

(No Model.)

2 Sheets—Sheet 1.

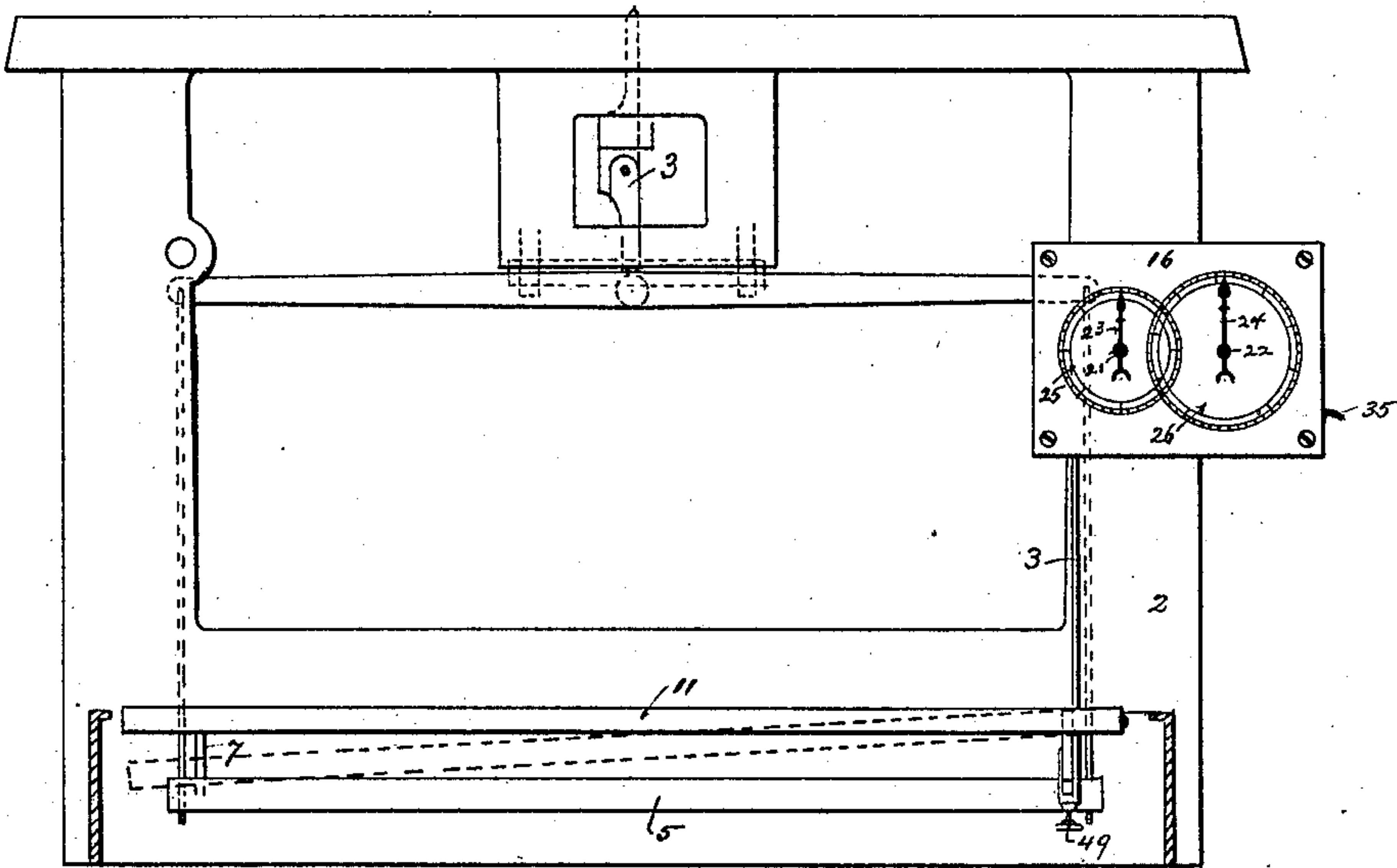
A. E. BARKER.

WORD COUNTER FOR TYPE WRITERS.

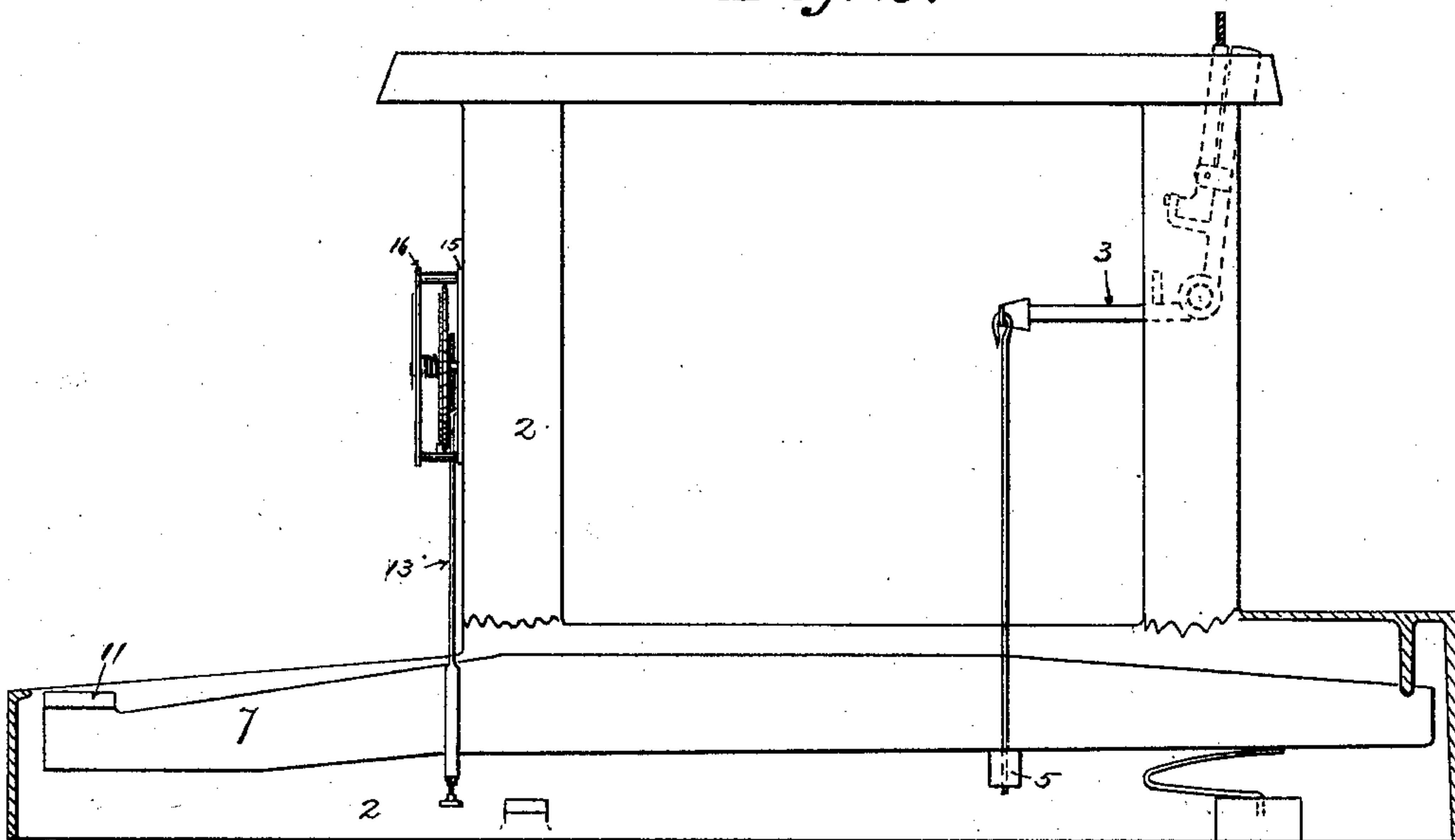
No. 362,596.

Patented May 10, 1887.

*Fig. 1.*



*Fig. 2.*



Witnesses  
A. M. Gaskell  
R. H. Sanford.

Inventor  
Alliston E. Barker  
by  
A. C. Paul his atty

(No Model.)

2 Sheets—Sheet 2.

A. E. BARKER.

WORD COUNTER FOR TYPE WRITERS.

No. 362,596.

Patented May 10, 1887.

Fig. 3.

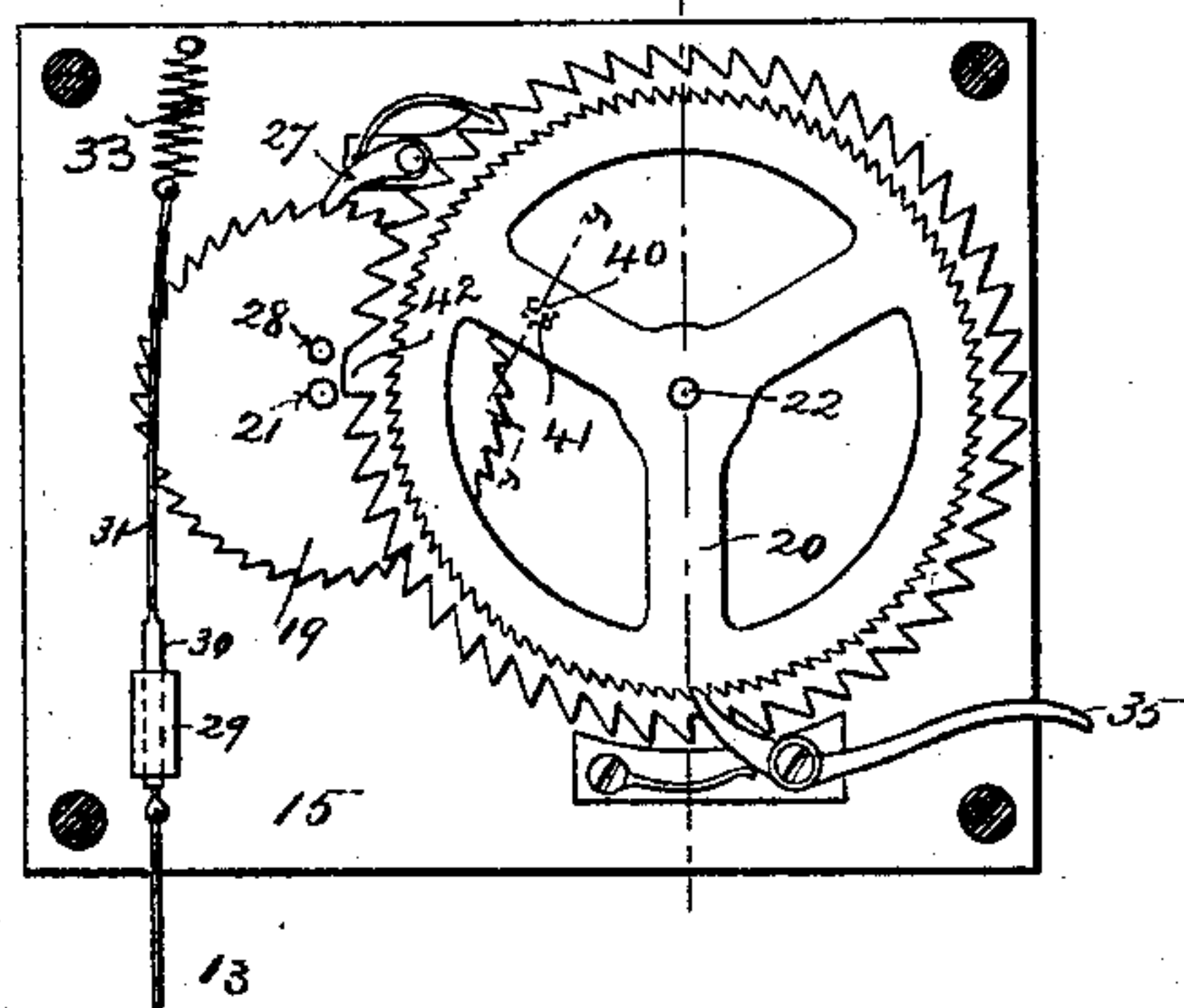


Fig. 4.

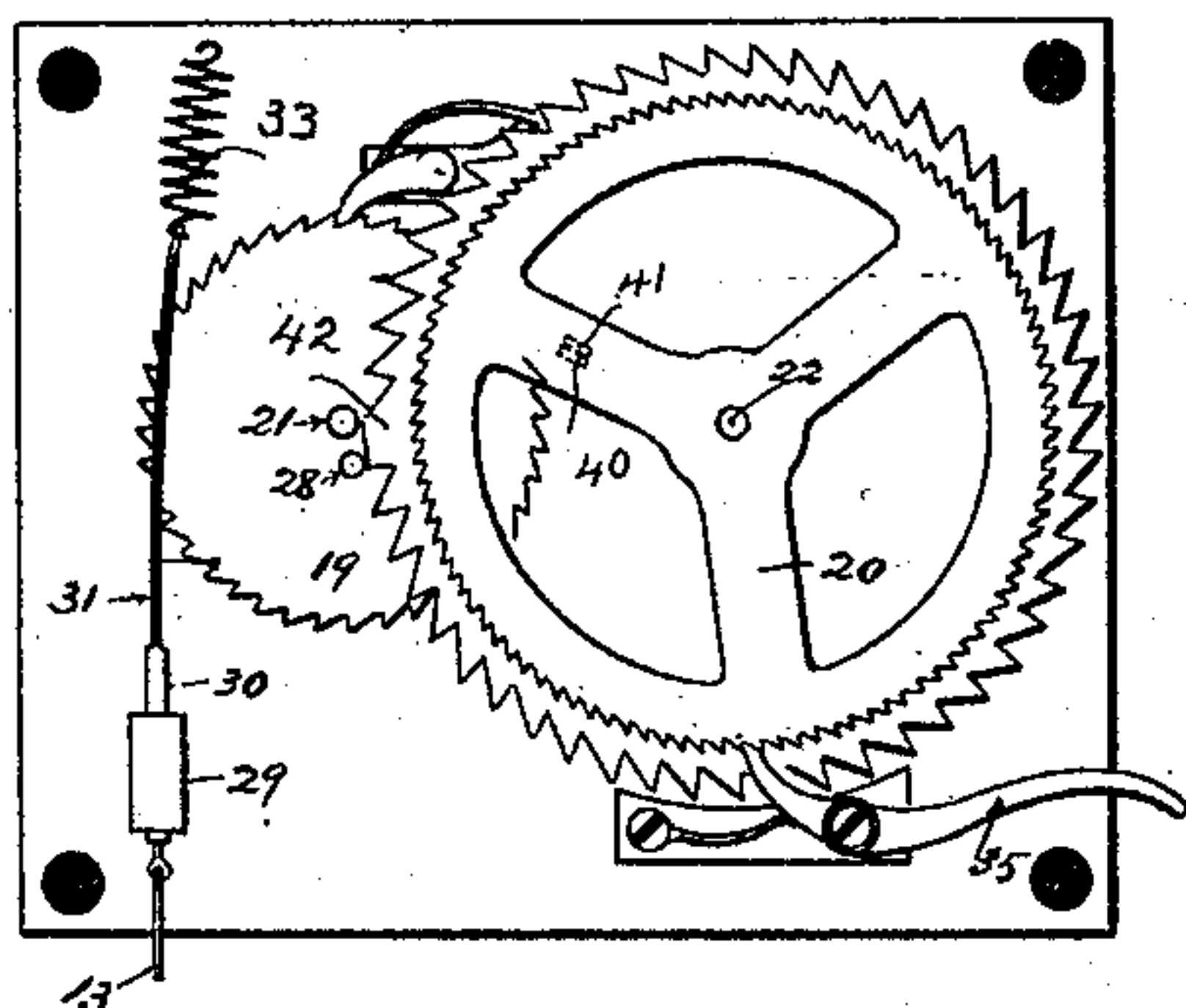


Fig. 5.

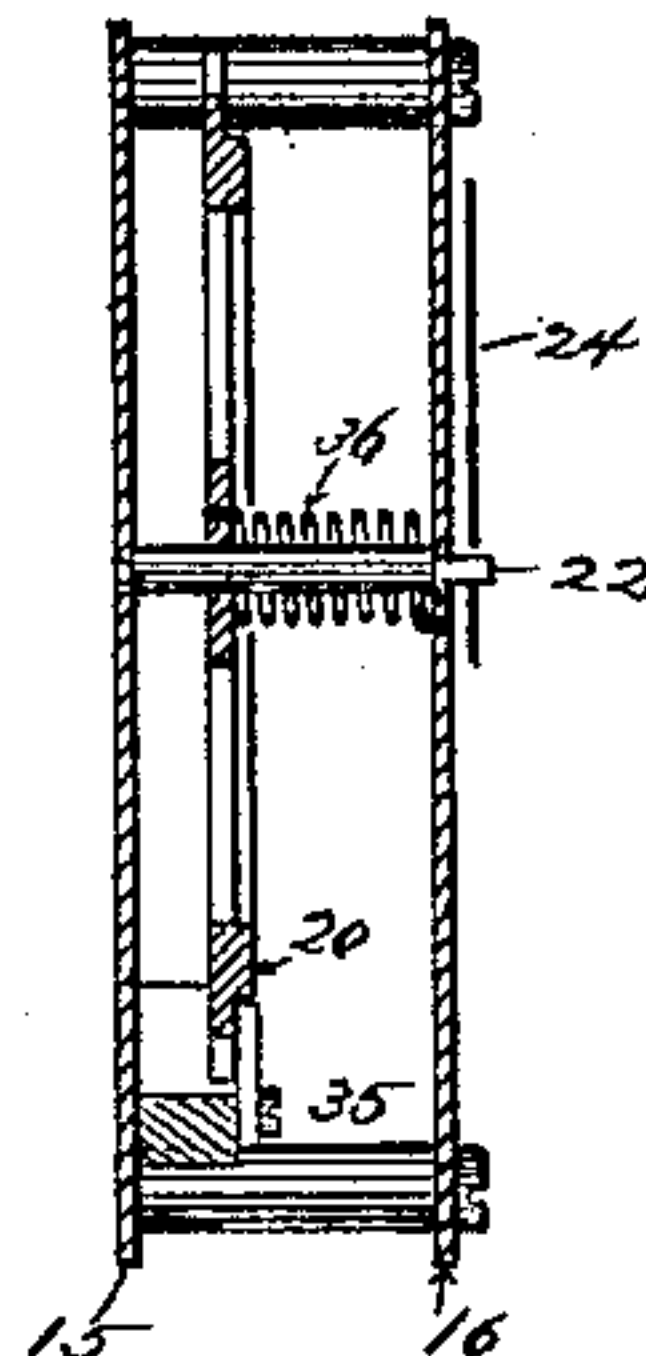


Fig. 6.

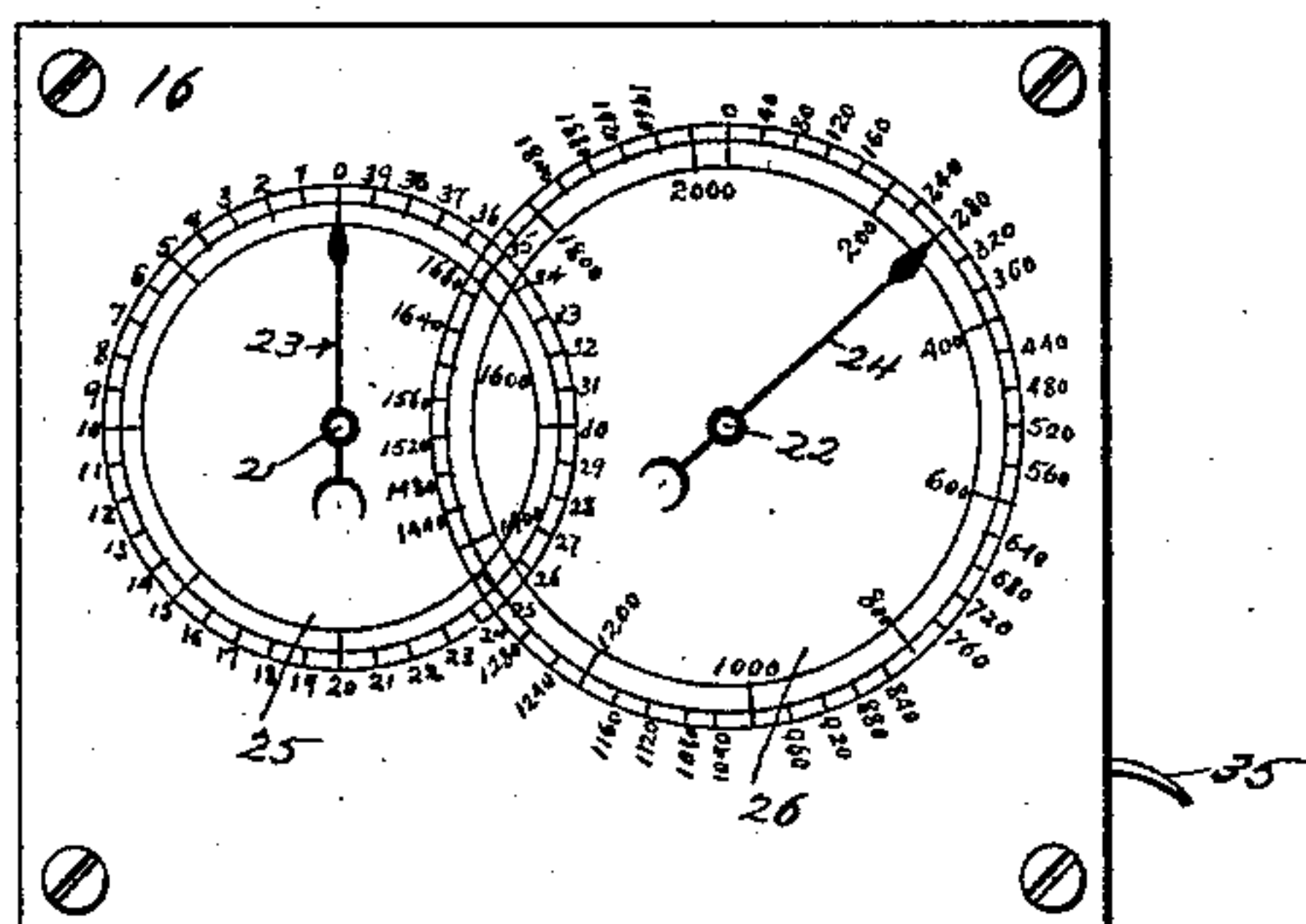


Fig. 8.

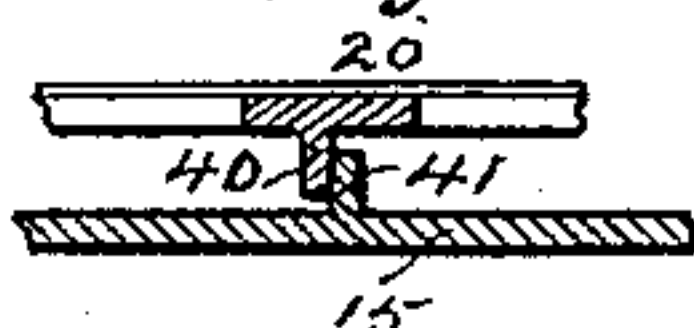
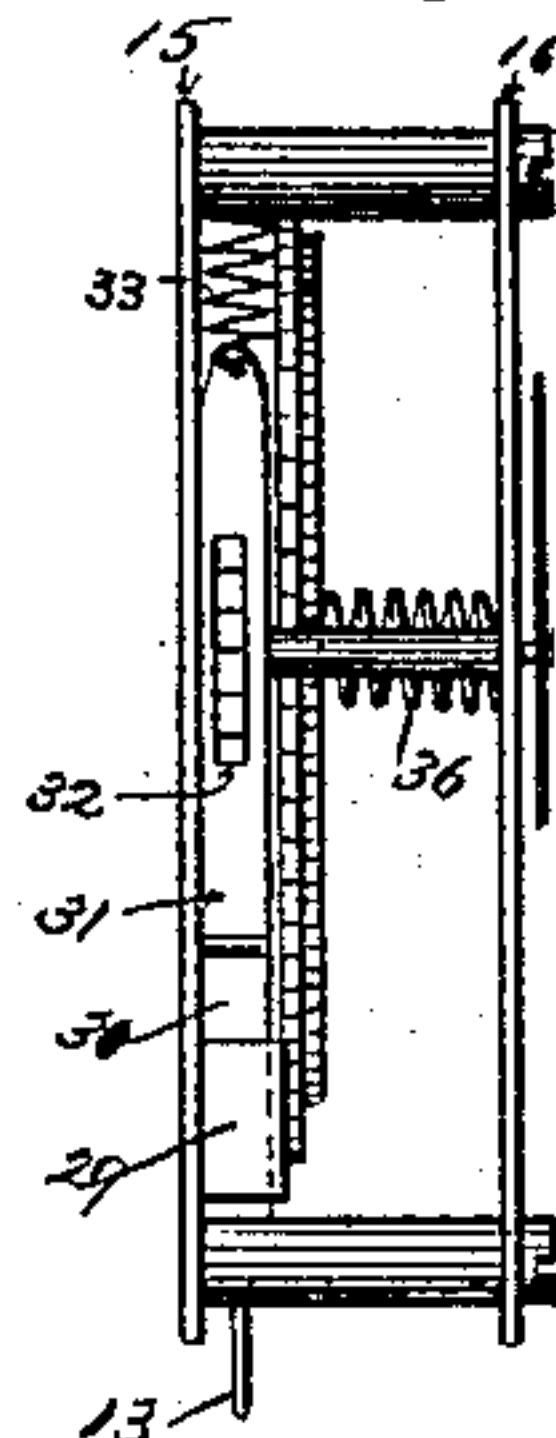


Fig. 7.



Witnesses  
A. M. Craskell  
R. H. Sanford.

Inventor  
Alliston E. Barker  
by  
A. R. Paul his atty



# UNITED STATES PATENT OFFICE.

ALLISTON E. BARKER, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO JOHN S. TAYLOR AND LESTER T. BARKER, BOTH OF SAME PLACE.

## WORD-COUNTER FOR TYPE-WRITERS.

SPECIFICATION forming part of Letters Patent No. 362,596, dated May 10, 1887.

Application filed September 28, 1886. Serial No. 214,719. (No model.)

*To all whom it may concern:*

Be it known that I, ALLISTON E. BARKER, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and  
5 useful Improvement in Word-Counters for Type-Writers, of which the following is a specification.

The object of this invention is to provide a word-counter that can be readily attached to  
10 a Remington type-writer, to a caligraph, or other similar type-writing machine, and so combined with the spacing mechanism of the machine that such mechanism may be operated with or without operating the counting  
15 mechanism, whereby the spaces ordinarily made between words may be counted, while double spaces, or those made in the orderly arrangement of words on the page, are not counted.

20 To this end the invention consists, generally, in a type-writer having two spacing-levers, by either of which the spacing mechanism can be operated, and a tallying mechanism connected with one of said levers, but not con-  
25 nected with the other.

The invention further consists in the construction and combination hereinafter described, and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a front sectional elevation of a portion of a type-writer having my device applied thereto. Fig. 2 is a side elevation of the same, the lower portion of the type-writer frame being broken away to show  
35 one of the spacing-levers. Fig. 3 is a front elevation of the registering mechanism with the front plate and dial removed. Fig. 4 is a similar view with the parts in a different position. Fig. 5 is a transverse vertical section  
40 of the registering device. Fig. 6 is a front elevation showing the dials and pointers. Fig. 7 is a side elevation of the same. Fig. 8 is a detail section on line Y Y of Fig. 3, showing the stops for the wheel 20.

45 In the accompanying drawings, 2 represents a portion of the frame of a type-writer, which may be of the Remington type, or may be a caligraph or any similar machine.

50 3 represents the spacing mechanism, which may be of any suitable construction, and is

connected with each end of a bar, 5, that extends across the machine beneath all of the letter-key levers and both the spacing-levers. The letter-keys are not shown, as their arrangement is well understood by all persons  
55 that are familiar with these machines.

The spacing-levers 7 are arranged at opposite sides of the machine and extend over the space-bar 5. The spacing-levers are preferably connected by a bar, 11, which forms the  
60 space-key, this construction being used in the Remington machine.

To the frame of the machine I attach, by any suitable means, a registering mechanism, which may be of any suitable construction.  
65 An operating-rod, 13, is provided, by which this mechanism may be operated. This rod is connected with one of the spacing-levers, 7, and preferably at a point between the key-bar  
11 and the spacing-bar 5. 70

In the drawings I have shown the operating-rod connected with the spacing-lever at a point just in front of the upright part of the frame. This I consider the preferable arrangement, as the device is then in a position  
75 where it is out of the way and its dials are in plain view of the operator.

The spacing-levers when provided with a single space-key, as shown in the drawings, are of a somewhat flexible material and capable of twisting slightly. 80

When the space-key is struck at a point near the center, or between the center and the lever with which the registering mechanism is connected, the lever to which this mechanism is  
85 connected will be depressed, and said mechanism will be operated. When the space-key is struck at a point near the other lever, this lever above will be depressed, while the lever to which the registering mechanism is connected  
90 will be slightly flexed without being materially depressed, and the registering mechanism will not be operated.

For ordinary writing the key-bar will be struck after each word at a point near the center, or between the center and the lever to  
95 which the registering mechanism is connected, and thereby each word will be counted; but when it is desired to make a space or spaces without counting them the space-key is struck 100



at a point near the other lever, which operates the spacing mechanism without operating the counting mechanism.

The spacing-levers may be provided with independent space-keys; but in either case the registering mechanism is connected with one of the said levers only, so that when the spacing mechanism is operated by one lever the registering mechanism is operated, and when operated by the other lever it is not operated.

Any suitable registering device may be employed. I prefer to use the mechanism illustrated in Figs. 3 to 7 of the drawings. In these figures, 15 and 16 represent, respectively, the rear and front plates of the device.

The registering-wheels 19 and 20 are journaled in these plates, and their journals 21 and 22 project through the front plate, and have the pointers 23 and 24 secured to them and turning with the wheels. These pointers extend over the dials 25 and 26, which are marked on or secured to the plate 16. The wheel 19 is provided with a series of ratchet-teeth, preferably forty in number, and with a spring-pawl, 27, for preventing back movement thereof. The wheel 20 is provided with a series of ratchet-teeth on its edge, preferably fifty in number. The plates of the wheels overlap each other, and the wheel 19 is provided with a lug or pin, 28, that engages one of the teeth on the wheel 20 at each revolution of the wheel 19, and turns the wheel 20 a distance equal to the space covered by one of its teeth. At each revolution of the wheel 19 and its pointer 23 the wheel 20 and its pointer move one space. A block or space, 29, on the plate 15 has a similar way therein, in which moves a slide, 30, which is connected to the rod 13. To the other end of the slide a thin spring-plate, 31, is attached. The spring-plate and slide may be formed integrally, if preferred. The spring-plate 31 has a slot, 32, formed therein, and through this slot a portion of the edge of the wheel 19 projects.

A coiled spring, 33, is attached to the upper end of the spring-plate 31 and to the plate 15. The wall of the upper end of the slot engages one of the teeth on the wheel 19, and as the rod 13 is depressed with the spacing-lever the wheel is turned for the space of one tooth. When the lever is released, the spring 33 raises the spring-plate 31 and carries its slot over the next tooth of the wheel 19. The upper end of the spring 33 is preferably not directly over the slide 30, but a little nearer the center of the wheel 19, so that the spring-plate 31 is inclined slightly toward the wheel, which gives a better engagement with the teeth of the wheel. This arrangement is not essential.

A spring-pawl, 35, engages the wheel 20 and prevents back movement thereof. This pawl may engage the teeth on the edge of the wheel. I prefer, however, to provide the wheel with a set of finer teeth, with which the pawl engages, as there is thereby less liability of breaking the teeth or the pawl, and less chance for

lost motion should the wheel not move the full length of one of the larger teeth. A coiled spring, 36, surrounds the journal of the wheel 20, being secured at one end to the wheel or journal, and at the other end to a stationary part of the registering mechanism. As the registering mechanism is operated, the spring 36 is wound up, and when the wheel is released by disengaging its holding-pawl 35 the wheel and its pointer 24 are returned by this spring to their normal position, with the pointer opposite the zero-mark on the dial.

The wheel 20 is preferably provided with a lug, 40, that encounters one side of a lug, 41, on the plate 15 when the pointer is at zero, and encounters the other side of this lug when the pointer reaches the highest mark on the scale—in this instance 2,000. (See Fig. 8.) The wheel 20 is preferably provided with one long tooth, 42, against which the pin on the wheel 19 strikes when the pointer 24 has reached the highest mark on the scale. The pin cannot engage this tooth, and thus the wheel is free to move back as soon as the pawl is released.

Two dials are provided, one for each pointer, one being preferably divided into forty spaces and numbered from one to forty, (1 to 40,) and the other into fifty spaces, with a fraction over to allow for the space that the pointer is prevented from turning by the lug 41.

I do not confine myself to any particular number of spaces for the dials or the teeth on the wheels, nor to any particular number of wheels. More than two wheels may be used, and the device may be made to count more than two thousand whenever it is desirable.

The registering mechanism described is simple, inexpensive, and efficient; but its construction may be varied without departing from my invention.

The connecting-rod 13 is preferably provided with an adjusting-screw, 49, by which the relative positions of the lever and connecting-rod may be adjusted, and consequently the length of stroke of the spring 31 may be regulated. Other means may be used for adjusting the rod 13.

The dials may, if preferred, be located one over the other, and the registering mechanism may be located at either side of the machine and connected with either of the spacing-levers.

I claim as my invention—

1. The combination, in a type-writing machine, with the spacing mechanism, of two spacing-levers, by either of which said mechanism may be operated, and a registering mechanism connected to one of said levers, whereby when the spacing mechanism is operated by one of said levers the registering mechanism is operated, and when operated by the other lever the registering mechanism is not operated, substantially as described.

2. The combination, in a type-writing machine, with the spacing mechanism, of the two spacing-levers 7, connected with said mechanism, the space-key 11, secured to both of said



levers, and a registering mechanism connected with one of said levers, substantially as described.

3. The combination, in a type-writing machine, with the spacing mechanism, as 3, and the bar 5, connected at each end with said mechanism, of the spacing-levers 7 at opposite sides of the machine, extending over said bar 5, the space-key 11, secured to both of said levers, and the registering mechanism connected with one of said levers at a point between the space-key 11 and its fulcrum, substantially as described, and for the purpose set forth.

4. The combination, in a type-writing machine, with the spacing-levers 7, having the bar 11 secured to them, of the registering mechanism comprising the registering-wheels, the

dials, the pointers moving with said wheels, and the operating-rod 13, connected with one of said bars 7, substantially as described. 20

5. The combination, with the type-writer having the spacing-levers 7 at opposite sides thereof, of the registering mechanism comprising the dials 25 and 26, the wheels 19 and 20, the pointers 23 and 24, the spring-plate 31, 25 engaging said wheel 19, the slide 30, and the rod 13, connected with one of said levers 7, substantially as described.

In testimony whereof I have hereunto set my hand this 24th day of September, 1886.

ALLISTON E. BARKER.

In presence of—

R. H. SANFORD,

A. M. GASKELL.