R. J. SEATOR.

PAPER FEED AND CUT-OFF MEANS.

APPLICATION FILED NOV. 15, 1913.

1,153,346.

Patented Sept. 14, 1915.

4 SHEETS—SHEET 1.

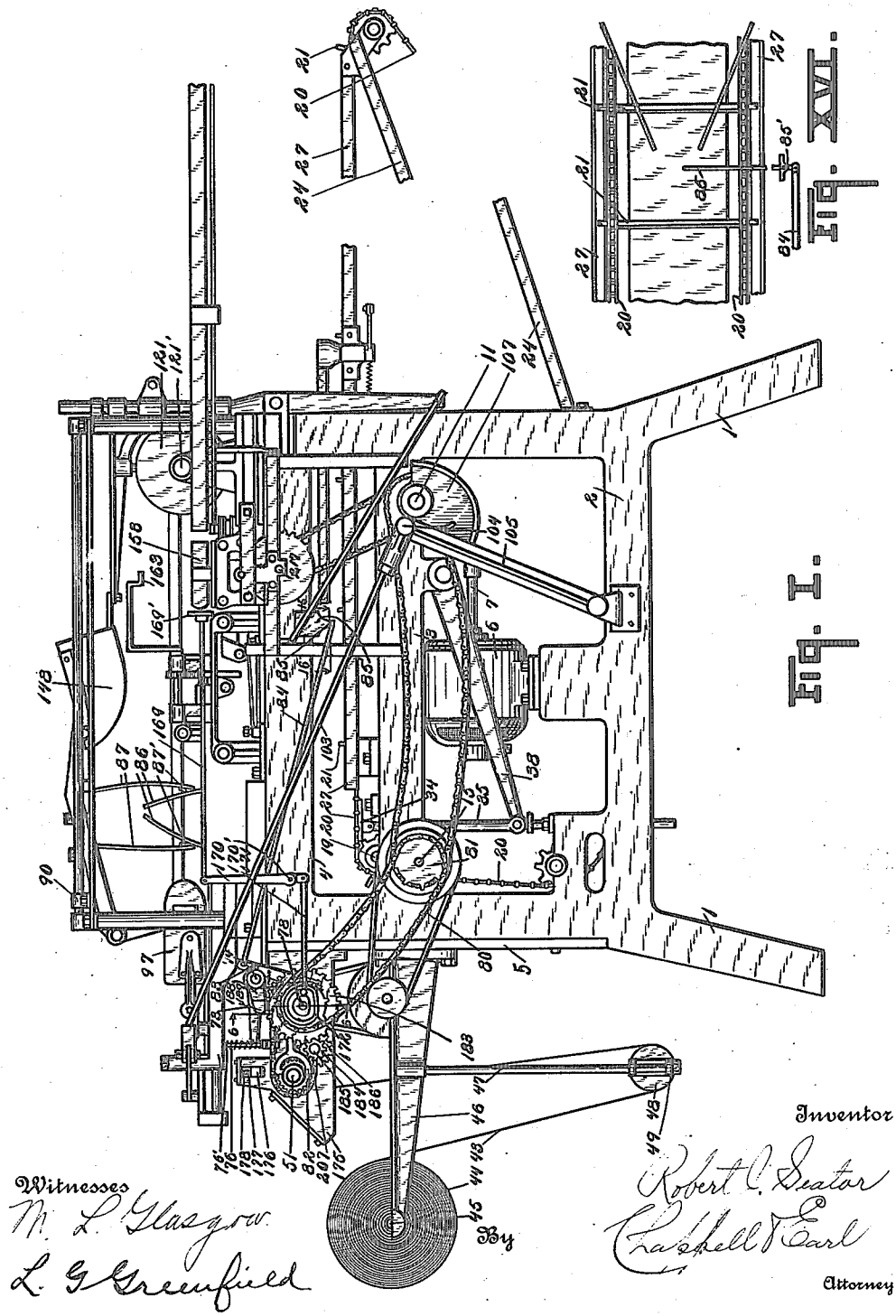


Fig. I.

Fig. XVI.

Witnesses

M. L. Glasgow.

L. G. Greenfield

Inventor

Robert J. Seator

By Cashell & Earl

Attorneys

R. J. SEATOR.

PAPER FEED AND CUT-OFF MEANS.

APPLICATION FILED NOV. 15, 1913.

1,153,346.

Patented Sept. 14, 1915.

4 SHEETS—SHEET 2.

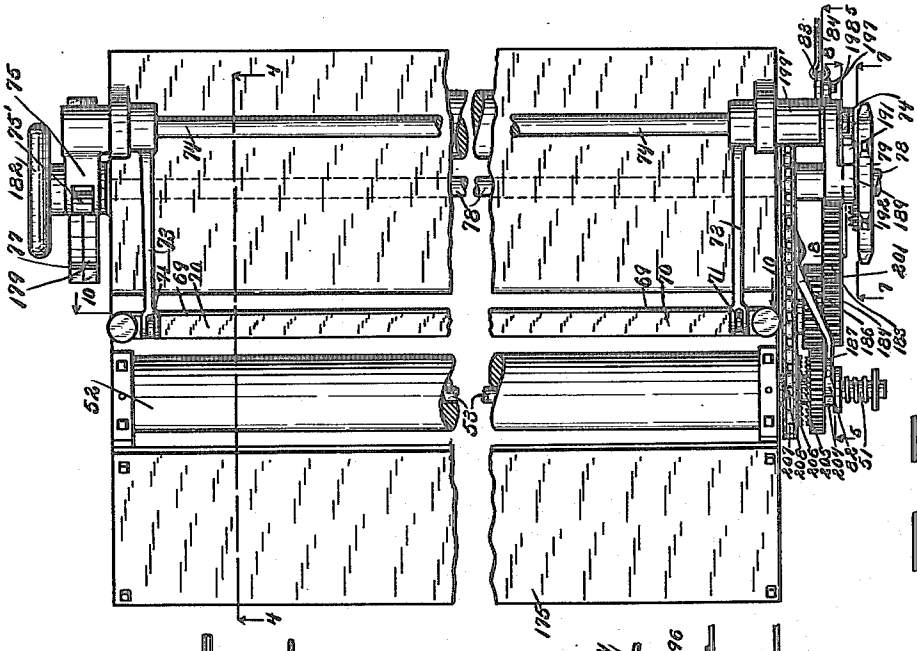


Fig. II.

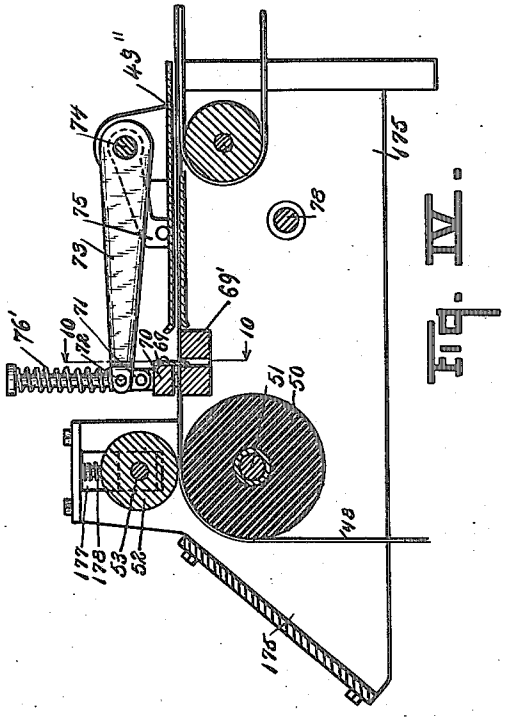


Fig. IV.

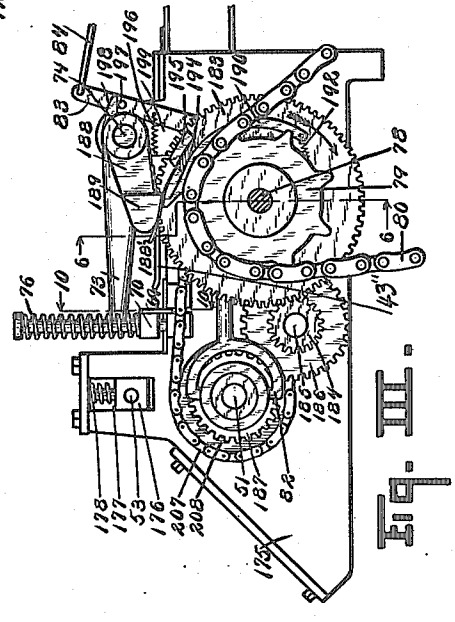


Fig. III.

Witnesses

M. L. Glasgow.

L. G. Greenfield

Inventor

Robert J. Seator

By Chapfell & Earl

Attorneys

R. J. SEATOR.

PAPER FEED AND CUT-OFF MEANS.

APPLICATION FILED NOV. 15, 1913.

1,153,346.

Patented Sept. 14, 1915.

4 SHEETS—SHEET 3.

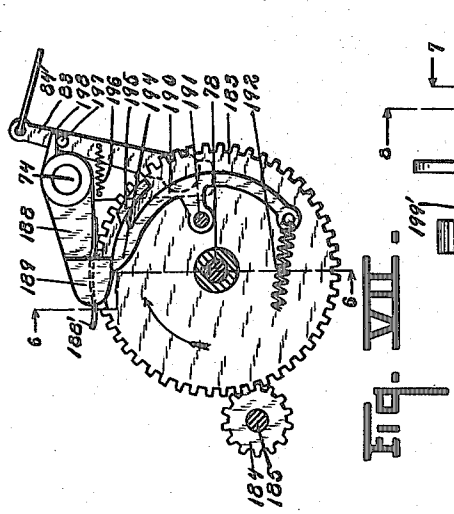


Fig. VII.

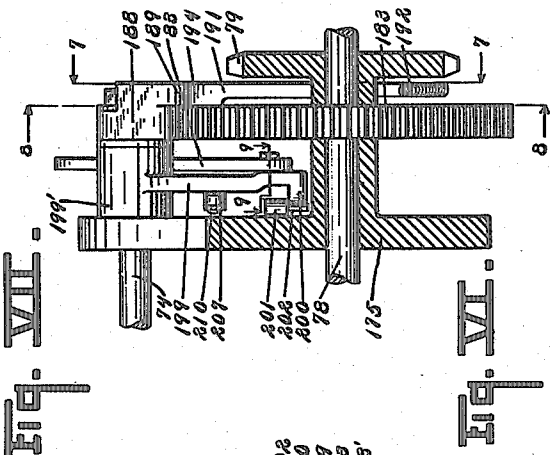


Fig. VI.

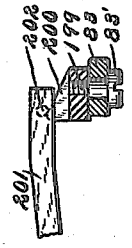


Fig. IX.

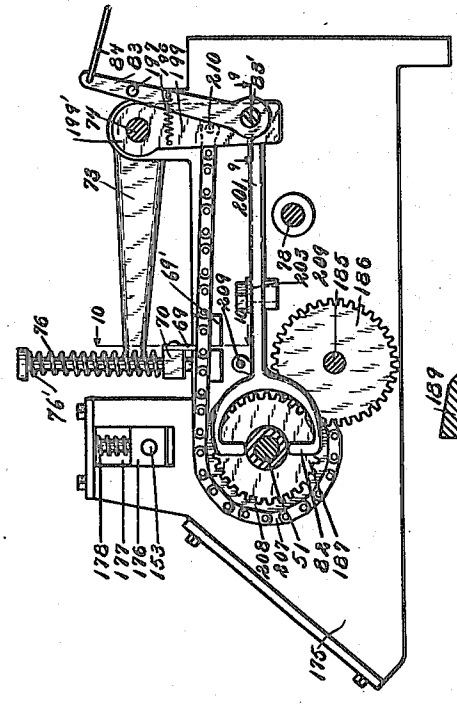


Fig. V.

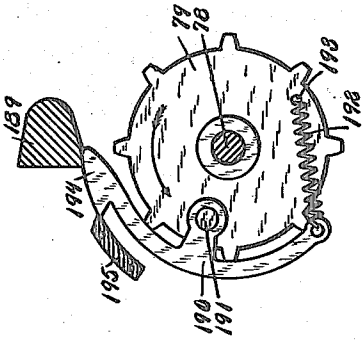


Fig. VIII.

Witnesses:

M. L. Glasgow

L. G. Greenfield

Inventor

Robert J. Seator

By Chappell & Earl

Attorneys

R. J. SEATOR.

PAPER FEED AND CUT-OFF MEANS.

APPLICATION FILED NOV. 15, 1913.

1,153,346.

Patented Sept. 14, 1915.

4 SHEETS—SHEET 4.

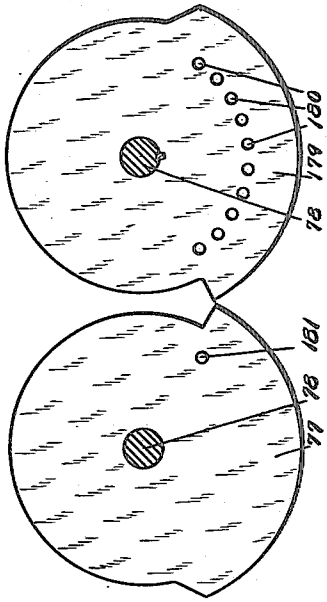


Fig. XIV.

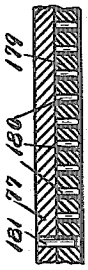


Fig. XV.

Fig. XIII.

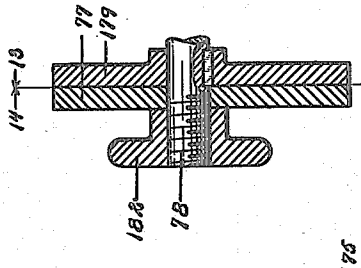


Fig. XII.

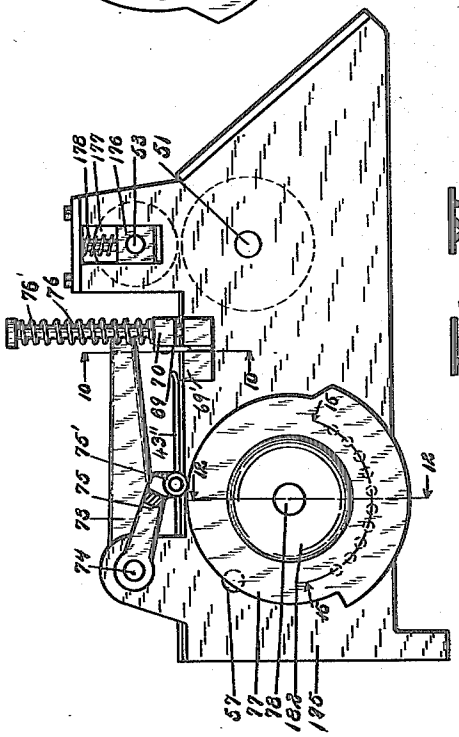


Fig. XI.

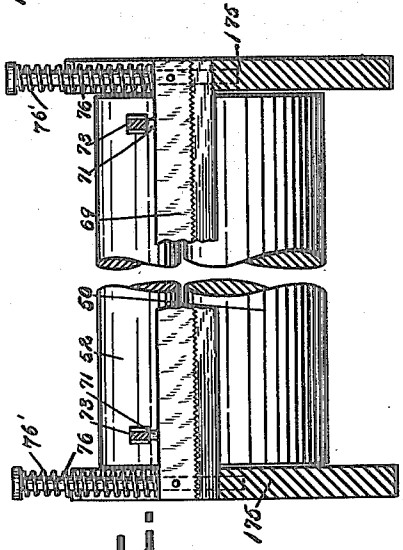


Fig. X.

Witnesses

M. L. Glasgow.

L. G. Greenfield.

Inventor

Robert J. Seator

By Clapsell & Earl

Attorneys

UNITED STATES PATENT OFFICE.

ROBERT J. SEATOR, OF BATTLE CREEK, MICHIGAN, ASSIGNOR TO SEATOR MACHINE MFG. COMPANY, OF BATTLE CREEK, MICHIGAN, A CORPORATION OF MICHIGAN.

PAPER FEED AND CUT-OFF MEANS.

1,153,346. Specification of Letters Patent. Patented Sept. 14, 1915.

Application filed November 15, 1913. Serial No. 801,268.

To all whom it may concern:

Be it known that I, ROBERT J. SEATOR, a citizen of the United States residing at 303 Lake avenue, Battle Creek, Michigan, have invented certain new and useful Improvements in Paper Feed and Cut-Off Means, of which the following is a specification.

This invention relates to improvements in paper feed and cut-off means.

The invention is more particularly adapted for use in automatic wrapping machines, such as bread wrapping machines, although it is available for use in many other relations.

The objects of my invention are: First, to provide a simple, effective, adjustable machine for feeding and cutting off regular lengths of paper from a roll. Second, to provide improved clutch means and mechanisms for starting and stopping the machine. Third, to provide an improved knife blade and means for actuating the same for such a machine. Fourth, to provide improved tension means.

Further objects, and objects relating to details and economies of construction and operation will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A machine which is the preferred embodiment of my invention is fully illustrated in the accompanying drawing forming a part of this specification, in which:

Figure I is a detail side elevation view of a bread wrapping machine with one of my improved paper feed and cut-off machines in position, showing the relations of the same to such an automatic bread wrapping machine. Fig. II is an enlarged detail plan view of the paper feed roll and cut-off knife and associated mechanism. Fig. III is an end elevation view from the lower end of Fig. II, showing details of the mechanism. Fig. IV is a detail sectional view on line 4—4 of Fig. II showing the relation of the feed rolls, cut-off knife, and other parts. Fig. V is an enlarged detail sectional elevation view taken on the irregular line 5—5 of Fig. II showing the relation of the trip lever and clutch controls. Fig. VI is an enlarged detail sectional view of the trip mechanism and clutch shift and actuating gears taken on a line corresponding to irregular section line 6—6 of Figs. I, III and VII, showing the relations of trip cams and gears. Fig. VII is an enlarged detail sectional view taken on a line corresponding to line 7—7 of Figs. II and VI, showing trips and gears. Fig. VIII is an enlarged detail sectional view taken on the line corresponding to the line 8—8 of Figs. II and VI, showing the dog and trip. Fig. IX is an enlarged detail sectional view on line corresponding to the line 9—9 of Figs. V and VI, showing the beveled lever and clutch shift means. Fig. X is an enlarged detail broken sectional view taken on a line corresponding to line 10—10 of Figs. II, III, IV, V and XI. Fig. XI is an enlarged detail and elevation view from the upper end of Fig. II. Fig. XII is an enlarged detail sectional view on line 12—12 of Fig. XI, showing the adjustable knife controlling cam. Fig. XIII is a detail sectional view on line 13—13 of Fig. XII. Fig. XIV is a detail sectional view on line 14—14 of Fig. XII. Fig. XV is an enlarged detail sectional view on the curved section line 15—15 of Fig. XI, showing the adjusting pin and series of holes. Fig. XVI is a detail plan view of the loaf feeding carrier and the trip lever which acts to trip the release and throw the paper feed and cut-off into gear.

In the drawing all of the sectional views are taken looking in the direction of the little arrows at the ends of the section lines and similar numerals of reference refer to similar parts throughout the several views.

Considering the numerals of reference, I will state that the frame work of this machine and other parts are fully detailed and described in the concurrent application for patent relating to bread wrapping and folding machine Serial No. 781,303, filed July 26, 1913. A brief reference, however, to the parts seems necessary in order that the paper cut-off and feed may be understood in this relation, and in this behalf, and so that the principles of creation involved may be clearly understood.

The main frame of the machine is supported on legs 1—1 and the frame consists of horizontal frame parts, namely, a bottom frame part 2, a top frame part 4, and an

intermediate frame part 3, which supports the remaining parts. At the rear of the machine is a vertical cross plate 5, and to these parts the various other parts of the machine are attached.

The machine is driven by an electric motor 6, by a suitable gear on the shaft 7, which is here illustrated as a worm gear.

The bread feeding carrier consisting of a pair of endless chains 20, 20 and cross slats 21 supported and traveling over the forwardly projecting frame 27 braced by bars 24, see Fig. I.

The loaf shifter 90 at the top of the machine has downwardly projecting folder arms 87, 87 with folders 86 pivoted thereto at 87′. These receive the loaf when it is elevated by the elevator 34, actuated by the arm 38 connected thereto by the links 35.

The carrier is driven from the shaft 15 by intermittent connection to the shaft 19. Primary end folders 97 are on a suitable carriage at the rear of the machine actuated by the cam 107 on the shaft 11, through the connecting rod 103 which is connected to a swinging arm 105, carrying a roller 104, which coöperates with the said cam 107. Secondary folders are disposed on the folder table and are coöperated with by the downwardly moving end flap folders 148. The loaf is shifted to the knotter table 153, the loaf shifter being actuated from the roller cam 121 which is carried on shaft 121′ and is actuated by suitable connections to the driving means of the machine. The loaf is shifted laterally and the cord or twine is applied by the needle 163 which is actuated by suitable connections and coöperates with a suitable knotter. The loaf is discharged from the table by the kicker 169′ actuated by the connecting rod 169 to the lever 170, which is pivoted to 170′ and is operated by rod 171 extending to a cam 172 on shaft 78.

These parts referred to by numerals are all present in the former application and I have here identified them generally, and the full detail description will be found where the same are detailed and the matter claimed. This description is sufficient to show the relation and the purpose of these parts so far as a full understanding of the present construction is concerned.

A trip lever 85 is pivoted on the frame at 85′, see Figs. I and XVI, and connected by rod 84 to the trip lever 83. The rod 84 and lever 83 in this relation appear distinctly in Figs. II, III, V, VI, and VII. The trip 85 is disposed to be acted on by each loaf fed into the machine.

With this preliminary description and relation of these parts, I will now proceed to describe in detail the paper feed and cut-off mechanism constituting the parts of this present invention.

The paper roll 44 is supported on shaft 45 at the rear end of the machine on bracket 46, see Fig. I. Depending rods 47 extend down from the bracket and serve as guides for suitable bearing blocks 49, for the tension roll 48. The said tension roll plays readily up and down on the guide rods 47, and preserves an even tension upon the paper web 43. Paper web 43 is looped downwardly around the tension roll 48 and then upwardly to a pair of feed rolls 50—52. Feed roll 50 is supported on the shaft 51 and the feed roll 52 is supported on the shaft 53, which is in the vertically movable bearing blocks 176 which are adjustable, and play freely up and down in ways 177 at each end thereof. Springs 178 put tension upon the bearing blocks so that the grasp of the rolls is sufficient to feed and deliver the paper to the cut-off means. The shaft 51 and feed roll 50 are actuated intermittently and constitute the driven roll of this feed mechanism.

The clutch fork 82 is carried by the lever 201, which is pivoted at 203, see Fig. V. Said lever 201 has an actuating pin 202 at its forward end. The clutch fork 82 engages in an annular groove 204 on the hub of gear 187. Clutch teeth 205 are on the opposite face of gear 187, and correspond with and engage teeth 206 on the face of the disk or pulley 208, on which is the chain brake 207. The chain brake 207 is connected to arm 199 by pivot 210, and the opposite end is secured by pin 209 to the frame 175. The frame 175 supporting and carrying these parts of the paper feed is secured to the rear end of the machine about the end plate 5.

The gear 187 is driven by the gear 186 on shaft 185. The shaft 185 is driven by the gear 184 secured thereto which meshes with the gear 183 on the shaft 78. The shaft 78 is driven by the sprocket chain 80, which is driven from the shaft 15 on the frame of the machine, on which is keyed the sprocket wheel 81. See Figs. I and III. It will therefore be seen that the paper feed runs at comparatively high speed, so that a very short interval only is required to deliver the proper amount of paper to the machine.

Paper knife 69 is disposed to descend into a slot in the block 69′, over which the paper is delivered into suitable guides 43″. The knife 69 is serrated, as seen in Fig. X, and is carried on the transverse bar 70. The bar 70 is supported on the side frames 175, 175 on vertical guide rods 76 on which it reciprocates. The bar 70 is urged downwardly by coiled springs 76′ on the guide rod 76 at each end thereof, see Figs. V, X and XI.

On rock shaft 74 are secured a pair of arms 73, the rear ends of which are connected by links 71 to the knife bar 70, the links being pivoted at 72. An arm 75 is secured to the rock shaft 74, and a roller

75′ is disposed in a fork at the end thereof to coöperate with the cam 77 which is carried and actuated by the shaft 78. The shaft 78 is supported in the side frames 175, 175 already referred to. The cam 77 is made adjustable by the relatively-adjustable part 179, which is keyed to the shaft 78. The adjustment is accomplished by means of the hand-nut 182 on the screw-threaded end of the shaft 78. The cam 77 has a pin 181 which is adapted to fit any one of the series of holes 180 in the part 179, and by this means the length of the cam and the distance of the feed of the paper can be regulated and the timing of the action of the knife completely and effectively controlled.

The shaft 78 is, of course, intermittently controlled. On rock shaft 74 is also secured arm 188, having the trip block 189, see Fig. VII, for throwing the entire paper feed and cut-off mechanism into and out of gear. This arm 188 is provided with the yielding elevating spring 188′ to throw the same upwardly whenever it is released, said spring resting upon the periphery of the spur gear 183.

The projecting trip block 189 acts upon the dog lever 190, which is pivoted at 191 on the face of the gear 183, and is held yieldingly in position by the coiled spring 192. Lever 190 is pivoted on the face of the sprocket gear 79 and is held yieldingly in engaging position by the coiled spring 192 connected at one end to the said lever and to the other end by pin 193 on the said sprocket gear 79. The lever 190 is provided with a dog 194 which engages with the dog block or lug 195 on the face of the spur gear 183. It will thus be seen that whenever the trip block 189 is elevated or thrown upwardly, it permits the dog 194 to move outwardly into engagement with the lug 195 and thereby actuate the gear 183. The lever 83 is actuated by the connection 84 already referred to. This lever is urged rearwardly by spring 196, and is provided with an engaging pin 197, see particularly Fig. V″. A projecting finger 198 is on the hub of the arm 188, disposed to be engaged by the pin 197. It will thus be seen that when the rod 84 is pulled that it will carry the lever 83 and pin 197 out from under the finger 198, which will permit the arm 188 to swing upwardly by the action of the spring 188′, and the trip block 189 will then be elevated and permit the dog 194 to act. This will cause the gear 183 to rotate and control the shaft 78, which will, of course, actuate the cam 77 which acts upon the roller 75′, which, through the arm 75, controls the shaft 74. When the paper is cut off by the action of this cam, the trip block 189 will be forcibly carried down and immediately locked in position by the pin 197 engaging under the finger 198 and will, when the dog 194 swings around, cause the same to be depressed out of engagement, thereby throwing the structure oue of gear and preventing its further operation. The arm 199 is also secured to the rock shaft 74, and depends downwardly therefrom and carries the pin 210 to which the brake chain 207 is secured so that when the paper is cut off the brake is immediately applied and the feed rolls stopped. On the side of this lever 199 is also a wedge or cam 200 which is disposed and arranged to act upon the downwardly-extending pin 202 on the end of arm 201, which shifts the lever 201 and throws out the clutch for driving the shaft 51.

From this detailed description, the entire operation of my improved paper feed and cut-off is very clear. To recapitulate, when the loaf on the loaf feed carrier strikes the trip lever 85, see Fig. XVI, it pulls the rod 84 and actuates the trip lever 83. This throws the pin 197 out from under the finger 198, and the spring 188′ throws the lever 188 upwardly, carrying the trip block 189 up and permits the dog 194 to swing outwardly by the action of the dog lever 190. This permits the dog 190 to engage the lug 195 see Figs. III and VIII and enables the sprocket wheel 79 to drive the gear 183, and this drives the shaft 78. The gear 183 meshing with the pinion 184 on the shaft 185 drives the gear 186 which meshes with the gear 187, which, through the clutch connection, drives the feed roll shaft 51, the clutch on which is controlled by the lever 201 actuated by the cam on arm 199 on the rock shaft 74, so that it will be seen that whenever the lever 83 is tripped the feed mechanism and cut-off mechanism starts and completes an evolution. The length of the paper fed is controlled by the length of the enlarged part of the cam 77. Also this cam 77 is the trip means for throwing other parts of a mechanism into operation and secures coöperation between other parts of the folder and the paper feed and cut-off, so that the balance of the mechanism is only put into operation after the paper has been properly fed and cut off.

I have shown in my improved paper feed and cut-off the specific form which I consider most desirable, and I desire to claim same in the specific form, and I also desire to claim the same broadly as in the appended claims.

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

1. In an automatic paper feed and cut-off, the combination of a paper roll; feed rolls; clutch means to actuate said feed rolls intermittently; a knife mechanism comprising a knife, a suitable carrier bar therefor, springs for urging the knife downwardly into action, a rock shaft with arms connect-

ed to said knife carrier, and an actuating arm on said rock shaft for controlling the knife mechanism; a slotted bar disposed to coöperate with said knife over which the paper is fed; a cam for acting upon the said controlling arm of the said rock shaft; a cam shaft for carrying the said cam; a clutch means to drive said cam shaft, comprising a driving gear having a pivoted dog with a beveled portion, a driven gear with a lug disposed to be engaged by said dog; a beveled trip block carried by said knife rock shaft, with spring to elevate the same; a trip lever with a pin for holding the said trip block in depressed position; a clutch arm on the said rock shaft with a wedge or cam disposed and connected to control the clutch for the paper feed and throw the same into gear while the knife is in the elevated position and throw it out of gear when knife is down; and a brake connected to the said clutch arm to control and stop the feed rolls, all co-acting substantially as described for the purpose specified.

2. In an automatic paper feed and cut-off, the combination of paper feed rolls; clutch means to actuate the paper feed rolls intermittently; a knife mechanism, comprising a knife, springs disposed and connected to urge the knife into action, cam mechanism for raising the said knife and permitting the spring to snap; a clutch means to drive the said cam, comprising a dog and lug normally disengaged from each other, a trip block to hold said clutch parts normally disengaged and adapted to permit the said parts to engage; and connections from the knife mechanism to the paper feed clutch mechanism for throwing the said clutch into gear when the knife is elevated, and to throw the same out of gear when the knife is depressed, co-acting substantially as described for the purpose specified.

3. In an automatic paper feed and cut-off, the combination of paper feed rolls; clutch means to actuate the paper feed rolls intermittently; a knife mechanism, comprising a knife, springs disposed and connected to urge the knife into action, cam mechanism for raising the said knife and permitting the spring to snap; a clutch means to drive the said cam, comprising a dog and lug normally disengaged from each other, a trip block to hold said clutch parts normally disengaged and adapted to permit the said parts to engage; and connections from the knife mechanism to the paper feed clutch mechanism for throwing the said clutch into gear when the knife is elevated, co-acting substantially as described for the purpose specified.

4. In an automatic paper feed and cut-off, the combination of paper feed rolls; clutch means to actuate the paper feed rolls intermittently; a knife mechanism, comprising a knife, springs disposed and connected to urge the knife into action, cam mechanism for raising the said knife and permitting the spring to snap; a clutch means to drive the said cam, a trip to hold said clutch parts normally disengaged and adapted to permit the said parts to engage; and connections from the knife mechanism to the paper feed clutch mechanism for throwing the said clutch into gear when the knife is elevated, coacting substantially as described for the purpose specified.

5. In an automatic paper feed and cut-off, the combination of a paper roll; feed rolls for advancing the same intermittently; a knife mechanism, comprising a serrated knife, a carrying bar therefor, and springs for urging the knife into action; a rock shaft with arms connected to said knife, an actuating arm on said rock shaft; and a cam for acting upon said actuating arm with abrupt angle to elevate the knife against said springs and to permit the knife to snap and sever the paper, all co-acting for the purpose specified.

6. In an automatic paper feed and cut-off, the combination of a paper roll; feed rolls for advancing the same intermittently; a knife mechanism, comprising a suitable knife, a carrying bar therefor, and springs for urging the knife into action; a rock shaft with arms connected to said knife, and an actuating arm on said rock shaft; and a cam for acting upon said actuating arm with abrupt angle to elevate the knife against said springs and to permit the knife to snap and sever the paper, all co-acting for the purpose specified.

7. In an automatic paper feed and cut-off, the combination of a paper roll; feeding devices for feeding the paper; a cut-off knife; a rock shaft with arms for supporting and actuating said knife, a cam coöperating with the said rock shaft for controlling the said knife, intermittently actuated clutch means for controlling the said cam, and connections from said knife mechanism to the paper feed mechanism, as specified.

8. In an automatic paper feed and cut-off, the combination of a paper roll, feeding devices for feeding the paper, a cut-off knife, a rock shaft with arms for supporting and actuating said knife, a cam co-operating with the said rock shaft for controlling the said knife, clutch means for controlling the said cam, and connections from said knife mechanism to the paper feed mechanism, as specified.

9. In an automatic paper feed and cut-off, the combination of a paper roll, feeding devices for feeding the paper, a cut-off knife, a rock shaft with arms for support-

ing and actuating said knife, a cam coöperating with the said rock shaft for controlling the said knife, and connections from said knife mechanism to the paper feed mechanism, as specified.

10. In an automatic paper feed and cut-off, the combination of a paper roll, feeding devices for feeding the paper, a cut-off knife, a rock shaft with arms for supporting and actuating said knife, an adjustable cam coöperating with the said rock shaft for controlling the said knife, and connections from said knife mechanism to the paper feed mechanism, as specified.

11. In an automatic paper feed and cut-off, the combination of a paper roll, feeding devices for feeding the paper, a cut-off knife, a rock shaft with arms for supporting and actuating said knife, an adjustable cam comprising disk parts adjustable one upon the other, coöperating with the said arm for controlling the said knife, and connections from said knife mechanism to the paper feed mechanism as specified.

12. In an automatic paper feed and cut-off, the combination of feed rolls for feeding the paper, clutch mechanism for said feed rolls, a knife mechanism for cutting the paper, a rock shaft with connections for operating the said knife, an arm on the said rock shaft, a cam or wedge on the said arm, and connections therefrom to the feed roll clutch mechanism whereby the feed rolls are controlled by the actuating of the knife mechanism, co-acting as specified.

13. In an automatic paper feed and cut-off, the combination of feed rolls for feeding the paper, clutch mechanism for said feed rolls, a knife mechanism for cutting the paper, a rock shaft with connections for operating the said knife, an arm on the said rock shaft, and connections therefrom to the feed roll clutch mechanism whereby the feed rolls are controlled by the actuation of the knife mechanism, co-acting as specified.

14. In an automatic paper feed and cut-off, the combination of feed rolls for feeding the paper, clutch mechanism for said feed rolls a knife mechanism for cutting the paper, a rock shaft with connections for operating the said knife, an arm on the said rock shaft, a brake for said feed rolls connected to said arm, and connections therefrom to the feed roll clutch mechanism whereby the feed rolls are controlled by the actuating of the knife mechanism, coacting as specified.

15. In an automatic paper feed and cut-off, the combination of feed roll devices, a knife mechanism, a rock shaft with connections for controlling the same, intermittent clutch mechanism comprising a depressible dog and lug, a suitable trip secured to the said rock shaft arranged to hold the said clutch normally disengaged, and a trip lever for releasing the said trip arm to permit the intermittent action of the said clutch, as specified.

16. In an automatic paper feed and cut-off, the combination of feed roll devices, a knife mechanism, a rock shaft with connections for controlling the same, intermittent clutch mechanism comprising a depressible dog and lug, a suitable trip secured to the said rock shaft arranged to hold the said clutch normally disengaged, to permit the intermittent action of the said clutch, as specified.

17. In an automatic paper feed and cut-off, the combination of suitable paper feed rolls, intermittent clutch for controlling the same, a knife mechanism, a rock shaft for controlling the same, an arm on the said rock shaft, connections from the said arm to control the clutch of the paper feed to drive the same when the knife is in elevated position, and a brake mechanism connected to said arm to control the paper feed when the knife is in depressed position, coacting as specified.

18. In an automatic paper feed and cut-off, the combination of suitable paper feed rolls, intermittent clutch for controlling the same, a knife mechanism, a means for controlling the same, connections from the said means to control the clutch of the paper feed to drive the same when the knife is in elevated position, and a brake mechanism connected to said means to control the paper feed when the knife is in depressed position, coacting as specified.

19. In an automatic paper feed and cut-off, the combination of paper feed rolls; means for driving the same; a knife mechanism, comprising a knife, a cam for elevating the same, said cam being adjustable to vary the time during which said knife is held in elevated position, and means for driving said knife elevating cam; trip actuated clutch means controlling said feed roll driving means and said cam driving means; a secondary clutch for said feed roll driving means controlled by the elevation of said knife; and brake means coacting to stop said feed rolls upon the descent of said knife, all coacting substantially as described and for the purpose specified.

20. In an automatic paper feed and cut-off, the combination of paper feed rolls; means for driving the same; a knife mechanism, comprising a knife, a cam for elevating the same, and means for driving said knife elevating cam; trip actuated clutch means controlling said feed roll driving means and said cam driving means; a secondary clutch for said feed roll driving means controlled by the elevation of said knife; and brake means coacting to stop said

feed rolls upon the descent of said knife, all coacting substantially as described and for the purpose specified.

21. In an automatic paper feed and cut-off, the combination of paper feed rolls; means for driving the same; a knife mechanism, comprising a knife, a cam for elevating the same, and means for driving said knife elevating cam; trip actuated clutch means controlling said feed roll driving means and said cam driving means; and brake means coacting to stop said feed rolls upon the descent of said knife, all coacting substantially as described and for the purpose specified.

22. In an automatic paper feed and cut-off, the combination of paper feed rolls; means for driving the same; a knife mechanism, comprising a knife and means for elevating the same; trip actuated clutch means controlling said feed roll driving means and said knife elevating means; a secondary clutch for said feed roll driving means controlled by the elevation of said knife; and brake means coacting to stop said feed rolls upon the descent of said knife, all coacting substantially as described and for the purpose specified.

23. In an automatic paper feed and cut-off, the combination of paper feed rolls; means for driving the same; a knife mechanism, comprising a knife and means for elevating the same; trip actuated clutch means controlling said feed roll driving means and said knife elevating means; and brake means coacting to stop said feed rolls upon the descent of said knife, all coacting substantially as described and for the purpose specified.

24. In an automatic paper feed and cut-off, the combination of paper feed rolls; means for driving the same; a knife mechanism, comprising a knife and means for elevating the same; and brake means coacting to stop said feed rolls upon the descent of said knife, all coacting substantially as described and for the purpose specified.

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

ROBERT J. SEATOR. [L. S.]

Witnesses:
WALTER S. POWERS,
ALICE POWERS.