No. 672,043.

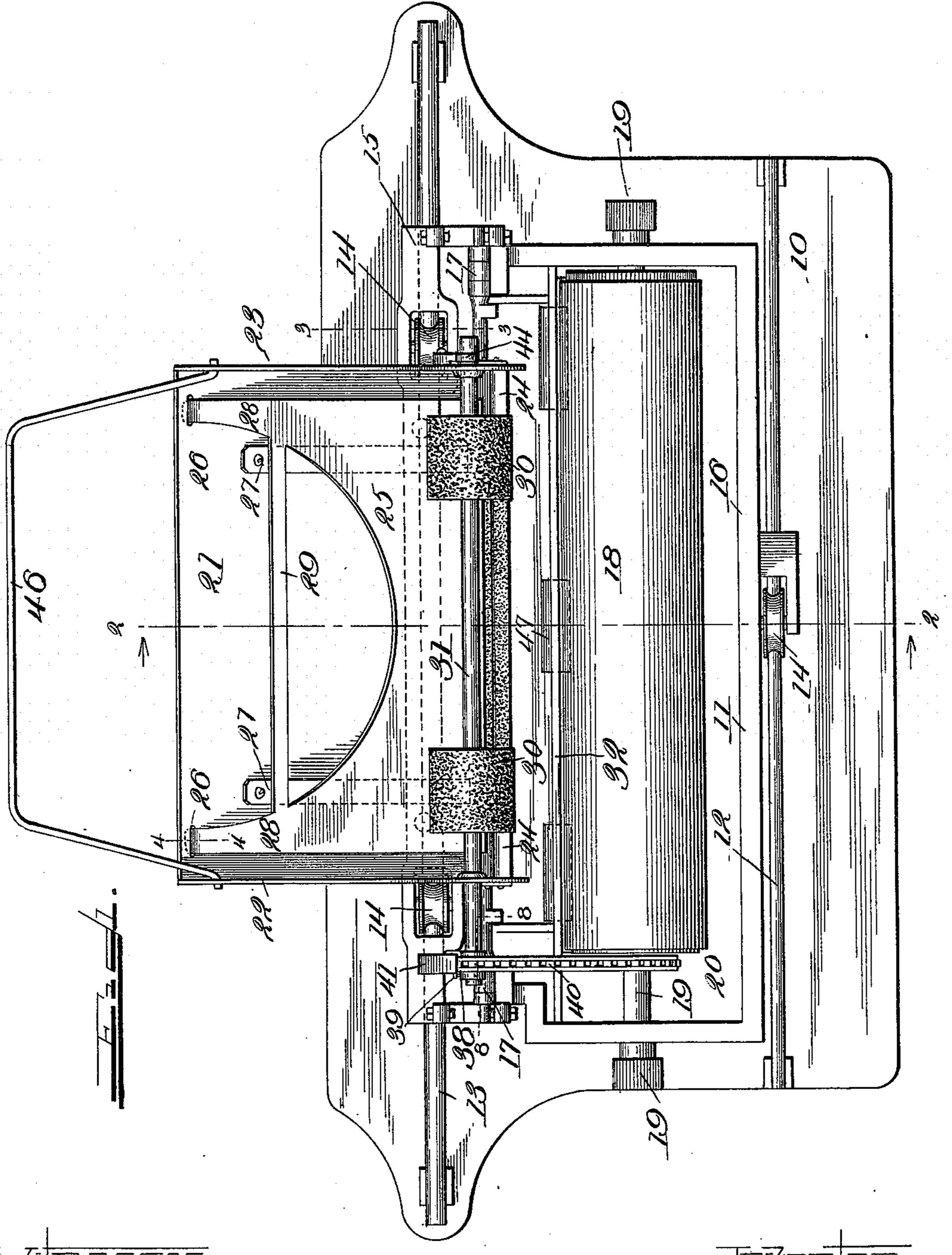
Patented Apr. 16, 1901.

J. H. SHECKLER. WRITING MACHINE.

(Application filed Apr. 5, 1900.)

(No Model.)

2 Sheets-Sheet 1.



Harry O. Monson. Julia M. Bristoh.

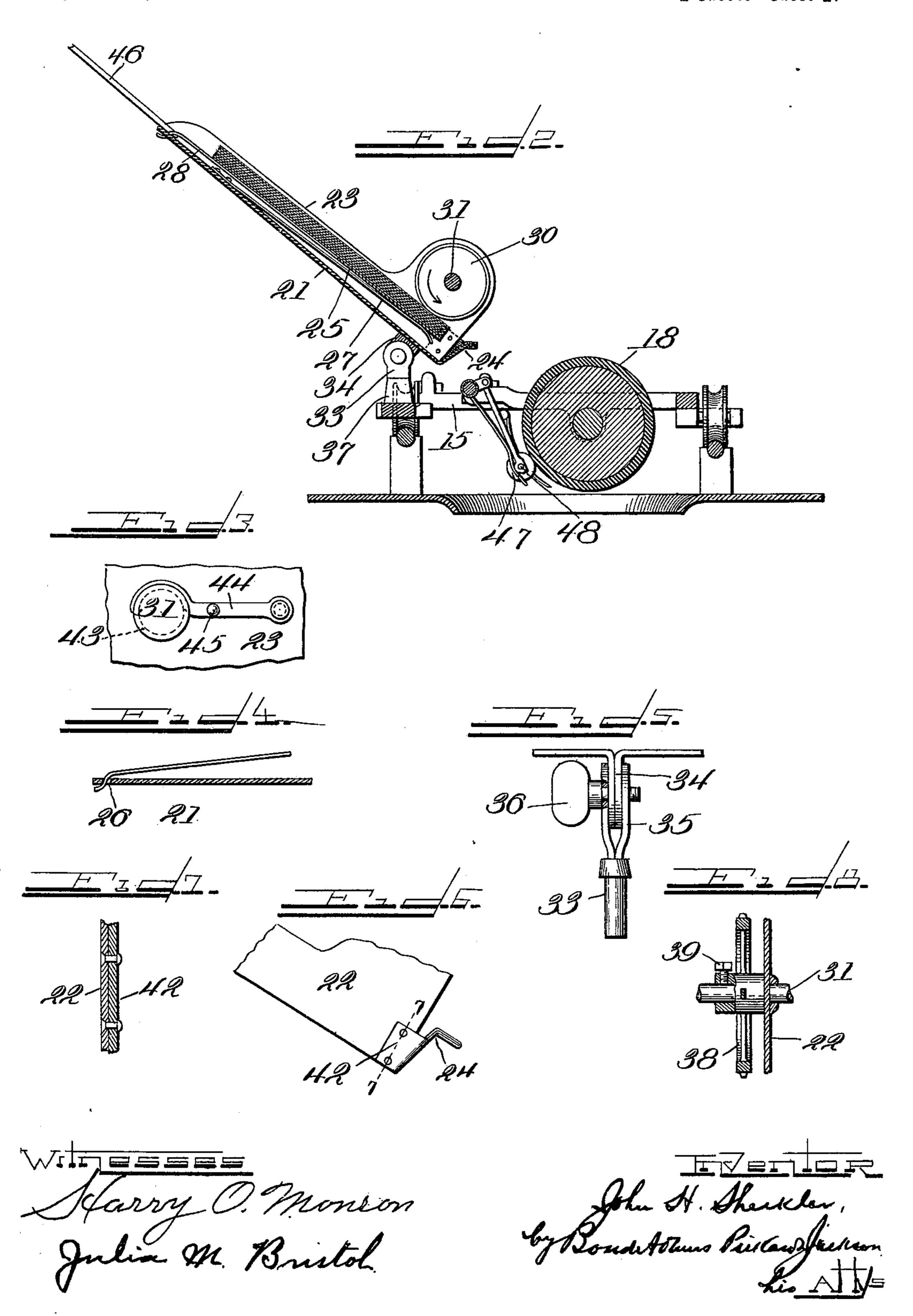
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2 Sheets—Sheet 2.



United States Patent Office.

JOHN H. SHECKLER, OF CHICAGO, ILLINOIS.

WRITING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 672,043, dated April 16, 1901.

Application filed April 5, 1900. Serial No. 11,717. (No model.)

To all whom it may concern:

Be it known that I, John H. Sheckler, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illi-5 nois, have invented certain new and useful Improvements in Writing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to writing-machines, to and has for its object to provide paper-feeding mechanism operating in connection with type-writing machines by which sheets may be fed into the type-writing machine as needed without necessitating the handling of them

15 separately.

In certain classes of business—as, for instance, in telegraph-offices—it is necessary to feed sheets into type-writing machines at a rapid rate. Frequently the work must be 20 done so rapidly that the time consumed in feeding sheets into the machine by hand seriously interferes with the work of the operators, and it is for the purpose of avoiding this delay that my invention is more particularly 25 designed.

To this end my invention consists generally in providing the writing-machine with a sheet-supplying device adapted to hold a plurality of sheets in position to be fed into the 30 writing-machine and in providing mechanism by which sheets are automatically fed to the writing-machine as it is operated, a fresh sheet being supplied to it as the written sheet

is removed.

My invention further consists in certain features of the construction of the paper-supplying device and the operating mechanism therefor, which will be hereinafter more spe-

cifically pointed out.

In the accompanying drawings, Figure 1 is a plan view of a type-writing machine embodying my improvements. Fig. 2 is a vertical section on line 2 2 of Fig. 1. Fig. 3 is a detail, being a partial end view of the paper-45 supplying device on line 3 3 of Fig. 1. Fig. 4 is a detail, being a sectional view on line 4 4 of Fig. 1. Fig. 5 is a rear view of one of the supports for the paper-supplying device, part being in section. Fig. 6 is a detail illustrat-50 ing one of the corners of the paper-supporting frame. Fig. 7 is a section on line 7 7 of | tion may be varied, if desired. When, how-

Fig. 6, and Fig. 8 is a partial sectional view taken on line 8 8 of Fig. 1.

I have shown my invention in the accompanying drawings as applied to the carriage 55 of an ordinary No. 6 Remington type-writer. To avoid unnecessary description in the specification and illustration in the drawings, however, certain parts of the machine not necessary to illustrate the working of my inven- 60

tion are omitted.

Referring now to the drawings, 10 indicates the top plate of a type-writing machine, and 11 the usual carriage mounted thereon, said carriage traveling longitudinally of the plate 65 10 on guide-rods 12 13, the frame 11 being supported by rollers 14 in the usual way. The frame 11 is in two sections, consisting of a rear section 15, which runs on the rear rod 13, and a front section 16, which is hinged by 70 hinges 17 to the section 15.

18 indicates the platen of the writing-machine, which consists of a cylinder mounted on a shaft 19, the ends of said shaft being journaled in the section 16 and being pro- 75 vided with finger-pieces 19, by which the platen may be rotated. The shaft 19 is provided near one end of the platen 18 with a sprocket-wheel 20, as shown in Fig. 1.

21 indicates a paper-supplying frame, which 80 is provided with upturned ends 22 23 and with an upturned and outwardly-inclined lower edge 24, forming a lip, as shown in Fig. 2. The frame 21 is of suitable size and shape to hold and guide a number of blanks such as 85 are to be used in the writing-machine, as illustrated in Fig. 2. Said blanks are supported in the frame 21 on an adjustable plate 25, pivoted or hinged at its outer or upper end to the frame 21, as shown in Figs. 1 and 2. 90 This is preferably secured by providing the frame 21 with slits 26, in which the ends of the plate 25 are fitted, as shown in Figs. 1 and 2. The free or inner end of the plate 25 terminates near the edge 24 of the frame 21, as 95 shown in Fig. 2, and it is normally held upward away from the back of the frame 21 by springs 27, as illustrated. The plate 25 is cut away at its outer or upper portion to form rearwardly-projecting arms 28, by which it 100 is pivoted to the frame 21; but this construcever, the arms 26 are arranged as illustrated, a cross-strip 29 is provided connecting said arms, said strip serving to strengthen said plate and to further support the blanks car-

5 ried by it.

The blanks are fed from the frame 21 by friction-rollers 30, preferably two in number, which are mounted on a shaft 31, journaled in the end plates 22 23 of the frame 21, as 10 shown in Figs. 1 and 8. The shaft 31 extends over the blanks carried by the frame 21 and is arranged parallel with the lower edge 24 of said frame. The diameter of the rollers 30 is such that the lower portion of the pe-15 ripheries of the rollers is slightly below the upper portion of the upturned edge 24 of the frame 21, as also shown in Fig. 2. The rollers 30 as well as the inner surface of the lip at the edge 24 are covered with emery-cloth or 20 are otherwise roughened, so that they frictionally engage the blanks. The springs 27 press the plate 25 outward or toward the rollers 30, so that the blanks carried by said plate are normally pressed against said rollers. 25 Thereby by rotating the shaft 31 in the direction indicated by the arrow in Fig. 2 the uppermost blank of the pile may be moved toward the lower or inner edge 24 of the supporting-frame 21. Since the friction between 30 the several blanks may cause others than the uppermost sheet to be advanced when the rollers 30 are rotated, the upper face of the edge 24 is covered with emery-cloth, so that it will engage and retard the progress of all 35 the blanks except the uppermost, insuring the delivery of single blanks from the supporting-

frame. In order to provide for properly feeding the blanks from the frame 21 of the supplying 40 device to the platen 18 of the type-writing machine, said frame is mounted in an inclined position upon the section 15 of the frame 11, as shown in Fig. 2, the adjustment of the frame 21 of the supplying device be-45 ing such that the blanks delivered from it will strike the rear surface of the platen 18 in such manner as to be deflected downward and around it, a curved guide 32 being placed back of the lower portion of the platen 18, as 50 shown in Fig. 2, to properly guide the blanks. The frame 21 is supported in its position on the carriage 11 by standards 33, which are adjustably secured to ears 34, projecting from the back of the frame 21, as shown in Figs. 55 2 and 5. The standards 33 are secured to the ears 34 by spring-clamps 35. Each of said clamps is bifurcated to receive one of the ears 34, the parts of each clamp being held together by a thumb-screw 36, which passes 60 through the members of the clamp and the ears 34, one end of said thumb-screw being fitted in a screw-threaded bearing in one of the members of the clamps, as shown in Fig.

5. By tightening the thumb-screw 36, there-

any desired angle to the standards 33. The

standards 33 are adapted to fit removably in [

65 fore, the frame 21 may be securely held at:

sockets in blocks 37, carried by the carriage 11, as shown in Fig. 2.

In order to automatically operate the roll- 70 ers 30, so that the feeding of the blanks may be controlled by the operation of the typewriter, the shaft 31 is provided with a sprocketwheel 38, which is mounted upon and secured to it preferably by a set-screw 39, as shown 75 in Fig. 8. The sprocket-wheel 38 is adjustable lengthwise of the shaft 31 in order to bring it into line with the sprocket-wheel 20 on the shaft 19. Figs. 1 and 8 illustrate different positions of the sprocket-wheel 38.

40 indicates a chain which connects the sprocket-wheels 38 and 20, as shown in Fig. 1, said chain operating to rotate the shafts 19 and 31 in the same direction, so that when the platen 18 is rotated in the direction indi- 85 cated by the arrow in Fig. 2, as it is in taking a sheet out of the type-writer, the rollers 30 will be rotated in the direction indicated by the arrow in Fig. 2, thereby delivering a blank from the frame 21 to the platen 18. 90 Furthermore, this construction permits the raising of the platen for the inspection of the work without affecting the paper-supplying frame, since when the platen is raised the chain 40 is slackened without rotating the 95 shaft 31. A guard 41 is provided, extending partly around the sprocket-wheel 38 and arranged close to it, as shown in Fig. 1, to prevent the chain from accidentally slipping off said sprocket-wheel.

In order to strengthen the paper-supplying frame 21, the lower edge 24 thereof is provided with ears 42 at its ends, which overlap the ends 22 23 of said frame and are riveted thereto, as shown in Figs. 6 and 7. The 105 heads of the rivets are countersunk in the end plates 22 23, so that the rivets will not interfere with the movement of the blanks.

100

130

To permit the removal of the shaft 31 when necessary, it is provided at the end opposite 110 that at which the sprocket-wheel 38 is mounted with an annular groove 43, so placed as to lie slightly outside of the end plate 23. The shaft is held in place in its bearings when in operation by a detent 44, which is pivoted to 115 the end plate 23 and is provided with a curved end adapted to fit in said groove 43, as shown in Fig. 3. The detent 44 may be provided with a projecting knob 45, by which it may be more conveniently operated.

In some cases it is necessary to use blanks which are wider than the frame 21, and for supporting said blanks an extension-frame 46 is provided, consisting of a wire, the ends of which are secured in the end plates 22 23 125 of the frame 21, as shown in Figs. 1 and 2, said frame 46 extending outward and from one side of the frame to the other. It may be removed when the apparatus is used with blanks of the ordinary size.

The operation of the apparatus has been described to some extent in the description of its construction; but it may be well to state that in operation the paper-supplying frame

21 is placed in position on the rear section | 15 of the carriage 11, the standards 33 being fitted in the sockets in the blocks 37. The frame 21 is then adjusted, if necessary, to 5 such an angle with the carriage that the blanks as fed from it will strike the rear surface of the platen 18 at an acute angle, so that they will be deflected downward around it. When the platen 18 is rotated to deliver 10 a sheet from the type-writer, the shaft 31 and rollers 30 are simultaneously rotated in the same direction through the sprocket-wheels 20 and 38 and the chain 40, feeding a blank to the platen. If the written sheet is with-15 drawn from the type-writer by pulling on the sheet, instead of rotating the platen 18 by hand the platen 18 is rotated by friction between the sheet and the platen caused by the friction-rollers 47, mounted on a shaft 48, 20 carried by the carriage 11 parallel with and near the platen 18, as shown in Fig. 2, so that however the sheet is removed from the carriage the shaft 19, and consequently the rollers 30, are rotated, supplying a fresh sheet to 25 the platen.

As already stated, the feeding of a single blank at a time is secured by the frictional engagement between the lower blanks and the upper surface of the edge 24. The springs 27 serve to hold the blanks properly in contact with the rollers 30, so that sufficient friction is always obtained to cause the feeding ing of the blanks by the rotation of the roll-

ers 30.

That which I claim as my invention, and desire to secure by Letters Patent, is—

1. In a writing-machine, the combination of a carriage composed of sections loosely hinged together, whereby said sections are

freely movable angularly relatively to each 40 other, a rotary platen carried by and movable with one of said sections, a sheet-supplying device carried by the other section, and means operated by the rotation of the platen, for delivering sheets singly from said sheet-45 supplying device to said platen, substantially as described.

2. A sheet-supplying device for writing-machines, consisting of a supporting-frame, paper-feeding devices carried thereby, and 50 an extension-frame 46 removably secured to said supporting-frame, substantially as de-

scribed.

3. In a sheet-supplying device for writing-machines, the combination of a carriage, a 55 rotary platen mounted thereon, a sheet-supplying device hinged to said carriage, sheet-feeding devices for feeding sheets from said sheet-supplying device to said platen, said sheet-feeding device and said platen each 60 having a sprocket-wheel, and a chain connecting said sprocket-wheels, substantially as described.

4. In a writing-machine, the combination of a movable carriage composed of sections 65 freely movable angularly relatively to each other, a rotary platen carried by one of said sections, a sheet-feeding device carried by the other section and having means for feeding sheets singly to the platen, and means operated by the rotation of said platen to actuate the sheet-feeding means to deliver sheets singly from said sheet-supplying device to said platen.

JOHN H. SHECKLER.

Witnesses:

JOHN L. JACKSON, ALBERT H. ADAMS.