

C. E. JOHNSON.
 CANCELING MACHINE.
 APPLICATION FILED DEC. 28, 1909.

969,061.

Patented Aug. 30, 1910.

2 SHEETS—SHEET 1.

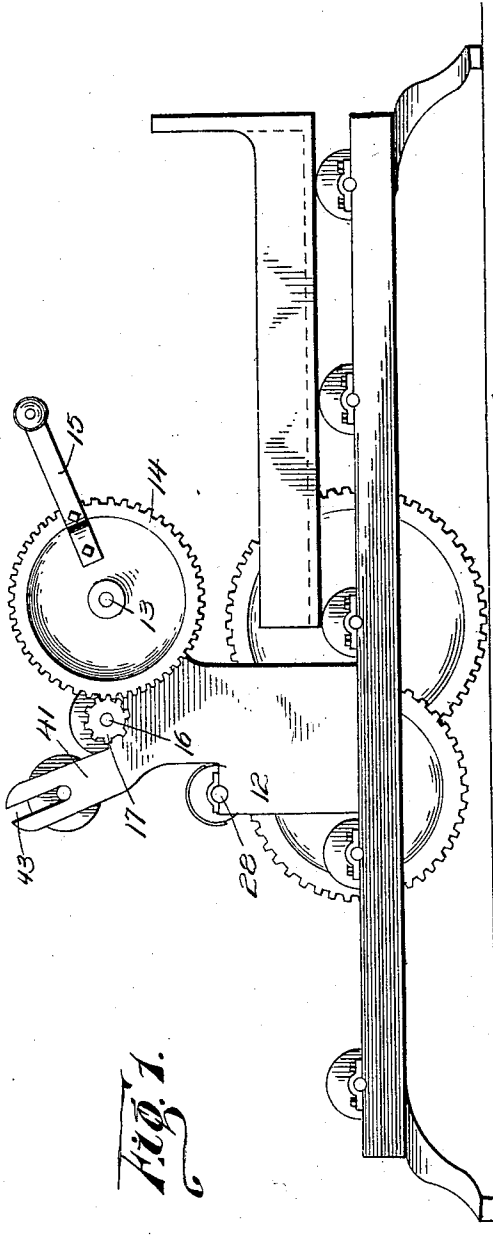


Fig. 1.

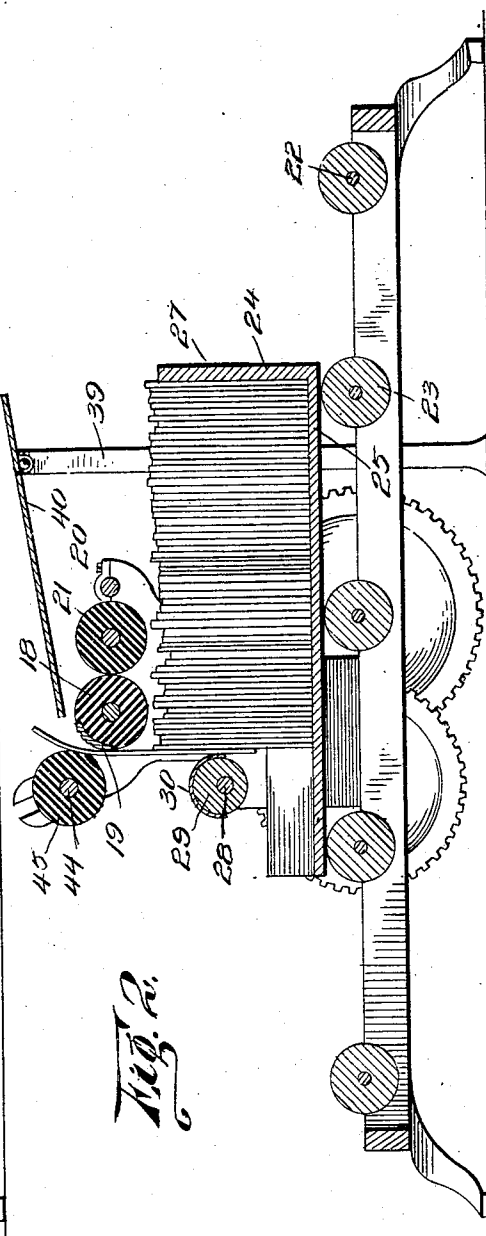


Fig. 2.

Witnesses

Eugene M. Slaney.
 John A. Doney, Jr.

Inventor

Charles E. Johnson.

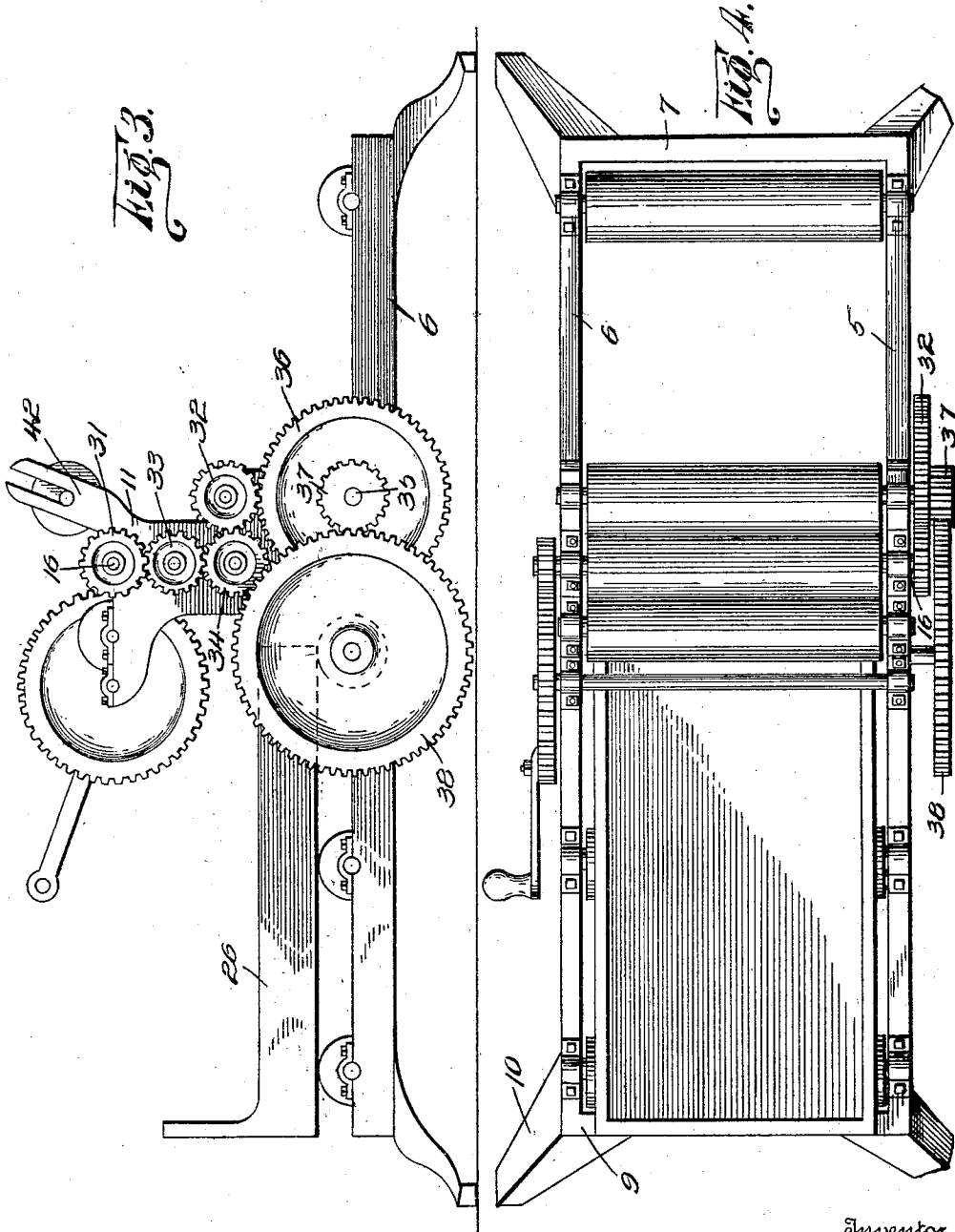
By Victor J. Evans
 Attorney

C. E. JOHNSON.
 CANCELING MACHINE.
 APPLICATION FILED DEC. 28, 1909.

969,061.

Patented Aug. 30, 1910.

2 SHEETS—SHEET 2.



Witnesses

Eugene M. Stiney
 John Anderson

Inventor

Charles E. Johnson.

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

CHARLES E. JOHNSON, OF HUNTSVILLE, ALABAMA.

CANCELING-MACHINE.

969,061.

Specification of Letters Patent.

Patented Aug. 30, 1910.

Application filed December 28, 1909. Serial No. 535,321.

To all whom it may concern:

Be it known that I, CHARLES E. JOHNSON, a citizen of the United States, residing at Huntsville, in the county of Madison and State of Alabama, have invented new and useful Improvements in Canceling-Machines, of which the following is a specification.

This invention relates to improvements in letter canceling machines such as are used in post offices.

It has for one of its objects the provision of a device of that kind wherein the cost of production will be reduced to a minimum.

A further object is the provision of a device wherein the letters are fed vertically upward from a carriage to a stamp canceling mechanism after which they are directed in an inclined plane on to a suitable tray or platform.

Another object is the provision of a stamp canceling machine provided with a letter carriage, and feeding mechanism and stamp canceling mechanism and a connection between the parts whereby they are operated simultaneously.

With these and other objects in view, which will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size, and minor details of the device may be made within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming a part of this specification:—Figure 1 is a side elevation of the device. Fig. 2 is a longitudinal, sectional view of the same. Fig. 3 is a view similar to Fig. 1, but looking at the opposite side of the device. Fig. 4 is a plan view of the device.

Similar reference numerals are employed to designate corresponding parts throughout.

A supporting frame is shown to include in its construction a pair of side walls designated by the numerals 5 and 6, and opposite ends of which are connected by the end walls 7 and 8. The supporting frame may be of any required length and is supported above

the floor by means of a plurality of legs 10 arranged at the four corners of the frame.

Rising from the intermediate portions of the side walls 5 and 6 of the supporting frame are a pair of uprights 11 and 12. The uprights are preferably of metallic plates and may be of any required height, the upper ends being widened. Journaled in the upper ends of the uprights are the opposite ends of a main shaft 13. The main shaft 13 is arranged adjacent the rear sides of the uprights and one of its end projects in advance of the upright 12. Keyed to the projecting end of the shaft 13 is a spur gear 14 to which is secured a crank handle 15 by means of which the gear and shaft may be rotated. Journaled in the upper ends of the uprights and in alinement with the medial line thereof are the opposite ends of a shaft 16. One end of the shaft 16 projects through the upright 12 and has keyed thereto a pin 17, the teeth of which mesh with the spur gear 14. That portion of the shaft arranged between the uprights 11 and 12 is provided with a roller 18 to which is secured the canceling plates 19, the latter bearing the usual canceling and dating indicia.

Journaled in the uprights 11 and 12 and between the main shaft 13 and shaft 16 is a shaft 20, upon which is disposed an ink roller 21, the periphery of which bears on the canceling roller 18. With this construction it is evident that when the main shaft is turned by means of the crank handle 15 that rotary movement will be imparted to the canceling and ink rollers through the pinion 17.

By reference now to Figs. 2 and 4, it will be seen that journaled in the opposite side sills 5 and 6 of the supporting frame are a plurality of spaced shafts 22 and secured to these shafts are rollers 23 portions of the peripheries of which extend above the planes of the upper sides of the side sills 5 and 6.

What will subsequently be termed a letter carriage is designated in general by the numeral 24 and includes in its construction a bottom plate 25 from the opposite sides of which rise vertical side walls 26 and from the rear end of which rises a rear end wall 27. The height of the side walls is considerably less than the distance between the rollers 23 and canceling roll 18 and ink roller 20 so that when the carriage is filled with letters as shown in Fig. 2, the upper

sides of the letters will not contact with the canceling and ink rollers.

The means for feeding the letters one at a time, from the carriage and the canceling roll 18 will now be described.

By reference now to Figs. 1 and 2, it will be seen that journaled in the uprights 11 and 12 are the opposite ends of a shaft 28. The shaft 28 is positioned on that side of the uprights opposite to the side adjacent to which the main shaft 13 is journaled and the shaft 28 is so positioned that it will be substantially intermediate the floor 25 of the carriage and canceling roller 18. It might be further stated that the shaft 28 is arranged in a plane oblique to the plate of the canceling roller 18. Secured to the shaft 28 are a pair of rollers 29. These rollers are eccentrically exposed on the shaft 28 and on that portion of their surface farthest removed from the shaft 28 are covered with sand paper or other roughened material, as shown at 30. The rollers 29 are so positioned that they will be in alinement with substantially the middle of the letters carried by the carriage.

By reference now to Fig. 3, it will be seen that the end of the shaft 16 carrying the stamp canceling roller extends through the upright 11 and has keyed or otherwise secured thereto a spur gear 31 and keyed to one end portion of the shaft 28 carrying the feed rolls 29 and located on the outer face of the upright 11 is a spur gear 32. Connection between spur gears 31 and 32 is established by means of a train of gearing including a pair of meshing spur gears 33 and 34 arranged on the outer face of the upright 11 and meshing with the spur gears 31 and 32. With this construction it is manifest when the main shaft is rotated as before described, that rotary movement will be imparted to the feed shaft 28 through the spur gears 31, 32, 33 and 34.

In order to provide for the advancement of the carriage to deliver a letter to the feed rollers 29, the following construction is employed:—By reference now to Fig. 3, it will be seen that extending laterally from the side sill 5 of the supporting frame is a shaft 35 and journaled on this shaft is a spur gear 36 of a diameter considerably greater than the diameter of the spur gear 32 and the teeth of which mesh with the teeth of the spur gear 32. Fixedly secured to the central portion of the outer face of the spur gear 36 is a pinion 37 and keyed to one of the shafts 22 supporting the rollers 23 upon the carriage 24 is arranged a spur wheel 38 considerably greater in diameter than the pinion 37 and the teeth of which mesh with the said pinion 37. It might here be stated that the roller shaft to which the spur gear 38 is keyed to that located nearest to the uprights 11 and 12 and with this con-

struction it will be manifest that when the main shaft is rotated and movement imparted to the feed shaft 28 in the manner above described that one of the rollers 23 will likewise be rotated but at a speed less than the speed of the shaft 28. Thus it will be seen the carriage 26 by virtue of its engagement with the roller will be moved longitudinally of the frame.

By reference now to Fig. 2, it will be seen that rising from one side of the main frame is a standard 39, a similar standard, not shown, rising from the opposite side of the main frame. The upper ends of these standards extend considerably above the planes of the rollers 18 and 20 and are arranged between the main shaft 13 and adjacent end of the main frame. Fixedly secured to the upper ends of the standards is an inclined platform 40 one end of which extends to a point in a vertical plane with the axis of the canceling roller 18.

By reference now to Figs. 1 to 3 inclusive, it will be seen that rising from the upper ends of the uprights 11 and 12 and located at the corners thereof remote from the corners adjacent to which the main shaft 13 is arranged, are a pair of upwardly and rearwardly extending arms 41 and 42. These arms are provided with longitudinal slots 43 extending from the outer ends of the arms to points adjacent their middles and terminate at points in a plane above the planes of the rollers 18 and 21. Removably fitted in the said slots is a shaft 44 upon which is arranged a roller 45. By virtue of the slots 43 and disposition of the arms 41 and 42, this roller 45 will be in an inclined plane with the stamp canceling roller 18 and its lower and inner segment or that adjacent to the roller 18 will extend to a point adjacent said roller as clearly shown in Fig. 2. The space between the rollers 45 and 18 will correspond approximately to the thickness of an ordinary letter and by reference to Fig. 2, it will be observed that the shaft 28 upon which the feed roller 29 is journaled is in a vertical plane with and below the shaft 44.

Having now described the construction of the device, its operation will be given.

Assuming that the parts are in the position shown in Figs. 2 and 3 and the carriage partially filled with letters, as shown in Fig. 2, it will be seen that by rotating the main shaft 13 by means of a crank handle 15 and in the direction of the arrow shown in Fig. 3 that the feed roller 29 will rotate to the left of Fig. 2. Assuming that the parts at the beginning of movement are such that the uncovered portion of the feed roller will be in engagement with the outermost letter on the carriage, and the canceling plate 19 on the roller 18 will be in engagement with the ink roller 21. By

now following the movements of the parts it will be seen that as the feed roller 29 rotates to the left in Fig. 2 with the roughened surface bearing on the outermost letter will raise the letter from the pile and direct it between the rollers 45 and 18. During this operation, it will be understood that the stamp canceling roller 18 is likewise being rotated to the left as shown in Fig. 2, so that by the time the stamp on the envelop is positioned between the rollers 45 and 18, the canceling plate 19 will bear on the stamp and produce the proper indicia thereon. It will be seen now, owing to the eccentric disposition of the feed roller 29 that after that portion of the letter to which the stamp is affixed passes between the rollers 45 and 18 that the opposite side of the feed roll will have little or no tendency to produce a lifting effect on the next adjacent letter and in fact by the time that the roughened surface 30 of the feed roller moves from engagement with the lifted letter, the rollers 18 and 45 will have moved the lower end of the letter above the plane of the feed roller. It will be observed now by reference to Fig. 2 that owing to the disposition of the rollers 18 and 45 after the letter has been moved above the plane of the feed roller 29 it will be directed upwardly in an inclined plane and having its upward movement continuous it will be moved upwardly and over the platform 40 upon which it will be delivered after moving from the space between the rollers 18 and 45. It will, of course, be understood that the gearing between the rollers will be so proportioned that the stamp canceling roller 18 and feed roll will rotate approximately at the same speed while the carriage 26 will be moved at a speed considerably less than the speed of said rollers.

With the device of the class described, it will be evident that the operation of canceling and dating letters will be extremely simplified and the time usually devoted to perform this operation by hand will be reduced to a minimum. It will be further observed that the device is exceedingly simple in construction and comparatively inexpensive to manufacture, embodying few parts and

these so arranged that the danger of derangement will be reduced to a minimum.

Having thus described the invention, what is claimed, is:—

1. In a letter canceling machine, the combination of a supporting frame, a letter carriage, means carried by the frame and frictionally engaging with the carriage for moving the carriage longitudinally of the frame, a canceling roller located above the carriage and means for feeding letters vertically upward to the canceling roller; of a platform located above the stamp canceling roller, and means located in a plane above the plane of the stamp canceling roller and coöperating with the latter to deliver canceled letters in an inclined plane on to the said platform.

2. In a letter canceling machine, the combination with the supporting frame, a stamp canceling mechanism and a horizontally disposed letter feeding mechanism, and means for simultaneously operating the letter canceling mechanism and feed mechanism; of a letter carriage arranged on the supporting frame and means for frictional contact with the letter carriage and serving to move the latter longitudinally of the frame at a speed considerably less than the speed of the letter canceling and feed mechanisms.

3. In a letter canceling machine, the combination with a supporting frame, a stamp canceling mechanism and a feed mechanism located below the stamp canceling mechanism; and means for actuating the said stamp canceling and feed mechanisms; of a plurality of rollers journaled in said supporting frame, a letter carriage arranged on said rollers and located below the stamp canceling and feed mechanisms and a connection between one of said rollers and the actuating means for the stamp canceling and feed mechanisms serving to move the carriage longitudinally of the frame at a speed considerably less than the speed of the stamp canceling and feed mechanisms.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES E. JOHNSON.

Witnesses:

MATTIE LEE GILLIAM,
DAVID A. GRAYSON.