

(No Model.)

E. P. HOUSE.
TYPE WRITING MACHINE.

No. 466,788.

Patented Jan. 12, 1892.

Fig. 1.

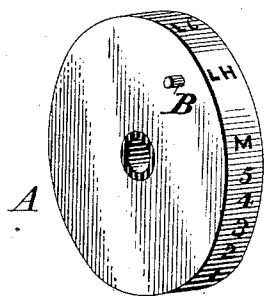


Fig. 2.

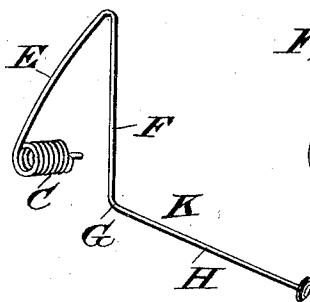


Fig. 3.

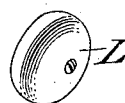
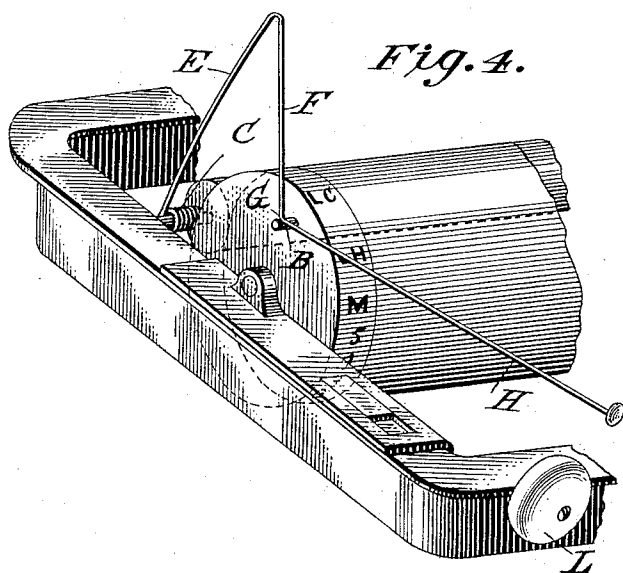


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

EDWARD P. HOUSE, OF GREELEY, COLORADO.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 466,788, dated January 12, 1892.

Application filed December 12, 1890. Serial No. 374,524. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. HOUSE, a citizen of the United States, residing at Greeley, in the county of Weld and State of Colorado, have invented a new and useful automatic line-indicator for type-writing machines and other machinery requiring an initial and final indicator to regulate its operations, of which the following is a specification.

10 The object of my invention, so far as it relates to type-writers, is to provide means by which the operator may be automatically informed when he has reached the end of his sheet or the last line, that he may avoid the
15 great annoyance of "running off" upon the platen and "double printing" upon the last line. In other machinery to which it may be applied the object of my invention is to inform the attendant of the number of times
20 the carriage to which it is attached has traversed its track and to give an alarm at the proper point at which the machinery is to be stopped, and also to indicate the near approach of such stopping-point; but in this specification I shall confine my description to its application and operation upon a type-writer. I attain this object by means of the mechanism illustrated in the accompanying drawings, in which—

30 Figure 1 is a perspective view of the indicator-disk. Fig. 2 is a perspective view of the signal or alarm spring. Fig. 3 is an ordinary bell or gong of small size, with sleeve attachment. Fig. 4 is a perspective view of the various devices in place upon a type-writer.

Similar letters refer to similar parts throughout the several views.

For a more complete description of the different devices employed to constitute the automatic line-indicator and its mode of operation when attached to a type-writer, I will add that Fig. 1 shows a disk or wheel having a hole in the center bushed with rubber tubing
45 when necessary, which is slipped over the end of the shaft of the platen and fits up close to the platen end. On the outer side of this disk is a projecting pin, (marked in drawing B.) On the face of this disk or wheel are letters
50 and figures—the letters indicating the starting-point and the figures the number of lines yet to be printed before the end is reached;

and thus warning the operator of the near approach of the end of his sheet, that he may govern himself accordingly with reference to his work. This disk or wheel may be made of wood, metal, rubber, or other suitable material fitting sufficiently tight to the shaft to be carried around with the platen and yet susceptible of being turned with the thumb and forefinger to set it when the paper is placed in the machine. Of course when the disk itself is made of rubber the rubber bushing in center hole is not necessary. This disk may be made solid, or, like the cover to an ointment-box, with the rim forming the periphery or edge surface to receive the letters and figures.

Fig. 2 shows a piece of spring-wire bent in the form shown in the drawings, so that it shall have several coils, forming the propelling power of the spring, which encircles the rear rod or carriage-rail between the cross-bar and the tension spring and clasp, regulating the pressure of the small roller of the caligraph type-writer, with end of coil attached to said clasp or passing in front of it to hold the end firm and in position. This coil is designated in drawings as C, from which is extended a neck, (marked E,) downward drop F, elbow G, and arm H. The arm H may have a metallic ball or clapper on end to engage with bell L when it drops off the pin B to give louder alarm.

Fig. 3 shows an ordinary bell or gong, of small size, attached to the front rail of carriage by means of a screw or sleeve passing over said rail. Upon this bell is struck the clapper on end of arm H of spring K, to give alarm to the operator. The bell and clapper, however, are not absolutely necessary to the operation of the indicator, but are added as an additional alarm or to make a louder noise when required by the obtuse hearing of the operator. To the observing and alert operator the rising and sudden fall of arm H upon the rail is sufficient notice without the bell; but it is desired to cover the same—the combination of the bell with arm H—in these Letters Patent, that it may be used in this manner whenever deemed desirable.

Fig. 4 represents the various devices or parts in position upon the end of the platen of a Caligraph type-writer.

The mode of operating the Caligraph or Remington type-writer with this attachment is as follows: Place the paper in the machine in the usual manner, adjust the indicator so
 5 that the letter M (if it be "mem-head" paper) shall come opposite the upper edge of the paper and proceed in the ordinary manner with the work. As line after line is printed and the platen is revolved the indicator re-
 10 volves with the platen. When the end is being approached within, say, seven or eight lines, the pin B engages with arm H and raises it up as line after line is written until the end of the page is reached, when arm H slips
 15 off the pin B at the elbow G, making noise sufficient to attract the attention of the operator; or, when the bell is used, the clapper on end of arm H strikes the bell L and produces still greater noise. In the meantime the up-
 20 right arm F indicates or points out the number of lines yet to be written before arm H drops off pin B. So as the operator proceeds he knows just where he is with reference to the end of his sheet without raising the car-
 25 riage to find out, and is peremptorily warned when he has reached his last line by the drop of arm H. With ordinary "letter-head" paper the indicator is turned so that the letter L comes opposite the edge of the paper, producing like results. When "legal cap" is
 30 used, turn the indicator to L C with like result. With other sizes of paper—odd sizes—

a few trials will soon determine the starting-point and the indicator marked accordingly. By this peculiar method of arrangement and
 35 combination of the device constituting the complete indicator, I am enabled to accommodate all classes of operators. Cautious, alert operators may only require the disk a lcn
 40 others may require the spring-alarm, while others still may require the addition of the bell, because of defective hearing, &c.

I am aware that indicators have been made and used to indicate the initial and final points of the operation of machinery. I
 45 therefore do not claim, broadly, such an indicator; but

What I do claim, and desire to secure Letters Patent for, is—

1. In an automatic indicator for a type-
 50 writer or other machinery to which it is applicable, the combination of the disk or wheel A and pin B with shaft of platen and arm H, respectively, substantially as set forth, and for the purposes specified.

2. In an automatic indicator on a type-
 55 writer or other machinery, the combination of disk or wheel A and pin B with arm H or spring K, clapper I, and bell L, substantially as set forth, and for the purpose specified.

EDWARD P. HOUSE.

Witnesses:

W. A. HEATON,
 CHARLES D. TODD.