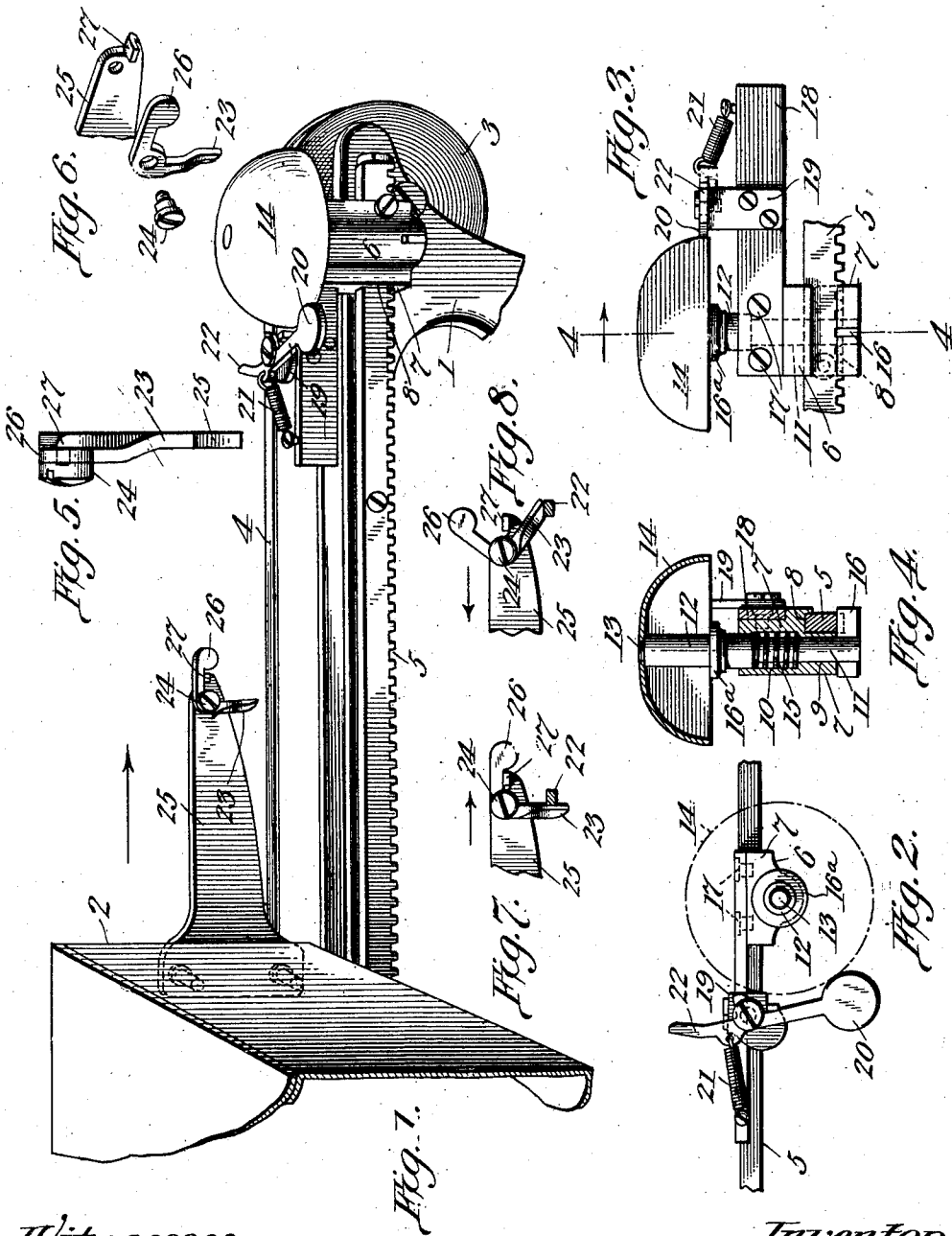


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ALARM FOR TYPE WRITERS.
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1,038,218.

Patented Sept. 10, 1912.



Witnesses.

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ALARM FOR TYPE-WRITERS.

1,038,218.

Specification of Letters Patent.

Patented Sept. 10, 1912.

Application filed June 19, 1908. Serial No. 439,446.

To all whom it may concern:

Be it known that I, GEORGE HERMAN SMILEY, a citizen of the United States of America, residing at Harrisburg, in the 5 county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Alarms for Type-Writers, of which the following is a specification.

My present invention relates to an improved alarm mechanism adapted for the 10 equipment of a typewriting machine and designed to apprise the operator when the typewriter carriage reaches a given point in its travel, usually a few letter spaces in advance of the end of the line of writing.

The object of the invention is to simplify the construction and mounting of the alarm mechanism and to so arrange the bell that the latter will constitute a thumb piece or 20 handle which may be manipulated to release and adjust the bell and to re-secure the same in its adjusted position.

Subordinate objects will hereinafter appear.

25 In the accompanying drawings—Figure 1 is a perspective view of a portion of an Elliott-Fisher typewriter equipped in accordance with my invention. Fig. 2 is a plan view of the bell mounting and the 30 striker, the position of the bell being indicated in dotted lines. Fig. 3 is a rear elevation of the bell and its mounting. Fig. 4 is a transverse section on the line 4—4 of Fig. 3. Fig. 5 is an end view of the trip 35 bracket and trip. Fig. 6 is a detail perspective view of the end of the trip bracket with the trip and the trip securing stud detached. Fig. 7 is a diagrammatic detail showing the manner in which the trip is 40 held rigid to operate the striker during the retraction of the carriage, and Fig. 8 is a similar view showing the manner in which the trip yields and passes freely over the striker during the forward or letter space 45 movement of the carriage.

Each part, wherever shown, is indicated by the same reference character.

50 The specific character of the typewriting machine is immaterial, since my present invention is adaptable to any typewriter including a relatively movable frame and carriage. Suffice it to say that the Elliott-Fisher machine, to which the invention is shown applied, includes in its organization 55 a frame 1 and a relatively movable carriage

2 which is urged in the direction indicated by the arrow in Fig. 1 by a spring drum 3 connected to the carriage by tapes 4 one only of which is shown.

Disposed lengthwise of the frame adjacent to the upper rear corner thereof is a longitudinal toothed rack 5 which, in the Elliott-Fisher machine, constitutes an element of the ribbon feeding mechanism, but which in accordance with my present invention constitutes a support for the bell mounting and so far as the invention is concerned, need have no further function. 60 65

Carried by and slidable longitudinally of the rack 5 is a metal block 6 constituting an adjustable bell carrier 7 and formed with a guide 8 for the reception of the rack. The carrier 7 is provided in front of the rack 5 with a vertical bore 9 enlarged to form a spring socket 10 and adapted for the reception of a vertically movable stem 11 having an enlarged upper end 12 extended into the upper end of the bell socket 10 and having a threaded extremity 13 upon which the bell 14 is secured. Encircling the stem 11 80 within the spring socket 10 is a spring 15 which normally retains the stem in its elevated position, shown in full lines in Fig. 4, in which position a tooth 16 extended laterally from the lower end of the stem engages one of the interdental spaces of the rack 5 to retain the bell carrier 7 in any desired position lengthwise of the rack, the depression of the stem for the purpose of disengaging the tooth from the rack in a manner to be described being limited by a stop flange 16* extended from the stem and arranged to engage the upper end of the carrier 7. 85 90

Secured to the carrier 7, as by screws 17, 95 is a margin stop in the form of a horizontal arm 18 to which is secured a striker bracket 19 upon which is pivotally mounted a bell striker 20, of usual construction, urged toward the bell by a spring 21 and having one extremity 22 disposed in the path of movement of a trip 23. The trip 23 is in the form of a small angular lever fulcrumed on a screw stud 24 screwed into an opening adjacent to one end of a trip bracket 25 secured to the carriage 2 in any suitable manner and extended beyond the right hand end thereof. As is usual in this class of devices, the trip 23 is provided with a counterweight 26 and is held against movement in one di- 100 105 110

rection by a stop 27 which in this instance is extended laterally from the extremity of the trip bracket 25.

The operation of the device is as follows:

- 5 The operator, by placing his finger upon the top of the bell 14, depresses the same, together with the stem 11, against the resistance of the spring 15 for the purpose of disengaging the tooth 16 from the rack 5.
- 10 During the maintenance of this downward pressure a lateral pressure may be exerted to cause the bell carrier 7 to move along the rack 5 to the desired position, where it is re-secured by the engagement of the tooth 16 with the rack 5 as soon as the downward pressure upon the bell is relieved. Having adjusted the bell, the manipulation of the typewriter will cause the carriage 2 to move in the direction of the arrow in Fig. 1 and
- 20 eventually bring the trip 23 into contact with the end 22 of the bell striker. As the trip 23 is prevented by the stop 27 from yielding to the left, the continued advance of the carriage will cause the trip to swing the striker against the resistance opposed to such movement by the spring 21 until the arcuate movement of the end 22 of the striker allows the trip 23 to move beyond the same. Obviously, as soon as the striker
- 30 is clear of the trip, the spring 22 will retract the striker to normal position and cause the sounding of the bell. Upon the retraction of the typewriter carriage 2 the trip 23 will merely ride idly over the end 22 of the striker, as indicated in Fig. 8, and the parts will then be in position for a repetition of the described operation.

The bell 14 will be seen to constitute not only an alarm but also an operating device for the retaining or locking means which includes the stem 11 and tooth 16 and said bell furthermore constitutes a handle adapted to facilitate the adjustment of the bell carrier and margin stop along the supporting bar 5.

It is thought that from the foregoing, the construction and operation of my alarm mechanism will be clearly comprehended, but I wish to be understood as reserving the right to effect such variations of the illustrated structure as may come fairly within the scope of the protection prayed.

What I claim is:

1. The combination with a support, of a bell carrier adjustable on the support, a bell, and carrier retaining means adapted to be operated by the bell.

2. The combination with a rack and a bell carrier adjustable along the same, of a retaining device for the bell carrier, and a bell carried by the retaining device.

3. The combination with a rack, of a bell carrier adjustable along the same, a stem movably mounted in the bell carrier, a bell carried by the stem, and means operated by the stem to engage and release the rack.

4. The combination with a rack, of a bell carrier slidably mounted thereon, a stem extended through the carrier, a rack engaging tooth and a bell mounted at opposite ends of the stem, and a spring acting to urge the tooth into engagement with the rack.

5. The combination with a support, of a bell carrier adjustable thereon, retaining means for the bell carrier, a bell movable relative to the carrier to operate the retaining means, a striker mounted on the bell carrier, and trip for operating the striker.

6. In a typewriter, the combination with a supporting bar, of a carrier adjustable along the bar, means for positively locking the carrier to the bar, and a bell adjustable with the carrier and movable relative thereto to cause the locking means to release the carrier.

7. In a typewriter, the combination with the frame and carriage, of a bell carrier adjustably mounted on one of said elements, positive locking means retaining the carrier against movement in the direction of its adjustment, a bell and a margin stop both adjustable with the carrier, and a connection between the bell and the locking means, said bell serving as an operating handle for the locking means and also as an adjusting handle for the carrier and margin stop.

8. In a typewriter, the combination with a support, of a combined margin stop and bell carrier movably mounted on the support, means for retaining the carrier in its adjusted positions, and a bell mounted on and adjustable with the carrier and movable relative thereto to operate the carrier-retaining means, and means coacting with the bell to sound an alarm, said bell serving as an alarm, as an operating device for the carrier-retaining means, and as an adjusting handle for the carrier.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE HERMAN SMILEY.

Witnesses:

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