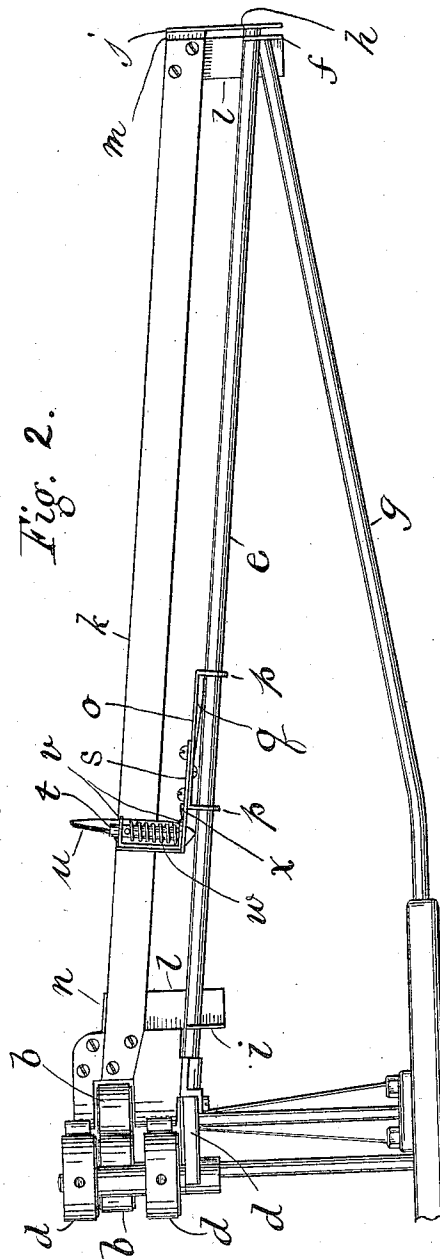
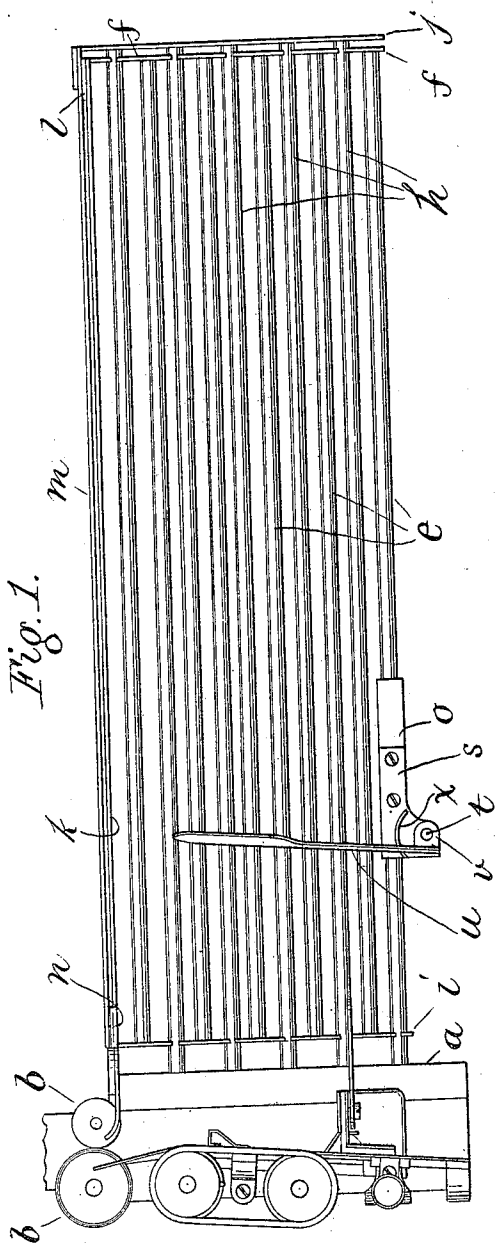


P. J. MADIGAN.
 STACKING MECHANISM FOR POSTMARKING MACHINES.
 APPLICATION FILED MAR. 21, 1908.

Patented Nov. 3, 1908.

2 SHEETS—SHEET 1.

902,668.



Witnesses:
 W. B. Martindale
 C. E. Jordan

Inventor:
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 By David H. Fletcher
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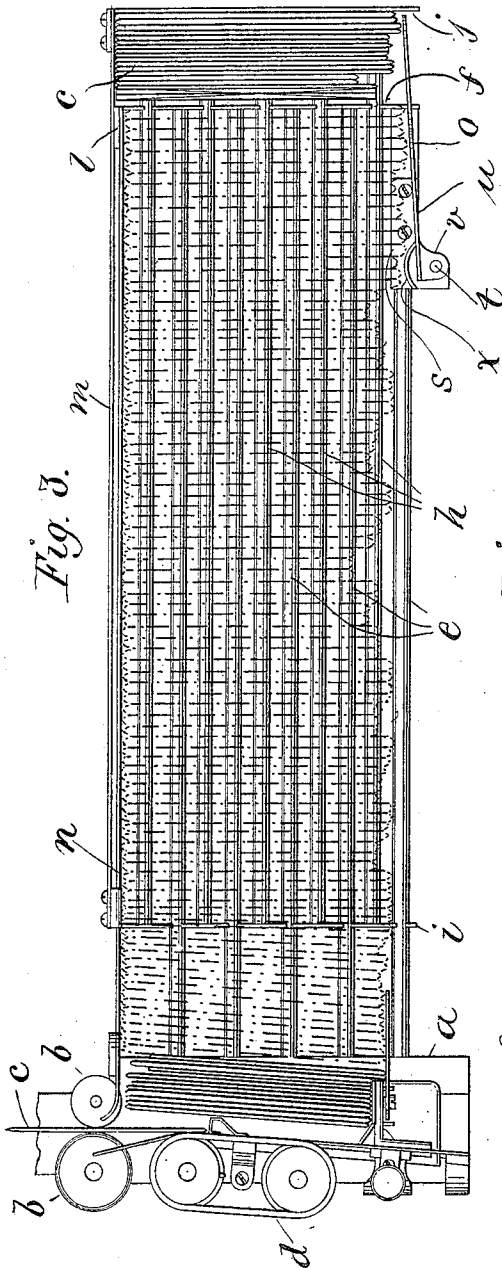


Fig. 3.

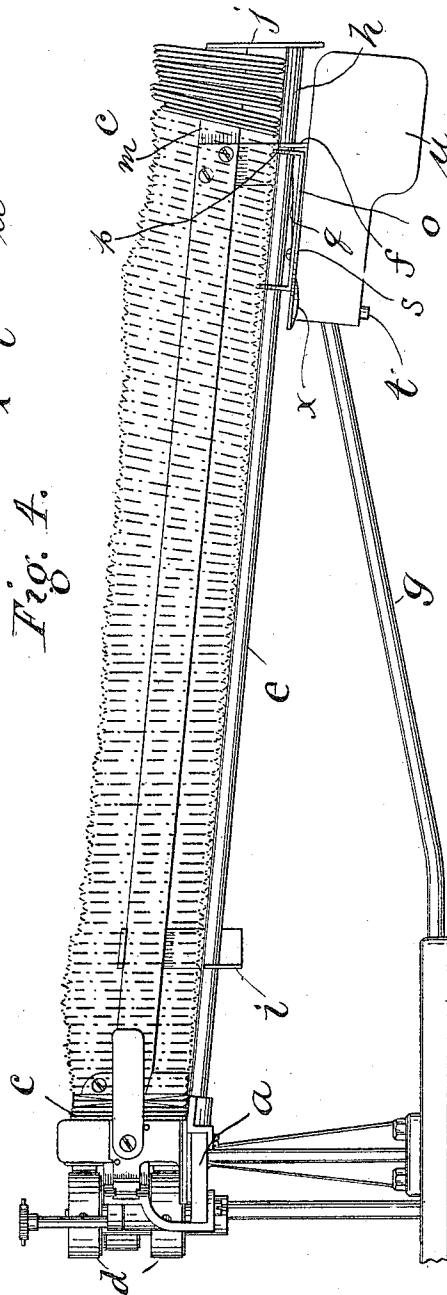


Fig. 4.

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UNITED STATES PATENT OFFICE.

PATRICK J. MADIGAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO TIME MARKING MACHINE COMPANY, A CORPORATION OF THE DISTRICT OF COLUMBIA.

STACKING MECHANISM FOR POSTMARKING-MACHINES.

No. 902,668.

Specification of Letters Patent.

Patented Nov. 3, 1908.

Application filed March 21, 1908. Serial No. 422,461.

To all whom it may concern:

Be it known that I, PATRICK J. MADIGAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stacking Mechanism for Postmarking-Machines, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding letters of reference in the different figures indicate like parts.

The object of my invention is to provide an extensible stacking mechanism for use upon post-marking machines which shall be so constructed that the advance of the mail pieces when they accumulate to a predetermined extent, may serve to actuate it automatically. I accomplish said object by means of an extensible rack formed in a plurality of sections upon the first of which is mounted a yielding abutment adjusted to support the mail pieces until the first section is filled when said abutment may be automatically removed to permit the mail pieces to contact with a second abutment upon the next section so that the latter may, in turn, be extended as a result of the continued accumulation of the mail pieces;—all of which is hereinafter more particularly described and definitely pointed out in the claims.

In the drawings—Figure 1, is a plan view of a stacking mechanism embodying the features of my invention in which the extensible section is shown in its normal or non-extended position, Fig. 2 is a side elevation thereof, Fig. 3 is a plan view illustrative of the operation of the device, the movable section being shown as partly extended by means of mail-pieces supported thereby, and Fig. 4 is a side elevation thereof.

Referring to the drawings, *a* represents the bed or frame of an ordinary post-marking machine, having the usual feed rolls *b b* for advancing the mail-pieces *c*, together with a stacking belt *d*, mounted upon the rollers in any well known form. Rigidly attached to the bed *a* and substantially flush with the upper surface thereof, is a series of parallel slightly inclined rods *e* which are extended laterally from the frame *a* opposite to the stacking belt and serve as a frame for the reception of the mail-pieces as the latter are successively advanced thereon by the stacking belt. Rigidly attached to the outer ends of the rods *e* is a cross-bar *f*. A brace

rod *g* has one end attached to the bar *f* and the other to a portion of the frame as shown, to serve as a support for the outer ends of the rods *e*; the whole forming a bracket which is held rigidly in position.

Rods *h* are located between the rods *e* so that the two alternate. The upper end of each of the rods *h* is rigidly attached to a cross-bar *i*, while to the opposite ends of said rods is rigidly attached a bar *j* which is extended upwardly in a plane substantially at right angles to that of said bars, so as to form an abutment or back support for the mail-pieces as hereinafter described. The cross-bar *i* is bored to receive the rods *e*, which are loosely projected through the bores to enable said bar to slide thereon, while the bar *j*, in turn, is provided with like bores for the reception of the rods *h*. The upper edge of each of the bars *f*, *i*, is flush with or slightly below the upper surface of the bars *e*, *h*, so as to avoid contact with the mail-pieces upon the latter. A fender *k* is supported upon one side of the main frame by means of brackets *l l*, attached to the bars *i f* respectively, while a secondary fender *m*, has one end attached to the abutment *j* and the other to a slide *n* upon the fender *k*. It will be understood from the foregoing that the rods *h*, with their connections, including the fender *m*, form an extensible section adapted to slide outwardly with respect to the stationary section formed by the rods *e* and the fender *k*, and the important and novel feature of my invention is to provide means for supporting the mail-pieces during their travel upon the first section and then to automatically remove said means, so as to permit the back of the advance mail-piece to be brought into contact with the abutment *j* and cause the second section to be extended without interruption of or interference with the action of the other parts.

Mounted upon the outermost rod *e*, opposite the fender *k*, is a plate *o* having lugs *p* bent at right angles thereto and bored for the reception of the rod *e*, so as to permit the plate to slide longitudinally or to rotate upon the rod. A spring *q*, serves to cause a frictional action upon the rod. A plate *s* is rigidly attached to the plate *o*, having a stud *t* projecting upwardly therefrom to form a pivot for a movable abutment *u* consisting of a flat metal plate or arm arranged to extend across the bars *e*, *h*, and

provided with lugs *v* upon one end, which are bored to receive said stud. A spring *w*, Fig. 2, serves to hold the part *u* in a normal position across the rods. A curved projection *x* is formed upon the upper face of the plate *s* upon which the abutment *u* rests. Said abutment is permitted to have a slight vertical movement and when swung upon its pivot to the end of the part *x*, it descends and is caught by said part which prevents it from being returned until it is lifted above the level of said projection.

The operation of said device is as follows: Assuming the rods *h* to be in the normal position shown in Figs. 1 and 2 and the abutment *u* to be pushed to the upper end of said rods, the mail-pieces *c* are pushed by the stacking belt upon the rods and against said abutment. The tension of the spring *w* is sufficient to hold the abutment against the back of the first mail-piece, which it supports in an upright position, with the added pressure of those following, each of which is supported in turn by that which precedes it. The frictional action of the spring *g* is less than the tension of the spring *w* and hence, as the mail-pieces continue to be added, the slide *o* is pushed back until it abuts against the bar *f*. When this occurs, the pressure of the accumulating mail pieces causes the abutment *u* to yield and swing upon the pivot *t* until the foremost mail-piece is caused to bear against the abutment *j*. As the mail-pieces are advanced the abutment *u* assumes the position shown in Fig. 3, at which time it will have reached the end of the projection *x*, and being caught upon the end thereof, will be locked in place thereby against the action of the spring *w*. When in said position its center of gravity will be outside of the axis of the rod *e* and the part *o*, being free to rotate upon said rod, the abutment will fall and hang suspended in the position shown in Fig. 4, where it may be permitted to remain until the second section, formed by the rods *h* is fully extended. When the mail pieces are removed the parts may be returned to their respective normal positions and the operation repeated.

Having thus described my invention, I claim:—

1. The combination with a stacking mechanism, of an extensible, sectional mail-piece support, the first section of which is provided with an abutment arranged to slide a predetermined distance thereon, said abutment being yieldingly held against the back of the foremost mail-piece, an abutment upon the second section arranged to move therewith when said section is extended by the pressure of the moving mail pieces, and

means for permitting said first abutment to be withdrawn from the path of the mail pieces when the latter shall have been moved into position to be supported by the second abutment.

2. In a device of the class described, the combination with means for advancing mail-pieces, of an extensible mail-piece support formed in sections, the first of which is stationary, while the other is longitudinally movable, a yielding mail-piece abutment upon said first section arranged to be advanced by the pressure of the mail-pieces, a mail-piece abutment upon the next succeeding section, means for limiting the normal movement of said first named abutment, and means for causing said abutment to be pushed out of the path of the mail-pieces when arrested by said limiting means.

3. The combination with means for advancing mail-pieces, of a sectional mail piece support, one section of which is stationary while the other is arranged to slide longitudinally thereon, a mail piece abutment having a slidable friction bearing along one edge of said stationary support, said abutment being pivoted upon said sliding bearing at substantially right angles to the axis of said bearing, means for yieldingly holding said abutment in a predetermined position upon said pivoted bearing, and means for limiting the movement of said sliding bearing.

4. In a stacking mechanism, the combination of an extensible sectional mail-piece support and means controlled by the action of the mail-pieces for extending a given section after having filled the preceding one.

5. In a stacking mechanism, the combination of an extensible sectional mail-piece support, of a receding abutment controlled by the action of the mail-pieces to permit said mail pieces to move onto a second section to extend the same.

6. In a stacking mechanism, the combination of an extensible sectional mail-piece support, of a movable abutment upon the first section, an obstruction in its path for limiting its movement, and means controlled by the action of the mail-pieces for causing said abutment to move out of the mail-piece path when arrested by said obstruction to permit the mail pieces to pass onto the second section and extend the same.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses, this 18th day of March 1908.

PATRICK J. MADIGAN.

Witnesses:

D. H. FLETCHER,
CARRIE E. JORDAN.