No. 650,410. Patented May 29, 1900.

A. E. MORIN.

FEEDING MECHANISM FOR POSTAL CANCELING MACHINES.

(Application filed Aug. 9, 1899.)

(No Model.) 2 Sheets—Sheet 1.

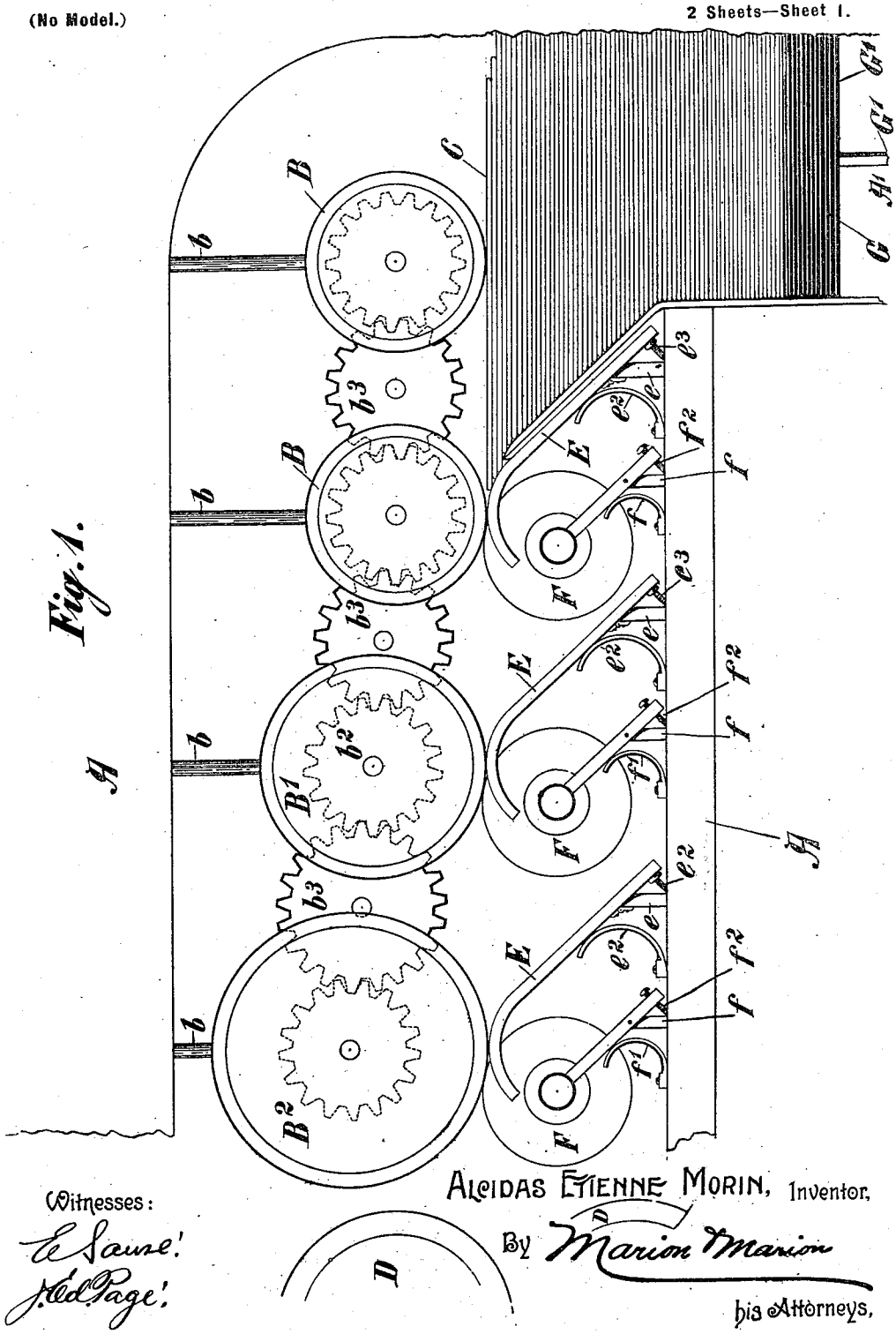

Fig. 1.

Witnesses:
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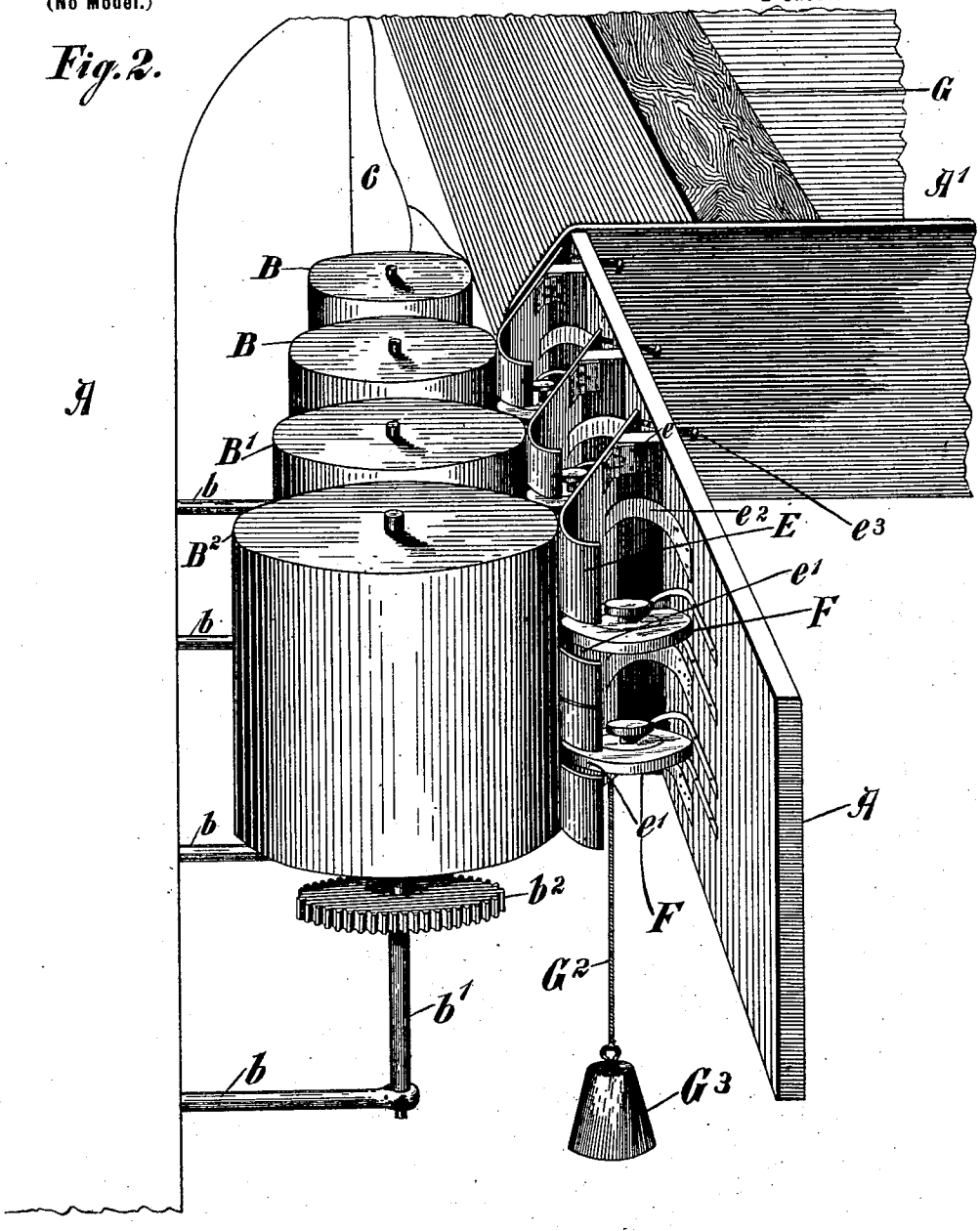
Fig. 2.



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UNITED STATES PATENT OFFICE.

ALCIDAS ETIENNE MORIN, OF MONTREAL, CANADA.

FEEDING MECHANISM FOR POSTAL CANCELING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 650,410, dated May 29, 1900.

Application filed August 9, 1899. Serial No. 726,675. (No model.)

To all whom it may concern:

Be it known that I, ALCIDAS ETIENNE MORIN, a subject of Her Majesty the Queen of Great Britain, residing in the city and district of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Feeding Mechanisms for Postal Canceling-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to machines for canceling the postage on mail-matter; and one object is to provide a feeding mechanism for such machines by which the letters, &c., are rapidly and automatically fed to the canceling-machine and in which all liability of feeding more than one letter at a time to the canceling-rollers is obviated.

A further object is to provide an apparatus of this character which is simple in construction, inexpensive to manufacture, and which is certain and reliable in operation.

To these ends the invention consists in a feeding mechanism for postage-canceling machines constructed substantially as hereinafter illustrated and described, and defined in the appended claims.

Referring to the drawings, in which similar letters of reference indicate similar parts, Figure 1 is a top or plan view of a feeding mechanism constructed in accordance with this invention. Fig. 2 is a view in perspective thereof.

The serious defect encountered in machines for canceling postal matter as in present use is the liability of two or more letters being fed to the machine at the same time, whereby some letters are not canceled. This necessitates the examination of the canceled letters and the canceling of those letters which were uncanceled, a procedure which consumes considerable time. Furthermore, in order to guard against the liability of letters passing through without being canceled the entire time and attention of an employee is necessary, who practically feeds the letters through to the canceling-rollers one at a time. These defects are entirely removed by the feeding device hereinafter described.

In the drawings, A represents the supporting-frame, which may be of any usual or preferred form and construction, and A′ the guideway in which the mail-matter C is placed to be fed to the feeding-rollers B, B′, and B^2. These feeding-rollers are vertically supported in any suitable manner, the construction shown for this purpose comprising a series of rods *b*, fixed to the frame A and having bearings at their extremities, in which are journaled the shafts *b′* of the feed-rollers. Fixed upon each of the feed-rollers is a gear b^2, which mesh with intermediate cog-wheels b^3, whereby the rollers are rotated by means of any suitable power, the connections with which are not shown, as they may be of any usual or preferred character. The rollers B, of which there are preferably two, are of the same diameter and are located at the end of the guideway A′ in position to contact with the letters and start them toward the canceling-rollers D, which may be of any usual or preferred construction. The rollers B′ and B^2 are of greater diameter than the rollers B, and the diameter of the roller B^2 is greater than the diameter of the roller B′, whereby the letters are fed forward to the canceling-rollers D with a constantly-increasing speed. It is obvious that the number of the feeding-rollers may be more than two; but experiment has demonstrated that two are sufficient for the purpose. The peripheries of the feed-rollers are on the same plane on the side adjacent to the letters to be fed through the device. The outer surfaces of the feed-rollers are preferably of rubber and may be suitably corrugated or otherwise roughened to insure a positive frictional contact with the letters, as is obvious.

A series of pressure-plates E, one for each roller, except the first one facing the guideway, are pivoted to supporting-lugs *e*, fixed to the frame A in such a position as to be adapted to contact with the surface of the adjacent roller. The outer edge of each pressure-plate E is preferably curved, as shown, and one or more slots *e′* are formed in said curved edge. A suitable spring e^2 is interposed between the pressure-plate E and the frame A in order to maintain a constant pressure against the face of the roller and to permit the passage of but one letter at a time between the curved edge of the pressure-plate

and the roller. A suitable adjusting-screw C^3 is mounted upon the inner edge of the pressure-plate E in order to prevent the curved edge thereof to press too firmly against the face of the roller, and thus occasion unnecessary wear.

A series of friction-disks F, one adjacent to each feed-roller, except the first roller, are pivoted to lugs f, fixed to the frame A, and suitable springs f' are interposed between said disks and the frame to normally press said disks against the face of its adjacent roller. A suitable adjusting-screw f^2 is mounted upon the supporting-arm of the disk to prevent the disk from bearing too firmly against the face of the roller, and thus occasion wear. The disks F do not rotate and are adapted to contact against the under side of the letter as it is passed through by the feed-rollers, so that in the event of two or more letters accidentally passing between the pressure-plate and the feed-roller the disk will retard the under letter until the upper letter has been passed through by the rollers, whereupon said under letter will then be brought into contact with the feed-roller and passed on in its turn. The friction-disks F are preferably made in the form shown in order that a minimum contacting surface may engage the latter and also in order that in the event of fracture or wear a new contacting surface may be presented, thus prolonging the life of the friction-disk. It is obvious that by means of this construction it will be impossible for more than one letter at a time to reach or pass the last roller B^2. The edge of the friction-disk F passes through the slot e' of the pressure-plate E and contacts with the surface of the feed-roller at a point slightly beyond the contact-point of the pressure-plate E.

A feed-block G is mounted in the guideway A' and is provided upon its lower side with a suitable depending lug, (not shown,) which extends downwardly through a suitable slot G, formed in the floor of the guideway. A suitable cord G^2, having a weight G^3 at its end, is connected with the lug of the feed-block G and passed over suitable pulleys fixed in the framework, whereby the feed-block is moved along the guideway A', automatically feeding the letters C to the first feed-rollers B.

It is obvious from the construction above described that the only attention required by the feeding mechanism is that the employee place the letters on the guideway between the feed-block and the first feed-roller, whereupon the letters will be automatically fed to the canceling-rollers without further attention.

While I have herein shown a preferred form of carrying my invention into effect, yet I do not desire to limit myself to such preferred details of construction, but claim the right to use any and all modifications thereof which will serve to carry into effect the objects to be attained by this invention in so far as such modifications and changes may fall within the spirit and scope of my said invention.

I claim—

1. A feeding apparatus for postal canceling-machines, comprising a plurality of feed-rollers; a guideway leading thereto; a spring-actuated presser-plate pivoted adjacent to said rollers; a stationary friction-disk mounted on a yielding arm located adjacent to said rollers; and means for rotating said rollers, substantially as described.

2. A feeding apparatus for postal canceling-machines, comprising a plurality of feed-rollers varying in diameter; a guideway leading thereto; a spring-actuated presser-plate pivoted adjacent to said rollers; a stationary friction-disk mounted on a yielding arm located adjacent to said rollers; and means for rotating said rollers, substantially as described.

3. A feeding apparatus for postal canceling-machines, comprising a plurality of feed-rollers; a guideway leading thereto; a spring-actuated presser-plate pivoted adjacent to said rollers for each of said rollers, a stationary friction-disk mounted on a yielding arm located adjacent to each of said rollers; and means for rotating said rollers, substantially as described.

4. A feeding apparatus for postal canceling-machines, comprising a plurality of feed-rollers; a guideway leading thereto, a spring-actuated presser-plate pivoted adjacent to said rollers; a stationary friction-disk mounted on a yielding arm located adjacent to said rollers; a feed-block for automatically feeding the postal matter to said rollers; and means for rotating said rollers, substantially as described.

5. A feeding apparatus for postal canceling-machines, comprising a plurality of feed-rollers; a guideway leading thereto; a spring-actuated presser-plate pivoted adjacent to said rollers; a spring-actuated stationary friction-disk mounted on a yielding arm located adjacent to said rollers, and means for rotating said rollers, substantially as described.

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

ALCIDAS ETIENNE MORIN.

Witnesses:
J. A. MARION,
A. W. YOUNG.