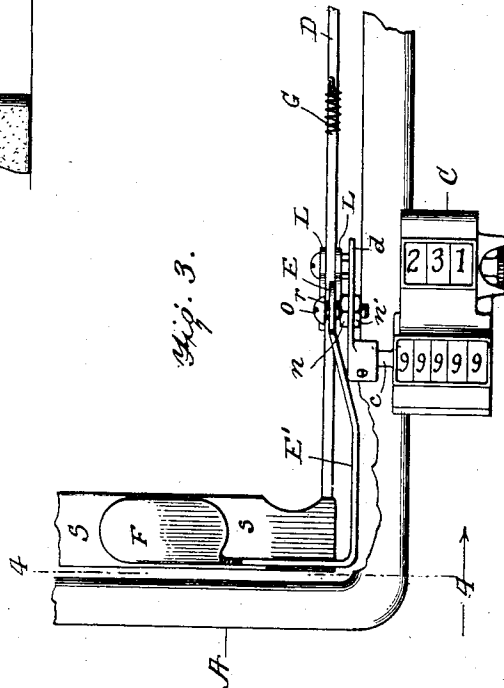
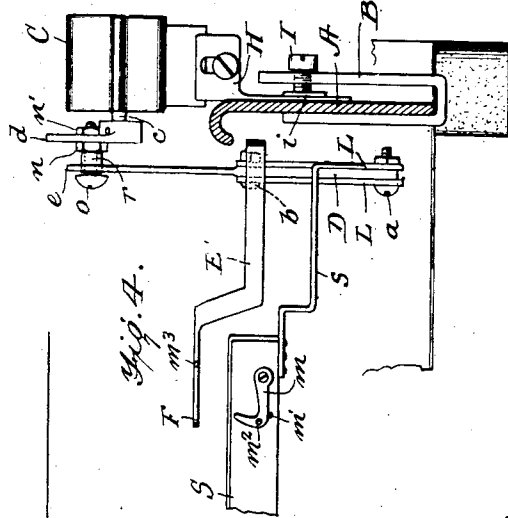


WORD COUNTER FOR TYPE WRITERS AND SIMILAR MACHINES.
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Inventor
RICHARD M. PETTEY,
By Edw. W. Byen.
Attorney

UNITED STATES PATENT OFFICE.

RICHARD M. PETTEY, OF ALEXANDRIA, VIRGINIA.

WORD-COUNTER FOR TYPE-WRITERS AND SIMILAR MACHINES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RICHARD M. PETTEY, a citizen of the United States, residing at Alexandria, in the county of Alexandria and State of Virginia, have invented certain new and useful Improvements in Word-Counters for Type-Writers and Similar Machines, of which the following is a specification.

This invention relates to word counters for typewriters and other analogous machines in which the operation of keys is made to print letters and words, or set up type.

The invention is based upon the principle of utilizing the depression of the space bar, after a word is written, to make the space between the words and at the same time count the word, but is so arranged as to permit the spacing movement to count on the register, or not count, as may be desired, as it frequently happens that a number of spacing movements of the space bar is required when no word is written between the spacing movements.

The object of the invention is to provide a simple and cheap attachment which shall be universally applicable to all machines and which while keeping a correct account of the number of words printed, or type set up, will also be susceptible of indefinite spacing without counting, by an easy and convenient manipulation, without interfering with the speed of the operator.

To that end, the invention consists in the novel construction and arrangement of connecting mechanism interposed between the typewriter mechanism and the register or counter, as will be hereinafter fully described with reference to the drawing, in which—

Figure 1 is an external side view and Fig. 2 an inner side view, partly in section, showing the attachment applied to a Remington typewriter. Fig. 3 is a top plan view and Fig. 4 is a vertical section taken on the lines 4—4 of Figs. 2 and 3, looking in the direction of the arrow.

In the drawing A represents the cast iron base frame of a Remington typewriter.

C is the counter or register and B is a clamp that secures the counter to the typewriter frame at any desired adjustment.

The counter C may be any desired form and its construction as a counter forms no part of this invention, as any counting regis-

ter may be employed. As shown the counter is the one generally known on the market as the "Veeder cyclometer", which, with slight adaptation is suited to the purposes of this invention. It is arranged above the typewriter frame at one side and has a depending supporting shank H.

The clamp B is a broad stiff U-shaped spring plate of steel, as seen in Fig. 4, which is slipped up onto the vertical wall of the base frame A from the lower side. In its outer member is tapped a set screw I which at its inner end carries a swiveling disk *i* that bears against the depending supporting shank H of the counter C. When the screw I is turned up tightly, the wall of the base A and the shank H of the counter are clamped between the inner member of the U-shaped spring plate and the swiveling disk *i* of the screw, and the U-shaped plate being thus put under a powerful spring tension, the counter and its attached parts are firmly held in place without any risk of dropping down from the pounding of the typewriter keys, and with this advantage, that no screw or hole in the typewriter frame is required, so that the counter and its attachments may be quickly adjusted to varying dimensions of frame at any point along the same, as the clamp will hold it in any position thereon without drilling, thus giving universal applicability to the attachment. If desired, however, the counter and its support may be rigidly and permanently screwed to place on the frame, or be connected to the same in any other way.

S is the spacing bar of the typewriter which, as usual, runs horizontally along the front edge of the typewriter and is connected at each end to a thin lever D which two levers extend back to the rear of the machine and connect with the spacing mechanism in the usual way, so that at each depression of the spacing bar, the roll and paper on the carriage will be spaced along a distance representing the space between two words. The spacing bar S is mounted at its ends upon a downwardly bent metal support *s* see Fig. 4, which at the outer end is bent at right angles and riveted or connected to the spacing lever D so as to be rigid therewith. Extending across and embracing the spacing lever near its end is a pair of connected link bars L L which have a screw *a* at the lower end, see Fig. 2, extending under the spacing lever and at the upper end have a screw *b* above

the spacing lever that also forms a pivotal fulcrum for an elbow lever E E', which elbow lever is thus connected by the link L to the spacing lever so that the spacing lever, as it moves up and down from the operation of the spacing bar, will also carry up and down the pivotal fulcrum *b* of the elbow lever. The vertical arm of this elbow lever is formed at its upper end with a hook *e* opening on one side and this hook normally embraces a pin *o* that is adjustably connected to a crank arm *d* of the counter C. This crank arm is rigidly connected to the projecting shaft *c* of the counter mechanism, so that the oscillation of the crank *d* will, through shaft *c*, operate the counting wheels within and register one for each depression of the crank arm *d*. Any counting mechanism operated by a crank arm may be used and it is not therefore necessary to describe in detail the internal construction of the counter. The pin *o*, however, has at the place where it is embraced by the hook *e* a friction roller *r*, see Fig. 4, on to which the hook rides in embracing the same and the crank pin *o* is adjustable in a longitudinal slot in the crank arm *d* and is fixed therein, after the proper adjustment, by two clamp nuts, *n n'*, Fig. 4, on opposite sides of the crank arm. By adjusting the pins *o* to or from the center of the crank arm the necessary throw is given to the crank arm to work the counter to suit the varying range of movement of different spacing bar levers or the varying point of connection with the same.

G is a spiral spring one end of which is connected to the upright arm E of the elbow lever, and the other end of which is hitched to the spacing bar lever. The tension of the spring always holds the hook *e* engaged with the pin *o* of the counter except when held away from the same by the act of the operator. The horizontal arm E' of the elbow lever extends out to near the front of the machine, and is then bent at right angles to a position parallel with the space bar S, and in front of it, see Fig. 3, and then is bent up slightly, see Fig. 4, and its end is fashioned into a flat horizontal key plate F which overlaps the end of the space bar and normally rests slightly above the same. Now, if the operator has completed a word and wishes to space, he depresses the space bar S by striking it directly at any point along its length. This action, see Fig. 2, brings down space bar lever D and with it the link L and attached elbow lever E E' and consequently the hook *e* will swing the crank arm *d* and operate the counter, so that the ordinary method of spacing will also count one on the counter, as the hook *e* is normally engaged with the crank pin *o*. If, however, the operator desires to space without counting, instead of striking the space bar itself between its ends, he strikes

the key plate F depressing the same with an individual initial movement until the latter in turn strikes the space bar and carries it down. The initial depression of the key plate F rocks the elbow lever E E' on its fulcrum and throws the hook *e* back and away from the crank pin *o* as in dotted lines in Fig. 2 and then as the space bar descends the hook *e* will move down out of connection with the crank pin of the counter and the result will be, that the spacing will be effected but the counter will not be acted on and no registration will be made thereon. It will be seen that for this result no adjustment is required to be made by the operator, but he merely spaces and counts by striking the space bar between its ends in the usual way and when he desires to space without counting, he strikes the key plate F, but he does not have to stop to make any adjustment to do this, but continues to operate at the same speed in the transition from counting to not counting. The advantage of this will be obvious, as it makes practical the counting or not counting without specific adjustment and without loss of speed.

In some cases, as in statement of accounts etc. it may be desirable to definitely lock out the counting connection for a time, and for this purpose a hook *m*, see Fig. 4, is pivoted to the front edge of the space bar and rests normally on a stop pin *m'*, and has a little handle knob *m*², and a pin *m*³ is arranged to project horizontally from the edge of the key plate F and when the latter is depressed and the hook *m* is thrown over the pin *m*³ the key plate F will be locked down to hold the arm E of the elbow lever and its hook *e* permanently away from the crank pin *o* as appears in dotted lines in Fig. 2. It will be seen that this locking out of the counter may be quickly and conveniently effected by the right hand of the operator by simply depressing the key plate F with the fore finger and then simultaneously lifting the hook *m* by the thumb of the same hand, and it is as quickly and conveniently released.

I claim:—

1. A word counter for typewriters and similar machines, comprising a counting register, a spacing mechanism, means for connecting the spacing mechanism to the counting register for contemporaneous operation, and a key whose initial movement disconnects the counting register from the spacing mechanism and whose final movement operates the spacing mechanism.

2. A word counter for typewriters and similar machines, comprising a counting register, a spacing mechanism, means for connecting the spacing mechanism to the counting register for contemporaneous operation, and a key whose initial movement dis-

connects the counting register from the spacing mechanism and whose final movement operates the spacing mechanism, said key having an elbow lever whose fulcrum is carried by the spacing mechanism and said elbow lever having a vertical arm with a hook engaging a movable part of the counting register, a spring for holding it so engaged and the other arm of the elbow lever being extended to overlap the spacing bar and operate it by the last portion of its movement.

3. A word counter for typewriters and similar machines, comprising a counting register, a spacing mechanism, means for connecting the spacing mechanism to the counting register for contemporaneous operation, and a key whose initial movement disconnects the counting register from the spacing mechanism and whose final movement operates the spacing mechanism, and positive means for permanently locking out the connection with the counting register.

4. A word counter for typewriters and similar machines, comprising a counting register, a spacing mechanism, means for connecting the spacing mechanism to the counting register for contemporaneous operation, a key whose initial movement disconnects the counting register from the spacing mechanism, and whose final movement operates the spacing mechanism, said key having an elbow lever, whose fulcrum is carried by the spacing mechanism, said elbow lever having a vertical arm with a hook engaging a movable part of the counting register, a spring for holding it so engaged, and the other arm of the elbow lever being extended to overlap the spacing bar and operate it by the last portion of its movement, and positive means for permanently locking the elbow lever out of connection with the counting register.

5. A word counter for typewriters and similar machines, comprising a spacing mechanism, a counting register having an oscillating crank arm with a longitudinal slot in it, a crank pin secured adjustably in the slot and a device connecting said crank

pin and the spacing mechanism, said connecting device being made adjustable into or out of operative connection with said crank pin.

6. A word counter for typewriters and similar machines, comprising a spacing mechanism, a counting register having an oscillating crank arm with a longitudinal guide on it, a crank pin secured adjustably to the guide and a device connecting said crank pin and the spacing mechanism, said connecting device being made adjustable into or out of operative connection with said crank pin.

7. A word counter for typewriters and similar machines, comprising a spacing mechanism, a counting register, having an oscillating crank arm with a longitudinal slot in it, a crank pin secured adjustably in the slot, and a device connecting said crank pin and the spacing mechanism, said connecting device being made adjustable into or out of operative connection with said crank pin, and a friction roller on the crank pin to facilitate engagement and disengagement between the crank pin and its connection with the spacing mechanism.

8. A word counter for typewriters and similar machines, comprising the typewriter frame, a counting register arranged above it and having a depending support, a spacing mechanism, means for connecting the spacing mechanism to the counting register, and an adjustable clamp for holding the counting register on the frame of the machine, consisting of a U-shaped spring plate entered upon and embracing the frame of the machine from the lower side and a set screw tapped through one side of the spring plate and clamping, between it and the other branch of the spring plate, the frame of the machine and the depending support of the counting register.

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

RICHARD M. PETTEY.

Witnesses:

ED. P. SIMONS,
C. M. FORREST.