J. L. WALKER.

TYPE WRITER ATTACHMENT.

APPLICATION FILED OCT. 22, 1910.

1,031,215.

Patented July 2, 1912.

2 SHEETS—SHEET 1.

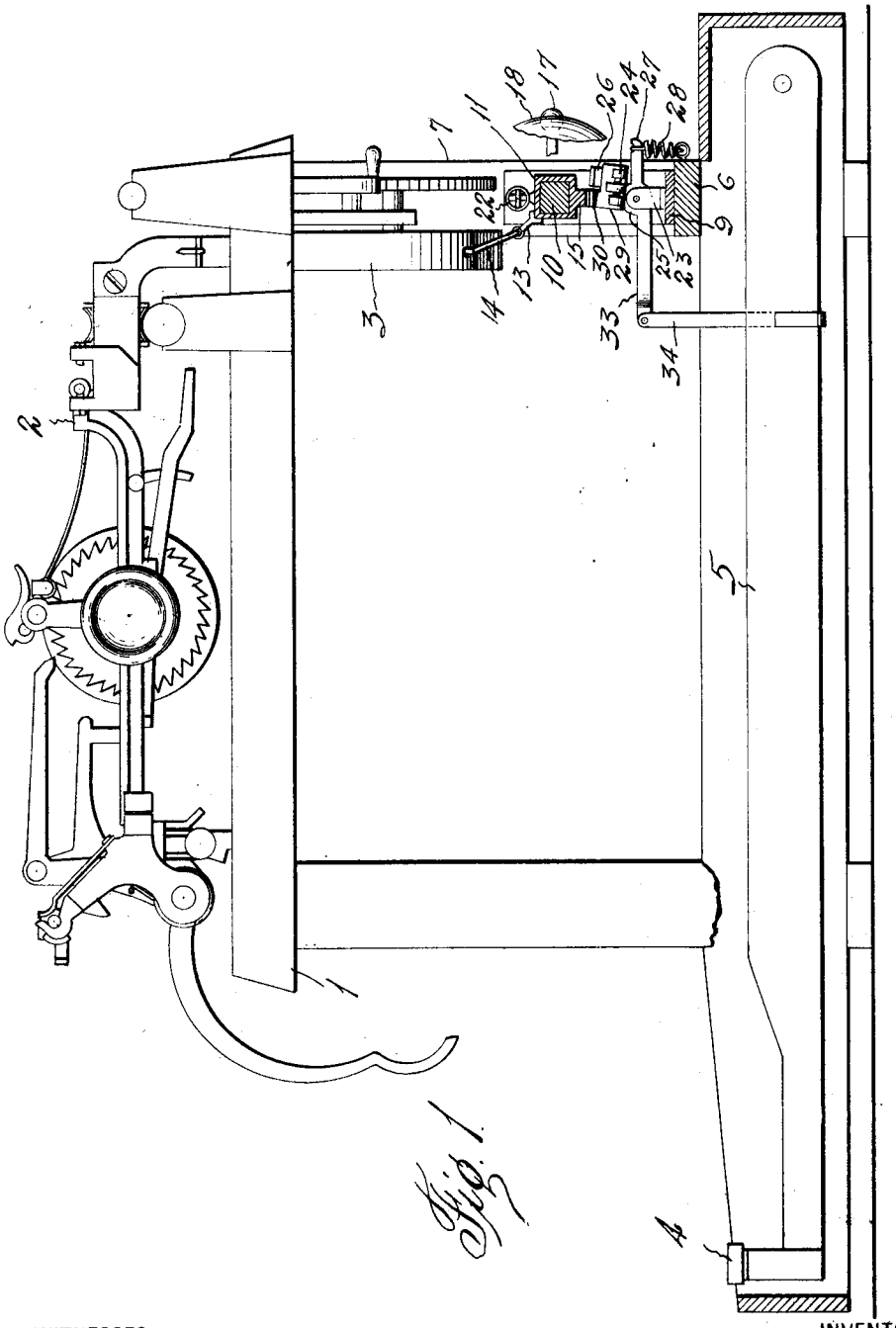

Fig. 1.

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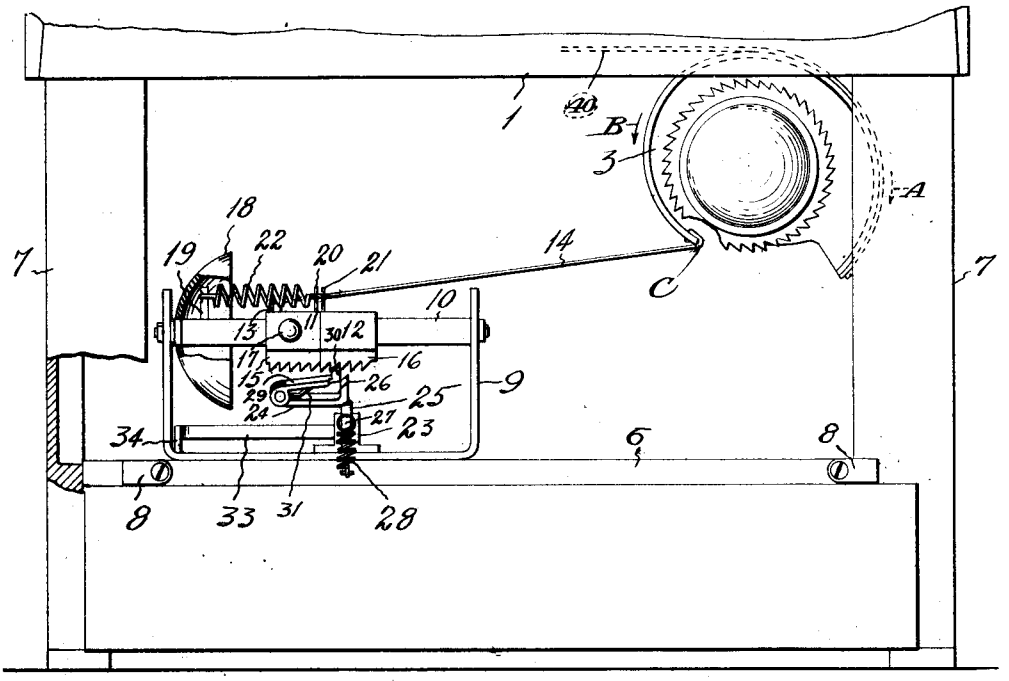

Fig. 2.

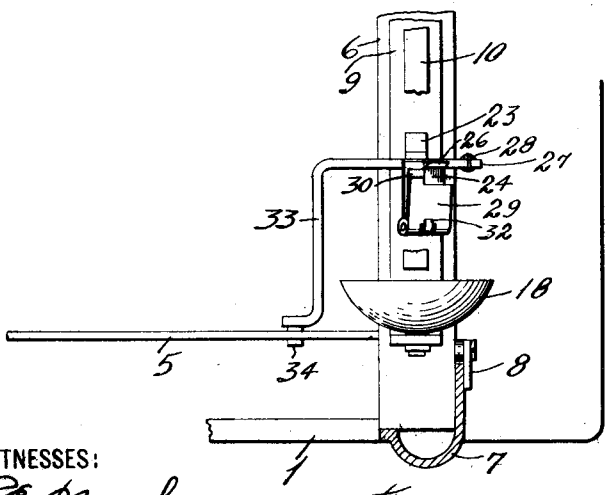

Fig. 3.

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TYPE-WRITER ATTACHMENT.

1,031,215. Specification of Letters Patent. Patented July 2, 1912.

Application filed October 22, 1910. Serial No. 589,001.

To all whom it may concern:

Be it known that I, JACK L. WALKER, citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Type-Writer Attachments, of which the following is a specification.

This invention relates to new and useful improvements in typewriter attachments.

In certain instances it is desirable to count the number of words written in each line or to write on each line a certain number of words as writing telegraph messages, and it has generally been the practice to count the words by observation.

It is therefore the object of this invention to provide an attachment which may be secured to an ordinary typewriter and connected with the space bar mechanism and the spring drum whereby after a predetermined number of words have been written on a line, an audible signal will be sounded.

Further features reside in the arrangement whereby the attachment will be operated one step or moved along one tooth each time the spacing bar is depressed; and also the provision whereby the attachment may be set to sound the signal for a certain number of words or a greater number.

Finally the object of the invention is to provide means of the character described that will be strong, durable, efficient, and easy of operation, simple and comparatively inexpensive to construct, and also in which the several parts will not be likely to get out of working order.

With the above and other objects in view, the invention has relation to certain novel features of construction and operation, an example of which is described in this specification and illustrated in the accompanying drawings, wherein:

Figure 1, is a side elevation of a typewriter with the attachment secured thereto, the attachment and a portion of the typewriter frame being shown in section, Fig. 2, is a rear elevation of a portion of the typewriter and the attachment, and Fig. 3, is a detail in plan.

In the drawings the numeral 1 designates the frame of a "Remington" typewriter, 2 the carriage, 3 the spring carriage actuating drum which is connected to the carriage by the tape 40, 4 the spacing bar, and 5 one of the spacing bar levers. In the particular style of typewriter mentioned the drum 3 is in the form of an eccentric with a gap in its periphery. When the carriage 2 is returned to begin a new line of writing, the drum is rotated in the direction of the arrow B Fig. 2, and the spring (not shown) in the drum is wound.

In writing the carriage moves in the reverse direction and the drum reverses its direction of rotation as indicated by the arrow A and thus pulls the carriage along the frame as a line is written. The operation of this drum is so well known in the art that a detailed illustration and description of the same is believed unnecessary.

The attachment can be applied to other makes of typewriters.

The attachment comprises an elongated base bar 6 adapted to fit between the rear posts 7 of the typewriter. On its rear side and near each end the bar 6 is provided with clips 8 which are engaged with the posts to fasten the bar in place, the bar being thus removable or readily attached to a typewriter frame.

A U-shaped frame 9 having its extremities directed upward is secured on the bar a short distance from the end opposite to that extending under the drum 3. Near the upper end of the frame a horizontal bar 10 square in cross section is secured. A pair of sleeves 11 and 12 respectively are arranged to slide longitudinally on the bar 10. The sleeve 12 is disposed on the bar 10 between the sleeve 11 and the drum 3.

From the forward side of the sleeve 11 an ear 13 extends. A flexible connection 14 has one end attached to the ear and the other end fastened to the drum 3 so that when the drum is wound in the direction of the arrow A Fig. 2 the sleeve 11 will be moved along the bar 10 toward the drum. It is obvious that if the sleeve 12 were in the path of the sleeve 11 it would also be moved in the same direction along the bar. From the underside of the sleeve 11 a toothed bar 15 depends, while from the sleeve 12 a similar bar 16 depends. These bars are alined and registered. The bars 15 and 16 each have five teeth.

From the rear side of the sleeve 11 a bell striker 17 extends horizontally. At the left hand end of the bar 10, with reference to Fig. 2, a bell 18 is secured. Near the bell a

pin 19 extends upward from the bar 10. The sleeves 11 and 12 each have an upwardly extending stud 20 and 21 respectively. These studs are disposed near the adjacent ends of the sleeves in such relation that the end of a coil spring 22 attached to the pin 19 may be engaged over the stud 20 or over both the studs 20 and 21.

The spring 22 acts to move the sleeves along the bar toward the bell; while the connection 14 acts to draw the sleeves away from the bell and against the tension of the spring when the drum is wound, or in other words when the typewriter carriage is returned to begin the writing of a new line. A suitable escapement device hereinafter described is provided and connected to the spacing bar lever 5. This device operates to release the sleeves and permit the spring 22 to draw them the distance of one tooth toward the bell 18 each time the spacing bar is depressed, the drum 3 rotating in the direction of the arrow A Fig. 2.

It is to be noted that when the connection 14 is wound on the drum 3 the tape 40 is unwound therefrom and vice versa when the connection 14 is unwound the tape 40 is wound. By this arrangement there is no interference between the said connection and tape.

If it is desired to have the striker 17 engage the bell after ten words have been written, the spacing bar being depressed once after each word, the free end of the spring 22 is engaged over both of the studs 20 and 21. On the other hand should it be desired to have the bell sounded after writing five words, the free end of the spring is engaged only over the stud 20, the sleeve 12 being moved to the inner end of the bar 10 where it remains out of operation.

The escapement device comprises a bracket 23 secured on the horizontal portion of the frame 9 near the center thereof. A laterally extending escapement 24 is provided at one end with a depending pivot lug 25 pivoted in the bracket 23. At the same end of the escapement a rigid dog 26 projects outward. The escapement normally lies at an angle with the dog 26 out of the path of the rack bars. The escapement member is adapted to be swung transversely of the rack bars and so that the dog 26 will be moved into the teeth thereof. A short arm 27 extends rearward from the lug 25 and at its outer end engages the upper end of a coil spring 28 which is connected at its lower end to the base bar 6. This spring acts to hold the escapement in its normal position and to return the parts to normal position when pressure on the spacing bar has been relieved.

On the outer end of the escapement a pawl 29 is hinged. This pawl extends over the escapement and inclines upward. At its free end it has an upstanding dog 30 normally engaging the teeth of the rack bar. The pawl is forced upward by a spring 31 secured to the escapement and engaging the underside of the pawl; while the upward movement or swing of the pawl is limited by a stop 32 bent upward from the outer end of the escapement and extending over the pivoted end of the pawl.

From the lug 25 a lever arm 33 extends forward and to one side as is shown in Fig. 3. This lever arm is bent so that its outer and free end extends above the spacing lever 5 and substantially parallel thereto. The upper end of a vertical hook 34 is pivoted to the end of the lever arm 33. The hook is engaged under and about the lever 5 and thus when the lever is depressed, the hook will swing the lever arm downward.

When the lever arm 33 is swung downward, the escapement is swung forward a sufficient distance to withdraw the dog 30 from between the teeth of the rack bar. As the dog 30 is withdrawn transversely from the teeth, the dog 26 is swung into the teeth of the rack bar. The distance between the dogs is such that when the dog 30 is disengaged from the teeth, the sleeve or sleeves will be drawn toward the bell a sufficient distance to permit the point of the tooth with which the dog 30 has been previously engaged to move slightly past the upper edge of the said dog. This slight movement of the sleeve or sleeves will be limited by the engagement of the following tooth with the dog 26. When pressure is relieved on the spacing bar, the spring 28 will swing the escapement back to its normal position. As the escapement is swung back the dog 30 enters between the same two teeth between which the dog 26 is projecting, that is the tooth with which the dog 30 has previously been engaged and the following tooth. The continued rearward movement of the escapement withdraws the dog 26 from the teeth and permits the spring 22 to draw the sleeve or sleeves toward the bell until the following tooth engages with the dog 30. Thus on each forward and backward swing of the escapement the sleeve or sleeves move the distance of one tooth toward the bell. As the dogs of the escapement are disengaged from the last tooth, the sleeves or sleeve are released suddenly and will be drawn toward the bell with sufficient force to cause the striker 17 to hit the edge of the bell and produce an audible signal. When the carriage of the typewriter is returned the sleeves are likewise returned by the winding of the connection 14 on the drum 3, which latter is rotated in the direction of the arrow B Fig. 2. It is obvious that as the sleeves are moved to the right (Fig. 2) the spring 22 is extended and placed under tension.

It is to be understood that in most typewriters especially the "Remington" with which this device is illustrated, a drum or eccentric such as the part 3 is connected with a spring having one end fixed A tape such as the part 40 has one end secured to the periphery of the drum and the other end attached to the carriage of the typewriter. The tape is wound one or more times about the drum, the drum being placed under the tension of the spring. When the carriage is returned to the beginning of the line of writing said tape is unwound from the drum. The connection 14 is attached to said drum so that as the tape is unwound and the drum rotated, said connection will be wound thereon.

The spring 22 is of light construction such as may be extended a considerable distance and remain under tension until it is returned to its normal condition and its coils contact one with the other.

What I claim is:

1. In a typewriter attachment, the combination with the spacing bar lever and the spring winding drum of a typewriter, a support attached to the typewriter frame, an audible signaling device, a slidable sleeve mounted on the support and having depending teeth, a connection between the sleeve and the spring winding drum, a spring for drawing the sleeve toward the signaling device, and a pivoted escapement engaging the teeth of the sleeve and having connection with the spacing bar lever.

2. In a typewriter attachment, a base bar having provision for attachment to a typewriter, a support mounted on the bar, a bar mounted in the support, a bell at one end of the last named bar, a sleeve slidable on the last named bar toward and from the bell, teeth depending from the sleeve, an escapement device pivoted in the support to swing transversely of the teeth and provided with dogs engaging the teeth, a lever extending from the escapement device and adapted to have connection with the lever of a typewriter spacing bar, a spring having connection with the sleeve at one end and held adjacent the bell at the other end, and a connection attached to the sleeve extending in a direction opposite to the spring and adapted to be attached at its far end to the spring winding drum of a typewriter.

3. In a typewriter signaling device, a bell, a support, a striker device movable on the support toward and from the bell and comprising two parts arranged to operate together, one of said parts being arranged to operate without the other, and an escapement release engaging with the striker parts and having provision for connection with the lever of a typewriter spacing bar.

4. In a typewriter attachment, a base having provision for attachment to a typewriter, a support mounted on the base, a bar mounted in the support, a bell at one end of the last named bar, a pair of sleeves slidable on the bar, studs projecting from the sleeves in adjacent relation, teeth depending from the sleeves, an escapement device pivoted in the support to swing transversely of the teeth and provided with dogs engaging the teeth, a lever extending from the escapement device and adapted to have connection with the lever of a typewriter spacing bar, a spring having connection with a support near the bell and adapted to have its free end engaged over one or both of the studs, a connection extending from one of the sleeves adapted to be engaged with the spring winding drum of a typewriter, a striker projecting from one of the sleeves, and a spring having connection with the escapement device.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JACK L. WALKER.

Witnesses:
L. E. NOACK,
JACK A. SCHLEY.