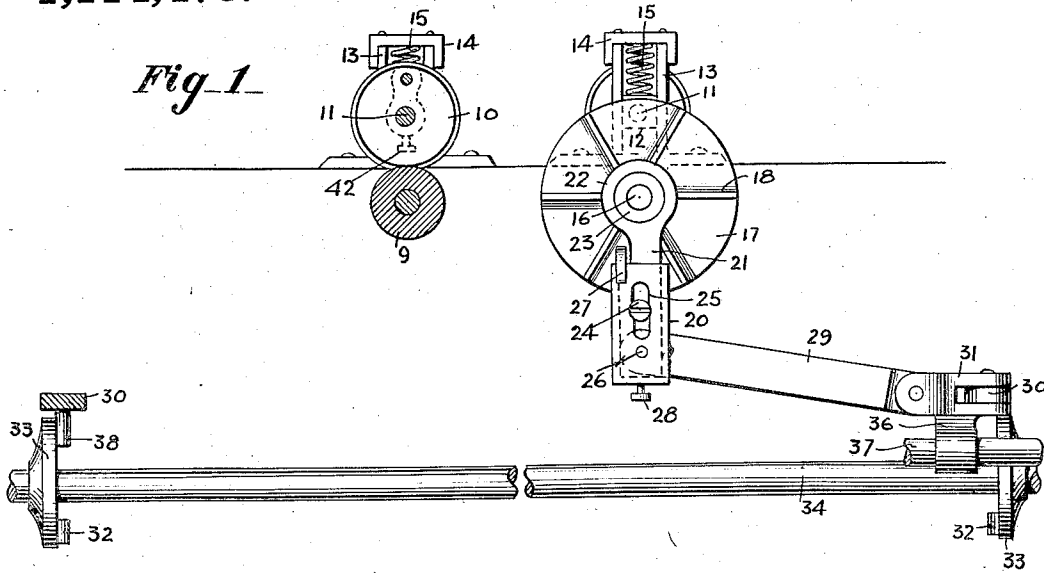
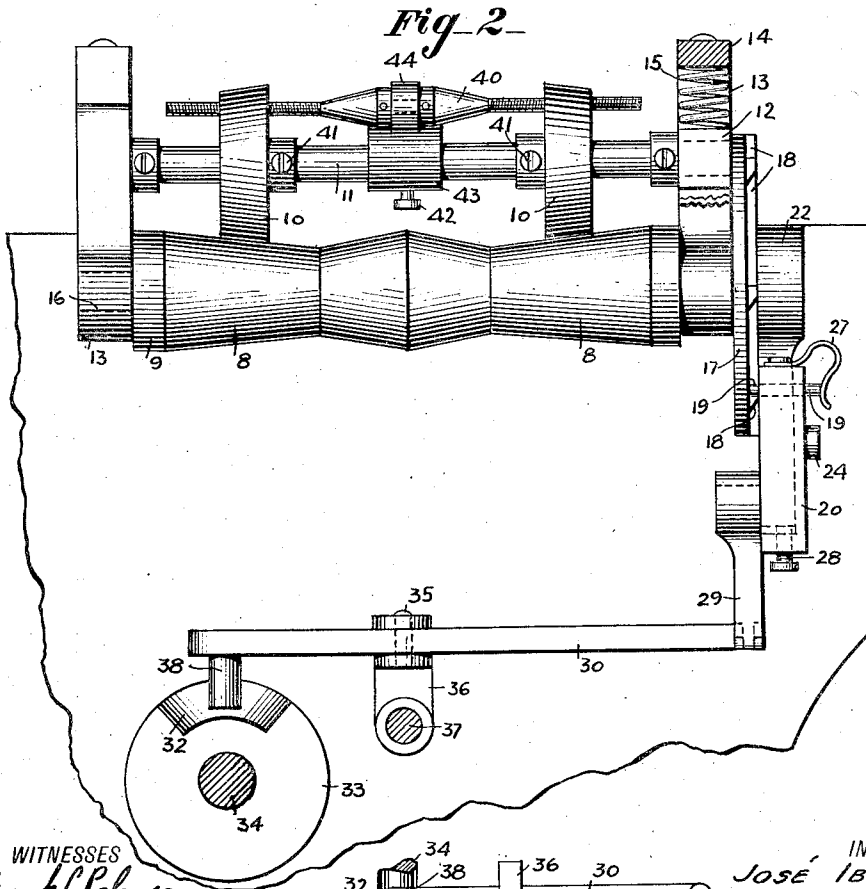


J. IBARRA.
STAMP FEEDING MECHANISM.
APPLICATION FILED APR. 28, 1914.

1,114,478.

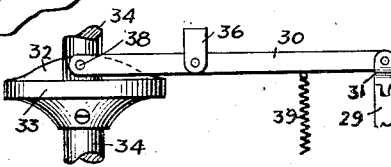
Patented Oct. 20, 1914.



WITNESSES
Frank L. Palmer.

E. A. Muddock

Fig 3



INVENTOR
JOSE IBARRA

BY *M. M. Muddock*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOSÉ IBARRA, OF HABANA, CUBA.

STAMP-FEEDING MECHANISM.

1,114,478.

Specification of Letters Patent.

Patented Oct. 20, 1914.

Application filed April 23, 1914. Serial No. 334,952.

To all whom it may concern:

Be it known that I, JOSÉ IBARRA, a citizen of Cuba, and a resident of Habana, Cuba, have invented a new and Improved Stamp-Feeding Mechanism, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide mechanism as characterized, having means for varying the speed of the feed of the stamps; to provide means for varying the extent of the feed of said stamps; to provide a machine arranged to readily effect a duplex action; and to provide adjustments for regulating the speed and feed, access to which adjustments is easily and readily obtained.

Drawings.—Figure 1 is a side elevation, partly in section, of a feeding mechanism constructed and arranged in accordance with the present invention; Fig. 2 is an end elevation of the same; Fig. 3 is a detail view, in plan, showing a rocking lever with which the mechanism is provided, and the intermittent mechanism for operating the same.

Description.—The function performed by the present invention is that of delivering stamps to be wrapped upon or about cigarette boxes or cartons of similar character. The stamps referred to are usually of the character known as "revenue stamps", the length of which is sufficient to extend over opposite edges of, to conceal, the package, to avoid refilling or tampering with the contents of the package after having received the stamp.

To cheapen the cost of the operation of stamping the boxes or cartons, power-driven means is employed for feeding the boxes, as well as for feeding the stamps. Heretofore, inconvenience has been experienced due to the irregularity of the feed of the stamps, whereby the sheets or strips of stamps and the feeding mechanism therefor have been permitted to vary from the exact register needed for the perfect performance of the above-stated function.

The primary object of the tapered sections 8 of the feed roll 9 is to provide a friction or driving surface for the stamp strip, said surface having a graded peripheral speed. To hold the strips on said sections, I provide corresponding tapered wheels 10, which wheels continuously bear on the sections 8, irrespective of the portions of the surface thereof. To facilitate

this coöperation, the shaft 11 is mounted in bearing boxes 12, which boxes are movably guided in vertical standards 13, the caps 14 whereof are removable. Interposed between the boxes 12 and the caps 14 are compression springs 15. The springs 15 are relied upon to maintain the pressure of the wheels 10 on the sections 8. The roll 9 is provided with trunnions 16 mounted in bearings in the lower end of the standards 13, as shown best in Fig. 2 of the drawings. One of the trunnions 16 has fixedly mounted thereon a wheel 17, shown best in Fig. 1 of the drawings.

The wheel 17 is intermittently rotated, said wheel being for this purpose provided with radial ridges 18. The ridges 18 have at one side a perpendicular face to be engaged by a pin 19. Said ridges are provided at the back with an inclined surface, over which said pin rides when moved to engage the face or perpendicular surface thereof.

The pin 19 is reciprocally mounted in a hole provided therefor in a connection box 20. The box 20 is slidably mounted on a crank arm 21, a ring 22 whereof encircles the hub 23 of the wheel 17. The arm 21 has mounted thereon a clamp screw 24, which, in service, extends outward through a guide slot 25 in the box 20. A spring 27 mounted on said box serves to hold the pin 19 in service position, and with the free end thereof bearing on the face of the wheel 17. Said spring is sufficiently resilient to permit the lift of the pin 19 when passing over the various ridges 18.

The arm 21 is pivotally connected by means of the pin 26, with a link bar 29. The link bar 29 is pivotally connected with a rocking lever 30 by means of a universal coupling 31. The rocking lever 30 is vibrated by a cam 32 on the face of a disk 33 mounted on the driving shaft 34 by means of a pin 51 in a standard 36. The standard 36 is mounted on a jack-shaft 37, any suitable means for securing the same in position on said shaft, being employed.

Pendent from the short end of the lever 30, to engage the cam 32, is a pin 38. Under ordinary circumstances, I find that the pin 38 bears lightly on the surface of the disk 33, the spring 39 which holds said pin on said disk being graduated to accommodate the action. Where the friction generated, however, is excessive, I provide the pin 38 with

a roller, the operation of which reduces or eliminates the friction or drag of said pin. It is to vary the operating positions of the wheels 10 on the sections 8 that I provide the right and left threaded feed screw 40, the threaded extensions of which pass through properly tapped holes in the wheels 10. It will be understood that the wheels 10 are held against rotation on the shaft 11, and preferably by means of set screws 41. The screw 40 is likewise held in its adjusted position on the shaft 11 by a set screw 42.

The set screw 42 extends through a tapped perforation in a collar 43, which collar is furnished with a perforated tab 44, within which a reduced portion of the screw 40 rests. By this mounting, the turning of the screw 40 shifts the wheels 10 on the shaft 11, expansibly and contractibly. By loosening the screw 42 and shifting the collar 43 lengthwise of the shaft 11, an unequal feed of the wheels 10 may be produced. Under usual conditions, however, the collar 43 is held accurately midway between the inner ends of the sections 8.

With a mechanism constructed and arranged as described and as shown in the accompanying drawings, if the operator finds that the stamp strips or sheets are being too rapidly fed, the machine may be stopped sufficiently long to loosen the set screws 41 on the wheels 10, which permits the adjustment of said wheels. If the feed has been too fast, the attendant may, by manipulating the screw 40, draw the wheels 10 toward the smaller ends of the sections 8, thereby reducing the rate of feed of the stamp strips or sheets, the point of grip whereof is coincident with the pressure of the wheels 10 on the sections 8. Having made the adjustment, the machine is started.

Under all conditions of pressure or adjustment of the wheels 10 on the shaft 11, the pressure of said wheels on the sections 8 of the roll 9 will be maintained substantially equal by the springs 15. A gripping pressure under all conditions will at all times be maintained.

In Fig. 1 of the drawings, the wheel 17 at the inner side of the machine has been omitted. It will be understood in this connection that where it is desired, one of the rolls 9 and one of the shafts 11, together with the parts connected therewith, may be omitted, the duplication shown in the drawings being employed only to augment the out-put

of the mechanism by doubling the operative parts thereof.

Claims:

1. A stamp-feeding mechanism, comprising a variable-speed feed embodying an elongated, tapered, driving member; a relatively short correspondingly-tapered free-running member driven by said driving member; a driving shaft; a transmission mechanism connecting said driven member and said driving shaft, said mechanism embodying a rocking lever; a cam member mounted on said driving shaft to rock said lever; and means connecting said lever and said elongated, tapered member, embodying a yielding engaging member and a wheel to be driven by said yielding engaging member when said engaging member is moving in one direction only.

2. A stamp-feeding mechanism, comprising a variable-speed feed embodying a feed roll having a plurality of elongated, mutually-converging, equally-tapered sections; a plurality of tapered wheels frictionally engaging said sections; a screw-threaded member uniting said wheels to move the same in unison; a driving shaft; and an intermediate transmission mechanism connecting said roll and said shaft.

3. A stamp-feeding mechanism, comprising a feed roll having equally-tapered, centrally-converging, coaxial feeding sections; a plurality of relatively short, tapered coaxial wheels; and a double-ended, reversely-threaded, connecting member for said wheels, the manipulation whereof operates to draw together and move apart said wheels.

4. A stamp-feeding mechanism, comprising a feed roll having equally-tapered, centrally-converging, coaxial feeding sections; a plurality of relatively-short, tapered coaxial wheels; a double-ended, reversely-threaded, connecting member for said wheels, the manipulation whereof operates to draw together and move apart said wheels; and means for holding said connecting member co-central with said roll.

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

JOSÉ IBARRA.

Witnesses:

LUIS F. DE ALMAYRO,
RAOUL F. WASHINGTON.