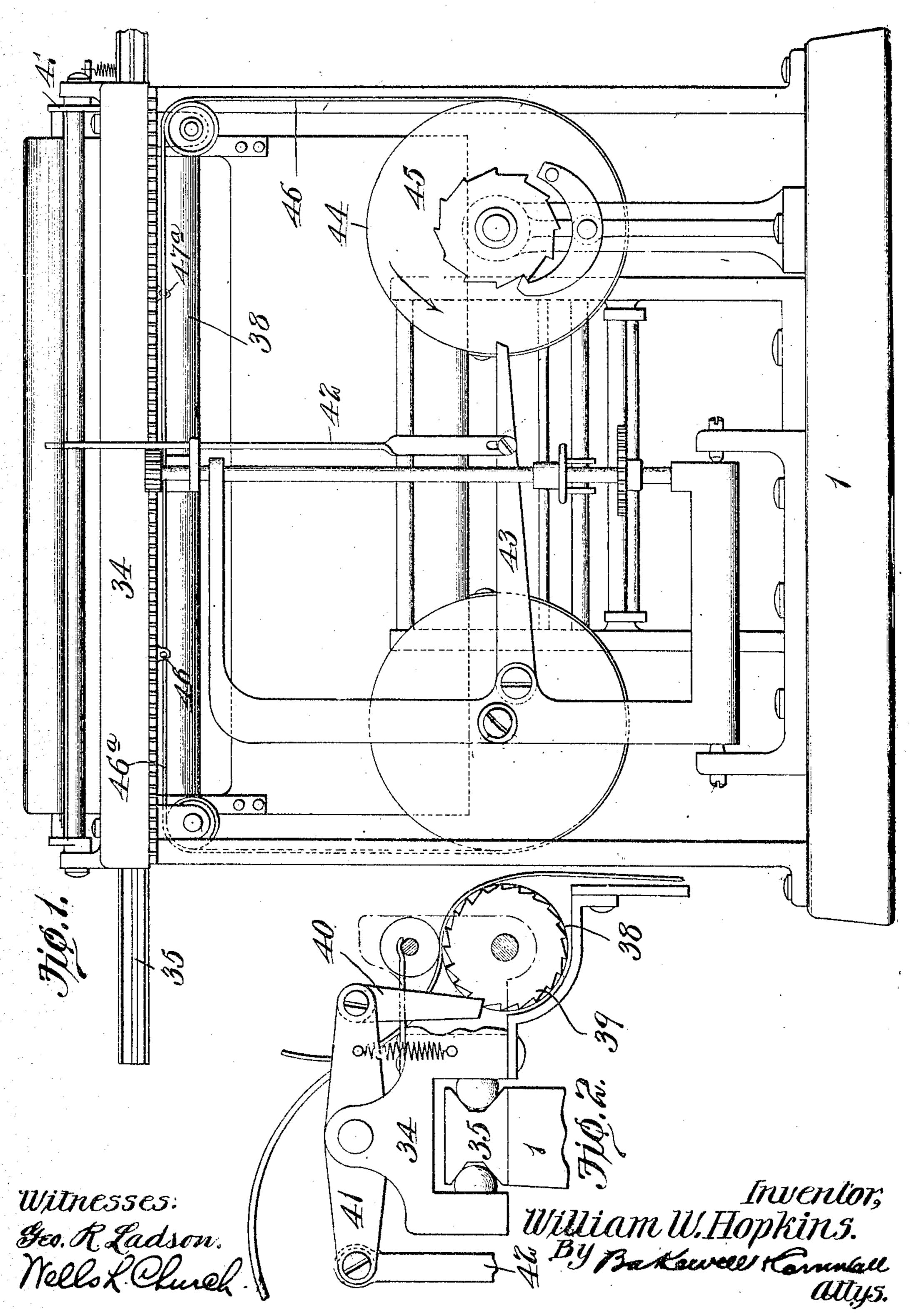
W. W. HOPKINS.
LINE SPACING MECHANISM.
APPLICATION FILED DEC. 4, 1906.



## UNITED STATES PATENT OFFICE.

WILLIAM W. HOPKINS, OF ST. LOUIS, MISSOURI, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE MOON-HOPKINS BILLING MACHINE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

LINE-SPACING MECHANISM.

No. 860,298.

Specification of Letters Patent.

Patented July 16, 1907.

Original application filed August 15, 1906, Serial No. 330,726. Divided and this application filed December 4, 1906. Serial No. 346,272.

To all whom it may concern:

Be it known that I, William W. Hopkins, a citizen of the United States, residing at St. Louis. Missouri, have invented a certain new and useful Improvement in Line-Spacing Mechanism for Type-Writing Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a rear elevation of a typewriting machine provided with a line-spacing mechanism constructed in accordance with my invention; and Fig. 2 is a detail end view of the paper feeding roller and its actuating mechanism.

This invention relates to typewriting machines and particularly to the line-spacing mechanism of such machines.

The object of my invention is to provide a line-spac-20 ing mechanism of simple construction which will be operated automatically when the paper carriage reaches a certain position in its lateral movement.

This present application is a divisional of my pending application Serial No. 330,726, filed August 15, 25 1906, which shows and describes the complete typewriting machine of which the line-spacing mechanism herein claimed forms a part.

Referring to the drawings which represent the preferred form of my invention, I designates the frame of 30 the machine provided with a track 35 upon which the paper carriage 34 travels.

38 is a rubber-faced roller, on one end of which is arranged a ratchet 39.

to is a paper feed pawl cooperating with ratchet 39

and mounted on the end of lever 41 upon whose opposite end is a link 42, which link is shown in Fig. 1 as pivotally connected to an arm 43 whose end extends into the path of movement of a pin 44 on the drum 45 containing the motor spring for the carriage. A cable 46 extends from this spring drum 45 over sheaves and 40 is connected to the carriage at the point 47. Another cable 46° is connected to a supplemental spring drum 48, and to the carriage at the point 47°. Whenever the spring drum 45, rotating in the direction of the arrow in Fig. 1. engages the arm 43 by means of pin 44, the 45 paper feed pawl will be operated so as to line-space the paper. Pin 44 is so positioned on drum 45 that it strikes the arm 43 as the paper carriage is moved to the right to start a new line.

Having thus described my invention, what I claim 50 as new and desire to secure by Letters Patent is:

1. In a typewriting machine, the combination with paper feeding rolls, a ratchet on one of said rolls, a paper feeding pawl cooperating with said ratchet, and a projection on the drum containing the motor spring of the 55 carriage for operating said paper feeding pawl; substantially as described.

2. In a typewriting machine, the combination with a laterally movable paper carriage, a paper feeding roll therein having a ratchet at one end thereof, a pawl co-operating with said ratchet, a spring-actuated drum for moving the carriage laterally, a pin on said drum, and a lever in the path of said pin, said lever being connected to said paper feeding pawl; substantially as described.

In testimony whereof I hereunto affix my signature in 65 the presence of two witnesses, this twenty seventh day of November 1906.

WILLIAM W. HOPKINS.

Witnesses:

nesses : | Wells L. Church<sub>y</sub> | George Bakewell