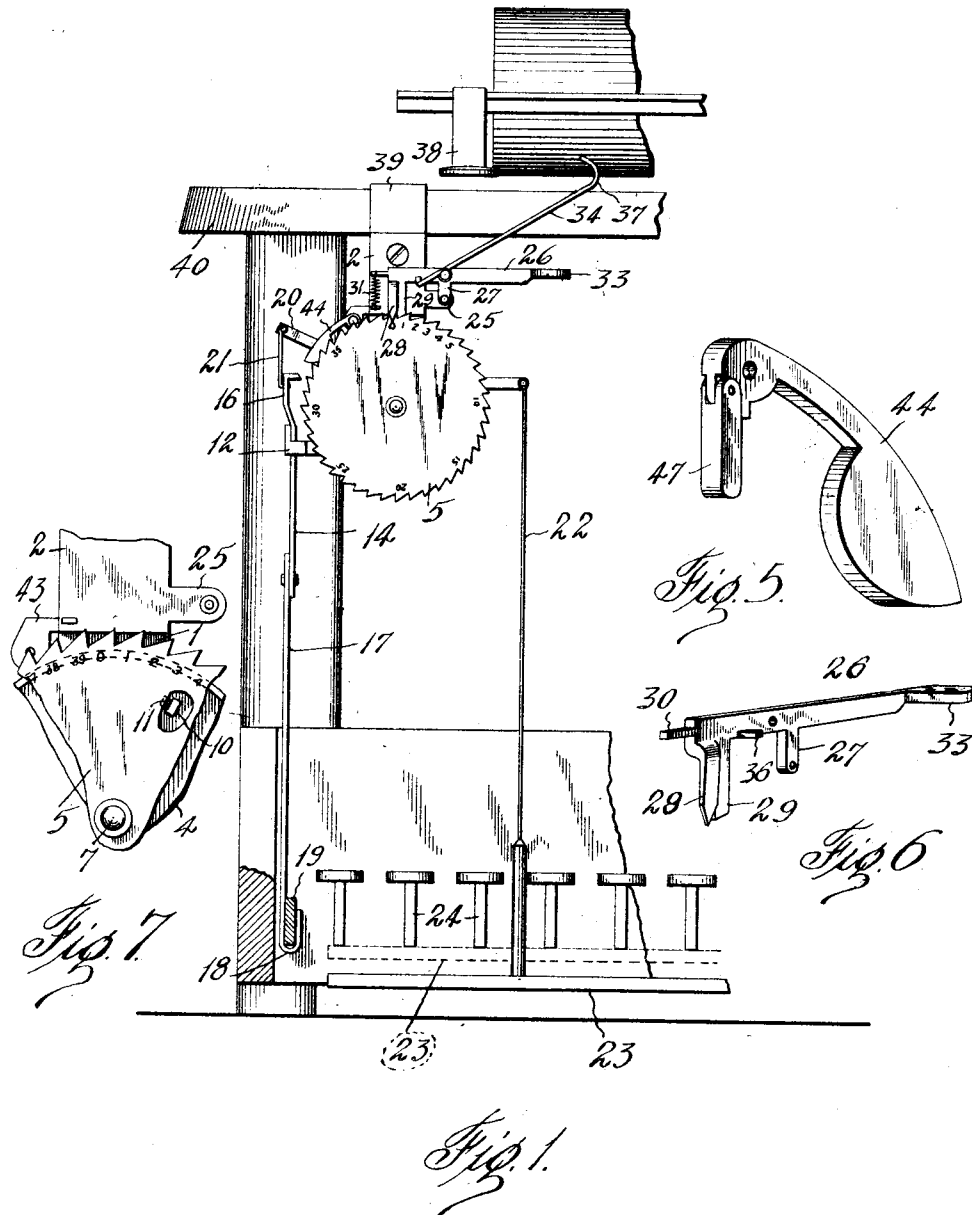


J. L. WALKER.
COUNTING ATTACHMENT FOR TYPE WRITERS.
APPLICATION FILED MAR. 2, 1911.

1,033,361.

Patented July 23, 1912.

2 SHEETS—SHEET 1



WITNESSES:
J. B. Bowling
L. E. Noack.

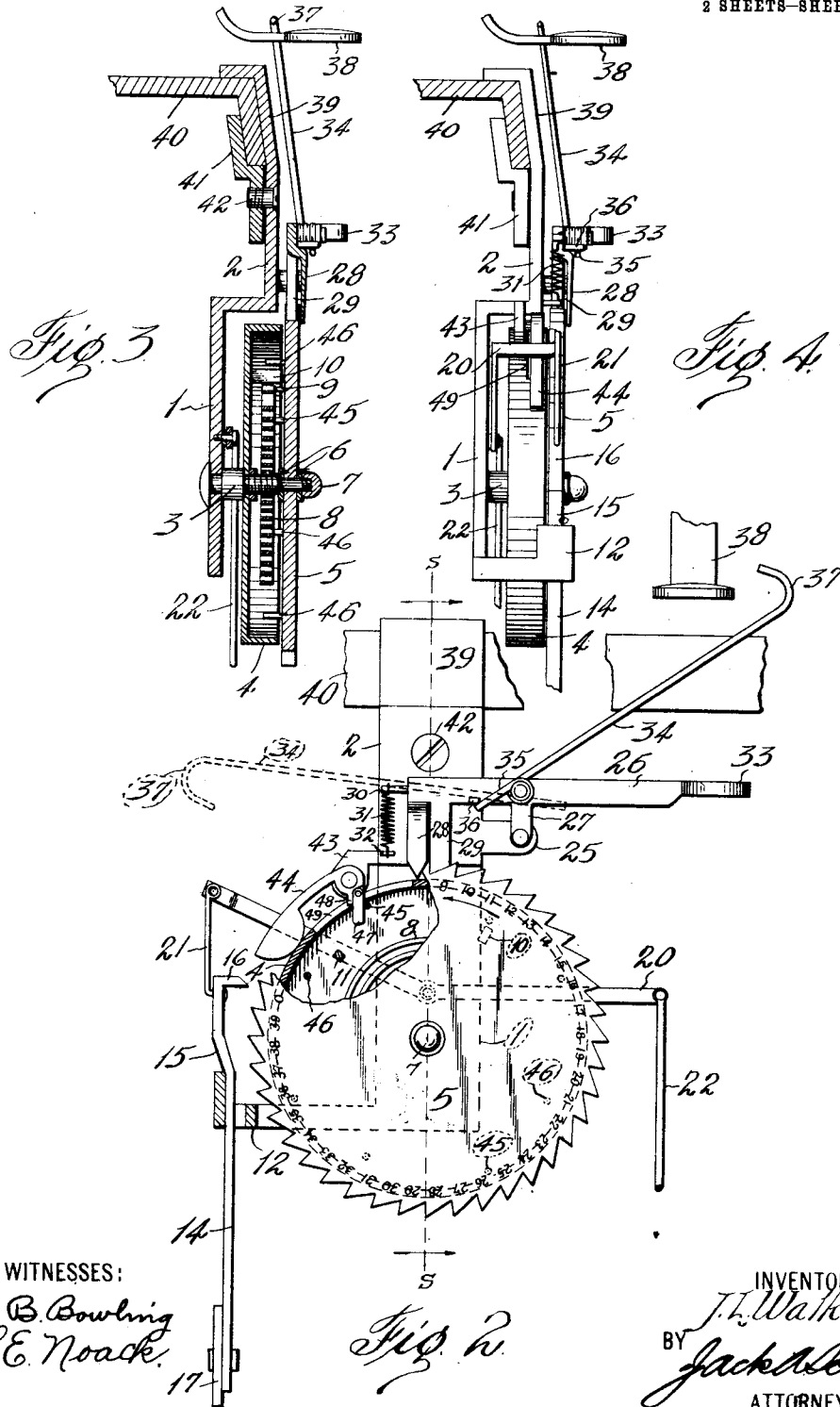
INVENTOR
J. L. Walker.
BY
Jack H. Lehman
ATTORNEY

J. L. WALKER.
COUNTING ATTACHMENT FOR TYPE WRITERS.
APPLICATION FILED MAR. 2, 1911.

1,033,361.

Patented July 23, 1912

2 SHEETS—SHEET 2.



WITNESSES:
J. B. Bowling
L. E. Noack.

INVENTOR
J. L. Walker.
BY Jack A. Schley
ATTORNEY

UNITED STATES PATENT OFFICE.

JACK L. WALKER, OF DALLAS, TEXAS.

COUNTING ATTACHMENT FOR TYPE-WRITERS.

1,033,361.

Specification of Letters Patent.

Patented July 23, 1912.

Application filed March 2, 1911. Serial No. 611,761.

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 Counting Attachments for Type-Writers, of which the following is a specification.

This invention pertains to counting attachments for typewriters.

The object of the invention is to provide a device commonly termed a "word counter" and one which involves certain advantageous features such as an audible signal arranged to operate at regular intervals to indicate without observing the dial that certain number of words have been written and counted.

A still further object resides in the provision whereby the signal is varied or by which a difference in sound is had after counting certain number of words which will distinguish from the sound given after counting intermediate number of words. Such an arrangement will enable operators not sufficiently proficient to write without observing the keys, to approximate the number of words written.

A still further feature is the arrangement whereby the typewriter carriage causes the dial to be reset at the end of each line written; the optional arrangement whereby the dial may be reset at the end of each line or several lines written before the dial is reset; and a manually operated dial release.

Another important feature is the arrangement whereby the dial rotating member is only operated upon the first depression of the spacing bar after each word is written, but again set in operating position by the depression of the first key struck; thus if the spacing bar is depressed two or more times after a word is written, only one impulse will be imparted to the dial and only one word will be counted, a false count being avoided.

A still further 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 partial front elevation of a typewriter with the invention applied thereto, Fig. 2. is a view of the attachment in elevation, a portion of the dial being broken away to show underlying constructions, Fig. 3. is a vertical transverse sectional view on the line S—S of Fig. 2, Fig. 4 is a side elevation, Fig. 5. is a detail of the bell striker, Fig. 6. is a detail of the releasing lever, and Fig. 7. is a detail of portions of the dial and bell, the former having a portion broken away to show the dial stops.

In the drawings the numeral 1 designates a vertical hanger or support having its upper portion 2 off-set. Near the lower end of the hanger a horizontal shaft 3 is fastened and projects forward. This shaft is properly shouldered and screw threaded to receive a bell 4 and ratchet dial 5, the bell being spaced from the hanger and standing under the portion 2 while the dial is free to rotate between washers 6, is beyond the portion 2 and is confined on the shaft by a cap nut 7 engaged on the extreme forward end of the latter and in juxtaposition to the forward or outer washer.

The bell 4 is fastened on the shaft and contains a flat coiled spring 8 fastened at its center about the shaft and connected at its outer end to a pin 9 projecting from the rear side of the dial. As the dial is rotated the spring is wound and thus when the former is released the spring will return it to its initial position. For arresting the dial and stopping it at its initial or starting point, a lug 10 is secured to the inside of the bell in the path of a stud 11 projecting from the rear side of the dial as is best shown in Fig. 7 where the dial is broken away and the stud shown partly in section and partly in dotted lines.

The dial 5 has peripheral ratchet teeth and as illustrated is provided with forty of such teeth, although a greater or less number may be used. However the particular number of teeth is important when the audible signal is used, for the reason that the signal is sounded at multiples of a certain predetermined number, as five. The diameter of the dial is slightly greater than that of the bell so that parts engaging the teeth will not contact with the bell.

With relation to Figs. 1 and 2 the dial 5

is rotated to the left. An angular bracket is directed outward and forward from the lower end of the hanger 1 and carries at its free end a guide 12 through which a vertical operating bar 14 extends. Normally the bar has an upwardly and outwardly inclined portion 15 immediately above the guide. At the extreme upper end of the bar an integral inwardly directed dog 16 is provided and which is normally out of the path of the teeth of the dial. It is apparent that when the bar is pulled downward the inclined portion riding into the guide will bring the dog into engagement with the ratchet teeth and impart a partial rotation to the dial. The lower end of the bar 14 has adjustable engagement with the upper end of link 17 provided at its lower end with a hook 18 engaging under one of the spacing-bar arms 19 of the typewriter.

It will be apparent that when the link and bar 14 are depressed they will remain so, the hook 18 being long enough to embrace the arm 19 but permit the latter to swing in the usual way without operating said link and bar. The adjustment between the link and bar is provided to regulate the vertical movement of the bar and the length of the partial rotation imparted to the dial at each depression of the arm 19. By the arrangement above described the spacing bar may be depressed two or more times after writing a word, but the bar 14 will only be depressed one time and the dial moved one tooth or one number. It is necessary to raise the bar 14 after it has been depressed and this is accomplished by an angular lever or restoring member 20 pivoted to the hanger 1 above the shaft 3 and in rear of the bell. At one end of the lever a connection 21 depends and has suitable engagement with the dog 16. To the other end of the lever the upper end of a rod 22 is pivoted and the lower end of said rod has suitable connection with a horizontal bar 23 extending under the key levers 24 of the typewriter. When the bar 14 is up as shown in Fig. 1 the bar 23 is down in such a position as not to be affected by the depression of the key levers, but when the bar 14 is moved downward the bar 23 is swung upward to the position shown in dotted lines in Fig. 1 and thus upon the depression of the first key lever the parts are returned to their normal positions.

From the right side of the portion 2 of the hanger an ear 25 extends laterally. A horizontal releasing lever 26 has a depending arm 27 near its central portion and which is pivoted at its lower end on the face of the ear. At the inner end of the lever a forwardly bent and downwardly projecting indicating finger 28 has its lower end projecting over the face of the dial a

short distance. In juxtaposition to the finger a dog 29 depends from the lever so as to engage the ratchet teeth of the dial. Adjacent the finger a lug 30 extends from the end of the lever 26 and has engagement with the upper end of a coil spring 31 fastened to a lug 32 at its lower end, which lug extends from the portion 2 of the hanger. This spring exerts a downward pull on the inner end of the lever and holds the dog 29 which is integral with the lever, into engagement with the ratchet teeth.

At the outer or free end of the lever 26 an integral button 33 extends forward. It is obvious that the operator pressing on the button will swing the lever 26 so that the dog 29 is withdrawn from the ratchet teeth thereby permitting the spring 8 which has been wound by the rotation of the dial to return the latter to its initial position and with "zero" under the indicating finger 28. When pressure is relieved on the lever 26 the spring 31 will pull the dog 29 downward and if said dog should rest on the point of one of the ratchet teeth instead of between the teeth it will not interfere with the operation of the dial as the bar 14 is adjusted to rotate said dial a slightly greater distance than the distance between the points of the teeth.

At the intersection of the arm 27 and lever 26 a releasing arm 34 is pivoted. The arm has a projection 35 extending downwardly from its pivot point and engaging under a lug 36 projecting forwardly from the lever whereby the releasing arm is supported at an angle so that a hook 37 at its upper end will be held in the path of the usual thumb piece 38 which extends from the carriage of the typewriter. This thumb piece is used to lift the carriage and is employed particularly upon a typewriter known as the "Remington". After a line has been written on the typewriter and the carriage is returned to start a new line the thumb piece 38 will engage the hook 37 just prior to the end of the return movement. Such engagement will pull the releasing arm 34 slightly to the right and swing the lever 26 in the same manner and with the same result had by depressing the button 33. If it is not desired to reset the dial at the end of each line the releasing arm may be swung to the left where it will rest on the lug 36 as shown in dotted line in Fig. 2.

For supporting the attachment in proper position an integral clamp member 39 is provided at the upper end of the portion 2 of the hanger and is shaped so as to engage over the platform 40 of the typewriter. An angular clamp member 41 engages under the depending flange of the platform and is connected to the portion 2 by a countersunk screw 42. In this way the attachment is

readily clamped on the typewriter and may be easily removed.

It is obvious that as words are written the dial will be rotated, the numbers thereon passing successively under the finger 28. The number appearing under the finger will indicate the number of words written, but the operator must observe the dial to ascertain this information and if he is not proficient enough to change his vision from the keyboard to the dial without stopping writing, this arrangement alone is objectionable. It might be well to state that this device is more especially designed to be used by telegraph operators, many of whom are paid at so much per word. Many of these operators are not proficient enough to change their vision from the keyboard to the dial and the time lost in so doing might cause delay and interruption in writing a message. To avoid this trouble I have provided an audible signal. With reference to Fig. 2 an ear 43 depends from the left side of the hanger at the off-set of the same. A striker 44 is pivoted on the face of the lug at its upper end and has its lower end resting on the periphery of the bell 4. On the rear side of the dial pins 45 and 46 are provided. These pins project into the bell and those 45 are set nearer the peripheral edge of the bell than the pins 46. A trigger 47 pivoted at its upper end on the striker depends into the path of the pins. As shown in Fig. 2 the trigger normally stands against a stop 48 so that when the trigger is moved to the left the striker will be swung upward, but when moved to the right the striker will not be affected. When the dial is released the pins will pass under and swing the trigger to the right and not swing the striker.

It is evident that the pins 46 will just engage the lower end of the trigger and swing the striker only a short distance before riding out of engagement with the trigger and permitting the striker to fall on the bell and sound the signal, but the pins 45 being nearer the peripheral edge of the bell and at a greater distance from the center of the dial will engage the trigger some distance above its lower end and consequently swing the striker upward a greater distance than the pins 46. When the pins 45 ride out of contact with the trigger the striker will fall a greater distance and sound the bell much louder, a distinguishing difference thus being had by the signals given by the two sets of pins.

The bell is cut out at 49 to permit a free operation of the trigger. The pins 46 are positioned to operate the striker when numbers including the character five arrive under the finger 28, while the pins 45 are disposed to operate the striker when numbers including the character zero arrive under said finger. Thus the signal given when

the number 20 arrives under the finger will be louder than the signal produced when the number twenty-five arrives under the finger. The dial must be moved the distance of two teeth when the pins 45 are operating the striker. As shown in Fig. 2 a pin 45 is adjacent the trigger so that when the dial is moved to bring the number nine under the finger the trigger and striker will be swung outward but the pin will still remain in engagement with the trigger and will not be carried from under the same until the dial is again rotated to bring the number ten under the finger. The pins 46 are positioned so that a pin will be brought against the trigger when the number just prior to the signal number arrives under the finger so that the trigger will be tripped as the signal number arrives under the said finger.

It is to be understood that the arrangement of the pins and numbers may be varied in accordance with the purpose for which the attachment is used and also the attachment may be altered so as to apply it to other makes of typewriters than the one shown in the drawings.

What I claim is:

1. In a typewriter counting attachment, a support, a rotatable reciprocating dial mounted on the support, a dial actuating member normally out of engagement with the dial and arranged to operate the dial during a downward stroke, a connection attached to the actuating member and having provision for connection with the spacing lever of a typewriter, a restoring member having connection with the actuating member, and a connection attached to the restoring member having a portion arranged to project in the path of the key levers of a typewriter, the actuating member and the restoring member being arranged to operate alternately.

2. In a typewriter counting attachment, a support having provision for attachment to a typewriter, a dial rotatably mounted on the support and provided with ratchet teeth, a spring having one end fixed and the other end attached to the dial, a fixed lug, a stud projecting from the rear side of the dial and located so as to engage the lug, a dial operating member having provision for engagement with the spacing-bar arm of a typewriter, an elevating lever connected to the operating member and having provision for connection with the key levers of a typewriter, a dog connected with the member and disposed adjacent the ratchet teeth of the dial, a retaining dog in engagement with the ratchet teeth of the dial, a releasing lever pivoted on the support and having connection with the retaining dog, and an indicating finger extending from the lever over the face of the dial.

3. In a typewriter counting attachment, a suitably mounted rotatable indicating dial, a dial operating member, a spring connected to the dial, a dial retaining member, a releasing member connected with the retaining member, a bell, projections extending from the dial, some of said projections being located at a greater distance from the center of the dial than the other projection, and a striker pivoted adjacent the bell and having a projection extending into the path of the dial projections.

4. In a typewriter counting attachment, a suitably mounted rotatable indicating dial, a dial operating member, a spring connected to the dial, a dial retaining member, a releasing member connected with the retaining member, a bell, projections extending from the dial, a striker mounted adjacent the bell, a stop mounted on the striker, and a pivoted trigger mounted on the striker against the stop and projecting into the path of the dial projections.

5. In a typewriter counting attachment, a support having provision for attachment to a typewriter, a dial rotatably mounted on the support and provided with ratchet teeth, a spring having one end fixed and the other end attached to the dial, a fixed lug, a stud

projecting from the rear side of the dial and located so as to engage the lug, a dial operating member having provision for engagement with the spacing-bar arm of a typewriter, a dog connected with the member and disposed adjacent the ratchet teeth of the dial, a retaining dog in engagement with the ratchet teeth of the dial, a releasing lever pivoted on the support and having connection with the retaining dog, and an indicating finger extending from the lever over the face of the dial.

6. In a typewriter counting attachment, the combination with a spring return dial provided with ratchet teeth, of a retaining dog in engagement with the teeth, a lever connected with the dog and having provision for manual operation, and a releasing arm pivoted on the lever and having provision at one end for engagement with the thumb piece of a typewriter carriage.

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

JACK L. WALKER.

Witnesses:

W. S. CASTLE,
JACK A. SCHLEY.