No. 892,837.

PATENTED JULY 7, 1908.

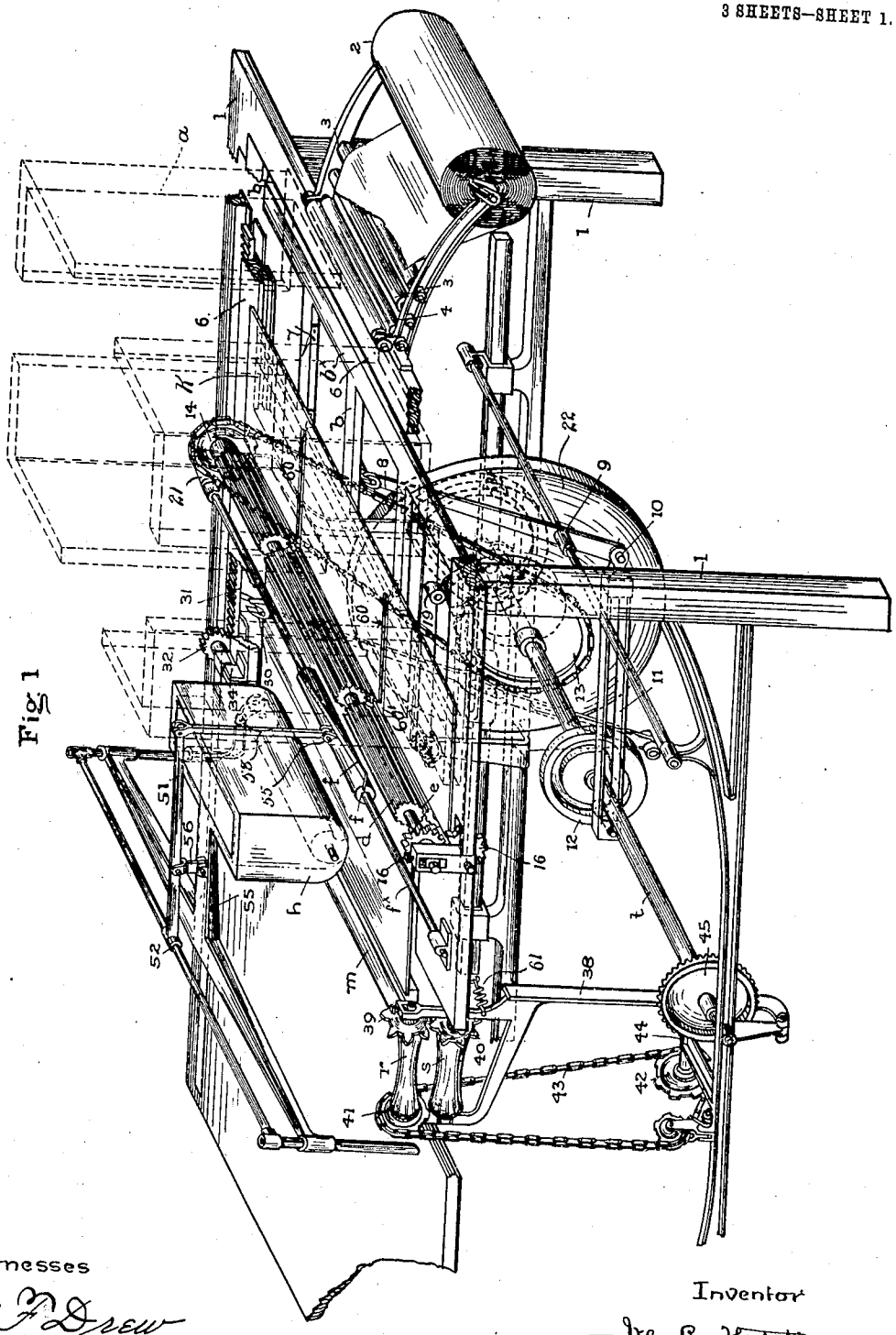
I. R. HUTCHINSON.

NEWSPAPER WRAPPING MACHINE.

APPLICATION FILED OCT. 16, 1906.

3 SHEETS—SHEET 1.

Fig 1



Witnesses

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By E. E. Osborn

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3 SHEETS—SHEET 2.

Fig 2

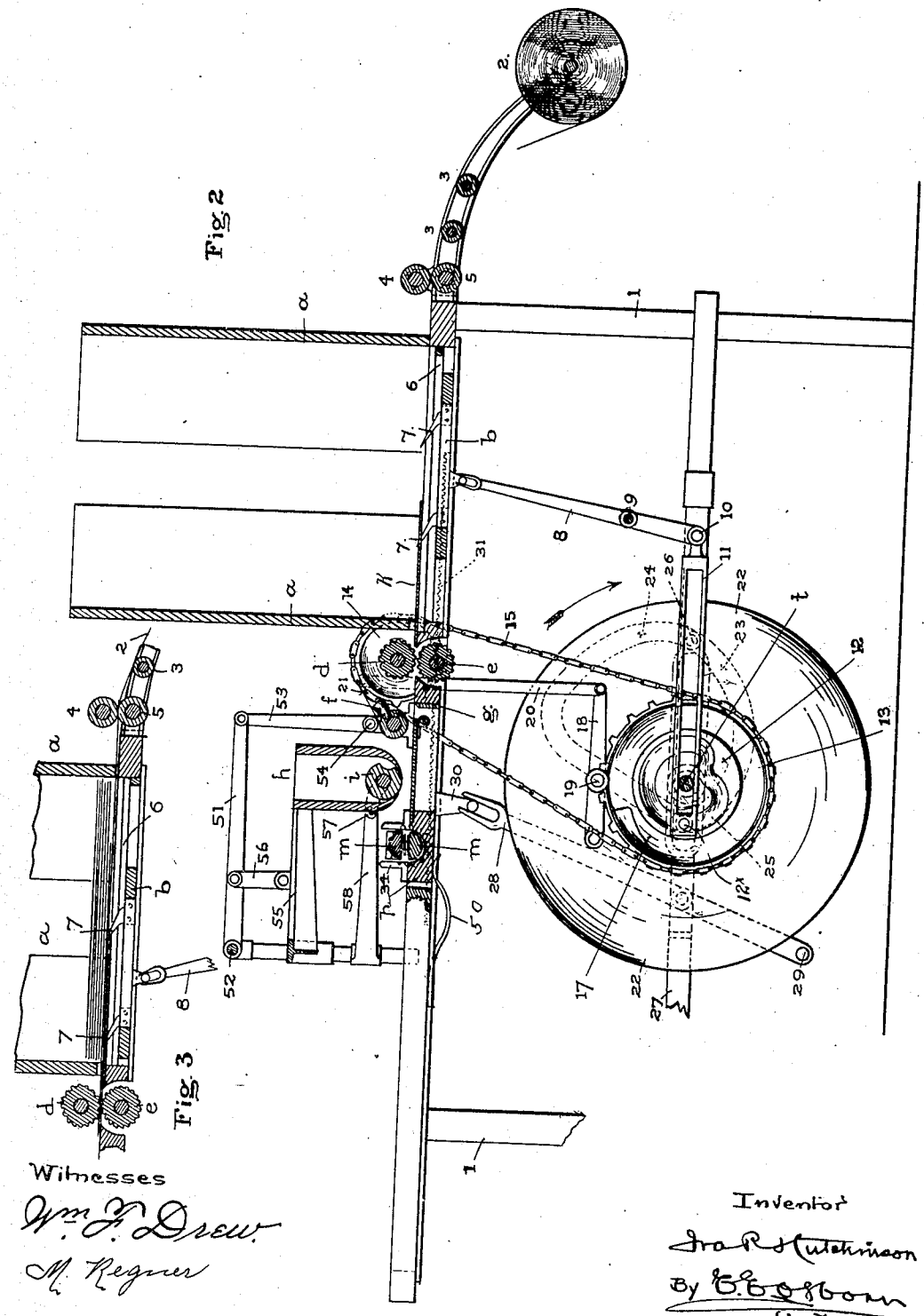


Fig 3

Witnesses

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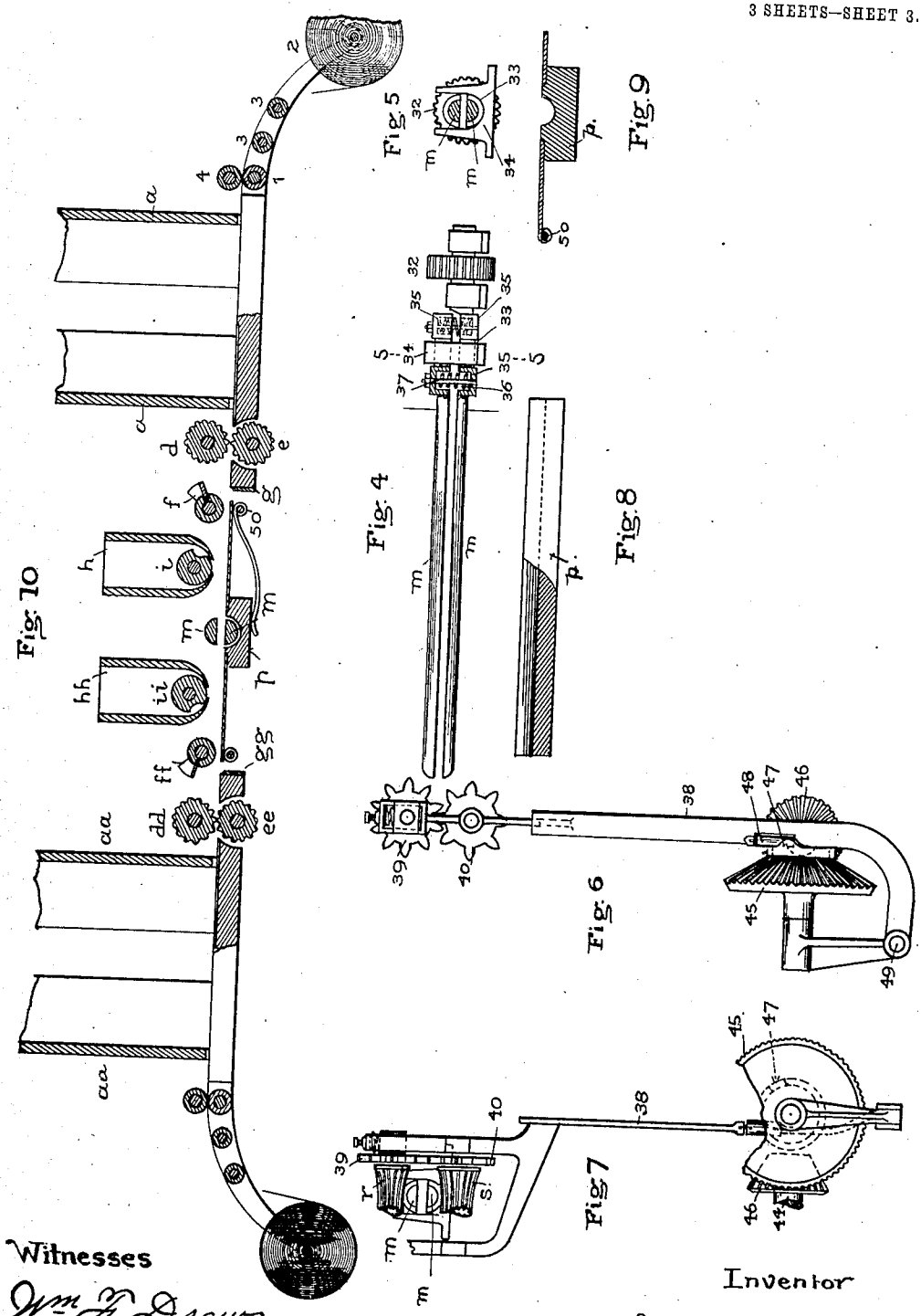
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3 SHEETS—SHEET 3.



Witnesses

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UNITED STATES PATENT OFFICE.

IRA R. HUTCHINSON, OF FRESNO, CALIFORNIA, ASSIGNOR TO HUTCHINSON-MAILER MANUFACTURING COMPANY, OF FRESNO, CALIFORNIA, A CORPORATION.

NEWSPAPER-WRAPPING MACHINE.

No. 892,837. Specification of Letters Patent. Patented July 7, 1908.

Application filed October 16, 1906. Serial No. 339,177.

To all whom it may concern:

Be it known that I, IRA R. HUTCHINSON, a citizen of the United States, residing at Fresno, in the county of Fresno and State of California, have invented new and useful Improvements in Newspaper-Wrapping Machines, of which the following is a specification.

This invention relates to improvements made in devices or mechanism of the kind or description that are designed chiefly for folding a newspaper and fixing a wrapper on it ready for mailing.

The invention comprises novel means or devices for taking newspapers, or articles to be wrapped, one at a time from the bottom of a stack or pile and presenting them at intervals apart to the folding device simultaneously with a strip of paper of required length to form the wrapper. Also, a folding-mechanism of novel construction, operating to fold the newspaper and apply the wrapper by rolling or winding them together around a mandrel, and including a novel means for temporarily attaching the newspaper and wrapper by their edges to that part and rotating it. Also, a novel means or device for removing the wrapped newspaper from the mandrel and discharging it from the machine. Also a novel means for severing the wrapper-strip from a web or continuous strip or roll of paper and applying paste to the edge.

The invention embraces, further, the combination and arrangement of feeding devices and wrapper-cutting and pasting devices, in combination with a rotating wrapping-device, operating to fold the newspaper and simultaneously apply and fix the wrapper, and an extracting device operating to remove the wrapped newspaper from the wrapping-device and flatten or compress it, ready for addressing and mailing.

The nature of the said improvements, and the manner in which I proceed to construct and apply the same in carrying out my invention, are explained at length in the following description, in which the accompanying drawings are referred to.

The drawings represent an improved wrapping machine embodying all the features of my invention, the same being constructed to take newspapers as they come from the printing-press and after they have been folded ready for the carrier, either by a single or a double fold.

Figure 1 is a perspective view of a newspaper wrapping machine embodying my invention, showing the frame broken away at one end, and the newspaper rack at the opposite feeding in end removed. The position of the rack is indicated by dotted lines. Fig. 2 is a longitudinal sectional-view. Fig. 3 is a longitudinal section, on an enlarged scale, through the lower part of the feeding-means rack, the table or stationary bed beneath it, and the feeding-slide. Fig. 4 is a side-view of the wrapping-mandrel and its actuating gear. Fig. 5 is a transverse section at 5—5, Fig. 4. Fig. 6 is a side-view of the extracting-rolls and their operating mechanism. Fig. 7 is a view of the same parts, taken from the left side of Fig. 6. Fig. 8 is a side-view, and Fig. 9 a cross-section in detail of the presser-block that holds the paper against the wrapping-roll. Fig. 10 is a longitudinal sectional-view of two sets of paper and wrapper feeding devices, and cutting and pasting devices arranged to coöperate with one wrapping-mechanism by being placed to operate on opposite sides of this mechanism.

In the machine which I have illustrated in Fig. 1 the rack *a* over the feeding-table, and the parts comprising the paper-feeding and wrapping devices, are of suitable dimensions to admit and operate on a newspaper that has been folded once transversely and again longitudinally through the middle, after the printing operations. But where the papers to be wrapped are of other dimensions the rack *a* and the other parts of the machine are varied in size to properly handle and operate on newspapers folded to other dimensions. The rack *a*, holds and confines the folded papers in a stack or pile above the stationary bed 6. A slide *b*—*b* operated at proper intervals with an intermittent, reciprocating movement draws the bottom paper from the pile and presents it to a pair of feeding-rolls *d*—*e;* a set of wrapper-feeding rolls 4—5, operating in conjunction with the before-mentioned rollers *d*—*e*, draws from a continuous roll a strip of paper of proper length to form the wrapper and advances it with the newspaper to the wrapping-device. This last-named part or device is composed chiefly of a roller divided longitudinally into two halves or sections

m—*m*, between which the newspaper and the wrapper-strip are gripped by their leading edges, or held with a sufficient degree of pressure to prevent them from slipping, while the roll is rotated the required number of times to roll the paper around it and the wrapper-strip around the paper. Combined with these parts a cutting-device arranged between the feed-rollers and the wrapping-roll operates to sever the wrapper-strip from the continuous roll of paper, and a pasting-device applies paste to the marginal edge of the wrapper-strip at the time it is cut off. By these means the wrapper-strips are readily supplied from a continuous roll or web of paper, instead of being fed as separate sheets.

At the end of the wrapping operation the wrapped newspaper is drawn off the end of the wrapping-mandrel by the extracting mechanism. This part of the machine makes the operation entirely automatic by discharging the wrapped newspaper from the machine without the assistance or intervention of an operator.

The stationary support for the papers in the rack consists of a fixed plate *k* on the front portion of the table and the side-bars 6.

The longitudinal rails and transverse bars *b*—*b*$^{\times}$ form a reciprocating frame fitted to slide in grooves in the side-bars 6 of the stationary frame, and provided with resilient prongs 7 that project through slots 60′ in the plate *k* and engage the bottom paper in every forward movement of the frame. The prongs 7 are inclined at an angle to elevate their points in the direction of the feeding movement, by virtue of which position they take hold of the paper in the forward throw, and let go in the return, without tearing the sheet. Fixed guide-strips 60 on the stationary plate *k* keep the wrapper-strip in the center of the newspaper,—the prongs 7 being placed to clear the sides of the wrapper-strip.

The rollers 4—5 carried in bearings in the brackets at the end of the machine support the paper, and additional rollers 3 are arranged in the same supports to maintain tension on the paper drawn from the roll.

The required intermittent movement of the slide *b* is produced by a grooved cam 12 fast on the principal shaft *t*, a rocking lever 8 fulcrumed at a point 9 on the frame, and a slide-bar 11 to which the lever 8 is connected at the lower end 10. The bar 11 is formed with a slot, so as to slide over the shaft *t*, and is also provided with a roller-stud 12$^{\times}$ engaging the groove in the cam 12. The forward throw of the feeding-slide *b* *b*$^{\times}$ is of sufficient extent to introduce the leading edge of the paper between the feeding-rollers *d*—*e*, and the movement of the slide is properly timed to draw and present a paper to the wrapping-mechanism in every rotation of the shaft *t*. To that end the groove in the cam 12 is concentric for the greater portion of its length, and has a short in-curved and return-curved portion, as seen in Fig. 2.

A sprocket-wheel 13 on the shaft, a sprocket 14 on the axle of one of the rollers, and a sprocket-chain 15, give motion to the roller *d*; the remaining roller *e* being connected with the driven-roller by spur-gears 16. From the shaft *t*, also, intermittent revolving motion is given to the wrapping-roll *m*—*m*, first in one direction and then in the reverse direction, followed by an interval of rest during which the feeding movement of the paper to enter between the two members thereof is effected by the feeding-rollers *d*—*e*. The rotary movements of the wrapping-roll are produced by a cam 22 on the shaft *t*, a slide-bar 27, having a roller-stud 26 working in the grooves 23, 24, 25 of the cam, a rocking-lever 28 connected to the slide-bar above the fulcrum-point 29 of the lever, and a toothed-rack 31 engaging a spur-gear 32 on the wrapping-roll. The forked upper end of the lever 28 is connected to the rack 31 by means of a stud 30 on the bottom of the rack. The concentric-portions 24—25 of the cam-groove are so proportioned to the flattened portions 23 of the groove on opposite sides of the axis of rotation, that after the leading edge of the newspaper is entered between the two jaws or members *m*—*m*, the roll is turned on its axis with the required number of revolutions to wrap the newspaper and the paper-strip around it. At the end of such movement the direction of rotation is reversed, and the roll *m*—*m* brought back again in position to take the next paper, after a period of rest in which the wrapped paper is drawn off the end of the wrapping-roll. Intermittent rotary movement is thus given to the roll *m*—*m*, first in one direction to wrap the wrapper-strip around the paper, and afterwards in the reverse direction to bring the roll back to position. This part of the machine and its operation will be understood from Fig. 2, and the detail Figs. 4, 5, 6 and 7. Coiled springs 35 placed between the two members *m*—*m* on opposite sides of the stationary bearing-block 34 separate and hold them apart, and a spur-gear 32 fixed on one of the members *m* engages with the rack 31 as before described, thereby imparting a rotary movement to the roll from the reciprocations of the rack. The two parts *m*—*m* of the roll being separated and held apart by the springs 35, are closed upon the edges of the newspaper and the wrapper-strip at the beginning of the forward rotating movement, at which moment the semi-circular journal-portions 33 of the roll turning in the open socket of the fixed block 34 are pressed together by virtue of the smaller dimensions of the socket in which they rotate as com-

pared with the diameter of the journal-portions during the time they are expanded by the springs 35. By the rotation of the roll, the paper and wrapper-strip are gripped tightly between the members *m*, *m*. After the roll has made one or two revolutions, the paper which has been wrapped thereon operates to hold the two members together until the wrapped paper is removed.

In the present machine the operation of laying the wrapper-strip around the paper calls for three revolutions of the wrapping-roll, as the size of the newspapers that the machine is adapted to work on will require that number of folds or layers on the roll in order to properly place and fix the wrapper. But for working on a paper of different dimensions requiring a greater or a less number of revolutions of the wrapping-roll, the pinion and other parts of the actuating mechanism are altered accordingly.

p indicates a presser-block which is provided with a concave recess or groove of semi-circular shape adapted to receive the mandrel.

50 indicates a spring or springs each having one end fixed to the frame and its opposite end bearing against the presser-block to force the latter against the mandrel.

After the paper has been fed to and gripped between the members *m*, *m* of the mandrel, and while the latter are revolving to wrap the paper, the presser-block *p* holds the paper yieldingly against the mandrel operating to smooth it out and to cause it to be wrapped with the proper tension.

In this wrapping-mechanism the length of the wrapping-roll to be used is determined by the dimensions of the paper to be run through the machine, and provision is made for presenting the end of the wrapped paper to the extracting rollers by having the paper at the end of the wrapping operation extend beyond the end of the roll the length of which is somewhat less than the surrounding wrapped paper for that purpose.

The extracting-rollers *r*—*s* are mounted on an intermittently oscillating frame 38 having limited movement in a vertical arc at one side of the frame from a point of oscillation 49 beneath; the rollers being driven from a counter-shaft 44 by means of sprocket-wheels 41—42 and a chain-belt 43. The journals of the rollers are carried in boxes in the frame 38, and the boxes of the upper roller have a limited amount of play that allows that roller *r* to yield and separate from the roller under it, in order to readily admit the end of the wrapped paper and under the pressure of the yielding roller to compress or flatten the paper as it is drawn in and passed between the rollers.

Springs are placed above the sliding boxes of the yielding roller for that purpose, and the rollers have concave peripheries. The spur-gears 39—40 that connect one roller with the other should have elongated teeth to permit such play or movement of the yielding roller.

The required intermittent movement of the oscillating frame 38 is produced from the main-shaft *t* through the medium of beveled gear 45 carrying on its front face a toe or projection 47 set eccentric to the axis of rotation and a roller 48 loosely set in upright position on the edge of the upright arm 38 of the roller-carrying frame. The contact of the projections 47 with the roller 48 in every revolution of the beveled gear throws the frame 38 forward, or in the proper direction to set the extracting rollers *r*—*s* towards the end of the wrapping-roll and with sufficient degree of pressure against the projecting end of the wrapped paper to cause it to enter and be gripped by the continuously revolving rollers. The return or outward throw of the frame 38, together with the rotary motion of the rollers, thereupon draws the wrapped paper off the roll and sets the extracting rollers out of the way of the next paper presented to the wrapping mechanism. The tension of a spring 61 attached to the frame 38 holds the roller 48 against the projection 47. The beveled gear 45 also transmits the motion of the main-shaft *t* to the counter shaft 44 by a beveled pinion 46. By this means the extracting-device is operated in time with the feeding and wrapping mechanisms from the continuously driven shaft *t*.

Combined with the above described devices for feeding a folded newspaper and a wrapper-strip to the wrapping mechanism, a cutting device and an apparatus for applying paste to the edge of the wrapper-strip are situated between the feeding-rollers *d*—*e* and the wrapping-roll *m*—*m* and are actuated at proper intervals with respect to the other devices to separate from the continuous web of paper a strip of suitable length for the wrapper and apply paste on one edge of the strip for the flap.

The cutting-device as arranged in the present machine consists of a fixed cutting blade *g* set in a slot, with its edge standing slightly above the surface of the table in front of the feeding-rollers, and a movable-blade *f* on a rock-shaft over the fixed blade, the blade *f* being set on the shaft at an angle thereto, so as to produce a shear cut in the contact of the movable with the fixed cutting blade under a partially rotary movement of the shaft. Such movement takes place after each feeding operation, and the same is produced from the main-shaft *t* through the following means:—An arm 21 fast on one end of the rock-shaft $f^{\times}$ is connected with one end of a lever 18 by a pitman 20, and a roller 19 on the lever engages a cam 13 on the shaft *t*. The end of the lever opposite to that which is connected to the rock-shaft,

is fulcrumed at 19′ to some fixed part of the frame and the roller 19 bears on the cam 13, which is properly shaped to produce rotation of the shaft first in one direction to bring one blade against the other, and afterwards in the opposite direction to return the movable blade for the next cutting operation. These parts are so placed and timed with respect to the paper and wrapper-feeding means that the strip to form the wrapper will be severed from the continuous web on a line sufficiently back of the overlying newspaper to leave margin for the flap on which the paste is applied. This step or operation is performed by the pasting apparatus seen in Figs. 1 and 2, in which the paste-trough *h* is movable perpendicularly down towards the flap lying under it, with a limited movement, and a rotary gate *i* in the bottom controlling an outlet in the trough is turned and the quantity of paste sufficient for fastening the flap is applied to the wrapper strip. The necessary movements of the trough and its gate are produced from the cutter operating mechanism by the following means:—A sliding frame 55 movable vertically on fixed guides supports the paste-trough *h* over the wrapper-strip and is moved alternately down and up at intervals by a rocking-lever 51, one arm 54 on the rock-shaft and a rigid connecting rod 53, the lever 51 being connected to the sliding frame 55 by a link 56 and fulcrumed at 52 on a stationary-rod carried by the upright supports. These connections are so adjusted that the paste-trough is caused to descend and its bottom outlet is brought in contact with the flap of the wrapper-strip at the moment that the movable cutting blade has completed its cutting stroke. By the same movement also, the gate *i* is turned on its journals in the bottom of the trough through the action of the arm 57 on one journal of the gate *i* and the fixed arm 58, to which the arm 57 is pivotally attached. The longer arm 58 is rigidly fixed to one of the upright supports of the paste-trough, and the arm 57 is so proportioned that the perpendicular movement of the trough will turn the gate on its axis first in one direction to bring the cut away portion or recess outward, and afterwards return it within the trough and thereby close the outlet. The quantity of paste discharged at the moment of contact with the wrapper-strip is sufficient in quantity to secure the flap and is regulated by changing the size of the feeding recess in the gate. This constitutes a simple means for applying mechanically an adhesive to the flap during the operation of applying the wrapper-strip. If it is found desirable to feed separate wrapping strips to the machine, for instance, by hand, the cutting devices will be unnecessary.

The capacity of this machine can be increased by arranging a duplicate set of feeding devices and cutting and pasting devices on the opposite side of the wrapping-roll *m—m*, as illustrated in Fig. 10; all these devices for presenting papers and wrapper-strips from a second rack *a a* being readily operated from the same shaft *t* by duplicating the actuating mechanism. In such application of the present improvements the wrapping-roll will receive and operate on a paper and its wrapper-strip both in the forward rotation and the return rotation of the roll, instead of in the forward rotation only.

The duplicate feed-rollers are seen at *d d—e e* and the cutting and pasting devices at *f f—g g* and *h h—i i*, respectively in Fig. 10.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:—

1. In a newspaper wrapping machine, the combination of a wrapping roll comprising two clamping members each provided with a semi-circular bearing, means for holding the said members apart, and a bearing box open on one side so that the two members may separate when in inactive position, but when rotated are caused to move toward each other and clamp the newspaper between them, substantially as set forth.

2. In a paper wrapping machine, a wrapping mandrel consisting of two members, each provided with a journal portion, a bearing box on which the said journal portions are mounted, and springs tending to hold the members of the mandrel apart, the seat in the bearing box being shaped to cause the members of the mandrel to be closed together when it is rotated, but allowing them to separate when at rest in a determined position.

3. In a paper wrapping machine, a wrapping mandrel consisting of two members, each provided with a journal portion, a bearing box in which the said journal portions are mounted, and springs on either side of the bearing box tending to hold the members of the mandrel apart, the seat in the bearing box being shaped to cause the members of the mandrel to be closed together when it is rotated, but allowing them to separate when at rest in a determined position.

4. In a paper wrapping machine, the combination of a wrapping mandrel consisting of two members, each provided with a journal portion, a rotating gear connected with one of said members only, a bearing box in which the said journal portions are mounted arranged to cause the two members to move toward each other when rotated, connections between and uniting the two members for causing them to move toward or from each other in parallelism, and springs on either side of the bearing box tending to hold the members apart, substantially as set forth.

5. In a paper wrapping machine, a man-

drel having two members one supported to rotate about an axis fixed relative thereto and the other movable toward or from the first said member, springs for holding the members apart, means connecting the members and directing their movements toward or from each other, and a journal box in which the two members rotate for forcing the movable member toward the other when the mandrel is rotated.

6. In a paper wrapping machine, the combination of a mandrel consisting of two members, means for feeding the paper to be wrapped between the said members, means for clamping the members on the paper, a pair of rotating rollers for removing the wrapped paper from the mandrel, and means for moving the pair of rollers toward or from the said mandrel.

7. In a paper wrapping machine, the combination of a mandrel consisting of two members, means for feeding the paper to be wrapped between the said members, means for clamping the members on the paper, and a pair of rotating rollers movable toward or from the mandrel on lines substantially parallel with the axis thereof for removing the wrapped paper.

8. In a newspaper wrapping machine, a rotatable wrapping roll having separable clamping-members normally held apart to admit the paper and wrapper-strip, a stationary bearing block adapted to clamp the two members on the paper, and a reciprocating rack for intermittently rotating the wrapper-roll.

9. In a newspaper wrapping machine, a rotatable wrapping-roll having separable clamping-members normally separated to admit the paper and its wrapper, a reciprocating rack for intermittently rotating the wrapper-roll first in one direction and afterwards in the opposite direction with an interval of rest, a feeding-device for presenting the leading edge of the paper and its wrapper to the clamping members of the wrapping-roll in the intervals of rest of that part, a wrapper-cutting device and a pasting-device located between the wrapping-roll and the feeding-device and a bearing box operating to close the said clamping-members on the newspaper and its wrapper at the beginning of the rotating movement of the wrapping-roll.

10. In a newspaper wrapping machine, a rotatable wrapping-roll having separable clamping-members normally separated to admit the edge of the newspaper and the wrapper-strip, a feeding-device for presenting the newspaper and a wrapper-strip simultaneously to the wrapping-roll, a wrapper-cutting-device operating to detach from the wrapper-strip a portion to form a wrapper, a pasting-device, means for intermittently rotating the wrapping-roll and closing the clamping-members at the beginning of its rotation, and an extracting-device comprising continuously revolving rollers and a carrying-frame therefor operating to move said rollers alternately against and away from the end of the wrapped newspaper at the end of the wrapping operation.

11. In a newspaper wrapping machine, an intermittently rotating wrapping-roll having separable clamping-members between which the edge of a folded newspaper and a wrapper are insertible as a means of temporarily attaching them to said roll, springs operating to normally separate said clamping-members, and means for closing said members at the beginning of the rotary movement of the roll, comprising the journal-portions on the roll and a bearing-block having a socket for the journal-portions.

12. In a newspaper wrapping machine, an intermittently rotating wrapping-roll having separable clamping-members adapted to close upon the edges of a folded paper and a wrapper, means for rotating the roll and means operating to temporarily close the clamping-members on the paper and wrapper at the beginning of the rotary wrapping movement, in combination with a pair of rollers, an intermittently oscillating frame carrying said rollers, and a presser-block having a cavity to admit the wrapping-roll and the newspaper.

13. An intermittently rotatable wrapping-roll having separable clamping-members adapted to temporarily attach a newspaper and a wrapper to the roll, in combination with feeding-rolls for presenting the newspaper and a paper-strip for the wrapper simultaneously to the wrapping-roll, and an extracting-device comprising an oscillating frame movable toward or from the wrapping roll and carrying gripping rollers operating to seize and draw the wrapped newspaper from the end of the wrapping-roll.

14. In a newspaper wrapping machine, a paper-holding rack, a stationary support beneath the stack of newspapers confined in the stack, an intermittently reciprocating feeding-slide operating to seize the bottom newspaper and withdraw it from the stack in the forward reciprocation of the slide, means for drawing a wrapper-strip from a continuous roll behind the feeding-slide and feeding-rolls, in combination with an intermittently rotating wrapping-roll having clamping members for temporarily attaching the edges of the newspaper and wrapper-strip to the roll, and means for seizing and acting on the wrapped newspaper to remove it.

15. The combination of the feeding-rolls, means for presenting thereto the edges of a folded newspaper from a pile, and a wrapper-strip in a flat state with the newspaper lying on the wrapper-strip, a rotating wrapping-roll having motion first in one direction and then

in the reverse direction alternating with periods of rest, said wrapping-roll having means for temporarily seizing and attaching to itself the edges of the newspaper and its wrapper-strip, a cutting-device and a pasting-device situated between the feeding-rolls and the wrapping-roll, and an extracting-device operating to seize the wrapped newspaper in the interval of rest at the end of the wrapping operation and draw it endwise from the roll.

16. In a newspaper wrapping-machine an intermittently rotating wrapping-roll having means for temporarily attaching to itself the leading edges of a newspaper and a wrapper, means for presenting the newspaper and wrapper to the wrapping-roll, and an extracting and flattening device comprising an oscillating-frame having movement towards and away from one end of the wrapping-roll in a plane with the axis of rotation of the wrapping-roll continuously rotating rollers carried thereby and means for intermittently operating said frame.

17. In a newspaper wrapping machine, the combination with an intermittently rotating wrapping-roll, of an extracting-device operating to draw the wrapped newspaper endwise from the wrapping-roll, comprising an oscillating frame movable in a plane at right angles to the plane of rotation of the wrapping-roll, a pair of revoluble rollers on said frame, one of said rollers having limited yielding movement in the frame and means for rotating said rollers and periodically oscillating their frame.

18. In a newspaper-wrapping machine, an intermittently rotating wrapping-roll provided with means for temporarily attaching to itself a folded newspaper and a wrapper by their leading edges while presented flatwise thereto, means combined therewith for rotating said wrapping-roll alternately in opposite directions with periods of rest, two sets of feeding-rolls located on opposite sides of the wrapping-roll and adapted to present a newspaper and a wrapper to the wrapping-roll in every period of rest preceding a rotary movement thereof, and a single extracting device operating to seize the wrapped newspaper and withdraw the same endwise from the wrapping-roll in the following period of rest.

19. In a newspaper wrapping machine, the combination with a rotating wrapping-roll having means for temporarily attaching to itself a newspaper and a wrapper by their leading edges, of means for rotating the wrapping-roll alternately in opposite directions with a period of rest between the rotations, two sets of feeding-devices for presenting the newspapers and wrappers alternately from opposite sides to the wrapping-roll, a means for applying paste to the wrapper, and an intermittently acting extracting-device adapted to seize the wrapped newspaper at the end of the wrapping-roll and withdraw it therefrom, said extracting-device including a set of yielding presser-rollers that are adapted to draw the newspaper endwise from the wrapping roll and discharge it in a flattened condition.

20. In a machine for wrapping papers, the combination of a rotatable wrapping mandrel, extracting rolls having concave faces, one of said rolls being mounted in yielding bearings, a reciprocating carrier in which said rolls are mounted for rotation, and means for rotating the rolls, substantially as set forth.

21. In a machine for wrapping papers, a wrapping mandrel of less dimensions in the length of its paper-holding portion than the paper to be wrapped, in combination with a presser plate having a recess to receive the mandrel and a reciprocating extracting device, comprising two rolls mounted upon axes stationary relative to each other, for seizing the end of the paper to draw it off the mandrel, and means for reciprocating the said extracting device toward and from the mandrel.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

IRA R. HUTCHINSON.

Witnesses:

EDWARD E. OSBORN,

M. REGNER.