No. 712,607. Patented Nov. 4, 1902.

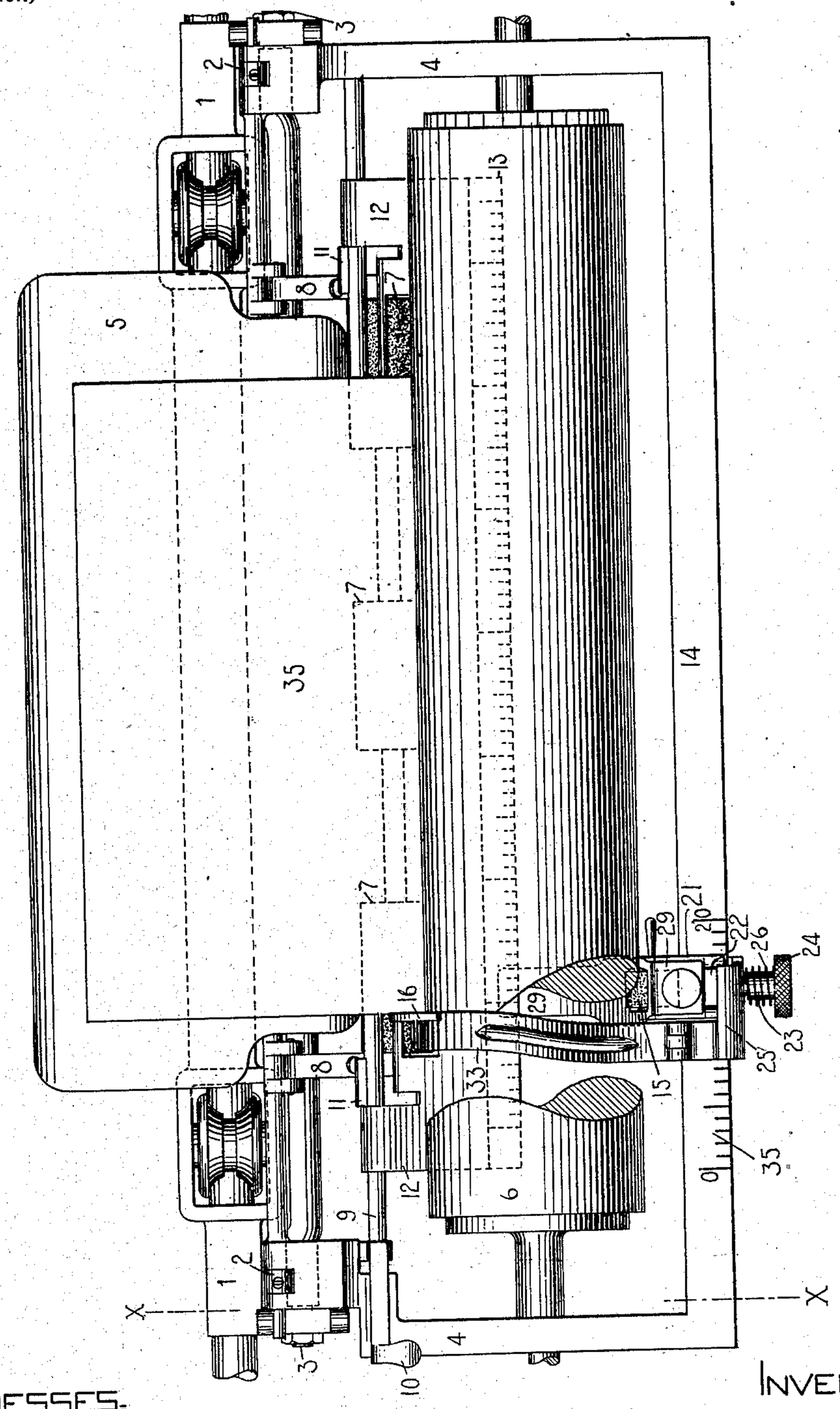
C. H. SHEPARD.

TYPE WRITING MACHINE.

(Application filed Aug. 15, 1902.)

(No Model.) 2 Sheets—Sheet 1.

FIG. 1.



WITNESSES:

K. V. Donovan.

Charles E. Smith

INVENTOR:

Charles H. Shepard

by Jacob Felbel

HIS ATTORNEY

No. 712,607. Patented Nov. 4, 1902.

C. H. SHEPARD.

TYPE WRITING MACHINE.

(Application filed Aug. 15, 1902.)

(No Model.) 2 Sheets—Sheet 2.

FIG. 2.

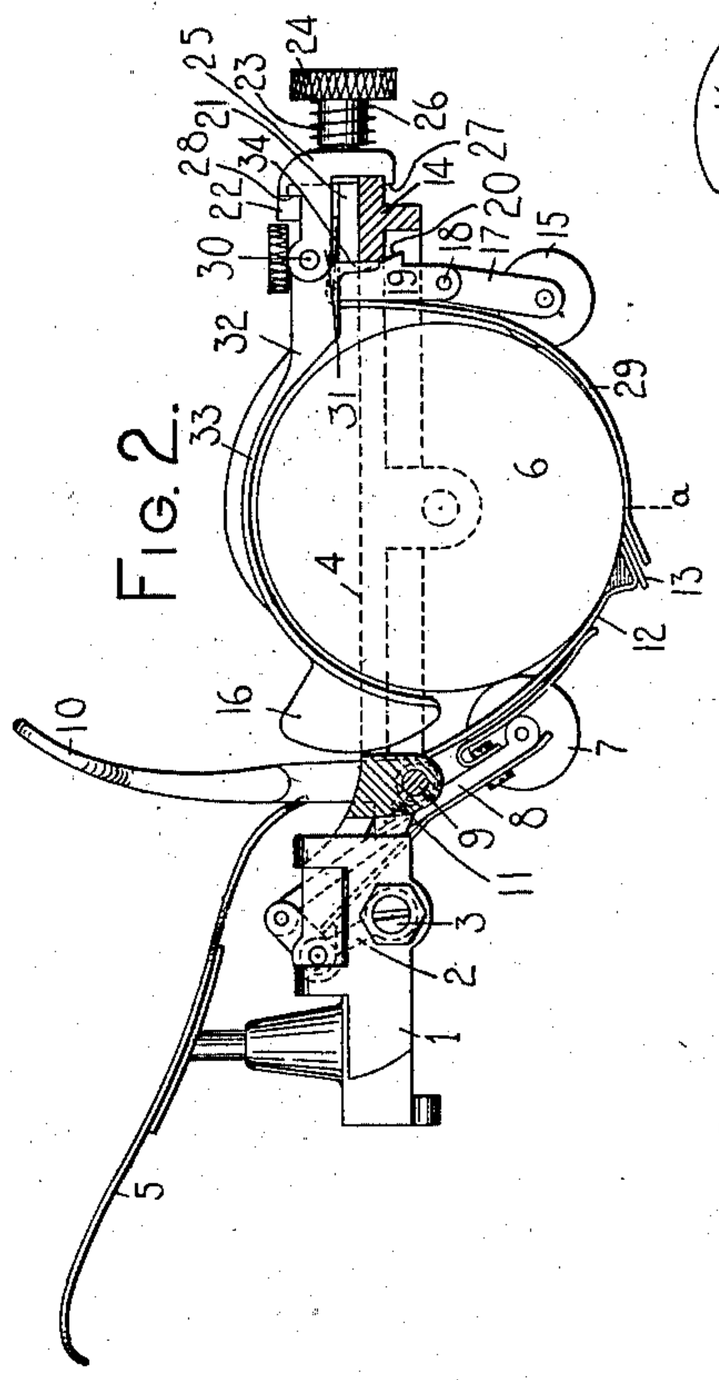


FIG. 4.

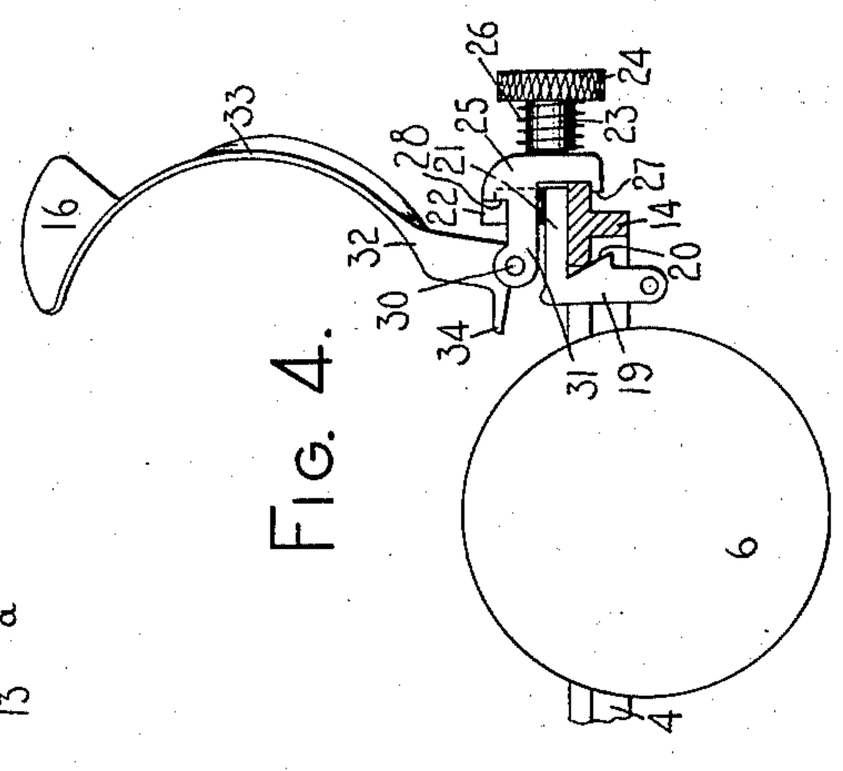
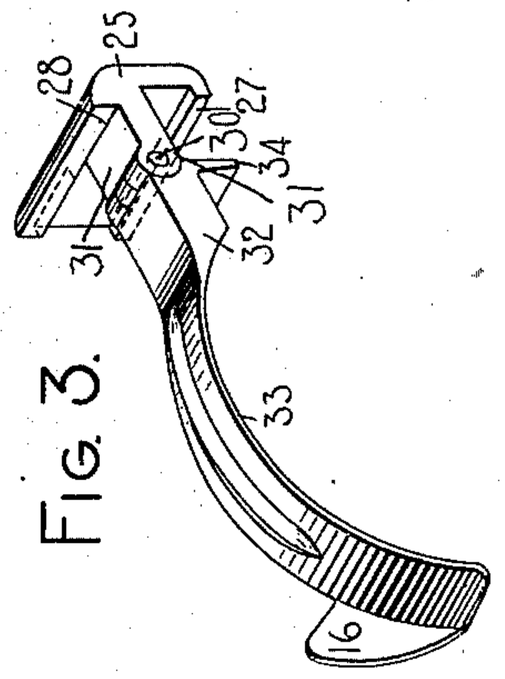


FIG. 3.



WITNESSES=

K. V. O'Donovan.

Charles E. Smith

INVENTOR=

Charles H. Shepard

by Jacob Felbel

HIS ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES H. SHEPARD, OF BROOKLYN, NEW YORK, ASSIGNOR TO WYCKOFF, SEAMANS & BENEDICT, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 712,607, dated November 4, 1902.

Application filed August 15, 1902. Serial No. 119,753. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SHEPARD, a citizen of the United States, and a resident of the borough of Brooklyn, in the city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to type-writing machines, and more particularly to devices for guiding a side edge of the paper; and the object of said invention is to provide a simple, cheap, and efficient device of the character specified.

A further object of the invention is to provide efficient means of the character described which can be applied to existing forms of type-writing machines and wherein little or no modification of the structural features of said machines is necessary to afford an application of the features of my invention thereto.

To the above and other ends, which will hereinafter appear, my invention consists in the novel features of construction, arrangements of parts, and combinations of elements to be hereinafter described and claimed.

In the accompanying drawings, wherein like reference characters indicate corresponding parts in the various views, Figure 1 is a plan view of sufficient number of parts of one form of type-writing machine to illustrate my invention in its application thereto. Fig. 2 is a transverse vertical sectional view of the same, taken on the line $x\,x$ of Fig. 1. Fig. 3 is a detail perspective view of the side-edge guide for the paper and a member of the clamping-bracket to which it is pivoted. Fig. 4 is a fragmentary sectional view corresponding to Fig. 2, except that the side-edge guide is shown in the inoperative position.

While I have illustrated my invention in its application to a No. 6 Remington machine, it should be understood that the devices of my invention are applicable to other characters of type-writing machines and that to this end various modifications may be made without departing from the spirit of my invention.

The truck 1 is of any suitable construction and travels from end to end of the machine in the usual manner and has links or crank-arms 2 pivoted thereto at 3 and which are pivotally connected to the platen frame or carriage 4 in order that the platen-frame may vibrate fore and aft of the machine for upper and lower case printing. The truck 1 supports the usual paper-table 5, that guides the paper to the bight between the platen 6 and the feed-rollers 7. The platen 6 is mounted to revolve in the platen-frame 4, and the feed-rollers 7 are pivotally supported on spring-pressed arms 8, which normally maintain the feed-rollers in contact with the platen or the paper thereon, as illustrated in Fig. 2. A rock-shaft 9 is supported in the platen-frame and is provided with an upwardly-extending finger-piece 10, by means of which the rock-shaft may be vibrated to move the fingers 11 thereon, and thus effect a downward movement of the spring-pressed arms 8 in order to throw the feed-rollers 7 out of contact with the platen or the paper thereon. The rock-shaft 9 supports one end of the usual paper-apron 12, that is provided with a paper-scale 13 at the free end thereof, which paper-scale is adjacent to the printing-line, (indicated by the dotted line a in Fig. 2,) the machine being an under-strike machine.

Secured adjustably to the front rail 14 of the carriage or platen frame is the usual margin feed-roller 15 and the paper-guide finger 29. The margin feed-roller 15 is pivotally supported upon an arm 17, which is pivoted at 18 to a supporting-bracket 19, the roller being normally pressed into contact with the platen by a spring. (Not shown.) The supporting-bracket 19 is provided with an undercut portion 20, which is adapted to take under the inner flange of the front rail of the platen-frame, whereas the upper portion 21 of the bracket rests upon the upper side of the front rail and is provided with an upwardly-extending arm 22. The threaded stem of a screw having an enlarged shoulder 23 and a knurled head 24 passes through an opening in a bracket member 25 and takes in a threaded opening in the upright arm 21 of the bracket-section 19. A coiled expansion-

spring 26 surrounds the enlarged shoulder 23 of the screw and bears at one end against the knurled head and at its opposite end against the bracket member 25, which latter is provided with a flange 27 at the lower edge thereof that bears beneath the forward flange on the front rail of the platen-frame, whereas the face 28 on the bracket member 25 bears against the upright arm 22 on the bracket-section 19. This device affords a means for clamping the bracket members 19 and 25 in place. Thus loosening the screw through the knurled head 24, the pressure of the spring 26 on the bracket members is relieved, and they may be adjusted longitudinally to any desired point on the front rail of the platen-frame, thereby affording an adjustment of the parts throughout the length of the platen, though for all practical purposes an adjustment of parts throughout the left-hand end portion of the platen may be sufficient. The bracket member 19 likewise supports a rearwardly-directed paper-guiding finger 29, the free end of which overlaps the paper-scale 13, as indicated in Figs. 1 and 2, so that the paper is guided in its movement from the paper-scale forwardly and upwardly around the platen. It will be understood that an adjustment of the brackets or bracket members 19 and 25, which are united by the screw having the knurled head 24, likewise adjusts the margin feed-roller 15 and paper-guide finger 29 to the desired position along the platen 6.

The construction thus far described constitutes features essentially like those employed in the well-known No. 6 Remington machine, and further description thereof is deemed unnecessary.

Pivoted at 30 to a forwardly-extending ear 31 on the bracket 25 is an arm 32, that is curved at 33 to conform to the general contour of the platen, and this arm is provided at its rear free end with a side-edge guide 16. The arm 32 extends from the front rail of the platen-frame rearwardly and downwardly at the terminal portion thereof, so as to support the side-edge guide 16 adjacent to the paper-table and paper-apron and in the space where the paper is introduced between the platen and feed-rollers 7 in order that the left-hand side edge of the paper as it is being introduced into the machine may be squared against the working or operative face of the guide 16. It will be understood, of course, that the plane of the contact or working face of the guide 16 is situated in a vertical plane that extends fore and aft of the machine. The arm 32 is provided with a depending arm or abutment 34, which is adapted to bear at its lower end against the inner face or flange of the front rail of the platen in order that the arm 32 may be supported free from contact with the platen, as indicated in Fig. 2.

From an examination of Fig. 1 it will be observed that the guide 16 is supported in substantial alinement with the outer or left-hand edge of the paper-guiding finger 29 and of the margin feed-roller 15, so that when the paper 35 is introduced into the machine and is squared against the guide 16 it may be fed forward, and the guide-finger 29 and margin feed-roller 15 will coöperate therewith at its left-hand margin in the proper manner. It will therefore be seen that a fixed relation exists between the guide 16, the paper-finger 29, and the margin feed-roller 15, so far as a lateral movement of the parts is concerned, and that an adjustment of the brackets along the front rail 14 of the platen-frame effects a simultaneous adjustment of all three of these parts, as well as the bracket sections or supports, and at the same time they are maintained in their proper relative positions one to another, so that the operator is assured that the paper-guiding finger and the margin feed-roller will properly coöperate with the paper when it is squared against the guide 16. The usual paper-scale 13, hereinbefore referred to, affords a means for determining the proper positioning or adjustment of the parts. Thus, for instance, the operator may swing the platen-frame to expose the printing-line and may then adjust the brackets or supports 19 and 25 along the front rail of the platen-frame until the paper-finger 29, which overlaps the scale 13, has been adjusted to the desired position with reference to the scale. The brackets may then be securely clamped in the adjusted position and the paper-guide 16 and margin feed-roller will have been adjusted to a corresponding position. The left-hand edge of the paper-guiding finger 29 may be employed to register with the divisions on the scale in order to determine the proper location of the side edge of the paper. It will be seen upon reference to Fig. 1 that the left-hand edge of the paper-finger 29 is substantially coincident with the paper-guide 16, and it follows, therefore, that when the edge of the paper-finger registers with a division on the scale 13 the guide 16 will be in a corresponding position, and the left-hand edge of the paper when squared against the guide 16 will be at a like point on the scale.

When it is desired to throw the guide 16 out of operation or to an inoperative position in order that a long envelop or other paper of unusual length may be inserted in the machine and without adjusting the brackets, it is merely necessary to move the supporting-arm 32 around its pivot 30, as represented in Fig. 4, and the paper-guide is thus thrown out of operation or away from the position where it will coöperate with the side edge of the paper as it is introduced into the machine.

It will be observed that by my invention I have provided simple and efficient devices for guiding the side edges of the paper and that such devices may be applied to existing forms of type-writing machines with little or no modification of the structural features of said machines.

It will be understood that the screw, with the knurled head 24, may be entirely removed, thus disconnecting the brackets 19 and 25, together with the parts supported thereby, and they may be entirely removed from the machine.

Upon reference to Fig. 1 it will be seen that the upper face of the front rail of the platen-frame has a scale 35, the graduations of which correspond to a portion of the paper-scale 13 or to twenty letter-spaces beginning at the left-hand end of a line of writing. When the left-hand side of the bracket or carrier 25 registers with a division of the scale 35, the side-edge guide will be so positioned that the edge of the paper squared against the guide will be at a corresponding division on the paper-scale 13. Therefore either or both of the scales 13 and 35 may be employed to properly position the guide 16, the paper-finger 29, and the margin feed-roller 15. When the scale 35 is employed, the parts may be properly positioned without swinging the carriage back.

What I claim as new, and desire to secure by Letters Patent, is—

1. In an under-strike type-writing machine, the combination of a carriage, a platen, and a guide for a side edge of the paper which is carried by and adjustable along the front rail of the carriage.

2. In an under-strike type-writing machine, the combination of a carriage, a platen, a paper apron and table and a guide for a side edge of the paper which is carried by the front rail of the carriage and extends to a point adjacent to the paper apron and table and to the point where the paper is introduced.

3. In an under-strike type-writing machine, the combination of a carriage, a platen, and a guide for a side edge of the paper which is carried by and adjustable along the front rail of the carriage, a part of said guide being curved to conform to the face of the platen, and extending to a point adjacent to where the paper is introduced.

4. In a type-writing machine, the combination of a platen, a margin feed-roller, a side-edge paper-guide, and means for affording a simultaneous adjustment of said side-edge guide and margin feed-roller longitudinally of the platen.

5. In a type-writing machine, the combination of a platen, a platen-frame, a paper-guide finger, a margin feed-roller, a guide for a side edge of the paper, and means for affording a simultaneous adjustment of the paper-guide finger, the margin feed-roller and the guide for a side edge of the paper along the front rail of said platen-frame.

6. In a type-writing machine, the combination of a platen, a platen-frame, a guide for a side edge of the paper which is pivoted so that it can be thrown into and out of operative position, and means for affording a longitudinal adjustment of said guide on the front rail of the platen-frame.

7. In a type-writing machine, the combination of a platen, a pivoted arm which extends from in front of the platen rearwardly and over the top thereof and conforms substantially to the curvature of the platen, a guide for the side edge of the paper which is carried at the free end of the said arm and extends into the space where the paper is introduced into the machine, and means for adjusting said guide longitudinally of the platen.

8. In an under-strike type-writing machine, the combination of a platen, a paper-scale beneath the platen, a paper-guide finger which overlaps the scale and which is adjustable longitudinally of the platen, and a side-edge paper-guide which is adjustable with the paper-guide finger.

9. In an under-strike type-writing machine, the combination of a platen, a paper-scale beneath the platen, a paper-guide finger which overlaps the scale and which is adjustable longitudinally of the platen, a margin feed-roller which is adjustable longitudinally of the platen, and a side-edge paper-guide which is adjustable with the paper-guide finger and with the margin feed-roller.

10. In a type-writing machine, the combination of a platen, a paper-scale, a paper-guide finger that extends to said paper-scale and is adapted to register with the divisions thereon, a margin feed-roller in substantial alinement with said paper-guide finger, a side-edge paper-guide in substantial alinement with the left-hand side of the guide-finger and margin feed-roller, said guide-finger, margin feed-roller and side-edge guide being simultaneously adjustable in the direction of the length of the platen.

11. In an under-strike type-writing machine, the combination of a platen, a platen-frame, a paper-scale located beneath the platen, a paper-guide finger that extends to said paper-scale and is adapted to register with the divisions thereon, a margin feed-roller in substantial alinement with said paper-guide finger, a side-edge paper-guide in substantial alinement with the left-hand side of the guide-finger and margin-roller, so that the paper-finger and margin feed-roller will coöperate with the left-hand margin of the paper when the left-hand edge of the paper abuts or is squared against the edge guide, said guide-finger, margin feed-roller and edge guide being simultaneously adjustable along the front rail of the platen-frame in the direction of the length of the platen.

12. In an under-strike type-writing machine, the combination of a platen, a platen-frame, a paper-scale located beneath the platen, a paper-guide finger that extends to said paper-scale and is adapted to register with the divisions thereon, a margin feed-roller in substantial alinement with said paper-guide finger, a pivoted side-edge paper-

guide that is adapted to be turned on its pivot to the operative or inoperative position and which is in substantial alinement with the left-hand side of the guide-finger and margin-roller, so that the paper-finger and margin feed-roller will coöperate with the left-hand margin of the paper when the left-hand edge of the paper abuts or is squared against the edge-guide, said guide-finger, margin feed-roller and side-edge guide being simultaneously adjustable along the front rail of the platen-frame in the direction of the length of the platen.

13. In a type-writing machine, the combination of a carriage, a platen, a paper-scale, a paper-guide finger that extends to and is adapted to register with the divisions of said scale, an adjustable carrier for said guide-finger, a margin feed-roller that is carried by said carrier and is in substantial alinement with said guide-finger, and a guide for the side edge of the paper which is pivoted in front of the platen and is carried by said carrier and is curved to conform to the curvature of the platen and extends rearwardly adjacent to the paper-table and apron and into the space where the paper is introduced into the machine.

14. In an under-strike type-writing machine, the combination of a carriage, a platen, and a guide for a side edge of the paper, a scale on the front rail of the carriage and with which the carrier for the guide coöperates to set the guide.

15. In a type-writing machine, the combination of a platen, an adjustable paper-finger, a paper-scale with which the paper-finger registers, a side-edge guide adjustable with the paper-finger, and a second scale cooperating with said guide.

16. In a type-writing machine, the combination of a carriage, a platen, a paper-scale beneath the platen, an adjustable paper-guide finger coöperating with said paper-scale, a side-edge guide adjustable with the paper-finger, and a second scale at the front of the carriage and with which the side-edge guide coöperates.

17. In a type-writing machine, the combination of a carriage, a platen, a paper-scale beneath the platen, a paper-guide finger that overlaps and registers with said scale, a carrier adjustable longitudinally of the platen for supporting said guide-finger, a margin feed-roller carried by said carrier, a side-edge guide that is pivoted to the carrier and is adapted to be turned on its pivot to the operative or inoperative position and a scale at the front of the carriage with which said carrier coöperates.

Signed at the borough of Manhattan, in the city of New York, in the county of New York and State of New York, this 13th day of August, A. D. 1902.

CHARLES H. SHEPARD.

Witnesses:
K. V. DONOVAN,
M. C. SCHULTZ.