

(No Model.)

2 Sheets—Sheet 1.

G. B. WEBB.
TYPE WRITING MACHINE.

No. 506,352.

Patented Oct. 10, 1893.

Fig. 1.

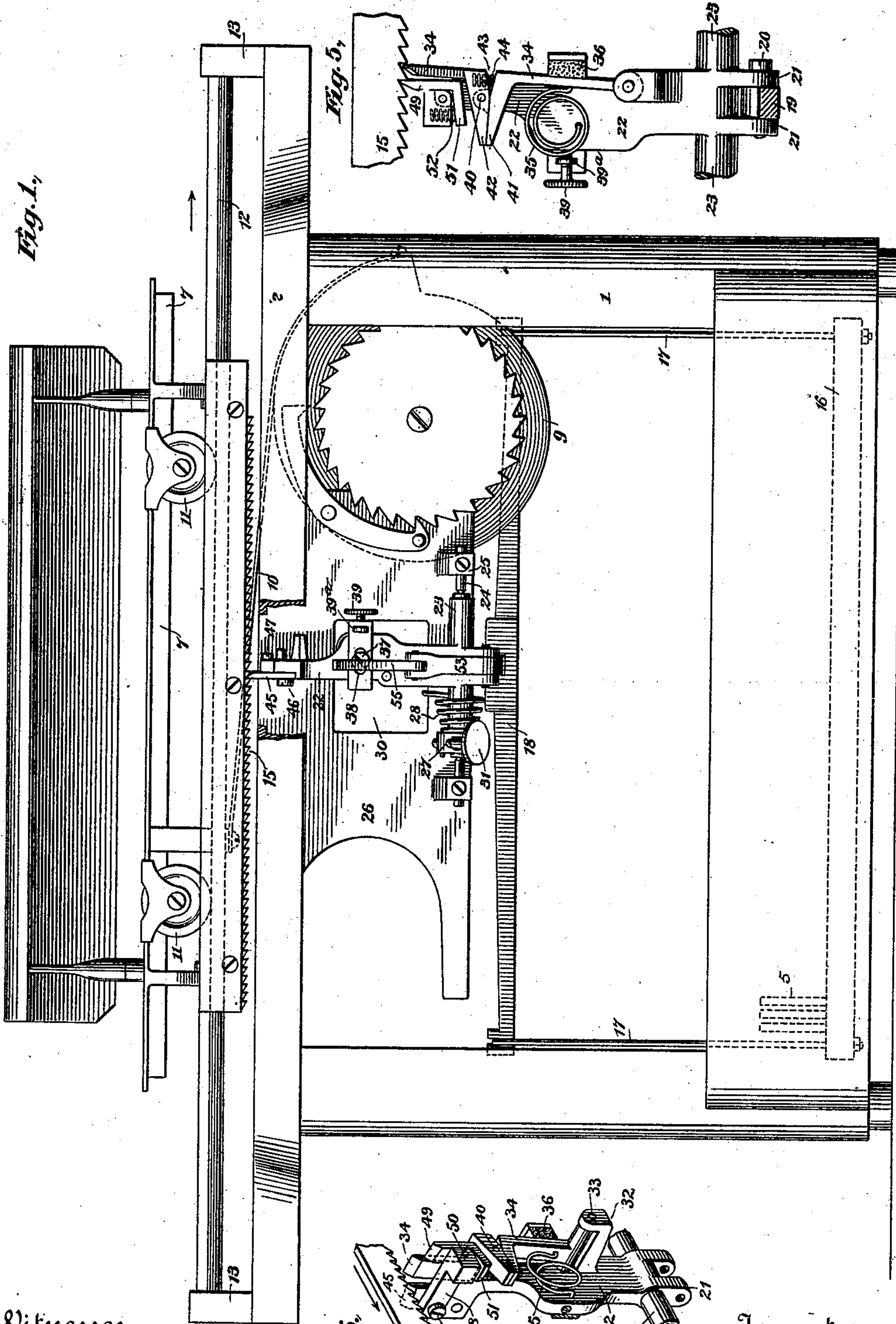
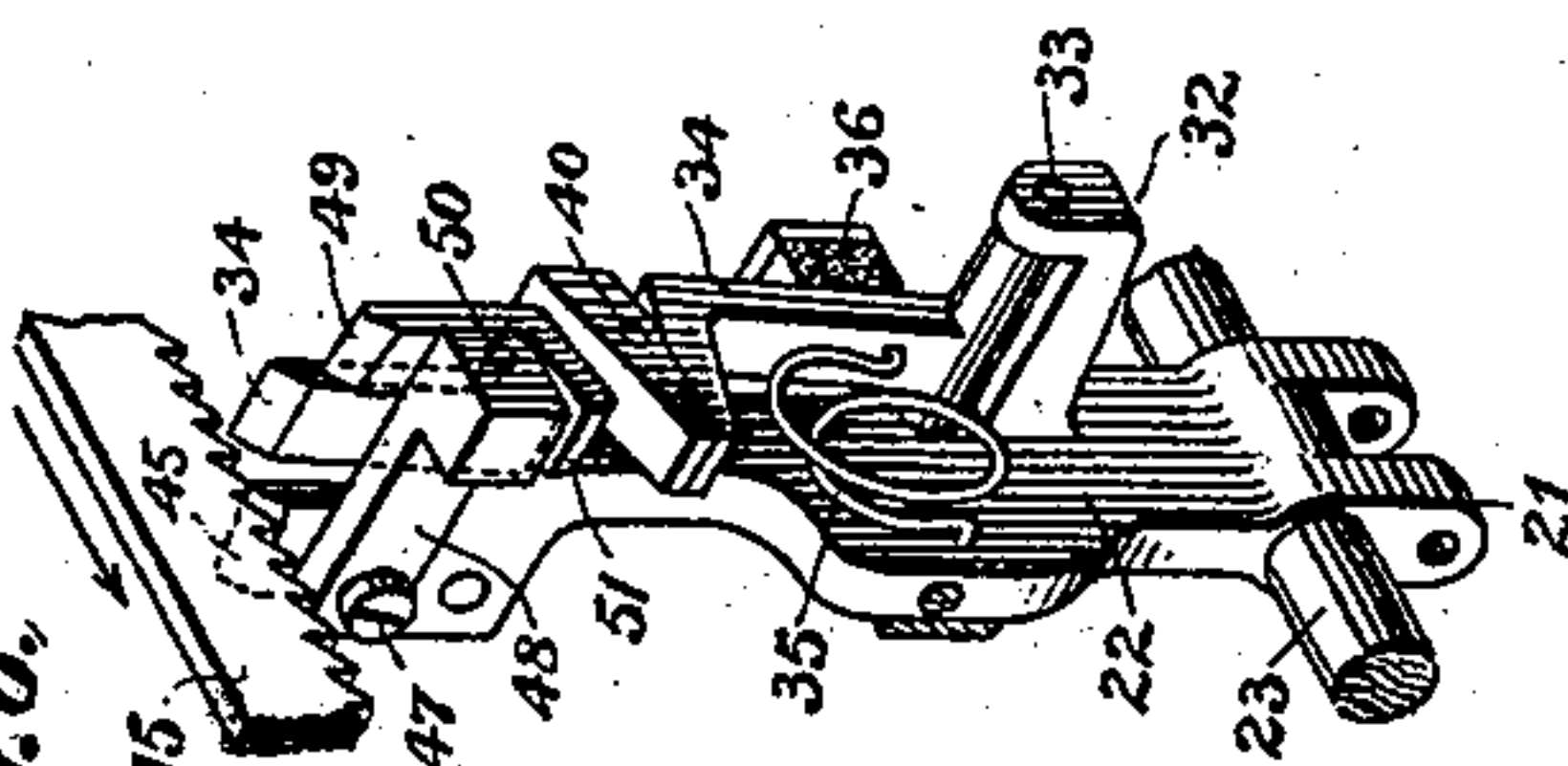


Fig. 6.



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Inventor
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By his Attorney
H. D. Donnelly

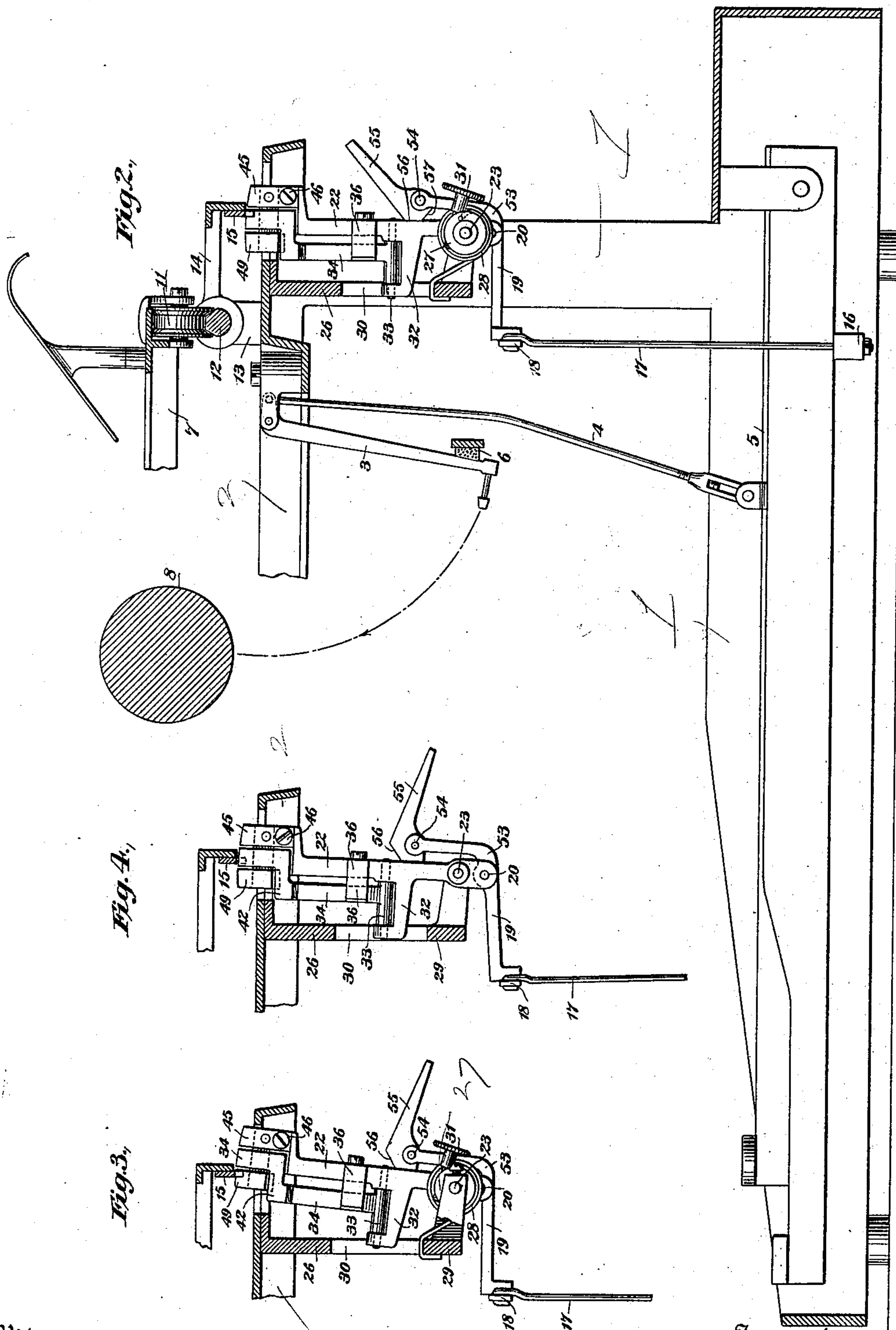
(No Model.)

2 Sheets—Sheet 2.

G. B. WEBB.
TYPE WRITING MACHINE.

No. 506,352.

Patented Oct. 10, 1893.



Witnesses
Geo. W. Beck
Edward Thorpe.

By His Attorney

Inventor
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UNITED STATES PATENT OFFICE.

GEORGE B. WEBB, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS,
TO THE WYCKOFF, SEAMANS & BENEDICT, OF NEW YORK.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 506,352, dated October 10, 1893.

Application filed December 26, 1890. Renewed March 13, 1893. Serial No. 465,730. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. WEBB, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My present invention relates to the carriage-feeding or escapement mechanism of type-writing machines, and has for its main object to provide means whereby the paper-carriage may be released either after the impression has been made or before the impression has been made, at the will of the operator.

In the machines heretofore made the escapement devices were arranged to release the carriage after the type-bar had ascended and printed and when it was about half-way back to its normal position of rest. To this arrangement numerous objections exist, which may be overcome by releasing the carriage while the type-bar is moving to print and by printing while the carriage is in actual transit from one notch or space to the next, all as more fully set forth in another application filed by me simultaneously with this. As some operators may, however, desire to have machines which work on the old plan of releasement and some on the new, I have devised means whereby the machine is capable of adjustment for either plan, thus avoiding the necessity of building two kinds of machines to suit the tastes or desires of all purchasers.

My invention consists in the features of construction and combinations of devices hereinafter more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a rear elevation of a type-writing machine embodying my improvements, the top-plate being broken away at its rear side to afford a better view of the feed-dogs. Fig. 2 is a central vertical section of the same. Fig. 3 is a detail sectional view of the dogs arranged to operate on what I call the new plan, the parts being in their normal positions or at rest. Fig. 4 is a similar view of the same arrangement but with the parts in their shifted or

working positions. Fig. 5 is an enlarged detail elevation viewed from the front of the machine, and Fig. 6 is a perspective view of the same.

In the several views the same part will be found designated by the same numeral of reference.

The machine represented generally is the well-known Remington machine, 1 designating the frame-work, 2 the top-plate or type-ring, 3 the type-bars, 4 the connecting-rods, 5 the key-levers, 6 the type-rest or basket, 7 the paper-carriage, 8 the platen of said carriage, 9 the spring-actuated driving or propelling drum or disk, and 10 the pulling band or belt connecting the same with the paper-carriage.

The paper-carriage is provided at its rear side with anti-friction wheels 11 which travel on a hinge-and-guide-rail 12 mounted in supports 13 on the frame-work or top-plate.

To the rear of the paper-carriage is hinged as usual a frame 14, which is provided with a vertically-arranged feed-rack.

Beneath the key-levers is a transverse universal-bar 16, connected at each end by a link 17 to a cross-bar 18 which is joined to a rocker-arm 19 pivoted at 20 in ears 21 at the lower end of an upright dog-holder 22, which is provided with lateral trunnions 23, supported by pivot-pins or journals 24, fixed in lugs 25 on the rear side of a depending bracket or plate 26.

On one of the trunnions is arranged a collar 27 to which is connected one end of a volute returning-spring 28, the other end of which is hooked over a bar 29, formed by cutting an opening 30 in the bracket or plate 26. The tension of said spring may be increased or diminished by an adjusting screw 31 as heretofore.

The dog-holder is provided with an offset 32 to which and to the dog-holder is pivoted at 33 the lower end of a dog 34, for which is provided a coiled-spring 35. The said spring is connected at one end to the dog-holder and at its other end bears against the dog 34, to force it toward the right, looking from the front of the machine, and against a cushioned stop 36, on the end of a bar, which is attached to the dog-holder by a screw 37, passing

through an elongated slot 38, and which is adjustable lengthwise to govern the throw of said dog, by a screw 39 and nut 39^a, as heretofore. The said dog 34 is preferably made
 5 in two parts, the said parts being pivoted together at 40. The upper end of the lower portion is provided with a lateral jaw 41, and the lower end of the upper portion is provided with a similar jaw 42, the said jaws being
 10 beveled or chamfered to provide on the right hand side a space 43 to permit of the upper portion being vibrated about the pivot 40, and against the tension of a spring 44, whose function is to normally hold the upper por-
 15 tion of the dog upright and the said jaws in contact or closed as seen at Fig. 1. The upper end of the dog-holder is provided in rear of the dog 34 with a rigid or fixed dog 45, which is secured in position by a screw 46.

20 To the back of the dog 45 is attached by a screw 47 an arm or plate 48 which extends forwardly past the dog 34 and supports a third dog 49, which is pivoted at 50 to said arm 48 and which is provided with a lateral extension 51, against which presses a spiral spring 52, whose purpose is to hold said dog nor-
 25 mally upright and in contact with the side of the arm 48, which forms an abutment for said dog, as well as for the dog 34, when the carriage-feed is taking place.

30 Formed as an extension of the rocker-arm 19 is an arm or bracket 53, arranged in rear of the dog-holder to the upper end of which is pivoted at 54, a cam-lever 55, having two
 35 flat faces 56 and 57 adapted to contact with the back surface of the dog-holder. The said cam-lever is designed to move the dog-holder about its pivot-pins or adjust its position and the dogs thereon relatively to the feed-rack.
 40 When the lever is turned so that its face 56 rests against the dog-holder, the latter is adjusted to a position to throw the dog 49 out of use, as seen at Fig. 1, and in this adjust-
 45 ment of the parts the machine is arranged for operation in accordance with the old plan of carriage-feed. When the lever is turned so that its face 57 lies in contact with the
 50 dog-holder, the latter is adjusted to a position to throw the rigid dog 45 into disuse, as seen at Figs. 3 and 4, and in this adjustment of the parts of the machine is arranged for
 operation in accordance with the new plan of carriage-feed.

55 The pivoted dog 34 stands between the dogs 45 and 49 and is used always whether the feed be of the new or the old kind. This dog 34 I designate the feeding-dog as when the carriage moves said dog is always in engage-
 60 ment with the rack; in other words the carriage cannot be fed unless said dog is in the rack. Instead of making this dog in two parts it may be made in one piece and the upper pivot 40 dispensed with. The two-part
 65 construction is preferred on account of the ease and quietness with which the carriage may be returned to the right after complet-
 ing a line, said dog yielding readily at its up-

per pivot as the teeth of the rack bob over the point of the dog.

The dog 45 I designate the carriage detain-
 ing-dog as it operates to detain the carriage
 70 when the dog 34 is out of engagement with the rack, in effecting the old kind of feed.

The dog 49 I designate the carriage-hold-
 ing-dog as it serves to hold the carriage when
 75 the machine is not being used and when the parts are adjusted for the new kind of feed.

Referring to Fig. 2, the parts are arranged for the old feed and normally the feeding-
 dog 34 stands in engagement with the rack
 80 and in contact with the cross-bar 48 to which it has been moved by the superior force of the carriage driving-mechanism.

If a key-lever be depressed the type-bar
 will be lifted to make its impression and at
 85 the same time the feeding-dog 34 will be rocked forward out of engagement with the rack and the detaining-dog 45 rocked into en-
 gagement therewith, to prevent any move-
 ment of the carriage. As soon as the feeding-
 dog is withdrawn from the rack its spring 35
 90 throws it to the right one notch against the stop 36, as illustrated at Fig. 5, but out of the plane of the rack. When the key-lever is re-
 95 leased the type-bar descends and while descending and when about half-way back to its seat or rest, the spring 28 returns the dog-
 holder and rocks the detaining-dog 45 out of the rack and the feeding-dog 34 back into the
 100 rack but in rear of the tooth it formerly en-
 gaged. The instant this takes place, the driv-
 ing-power is free to act and the carriage is moved onward, with the feeding-dog 34 until
 the latter abuts against the cross-bar 48 and
 105 comes into line with the dog 45, when the carriage is arrested. In the meantime the type-
 bar has arrived at its seat.

When it is desired to have the carriage-feed
 step-by-step in the new way, and the parts
 have been adjusted as shown at Fig. 3, it will
 110 be observed that the holding-dog 49 stands normally in engagement with the rack, in lieu
 of the feeding dog 34, as in Fig. 2. By reason
 of the pivoted construction of this dog 49, the
 carriage may be returned at the end of a line
 115 easily and noiselessly, but if this feature be not desired the dog 49 may be made rigid or
 fixed in the same manner that the dog 45 is. If a key-lever be depressed the type-bar will
 be elevated as before, but when it is about
 120 half-way up to print, the dog-holder rocking simultaneously (through the universal-bar
 and the connections referred to) throws the
 holding-dog 49 forward out of engagement
 with the rack and the feeding-dog 34 into en-
 125 gagement therewith, as seen in Fig. 4. When this occurs the carriage commences its feed-
 ing movement and continues until the feed-
 ing-dog has been straightened up and brought
 into contact with the cross-bar 48. The move-
 130 ment of the type-bar is so timed as that while the carriage is in transit (and preferably at
 the beginning of its travel when it is moving slowly or has moved about two or three thou-

sandths of an inch) the type completes its ascent and effects its impression.

During the descent of the type-bar and at about the middle of its return stroke the feeding-dog is rocked out of the rack and the holding-dog rocked in as seen at Fig. 3. While the type-bar is finishing its movement to its seat, the feeding-dog under the influence of its spring 35 is vibrated to the right one notch as before.

It is evident that quite a number of changes in detail construction may be made without departing from the gist of my invention.

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

1. In a type-writing machine, the combination with a paper-carriage having a feed-rack, of three dogs adjustable relatively to said rack to release the carriage either before or after the impression has been made, at the will of the operator; substantially as described.

2. In a type-writing machine, the combination with a paper-carriage having a feed-rack, of three dogs, adjustable relatively to said rack, to release the carriage either before or after the impression has been made, and means for effecting the adjustment and maintaining the parts in whichever position or relation they may be caused to assume; substantially as described.

3. In a type-writing machine, the combination with a paper-carriage, having a feed-rack, of three dogs, mounted upon a pivoted dog-holder, and a lever for moving said dog-holder and adjusting said dogs relatively to said rack; in order that the carriage may be released either before or after the impression has been made at the pleasure of the operator, substantially as described.

4. In a type-writing machine, the combination with a paper-carriage having a feed-rack,

of a pivoted dog-holder provided with three dogs, a rocker-arm pivoted to said dog-holder and provided with an extension, a cam-lever pivoted to said extension, and means for actuating said rocker-arm; substantially as set forth.

5. In a type-writing machine, the combination with a paper-carriage having a rack, of a vibratory dog-holder, a holding-dog, a detaining-dog, and an intermediate feeding-dog; the combination and arrangement being such, as described, that the said dogs may be adjusted to release the carriage either before or after the impression has been made at the pleasure of the operator, substantially as set forth.

6. In a type-writing machine, the combination with a paper-carriage having a rack, of a vibratory dog-holder, a rigid detaining-dog, a pivoted spring-acting holding dog, and a pivoted spring-acting, feeding-dog arranged between the holding-dog and the detaining dog; the combination and arrangement being such, as described, that the said dogs may be adjusted to release the carriage either before or after the impression has been made at the pleasure of the operator, substantially as set forth.

7. In a type-writing machine, the combination with a paper-carriage having a feed-rack, of a vibratory dog-holder, a detaining-dog secured thereto, a cross-bar extending therefrom, a holding-dog mounted on the end of said cross-bar and an intermediate pivoted feeding-dog; substantially as set forth.

Signed at New York city, in the county of New York and State of New York, this 18th day of December, A. D. 1890.

GEORGE B. WEBB.

Witnesses:

GEO. W. WEIFFENBACH,
JACOB FELBEL.