

No. 711,359.

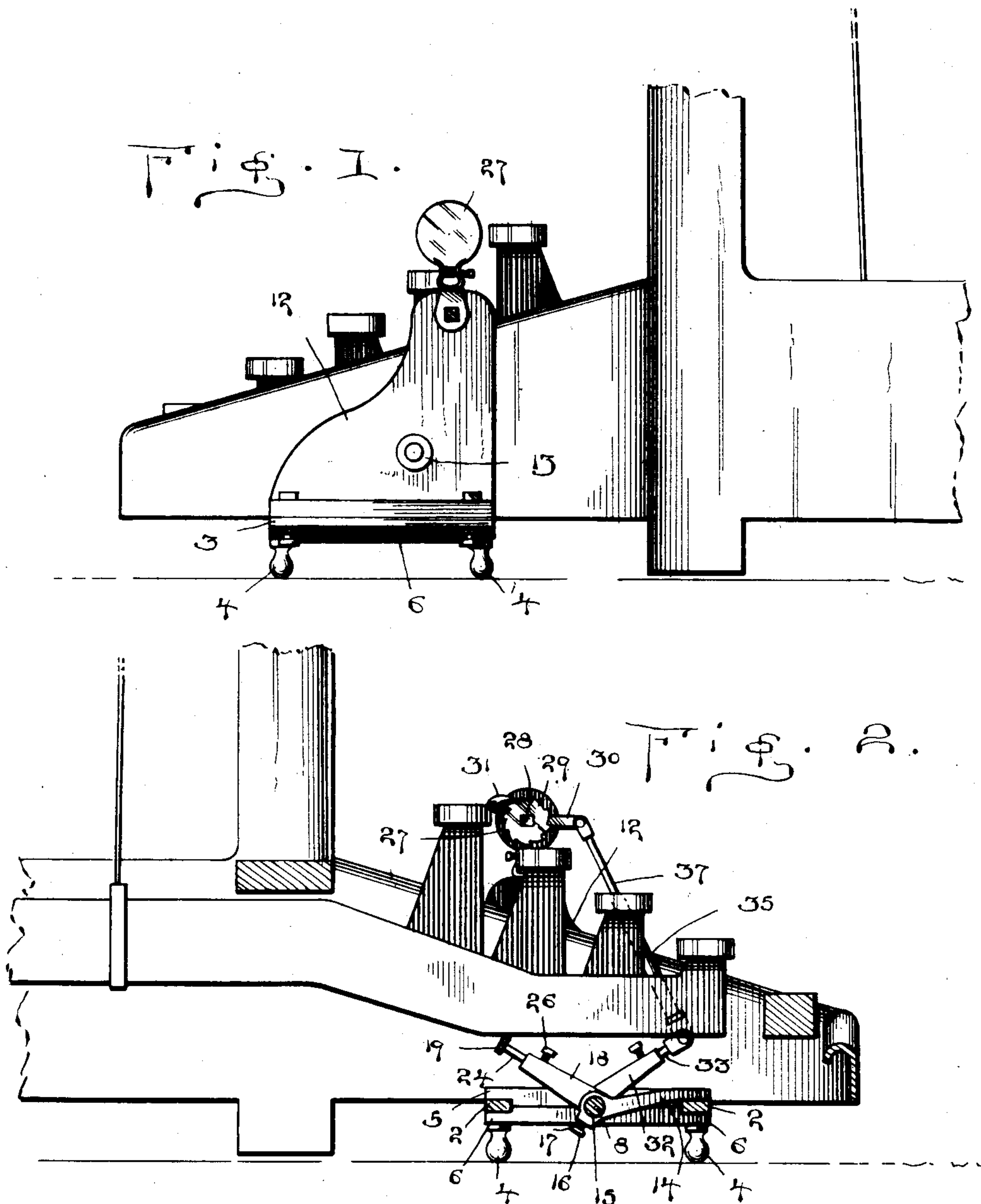
Patented Oct. 14, 1902.

T. A. SMITH.
WORD COUNTER.

(Application filed Feb. 18, 1902.)

(No Model.)

3 Sheets—Sheet 1.



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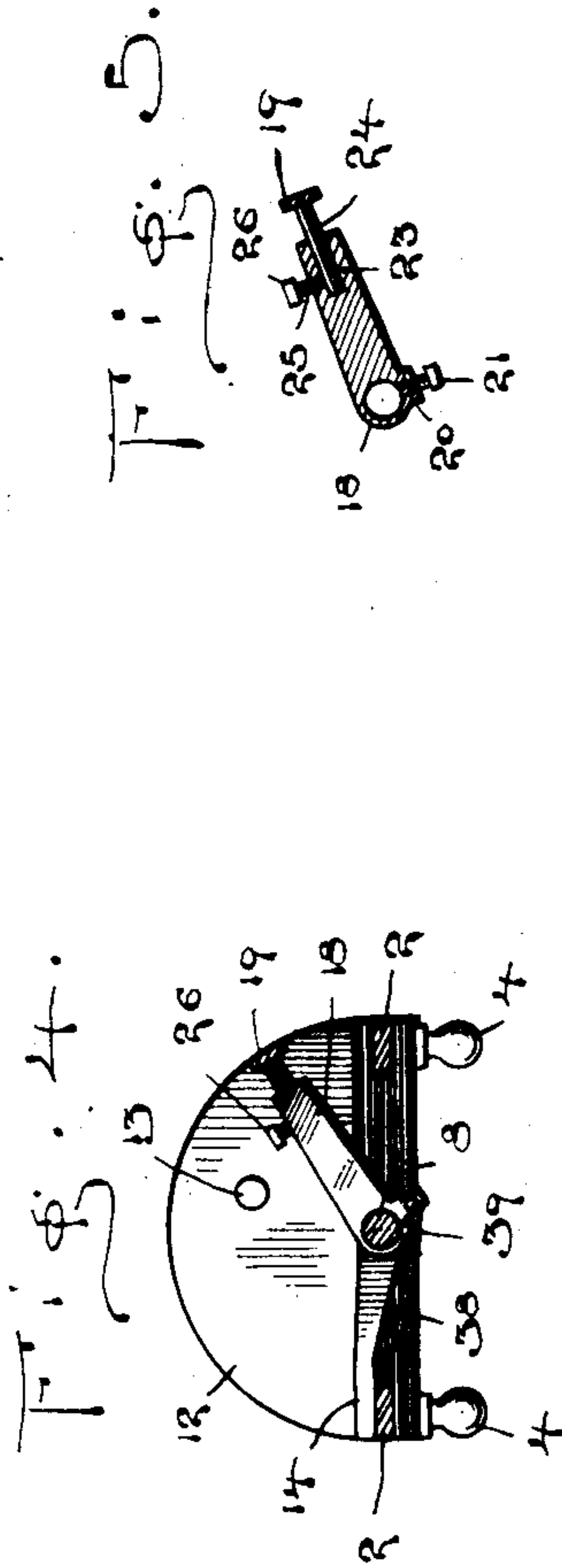
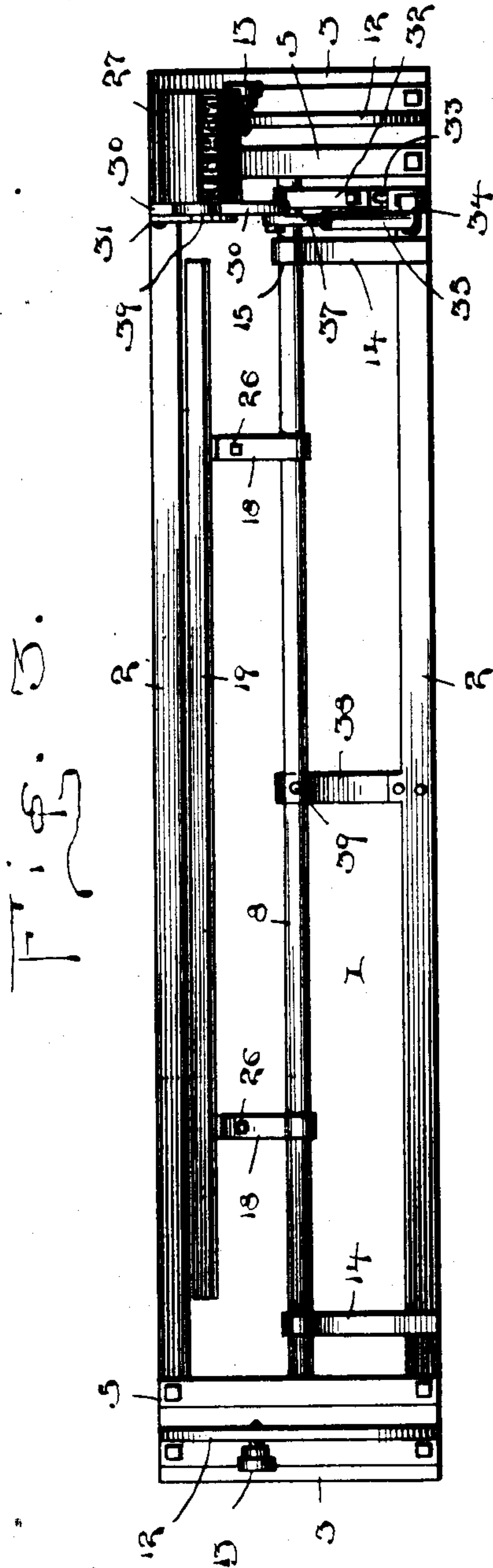
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(Application filed Feb. 18, 1902.)

(No Model.)

3 Sheets—Sheet 2.



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No. 711,359.

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T. A. SMITH.
WORD COUNTER.

(Application filed Feb. 15, 1902.)

(No Model.)

3 Sheets—Sheet 3.

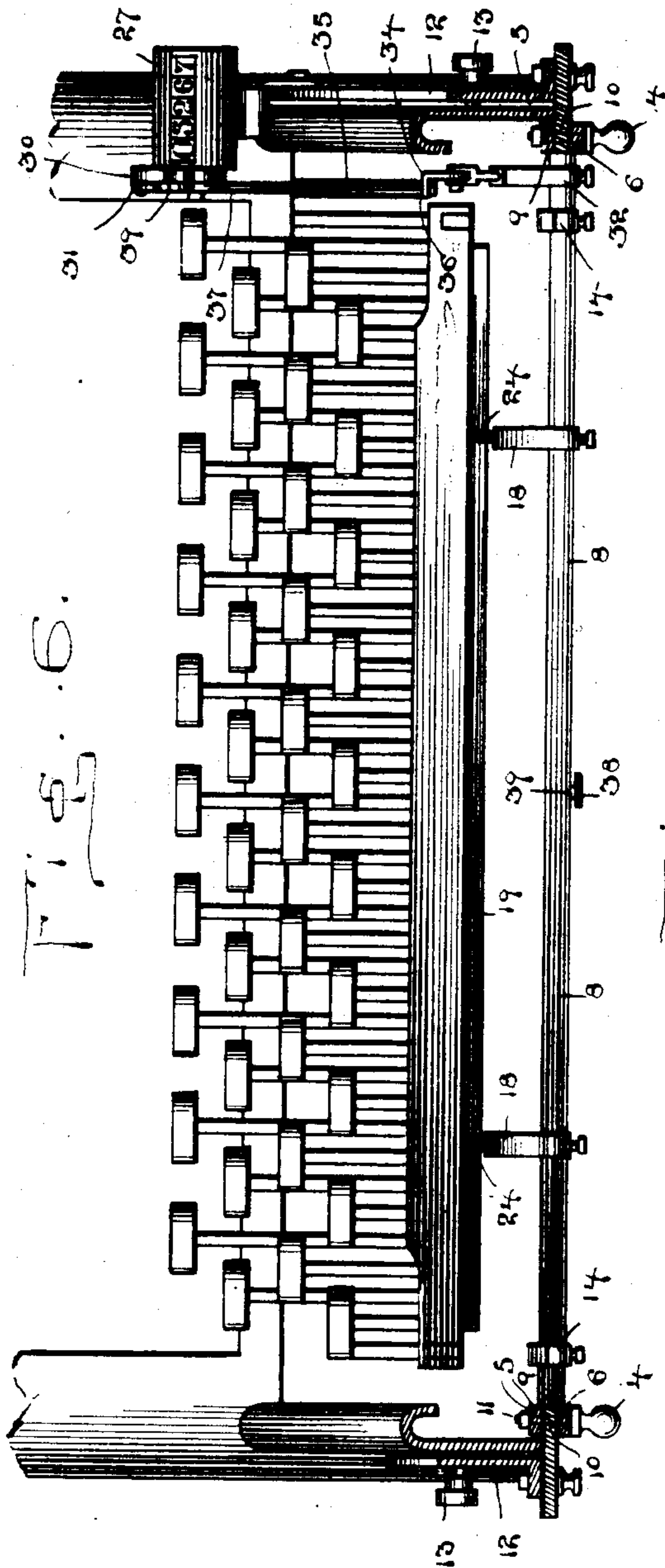


Fig. 6.

Fig. 7.

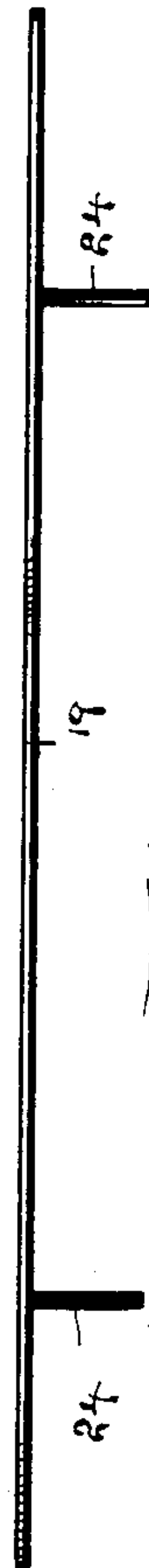
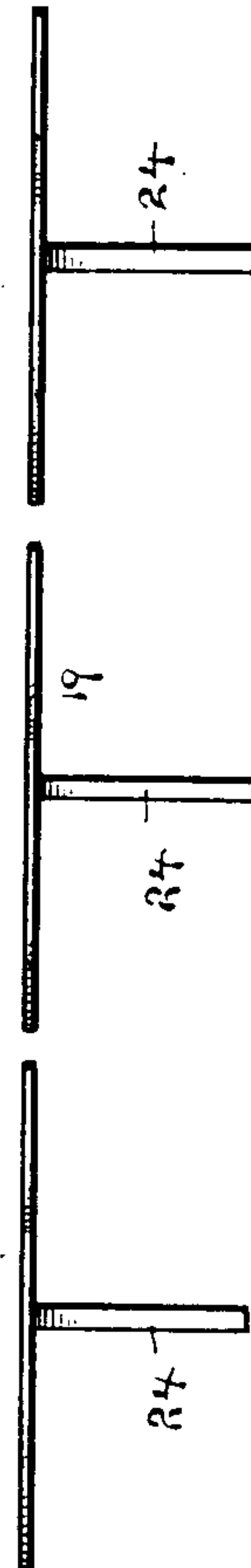


Fig. 8.



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UNITED STATES PATENT OFFICE.

THOMAS A. SMITH, OF AZUSA, CALIFORNIA.

WORD-COUNTER.

SPECIFICATION forming part of Letters Patent No. 711,359, dated October 14, 1902.

Application filed February 15, 1902. Serial No. 94,246. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. SMITH, a citizen of the United States, residing at Azusa, in the county of Los Angeles and State of California, have invented new and useful Improvements in Word-Counters, of which the following is a specification.

This invention relates to word-counters for type-writing machines, and has for its object the production of a device of this character which will automatically register the number of words written during the operation of the machine without imposing upon the operator any additional labor in order to accomplish the desired result.

A further object of the invention is to so arrange and construct the component parts of the device that it will be light, compact, and readily attached to machines of different makes.

Generally the invention consists in the construction, combination, and arrangement of parts to be hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a type-writing machine, illustrating the manner of attaching the word-counter thereto. Fig. 2 is a central section of the type-writing machine and word-counter, illustrating the word-counter in position to be acted upon by the depression of one of the keys to throw it in a position to actuate the recorder by the depression of the shifting-bar. Fig. 3 is a top plan view of word-counter. Fig. 4 is a transverse central section thereof. Fig. 5 is a detail longitudinal sectional view of one of the arms and bar. Fig. 6 is a longitudinal sectional view of the type-writing machine and word-counter. Fig. 7 is a detail view of the bar. Fig. 8 is a detail view of a modified form of the bar.

1 designates a base adapted to carry the several parts constituting the word-counter and consists of a frame having sides 2 and ends 3. The sides 2 have secured thereto bars 5 and 6, having bearings 7, in which is journaled a rock-shaft 8, and are provided with perforations 9, alining with perforations 10 in the sides to permit of bolts 11 being passed therethrough to extend below the bars

6 for the reception of legs 4 to support the device and which bind against the bars 6 to hold them in applied position.

12 designates upwardly-extending sides secured to the ends 3 and provided with binding-screws 13, adapted to engage the sides of the machine-frame to secure the device thereto against casual displacement.

Adjustably secured upon the shaft 8 at points to place their extremities in contact with the under side of the spacing-bar levers are levers 14, which when forced downward by the depressing of the spacing-bar will impart to the shaft a sufficient oscillation to cause the register to record a word and in which position they will remain until one of the keys is depressed, which will throw the levers into operative position. The levers are each provided with a bolt (designated by 17) to contact with the shaft to rigidly secure the levers thereon and also to permit of their adjustment with relation to the spacing-bar levers to place them at an angle to impart to the shaft 8 a sufficient oscillation to register a word upon the depressing of the spacing-bar.

18 designates arms secured upon the shaft 8 to extend to the rear thereof, and secured upon their outer ends is a bar 19, adapted to normally rest in engagement with the under side of the key-levers, which when depressed during the operation of the machine will oscillate the shaft 8 in the reverse direction to the oscillation caused by the depressing of the shifting-bar, throwing the levers 14 upward into engagement with the shifting-bar levers placing the recorder in operative position. The arms 18 are adjustably mounted upon the shaft 8 through the medium of bolts 21 to permit of their adjustment to place the bar 19 in proper position to the key-levers. The forward ends of the arms are provided with slots 23, in which are adjustably secured pegs 24, carrying on their outer ends the bar 19.

27 designates the recorder, which may be of any preferred form, and mounted upon its shaft 28 is a ratchet-wheel 29, and also situated thereon is a lever 30, carrying a dog 31, normally resting in engagement with one of the teeth of the ratchet-wheel.

32 designates an arm adjustably secured upon the shaft 8 and constructed substantially as one of the arms 18, and adjustably secured in its slot is a rod 33, having its upper end bifurcated, the arms of said bifurcation having secured therebetween an inverted-L-shaped link 34.

35 designates an internally-threaded barrel fitting within a perforation in the horizontal arm of the link 34 to revolvably secure the barrel therein, and working within the barrel is a threaded bolt 37, having its upper end secured to the lever 30.

It will be perceived that by turning the barrel 35 in one direction or the other the bolt 37 is drawn within or forced therefrom, thereby changing the position of the lever 30 upon the shaft 28 to cause the dog 31 to impart to the shaft a sufficient movement to register a word when the shaft 8 is oscillated by the depressing of the spacing-bar.

38 designates a leaf-spring secured upon the base to place the free end thereof in contact with a lug or projection 39, carried by the shaft 8, to hold the bar 19 or the levers 14 in an inoperative position until one or the other is returned to its normal position by the depression of one of the keys or the shifting-bar.

In order to enable the operation of the shifting-bar in machines where the levers thereof are situated between the key-levers and not on the outside, as is found in the "Densmore," I construct the bar 19 in several sections, as is shown in Fig. 8, permitting the shifting-bar levers to pass between the sections without interfering with the operation of the bar.

The operation of the device may be stated as follows: The word-counter being attached to a type-writing machine as illustrated in the accompanying drawings and the bar 19 lying in contact with the under edge of the key-levers, the spacing-bar is free to be depressed any number of times, and immediately upon depressing one of the keys the bar 19 is forced downward to lie upon one of the sides 2, thereby throwing the levers 14 in contact with the under side of the shifting-bar levers, in which position they are normally held by the spring 38. The depression of the spacing-bar will force the levers 14 downward to lie upon one of the edges 2, thereby oscillating the shaft 8 to register a word upon the recorder and throwing the bar 19 into engagement with the under side of the key-levers, in which position it will be normally held by the spring 38.

Having described my invention, what I claim is—

1. The combination with a type-writing machine, of a base secured thereto, a shaft journaled upon the base, levers secured to the shaft to engage the spacing-bar levers, a bar secured upon the shaft to engage the key-levers, means for normally holding either the levers or the bar in the position one or the other is caused to assume by the depression of either the spacing-bar or one of the keys, respectively, and a register adapted to register a word when the shaft is oscillated by the depression of the spacing-bar.

2. The combination with a type-writing machine, of a base secured thereto, a shaft journaled upon the base, levers secured to the shaft to engage the spacing-bar levers, a bar secured upon the shaft to engage the key-levers, a lug carried by the shaft, a spring secured to the base to engage the lug whereby either the levers or the bar are held in the position one or the other is caused to assume by the depression of either the spacing-bar or one of the keys respectively, and a register adapted to register a word when the shaft is oscillated by the depression of the spacing-bar.

3. The combination with a type-writing machine, of a base secured thereto, a shaft journaled upon the base, levers secured to the shaft to engage the spacing-bar levers, a bar secured upon the shaft to engage the key-levers, a lug carried by the shaft, a spring secured to the base to engage the lug whereby either the levers or bar are held in the position one or the other is caused to assume by the depression of either the spacing-bar or one of the keys respectively, an arm mounted upon the shaft, a rod adjustably secured to the arm and having its forward end bifurcated, an inverted-L-shaped link secured between the arms of the bifurcation, a threaded barrel revolvably mounted upon the horizontal arm of the link, a register, a ratchet-wheel carried by the shaft of the register, a lever, a dog carried by the lever to engage the ratchet-wheel, and a bolt having one end secured to the lever and the opposite end screw-threaded to fit in the barrel providing an adjustable connection between the arm and lever.

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

THOMAS A. SMITH.

Witnesses:

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WM. F. HANES.