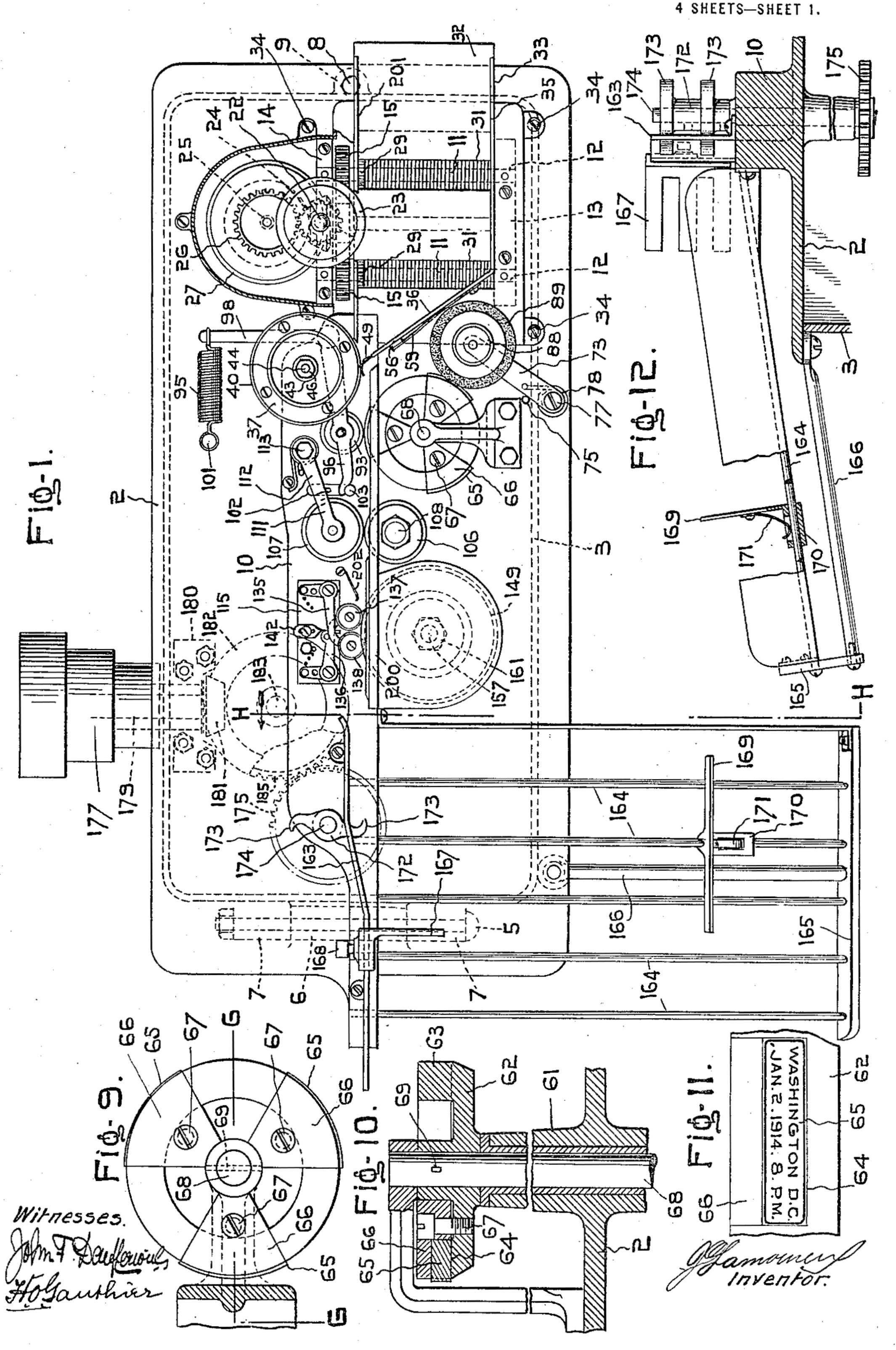
J. O. LAMOUREUX.

STAMP CANCELING MACHINE.

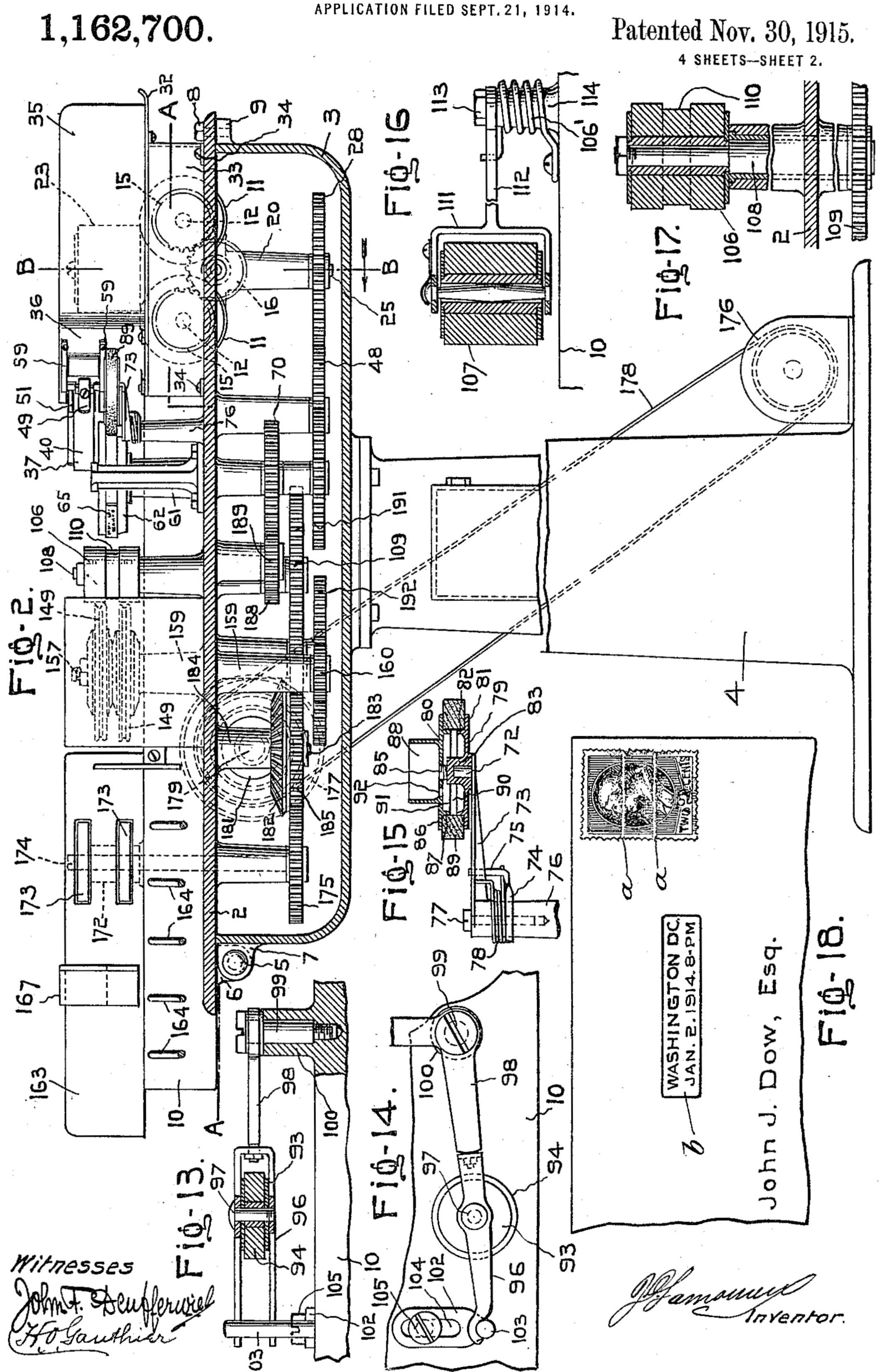
APPLICATION FILED SEPT. 21, 1914.

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Patented Nov. 30, 1915.



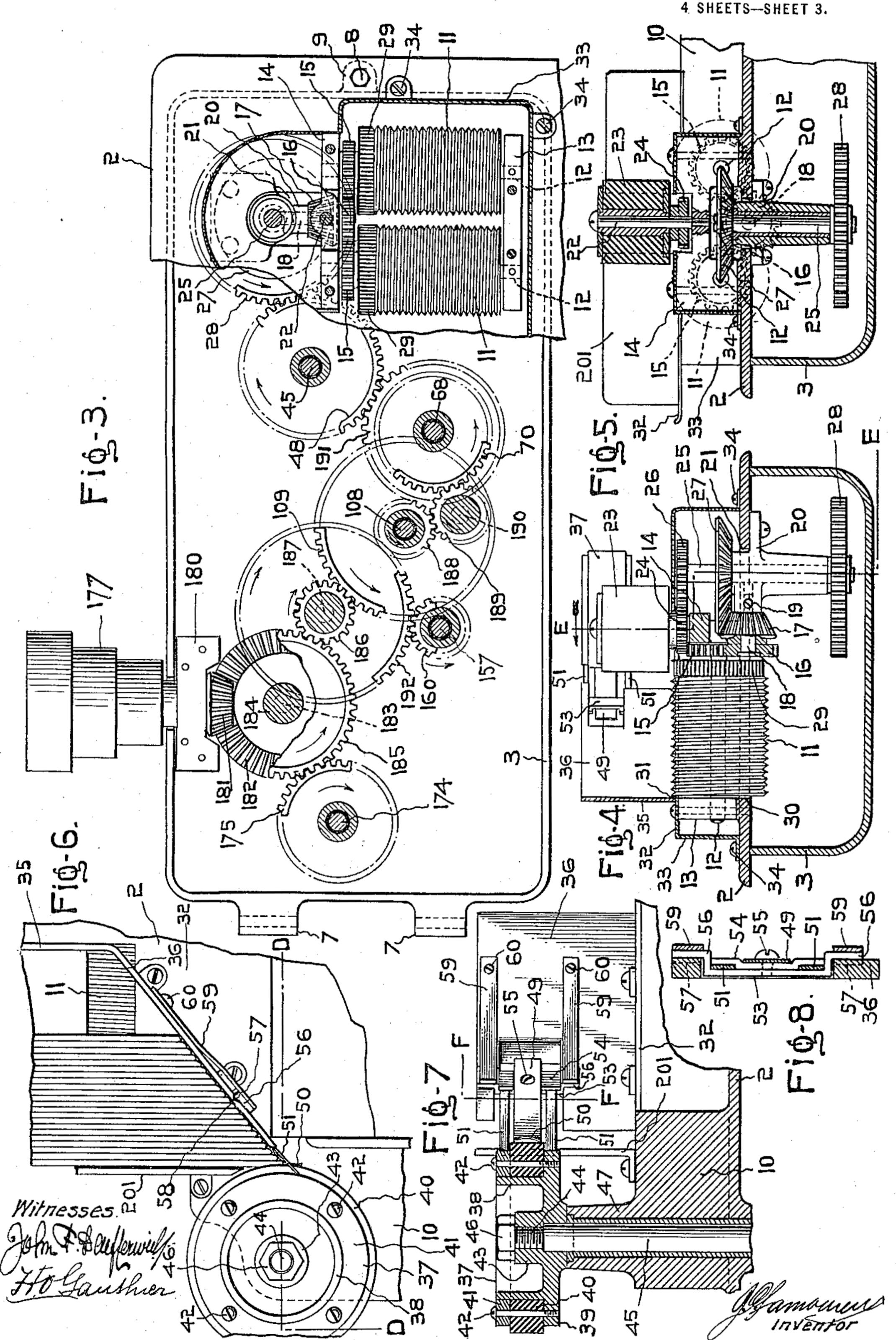
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J. O. LAMOUREUX. STAMP CANCELING MACHINE. APPLICATION FILED SEPT. 21. 1914. 1,162,700. Patented Nov. 30, 1915. 4 SHEETS-SHEET 4. 37 Q. <u>88</u> **202** 124 138 135 33 [5] Witnesses. Anyentor.

## UNITED STATES PATENT OFFICE.

JOSEPH OMER LAMOUREUX, OF SOREL, QUEBEC, CANADA.

## STAMP-CANCELING MACHINE.

1,162,700.

Specification of Letters Patent.

Patented Nov. 30, 1915.

Application filed September 21, 1914. Serial No. 862,845.

To all whom it may concern:

Be it known that I, Joseph Omer Lamou-REUX, a citizen of Great Britain, residing at Sorel, in the Province of Quebec, Dominion 5 of Canada, have invented new and useful Improvements in Stamp-Canceling Machines, of which the following is a specification.

My invention is intended to substitute for 10 the stamp canceling machines now in use a simple and effective device by which the postal marks or stamps are positively canceled out of restoration. Contrary to the present practice of canceling by ink, my ma-15 chine destroys the usefulness of the stamps by abrasion without in the least tearing the same, even when operating at the rate of seventy-five thousand ordinary envelops an hour.

20 My invention also shows a new envelop feeder, which is so positive in action that no percentage of uncanceled mail matter is shown. It does its work automatically and feeds envelops of all sizes without being 25 assorted.

In the drawings:—Figure 1— is a plan view of the invention; Fig. 2— is a front elevation, with the casing in vertical section; Fig. 3— is a horizontal section on line 30 A—A of Fig. 2; Fig. 4— is a vertical section on line B—B of Fig. 2; Fig. 5— is a vertical section on line E—E of Fig. 4; Fig. 6— is a fragmental plan view of the automatic feeding mechanism and coöperating 35 parts; Fig. 7— is a vertical section on line D—D of Fig. 6; Fig. 8— is a vertical section on line F—F of Fig. 7; Fig. 9— is a plan view of the printing drum; Fig. 10 is a vertical section on line G-G of Fig. 9; 40 Fig. 11 is an enlarged fragmentary view of a stamping die as mounted upon the printing drum; Fig. 12 is a vertical section on line H—H of Fig. 1; Fig. 13 is a vertical section of the pressure roller with its mount-45 ings in side elevation; Fig. 14 is a plan view of the same; Fig. 15 is a vertical section of

pressure roller which coöperates with the delivery roller 106; Fig. 17 is a vertical sec-50 tien of the delivery reller 106; Fig. 18 is a partial plan view of an envelop, showing the printing on said envelop and the cancelation mark on the stamp; Fig. 19 is an en- to the portion 10 of the table heretofore de-

the inking roller; Fig. 16 is a view of the

larged plan view of the canceling mechanism; Fig. 20 is a vertical section on the 55 line M-M Fig. 19; Fig. 21 is a front elevation of the coöperating pressure devices; Fig. 22 is a side elevation of the same; and Fig. 23 is an enlarged fragmentary view of the feed screws.

In order to render the description as clear as possible, I will describe the machine under separate headings as follows:—1st, a brief description of the frame; 2nd, the envelop feeder; 3rd, the stamping device; 4th, 65 the stamp canceler.

The frame.—The frame is shown clearly in Fig. 2 of the drawings. It consists of a standard 4 having a broad floor plate, where the electric motor 176 may be mounted. This 70 standard carries a gear casing 3, which is covered by a table 2, hinged at one end by a hinge 5, 6, 7, and fastened at the opposite end by a bolt passing through the same and screwed into the lug 9. The table has a 75 raised portion partly throughout its length, as shown by the numeral 10, Fig. 1, and one side of this raised portion carries a wall designated by the numeral 200, Fig. 1. The raised portion is intended to carry all the 80 parts required to stamp, cancel and stack the envelops. The casing 3 shows all the necessary gears to synchronously operate the various devices, and appear sufficiently shown to be understood without further de- 85 scription. It may be said, however, that they are mounted in bearings fixed to or integral with the table 2, and are raised therewith and exposed to inspection when it is lifted on its hinges.

The feeder.—This is a device shown on the right of the main Figs. 1, 2, 3 and detailed in Figs. 4, 5, 6 and 7. Fig. 4 shows the gear 28 in the main casing 3, which drives a bevel gear 27; and above this gear 95 a spur gear 26. These three gears are of course mounted on a shaft designated 25. The bevel gear 27 drives a bevel pinion 17 which in its turn operates a spur gear 16; both are mounted on the shaft 18, the spur 100 gear 16 drives two pinion gears 15, both shown in light lines in Fig. 5. The spur gear 26 drives a gear 24. All these are inclosed in casing 33, shown secured to the table 2, the top of which is equal in height 105

60

scribed. The casing 33 also partly incloses the two feed screws 11 which project slightly above the top thereof through suitable slcts therein. The screw thread 11<sup>a</sup> 5 is shown enlarged in Fig. 23, engages the edges of the envelops and presses them forward and sidewise. In Fig. 1, the screws 11 are shown projecting out of the casing 33 through slots 31, the screws or screw rollers 10 being inclosed on the left side by a wall 35, on the front by the angle wall 36, on the right by a guard 201. An envelop driving roller 23 preferably faced with rubber is mounted so as to slightly project through 15 the guard 201; it is driven by gear 24 previously described. Now, referring again to Fig. 1, a second envelop driving roller 37 is mounted just at the angle formed by the walls 36 and 201 and on the table portion 10. 20 A friction face 40 projecting slightly beyand the flanges of the roller is held in place by the ring flange 41, which is fastened to flange 39 by screws 42; this roller is suitably mounted on shaft 45 passing through 25 bearing 47 and driven by gear 48 in the casing 3. In order to assure the feed of a single envelop from the container previously described, the opening left at the angle formed by the wall 36 is closed by a set of 30 three springs 51, 51 and 49 shown in Fig. 8. The bar 56 carries a plate 54 to clamp springs 51, 51, by means of a screw 55 which also holds spring 49. The bar 53 is placed in an opening formed in the wall 36, and 35 held in place by springs 59 also carried by this same portion, as clearly shown in Fig. 7. The springs 51, 51 bear on the flanges 39 and 41 and spring 49 on the friction face 40 of the driving roller 37. The operation of the feeder is as fol-

lows:—Envelops irrespective of sizes, but having all the stamps facing to the left and downward, are placed over the feed roller screws, as shown in Fig. 6. The screws 45 revolve at a high speed, the envelop edges engage the threads and are immediately carried forward by the revolution of the rollers and sidewise by the threads. As soon as the first envelop comes in contact with the first <sup>50</sup> driving roller 23, it is presented to the second driving roller 37, and contacts with the friction face 40 which draws it under the turned end 50 of spring 49. Springs 51, 51 then come in action and press the paper 55 firmly against the friction face 40. As the wheel flanges are lower than the friction face, the envelop is somewhat curved by the springs 51, 51; this curvature reduces the friction between the envelop passing and the next to it and assures positive disengage-

singly without missing.

The stamping device.—As the envelop leaves roller 37, it will be engaged by a

ment. This feed is so positive in action that

thousands of envelops will be delivered

pressure roller 93. See Figs. 13 and 14. This roller is provided with bearing surface 94 and journaled in a forked arm 96. This arm is swiveled to one end of a bell crank lever 98 pivoted on a pin 99 held in the post 70 100. A tension spring 95 has its opposite ends connected, respectively, to the end of the bell crank lever 98, and to a post 101 projecting upwardly from plate 2 and pulls to force the pressure roller 93 toward a 75 printing drum. It is not desired to allow the pressure roller 93 to actually engage the printing drum, because there must always be a slight distance between them, but not enough to prevent the pressure of an en- 80 velop against the printing drum as it passes along the letter way. In order to effect this separation, the free end of the yoke 96 is off set or curved slightly so as to engage a short post 103 carried by a plate 102 which is pro- 85 vided with a longitudinal slot 104. A cap screw 105 passes through this slot and is threaded into the rib 10. The printing drum comprises a base 62 with an annular wall 63, having recesses and seats 64 to receive 90 removable type or printing plates 65 together with cap plates or segments 66 and clamping screws 67 for holding the type in their seats (see Fig. 10). The types are adapted to stamp the mail matter with the 95 place and date of cancellation, as usual. As here shown, the printing drum has three sets of dies for continuous stamping, but this number may vary. The printing drum is made fast to shaft 68 by a key 69, it being 100 journaled in a suitable bearing seated in a vertical bess 61 extending upwardly from plate 2. Shaft 68 is driven from the gear train by a spur gear 70 made fast to the lower end thereof. Copperating with the 105 printing drum is an inking roller. This roller shown in detail in Fig. 15, comprises two plates 79 and 80, and an annular felt or other absorbent band 89 clamped between flanges 81 and 86, and held in place by the 110 flanges 82 and 87. When the parts are assembled, the plate 79 is provided with a central boss to receive a journal pin or stud 72 on the swinging arm 73. The plate 80 is provided with an ink cup 115

The plate 80 is provided with an ink cup 115 88, with a central threaded bore by which it may be threaded into the part 85, and with a small hole 92 communicating with the chamber 91 formed between plates 79 and 80, and the band 89. The arm 73 is journaled 120 on a post 76 by means of a pin 77 passing through a bore in one end of the arm and threaded into the upper end of the post. A coil spring 78, mounted about the post 76, and having one end in engagement with 125 arm 73, serves to regulate the swing of the arm and presses the inking roller on the printing drum. This ink distributer is found to be very effective. The ink oozes out of the porous ring by centrifugal force in an even 130

and adequate manner. Before the envelop has completed its passage between the stamping wheel and the friction roller 93, it is caught by the rollers 106 and 107, 106 being 5 the driving roller driven by one of the train of gears underneath the table, 107 being the pressure roller which is mounted in a fork 111 of a swinging arm 112, fulcrumed at 113 on a post 114, as shown in Fig. 1, and 10 pressed against the face of roller 106, by the torsion spring 106<sup>1</sup>. (See Fig. 16). The face of this roller is recessed, as shown in Fig. 17, by the numeral 110; this recess, it will be noticed, is in alinement with the 15 stamp on the stamping wheel and is intended to prevent the contact of the freshly printed matter with the face of the roller. By referring to Fig. 16, it will be seen that friction roller 107, is mounted on a dou-20 ble cone shaft 107a. This is intended to allow the roller to rock and thereby adapt itself to the irregular thickness of many envelops. The rollers 106 and 107 above described are intended to deliver the envelops 25 to the canceling device to be presently described.

The canceling device.—As heretofore stated, the cancellation is done by the abrasion of the color on the stamp, and for that 30 purpose one or more disks made wholly or partly of abrading material are employed. In the illustration Fig. 20, two disks 149 are shown, mounted on a shaft 157 in the following manner:—153 is a flange having 35 a sleeve 152. The abrading disks 149 are bored to slide over said sleeve and are spaced by a washer 155. The end of the sleeve is threaded to receive a flange 156, also threaded, and the whole is locked by the nut 161 40 threaded on the shaft 157; this shaft passes through a bearing 158 which is mounted in a sleeve 159 forming part of the bed plate 2; shaft 157 is revolved by gear 160 underneath the bed plate. The numeral 150 shows a groove on the face of the disk 149 for the purpose later stated. The disks are mounted so as to slightly project through the guide wall 200, and in order that the envelop may not bear too heavily on the edges 50 of the disks, idler rollers 205 are mounted on plate 200 as shown. Erasure of the color on a stamp by abrasion without tearing or cutting the paper, can be obtained only when the pressure on the reverse side is even and 55 of the required force. In order to obtain this desideratum, long and careful experiments were required.

On the rib 10, near the projecting edges of the disks is adjustably mounted a plate 115 provided with an elongated slot 117, adapted to slidably receive a bolt or threaded post 116 projecting upwardly from the rib 10. A nut is turned down upon the projecting threaded end and serves to bind the plate in any of its various adjusted posi-

tions. At the opposite end of this plate and on the side nearest the wall 200 are provided two posts 118 and 119, on the lower part of which are rotatably mounted two sleeves 120 and 121. Each sleeve is provided with a 70 lever arm 122 and 123, and each lever arm carries a rod or post 125, also each lever arm has at its free end a tubular boss 124 adapted to receive a pin 140 which may be passed therethrough and engage with any one of 75 the holes 141, in the plate 115 (see Figs. 19 and 22). Above the sleeves 120 and 121 are similarly mounted sleeves 126 and 127, provided with elbow arms 128 and 129, the arm 128 crossing and overlying the arm 129 at 80 the elbow. (See Figs. 20 and 21). The arm 128 carries on its outer end a small pressure roller 132 freely rotatably mounted on a screw post, a stud or the like 130. The arm 129 carries a pressure roller 131, 85 in the same way. It is desirable of course, to have both rollers in the same line, so that the line or pressure will be continuous. Therefore a spacing washer is placed beneath the roller 131 to raise it to the same 90 plane as roller 132. In order to keep the rollers 131 and 132 in operative engagement coil springs 139 are used. These are coiled about the sleeves 126 and 127, and have their opposite ends engaging one of the arms 128 95 and 129, and one of the posts or rods 125 (see Fig. 19), carried by swinging arms 122 and 123 as previously disclosed; the tension of these springs corresponds to the regulation of the pressure on the rollers 131 and 100 132. As shown in Figs. 19 and 21, the pressure of the springs 139 is applied close to the pivots of the arms 128, 129, 135, and 136. As these arms are of considerable length, the slight extent of movement of the 105 ends of these arms as a thick or a thin envelop passes thereunder causes so slight a variation of spring pressure that this pressure is practically even or uniform on a thick or thin envelop, and the abrasion of the stamps is effected without danger of injury to the envelop or its contents. Above sleeves 126 and 127 is a third set of sleeves 133—134, with elbow arms 135 and 136, carrying rollers 137 and 138, and having 1145 actuating springs 139, all arranged and constructed similarly to those already described. The rollers 131 and 137 are intended to act more as guide rollers to receive the mail matter as it comes along the letter way and 120 guide it to the second set of rollers 132 and 138. Consequently they must exert less pressure on the mail matter than the corresponding set of rollers. This pressure is derived from their corresponding springs 139, 125 while the pressure of rollers 132 and 138 is obtained from the springs of both sets in the following manner: Just at the elbow of each of the arms 129 and 136 a stop pin 162 is secured as the elbows of arms 128 and 135 139

are respectively in contact with these pins it will be evident that as soon as the mail matter comes in contact with rollers 132 and 138, a locking of all the four arms 128, 129, 5 135 and 136 is effected and their respective springs contribute to a combined pressure for the rollers 132 and 138. Rollers 131 and 137 are adjusted to remain just outside of grooves 150 of the canceling disks, while 10 rollers 132 and 138 are adjusted to project

slightly in these grooves.

It must be borne in mind that at the time the mail matter begins to pass between the disks and the rollers 131 and 137, it is still 15 being fed toward them by rollers 106 and 107, rollers 106 and 107 rotate at a much slower speed than the canceling disks. The result is that the rollers 106 and 107 really hold the envelop back against the pulling 20 action of the canceling disks. This retardation causes the disks to abrade and thereby cancel the stamp. In order to regulate the distance between the disks and coöperating rollers, a plate 142 is provided having an elongated slot 146. Said plate is mounted on a post 145 on the plate 115 and made adjustable by means of a screw 147; it is provided with a cross arm having ends 143 and 144, each adapted to engage one pair of the elbow arms. As will be apparent from Fig. 19, the envelop as it passes between the adjacent sets of spring pressed disks and the grinding wheel, is given a very slight longitudinal bend; and as will be apparent from Fig. 20, since the spring-pressed disks 131, 132, 136, 137, face the space between the peripheral grinding edges of the abrading wheels, there will be a slight lateral bending, or a tendency to such bending, of the en-40 velop. The pressure which holds the envelop against the abrading edge is not directly applied against said edge but to one side thereof, thereby permitting a slight yielding of the envelop. From the can-45 celing device, the mail matter continues along to a collecting rack composed of a plurality of spaced parallel rods fastened to the rib 10 and to bar 165. This rack is braced by a bar 166 as shown. At the upper <sup>50</sup> end thereof, and extending along the rib 10, is a guide wall 163. The portion near the end of wall 200, is deflected or off-set to provide a passage for the mail matter.

To check the traveling velocity of the envelop, stop 167 is provided. It is made adjustable to various lengths of mail matter by providing same with a V shaped base adapted to be slidably mounted on the guide wall; it may be securely fastened in various adjusted positions by a screw 168. This stop of course prevents the mail from being driven beyond the collecting rack. Slidably mounted on one of the bars 164 is a second stop in the form of a plate 169 with a slotted tubular base 170 and friction leaf spring

171. When the machine is started, this stop is moved along the bar 164 toward the wall 163 to a position which will have just enough space between it and the wall for one envelop. Coöperating with this stop is a 70 packer comprising two similar sets of bent arms 173, fixed to a short vertical shaft 174 journaled in a boss on plate 2. The lower end of the shaft carries a driving gear 175 which is engaged and driven by the clock 75 train gears, as will later appear. The bent arms project slightly through slots in the wall 163 as they are rotated, and engage the mail matter as it collects between the wall 163 and the stop 169, exerting a packing ac- 80 tion which gradually forces the stop 169 back along its rod 164 toward the bar 165, but at all times insuring a solid compact bundle which may be removed from time to time.

For driving the several mechanisms a motor 176, belt 178, and differential pulleys 177 are provided. Pulleys 177 are made fast to the shaft 179 journaled in a bearing 180 in the casing 3 and having fixed to its inner 90 end a bevel pinion 181 which meshes with and drives a bevel gear 182 fixed to a shaft 183 which is journaled in the boss 184. To the lower end of this same shaft is also fixed a gear 185 which meshes with and drives 95 gear 175 of the packer. Gear 185 also meshes with and drives a small gear 186 fixed on a stub shaft 187 freely revoluble in a boss on the under side of cover 2. To the other end of stub shaft 187 is fixed a gear 100 192. The pinion 186 meshes with and drives gear 109, fixed to shaft 108 thereby driving roller 106. The gear 192 drives pinion 160, of much smaller diameter and is fastened to shaft 157 thereby driving the canceling disks 105 149 at a much greater speed than roller 106. Shaft 108 also carries a pinion 188 which meshes with a pinion 189 on a stub shaft 190; pinion 189, in turn meshes with and drives the gear 70 on the shaft 68 of 110 the printing drum. The same shaft carries a gear 191 which meshes with and drives gear 48 which is fixed to and drives the shaft 45 of the second feed roll 37 and the gear 48, in turn drives the gear 28.

It is thought that the construction operation and use of the invention will be clear from the preceding detailed description.

In Fig. 18, the scores or erasures of the material of the stamp are indicated at a, a, 120while b shows an example of the printing

effected by the machine.

Changes may be made in the construction, arrangement and disposition of the several parts of the invention without in any way 125 departing from the field and scope of the same. It is meant to include all such in this application wherein only a preferable form has been disclosed.

Having described my invention and the 130

manner in which the same is to be carried out, what I claim and desire to protect by Letters Patent is:

1. In a stamp-canceling machine, an 5 abrading wheel, means for delivering an envelop to the periphery thereof and means for pressing the envelop toward the wheel, said means comprising a pivoted arm and a spring engaging the arm close to the pivot, 10 whereby substantially the same pressure is applied to a thick or to a thin envelop.

2. In a stamp-canceling machine, an abrading wheel, means for delivering an envelop to the periphery thereof and means 15 for pressing the envelop toward the wheel, said means comprising a pair of pivoted arms, springs engaging each arm close to its pivot, rollers mounted on the ends of the arms and in line with each other and means 20 for exerting a light pressure on the leading roller and a stronger pressure on the following roller.

3. In a stamp-canceling machine, an abrading wheel, means for delivering an en-25 velop to the periphery thereof, means for lightly pressing the envelop toward the abrading wheel, and additional stronger pressure means adapted to press the envelop toward the abrading wheel to cause abrasion

30 on the stamp.

4. In a stamp-canceling machine, an abrading wheel, a roller provided with means for lightly pressing the envelop on said wheel, and a second roller in line with 35 the first provided with means for more strongly pressing the envelop against the abrading wheel to cause abrasion of the stamp on the envelop.

5. In a stamp-canceling machine, a wheel 40 having a narrow abrading peripheral edge, means to convey an envelop to said peripheral edge, a disk roller mounted in a plane parallel to and out of the plane of the abrading edge and means for applying sufficient 45 pressure to said roller to cause the wheel to

abrade the stamp of the envelop.

6. In a stamp-canceling machine, a wheel having a narrow abrading peripheral edge, means to convey an envelop to said periph-50 eral edge, and means for applying yielding pressure to the envelop along a narrow path in a plane parallel to and out of the plane of

the abrading edge.

7. In a stamp-canceling machine, a wheel 55 having a narrow abrading peripheral edge, means to convey an envelop to said peripheral edge, means for applying yielding pressure to the envelop along a narrow path in a plane parallel to and out of the plane of 60 the abrading edge, and additional means in the same plane as the first pressure means for applying a stronger pressure to the envelop to cause the wheel to abrade the stamp of the envelop.

8. In a stamp-canceling machine, a rotary

abrading device having a plurality of narrow abrading edges, means to convey an envelop with its face to the said edges, and means for applying yielding pressure to the back of the envelop, said pressure means be- 70 ing of less width than the space between said edges.

9. In a stamp-canceling machine, an abrading wheel having a groove on the face of said wheel, means to convey an envelop 75 to the periphery of said wheel, and a resilient pressure device mounted opposite said groove and of less width than the groove.

10. In a stamp-canceling machine, an abrading wheel, means to convey the envelop 80 to its periphery, a first disk slightly pressing the envelop on the abrading wheel, a second disk placed in front of the first acting with sufficiently greater pressure to cause abrasion on the stamp of the envelop.

11. In a stamp-canceling machine, an abrading wheel having a central groove in the periphery thereof, means to rotate the same, an envelop-pressing disk of less width than the groove mounted to face said groove, 90 and automatic means to convey the envelop between said wheel and pressing disk.

12. In a stamp-canceling machine an envelop abrading wheel having narrow separated abrading peripheral edges, a resilient 95 envelop-pressing disk mounted to face the opening between said edges whereby the disk presses on the envelop between the points of abrading contact, and means to feed the envelop between the abrading edges and the 106 disk.

13. In a stamp-canceling machine a plurality of abrading wheels each having parallel separated narrow abrading peripheral edges, sets of envelop-pressing disks of less 105 width than the space between the separated abrading edges, each set mounted to press on the envelop between the points of abrading contact, and means to feed an envelop between the abrading wheels and disks.

14. In a stamp-canceling machine a slotted guiding wall, means for feeding envelops along said wall, an abrading wheel mounted at the rear of said wall and projecting through the slot, said wheel having 115 parallel but separated peripheral edges, resilient pressing disks mounted to press on the envelop between the points of abrading contact, and means to regulate the pressure of said disks.

15. In a stamp canceling machine, an abrading wheel, a central groove on the face of said wheel, pressure disks mounted to face the groove, carriers for said disks, independent means to press each disk toward 125 the groove, and a pin mounted in the path of one of the disk carriers to cause the second disk carrier to engage the first.

16. In a stamp-canceling machine an abrading wheel having spaced peripheral 130

grinding edges, a set of disk carriers, pressure disks mounted on said carriers facing the space between said grinding edges, and a pin located on one carrier so as to engage the other carrier when the latter carrier is

pushed back by the mail matter.

17. In a stamp canceling machine, an abrading wheel, a set of pressure disks facing the edge of said abrading wheel, a second set of pressure disks also facing the edge of said abrading wheel, arms carrying said disks, posts around which one of the ends of said arms are mounted, and a tension spring for each arm to press the same to-15 ward the abrading wheel.

18. In a stamp-canceling machine an abrading wheel having a narrow peripheral grinding edge, a set of pressure disks having their peripheries adjacent said edge, 20 arms carrying said disks, pivots for each arm, and a tension spring for each arm to press the same toward the abrading wheel.

19. In a stamp-canceling machine, an abrading wheel, two sets of resiliently 25 mounted pressure rollers placed tangentially thereto, supports for said rollers, one set of rollers being arranged to yield under its own spring pressure, and means arranged to permit the second set of rollers to yield 30 under the combined pressure of both sets of rollers.

20. In a stamp-canceling machine, an abrading wheel, two resiliently mounted pressure rollers placed tangentially thereto, 35 supports for said rollers, one roller being arranged to yield under its own spring pressure, and means arranged to permit the second roller to yield under the combined pressure of both rollers.

21. In a canceling device, a canceling disk, a set of pressure rollers, mounted tangentially to said disk, an arm carrying each pressure roller, a spring to force each arm toward the canceling disk, a pin on one arm 45 against which the second arm comes in contact when its roller is pressed backward by

the mail matter.

22. In a canceling machine, a canceling disk, pressure rollers facing the periphery 50 thereof, arms carrying said rollers, a post upon which said arms are fulcrumed, a swinging plate mounted on said post underneath said arms, a second post carried by said swinging plate, a spring mounted on 55 said first post and having one end resting against said arm and the other end against said second post, and means carried by said swinging plate to lock the same at various angles.

60 23. In a stamp-canceling machine an abrading wheel having a narrow peripheral grinding edge, a pair of adjacent springpressed disks arranged one in front of the other and each in proximity to the periph-65 ery of the abrading wheel and at one side

thereof, and means for feeding envelops between said wheel and disks.

24. In a stamp-canceling machine, an abrading wheel having a narrow peripheral grinding edge, a pair of adjacent spring-73 pressed disks arranged one in front of the other and each in proximity to the periphery of the abrading wheel and at one side thereof, means for adjustably regulating the distance between the disks and the 75 wheel, and means for feeding envelops between said wheel and disks.

25. In a stamp-canceling machine, an abrading wheel having a narrow peripheral grinding edge, a pair of adjacent spring- go pressed disks arranged one in front of the other and each in proximity to, but to one side of, the periphery of the abrading wheel, one of said disks being mounted so that its periphery may extend within the 85 peripheral edge of the abrading wheel, and means for feeding envelops between said wheel and disks.

26. In a stamp-canceling machine, an abrading wheel having a narrow peripheral 90 grinding edge, a pair of adjacent springpressed disks arranged one in front of the other and each in proximity to, but to one side of the periphery of the abrading wheel, one of said disks being mounted so 95 that its periphery may extend within the peripheral edge of the abrading wheel, means for adjustably regulating the distance between the disks and the wheel, and means for feeding envelops between said wheel and 100 disks.

27. In a stamp-canceling machine, an abrading wheel having a narrow peripheral grinding edge, a pair of adjacent springpressed disks arranged one in front of the 105 other and each in proximity to the periphery of the abrading wheel, means for feeding an envelop between the disks and wheel, the disks being mounted to apply pressure to the envelop at points outside the plane 110 of the abrading edges.

28. In a stamp-canceling machine, an abrading wheel having spaced peripheral abrading edges, a pair of adjacent springpressed disks arranged one in front of the 115 other and each in proximity to the periphery of the abrading wheel, means for feeding an envelop between the disks and wheel, the disks being mounted to apply pressure to the envelop at points between the planes 120 of the abrading edges.

29. In a stamp-canceling machine, an abrading wheel having spaced peripheral abrading edges, a pair of adjacent springpressed disks arranged one in front of the 125 other and each in proximity to the periphery of the abrading wheel, means for feed-

ing an envelop between the disks and wheel, the disks being mounted to apply pressure to the envelop at points between the planes 130

of the abrading edges, and an idler roll mounted beside the abrading wheel.

30. In a stamp-canceling machine, an abrading wheel, means for delivering an envelop to the periphery of said wheel, disks 137, 138 arranged one in front of the other, arms 136, 135 supporting said disks, pivotal supports for said arms, springs engaging said arms near the pivots, and a pin 162 on 10 arm 136 in the path of movement of arm 137.

31. In a stamp-canceling machine, an abrading wheel, means for delivering an envelop to the periphery of said wheel, disks 137, 138 arranged one in front of the other, arms 136, 135 supporting said disks, pivotal supports for said arms, springs engaging said arms near the pivots, a pin 162 on arm

156 in the path of movement of arm 137, and means for adjusting the tension of the 20 springs.

32. In a stamp-canceling machine, an abrading wheel, means for delivering an envelop to the periphery of said wheel, disks 137, 138 arranged one in front of the other, 25 arms 136, 135 supporting said disks, pivotal supports for said arms, springs engaging said arms near the pivots, a pin 162 on arm 136 in the path of movement of arm 137, and an adjustable stop for determining 30 the inner limit of movement of said arms.

## JOSEPH OMER LAMOUREUX.

## Witnesses:

J. E. BEAUBIEN, E. B. MOREAULT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."