

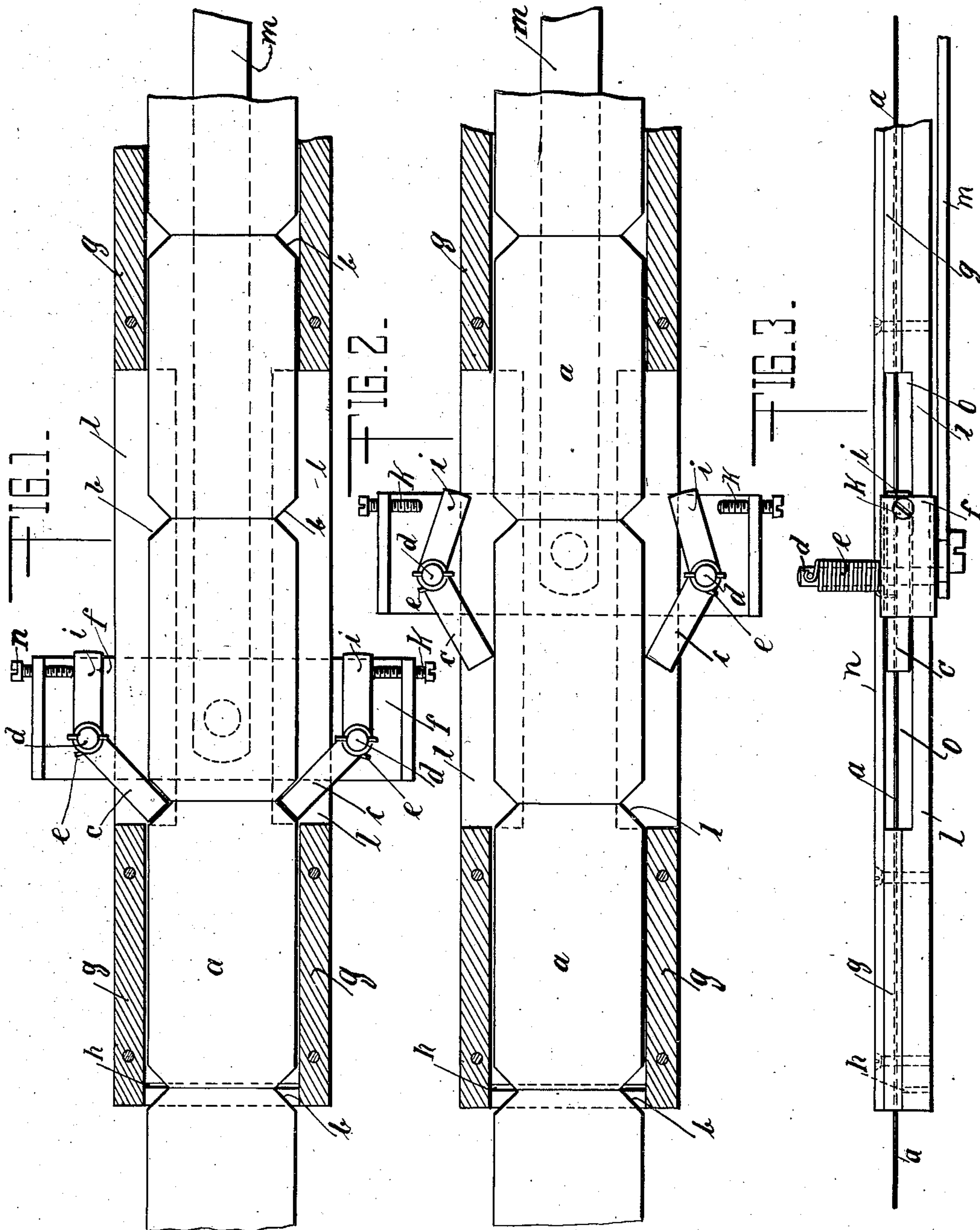
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FEEDING DEVICE FOR VENDING APPARATUS OR THE LIKE.

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929,161.

Patented July 27, 1909.



Witnesses:
William Haupt
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UNITED STATES PATENT OFFICE.

OSCAR OEHRING, OF BERLIN, GERMANY, ASSIGNOR TO THE AMERICAN STAMP AND TICKET VENDING MACHINE COMPANY, INCORPORATED, OF WASHINGTON, DISTRICT OF COLUMBIA.

FEEDING DEVICE FOR VENDING APPARATUS OR THE LIKE.

No. 929,161.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed January 28, 1909. Serial No. 474,707.

To all whom it may concern:

Be it known that I, OSCAR OEHRING, a subject of the German Emperor, and residing in Berlin, Germany, have invented certain new and useful Improvements in Feeding Devices for Vending Apparatus or the Like, of which the following is a full and clear specification.

My invention refers to automatic vending apparatus, and has for its purpose to move objects joined together in strip or ribbon like fashion, as, for instance, tickets or the like, step by step, to present one object at a time for removal from the strip. The strips used for such purposes are notched or otherwise marked at uniform intervals equal to the length of the object of which the strip is formed, and it is the particular object of the present invention to feed the strip at such lengths, so that the line at which the objects are to be separated always registers with a predetermined line in the machine.

I have illustrated in the accompanying drawings, as an example, a practical embodiment of my invention, in which drawings—

Figure 1 shows a plan view of the feeding device, with the clamps engaged. Fig. 2 shows the same view with the clamps disengaged. Fig. 3 shows a side elevation of the feeding device, and Fig. 4 shows a transverse section through the strip guide.

The particular purpose of the apparatus as illustrated is to feed tickets which are printed in one continuous row on a paper strip *a* which runs longitudinally through the machine, as shown in Figs. 1, 2 and 3. This strip is provided with notches *b* at either side, at uniform intervals, according to the length of the tickets, into which notches clamps *c* engage, as shown in Figs. 1 and 2. These clamps have the form of a bell crank and are pivoted on correspondingly opposite sides of the paper strip on a bridge *f*, which extends transversely to and underneath the paper strip in the machine. Moreover, these clamps are spring pressed by springs *e*, mounted on the pivots *d* of the clamps, as shown in Figs. 1, 2 and 3, so that the operative end *c* of each clamp will yieldingly rest against the paper strip. These ends *c* are inclined toward the longitudinal axis of the paper strip, as illustrated in Fig. 1, and are suitably shaped to engage in notches *b* of paper strip *a* through the action of their springs.

Bridge *f* is pivotally mounted underneath table *l* on an operating arm *m*, which imparts reciprocating motion to it longitudinally of the paperstrip. Arm *m* may be operated by any suitable means; for instance, by hand, or by other suitable elements of the vending machine, which are not shown in the drawings, as mechanism of such character is not within the scope of this invention. Fig. 1 illustrates the clamps in engagement with the lateral notches *b* of the paper strip, bridge *f* having just completed a forward feeding stroke toward the left. On return movement of the bridge to the right the clamps will glide out of the notches and along the edges of the paper strip until they fall, through the action of their spring, into the following notch, when the bridge has been sufficiently moved back. As will be seen from Fig. 3, clamps *c* are broad enough to insure engagement in the notches. After the clamps have engaged a new pair of notches and the bridge is moved forward to the left it will be seen that the paper strip is thus fed forward one length of a ticket. Thus the ticket which was previously fed has arrived with its forward notches at the line *h*, at which it might be torn off by hand or otherwise removed from the strip, and it will also be seen that by the above described arrangement the strip can only be fed a length equal to the interval between two consecutive notches, because the feeding stroke of the bridge is dimensioned so that it will stop in its forward movement when a pair of notches of the previous ticket has arrived on line *h*.

In order to prevent the clamp arms *c* from crushing or crumbling the paper strip through the action of their springs an adjustable stop screw *k* is provided for each clamp, against which the other arm *i* of the bell crank rests. By these screws *k* the depth of engagement in notches *b* may also be regulated.

The strip is guided on table *l* between guide bars *g*, which are covered by a cover *n*, which is removed in Figs. 1 and 2 but is shown in Figs. 3 and 4. Table *l* is suitably recessed at *o* in order to allow clamps *c* to enter between cover *n* and the table when engaging in the notches of the strip.

It is obvious that it is not necessary for the bridge to have a reciprocating motion the

full length of a ticket, but the strip may also be fed by any other suitable means partly forward, whereafter the clamps, during the reciprocating motion of the bridge, will engage in the notches during their forward motion and feed the paper strip forward the remainder of the distance which it should be fed.

What I claim is:

1. In an apparatus of the character described adapted to feed a notched strip step by step to a predetermined line at the intervals of the notches, the combination of a feeding table for guiding said strip and reciprocating means for feeding said strip to said predetermined line; of spring pressed clamps on said feeding means for engaging said strip in said notches on either side during the motion of said feeding means to feed the strip to said line.
2. In an apparatus of the character described adapted to feed a notched strip step by step to a predetermined line at the intervals of the notches, the combination of a feeding table for guiding said strip and reciprocating means for feeding said strip to

said predetermined line; of spring pressed clamps on said feeding means for engaging said strip in said notches on either side during the motion of said feeding means to feed the strip to said line, and means for adjusting the depth of engagement of said clamps in said notches.

3. In an apparatus of the character described adapted to feed a notched strip step by step to a predetermined line at the intervals of the notches, the combination of a feeding table for guiding said strip and reciprocating means for feeding said strip to said predetermined line; of spring pressed bell cranks on said feeding means adapted to engage with one arm in said notches during the feeding motion of said feeding means, and an adjustable stop for each bell crank for engaging the other arm of said cranks for limiting the throw of said cranks.

In testimony whereof I have set hereunto my hand in the presence of two witnesses.

OSCAR OEHRING.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.