M. H. PIPER.

GAGE FOR SHEET FEEDING MECHANISM.

APPLICATION FILED MAR. 16, 1910.

1,019,084.

Patented Mar. 5, 1912.

5 SHEETS—SHEET 1.

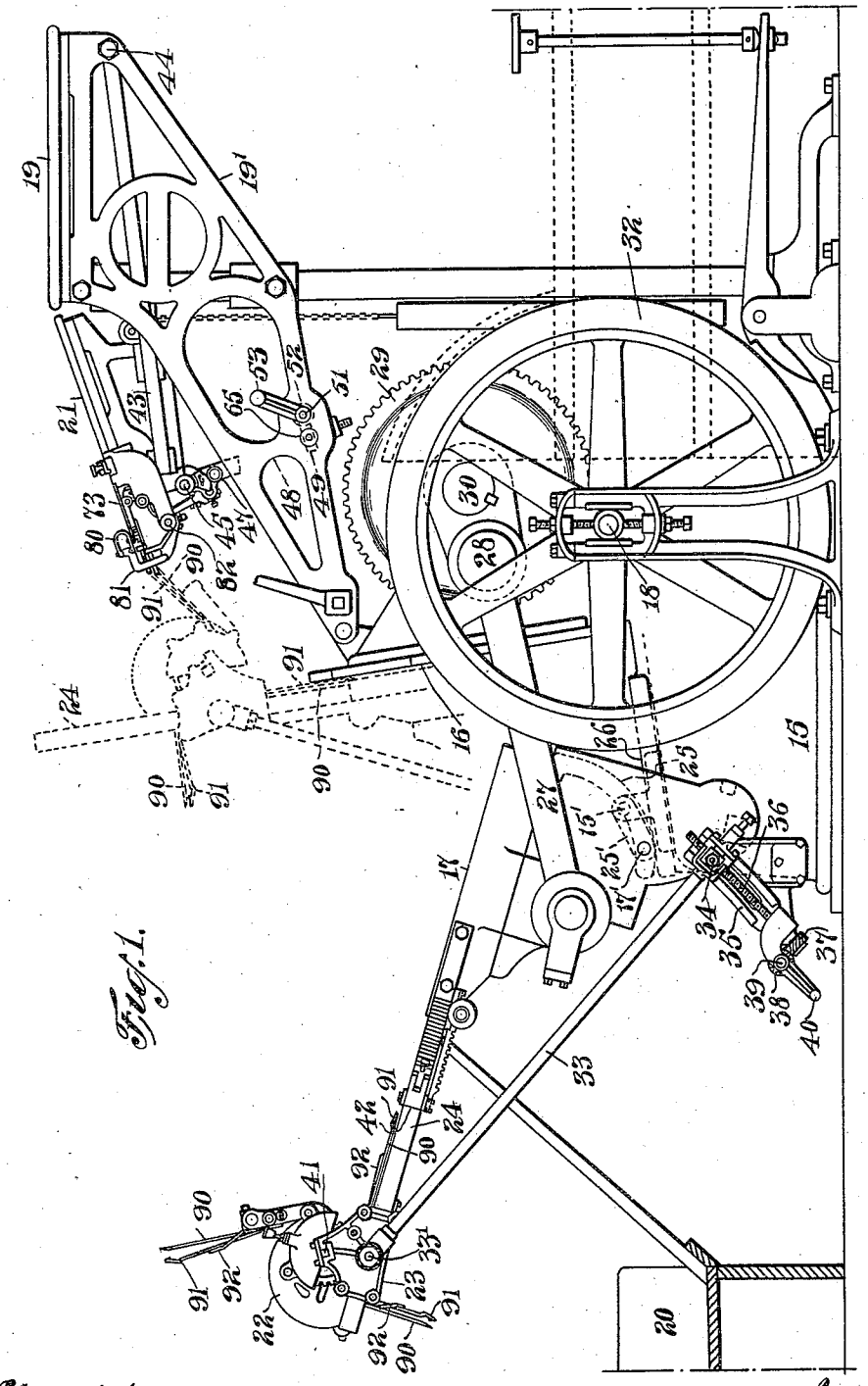


Fig. 1.

Witnesses:
P. W. Tizzetti
Gertrude E. Johnson

Inventor:
Myron H. Piper;
By Hughes Brown Dewey & Mann
Attys

M. H. PIPER.

GAGE FOR SHEET FEEDING MECHANISM.

APPLICATION FILED MAR. 16, 1910.

1,019,084.

Patented Mar. 5, 1912.

5 SHEETS—SHEET 2.

Fig. 2.

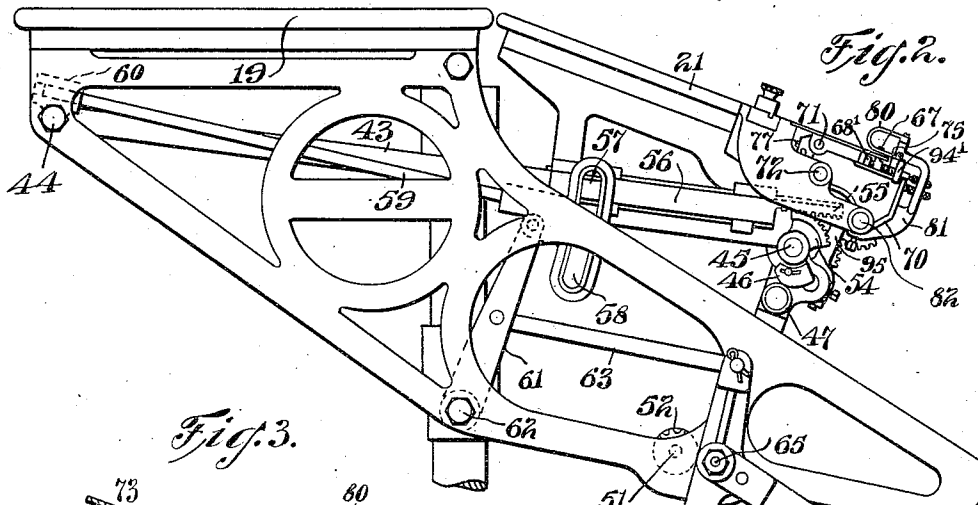
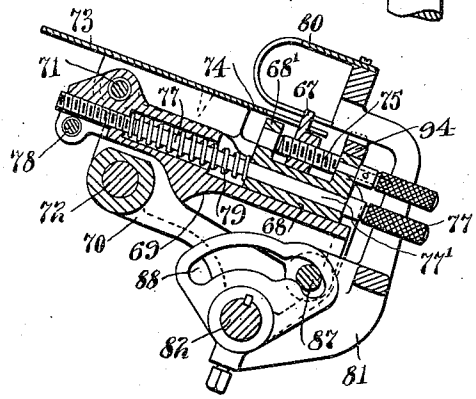
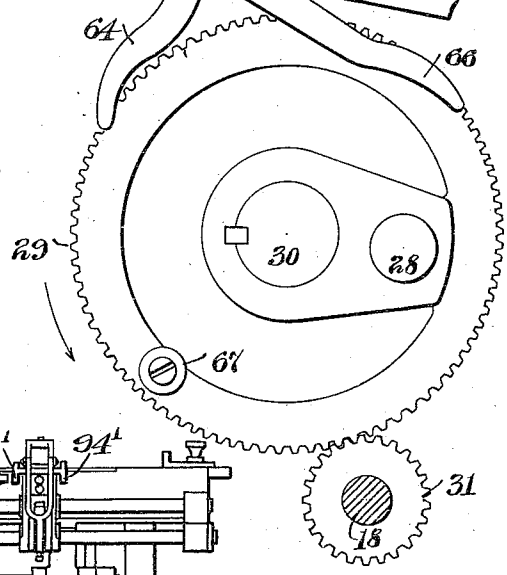


Fig. 3.





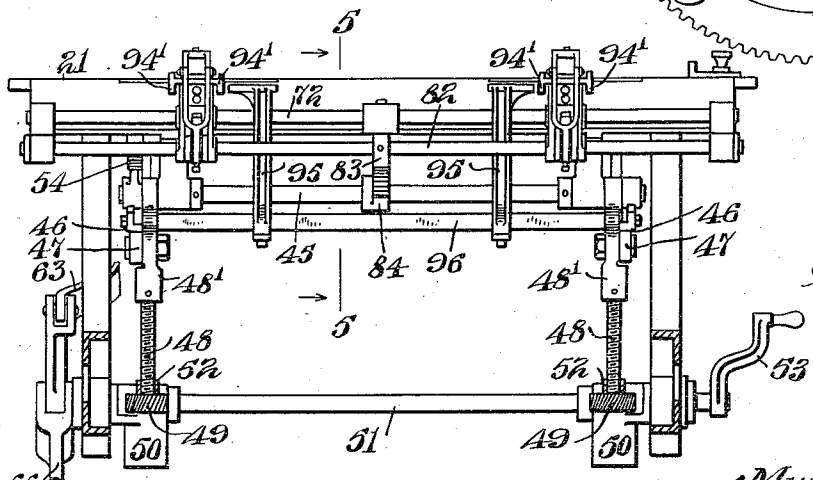


Fig. 4.

Witnesses:
P. W. Pezzetti
Gertrude L. Johnson

Inventor:
Myron H. Piper,
By Vaughn Brown Dunlap & Clay
Attys.

M. H. PIPER.

GAGE FOR SHEET FEEDING MECHANISM.

APPLICATION FILED MAR. 16, 1910.

1,019,084. Patented Mar. 5, 1912.

5 SHEETS—SHEET 3.

Fig. 5.

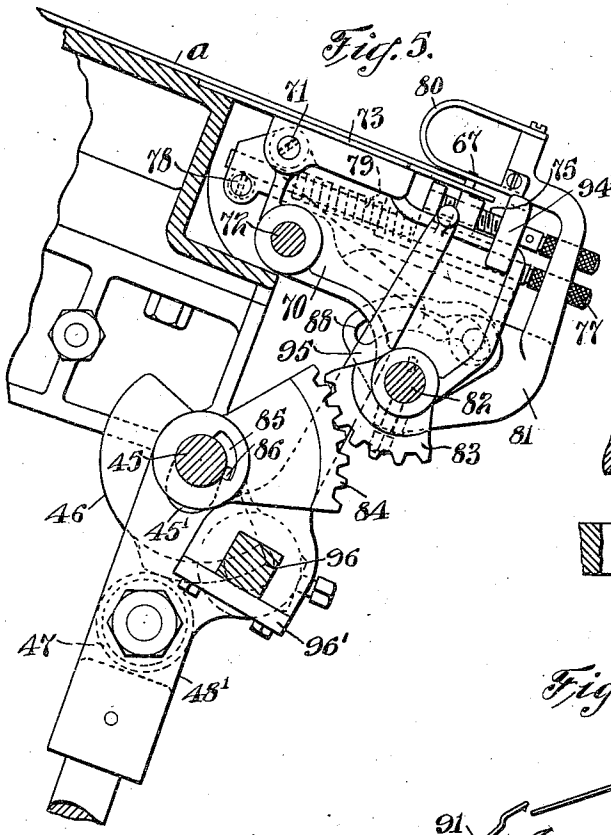


Fig. 9.

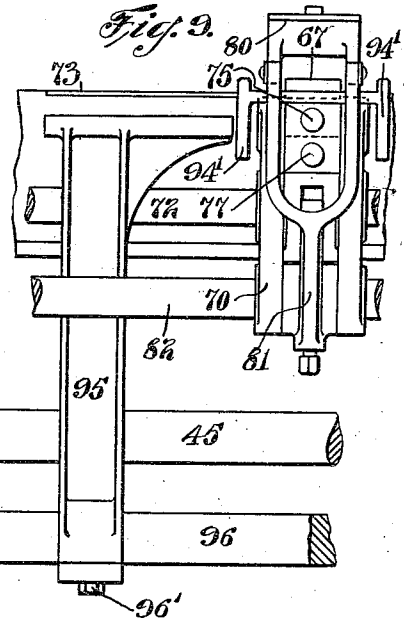


Fig. 11.

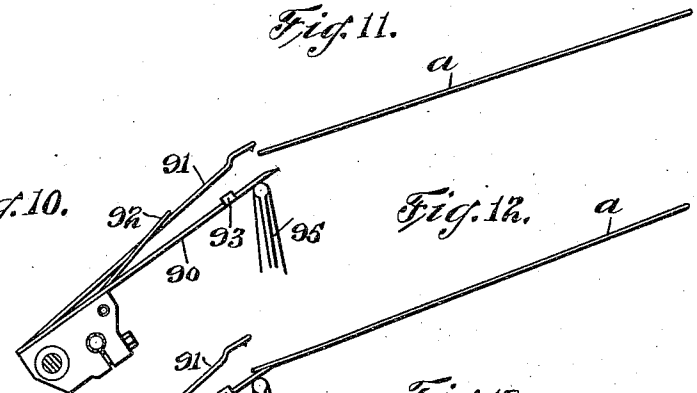


Fig. 10.

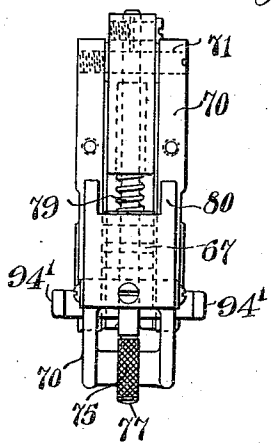
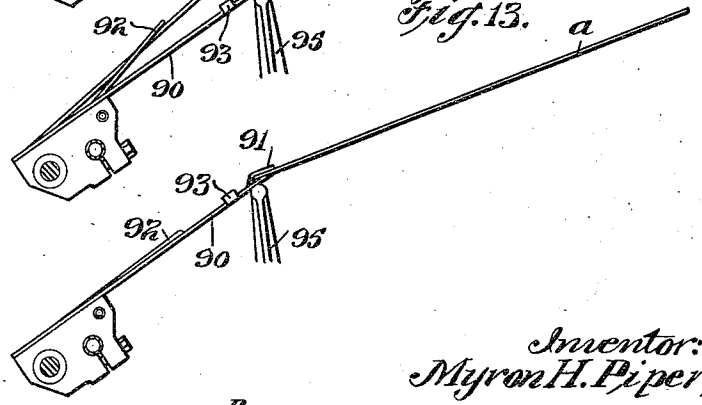


Fig. 12.

Fig. 13.



Witnesses:
P. N. Pizzetta
Gertrude L. Johnson

Inventor:
Myron H. Piper;
By Dwight Brown Dewey & Mac
Attys.

M. H. PIPER.

GAGE FOR SHEET FEEDING MECHANISM.

APPLICATION FILED MAR. 16, 1910.

1,019,084. Patented Mar. 5, 1912.

5 SHEETS—SHEET 4.

Fig. 6.

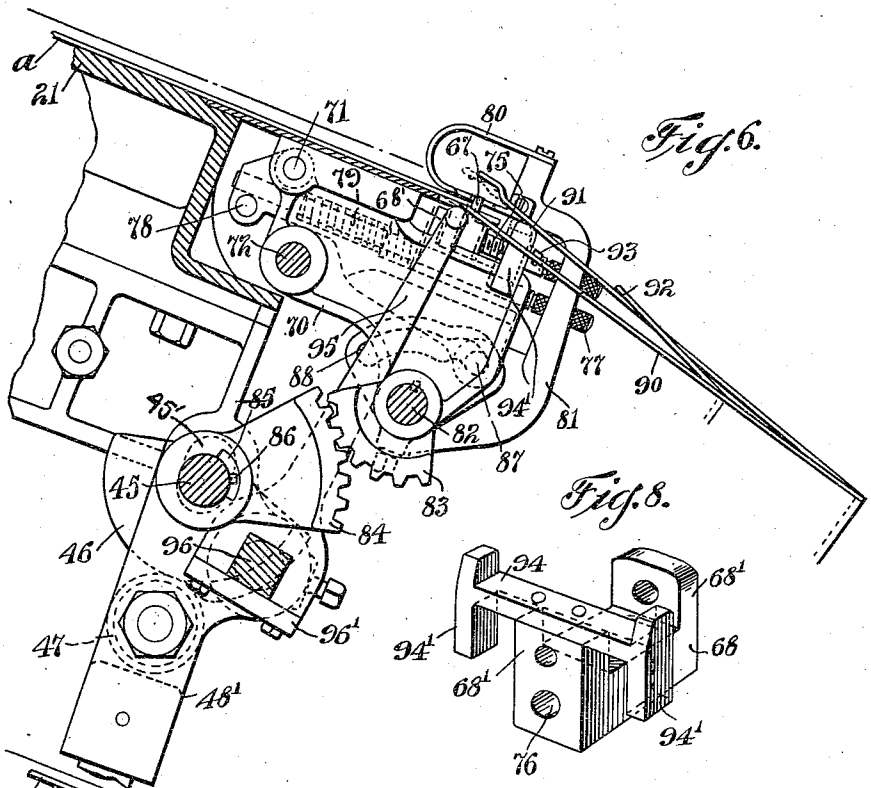
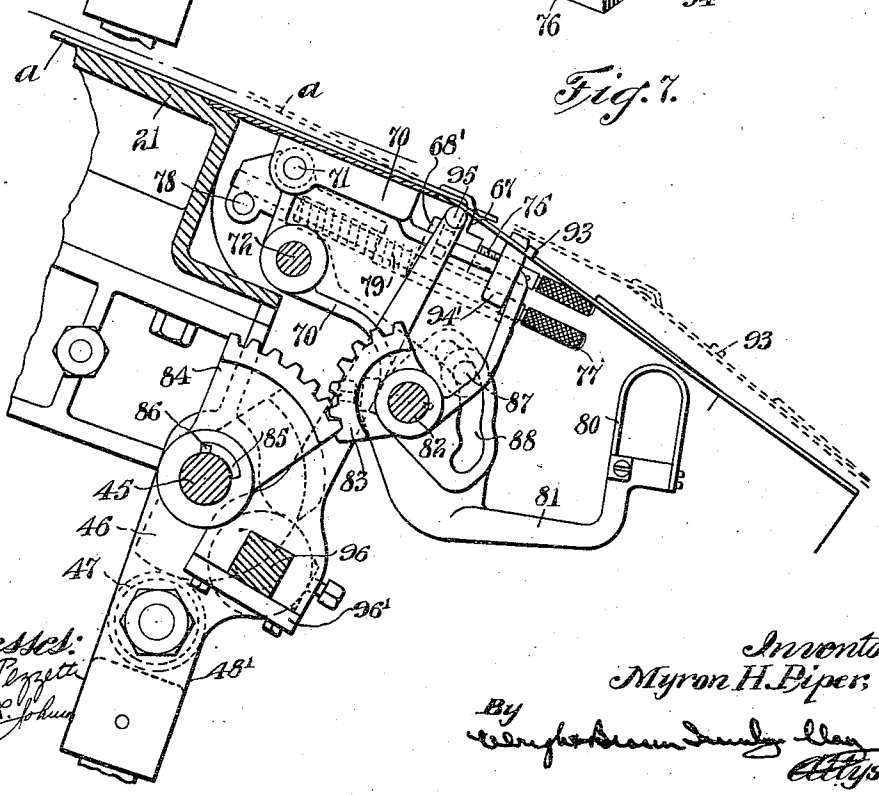


Fig. 8.

Fig. 7.



Witnesses:
P. W. Pezzetti
Gertrude R. Johns

Inventor:
Myron H. Piper;
By Dwight Brown Sunday & Clay
Attys.

M. H. PIPER.

GAGE FOR SHEET FEEDING MECHANISM.

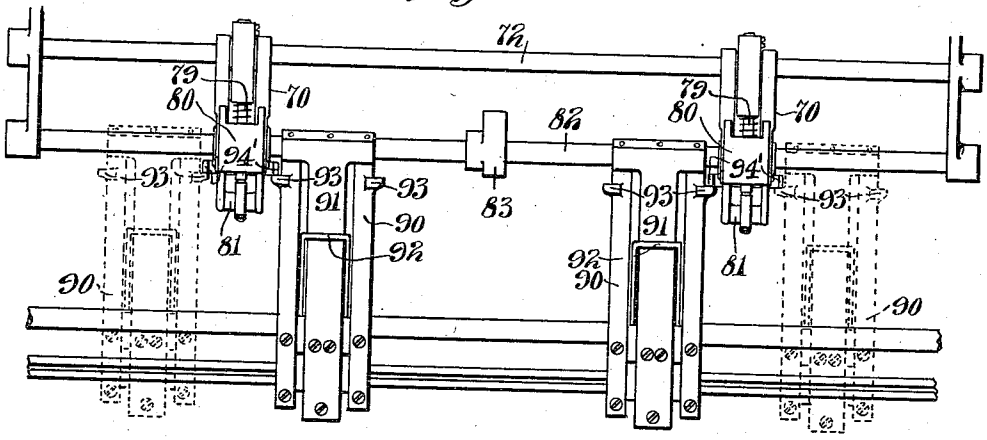
APPLICATION FILED MAR. 16, 1910.

1,019,084.

Patented Mar. 5, 1912.

5 SHEETS—SHEET 5.

Fig. 14.



Witnesses:
P. W. Pezzetti
Gertrude L. Johnson

Inventor:
Myron H. Piper;
By Cleveland Brown Dunlap & Clay
Attys.

UNITED STATES PATENT OFFICE.

MYRON H. PIPER, OF WALPOLE, MASSACHUSETTS, ASSIGNOR TO UNITED PRINTING MACHINERY COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

GAGE FOR SHEET-FEEDING MECHANISM.

1,019,084. Specification of Letters Patent. **Patented Mar. 5, 1912.**

Application filed March 16, 1910. Serial No. 549,582.

To all whom it may concern:

Be it known that I, MYRON H. PIPER, a citizen of the United States, and a resident of Walpole, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Gages for Sheet-Feeding Mechanism, of which the following is a specification.

This invention relates to sheet feeding mechanism and its object is to provide stop-gages for positioning a sheet on a feed table with relation to the feeding mechanism by which the sheet is removed from the feed table.

The invention is especially adapted to sheet feeding mechanism including a plurality of successively operative jaws or feeding members, and the stop-gages are arranged to be moved solely by each successive set of jaws or feeding devices, in consequence of which each sheet becomes positioned accurately with relation to the set of jaws by which it is subsequently grasped.

It is not intended to limit the present invention to any particular sheet feeding mechanism nor to any particular type of press. It may be stated however that the invention is especially adapted to be embodied in mechanism associated with a press of the reciprocatory type, and with sheet feeding mechanism including feed jaws which are moved toward and from the feed table. The stop-gages which serve to position the sheet on the feed table are according to the present invention engaged and moved by the feeding jaws when the latter are approaching the feed table. In this way the sheet is moved immediately prior to being grasped by the feed jaws and this movement results in accurately positioning the sheet with relation to the jaws prior to the closing of the jaws. Having first accurately positioned the sheet with relation to the jaws, it follows that the sheet when inserted in the press by the jaws is bound to register accurately with the chase of the press. It may be stated therefore that the ultimate object of the present invention is to secure accurate registration of successive sheets with the press and that this object is attained solely by the means which effects accurate registration of the sheets with the jaws prior to the closing of the jaws.

For the purpose of illustration, and not of limitation, a press and feeding mechanism such as those forming the subject matter of the co-pending application of W. C. Glass, filed October 18, 1909, Serial No. 523,235, are selected, since the present invention is especially adapted to a press and feed mechanism of that type. In the said co-pending application the chase is stationary and the platen is reciprocated toward and from the chase. The feeding mechanism includes a series of feed jaws which operate successively to feed sheets one by one into the press. The feed jaws move toward and from a feed table which is provided with stop-gages for a sheet thereon. There is, however, no coöperation between the feed jaws and the stop-gages, and a slight variation in the position or timing of the successive feed jaws results in unequal registration of successive sheets in said jaws. The manner in which such inequalities are overcome by the present invention has already been explained, and it is apparent that each sheet according to the present invention, is positioned by the jaws in which it is grasped.

The foregoing explanation treats of the lateral or edgewise positioning of the sheet but the present invention includes an additional feature, namely, stops for determining the horizontal plane of the jaws with relation to the horizontal plane of the feed table. The said stops are associated with the feed table and are so arranged as to serve as bearings for the feed jaws when the latter approach the table to grasp a sheet. The feed jaws are so constructed as to be slightly flexible and the stop members are arranged to engage the outer ends of the jaws before the jaws reach the limit of their bodily movement toward the feed table. By means of the stop members the lower jaws of the several pairs of jaws are positioned so that their work engaging faces lie in the plane of the feed table, and the sheet is therefore not disturbed when the upper jaws close.

Of the accompanying drawings which illustrate one form in which the present invention may be embodied, Figure 1 represents a side elevation of a reciprocatory press equipped with successively operative

feed jaws and with a feed table including stop-gages arranged to be actuated by the feed jaws. Fig. 2 represents an elevation of the other side of the feed table. Fig. 3 represents a longitudinal section of one of two similar devices including a stop-gage and a guide for the sheet on the table. Fig. 4 represents a front elevation partly in section of the feed table. Figs. 5, 6 and 7 represent sections on line 5—5 of Fig. 4, said figures showing successive positions. Fig. 8 is a perspective view of a portion of the supporting structure for one of the three gages. Fig. 9 represents a front elevation of a fragment of the feed table including one of the two stop-gages and one of the stops for the feed jaws. Fig. 10 represents a top plan view of one of the stop-gages. Figs. 11, 12 and 13 represent side elevations of a sheet and a pair of gripping jaws in successive positions. Fig. 14 represents in a conventional way a plan view of two pairs of gripping jaws and the sheet-gaging mechanism with which they coöperate.

The same reference characters represent the same parts wherever they occur.

Before proceeding to describe the details of the present invention it will be necessary to describe somewhat briefly the press and sheet feeding mechanism with which the present invention is combined.

Referring first to Fig. 1, the press, or frame of the press, is indicated at 15, the chase is indicated at 16, the platen at 17, the main power shaft at 18, a stationary table at 19 and a receiving rack at 20. The feed table is indicated at 21 and the sheet feeding mechanism as a whole is indicated at 22. The sheet feeding mechanism is mounted upon a pair of trucks such as that indicated at 23, said trucks being arranged to slide or roll upon parallel arms or guides 24 affixed to the platen. The platen receives a compound motion including an oscillatory motion and a rectilinear motion upon bearing surfaces such as that indicated at 26. The platen has curved rockers 25 which rock upon the surfaces 26 and it is connected to the frame 15 by links 25′ pivoted at 15′ and 17′ to the base and platen respectively. Motion is imparted to the platen by a pair of connecting rods such as that indicated at 27, said connecting rods being connected to cranks 28, one on either side of the machine. The cranks are here shown as formed upon gears 29 affixed upon a shaft 30. The gears 29 are rotated by pinions 31, (see Fig. 2), affixed upon the main shaft 18. The main shaft may be driven in any preferred way and may be provided with a fly wheel 32. The motion imparted by the connecting rods 27 causes the platen to oscillate about its pivot 15′ until the surface of the platen 17 becomes parallel to the chase whereupon the platen is moved bodily upon the bearings 26 to the position indicated by dotted lines in Fig. 1. It will be observed that the sheet feeding mechanism 22 moves toward and from the feed table 21 when the platen is moved toward and from the chase. The feeding mechanism is also moved toward and from the platen and the latter movement is effected by the movement of the platen. For this purpose the trucks 23 are connected by connecting rods 33 with stationary pivots or abutments 34. The pivots 34 are eccentric with relation to the pivots 25, and it therefore follows that when the platen is moved toward the chase the feeding mechanism 22 is moved toward the platen and vice versa. The pivots 34 are movable in guides 35 which are concentric with relation to the pivots 33′ by which the connecting rods are joined to the trucks 23. Adjusting screws 36 are provided for shifting the pivots 34 and the two adjusting screws are connected by gearing which causes them to rotate in unison. Each adjusting screw is provided with a spiral gear 37, said spiral gear intermeshing with the spiral gears 38 affixed upon a transverse shaft 39. The shaft may be provided with a handle 40 by which it may be turned to effect the desired adjustment of the pivots 34. The adjustment of the pivots does not vary the position of the feeding mechanism indicated in solid lines, Fig. 1, but it effects an increase or decrease of movement of the feeding mechanism toward and from the platen when the platen is moved toward the chase. The feeding mechanism 22 includes a plurality of sets of gripping jaws hereinafter described. The jaws receive a non-circular motion about the central shaft 41 of the feeding mechanism, said non-circular motion being fully described in the aforesaid application. It will be sufficient to state that the several sets of gripping jaws operate successively to grasp a sheet on the feed table 21 and that they afterward carry the sheets one by one into the press and finally discharge the sheets into receiving rack 20. The registration of the feeding mechanism with relation to the press is determined by stops 42 mounted upon the guide arm 24 in position to be engaged by the trucks 23. The stops 42 may be moved toward and from the platen for securing the desired adjustment whereby the registration of the feeding mechanism with the platen may be varied. In practice a pile of sheets is placed upon the stationary table 19 and the sheets are fed manually one by one from the pile and laid upon the feed table 21. The feed table is mounted in the same way as that described in said co-pending application and is movable with relation to the table 19. The table 21 is arranged upon rods or arms 43

pivoted at 44, and is dropped slightly as each successive set of gripping jaws approaches gripping position for the purpose of placing the edge of the sheet in engagement with the lower jaws so that the sheet will not be bent when the upper jaws close upon it. The means for effecting this movement of the feed table is shown by Figs. 2, 5, 6 and 7. A rock shaft 45 is mounted in bearings formed in the supporting frame of the feed table 21 and is provided with fixed cams 46 which bear upon stationary rolls 47. The rolls are mounted upon supporting rods 48 (see Fig. 4) whose lower ends have screw threaded connection with adjusting nuts 49. The nuts are seated upon blocks 50, said blocks being pivotally connected to the table frame 19′ by horizontal pivots 65. A shaft 51 is mounted in bearings in the blocks 50. The nuts 49 are in the form of spiral gears and they remain in intermeshing relation with spiral gears 52 (see Fig. 2) affixed upon the shaft 51. The shaft may be provided with a hand crank 53 by which it may be turned to rotate the nuts 49 in unison and thereby adjust the screw rods 48 to vary the height of the supporting rolls 47. In this way the initial adjustment of the feed table is obtained.

Mechanism for rocking the cam shaft 45 is shown by Figs. 2 and 4. Said mechanism includes a spur gear segment 54, and a rack 55 formed upon a longitudinally movable bar 56 arranged in guides on the supporting frame of the table 21. The bar 56 is provided with a block 57 which occupies a curved slot 58 in a head affixed upon one end of a rod 59. The rod is longitudinally movable in a block 60 which is pivotally mounted upon one of the pivots 44 and the slot 58 is concentric with relation to said pivot; the bar 56 is therefore not moved longitudinally when the horizontal position of the table 21 is varied. The rod 59 is pivotally connected to the free end of an arm 61 which is mounted upon a fulcrum at 62 and is connected by a link 63 with one arm of a lever 64. This lever is pivotally mounted at 65 and is provided with a third rigid arm 66. The arms indicated at 64 and 66 are arranged to be engaged successively by a roll 67 carried by one of the gears 29. The effect of the roll 67 is to oscillate the lever 64, 66 and ultimately oscillate the cam shaft 45 through the described mechanism.

The sheets placed upon the feed table 21 are permitted to slide to the forward edge of the feed table to the position shown by Fig. 5 in which the sheet is indicated at *a*. As shown by this figure the forward edge of the sheet abuts against a stop gage 67. The construction of the stop gage is more clearly shown by Fig. 3. There are two of these stop gages and they are arranged to be moved transversely of the feed table and may be fastened at any desired position. In practice the jaws of the sheet feeding mechanism are positioned to meet the requirements of the press and the stop gages are therefore constructed so as to be adjustable so that they may coöperate with the feed jaws in any position to which the latter may be adjusted. Each of the two stop gages 67 is arranged in a block 68 such as that clearly shown by Figs. 3 and 8. The block 68 is in turn mounted upon a support 69. The support 69 is in turn mounted in a holder 70 and is connected with the holder by a pivot stud 71. The holder is supported by the cam shaft 45 and a stationary transverse rod 72 mounted in the frame of the feed table. The holder 70 is provided with a plate 73 which forms a continuation of the feed table and guides the sheet to the stop 67. The plate is formed with a longitudinal slot 74 through which the stop gage extends and in which the stop gage moves as hereinafter explained. The stop gage is initially adjustable with relation to its block 68 and for this reason it is mounted upon an adjustable screw 75, said screw being mounted in bearings in ears 68′ formed upon the block (see Fig. 8). The block 68 is also adjustable with relation to its support 69 and for this reason it is formed with a longitudinal bore 76 which is occupied by a rod 77. The rear end of the rod has screw threaded engagement with the support 69, which is split, as shown by Fig. 3, and provided with a clamping screw 78 by which the rod 77 may be tightly clamped. The block 68 is held against a shoulder 77′ at the forward end of the rod 77 by a spring 79. By reason of mounting the block in this manner it is adapted to yield against the tension of the spring and is caused to compress the spring when the gripping mechanism approaches gripping position as hereinafter explained.

A sheet *a* placed upon the table 21 slides to the forward edge of the table into engagement with the stop gages 67. A pair of guides 80 are arranged in proximity to the stop gages and guide the forward edge of the sheet and prevent it from rising above the stop-gages. The guides are affixed at the free ends of arms 81 rigidly secured upon a rockshaft 82. The rockshaft is mounted in bearings in the supporting frame of the table 21 and it is oscillated by the rockshaft 45 through the medium of segmental gears 83, 84. The gear 83 is rigidly secured to its shaft 82 but the gear 84 is loosely mounted on its shaft 45 and is formed with a segmental recess 85 (see Figs. 6 and 7) which is occupied by a lug 86 projecting laterally from the shaft 45. The purpose of mounting the gear 84 in

this manner is to enable the shaft 45 to move through a portion of its range of movement prior to actuating the gear, the movement imparted to the gear occurring only when the lug 86 engages either of the end faces of the recess 85. When the gear 83 is actuated to turn the rockshaft 82 in a clockwise direction in Figs. 2, 3, 6 and 7, the arms 81 are rocked to a position below the plane of the table 21 as shown by Fig. 7. The movement of the arms 81 serves also to retract the stop-gages 67 below the plane of the table. For this reason, the stop-gage supports 69 which are pivoted at 71 are provided with studs 87 which occupy cam slots 88 formed in the arms 81. By this means, motion is imparted to the supports 69 by the arms 81 and the stop-gages are moved from the position shown by Figs. 3 and 6 to the position shown by Fig. 7.

The gripping jaws comprise lower jaws 90 and upper jaws 91. In this form of gripping mechanism there are three sets of gripping jaws as shown by Fig. 1. Each set of jaws may comprise two or more pairs of jaws 90, 91, said jaws being adjustable transversely of the machine. The jaws receive from other actuating mechanism an intermittent and otherwise irregular motion always in one direction about the central shaft 41. Although the present application does not include all of the mechanism for actuating the jaws, it may be stated that they are normally closed by springs 92 and are positively opened at the appropriate times and released when they arrive at gripping position at the forward edge of the feed table 21. The movement of the gripping jaws about the shaft 41 causes them to become active in succession. Each of the lower jaws 90 is provided with one or more laterally projecting ears 93. As shown by Fig. 14 there are two ears 93 on each jaw 90. One of the ears 93, when the jaws are laterally adjusted with relation to the stop-gages 67 is adapted to engage a cross bar 94 formed on or affixed to the block 68. As shown by Fig. 8, the ends of the cross bar 94 are provided with ears 94′. When the gripping jaws approach the feed table to grip a sheet thereon, one of the ears 93 engages one of the ears 94′ and thereby imparts a slight movement to the block 68. The block thereupon slides upon the rod 77 against the tension of the spring 79 and the stop-gage 67 which is rigid with relation to the block moves the sheet slightly toward the rear or upper end of the feed table. The length of this movement may be ever so slight and may be determined by the adjustment of the block 68 with relation to the gripping jaws. In this way each sheet lying against the stop-gages is moved and positioned by the gripping jaws which are to receive it. The forward edges of the ears 93 may be readily trimmed with a file to establish uniformity of movement imparted by the successive gripping jaws and in this way successive sheets become registered uniformly in successive gripping jaws to the end that all of the sheets may be inserted in the press at precisely the same position. The stop-gage mechanism may be adjusted laterally with relation to the gripping jaws as shown by Fig. 14. It may be desirable to have the gripping jaws engage the sheet between the points which engage the stop-gages, or in some instances it may be desirable to have the gripping jaws engage the sheet outside the points which engage the stop-gages. In either event, one of the ears 93 is in practice caused to engage one of the ears 94′, or else the other of the ears 93 is caused to engage the other of the ears 94′. The movement imparted to the stop-gage is the same in either event. It is never necessary to provide more than two stop-gages and guides therefor, but for unusually wide sheets it is desirable to provide three or possibly four pairs of gripping jaws 90, 91 in each set. If a number of pairs of gripping jaws exceeds two, the additional jaws are preferably arranged between those coöperat- with the ears 94′ of the crossbar 94.

The description of the coöperative relation between the gripping jaws and the stop-gages, explains the manner in which the sheets are positioned with relation to the gripping jaws. In addition to this feature there are additional devices by which the lower jaws 90 are positively positioned with relation to the sheet. These devices are shown by Figs. 4, 5, 6, 7, 9, 11, 12 and 13 and are in the form of rests or abutments 95. The number of rests is equal to the number of pairs of jaws in each set of jaws. The rests are rigidly secured upon a transverse bar 96 of which the ends are rigidly secured in the heads 48′ at the upper ends of the screw rods 48. As shown upon the drawings, the bar 96 is non-circular in cross section and the rests are formed to embrace the bar so that they may not turn upon it. The rests may, however, be moved along the length of the bar to various positions in accordance with the lateral adjustment of the gripping jaws and that of the stop-gages. Clamps 96′ are provided for locking the rests in the desired positions. The upper ends of the rests 95 are provided with transverse bearing surfaces as shown by Figs. 4 and 9. When the gripping mechanism moves toward the feed table, the outer ends of the corner jaws 90 become seated upon the upper ends of the rests 95 as shown by Figs. 6, 11, 12 and 13; the seating of the jaws 90 occurs slightly before the jaws arrive at their limit of movement and the lower jaws are sufficiently flexible to permit the additional movement without causing any breakage. As shown by Fig. 11 in which the lower jaw

90 is in the act of sitting upon the rest 95, the sheet *a* is supported considerably above the sheet engaging surface of said jaw. In Fig. 12, however, the sheet is dropped sufficiently to engage the jaw before the closing movement of the upper jaw 91. This movement of the sheet is the result of dropping the table 21 by means of the cams 46.

The entire operation of the gripping jaws in connection with the feed table is as follows: The jaws which stand nearly vertical in Fig. 1 remain open while the gripping mechanism is moved to the position shown by dotted lines. At this time, the feed table is in its upper position and the stop-gages and sheet guides are in the position shown by Figs. 2, 3, 5 and 6. The relative positions of the sheet and jaws when the jaws are closely approaching gripping position are shown by Figs. 6 and 11. Immediately before the jaws reach their limit of movement, the lower jaws are seated upon the rests 95 and the ears 93 engage the ears 94′ thereby positioning the sheet with relation to the jaws while the latter are open. During the final movement of the jaws, the rockshaft 45 is oscillated in a counter clockwise direction according to Figs. 2 and 5. The first part of the movement of the shaft 45 results in the dropping of the feed table and the dropping of the sheet from the plane of Fig. 11 to that of Fig. 12. The lower surface of the sheet is thereby placed in engagement with the work-engaging surfaces of the lower jaws 90. The rock-shaft 45 tends to turn during the final movement of the gripping jaws, during which the stop-gages 67 are moved to position the sheet with relation to the jaws. During this part of the movement of the rockshaft 45 the lugs 86 move in the recesses 85 without actuating the gears 84. Meanwhile the upper jaws 91, which are held open against the tension of the closing springs 92, are released to permit the closing of said jaws. Following the closing of the jaws the lugs 86 on the rockshaft 45 engage the end shoulders of the recesses 85 and impart movement to the segmental gears 84, 83, and the rockshaft 82. The first movement of the rockshaft 82 effects retraction of the guides 80, and the movement of the arms 81 effects the retraction of the supports 69 and the stop-gages 67. Thus the guides 80 and stop-gages are retracted below the plane of the feed table while the gripping mechanism returns to its remote position. As the gripping jaws recede from the feed table carrying the sheet *a*, they release the ears 94′ and the blocks 68 are once more moved to the shoulder 77′ by their springs 79. The roll 67 (see Fig. 2) at this stage engages the arm 64 with the result that the rock-shaft 45 is oscillated in the opposite direction. The first part of the reverse movement of the shaft 45 is without effect because the rear ends of the cams 46 are concentric as shown by Figs. 6 and 7 and because the lugs 86 have to travel the length of the recesses 85 before imparting reverse movement to the gear 84.

As shown by Fig. 5, the heads 48′ which support the rolls 47 are formed with longitudinal slots 45′ through which the rock-shaft 45 extends. When the feed table is permitted to drop and is raised, the shaft 45 moves up and down in the slot 45′, and the upper ends of the heads are held against lateral movement by the shaft. By reason of mounting the rests 95, in the manner described, they are adjusted to various heights in accordance with the initial adjustment of the feed table as effected by rotation of the nuts 49. The rests, however, do not drop when the table is dropped by its cams but remain relatively stationary.

Having thus explained the nature of my said invention and described a way of making and using the same, although without attempting to set forth all of the forms in which it may be made or all of the modes of its use, I declare that what I claim is:

1. Sheet feeding mechanism comprising a feed table, sheet gripping means adapted to grip a sheet on the table and carry the sheet away from the table, and gages adapted to be engaged by a sheet on the table when the gripping means are away from the table, said gages being adapted to be engaged and moved by the gripping means to position the sheet with relation to the gripping means.

2. Sheet feeding mechanism comprising a feed table, gripping means movable to and from said table, and yielding gages arranged to be preliminarily engaged by the front edge of a sheet on said table, said gages being arranged to be engaged and moved by said gripping means to finally position the sheet with relation to said gripping means.

3. Sheet feeding mechanism comprising a feed table, gripping means movable to and from said table, and means for positioning a sheet on said table while said gripping means move to and from the table, said means being arranged to be actuated by said gripping means for positioning the front edge of said sheet relatively to the gripping means.

4. The combination with a feed table, and sheet gripping means for removing a sheet from said table; of movable means mounted on said table to be engaged and moved by said gripping means, said movable means having abutments arranged to engage the front edge of a sheet on the table and position the sheet with relation to said gripping means.

5. The combination with a feed table, and sheet gripping means for removing a sheet from said table; of means mounted on said table to be engaged and moved by said grip-

ping means, said means including adjustable abutments arranged to engage and position a sheet on the table.

6. The combination with a feed table, and sheet gripping means for removing a sheet from said table; of means mounted on said table to be engaged and moved by said gripping means, said means being adjustable toward and from said gripping means, and including independently adjustable abutments arranged to engage and position a sheet on the feed table.

7. The combination with a feed table, and gripping jaws movable to and from said table, and adjustable transversely of the table; of a plurality of supports mounted on said table and adjustable transversely thereof, sheet gaging devices mounted respectively on said supports, said devices being adapted to be engaged and repelled by said gripping jaws, and otherwise movable up and down, said devices including abutments adapted to engage and move a sheet on said table when the devices are repelled while in their upper positions, and means for moving said devices up and down to place said abutments in or below their sheet engaging positions.

8. Sheet feeding mechanism comprising a feed table, sheet carrying means including a plurality of pairs of gripping jaws movable to and from said table and adjustable transversely of the table, and a plurality of stops arranged to be engaged by said jaws to position the jaws with relation to the table, said stops being adjustable transversely of the table.

9. The combination with a feed table, of a plurality of holders movable up and down, an adjustable member mounted in each holder, said member being movable longitudinally of the feed table, yielding means tending to move each member forward with relation to the table, an adjustable stop for limiting forward movement of each member, and an adjustable abutment mounted on each adjustable member and arranged to project above the upper surface of said table when its respective holder is up, and to lie below said surface when its holder is down.

10. The combination with a press comprising a press couple consisting of a chase and platen, one of which reciprocates toward and from the other, of a feed table, gripping means carried by the movable member of the press couple for engaging and carrying a sheet from the feed table and presenting it between the chase and platen, and means arranged to be engaged by the gripping means to position the sheet engaging faces of said gripping means in the plane of the table.

In testimony whereof I have affixed my signature, in presence of two witnesses.

MYRON H. PIPER.

Witnesses:
EUNICE P. GILMORE,
GERTRUDE WHITNEY.