(No Model.) 4 Sheets—Sheet 1.

W. R. LANDFEAR.

MACHINE FOR STAMPING AND LABELING PACKETS.

No. 540,260. Patented June 4, 1895.

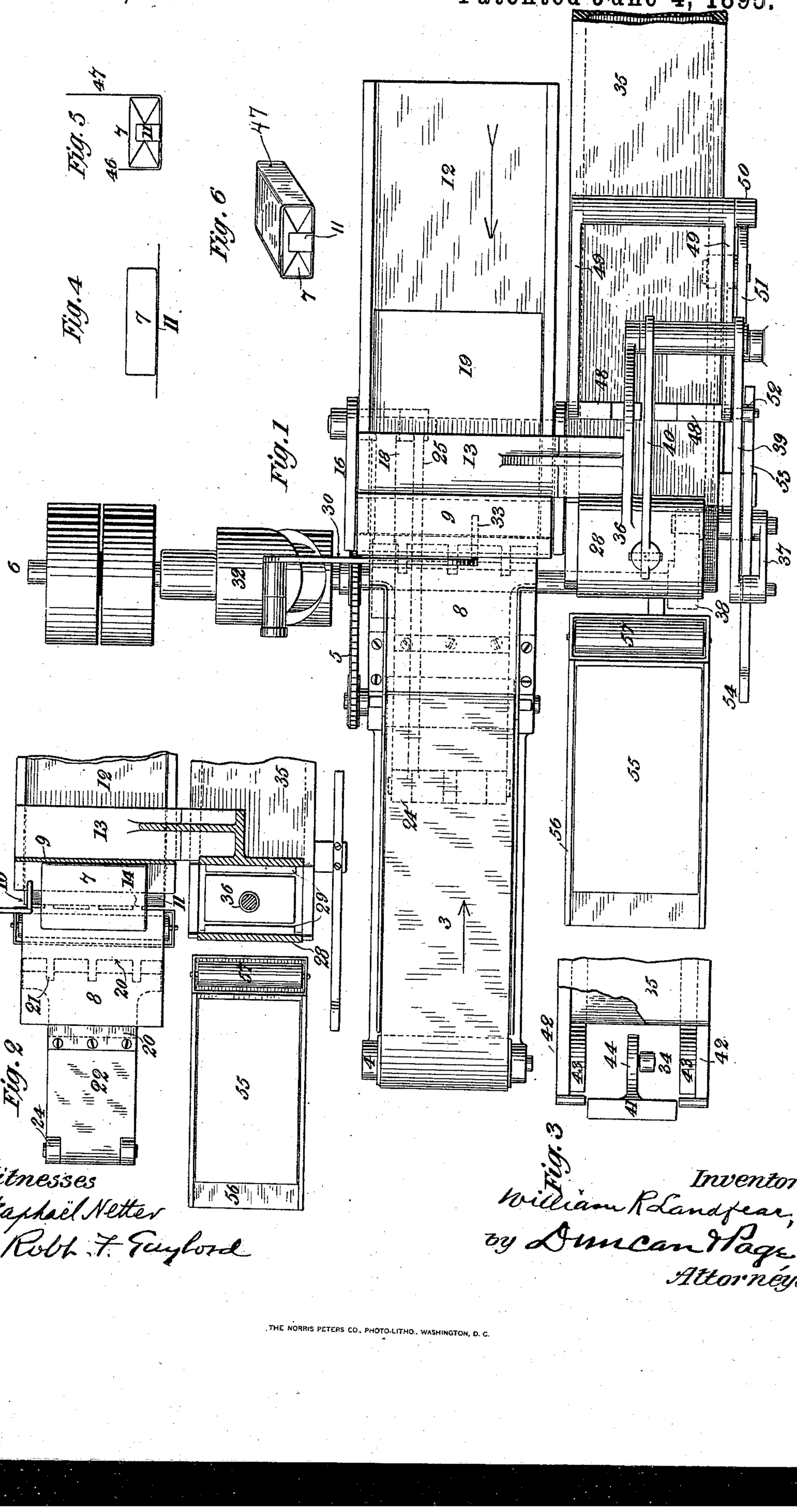

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Fig. 8

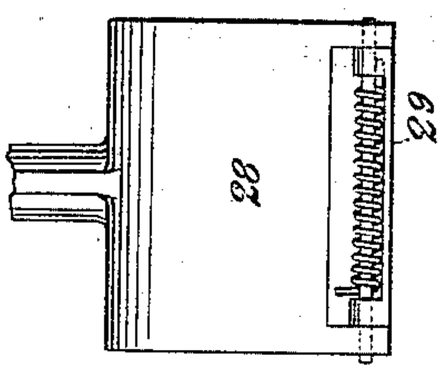

Fig. 7

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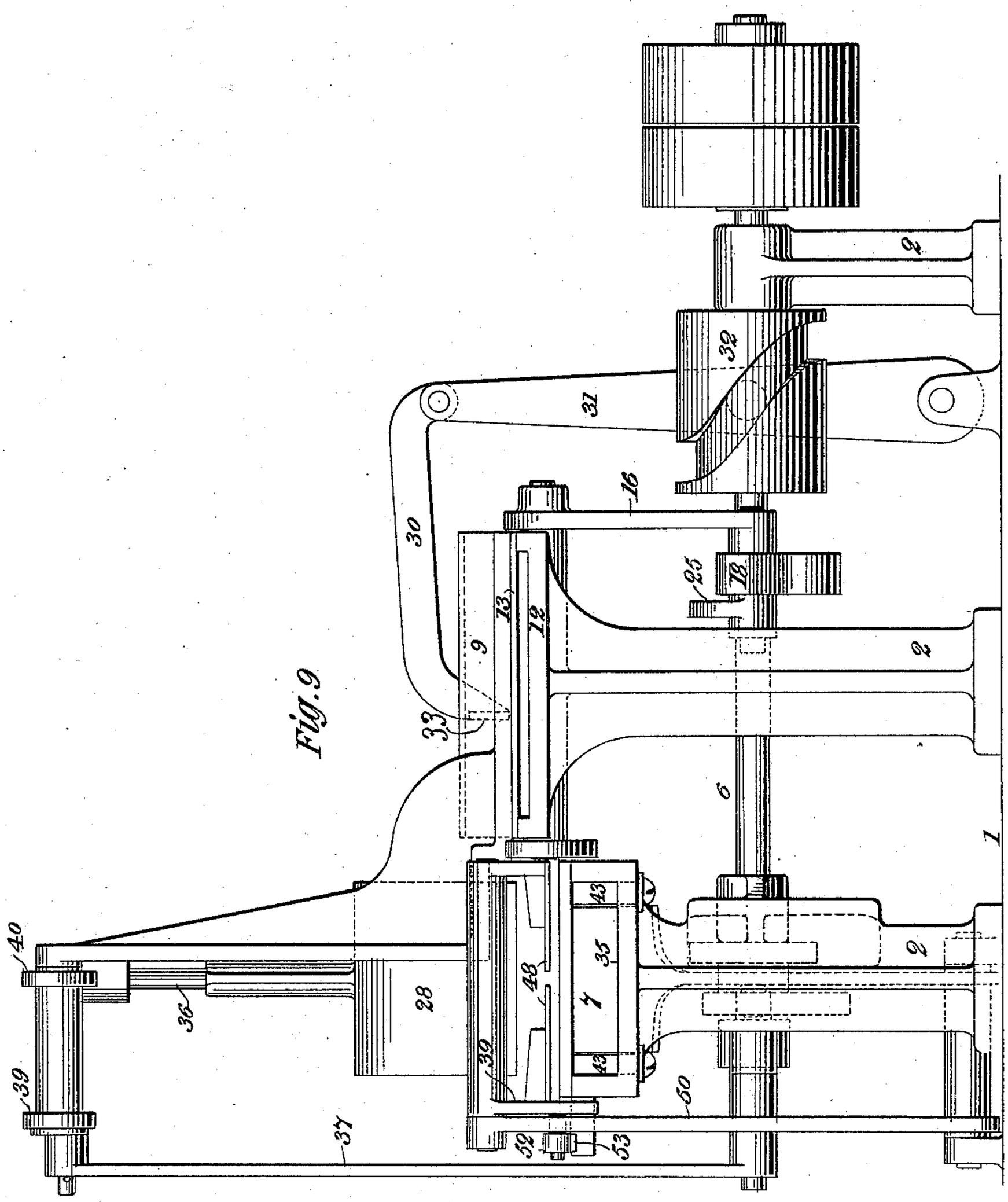

Fig. 9.

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Fig. 11

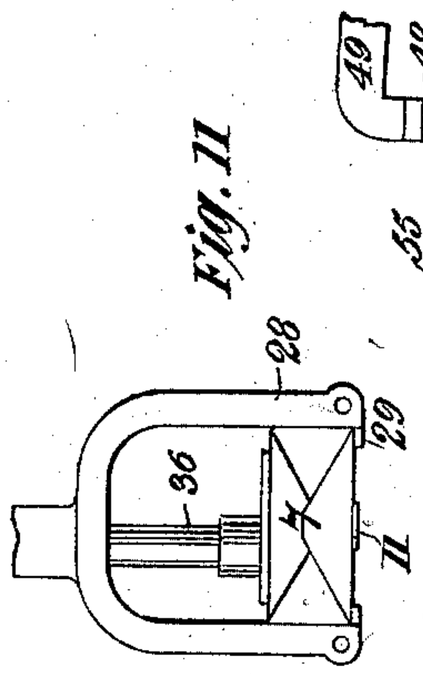

Fig. 10

Fig. 12

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UNITED STATES PATENT OFFICE.

WILLIAM R. LANDFEAR, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE WRIGHT'S AUTOMATIC TOBACCO PACKING MACHINE COMPANY, OF LYNCHBURG, VIRGINIA.

MACHINE FOR STAMPING AND LABELING PACKETS.

SPECIFICATION forming part of Letters Patent No. 540,260, dated June 4, 1895.

Application filed July 24, 1894. Serial No. 518,433. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. LANDFEAR, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Machinery for Stamping and Labeling Packets, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

The present improvements relate to machinery adapted to automatically affix stamps, as revenue stamps, upon a packet or package, such, for example, as a rectangular package of tobacco, and to affix to the packet, usually across or over the stamp, a label bearing any desired printed or illustrative matter. Preferably, I affix the stamp across the packet lengthwise with its ends turned over upon the ends of the packet, and the label is wrapped around the packet over the stamp but not covering the ends of the packet or of the stamp, which stamp ends thus remain exposed to indicate the use of the stamp. The stamp and the label may be otherwise affixed to the packet, and I do not, therefore, limit my invention in this regard. The machine, also, for applying the stamps and the labels to packets, and which is the subject of the following special description, is capable of various modifications without altering the principle of the invention, and in this regard also I do not limit myself.

I will first describe one form of machine embodying my improvements, and in the claims to follow I point out the features and combination of features that I regard as new.

In the drawings accompanying this description, Figure 1 is a plan view of one form of machine embodying my improvements. Figs. 2 and 3 are detail views on a smaller scale than that of Fig. 1, which views will be more fully explained by the following detail description. Figs. 4, 5, and 6 show a package in various steps of being wrapped with a stamp and then with a label. Fig. 7 is a side elevation of the machine from the side of Fig. 1 opposite the observer, and Fig. 8 is a detail view of a part separated from the machine. Fig. 9 is an end elevation from the right hand of Fig. 1. Fig. 10 is a side elevation from the front of Fig. 1; and Figs. 11 and 12 show parts in detail, which will be hereinafter specially referred to.

Referring to the views, 1 represents the main base or flooring upon which the machine stands, and 2 the standards of the machine.

3 (Figs. 1 and 7) is an endless belt carried upon suitably placed rolls 4, and driven through belt 5 which takes motion from the main driving shaft 6. The packets or packages 7, already shaped, and, if desired, preliminarily covered or wrapped, are fed upon this belt, in line, and edge to edge in any suitable way, and as the front packet is disposed of, the continually-moving feeding belt carries forward the others. The forward packet is pushed along the bed plate 8 of the machine and against and under the guide and holder 9 secured to the bed of the machine, which holder forms a space corresponding practically to the width and thickness of the packet, but is longer than the packet to serve as a lateral guide along which the packet is forced to other parts of the machine. The packet when in first position under this holder, is located directly over a slot or stamp passage 10 through the bed of the machine, which slot is of a width corresponding to that of the stamp it is desired to put on the packet.

In Fig. 2 which is a plan view of a part of the bed of the machine with the overhanging parts cut away just below the horizontal part of the packet holder, and also in Fig. 7, the stamp passage is shown with a stamp 11 projecting across the same, and a packet 7 is shown in position over the stamp and slot.

The stamps are preferably in sheet form, the width of the sheet being that of the length of a stamp, and these sheets are fed printed side down into the machine along a closed guide or trough 12, the upper face of the cover 13 of which is in plane with the bed 8. Stop fingers 14 serve to limit the movement of the stamp sheet, the vertical faces of these fingers forming one side boundary of the stamp slot, while the other side of the slot is formed by the straight edge or end face of the stamp-

sheet guide, the lower end edge of the cover 13 of the guide also serving as a shearing edge for severing the stamp from the sheet.

15 is a shear and stamp-applying bar carried on the elbow lever 16 operated from the main shaft through the eccentric 17 and arm 18, which bar acts, in conjunction with the cover 13, to shear the stamp from its sheet, and then to force the severed stamp against the packet.

The stamp sheet 19 is drawn along its guide and to against the stop fingers 14, by the horizontally reciprocating feed-blade 20, slotted at 21 (dotted lines, Fig. 2) so that its free edge, the adhering edge, may pass the stop-fingers and extend into the stamp-sheet guide and drop to contact with the adhesive surface of such sheet, and also so that upon withdrawal and when the stamp comes to contact with the fingers the latter will strip the stamp from the blade which can then draw away from the stamp leaving the latter in the stamp slot. This blade is fixed to the beam 22 which rides on the roll 23, and is reciprocated by the lever 24 oscillated in proper time by the operating connections 25 extending therefrom to and pivoted on the eccentric arm 18. Across the under face of the beam is cut a slot 26 which is positioned to meet the roll when the blade is extended to over the stamp sheet and to permit the beam to slightly drop so as to bring the blade to adhesive contact with the stamp sheet.

27 is a paste or moisture applying roll which is located beneath the stamp-feeding blade and arranged to moisten or apply paste to the under side edge of the feed blade when the same is in retracted position. Preferably the slotted or free edge of this blade is thickened or projects slightly below the main or body part thereof (Fig. 7) whereby moisture is applied only to the surface which is to come to engaging contact with the stamp sheet.

Assuming a packet to be in place under its guide and holder, the feed-blade advances and draws the stamp-sheet into place over the stamp slot; at the same time moistening the upper adhesive face of the stamp. The shearing bar then severs the stamp from the sheet and forces it against and causes it to adhere to the under face of the packet, as seen in Fig. 4, the free ends of the stamp projecting from the ends of the packet.

The packet holder and guide 9 extends to and is in line with the packet receiver 28, which mechanically is practically a continuation of the holder but is located to one side of the stamp-affixing mechanism where it acts as a part of the labeling devices. This receiver (Figs. 8, 11 and 12) has a span or opening corresponding to the width of the packet, and is of a width corresponding to the length of the same (Figs. 1 and 8), and is provided with the spring actuated flaps 29, which normally are held to the horizontal position shown acting as inwardly projecting shelves or ledges for the packet to rest upon when the latter is forced from its holder into this receiver. This latter action is accomplished by the pusher arm 30 pivotally attached to the lever 31 reciprocated by the cam 32 on the main shaft (Figs. 1 and 9), this pusher arm carrying a push plate 33 arranged to enter under the packet holder 9 (Figs. 1 and 7). At the proper time, and after the stamp has been affixed to the packet, this pusher arm advances and forces the packet into the receiver (Fig. 11), meanwhile holding the line of packets being fed in from advancing, and upon returning passes to the outside of such line and permits a packet to be carried to under and against the holder as before. The package receiver, except as concerns the package supporting flaps 29, is open on the under side, and this opening is directly over the opening 34 between the two sides of the label folding trough 35.

36 is a plunger operated from the main shaft through the medium of the pitman rod 37 on crank arm 38 of the main shaft and the arms 39 and 40, the latter of which is attached to the upper end of this plunger. At the proper time this plunger descends and pushes the packet out of the receiver, the spring flaps giving way, and through the opening 34 and into the end of the label folding troughs, see Fig. 12; but previous to this movement of the packet, a label has to be drawn over the opening in the trough (Fig. 11), so that as the packet descends this label is folded around the packet by the action of the end of the cover of the trough and the edge of the folder blade 41 which bounds the opposite side of this opening into the trough. In like manner the side walls 42 of the trough (Fig. 3), fold up the hitherto free ends of the stamp which has been affixed to the packet and cause such ends to adhere to the ends of the packet (Fig. 12). As the packet is pressed into the trough, it bears upon the springs 43 which serve to hold the label and stamp in contact with the packet and assist to smoothly apply the latter as the packet is finally shoved along the trough. The packet is shoved along the trough by the lever arm 44 which carries the folder blade 41 and is operated by a cam 45 on the main shaft. After a packet has been thus forced into the open end of the trough and the plunger 36 has withdrawn, the arm 44 advances and first folding down the short flap 46 of the label advances the packet into the trough, which causes the wider flap 47 of the label to be pressed down upon the top of the packet by this flap coming in contact with the end of the cover and over and upon the shorter label flap as seen in Fig. 6. The packets are successively advanced along the trough, which latter serves to hold the ends of the labels and the ends of the stamps in position upon the packet until proper ad-

hesion has been effected, and to deliver the packets from the machine.

48 indicates the label-feeding blades, these being carried on arm 49 (Figs. 1 and 10) pivotally hung to the lever 50 which is actuated by the link 51 pivoted to a crank 38 on the main shaft. One of the blade arms 49 bears a roll 52 which runs on a horizontal track piece 53, the inner end 54 of which is slightly depressed, and thereby holds the blades to horizontal movement along and slightly above the cover of the feed trough.

55 indicates a label lying, printed side downward, in a label guide 56, to which the labels are fed in any suitable manner, the plane of the label being substantially that of the top face of the cover of the trough. The labels as here shown are of a width about the same as the length of the packet.

57 is a paste roll pivotally mounted in a paste box which is carried on the vertical shaft 58 held to its uppermost position by spring 59, and operated upon to vertically lower the paste roll by the cam lever 60 and cam 61 on the main shaft. At proper time the label-feeding blades advance to just over the inner edge of the label, and during this movement they come in contact with and receive paste from the paste roll, which at this time is at highest position, but immediately after the passing of the blades is lowered so that the labels do not come in contact therewith. As the blades reach the end of this forward movement, the roll on the blade-carrying arm runs down the incline or depression at this end of the guide track, and thereby cause the blades to come to adhesive contact with the label. Upon the return movement of the label-feeding blades, the label is brought to over the label folding trough (Fig. 11), and when a packet is forced down upon the same, the adhesive edge 47 is stripped from the blades, and the paste adhering to such edge serves to finally paste the same down upon the opposite edge 46 of the label, when the two are folded together as before described. These various motions are so timed that they act in proper sequence upon the packets, the packets progressing continuously through the machine.

What is claimed as new is—

1. In combination in a machine for affixing stamps and labels to packets, a packet holding and stamp shearing mechanism operating to hold a packet and to remove a stamp from a sheet of stamps and affix the same to the packet, labeling mechanism operating to affix a label to a packet, and shifting devices operating to transfer the packets from one of said mechanisms to the other and whereby the packets are successively operated upon thereby, substantially as set forth.

2. In combination in a machine for affixing stamps and labels to packets, a packet holder acting together with mechanism for removing a stamp from a sheet of stamps and affixing the same to the packet, mechanism operating to shift said packet from said holder to and upon a label, and devices acting to wrap said label around said packet, substantially as set forth.

3. In combination in a machine for affixing stamps and labels to packets, mechanism adapted to remove a stamp from a sheet of stamps and to apply the same to the packet, devices for shifting the packet to and upon a label, and mechanism for applying said label to the packet, the said stamp applying shifting and label applying mechanism acting successively with one another, whereby the operations upon the packet are performed in sequence, substantially as set forth.

4. In combination in a machine for affixing stamps and labels to packets, a packet holder acting together with mechanism for shearing a stamp from a sheet of stamps and affixing the same to the packet, mechanism operating to paste a label and place the same in the path of the packet, devices for advancing the packet to and upon the prepared label, and devices for wrapping the label around the packet, substantially as set forth.

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