E. M. HILL. CANCELING MACHINE.

APPLICATION FILED AUG. 2, 1907. 3 SHEETS—SHEET 1.

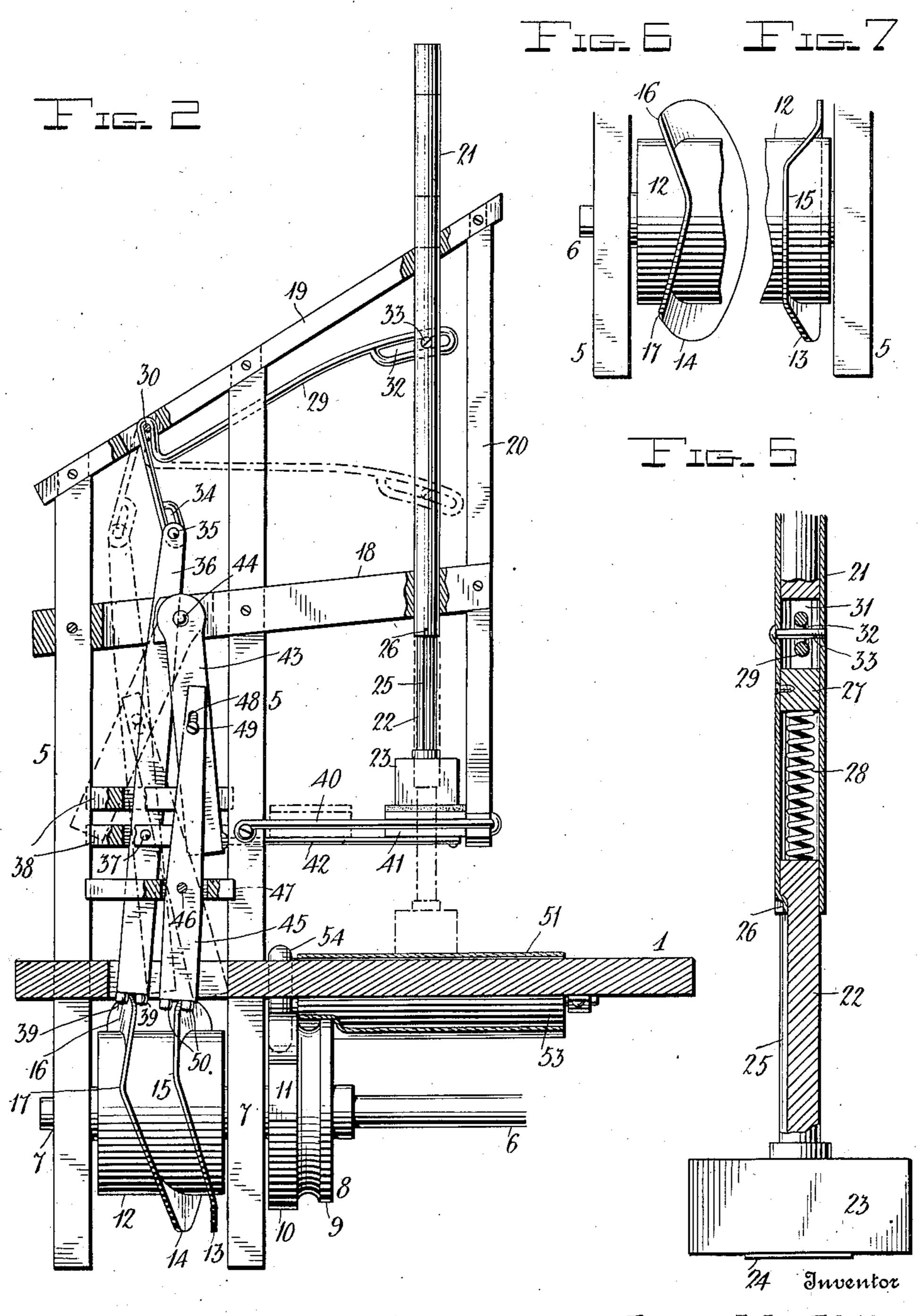
Suventor

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3 SHEETS-SHEET 2.



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3 SHEETS-SHEET 3. Edward M. Hill Edward M. Mill

UNITED STATES PATENT OFFICE.

EDWARD M. HILL, OF NANTY GLO, PENNSYLVANIA.

CANCELING-MACHINE.

No. 897,103.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed August 2, 1907. Serial No. 386,789.

To all whom it may concern:

Be it known that I, Edward M. Hill, a citizen of the United States, residing at Nanty Glo, in the county of Cambria and 5 State of Pennsylvania, have invented new and useful Improvements in Canceling-Machines, of which the following is a specification.

This invention relates to improvements in 10 stamp canceling machines for use in postoffices for canceling stamps on envelops, postal cards and the like and the said invention consists in the construction, combination and arrangement of devices hereinafter described

15 and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a stamp canceling machine constructed in accordance with this invention. Fig. 2 is a vertical transverse 20 sectional view of the same. Fig. 3 is partly a top plan and partly a horizontal sectional view. Fig. 4 is a detail vertical longitudinal sectional view taken on the plane indicated by the line a-a of Fig. 3. Fig. 5 is a detail 25 sectional view. Figs. 6 and 7 are detail views of the cams.

In accordance with this invention, I provide a table or base 1 which is here shown as provided with a leaf 2 hinged thereto as at 3, 30 said hinges being on the upper sides of the table and leaf so that the proximate end of the table and leaf come in contact when the leaf is turned to a horizontal position to support the leaf in such position. Said leaf is 35 also provided on its underside with bars 4 which project from the inner side thereof to bear against the underside of the table.

At one corner of the table are a pair of standards 5 which are suitably spaced apart, 40 extend above the table and also extend below the same. A driving shaft 6 has its bearings, as at 7, in the depending portions of the said standards and the said shaft has a pulley 8 provided at one side with a peripheral 45 flange 9 and at the other side with a peripheral flange 10, the major portion of which is concentric thereto, said flange 10 having a recess 11 in one side thereof. Said shaft is further provided with a cam 12 which is pro-50 vided with a pair of cam flanges or disks 13, 14, which are disposed angularly with reference to each other and each of which is provided on one side with an off-set, the off-set of the cam disk or flange 13 being indicated 55 at 15 and that of the disk or flange 14 being

indicated at 16. The said disk or flange 14 is further provided with an off-set 17.

A pair of bars 18, 19 are attached to the standards 5, connect the said standards together at points above the table and project 60 partially across the table and above the same and have their outer ends connected together by a vertically disposed bar 20, the lower end of which is at a suitable distance. above the top of the table. The said bars 65 18, 19 are provided with partially alining guide openings for a vertically movable tubular plunger bar 21 in the lower portion of which operates the vertical stem 22 of a plunger or stamp 23 which is provided with a 70 printing face 24 for canceling stamps, printing postmarks or the like. The said stem 22 is provided in one side with a vertical groove 25 which is engaged by a guide stud or key 26 in one side of the tubular plunger rod so 75 that the said stem or plunger is prevented from turning with reference to such plunger rod. In the latter, at a suitable distance from its lower end, is a stop 27. A coil extensile spring 28 bears between the said stop 80 and the upper end of the plunger or stamp stem 22 to normally project the stamp or plunger from the lower end of the plunger rod and yieldably connect such stamp or plunger to such plunger rod for movement 85 with reference thereto.

A bell crank lever 29 is pivotally connected as at 30 to the bar 19 and has one of its arms extended through a slot 31 in the plunger rod and provided with a slot 32 which is 90 engaged by a pin 33 which extends through the said tubular plunger rod. The other arm of the said bell crank lever which extends downwardly, is provided with a slot 34 engaged by a pin 35 at the upper end of a 95 rocking bar 36 which is fulcrumed as at 37 to one of a plurality of cross bars 38 which connect the standards 5 together, said cross bars being provided with slots in which the said rocking bar, which is vertically disposed, op- 100 erates, said slots forming guides for said rocking bar as will be understood. At the lower end of the said rocking bar are a pair of tappet rollers 39 to engage opposite sides of the cam disk or flange 14.

A pair of guiding and supporting rods 40 connect the lower portion of the vertical bar 20 and the standard 5 which is nearest to such vertical bar. An inking pad 41 is supported and guided by said guide bars and is 110

movable into and out of the path of the stamp or plunger 23. A rod 42 connects the said inking pad to the lower end of a rocking link 43, the upper end of which link is pivot-5 ally mounted as at 44 on one side of the bar 18. A rocking bar 45 which is fulcrumed as at 46 to a cross bar 47 and operates in a slot in such cross bar, has its upper end provided with a slot 48 which is engaged by a pin 49 10 that projects from one side of the rocking link 43 at a point about midway between the ends of such rocking link. Such rocking arm 45 is provided at its lower end with tappet rollers 50 which engage opposite sides of

15 the cam disk or flange 13.

An endless traveling feed apron or carrier 51 which may be made of any suitable material, cloth, or the like, has its rollers 52, 53 mounted in bearings with which the table is 20 provided. The said roller 53 which is at the outer side of the table is provided with a friction pulley 54 which engages the peripheral friction flange 10 of the pulley 8 so that during the major portion of each rotation of such 25 pulley, in the direction indicated by the arrow in Fig. 4, the pulley 54 is rotated thereby and hence the upper lead of the endless feed apron or carrier is caused to move in the direction indicated by the arrow in said figure, 30 and during each revolution of the pulley 8, when the recess 11 comes opposite the pulley 54, the latter is disengaged by the pulley 8 and hence momentarily ceases to revolve, thereby the endless feed apron or carrier also 35 momentarily ceases to move. The table has a register bar 55 which extends transversely over the upper lead of the endless apron or carrier, and is also provided with a guide bar 56 which is disposed parallel to the sides of 40 such endless apron or carrier, extends above the inner portion of the same from the leaf 2 to the register bar 55 and is pivoted on said leaf as at 57 so that it may be turned in a position at right angles to the endless carrier or 45 apron, as indicated in dotted lines in Fig. 3. When the said guide bar is in operative position, parallel with the sides of the endless carrier or apron its front end engages a stop stud 58 which projects from one side of the 50 register bar 55.

The operation of my improved stamp canceling machine is as follows: Assuming that the shaft 6 is in rotation in the direction indicated by the arrow in Fig. 4, the upper lead 55 of the carrier or feed apron is caused to intermittently move in the direction indicated by the arrow, by the means hereinbefore described, so that envelops, postal cards or the like placed on the feed or carrier apron by 60 the operator will be carried by such carrier apron to a position directly under the stamp 23 and will be momentarily held in such position. While the said carrier apron is thus at rest, the off-set 17 of the cam flange 14 will move by the coaction of the tappet rollers 39

and the rocking bar 36 in the required direction to cause such rocking bar to depress the outer arm of the bell crank lever 29 and hence cause such bell crank lever to move the plunger rod 21 downwardly and thereby apply 70 the printing canceling or postmark stamp 23 to the envelop, postal card or wrapper on the said momentarily stationary carrier apron and thereby cause the stamp on such envelop, card or wrapper to be canceled and 75 the required postmark, date or the like to be printed on such wrapper, envelop or card. As the shaft 6 with its cam and pulley continue to revolve, the offset 16 of such cam flange 14 will move the rocking bar 36 in the 80 required direction to raise the stamp and at this instant, the recess 11 of the pulley 8 will pass the pulley 54 so that the latter will be revolved and cause the canceled and postmarked or dated envelop, card or wrapper to 85 be discharged from the carrier apron and another to be moved to the required position under the stamp. While this is being done and the stamp is in its elevated position, the cam flange 13 with its off-set 15 will operate 90 the rocking bar 45 to cause the latter through the instrumentality of the rod 42 and the link 43 to move the inking pad first under the descending stamp so that the latter will be inked by such pad and after the pad has been 95 thus inked the stamp will be raised slightly by the action of the offset 17 of the cam flange 14 and the cam flange 13 will move the pad out of the path of the stamp and the latter will then, by the coaction of the flange 14 100 and the rocking bar 36 and lever 29, be driven downwardly as before to stamp or print upon and cancel the envelop, card or wrapper on the carrier apron. Hence the machine is entirely automatic in its opera- 105 tion and effectually cancels the stamps on the mail matter and discharges the canceled matter when the same has been thus operated upon.

Having thus described the invention, what 110 I claim as new and desire to secure by Let-

ters Patent is:—

1. In a machine of the class described, the combination of a printing element movable in a right line, a rocking bar, a lever connect- 115 ing such rocking bar and such printing element, a cam element to operate such rocking bar, a movable inking element, a link connected thereto, a rocking bar to actuate such link, and a cam element to operate the last- 120 mentioned rocking bar.

2. In a machine of the class described, the combination of a printing element movable in a right line, a rocking bar, a lever connecting such rocking bar and such printing ele- 125 ment, a cam element to operate such rocking bar, a movable inking element, a link connected thereto, a rocking bar to actuate such link, a cam element to operate the lastmentioned rocking bar, a gear revoluble with 130

said cam element, and a feed element operated by such gear.

3. In a machine of the class described, the combination of a printing element movable in a right line, a rocking bar, a lever connecting such rocking bar and such printing element, a cam element to operate such rocking bar, a movable inking element, a link connected thereto, a rocking bar to actuate such link, a cam element to operate the last-mentioned rocking bar, a gear revo-

luble with said cam element and a feed element having a gear operated by the first mentioned gear, one of said gears constituting a segment, for the purpose set forth.

In testimony whereof I affix my signature

in presence of two witnesses.

EDWARD M. HILL.

Witnesses:

GABRIEL ISAACSON, NICKOLAS LYON.