

W. J. KAUFFMAN.
TYPE WRITING MACHINE.
APPLICATION FILED JULY 20, 1906.

1,063,693.

Patented June 3, 1913.

3 SHEETS—SHEET 1.

Fig. 1.

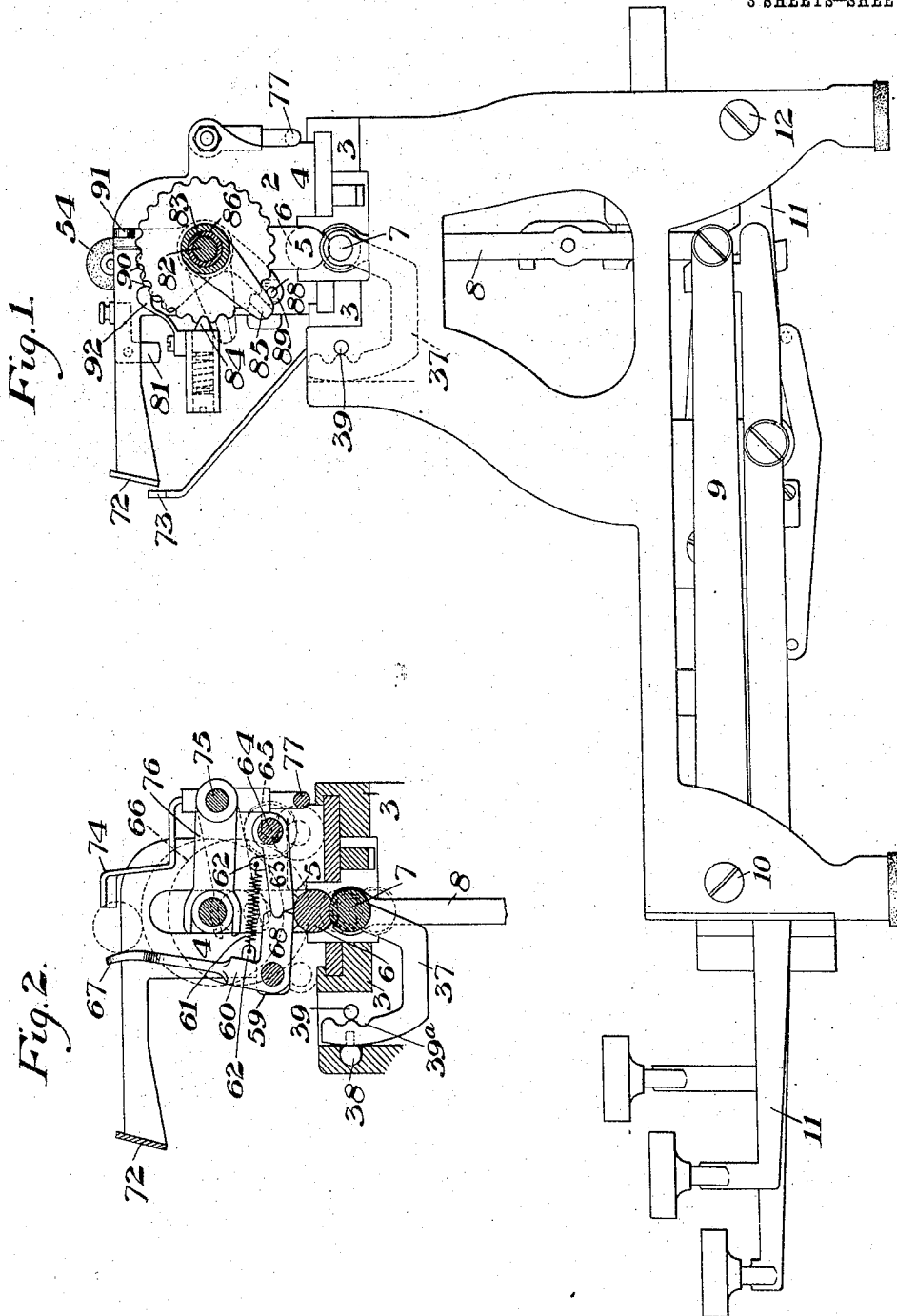
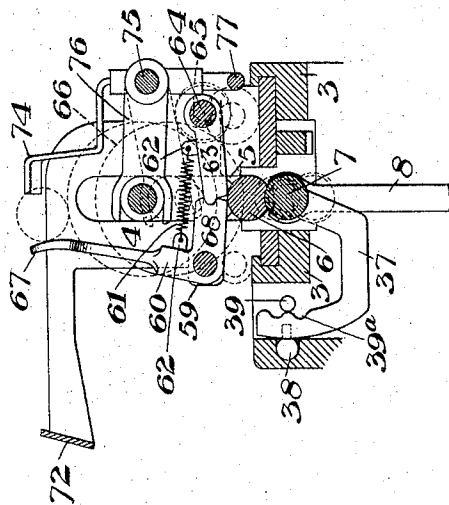


Fig. 2.



WITNESSES

W. W. Sivarty
R. A. Balderson

INVENTOR

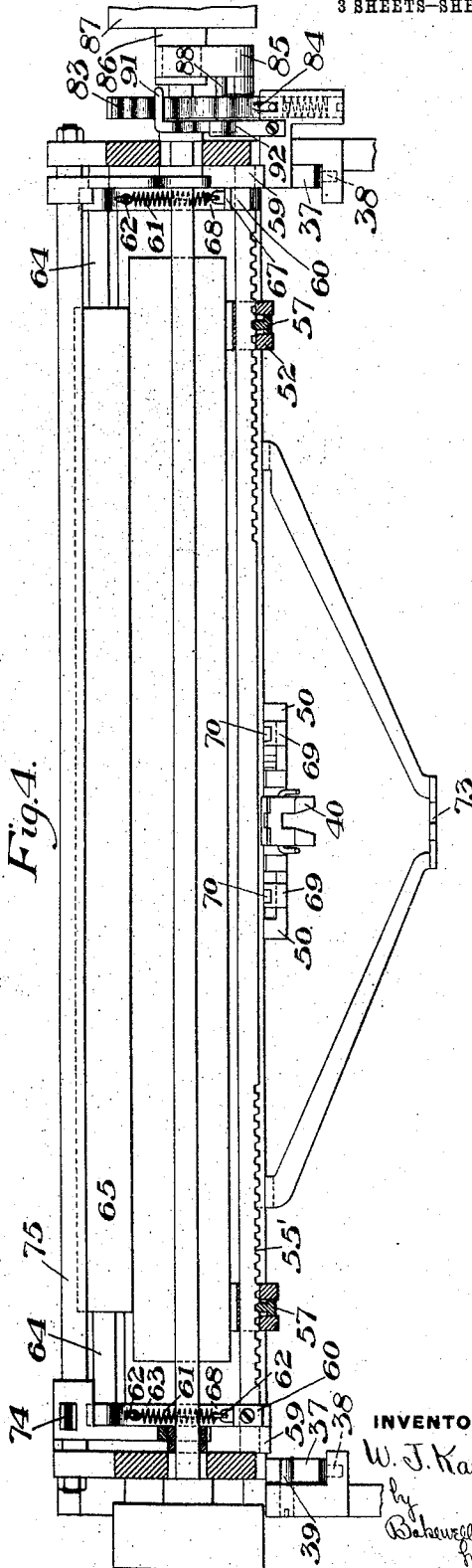
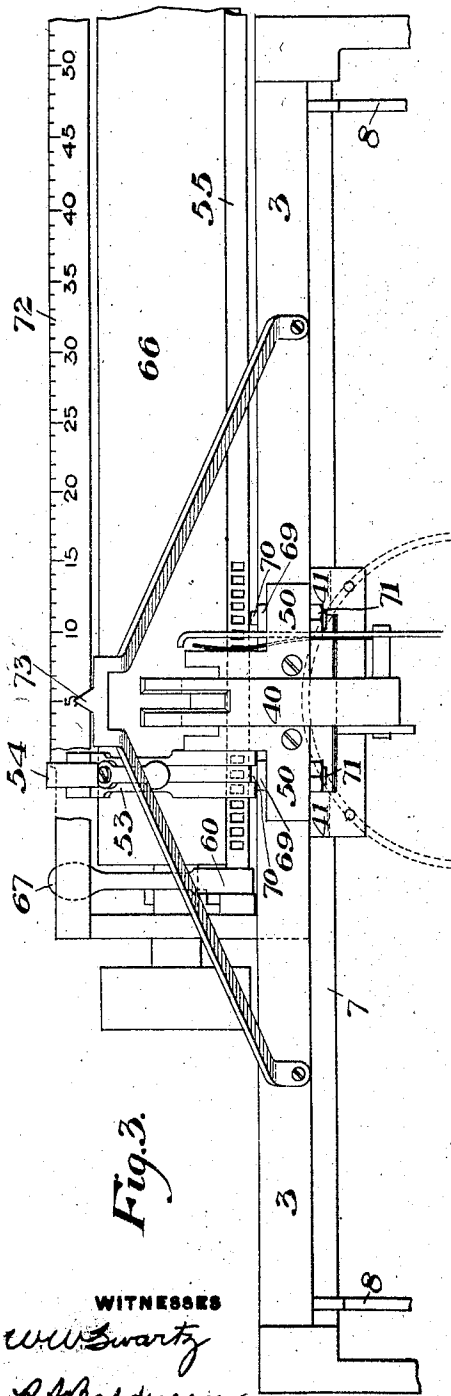
W. J. Kauffman,
by Baker & Baker,
his Attys.

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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 6.

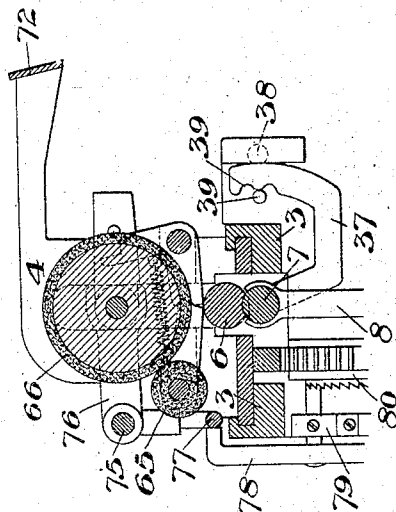


Fig. 8.

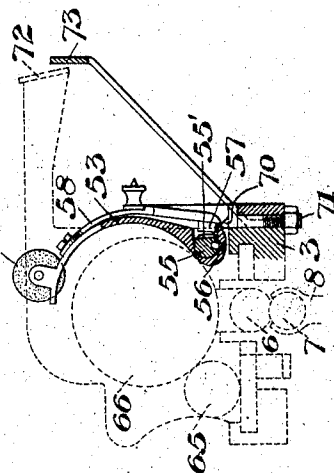


Fig. 5.

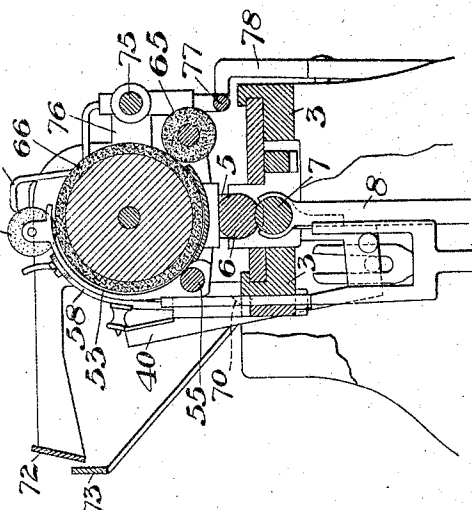
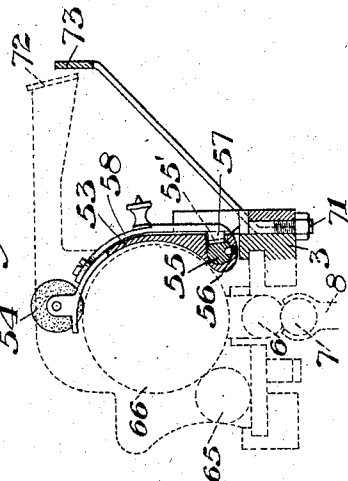


Fig. 7.



WITNESSES

W. W. Swartz
R. A. Balderson

INVENTOR

W. J. Kauffman,
by Bebevel & Byrnes,
his Attys.

UNITED STATES PATENT OFFICE.

WILLIAM J. KAUFFMAN, OF CLEVELAND, OHIO.

TYPE-WRITING MACHINE.

1,063,693.

Specification of Letters Patent.

Patented June 3, 1913.

Original application filed March 16, 1903, Serial No. 147,967. Divided and this application filed July 20, 1906. Serial No. 326,967.

To all whom it may concern:

Be it known that I, WILLIAM J. KAUFFMAN, of Cleveland, Cuyahoga county, Ohio, have invented a new and useful Type-Writing Machine, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is an end elevation of a typewriter embodying my invention; Fig. 2 is a cross-sectional detail of the upper portion of the mechanism; Fig. 3 is a front view of the carriage roller and adjacent parts; Fig. 15 4 is a top plan view; and Figs. 5, 6, 7 and 8 are sectional detail views hereinafter referred to.

My invention relates to typewriting machines, and is designed to provide paper guides which also act as adjustable marginal stops to give a uniform length of line capable of adjustment; also to so arrange the parts by which adjustment may be regulated on the ordinary scale in front of the machine which is used for the purpose of indicating the position of the printing point.

In the drawings, 2 designates the carriage frame which is supported and moved in the usual way upon the slideways 3, 3. 30 The vertical end supports 4, 4 of the carriage are vertically slotted to receive vertically movable guides 5, 5 the lower ends of which are secured together by the connecting shaft 6. The lower ends of the 35 slides 5 rest upon the transverse shaft 7 extending across the machine below the carriage and supported upon lever arms 8, 8 which project upwardly and are forked at their upper ends to engage circumferential 40 recesses near the ends of the shaft 7.

9 designate end levers to which the levers 8 are pivoted at their lower ends, and which are secured to rock shafts 10, which are operated in any suitable manner, as by special 45 keys which are arranged to raise and lower the roller. With this mechanism I employ a lifting lever 11 pivoted at its rear end to the key lever shaft 12.

37 designates U-shaped devices which are 50 rigidly secured to the end portions of the shaft 7 for the purpose of insuring parallel lifting movement thereof. The opposite ends of these arms are pivoted to the frame by means of the curved lugs 38 which fit 55 in the recesses in the end standards of the

machine, as shown at Fig. 2, and may be held in place by pins 39 engaging cam faces 39^a on said arms. Whenever the shaft is moved vertically, each end is turned to exactly the same extent by reason of these 60 arms or levers 37.

40 designates a swinging type guide mounted on collars 41 which partially surround the shaft 7.

The parts thus far described constitute 65 no part of my present invention, and are more fully described and shown in my pending application Serial No. 147,967, filed March 16th, 1903, of which the present application is a division. 70

The paper guides consist of curved arms 53 carrying rollers 54 at their upper ends, while their lower ends surround a transverse shaft 55 and are provided with pins or screws 56 entering a longitudinal groove 75 in this shaft. The shaft is provided with a flat face along its front which is provided with notches 55' arranged to be engaged by latches 57 secured to the lower ends of leaf-springs 58 screwed at their upper ends to 80 the paper guides. The shaft 55 is a rock-shaft which is mounted in end bearings 59 on the carriage, and is provided at its ends with upwardly projecting arms 60 connected by springs 61 with pins 62 projecting 85 upwardly from lever arms 63 secured to the shaft 64 of the feed roller 65, which is covered with rubber and normally drawn against the carriage roller 66. One of the 90 arms 60 is extended to form a finger lever 67, and the lower parts of both arms 60 are formed with projecting levers 68 having ends with curved recesses which engage the lever arms 63. It is evident that when the finger lever 67 is drawn toward the operator, 95 the shaft 55 will be rocked to withdraw the paper guides from the carriage roller, while at the same time the feed-roller is forced away from the carriage roller against the resistance of the spiral springs, by the levers 100 63 and 68 coming into line with each other.

Each of the stationary guides 50 between which the type guide moves is longitudinally slotted to receive an adjustable block 69 having an upwardly projecting wedge 105 lip 70. The blocks may be adjusted in the slots and clamped by lower nuts 71. Each of the wedges is arranged so that when the carriage is moved to a position where, one of the paper guides is immediately above it, 110

the wedge will act upon the lower end of the spring 58 so that when the finger-lever is actuated the tooth will be withdrawn from the notch on the shaft 55. The operator then
 5 retains his finger upon the finger lever and slides the carriage along, the paper guide being held while the roller moves relatively to it. During this movement the scale 72 which is secured to the carriage moves along over
 10 the stationary pointer 73, thus indicating to the operator the position where he shall stop the end movement of the carriage to give the proper length of line. When this point is reached he releases the finger-lever
 15 and the spring on the paper guide throws the catch into engagement with a notch on the shaft, thus retaining the paper guide in its new position. Either or both of the paper guides may thus be adjusted to any
 20 desired position and retained in such position. It will be noticed that the adjustment is obtained by holding the paper guide stationary and sliding the carriage relatively to it, and that the paper guides also act as
 25 marginal stops. It will also be noted that when the finger lever is drawn toward the operator the paper is released and can be adjusted or drawn out as desired.

In order to disconnect the feeding mechanism to allow the end sliding of the carriage when desired I provide the bent lever
 30 74 which is pivoted on a rear transverse shaft 75 and is secured to a lever-arm 76 connected by rod 77 with a corresponding lever-arm pivoted to the shaft at the other
 35 side. The rod 77 when swung outwardly by pressing on the lever 74 acts upon a projecting portion 78 of the feeding lever and disconnects its dog 79 from the teeth of the
 40 ratchet wheel 80. This enables the carriage to be moved endwise independently of the feed mechanism.

To provide for easy removal of the carriage and parts carried thereby from the carriage bed, and at the same time normally
 45 prevent such removal I provide a pivoted block 81 which is pivoted to the scale support at one end of the carriage. This block normally depends in the position shown in
 50 Fig. 1, but may be thrown into inoperative position. When in such position the roller and parts carried thereby may be lifted to a point where the paper guides will clear the stationary guides between which the type
 55 guide moves, and therefore the entire carriage may be slid off endwise after lifting it. The carriage may be put back in place by sliding it endwise while lifted until the paper guide passes the stationary guides,
 60 when it may be lowered and the locking block thrown back into locking position.

83 designates a toothed wheel on the end of the roller shaft 82 forming part of the mechanism for hand-turning the carriage roller.
 65 84 is a spring-pressed plunger arranged to

engage the teeth of the wheel 83 and hold the roller in adjusted position. 85 is a loose gravity pawl arranged to engage the teeth of the said wheel when the pawl is forced forward. This pawl is provided with a collar
 70 seated in a recess in the sleeve 86, which forms a hub of the hand wheel 87. 88 is a pin for limiting the downward movement of the pawl and which projects from an arm 89 pivoted on the carriage shaft. The
 75 arm 89 is extended above the shaft to form a segmental toothed rack 90 having a handle extension 91. 92 is a leaf spring for holding the rack in any adjusted position. These parts are more fully described in my
 80 application above referred to, and constitute no part of my present invention.

The advantages of my invention consists in the arrangement of the paper guides to act as the marginal stops, thereby simplifying the structure and reducing the number of parts; also in the arrangement of the parts so that the adjustment or length of the line may be regulated on the ordinary
 85 scale in front of the machine.

What I claim is:—

1. A typewriter, having a combined paper guide and marginal stop secured to a rock shaft, and arranged to guide a sheet, means
 90 to rock said shaft, and means to release the stop for adjusting the same lengthwise of the platen when the shaft is rocked; substantially as described.

2. A typewriter, having two combined paper guides and marginal stops secured to a rock shaft and arranged to guide both
 95 sides of a sheet, means to rock said shaft, and means to release the stops for adjusting the same lengthwise of the platen when the shaft is rocked; substantially as described.

3. In a typewriting machine, a marginal stop secured to a rock shaft and arranged to move endwise with a platen, means to rock
 100 the shaft, and means to release the stop for adjusting the platen endwise in either direction relatively to said stop; substantially as described.

4. In a typewriting machine, a carriage having a marginal stop secured to a rock shaft arranged to move endwise with the carriage and platen, means to rock
 105 said shaft, and means to release the stop therefrom and for holding the stop stationary and permit the platen to be moved endwise in either direction relative to said stop; substantially as described.

5. In a typewriting machine, a carriage having a longitudinal rock bar or shaft, a marginal stop adjustably secured to the bar, means to rock the bar and means to release
 110 the stop therefrom and for holding the stop while adjusting the bar endwise in either direction relatively thereto; substantially as described.

6. In a typewriting machine, a combined

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paper guide and marginal stop secured to a rock shaft, a second rock shaft, a feed roller mounted on said shaft, means to rock both shafts and means to release the marginal stop from the first shaft and to permit the paper guide and roller to be moved from the platen; substantially as described.

7. In a typewriting machine, a combined paper guide and marginal stop secured to a rock shaft, means to rock said shaft, and means to release the marginal stop and paper guide from the rock shaft when said shaft is rocked; substantially as described.

8. A typewriting machine, a combined paper guide and marginal stop secured to a rock shaft, means to rock said shaft, and a cam adapted to release the marginal stop and paper guide from the rock shaft when said shaft is rocked; substantially as described.

9. A typewriting machine, having a combined paper guide and marginal stops adjustably mounted on a rock shaft mounted on the carriage of a platen, means for rocking the shaft, and means to release the combined paper guide and marginal stop from the shaft when it is rocked, to permit the carriage to be moved longitudinally rela-

tively to the stops and paper guides; substantially as described.

10. A typewriting machine, having a movable carriage, a scale mounted on and movable with said carriage, marginal stops secured to a rock shaft mounted on said carriage, means for rocking the shaft and means to disconnect the stops from said shaft to adjust said stop endwise in either direction relative to said carriage; substantially as described.

11. In a typewriter, a carriage having a rock shaft mounted thereon, a combined marginal stop and paper guide connected to said rock shaft, a stop on the carriage bed arranged to restrain endwise movement of the carriage when said marginal stops contact therewith, and a movable stop device normally preventing vertical movement of the carriage above a fixed level arranged to allow the carriage to be lifted to clear the endwise stop; substantially as described.

In testimony whereof, I have hereunto set my hand.

WILLIAM J. KAUFFMAN.

Witnesses:

GEO. H. PARMELEE,

H. M. CORWIN.