Aug. 9, 1927. 1,638,752

G. E. SHELDRICK

ADJUSTABLE TRACK FOR MAIL STAMPING MACHINES

Filed Oct. 22, 1923 2 Sheets-Sheet 1

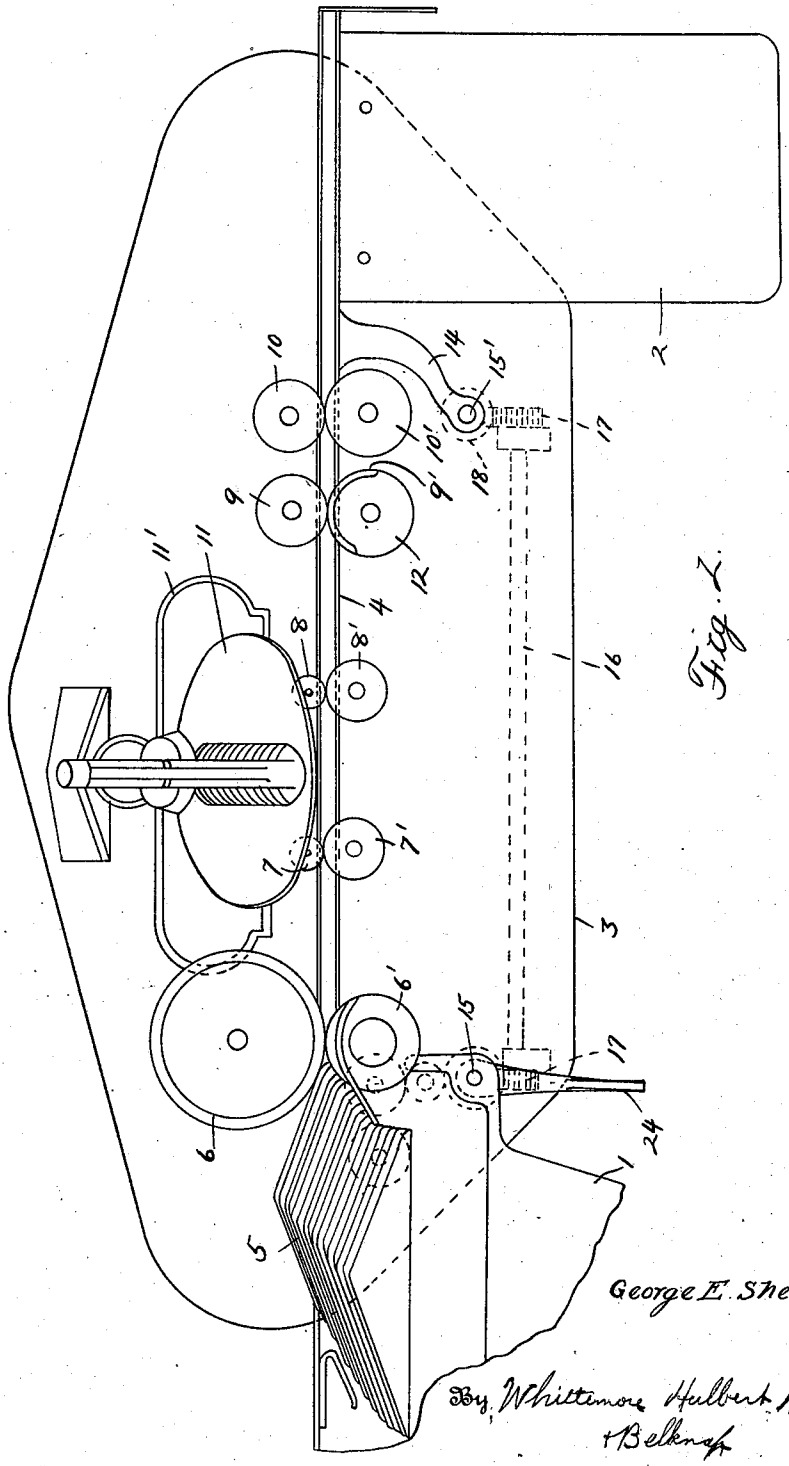


Fig. 1.

Inventor
George E. Sheldrick

By Whittemore Hulbert Whittemore
& Belknap Attorneys

Aug. 9, 1927. 1,638,752

G. E. SHELDRICK

ADJUSTABLE TRACK FOR MAIL STAMPING MACHINES

Filed Oct. 22, 1923 2 Sheets-Sheet 2

Fig. 2.

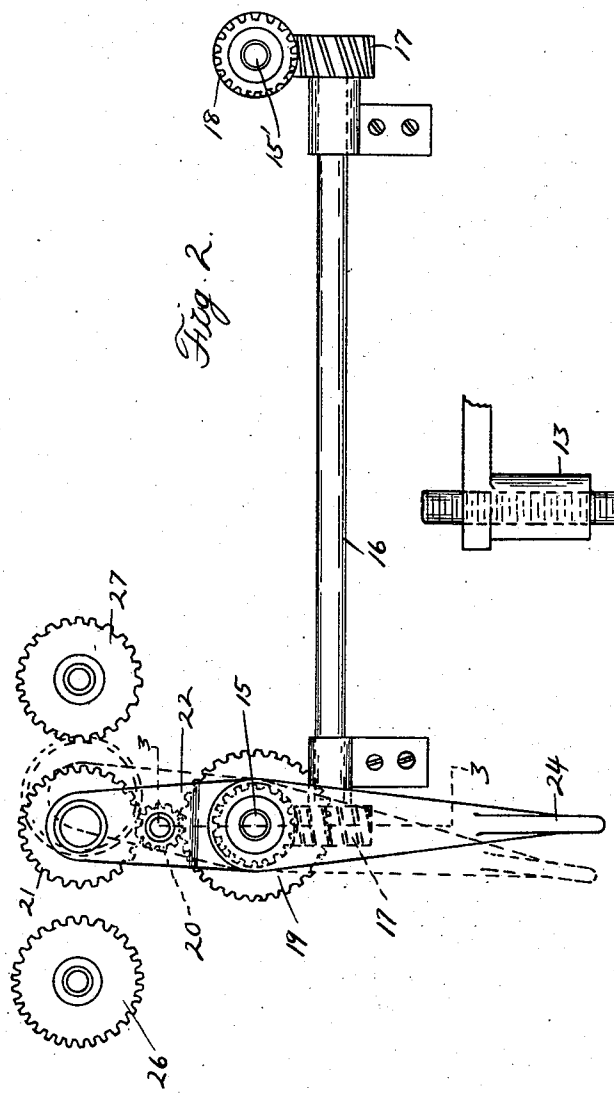
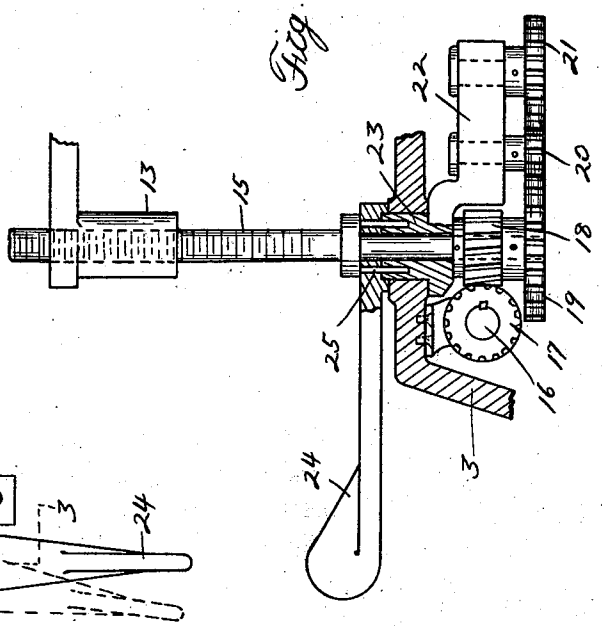


Fig. 3.



Inventor
George E. Sheldrick

By Whittemore Hulbert Whittemore
& Belknap Attorneys

Patented Aug. 9, 1927. 1,638,752

UNITED STATES PATENT OFFICE.

GEORGE E. SHELDRICK, OF DETROIT, MICHIGAN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO PITNEY-BOWES POSTAGE METER COMPANY, OF STAMFORD, CONNECTICUT, A CORPORATION OF DELAWARE.

ADJUSTABLE TRACK FOR MAIL-STAMPING MACHINES.

Application filed October 22, 1923. Serial No. 670,190.

This invention relates to machines for stamping letters or other mail matter. Among the machines to which the invention is applicable are those for affixing stamps to mail matter, printing stamps or permits upon mail matter, and cancelling or precancelling mail matter.

In the majority of such machines, the letters or other mail matter are fed through the machine from a supply table to a delivery table upon a suitable track or like support.

It is the object of the present invention to provide power driven means for raising and lowering such a track preferably in unison with the supply and delivery tables or for otherwise adjusting the track and said tables with reference to the stamping means or other means acting upon the mail matter in its travel, such adjustment primarily serving to adapt the machine for handling letters or the like of various sizes.

In the drawings:—

Figure 1 is a plan view of an envelope sealing and stamp printing machine to which the invention is shown applied;

Figure 2 is an enlarged plan view showing solely the track adjustment means;

Figure 3 is a sectional elevation of said adjustment means, the plane of section being indicated by line 3—3 of Figure 2.

The reference characters 1 and 2 designate respectively an initial and a final work table, said tables being located at opposite ends of a base plate 3. In the illustrated embodiment of the invention the mail matter which is handled by the machine has the nature of envelopes and the machine functions to seal said envelopes and to subsequently print mailing permits or other stamps thereupon. The envelopes are fed through the machine in succession in substantially upright position and are supported and guided in their travel by a channel shaped rail 4. Said rail has a unitary connection with the work tables 1 and 2 and the unit 1, 2 and 4 is vertically adjustable according to the size of the envelopes 5 which form the work, in order to establish the proper level of the flap carrying upper edge of said envelopes relative to the sealing means and also to insure application of the printed permit or stamp to the envelope in proper proximity to said edges of the envelopes. The travel of the envelopes through the machine from the table 1 to the table 2 is continuous, being affected by a series of pairs of feed rolls 6, 6′, 7, 7′, 8, 8′, 9, 9′, and 10, 10′. The first operation performed by the machine is moistening of the adhesive coated flaps. The specific means for accomplishing this result is no feature of the present invention and said means may be sufficiently described as comprising an inclined driven disk element 11, the lower portion of which is immersed in a water vessel 11′, while its upper portion engages the gummed flaps of the envelopes 5 as the latter are advanced by the rolls 7, 7′ and 8, 8′. Sealing of the flap is accomplished jointly by the rolls 9, 9′ and 10, 10′ and coaxial with the roll 8 is a rotary printer 12 for applying the stamp or permit to the envelopes without interruption of their travel. For the purpose of its adjustment, the rail 4 carries two interiorly threaded sleeves 13, one of which is formed as an integral downward projection from the initial feed table 1, while the other depends integrally from an arm 14 projecting laterally from said rail. Said sleeves act as feed nuts for raising and lowering the track and tables through engagement of the sleeves with a pair of vertical screws 15 and 15′ which are journaled in the base 3 and are adapted to be driven in unison by a mechanism arranged beneath said base. The unitary drive connection between the two screws comprises a shaft 16 below the base 1 and a pair of spiral gears 17 upon the ends of said shaft meshing with spiral gears 18 upon the lower end portions of said screws. Power is applied to the screw 15 and from the latter to the screw 15′ through the shaft 16 and gears 17, 18. For driving the screw 17, a spur gear 19 is mounted fast upon the lower end thereof and is adapted to be driven by an idler pinion 20 with which a gear 21 in turn has driving engagement. The pinion 20 and gear 21 are journaled upon an arm 22 arranged radially to the screw 15 beneath the base 3 and formed with an integral bearing 23 journaled in said base and engaged by the journal portion of the screw 15. Above the base a control handle 24 is rigidly secured to the arm 22 by pins 25, the journal portion of the screw 15 passing also through the end

of said handle which engages said arm. Thus, by means of the handle 24, the arm 22 is adapted to be rocked about the axis of the screw 15. 26 and 27 designate a pair of spur gears arranged beneath the base 1 at opposite sides of the gear 21 and constantly driven (by means not shown) in opposite directions when the machine is in operation. Through rocking the arm 22 by means of the handle 24, the gear 21 may be selectively meshed with either of the gears 26 and 27 and thus a drive, uniform in speed and selective in direction, may be applied to the two feed screws 15 and 15'. It will be evident that the sleeves or nuts 13 will be fed upwardly or downwardly upon the screws 15 and 15' according to the direction of drive of the latter and thus the track 4 and the work tables 1 and 2 will be adjusted in unison either upwardly or downwardly according to the limiting position to which the handle 24 is shifted. In the intermediate position of said handle, which is shown in full lines in Figure 2, the gear 21 is disengaged from both of the drive gears 26 and 27 and the track and work tables are consequently stationary.

The described adjustment mechanism permits a machine of the described character to be adapted for use with any standard size of envelopes with a maximum speed and facility. As such machines are commonly operated by girls or office boys and, as the unit formed by the track and the two work tables is in large machines of considerable weight, the elimination of necessity for raising or lowering said units manually is quite desirable.

What I claim as my invention is:—

1. In a machine of the character described, the combination with means for operating upon articles, and a track upon which articles are adapted to be fed to said means, a feed table and a delivery table connected with said track and adjustable therewith, of spaced screws supporting said track, and means for driving said screws in unison to shift the track relative to said operating means.

2. In a machine of the character described, the combination with means for operating upon articles, of a track upon which articles are adapted to be fed to said means, screws engaging said track at spaced points thereof, and means for driving said screws in unison alternatively in either direction to effect raising or lowering of said track.

3. In a machine of the character described, the combination with means for operating upon articles, and a track for feeding articles to said means, a feed table and a delivery table connected to said track and adjustable therewith, a support for said track rotatable to effect vertical adjustment of the track, a continuously driven shaft, and means for establishing a drive connection from said shaft to said rotatable support.

4. In a machine of the character described, the combination with means for operating upon articles, and a track upon which articles are adapted to be fed to said means, of a member supporting said track rotatable to effect vertical adjustment of the track, continuously oppositely driven shafts, a pivotal arm having a handle member, a member carried by said arm adapted to be driven alternately by said shafts in limiting positions of said arm, and means establishing a constant drive connection to said rotatable support from the member carried by said arm.

5. In a machine of the character described, the combination with means for operating upon articles, and a track upon which articles are adapted to be fed to said means, of a screw rotatively engaging said track to vertically adjust the same, an arm pivoted coaxially with said screw, a rotative transmission member mounted upon said arm and having a constant drive connection with said screw, and continuously oppositely driven members alternatively having a drive connection to the member on said arm in opposite limiting positions of pivotal adjustment of the arm.

6. In a machine of the character described, the combination with means for operating upon articles, and a track upon which articles are adapted to be fed to said means, of spaced supports for said track rotatable to effect vertical adjustment of the track, means establishing a constant drive connection between said supports, and mechanism associated with one of said supports adjustable to effect a drive thereto in opposite directions.

7. In a mailing machine of the character described, the combination with means for feeding, stamping and delivering envelopes, of a track along and upon which the envelopes are adapted to move to and past said means, a mounting for said track adapting the same for adjustment relative to the operating means; and means for applying power to effect such adjustment.

8. In a machine as set forth in claim 7,— oppositely driven means, and means for engaging the power applying means with either of said driven means according to whether it is desired to raise or lower said track.

9. In a mailing machine of the character described having a feed table, a delivery table, and means for feeding, stamping and delivering envelopes disposed between said tables; of a track upon which the envelopes are adapted to be fed past said means from one table to the other, said tables and track being connected and movable as a unit, oppositely driven means for vertically adjusting said track, power applying means and

means for engaging the power applying means with either of said driven means according to whether it is desired to raise or lower said track.

10. In a machine of the character described, the combination of a feed table, a delivery table, and means intermediate the tables for operating upon articles, and a track upon which articles are adapted to be fed past said means, from one table to the other, of a support for said track rotatable to effect vertical adjustment of the track, oppositely driven shafts, and means for selectively driving said rotatable support from either shaft.

In testimony whereof I affix my signature.

GEORGE E. SHELDRICK.