 115 and 133, that is until the initial feeding of the said elements has ceased to permit the slide to return to normal position, during which time
60 the teeth 147 engage the gear 146 to further feed the lining material through the glue pot by means of the sprocket chains 159 and 169. The lining material is then severed by the knife 85 being drawn down by means of the
65 connections 79, 77 when the roller 76 enters

the cut-out portion 75 on the cam 48 by means of a spring 227 exerting a downward pull on the lever 77^a. When the feeding of the lining material commences, the lining material gripper arms 72 and 73 which are normally
70 above the paper, are brought into gripping contact therewith against the surface of the plate 65 by means of the lever 55 drawing upon the connecting rod 58 connected to the
75 member 59 which encircles shaft 60 and carries the said shaft 60 against setscrew 228 (see Figs. 4 and 9) causing the said gripper arms to rock outwardly and grip the lining material, after which the slide plate 65 moves towards the delivery end of the machine and carries the lining material therewith. On the return stroke of the lining material feeding slide 65, the shaft 60 is brought against a setscrew 229, thus raising the gripper arms 72 and 73 from the lining material and allowing the said slide to come back to its normal position. After sufficient lining material has been severed from the rollers to cover a blank, the blank and lining are fed through the rollers 126, 121 and 122. These rollers 121 and 122 will crease the lining material as shown at 230 and 231. Figure 13, and paste the same to the outside layer 232, the rest of the lining material having meanwhile been pasted or
90 glued to the cover sections 233, 234 and 235 by the rollers 115, 133 and 134. This permits of an area 236 on the section 234 to be exposed or uncovered so that a pencil box 237 may be directly glued thereto at some future time.

100 Rotation to the rollers 115, 121, 122, 126, 133 and 134 is derived in the following manner: The cam groove 88 in the cam 87 operates roller 89 on the lever arm 90 to which is connected a link 93 connected to levers 94 and 96, the said lever 96 having a pin 97 upon which the rack 105 is mounted, the said rack being in mesh with a gear 106 which rotates the roller shaft 107 upon which is mounted the gear 111, said gear 111 being in mesh with
110 gear 123 to rotate the roller 126 upon the shaft 124 which is provided at its opposite end with gear 127 in mesh with the gear 129 through its intermediate gear 128 to rotate the shaft 139 upon which is mounted rollers 133 and 134, the roller 115 being driven through gears 111 and 113 which are connected by intermediate 112. The lining material is fed by means of a cam 48 through the cam groove 49, roller 50, link 54 and lever
120 arm 55. It will be noted that the lever 55 is provided with a slot 55^a to which the link 54 is connected. This slot 55^a provides means for varying the throw of the lever 55. The lower the link 54 is connected in the slot 55^a,
125 the greater the throw of the lever 55 will be thus permitting the insertion of blanks of various lengths into the hopper 108, provision being made in the hopper itself permitting of the insertion of larger blanks by
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the slots 180^a in the sides frames 181 and 182 so that the member 203 may be slid forward or backward therein as the case may be. A slot 94^a in the lever 94 provides means for varying the throw of the lever 95 and the feeding of the blanks. Provision is also made for removing the shaft 107 upon which are mounted creasing rollers 121 and 122 so that either wider rollers may be inserted or rollers spaced wider apart or closer together when desired. The removal of this shaft may be accomplished by loosening setscrews 107^a in the collars 107^b. The collars may then be moved inwardly, the center section of the shaft 107 which is keyed to the outside section of the said shaft may then be removed and another shaft having the required rollers suitably spaced apart thereon may be inserted and the collars slid in place again and secured thereon.

It will be noted that the weights 218 and 221 are inclined in such a direction so that they will not bind the lining material when the slide is drawn back towards the front or gluing end of the machine. It will also be noted that the plates 224 and 225 may be lifted off the paper at any time desired by swinging them bodily around center 223. The plate 101 is swingingly mounted so that it may be raised any required distance to accomplish the lifting of these plates 224 and 225 or for any other purpose that may be required.

From the above it will be seen that I have provided a means for lining cover blanks adapted to be used in connection with pencil boxes, books or the like, in which a plurality of strips of lining material may be automatically fed to be pasted on said cover blanks and then completed and fed through the machine. It will also be seen that the parts are so arranged as to cut off a length of lining material shorter than the length of the blank and that I have greatly increased the output of such a machine by automatically feeding the lining material and the blanks, and that I have provided a surface on the blank to which may readily be glued a pencil box or the like after the said cover blank has been so lined.

While I have shown a preferred form of my invention I do not limit myself to the exact showing as many variations and changes may be had without departing from the scope of the appended claims.

Having described my invention what I claim and desire to secure by Letters Patent is:

1. A machine adapted to paste lining material to a cover plate comprising a movable slide, a gripper on the slide for gripping the lining material, means for operating the slide to feed the lining material, means in the path of the lining material for applying glue to one surface thereof, a second movable slide in cooperative relation with the first

mentioned slide to feed the cover blanks to substantially the same point, means to interrupt the feeding of the lining material and blank, means for returning the lining material slide to normal position when the feeding has ceased; means for feeding additional lining material and means for pasting the lining to the blank and feeding same out of the machine.

2. In combination with a machine for feeding a continuous strip of glued lining material comprising a movable slide, a gripper on the slide to grip the lining material, means for moving the slide a predetermined distance, blank feeding means in operative relation with lining material feeding means, said blank feeding means comprising a movable slide, means for moving same to a point in predetermined relation with the lining material, means for gripping the lining and blank to paste them together and feed them to a further point and means for severing the lining at this point.

3. In combination with a machine for feeding a continuous strip of glued lining material comprising a movable slide, a gripper on the slide to grip the lining material, means for moving the slide a predetermined distance, blank feeding means in operative relation with lining material feeding means, said blank feeding means comprising a movable slide, means for moving same to a point in predetermined relation with the lining material, means for gripping the lining and blank to paste them together and feed them to a further point, means for severing the lining at this point and means for creasing a section of the lining while being fed and pasted.

4. In a machine for simultaneously feeding blanks and lining material therefor, a combined feeding, pasting and creasing device, comprising a pivotally mounted bell crank member, a feeding roller rotatably mounted in one arm of the said member, a second feed roller in contact with the first mentioned roller, a third roller geared to second mentioned roller, a creasing roller in contact with and geared to the third mentioned roller, gearing means between the last and first mentioned rollers, a cam, a lever operated by the said cam, a gear connected to the last mentioned roller, a rack connected to the lever to transmit motion to the feeding rollers and a cam roller on the other arm of the bell crank member to swing the first mentioned roller in and out of engagement with the second mentioned roller.

5. In a machine for simultaneously feeding blanks and lining material therefor, a combined feeding, pasting and creasing device comprising a plurality of rollers geared to each other, a bell crank member pivotally mounted and having one of the said rollers

mounted in the free end of one of its arms, a cam, a lever operated by the said cam, a rack and gear operated by the lever for actuating the said rollers to revolve in feeding direction and means for periodically swinging the bell crank lever to disengage some of the rollers and temporarily stop the feeding.

6. In a machine for simultaneously feeding blanks and a plurality of continuous strips of lining material therefor, a lining material feeding slide, grippers mounted on the said slide, lining material guides adjustably mounted on the slide, means for operating the slide, a hopper adjustably mounted and containing a stack of blanks in proper alinement with the lining material, blank feeding means in operative relation with the lining material feeding means, means for severing the lining material at a predetermined point and means for simultaneously pasting, creasing and feeding the severed portion of the lining material and the blank.

7. In a machine for simultaneously feeding blanks and lining material therefor, a combined feeding, pasting and creasing device, comprising a pivotally mounted bell crank member, a feeding roller rotatably mounted in one arm of the said member, a second feed roller in contact with the first mentioned roller, a third roller geared to second mentioned roller, a creasing roller in contact with and geared to the third mentioned roller, gearing means between the last and first mentioned rollers, a cam, a lever operated by the said cam, a gear connected to the last mentioned roller, a rack connected to the lever to transmit motion to the feeding rollers and means to periodically bring the feeding rollers out of engagement.

8. A machine adapted to paste lining material to a cover blank, comprising means for feeding a predetermined amount of glued lining material to a predetermined point in the machine, means for feeding a cover blank to substantially the same point, means to interrupt the feeding of the lining material and blank after they have been fed to said point, means for feeding an additional amount of lining material, and means for pasting the lining material to the blank and feeding same out of the machine.

9. In a machine of the nature described, lining material feeding means, comprising a movable slide, a gripper on the slide, means for moving the slide a predetermined distance and to simultaneously actuate the gripper to grip the lining material, means for feeding a blank substantially simultaneously with the lining material, means for interrupting the feeding of the lining material and blank, means for returning the slide to normal position when the feeding has ceased, means for feeding an additional amount of lining material, and means for pasting the lining ma-

terial to the blank and feeding same out of the machine.

In testimony whereof I hereunto affix my signature.

CHARLES H. OHLSSON.

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