

No. 887,646.

G. J. JESZMANT. PATENTED MAY 12, 1908.
TYPE WRITER ATTACHMENT.
APPLICATION FILED JUNE 15, 1907.

3 SHEETS—SHEET 1.

FIG. 1

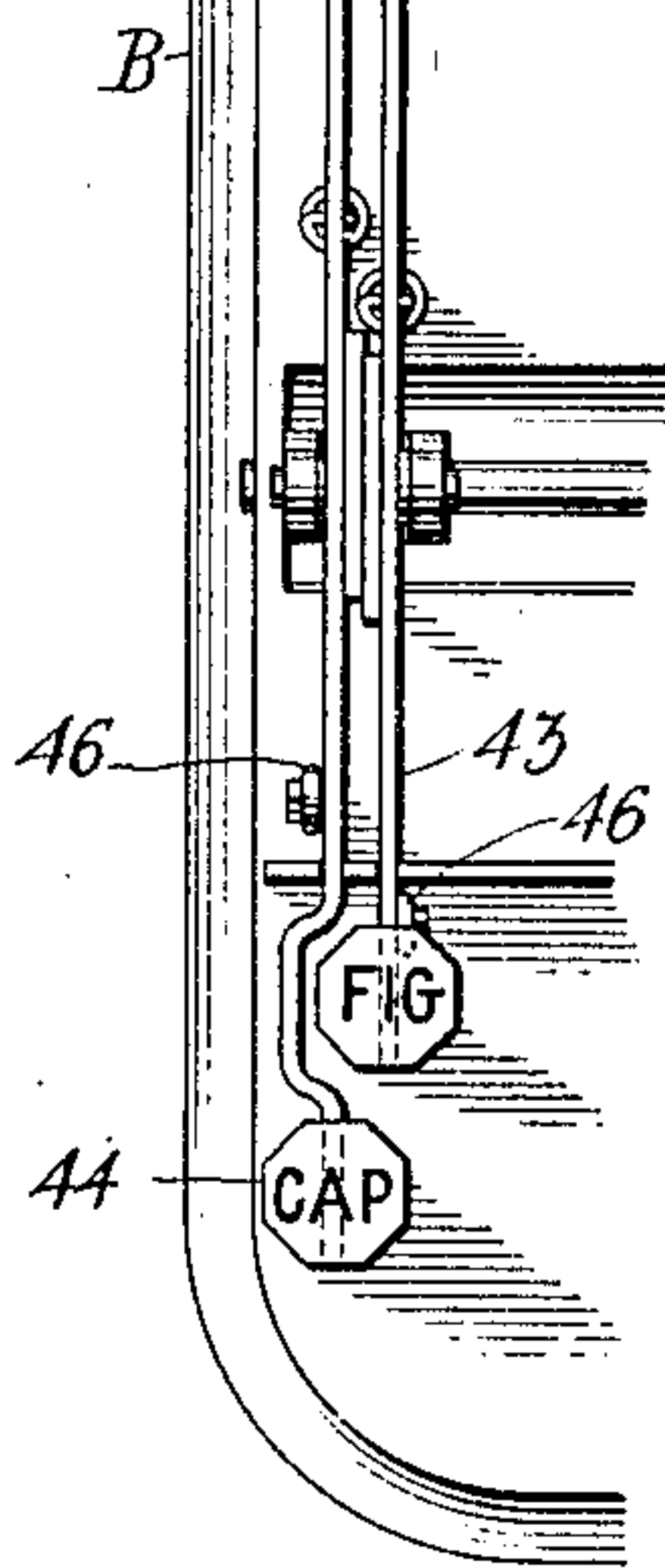
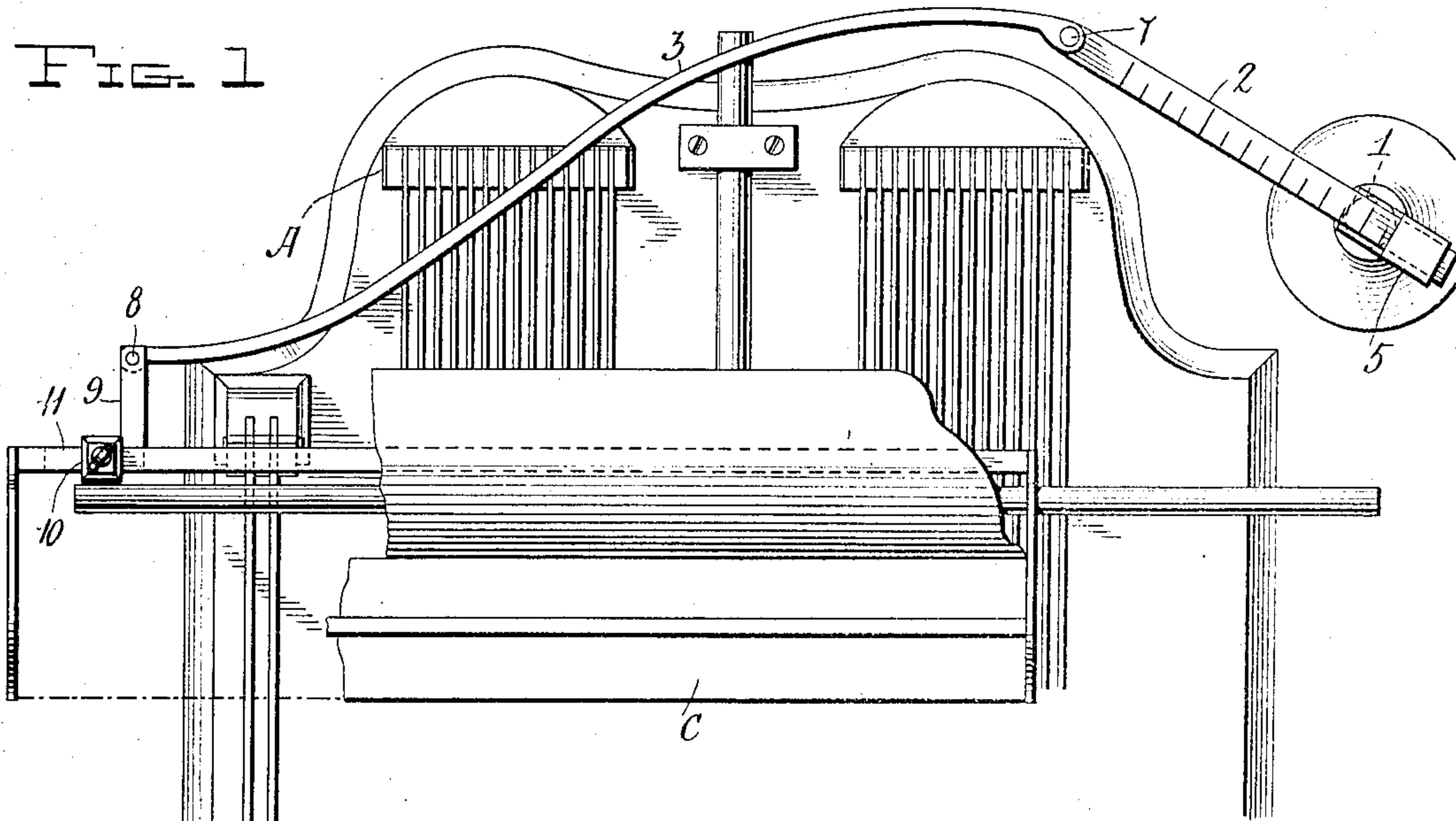
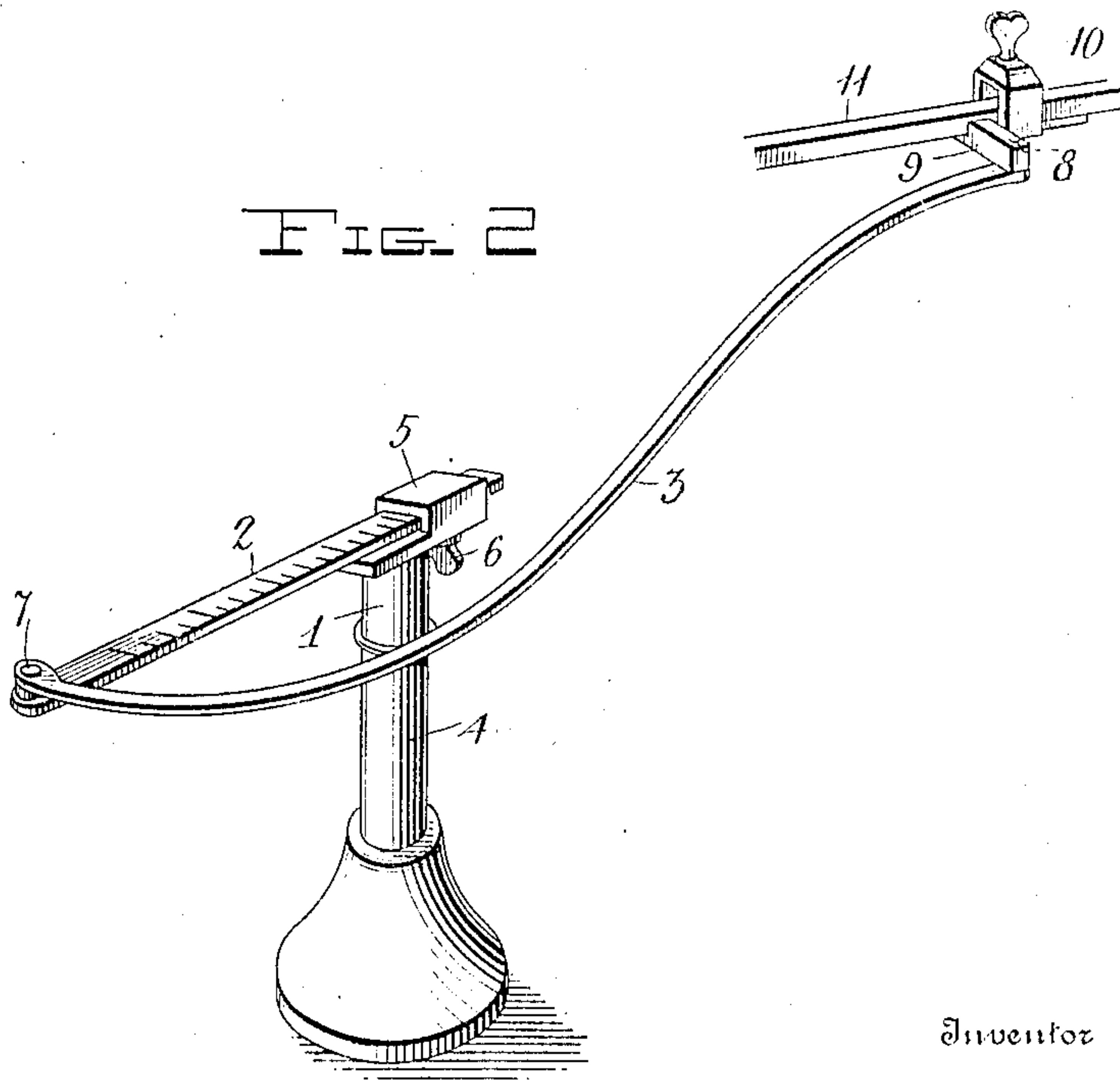


FIG. 2



Witnesses

W. J. Evans

C. Bradway

Inventor

George J. Jeszmant

By *Victor J. Evans*

Attorney

No. 887,646.

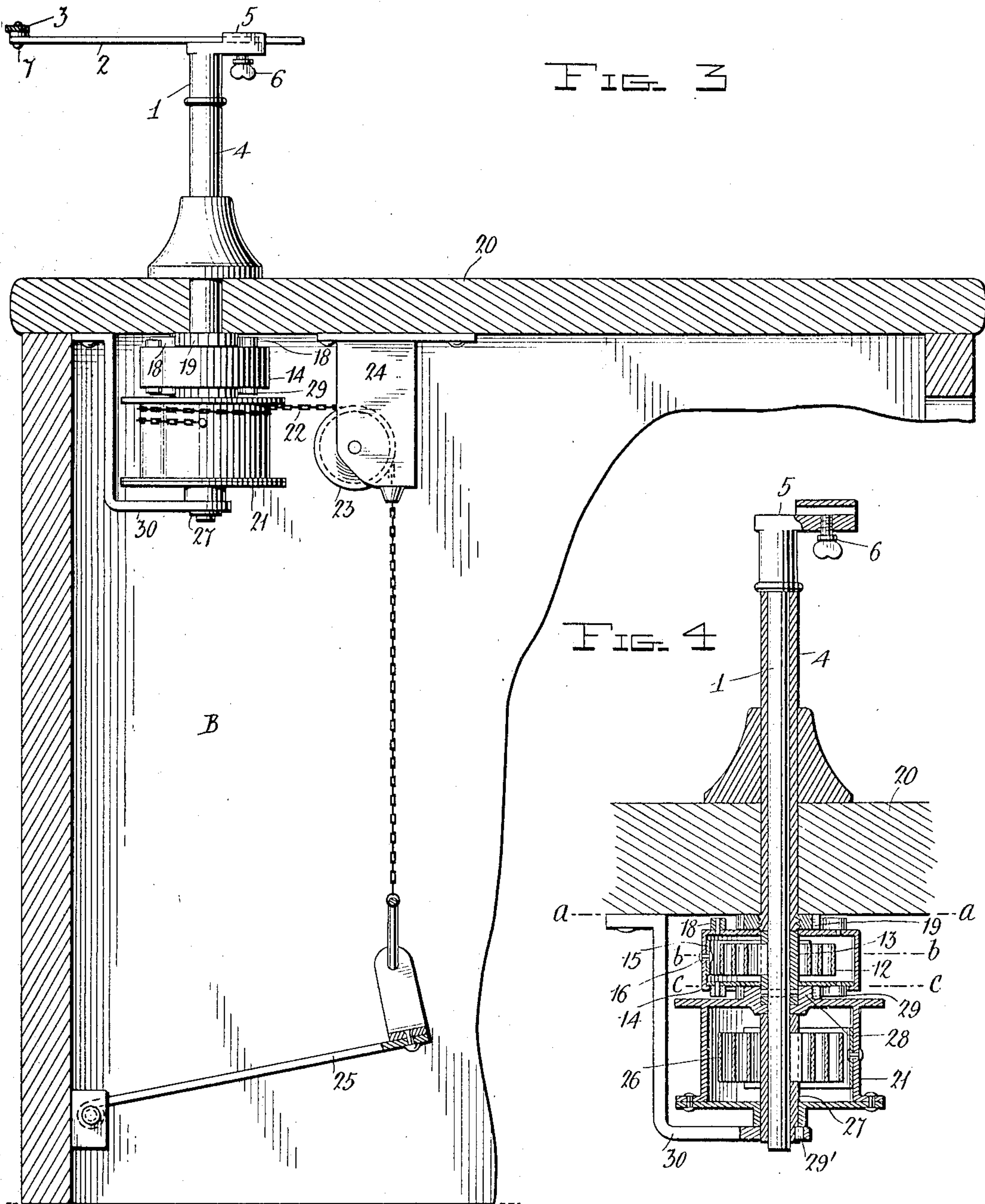
G. J. JESZMANT.

PATENTED MAY 12, 1908.

TYPE WRITER ATTACHMENT.

APPLICATION FILED JUNE 15, 1907.

3 SHEETS—SHEET 2.



Witnesses

W. B. Brown

C. Bradway

Inventor

George J. Jeszmant

By

Victor J. Evans

Attorney

No. 887,646.

PATENTED MAY 12, 1908.

G. J. JESZMANT.
TYPE WRITER ATTACHMENT.

APPLICATION FILED JUNE 15, 1907.

3 SHEETS—SHEET 3.

Fig. 5.

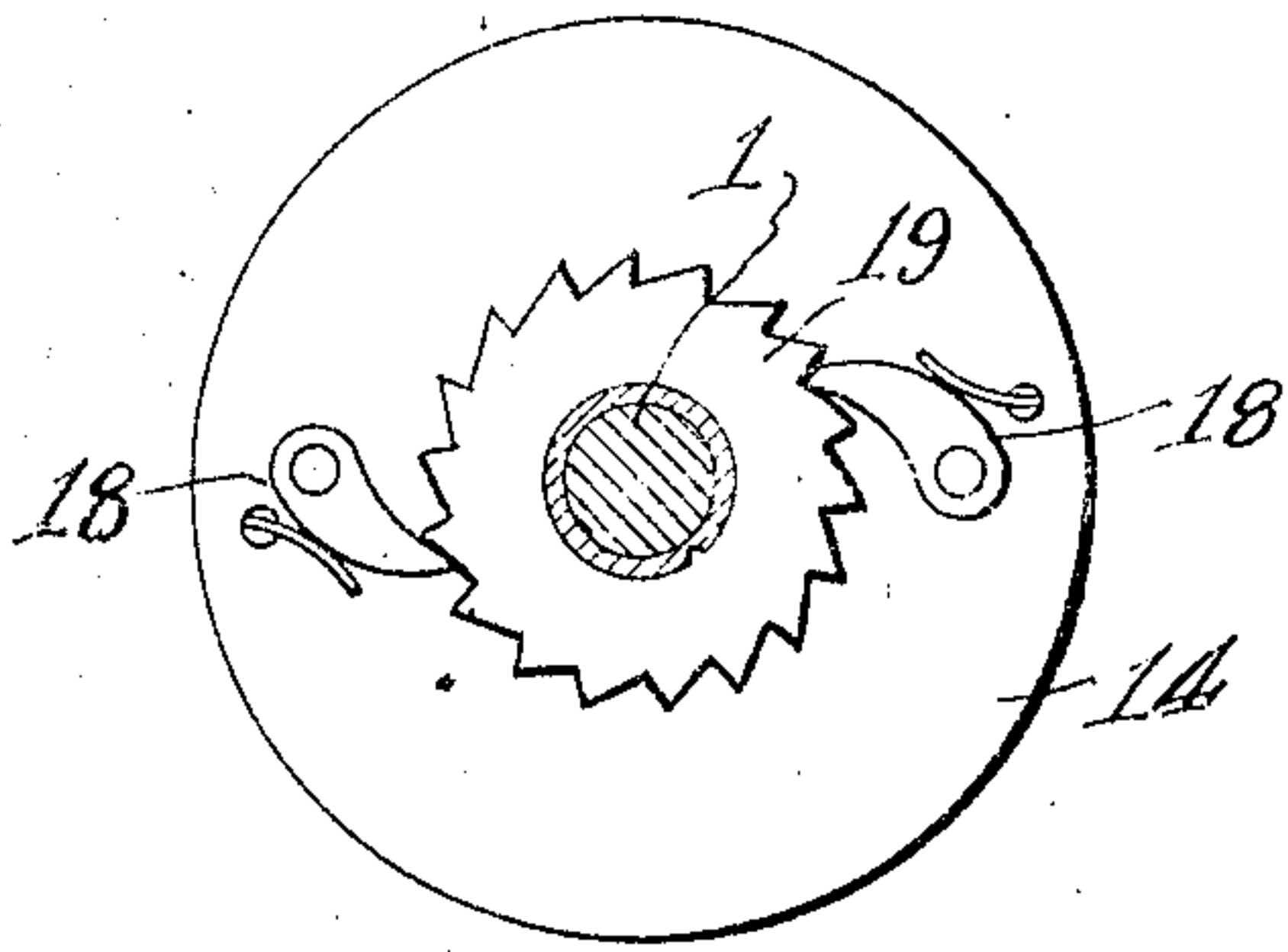


Fig. 6.

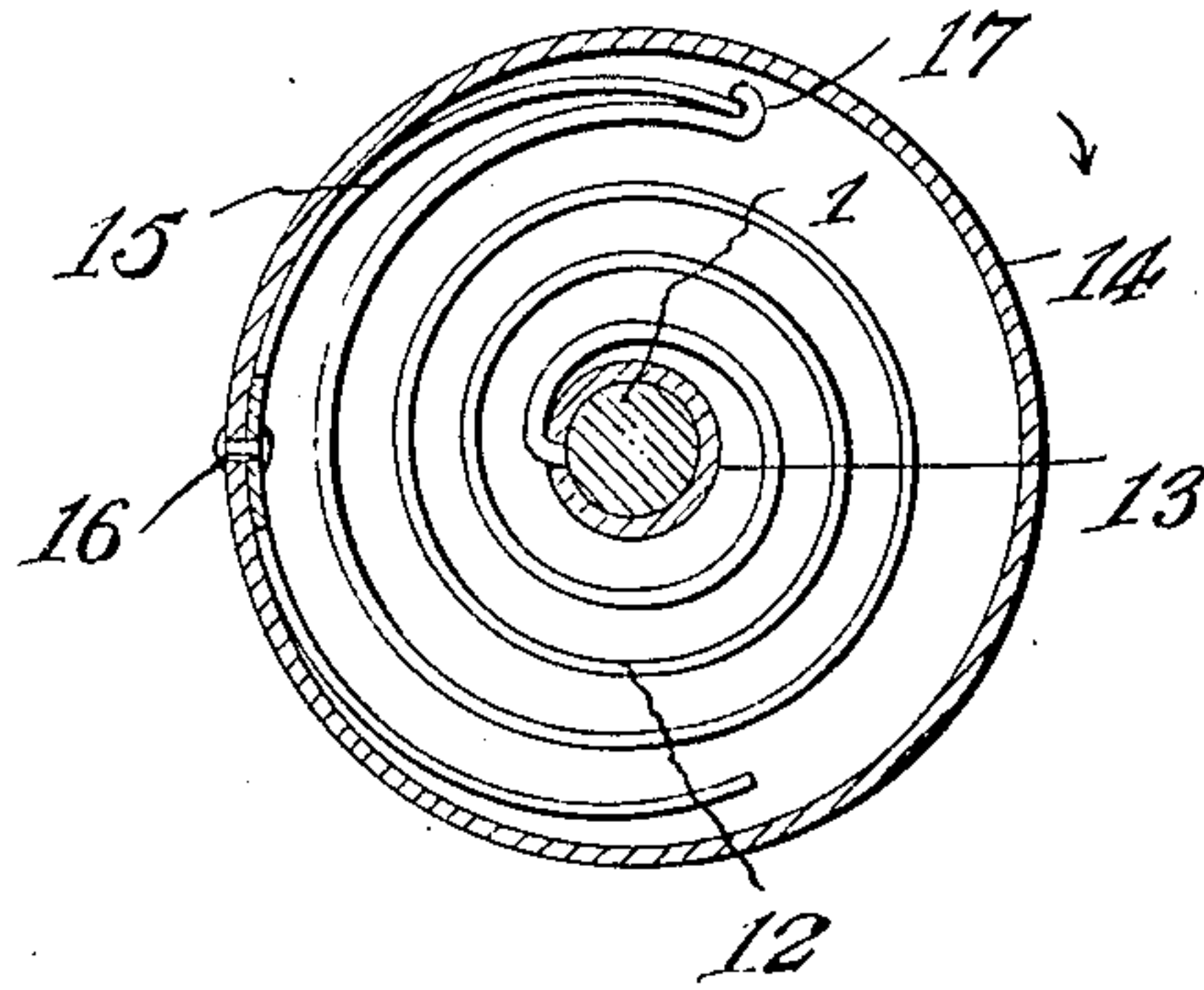


Fig. 7.

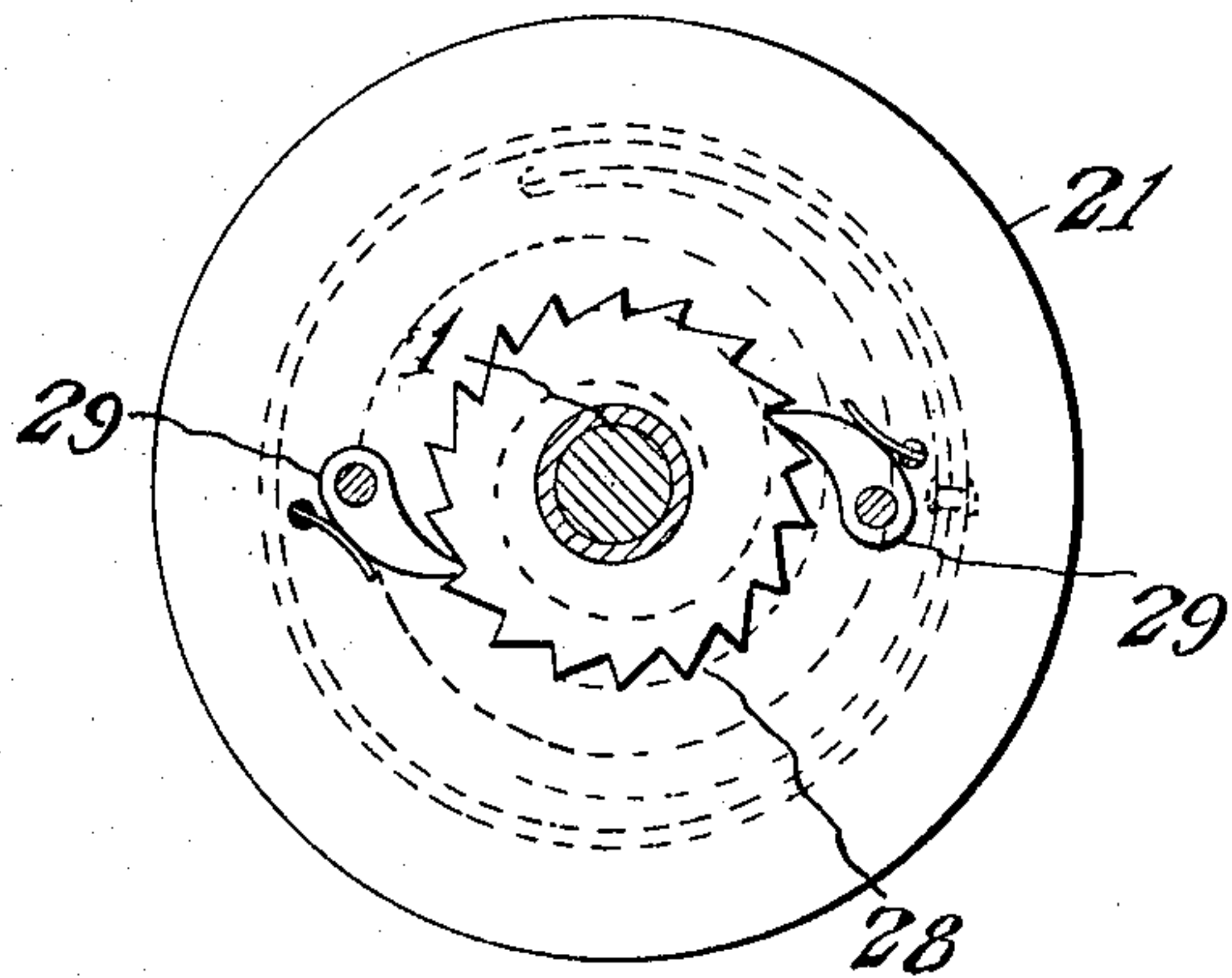
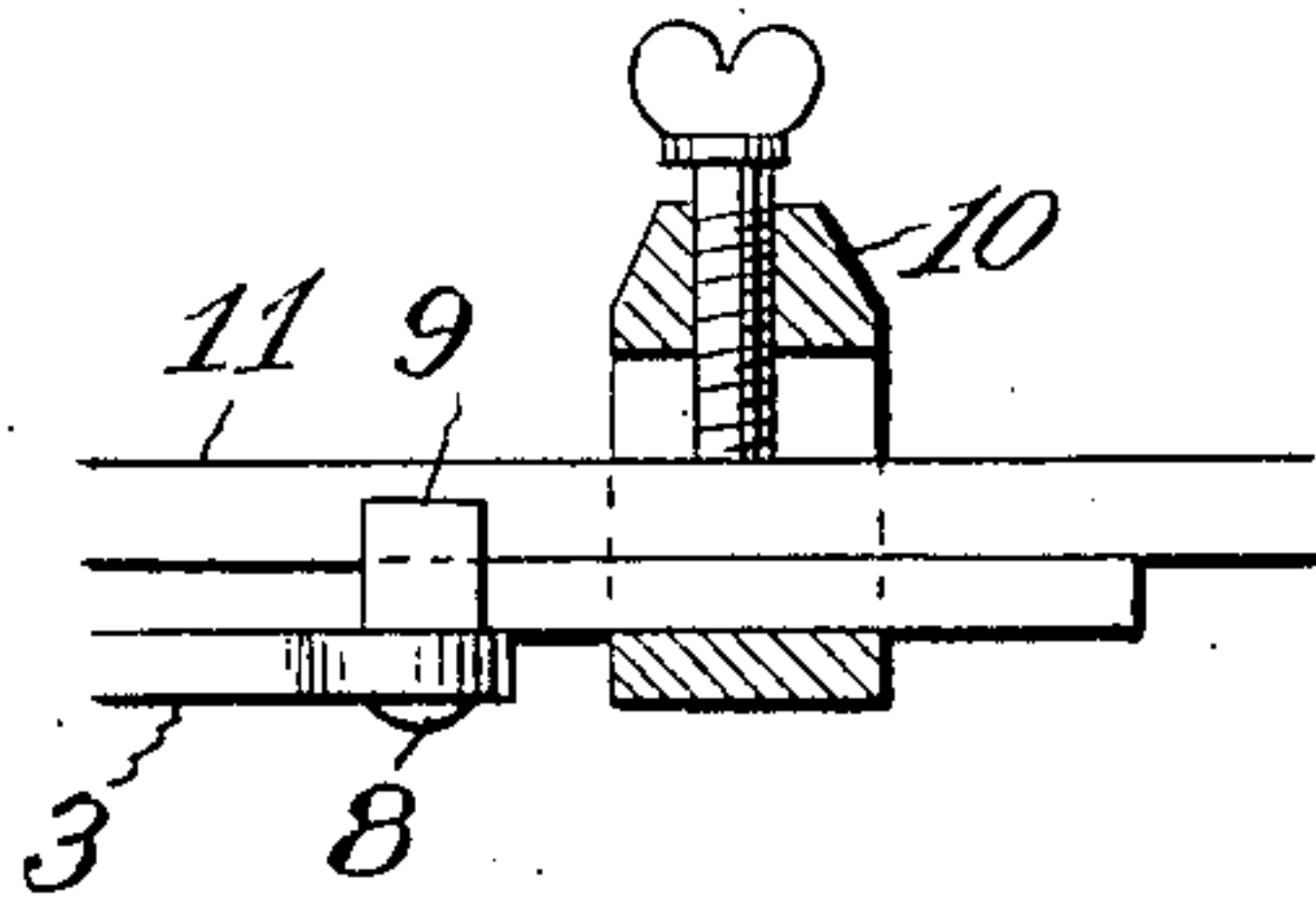


Fig. 8.



Witnesses:—

Joe. P. Wahler.
B. Broadway.

Inventor,

George J. Jeszmant.

By

Victor J. Evans.

Attorney

UNITED STATES PATENT OFFICE.

GEORGE J. JESZMANT, OF PITTSBURGH, PENNSYLVANIA.

TYPE-WRITER ATTACHMENT.

No. 887,646.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed June 15, 1907. Serial No. 379,252.

To all whom it may concern:

Be it known that I, GEORGE J. JESZMANT, a citizen of the United States, residing at Pittston, in the county of Luzerne and State of Pennsylvania, have invented new and useful Improvements in Type-Writer Attachments, of which the following is a specification.

This invention relates to typewriters and more particularly to a pedal actuated mechanism for throwing the shift key or keys for the carriage and to a mechanism for returning the carriage at the end of each line so that no attention is required on the part of the operator and the use of the hands for these purposes is dispensed with.

The invention has for one of its objects to improve and simplify the construction and operation of apparatus of the character referred to so as to be comparatively easy and inexpensive to manufacture, thoroughly reliable and efficient in use and designed to serve as an attachment for typewriters in common use.

Another object of the invention is the employment of a mechanism for returning the carriage of the typewriter at the end of each line, the mechanism being readily adjustable so that the carriage will return to initial position after the striking of one key or any number of keys so as to thereby render the operation of tabulating easy and convenient, and prevent over-running of the lines at the end.

As a further object the invention provides a carriage returning mechanism including a motor driven shaft and adjustable means between the shaft and typewriter carriage whereby the latter can be returned at any point.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawings, which illustrate one of the embodiments of the invention, Figure 1 is a partial plan view of a typewriter equipped with the carriage shifting and returning mechanisms. Fig. 2 is a perspective view of a portion of the carriage returning mechanism. Fig. 3 is a sectional view of a typewriter stand showing the motor for the carriage returning mechanism. Fig.

4 is a detail sectional view of the spring motor for the said mechanism. Figs. 5, 6 and 7 are transverse sections on lines to *a—**a*, *b—b*, and *c—c*, respectively, of Fig. 4. Fig. 8 is a detail view of the adjusting device included in the carriage returning mechanism, whereby the carriage can be returned to initial position after the writing of one or more letters or a line of any desired length.

Similar reference characters are employed to designate corresponding parts throughout the several views.

In the present instance I have elected to illustrate my invention in connection with an Oliver typewriter, but it is to be understood that the principles of the invention are applicable to any other typewriter and can be embodied as an attachment therefor for the purpose of returning the carriage at the end of each line and permitting a line of any desired length to be written.

Referring to the drawings and more particularly to Fig. 1, A designates a typewriter of which only sufficient is shown to illustrate the relation of the invention thereto, the typewriter being mounted on a suitable stand designated by B. The typewriter is complete in itself and the carriage returning mechanism as well as the carriage shifting device are merely attachments so arranged as to permit the typewriter to be used in the ordinary manner if desired without the attachments.

The carriage returning mechanism comprises a rotatable shaft 1 that may be arranged horizontally or vertically as desired and secured to the shaft is an arm or crank 2 that has its outer end connected by a link or pitman 3 with a suitable part of the carriage C of the typewriter, as shown in Figs. 1 and 2. The shaft 1 rotates in a vertical sleeve 4 and on its upper end is provided with a head 5 through which the inner end of the arm 2 extends, there being a clamping screw 6 on the head for securing the arm in adjusted position. By shifting the arm so as to bring the hinged joint 7 closer to the axis of the shaft 1 the carriage can be returned at an early part of its movement and vice versa when the joint 7 is moved outwardly from the axis of the shaft 1. In other words, by lengthening or shortening the arm 2 a line of any desired length can be written. The link 3 is hingedly connected at 8 with an arm 9 provided on a slide 10 that is connected with the rear bar 11 of the carriage C. The

shaft 1 can be actuated by a motor of any approved design but for the purpose of illustration I have in the present instance employed a spring motor. The motor is of such a character that it will move the carriage forwardly during the writing operation and return the carriage at the end of each line, the usual spacing mechanism serving to turn the paper carrying roller in the usual manner. The return of the carriage is effected by the uncoiling of the spring of the motor and as soon as the end of a line is reached, the crank 2 passes its inner dead center and is quickly moved through one hundred and eighty degrees by the spring, thus causing a quick return of the carriage. During the last part of the return stroke, the speed of the carriage is gradually diminished from maximum to zero until the crank reaches its outer dead center, and the advantage of this is that the carriage is brought to rest without shock.

The motor comprises a helical spring 12 as shown in Figs. 4 and 6 has its inner end attached to a sleeve 13 pinned to the shaft 1 and its outer end attached to a drum or casing 14 by means of an arcuate plate 15 riveted at its center as indicated at 16 to the inside of the casing, the outer extremity of the spring being bent into a hook 17 that engages one of the extremities of the member 15. On the top side of the drum 14 are spring pressed pawls 18 that engage a ratchet 19 secured on the lower end of the sleeve 4, which latter is clamped to the top 20 of the stand B so as to be held against rotation with the drum 14. The drum can be turned in any suitable manner for winding up the spring 12 and during the winding operation the pawls 18 pass freely over the teeth of the ratchet 19. The unwinding of the spring moves the carriage of the typewriter in both directions and the forward movement of the carriage is of course controlled by the usual escapement device, whereas the return stroke of the carriage is relatively rapid since the spring can unwind during the return stroke. To wind the spring 12 a foot actuated device is employed, the same comprising a drum 21 around which winds a chain or other flexible element 22, the chain passing over a pulley 23 in a bracket 24 on the underside of the stand top 20 and the extremity of the chain is attached to the pedal 25 suitably arranged on the stand. The drum 21 contains a spring 26 that has its inner end secured to a fixed sleeve 27 and its outer end suitably attached to the drum so that the pedal 25 will be returned to normal position after being depressed. On the drum 26 is a ratchet 28 with which cooperate spring pressed pawls 29 on the bottom of the drum 14. By depressing the pedal 25 the chain 22 unwinds from the drum 21 and turns the latter, thereby winding the spring 26 and also winding the

spring 12 through the ratchet mechanism between the drums. By unwinding, the spring 26 returns the drum so as to wind the chain and raise the pedal. The drum 14 is held from turning with the drum 21 during the winding movement thereof by reason of the pawls 18 engaging the ratchet 19. By depressing the pedal 25 a suitable number of times the spring 12 can be fully wound to operate for any desired period. The sleeve 27 is secured by a key 29', Fig. 4, to a bracket 30 on the bottom of the stand top 20, and this sleeve serves to form a bearing for the lower end of the shaft 1.

In practice, the carriage returning mechanism is applied to the stand of the machine and connected with a suitable part of the carriage, it being understood that the usual spring mechanism for feeding the carriage is removed from the typewriter since the motor of the carriage returning attachment takes the place of the usual carriage moving spring. After the motor is energized the typewriter is ready for use and the operator can typewrite without any attention being required on the part of the operator to return the carriage. As the shaft 1 turns under the power of the motor the carriage is fed step by step under the control of the escapement and as the arm or crank 2 moves beyond its dead center at the end of the line or movement of the carriage the motor suddenly acts to quickly return the carriage. Accompanying the return movement of the carriage the spacing mechanism is brought into play to turn the paper roll of the typewriter so that the next line can be written.

From the foregoing description taken in connection with the accompanying drawings the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention together with the apparatus which I now consider to be the best embodiment thereof I desire to have it understood that the apparatus shown is merely illustrative and that such changes may be made when desired, as are within the scope of the claims.

Having thus fully described the invention, what is claimed as new is:—

1. The combination of a typewriter including a carriage, with a forward feed and quick return driving mechanism, said mechanism including a crank arm, a link connecting the crank arm with the carriage and of such length that the crank is adjacent either dead center at the end of each stroke of the carriage, and means for operating the crank.

2. The combination of a typewriter including a carriage, with a mechanism for driving the carriage forwardly during the writing operation and returning the carriage automatically when a line of writing is completed, said

mechanism including a rotatable element, a connection between the shaft and carriage for moving the latter backwardly and forwardly during each rotation of the shaft, and a motor connected with the shaft for driving the latter in one direction only.

3. The combination of a typewriter including a carriage, with a mechanism for automatically returning the carriage at the end of each line, said mechanism including a shaft, a crank on the shaft and arranged to make a complete turn for the forward and backward movement of the carriage, a link between the crank and carriage, and means acting on the shaft for quickly returning the carriage when the latter has reached the end of a line.

4. The combination of a typewriter including a carriage, with a shaft rotatable in one direction only, connecting means between the shaft and carriage for positively driving the latter in both directions by one revolution of the shaft, and an adjustable device included in said means for varying the length of movement of the carriage.

5. The combination of a typewriter including a carriage, a rotatable shaft, a crank and pitman connection between the shaft and carriage, means for varying the effective length of the crank to change the range of movement of the carriage, and a motor for rotating the shaft.

6. The combination of a typewriter including a carriage, with a rotatable element, an adjustable crank and pitman connection between the shaft and carriage, for moving the latter in both directions, a motor for the shaft, and means for energizing the motor.

7. The combination of a typewriter including a carriage, with a rotatable shaft, an adjustable mechanism between the shaft and carriage for positively moving the latter in both directions, a motor for the shaft, and a foot actuated device for energizing the motor.

8. The combination of a typewriter including a carriage, with an attachment for actuating the carriage in both directions, said attachment including a motor, and adjustable means attached to the carriage and motor for varying the stroke of the carriage.

9. The combination of a typewriter including a carriage, with an automatic mechanism for returning the carriage, said mechanism comprising a rotatable shaft, an adjustable connection between the shaft and carriage for moving the latter in both directions, a spring motor for rotating the shaft in one direction only, a ratchet mechanism associated with the motor, and a step by step device for winding the motor.

10. The combination of a typewriter including a carriage, and stand, with an attachment for positively driving the carriage of the typewriter in both directions, said attachment comprising a motor mounted on the stand, and an element between the motor and carriage for moving the latter back and forth and having a single point of connection with the carriage.

11. The combination of a typewriter including a carriage, and a stand for the typewriter, with a motor mounted under the top of the stand, a shaft rising from the stand and connected with the motor to be driven thereby, and mechanism positively connected with the shaft and carriage for operating the latter.

12. The combination of a typewriter including a carriage, a motor mounted independently of the typewriter, a shaft driven in one direction by the motor, and mechanism between the shaft and carriage for moving the latter back and forth by the rotation of the shaft in one direction.

13. The combination of a typewriter having a carriage adapted to be controlled on its forward movement by an escapement, with a motor, and mechanism including a shaft attached to the motor and to the carriage for cooperating with the escapement for driving the carriage forwardly step by step during the first half revolution of the shaft and for quickly returning the carriage during the second half revolution of the shaft after the carriage reaches the end of its forward stroke.

14. The combination of a typewriter including a carriage, an element hingedly connected with the carriage, a rotatable shaft, a member hingedly connected with the element, a crank on the extremity of the shaft, means for adjustably connecting the member with the crank, and a motor arranged to drive the shaft in one direction for moving the carriage positively in both directions.

15. The combination of a typewriter including a carriage, a link connected therewith, a shaft, a crank on the shaft, a member adjustably connected with the crank, a scale on the member for ascertaining the adjustment, a hinged connection between the member and link, and a motor connected with the shaft for rotating the same.

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

GEORGE J. JESZMANT.

Witnesses:

CHATTIN BRADWAY,
DAN'L W. GALL.