No. 667,822. Patented Feb. 12, 1901.

W. P. GOEBEL.

STAMP OR LABEL AFFIXING MACHINE.

(Application filed Aug. 28, 1900.)

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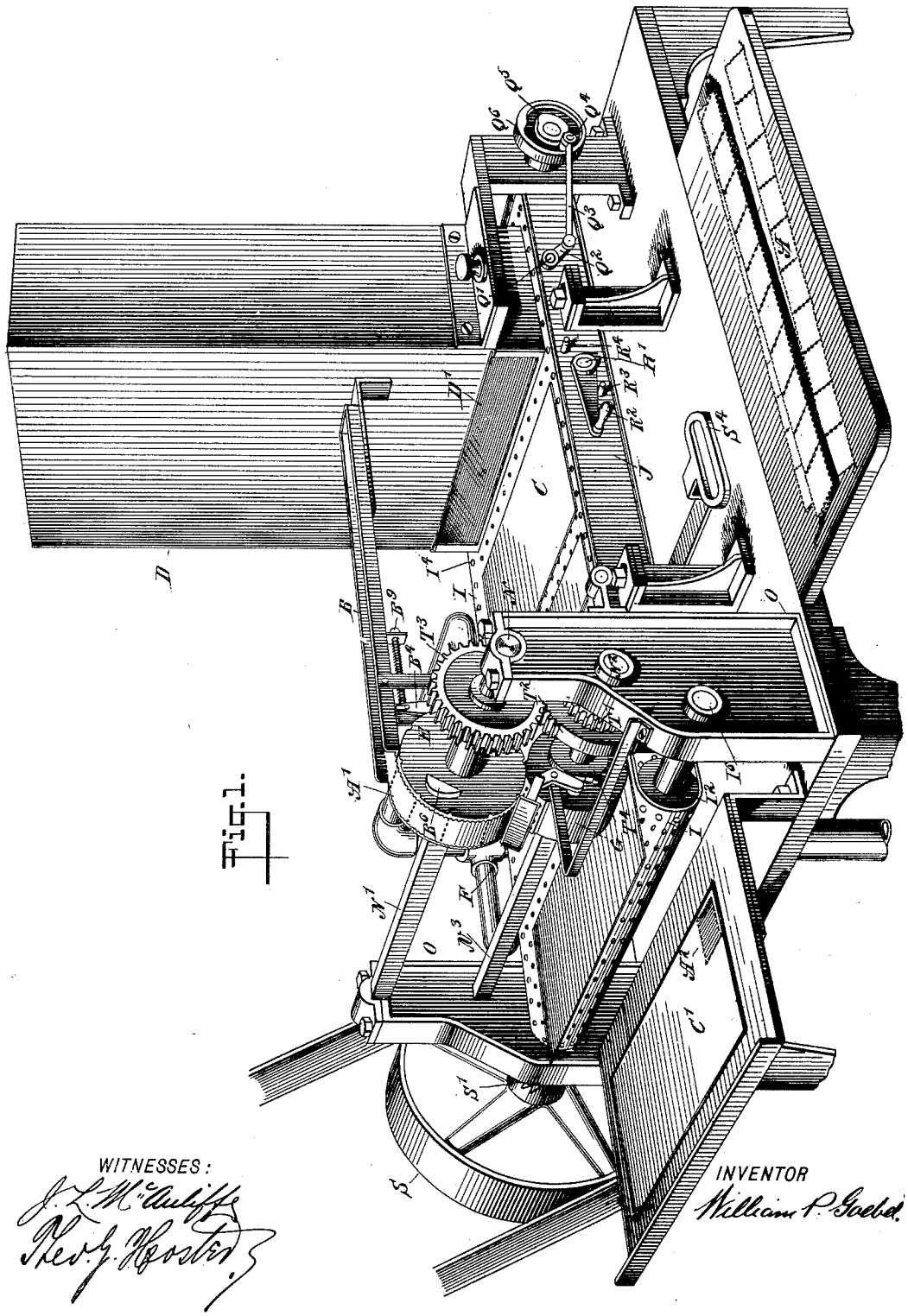


FIG. 1.

WITNESSES:

J. L. McAuliffe

Percy J. Hoosteg

INVENTOR

William P. Goebel

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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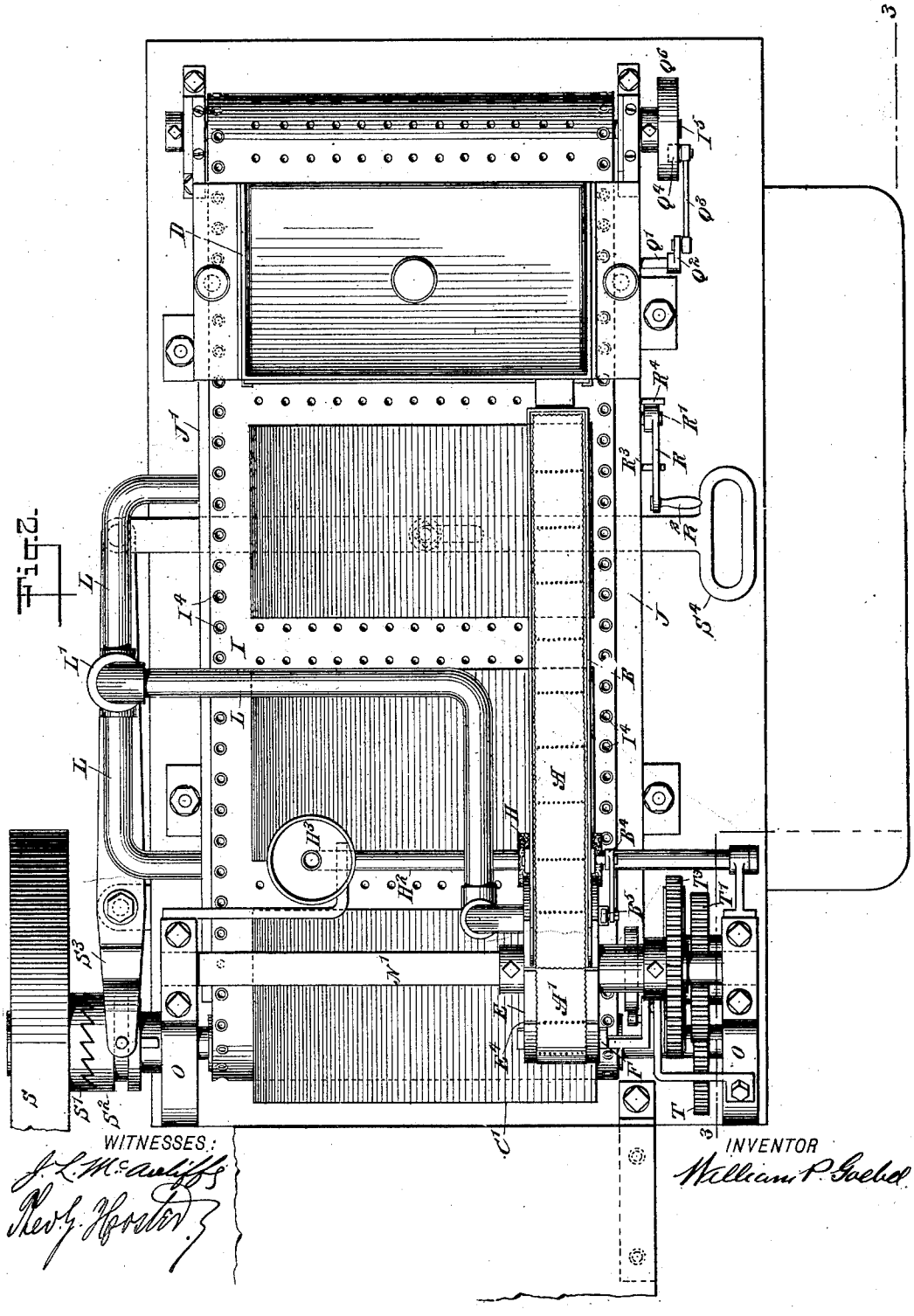
W. P. GOEBEL.

STAMP OR LABEL AFFIXING MACHINE.

(Application filed Aug. 28, 1900.)

(No Model.) 5 Sheets—Sheet 2.

Fig. 2.



WITNESSES:

J. L. McCulloch

Rud. J. Hooster

INVENTOR

William P. Goebel

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 667,822. Patented Feb. 12, 1901.

W. P. GOEBEL.

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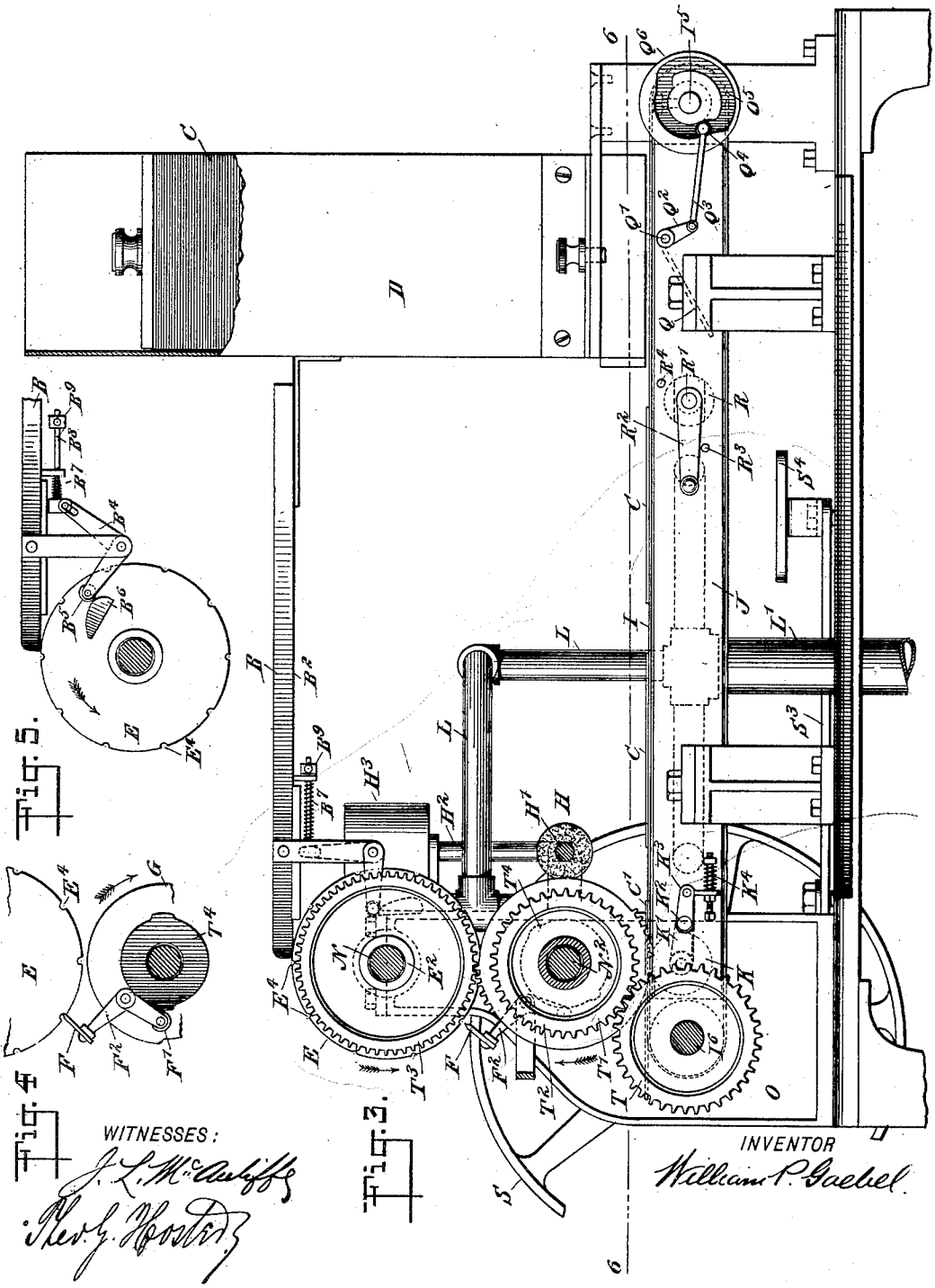


Fig. 5.

Fig. 4

Fig. 3.

WITNESSES:

J. L. McCulloch

Percy J. Hostetter

INVENTOR

William P. Goebel

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 667,822. Patented Feb. 12, 1901.

W. P. GOEBEL.

STAMP OR LABEL AFFIXING MACHINE.

(Application filed Aug. 28, 1900.)

(No Model.) 5 Sheets—Sheet 4.

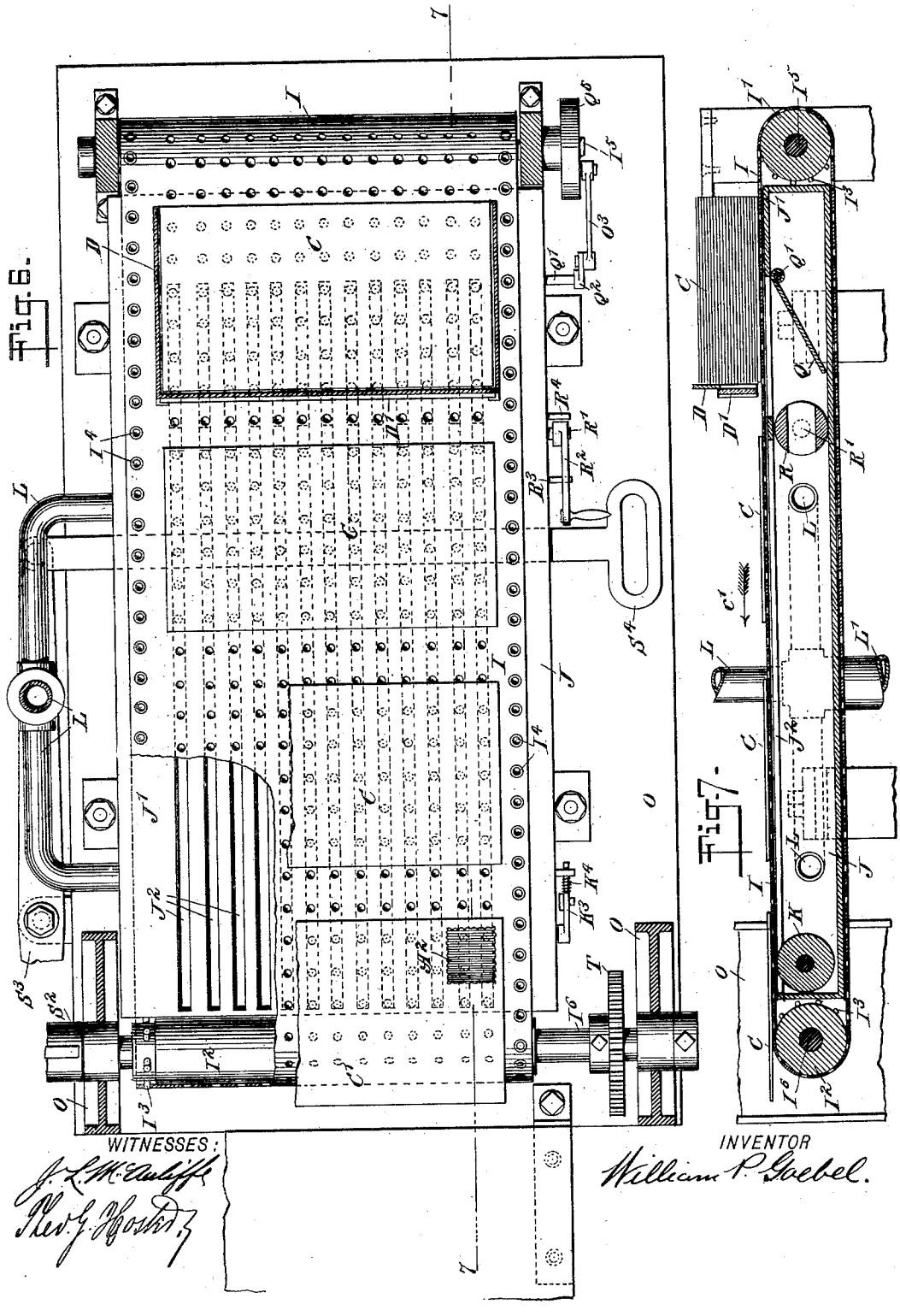


Fig. 6.

Fig. 7.

WITNESSES:

J. L. McCulloch

Rev. J. Wooster

INVENTOR

William P. Goebel.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 667,822. Patented Feb. 12, 1901.

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(No Model.) 5 Sheets—Sheet 5.

Fig. 7.

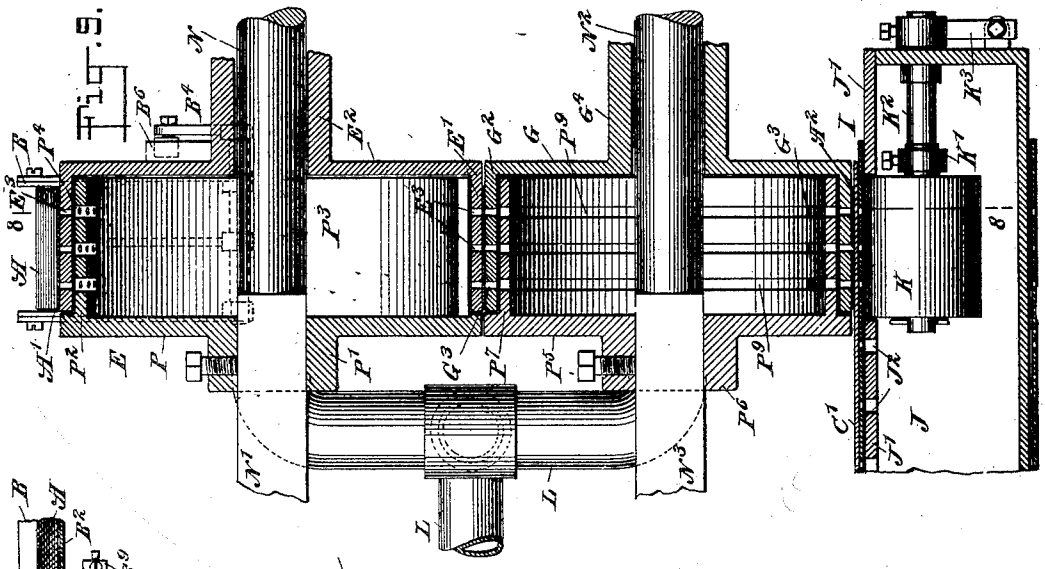


Fig. 8.

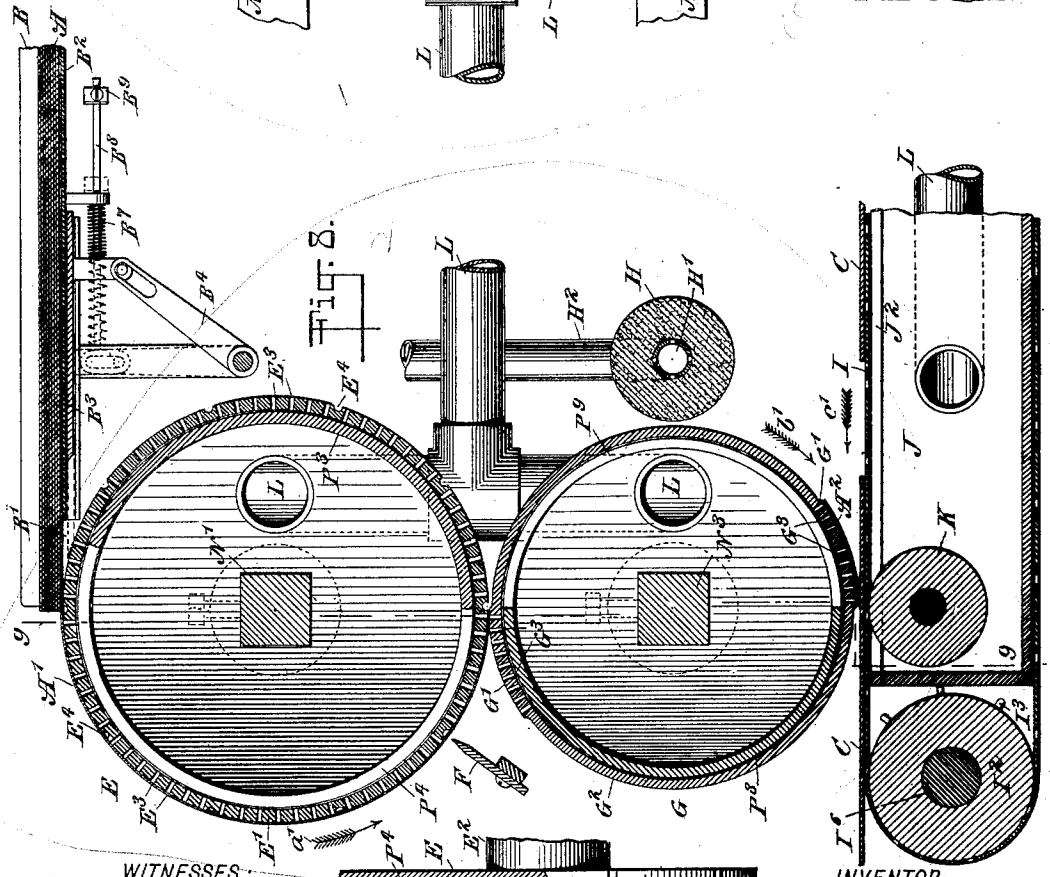
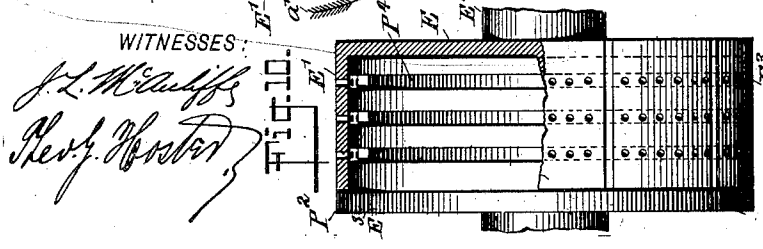


Fig. 10.



WITNESSES:

J. L. McCluskey

Geo. J. Hooster

INVENTOR

William P. Goebel

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM P. GOEBEL, OF NEW YORK, N. Y.

STAMP OR LABEL AFFIXING MACHINE.

SPECIFICATION forming part of Letters Patent No. 667,822, dated February 12, 1901.

Application filed August 28, 1900. Serial No. 28,266. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. GOEBEL, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Stamp or Label Affixing Machine, of which the following is a full, clear, and exact description.

The invention relates to machines for affixing stamps or printed addresses on letters, packages, or other mail-matter or for affixing labels to cards, packages, and the like.

The object of the invention is to provide a new and improved affixing-machine arranged to accurately and securely affix a stamp or label to a letter or other article, the machine when in operation being completely automatic in that it requires no attention on the part of the operator except to fill the machine with the necessary stamps, labels, or printed addresses and the mail-matter.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement. Fig. 2 is a plan view of the same. Fig. 3 is a sectional side elevation of the same on the line 3 3 in Fig. 2. Fig. 4 is a side elevation of the stamp or label cutting mechanism. Fig. 5 is a like view of the mechanism for operating the retaining-slide in the stamp or label box. Fig. 6 is a sectional plan view of the improvement on the line 6 6 in Fig. 3. Fig. 7 is a sectional side elevation of the same on the line 7 7 in Fig. 6. Fig. 8 is an enlarged sectional side elevation of the improvement, showing the carriers, the stamp-feeding box, the cutting-knife, the moistener, and the presser-roller, the section being on the line 8 8 in Fig. 9. Fig. 9 is a transverse section of the same on the line 9 9 in Fig. 8, and Fig. 10 is a front view of the suction feed-drum with parts broken out to show the cut-off device for said drum.

The machine shown in the accompanying drawings and presently to be described in detail is more especially designed for affixing postage-stamps to envelops; but I do not limit myself to this use and construction of the machine, as the latter may be differently constructed and used for other purposes without deviating from the underlying principle of my invention.

In the general construction of the machine I employ a stamp-carrier, preferably in the form of suction-drums, and a separate envelop-carrier in the shape of a traveling endless suction-apron, said carriers operating in conjunction with devices for causing the stamps and envelops to adhere by air-pressure to the carriers, the latter being arranged to coact with each other to bring the stamp and envelop together and to cause the affixing of a stamp to an envelop at each operation, as hereinafter more fully described.

The gummed stamps are in strips A, the strips being arranged one alongside the other and containing about ten stamps to a strip, and the strips are piled one on the top of the other gummed side downward in a stamp-box B, and the envelops C for receiving the stamps are similarly stacked or piled in a separate holder D. The lowermost stamp-strip A′ is moved out from under the pile in the box B by an intermittently-rotated suction feed-drum E, and a knife F separates one stamp from the adjacent one while the stamps are on the drum and while the drum is at rest, and the separated stamp A^2 is then removed from the drum E and passed upon a revoluble suction delivery-drum G, on which the gummed face of the stamp A^2 is moistened by a moistener H, and then the moistened stamp is pressed upon the envelop C, moved out from under the pile of envelops in the holder D by a suction-apron I, traveling on a box J and in unison with the movement of the drums E and G. The apron I carries the envelop to the drum G, and then the envelop receives the stamp A^2, and a presser-roller K insures a firm pressing of the stamp A^2 upon the envelop at the desired place, after which the stamped envelop C′ is discharged by the apron I upon a table or into a box or other receptacle.

In order to hold the stamps and envelops by air-pressure on the peripheral faces of the drums E and G and the under face of the

apron I on the suction-box J, I prefer to create a suction in said drums and box, and in order to produce the suction in the drums E and G and the box J, I connect the same by suitable branch pipes L with a main pipe L', leading to an exhaust-fan, so that when the latter is in motion air is drawn from the drums and box J to cause the stamps to adhere by suction action to the drums E and G and the envelops to the perforated apron I on the box J. The drum E is open at the rear end and is provided with a perforated rim E' and a hub E^2, mounted to turn loosely on a fixed rod or shaft N, attached to bearings or supports on the main frame O of the machine, said shaft N having a polygonal portion N', on which is secured the hub P' of a cut-off drum P, open at the front end and fitted with its rim P^2 against the inner surface of the rim E' of the drum E, as is plainly shown in detail in Figs. 8 and 9.

The rim E' of the drum E is coated or covered with a gum-repelling or non-sticking material or substance—such, for instance, as wax-paper or wax—to prevent the gummed faces of the stamps or labels from sticking to the drum E. The latter's rim E' is formed with perforations E, arranged in annular rows, and the peripheral surface of the rim is provided with transverse grooves E^4, spaced a distance apart corresponding to the length of a stamp A^2 on the strip A', the arrangement being such that when a strip of stamps passes upon the peripheral surface of the drum E then the joint between adjacent stamps is at a groove E^4, and when the drum is at its period of rest then a groove E^4 is directly opposite a knife F, so that when the latter is actuated the lowermost stamp is cut off from the strip, while still adhering by suction to the rim E' of the drum E. The cut-off drum P has a portion P^3 of its rim solid and the remaining portion formed with segmental slots P^4 in register with the rows of perforations E^3, as will be readily understood by reference to Figs. 8, 9, and 10.

The portion of the cut-off drum P having the segmental slots P^4 extends from the front of the drum E to the bottom thereof and somewhat beyond the rear at the top under the front end of the box B adjacent to a cut-out portion B' in the bottom B^2 of said box. In this cut-out portion B' operates a retaining-slide B^3, normally extending in close contact at its front end with the rim E' at the beginning of the solid portion P^3, and the slide is opened once for every revolution of the drum E to permit the forward end of the lowermost strip A' to be drawn in contact with the rim E' by the suction action within the drums E and P, so that on a further rotation of the drum E the lowermost strip A' is drawn out from under the pile. The retaining-slide is opened, as stated, as the strips A are of a length corresponding to the circumference of the drum E, and hence when the drum has made a complete revolution the lowermost stamp-strip is completely removed from the pile, and in order that the drum shall draw the next strip upon its rim the retaining-slide is opened during the next turning period of the drum E to move enough perforations in front of the solid portion P^3 to insure a positive drawing of a strip upon the rim E' by the suction action. The retaining-slide B^3 is for this purpose pivotally connected with one arm of a bell-crank lever B^4, (see Figs. 5 and 8,) carrying on its other arm a friction-roller B^5, adapted to be engaged by a cam B^6 on the closed end of the drum E, so that when the cam B^6 engages the friction-roller a swinging motion is given to the bell-crank lever B^4 to move the slide rearward into an open position. When the cam B^6 has passed the friction-roller on a further turning of the drum E, then a spring B^7, pressing on the retaining-slide, forces the same forward to its normal closed position. A rod B^8, having a stop-collar B^9, limits the forward movement of the retaining-slide.

It is understood that when a suction is created in the drums E and P, as described, then that portion of the perforated rim E' extending over the solid portion P^3 of the drum P is cut off from the suction, while a suction action is had on the strip A' through the slots P^4 and the perforations E^3, in register at the time with said slots, to hold the strip A' in firm contact with the rim E' of the drum E until the forward stamp of the strip reaches the bottom of the drum, when the suction of this stamp ceases on account of the rim E' passing upon the solid or cut-off portion P^3. When this takes place, the said forward and now cut-off stamp A^2 is gradually drawn by a suction action upon a raised portion G' on the outside of the rim G^2 of the delivery-drum G, as the two drums rotate in the directions of the arrows a' and b', respectively, and in unison for the time being. As shown, two raised portions G', located diametrically opposite each other, are formed on the rim G^2, and each is provided with perforations G^3. The hub G^4 of the drum G is mounted to rotate loosely on a shaft or rod N^2, fixed on the supports of the main frame O, and the rear end of the drum G is open to receive the rim of a cut-off drum P^5, secured with its hub P^6 on the polygonal portion N^3 of the shaft N^2 to hold this cut-off drum against rotation.

The rim P^7 of the cut-off drum P^5 fits against the inner face of the rim G^2, and one half portion P^8 of the rim P^7 is solid and the other half is formed with segmental slots P^9, adapted to register with the perforations G^3 in the rim G^2. (See Figs. 8 and 9.) The solid portion P^8 extends from the top of the drum P^5 along the front to the bottom thereof, so that the perforated or raised portions G' are cut off from the suction action within the drum during the time the said portions G' travel upon the solid portion P^8 of the cut-off drum P^5. When a suction action is had in the drums G and P^5 and the latter is rotating in

unison with the drum E, then the stamp A^2 at the lower end of the drum E is gradually drawn upon the perforated portion G′ as the perforations thereof pass from the solid portion P^8 to the slots P^9, it being understood that the stamp is gradually released from the rim E′ as the perforations E^3, covered by the stamp, gradually pass over the solid portion P^8 of the cut-off drum P, it being understood that the suction action ceases for such perforations as soon as they are covered by the solid portion P^8. Thus when the suction for the stamp on the feed-drum E ceases a second suction action begins for this stamp on the delivery-drum G to draw the stamp from the drum E upon the said drum G. Upon passing the stamp to the delivery-drum G the face of the stamp is next to the rim-surface, while the gummed portion is now outermost, and upon a further rotation of the drum the gummed face is brought in contact with the moistener H to moisten the said face. The moistener H is preferably in the form of a sponge-roller mounted to turn on the perforated end H′ of a pipe H^2, connected with an overhead water-tank H^3 for supplying the sponge with water. The moistened stamp on the further rotation of the delivery-drum G is brought in contact at the bottom of the drum with an envelop C opposite the presser-roller K, so that the stamp is pressed tightly upon the envelop, it being understood that as the stamp is carried by the drum G into the affixing position the stamp is gradually released from the drum, as the suction action ceases when the perforated portion G′ passes upon the solid portion P^8 of the cut-off drum P^5.

The envelops are held by suction on the upper run of the apron I, which is perforated and passes over the rollers I′ and I^2, mounted on shafts I^5 and I^6, journaled in suitable bearings on the main frame O outside of and adjacent to the ends of the box J, said rollers having sprockets I^3 for engagement with apertures I^4 on the sides of the apron, so that when the machine is in operation and one roller is rotated a traveling motion is given to the apron I in the direction of the arrow c'. The upper run of the apron passes over the top J′ of the box J, and said top is formed with slots J^2, so that a suction in the box causes the envelops to firmly adhere to the apron. Part of the rear portion of the top J′ is solid, as shown in Fig. 7, and a butterfly-valve Q is hinged to said solid portion and is periodically opened and closed on the slotted portion under the box D to periodically cut off the suction from the lowermost envelop C of the pile of envelops in the box to insure proper spacing of the envelops on the apron and to bring a particular desired portion of the envelop in register with the stamp A^2 as the latter passes into a lowermost position on the drum G to be affixed to the envelop.

For the purpose described the valve Q is secured on a transverse shaft Q′, journaled in the front and rear of the box J and carrying at its front end an arm Q^2, (see Figs. 1 and 3,) connected with a rod Q^3, carrying a friction-roller Q^4, which travels in a cam-groove Q^5, formed on the face of a cam-wheel Q^6, secured on the shaft I^5 of the roller I′. Now when the machine is in operation the cam-wheel Q^6, by the roller Q^4, groove Q^5, rod Q^3, and arm Q^2, imparts a swinging motion to the shaft Q′ to periodically open and close the valve Q, so that during part of the travel of the apron I the suction is cut off from that portion of the apron at the time under the holder D, so that a second envelop is not moved out from the holder D until the first envelop has traveled with the apron the desired distance to insure proper spacing of the envelops on the apron. A cut-off valve R is located in the box J in front of the valve Q and at the rear of the entrance of the suction-pipe L into the box J, and this valve is manually controlled to enable the operator to shut off the suction from the rear portion of the box located under the holder D. The valve R has its stem R′ journaled in the box J, and on the outer end of the stem is arranged a handle R^2, adapted to be taken hold of by the operator to move the valve into an open or closed position, the handle having a limited movement between stop-pins R^3 R^4 on the front of the box, as shown in Figs. 1 and 3. In order to allow the operator to inspect the condition of the envelops in the holder D, I prefer to provide the front portion thereof with a glass window D′.

In order to give the desired movement in unison to the drums E and G and the apron I, the following device is provided: On the shaft I^6 of the apron-roller I^2 is mounted to rotate loosely a driving-pulley S, connected by belt with other machinery for imparting a rotary motion to the said pulley. The latter is provided with a clutch member S′, adapted to be engaged by a clutch member S^2, mounted to slide on and to turn with said shaft I^6, so that when the clutch members are in mesh a rotary motion is given to the shaft I^6 from the pulley S. The clutch member S^2 is engaged by a shifting fork S^3, pivoted on the frame O and connected with a shifting arm S^4 within convenient reach of the operator standing at the front of the machine, so that the operator can throw the clutch members in or out of mesh for running or stopping the machine. On the shaft I^6 is secured a gear-wheel T, in mesh with a gear-wheel T′, secured on the hub G^4 of the drum G, so that the rotary motion of the shaft I^6 is transmitted to the drum G. On the hub G^4 is also secured a mutilated gear-wheel T^2 for intermittently meshing with a gear-wheel T^3 on the hub E^2 of the drum E, so that the latter is intermittently rotated from the revolving drum G. On the hub G^4 of the drum G is also secured a cam-wheel T^4, engaged by a friction-roller F′ (see Figs. 1 and 4) on a bell-crank lever F^2, carrying the knife F for cutting

off the stamps A^2, as previously explained. When the shaft I^6 is rotated, a traveling motion is given to the apron I by the roller I^2, the said apron also turning the roller I' to cause the valve Q to function, as above explained. The rotary motion of the shaft I^6 also causes the drum G to rotate continuously, while an intermittent rotary motion is given to the drum E, and the knife F is periodically actuated to cut off a stamp at the proper time, it being understood that the gearing described is so proportioned that the several parts operate in unison and in the manner set forth to produce the desired result.

In order to cause the presser-roller K to press upward against the under side of the upper run of the apron I, the said roller is journaled in arms K', held on a shaft K^2, journaled in the box J, an arm K^3 being on said shaft and pressed on by a spring K^4, the tension of which can be regulated by suitable means.

The holder D is supported over the upper run of the apron I, near the rear end thereof, by suitable means attached to the main frame O, and a weight is preferably placed on the top of the pile of envelops in the holder to prevent the envelops from sticking in the holder and to insure proper feeding of the envelops in the manner described.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. An affixing-machine, comprising a containing-receptacle for containing a pile of stamp or label strips, a second receptacle for containing a pile of envelops or other articles, an endless perforated apron forming a traveling bottom for the said second receptacle and arranged to move the lowermost article from under the pile, and a plurality of carriers between the said apron and the first-named containing-receptacle, one of the carriers forming the feed for the other and one of the carriers moving a stamp or label strip from under the pile of strips in the first-named receptacle and the other carrier delivering a stamp or label to the article carried along by the said apron, as set forth.

2. An affixing-machine, comprising a containing-receptacle for containing a pile of stamp or label strips, a second receptacle for containing a pile of envelops or other articles, an endless perforated apron forming a traveling bottom for the said second receptacle and arranged to move the lowermost article from under the pile, a plurality of carriers between the said apron and the first-named containing-receptacle, one of the carriers forming the feed for the other and one of the carriers moving a stamp or label strip from under the pile of strips in the first-named receptacle and the other carrier delivering a stamp or label to the article carried along by the apron, and a knife operating in conjunction with the carrier carrying the stamp or label strip, to cut the strip between adjacent stamps or labels, as set forth.

3. An affixing-machine, comprising a containing-receptacle for containing a pile of stamp or label strips, a second receptacle for containing a pile of envelops or other articles, an endless perforated apron forming a traveling bottom for the said second receptacle and arranged to move the lowermost article from under the pile, a plurality of carriers between the said apron and the first-named containing-receptacle, one of the carriers forming the feed for the other and one of the carriers moving a stamp or label strip from under the pile of strips in the first-named receptacle and the other carrier delivering a stamp or label to the article carried along by the apron, and suction devices for the said carriers and the said apron, for holding the stamps or labels by suction to the said carriers, and for holding the articles by suction to the said apron, substantially as shown and described.

4. An affixing-machine, comprising a containing-receptacle for containing a pile of stamp or label strips, a second receptacle for containing a pile of envelops or other articles, an endless perforated apron forming a traveling bottom for the said second receptacle and arranged to move the lowermost article from under the pile, a plurality of carriers between the said apron and the first-named containing-receptacle, one of the carriers forming the feed for the other and one of the carriers moving a stamp or label strip from under the pile of strips in the first-named receptacle and the other carrier delivering a stamp or label to the article carried along by the apron, suction devices for the said carriers and the said apron for holding the stamps or labels by suction to the said carriers, and for holding the articles by suction to the said apron, and cut-off devices in said carriers, so arranged relatively to each other that one cuts off the suction for its carrier at a point where the suction of the other carrier begins, as set forth.

5. An affixing-machine having a plurality of traveling surfaces operating in conjunction with each other, and of which one carries the article and the other the label or stamp, means for holding the label or stamp and the article on their respective traveling surfaces by air-pressure, a cut-off for releasing the stamp or label from its carrying-surface at the time the stamp or label comes in contact with the article, and a presser-roller for pressing the article-carrying surface at the delivery-point of the stamp or label, to the article, to cause a firm adhesion of the stamp or label on the article, as set forth.

6. An affixing-machine having suction-drums with perforated rims, means for rotating one drum intermittently and in unison with the other drum which has a continuous rotary motion, suction devices for the said

drums, and cut-offs for the said drums, and so arranged relatively to each other that one cuts off the suction for its drum at a point where the suction for the other drum begins, and a containing-receptacle for containing a pile of stamp or label strips and arranged in close proximity to the periphery of the said drum having intermittent movement, to cause the drum to move a label or stamp strip from under the said pile of strips, as set forth.

7. An affixing-machine having suction-drums with perforated rims, means for rotating one drum intermittently and in unison with the other drum which has a continuous rotary motion, suction devices for the said drums, and cut-offs for the said drums, and so arranged relatively to each other that one cuts off the suction for its drum at a point where the suction for the other drum begins, a containing-receptacle for containing a pile of stamp or label strips and arranged in close proximity to the periphery of the said drum having intermittent movement, to cause the drum to move a label or stamp strip from under the said pile of strips, and a knife operating in conjunction with the intermittently-rotating drum, to cut the strip between adjacent stamps or labels, as set forth.

8. In an affixing-machine, an intermittently-rotating carrier having perforations in its rim, a suction device connected with the interior of the carrier, for holding a strip of stamps or labels by suction to the outside of the rim, and a cutter operating in conjunction with said carrier, to cut the strip between adjacent stamps or labels at the time the carrier is at rest, as set forth.

9. In an affixing-machine, an intermittently-revolving carrier in the form of a drum having perforations in its rim and transverse grooves spaced apart corresponding to the length of a stamp or label on the strip, a suction device connected with the interior of the drum, to hold a strip of stamps or labels by suction to the said rim, and a cutter operating in conjuction with said drum, to cut the strip between adjacent stamps or labels at a groove and at the time the carrier is at rest, as set forth.

10. In an affixing-machine, a carrier in the form of a drum having perforations in its rim, a suction device for said drum, to hold a strip of stamps or labels by suction to said rim, and means for intermittently rotating the cylinder a distance corresponding to the length of a stamp or label on the strip, as set forth.

11. In an affixing-machine, a carrier in the form of a drum having perforations in its rim, a suction device for said drum, to hold a strip of stamps or labels by suction to said rim, means for intermittently rotating the cylinder a distance corresponding to the length of a stamp or label on the strip, a containing-receptacle for containing a pile of stamp or label strips and arranged externally of the carrier and in close proximity to the rim thereof, and a fixed cut-off in said drum and having its end approximately opposite the end of said receptacle, as set forth.

12. In an affixing-machine, a carrier in the form of a drum having perforations in its rim, a suction device for said drum, to hold a strip of stamps or labels by suction to said rim, means for intermittently rotating the cylinder a distance corresponding to the length of a stamp or label on the strip, a containing-receptacle for containing a pile of stamp or label strips and arranged externally of the carrier and in close proximity to the rim thereof, a fixed cut-off in said drum and having its end approximately opposite the end of said receptacle, and a slide at the bottom of the receptacle and operating in conjunction with said drum to open the receptacle to the box at a predetermined time, as set forth.

13. In an affixing-machine, a carrier in the form of a drum having perforations in its rim, a suction device for the said drum, to hold a strip of stamps or labels by suction to the said rim, a receptacle for containing a stamp or label strip, a bottom slide for said receptacle, and means for rotating the said drum and moving said slide in unison with said drum, to open the receptacle to the drum at a predetermined time and expose one end of the strip to the suction action of the cylinder, as set forth.

14. An affixing-machine having a revoluble delivery-drum with sets of perforations in its periphery, a suction device for the interior of the said drum, to hold the stamps or labels by suction on the perforated parts, a stationary cut-off in said drum, an endless traveling apron for carrying the article to said drum to receive a stamp or label, and a roller for pressing the apron to the drum to affix the label or stamp to the article, as set forth.

15. An affixing-machine having a revoluble delivery-drum with sets of perforations in its periphery, a suction device for the interior of the said drum, to hold the stamps or labels by suction on the perforated parts, a stationary cut-off in said drum, an endless traveling apron for carrying the article to said drum to receive a stamp or label, a roller for pressing the apron to the drum to affix the label or stamp to the article, a suction-box over which passes said apron, and a suction device connected with said box, to cause the articles to adhere by suction to the apron, as set forth.

16. An affixing-machine having a receptacle for containing a pile of envelops or other articles, an endless perforated apron forming a traveling bottom for the receptacle, and a suction-box connected with a suction device and over the open top of which passes a run of the apron, so that the lowermost article in the pile is caused to adhere by suction to said run of the apron and is thereby moved from under the pile and carried along by the apron, as set forth.

17. An affixing-machine having a receptacle for containing a pile of envelops or other articles, an endless perforated apron forming a traveling bottom for the receptacle, a suc-

tion-box connected with a suction device and over the open top of which passes a run of the apron, so that the lowermost article in the pile is caused to adhere by suction to said run of the apron and is thereby removed from under the pile and carried along by the apron, and a valve for opening and closing the portion of the box opposite the receptacle, as set forth.

18. An affixing-machine having a receptacle for containing a pile of envelops or other articles, an endless perforated apron forming a traveling bottom for the receptacle, a suction-box connected with a suction device and over the open top of which passes a run of the apron, so that the lowermost article in the pile is caused to adhere by suction to said run of the apron and is thereby moved from under the pile and carried along by the apron, and a manually-controlled cut-off for the portion of the box opposite the receptacle, to cut off the suction from this part of the box, as set forth.

19. An affixing-machine having a receptacle for containing a pile of envelops or other articles, an endless perforated apron forming a traveling bottom for the receptacle, a suction-box connected with a suction device and over the open top of which passes a run of the apron, so that the lowermost article in the pile is caused to adhere by suction to said run of the apron and is thereby moved from under the pile and carried along by the apron, and a periodically-actuated valve for alternately opening and closing that portion of the box opposite said receptacle, as set forth.

20. An affixing device having a receptacle for containing a pile of envelops or other articles, an endless perforated apron forming a traveling bottom for the receptacle, a suction-box connected with a suction device and over the open top of which passes a run of the apron, so that the lowermost article in the pile is caused to adhere by suction to said run of the apron and is thereby moved from under the pile and carried along by the apron, a periodically-actuated valve for alternately opening and closing that portion of the box opposite said receptacle, and means for actuating said valve in unison with the travel of said apron, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM P. GOEBEL.

Witnesses:
J. L. McAULIFF,
EVERARD BOLTON MARSHALL.