

No. 768,315.

PATENTED AUG. 23, 1904.

F. SHOLES.
TYPE WRITER.

APPLICATION FILED OCT. 13, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

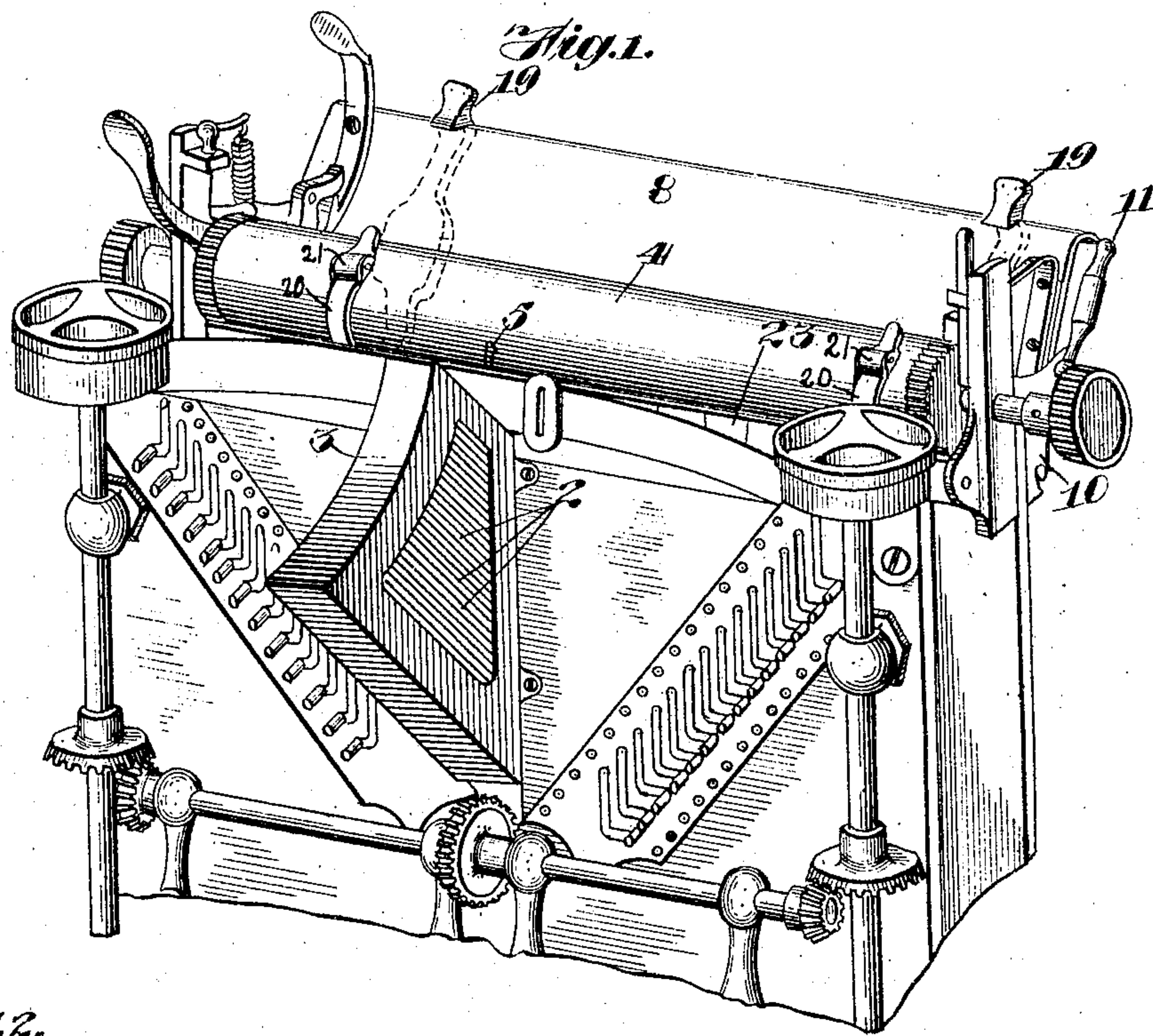
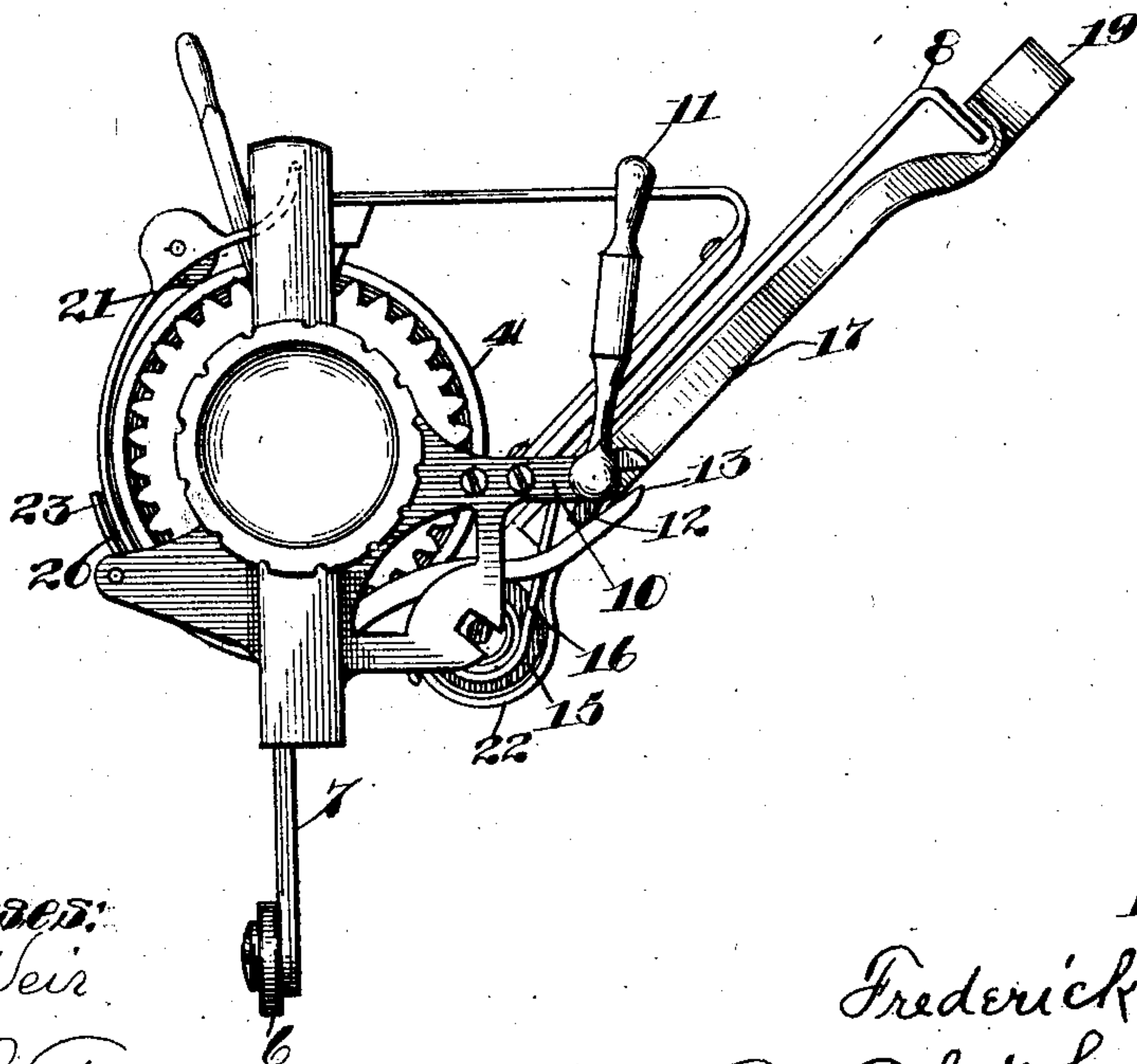


Fig. 2.



Witnesses:

J. B. Weir

E. R. Ames.

Indenter:

Frederick Sholes

By Robert Lewis Ames,
Attorney.

No. 768,315.

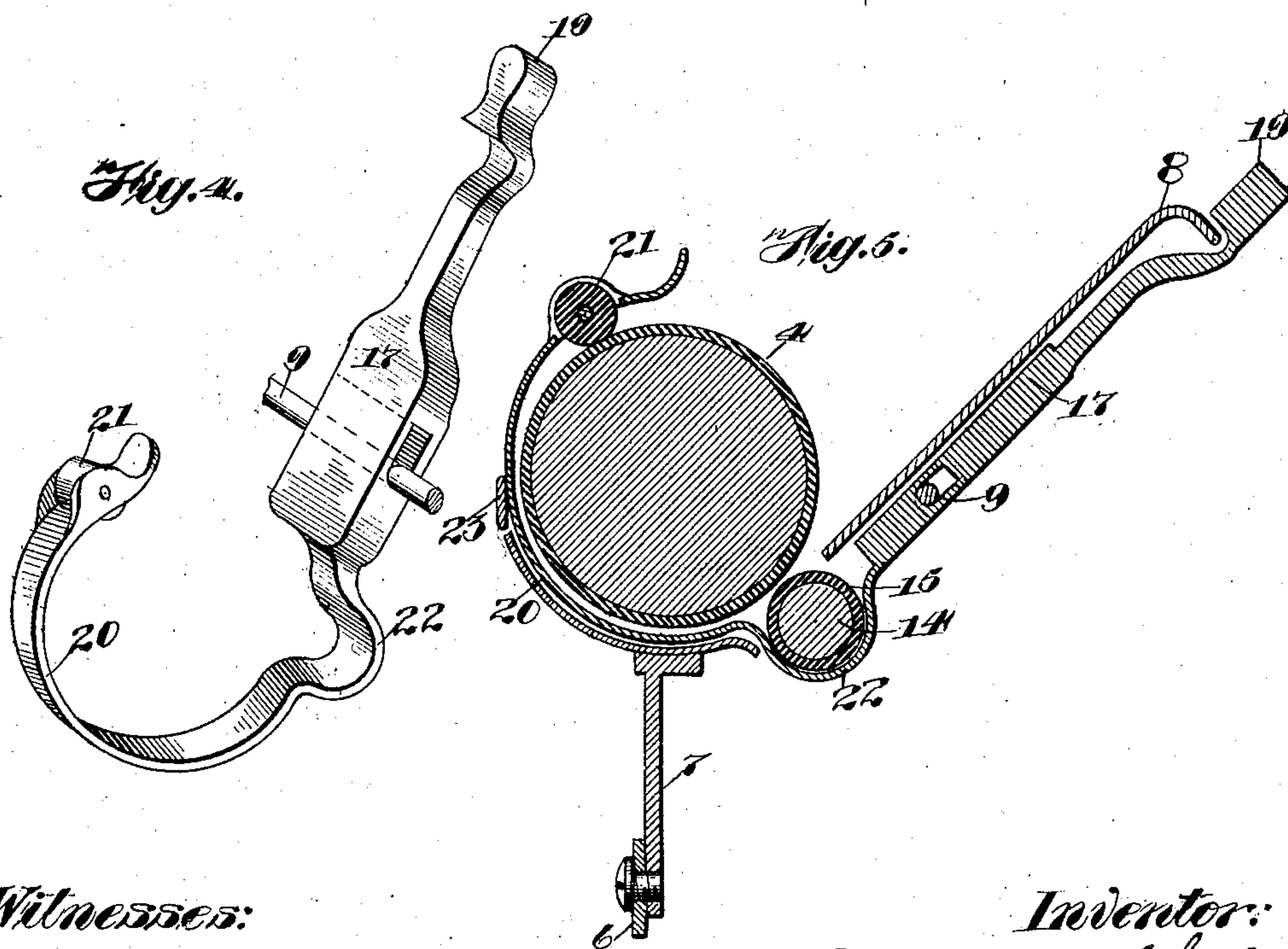
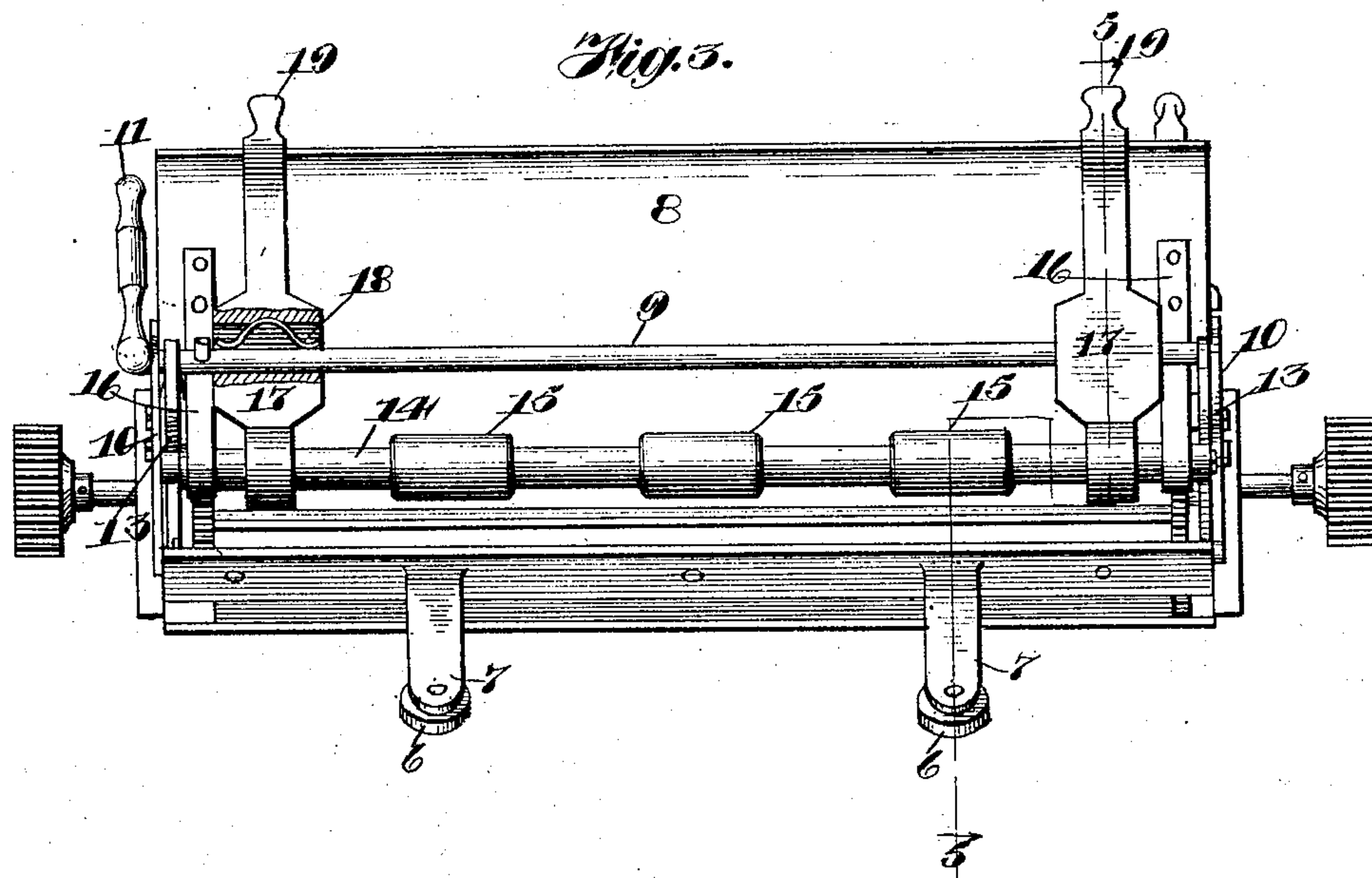
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E. D. Ames

Inventor:

Frederick Sholes

By Robert Lewis Ames,
Attorney,

UNITED STATES PATENT OFFICE.

FREDERICK SHOLES, OF CHICAGO, ILLINOIS

TYPE-WRITER.

SPECIFICATION forming part of Letters Patent No. 768,315, dated August 23, 1904.

Application filed October 13, 1902. Serial No. 127,164. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK SHOLES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Type-Writers, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to improvements in type-writers, and particularly to machines of the "front-striking" or "visible-writing" type. In machines of this class the paper-guides are usually supported from a bar extending between the ends of the carriage and above or toward the front of the platen; but this location of the supporting-bar is objectionable for the reason that it obstructs the view of the writing upon the page, whereby the same is not entirely and wholly visible, thus defeating one of the main objects of the front-striking arrangement of the type-levers. This is true even though the central portion of the bar is cut away, for the writing at the edges of the sheet, especially upon a wide sheet, is partially covered up by the projecting end portions of the bar which form the supports for the guides. In some machines of this type in order to obviate this objection as much as possible the guide at one side is made stationary, while that at the other is capable of only a limited adjustment; but in thus obtaining to a limited extent one advantage a considerable disadvantage results in that the guides cannot be brought close together for writing upon narrow paper, envelopes, and the like and the narrow paper written upon cannot be centrally placed upon the platen. My invention seeks to overcome these objections by suitably arranging and supporting the paper-guides, so that the space between them in whatever position they may be placed and above and over the line of print of the machine is entirely clear, whereby the writing is wholly visible from the first to the last character written upon the sheet. I prefer also to make both guides adjustable, so that paper of any width may be accommodated, and to provide the said guides with means whereby they

may be conveniently shifted by the operator from one position to another.

In carrying out my invention in connection with the machine to which it is particularly applicable I preferably make use of a bar or rod for the support of the guides that is already provided in the machine for other purposes, whereby I am enabled to accomplish the desired results without any other addition to the parts of the machine and without disarranging the same.

The invention further consists in the parts and combinations of parts hereinafter described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings, in which the same reference characters indicate like parts throughout the several views, and in which—

Figure 1 is a perspective view of a type-writing machine to which my invention is applicable. Fig. 2 is an end view of the carriage of the machine shown in Fig. 1. Fig. 3 is a back view of said carriage. Fig. 4 is a detail perspective view of the paper-guide, and Fig. 5 is a sectional view taken on the line 5 5 of Fig. 3.

Referring to Fig. 1, the type-writer here shown and to which my invention is particularly applicable is of the type disclosed in the patent to C. Latham Sholes, No. 464,903, dated December 8, 1891, to which reference may be had for a full disclosure of the construction and operation of the machine, it being deemed unnecessary to more than generally indicate in this application the several parts not directly concerned in my improvements. In this machine the front-striking type-bars 2 are housed within a guide 3, facing the platen-roller 4, and are arranged when actuated by the depression of the keys upon the usual keyboard to strike centrally of the front of the platen 4 and adjacent the pointer 5. The platen 4 is mounted in the carriage (shown separately from the remainder of the machine in Figs. 2, 3, and 5) and is provided with suitable line-spacing and other apparatus to enable it to perform its accustomed functions. The carriage is supported in its travel back and forth by the rollers 6, secured to the arms 7, depending from the frame of the carriage

and running upon a suitable track or way in the main frame of the machine. A paper-shelf 8, of sheet-iron or other suitable material, extends between the end pieces of the carriage-frame and serves to support the sheet of paper which is being written upon, as well as to guide the advancing end of the same into position when it is being placed in the machine. Immediately in the rear of this shelf 8 a rod or bar 9 is located and is supported in bearings formed in the rearwardly-extending arms 10 of the end pieces of the carriage. The said rod or bar is provided at one end with an operating-handle 11 and adjacent each end, but back of plate 8, with a cam 12, bearing upon the end of a lever 13 and adapted to depress the same when the handle 11 is swung forwardly. The levers 13, which are forwardly pivoted in the end pieces of the carriage, are arranged when depressed to engage midway of their length the ends of the shaft 14 to press the same away from the platen 4, whereby the rubber rollers 15, carried on said shaft and which serve to press the sheet of paper against the surface of the platen, are moved away to permit a free entrance and adjustment of the paper. Suitable spring-strips 16, riveted at their upper ends to the shelf 8, are curved at their lower ends to embrace the ends of the shaft 14 and serve to yieldingly press the same toward the platen.

In order to accomplish the desired results of this invention, I provide the paper-guides, (shown more clearly in Fig. 4,) which I place upon the said rod or bar 9. The central or body portion 17 of these guides is preferably enlarged, so as to provide a suitable sliding bearing upon the rod or bar 9, and the opening through which the rod extends may be enlarged, as shown, to provide room for a suitable tension-spring 18, as is more clearly seen in Fig. 3. This spring serves to hold the guide in adjusted position. One of these guides so constructed is located at each end of the platen and is provided with a comparatively rigid and strong handle or finger-piece 19, projecting above the upper edge of shelf 8, whereby the operator may easily shift the said guides to adjust them to any width of paper. The flexible spring-guiding portions 20 of the guides suitably encircle the platen, so as to properly hold the paper, and they carry at their upper ends the rollers 21, which are adapted to engage the paper and press it into contact with the surface of the platen. The end of the finger preferably extends around the roller sufficiently, as shown, to suitably guide the advancing end of the sheet of paper toward the back. The fingers are curved at 22, as shown in Fig. 5, to clear the shaft 14, carrying the rollers 15. With this arrangement and construction of the parts it is seen that in every position of the guides the space above the gage-bar 23 and above the line of

print is entirely open and free from any parts to obstruct the view of the writing, which will therefore be entirely visible from the heading of the sheet to the last character written. Moreover, the guides are adjustable, thus adapting the machine to use with paper of any width within the limits of the roller and at the same time securing entirely-visible writing.

While in the particular construction shown in the drawings I have made use of the bar 9, already provided in the machine for another purpose, it will be apparent that any other suitable bar or bearings may be provided for the said guides, it being merely necessary that the guides shall be supported in the rear of the line of print—that is, so as to be out of the way of the front-striking type-bars and at the same time leaving the space above the advancing end of the sheet entirely vacant. It is also essential to the convenient adjustment of these guides that they be provided with comparatively rigid and strong handle portions operable from the rear. It is also further evident that the invention is applicable to other front-striking or so-called "visible-writing" machines and with the same advantageous results as with the particular type of machine shown and described.

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

1. In a type-writer, the combination with a platen-roller, of a paper-shelf therefor, paper-guides for said roller adapted to guide and hold the sheet in position thereon, and a support for said guides in the rear of said shelf, substantially as described.

2. In a type-writer, the combination with a platen-roller, of a paper-shelf therefor, paper-guides for said roller adapted to guide and hold the sheet in position thereon, and a rod located in the rear of said shelf, said guides being supported by said rod, substantially as described.

3. In a type-writer, the combination with a platen-roller, of a paper-shelf therefor, paper-guides for said roller adapted to hold the sheet in position thereon, and a rod located in the rear of said shelf, said guides being supported by said rod and longitudinally adjustable thereon, substantially as described.

4. In a type-writing machine, the combination with a platen-roller, of a shelf in the rear of said platen, a rod extending longitudinally of said shelf and in the rear thereof, said rod serving to actuate parts of the mechanism of the machine, paper-guides for the platen adapted to guide and hold the paper sheet or sheets thereon, said guides being mounted upon said rod, whereby the front and top of the roller is unobstructed and the writing is visible, substantially as described.

5. In a type-writing machine, the combination with a platen-roller, of a shelf in the rear

of said platen, a rod extending longitudinally of said shelf and in the rear thereof, said rod serving to actuate parts of the mechanism of the machine, paper-guides for the platen adapted to guide and hold the paper sheet or sheets thereon, said guides being mounted upon said rod and longitudinally adjustable thereon, whereby the front and top of the roller is unobstructed and the writing is visible, substantially as described.

6. In a type-writing machine, the combination with a platen-roller, of a shelf in the rear thereof, paper-guides for the roller adjustably supported back of the said shelf, and means for adjusting the position of said guides without the necessity of reaching behind said shelf, substantially as described.

7. In a type-writer, the combination with a platen-roller, of paper-guides encircling the same and extending around in front of the roller, said guides being supported back of the line of print of the machine, a paper-shelf in the rear of the roller, and means for adjusting said guides from the top of the shelf, substantially as described.

8. In a type-writing machine, the combination with a platen-roller, of a shelf in the rear thereof, paper-guides for the roller adjustably supported back of the shelf, and handles for said paper-guides projecting above the upper edge of said shelf to enable the guides to be readily adjusted, substantially as described.

9. In a type-writer, the combination with a platen-roller, of front-striking type-bars, a paper-shelf therefor, paper-guides for said roller adapted to guide the sheet in position thereon, and a support for said guide in the rear of said shelf, substantially as described.

10. In a type-writing machine, the combination with a platen-roller, of front-striking type-bars, a shelf in the rear of said roller, a rod in the rear thereof serving to support parts of the mechanism of the machine, paper-guides for the roller adapted to guide the sheets thereon, said guides being mounted upon said rod and longitudinally adjustable thereon, whereby the front and top of the roller is unobstructed and the writing is visible, substantially as described.

11. In a type-writing machine, the combination with a platen-roller, of front-striking type-bars, a shelf in the rear thereof, paper-guides for the roller adjustably supported back of the said shelf, and means for adjusting the position of said guides without the necessity of reaching behind the shelf, substantially as described.

12. In a type-writing machine, the combination with a platen-roller, of front-striking type-bars, paper-guides encircling the same and extending around the front of the roller, said guides being supported back of the shelf, a paper-shelf in the rear of the roller, and means for adjusting said guides from the top of the shelf, substantially as described.

13. In a type-writing machine, the combination with a platen-roller, of front-striking type-bars, a shelf in the rear thereof, paper-guides for the roller adjustably supported back of the shelf, and handles for said guides projecting above the upper edge of the shelf to enable the guides to be readily adjusted, substantially as described.

14. The combination with a platen-roller, of paper-guides encircling the roller, a rod on which said guides are mounted to slide longitudinally, and a laterally-yielding bearing between the guides and the rod to permit the guides to tip sidewise when pressure is applied thereto, whereby they may be adjusted without binding to different positions along the roller, substantially as described.

15. The combination with a platen-roller, of paper-guides encircling the roller, a rod to support the guides, said guides being enlarged at the support and each said enlarged portion having a slot through which the said rod passes, and a spring placed between one inner side of the said slot and the rod to normally take up the clearance therebetween and hold the guide in upright position on the rod and at the same time permitting the guide to be easily slid along the rod without binding, substantially as described.

16. In a type-writing machine, the combination with a platen-roller, of front-striking type-bars, paper-guides therefor encircling the lower part of the roller and extending up around in front of the same, the portion of the guides extending around the cylinder consisting of spring-strips, a supporting-rod for the guides in the rear of the roller, the said guides having enlarged rigid portions projecting laterally of the spring-strips in which the openings for the bearings for the rod are formed, said openings being larger than the rods, whereby said guides may be slid longitudinally of the said rod without binding, substantially as described.

17. In a type-writing machine the combination with a platen-roller, of a paper-shelf, paper-guides therefor encircling the roller, a supporting-rod for the guides in the rear of the shelf, said guides having enlarged portions in which are openings forming bearings through which the said rod extends, and rigid handles secured to said enlarged portions and extending toward the upper edge of the paper-shelf to permit said guides to be readily adjusted longitudinal of the roller, substantially as described.

18. In a type-writing machine, the combination with a platen-roller, of front-striking type-bars, paper-guides for the roller consisting of spring-strips encircling the lower and forward portion of the roller, a paper-shelf in the rear of the roller, a supporting-rod for the guides in the rear of the shelf, said guides having laterally-enlarged portions provided with openings forming bearings through which the

said rod extends, rigid handles extending from said enlarged portions to the upper edge of the shelf by means of which said guides may be adjusted longitudinally of the rod, said
5 bearings being yielding to prevent the binding of the same upon the rod when the guides are being adjusted, substantially as described.

19. In a type-writing machine, the combination with a platen-roller of front-striking
10 type-bars, paper-guides for the roller consisting of spring-strips encircling the lower and forward portion of the roller, a paper-shelf in the rear of the roller, a supporting-rod for the guides in the rear of the shelf, said guides
15 having yielding bearings through which the said rod extends, and rigid handles secured to said bearings and extending from said bearings to the upper edge of the shelf by means of which said guides may be adjusted longitudi-
20 nally of the rod, said bearings being yielding to prevent the binding of the same upon the rod when the guides are being adjusted, substantially as described.

20. In a type-writing machine the combi-

nation with a platen-roller, of front-striking 25
type-bars, paper-guides for the roller encircling the lower part of the roller and extending up around in front of the same, the portion of the guides extending around the roller consist- 30
ing of spring-strips, a friction-roller mounted in the end of each said spring-strip and adapted to press the paper written upon against the said platen, a paper-shelf, a supporting-rod in the rear of the shelf, the said guides being enlarged and rigid at said supporting-rod and 35
having openings through which the rod extends, and rigid handle portions projecting from said enlarged portions whereby the said guides may be readily adjusted longitudinally, substantially as described. 40

In witness whereof I have hereunto subscribed my name in the presence of two witnesses.

FREDERICK SHOLES.

Witnesses:

E. D. AMES,

ROBERT LEWIS AMES.