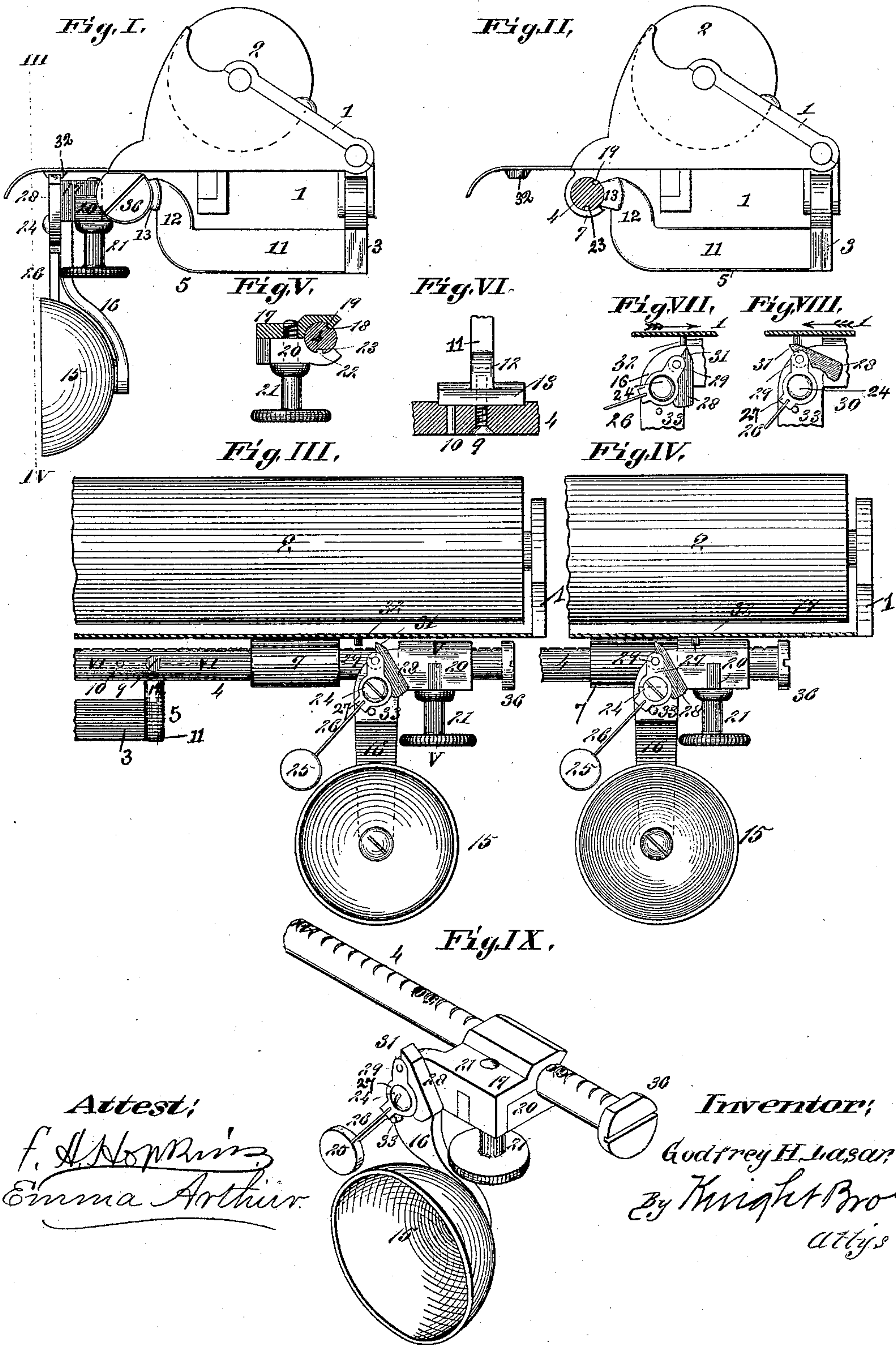


(No Model.)

G. H. LASAR.
TYPE WRITING MACHINE.

No. 415,531.

Patented Nov. 19, 1889.



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UNITED STATES PATENT OFFICE.

GODFREY H. LASAR, OF ST. LOUIS, MISSOURI.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 415,531, dated November 19, 1889.

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To all whom it may concern:

Be it known that I, GODFREY H. LASAR, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Type-Writing Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure I is an end view of the carriage of a type-writer, showing part of the frame and part of the carriage with my improvement applied. Fig. II is an end view of the carriage, showing part of the frame and part of the carriage, the front rail or bar being in transverse section. Fig. III is a section taken on line III III, Fig. I. Fig. IV is a similar view to Fig. III, except that the carriage in Fig. IV has come against the stop that limits its movement. In Fig. III it has not yet reached the stop. Fig. V is a section taken on line V V, Fig. III, showing the manner of connecting the bell to the graduated rod or bar of the machine. Fig. VI is a section taken on line VI VI, Fig. III, showing the manner of securing the graduated bar to the supporting-frame. Figs. VII and VIII are detail views illustrating the working of the trip for operating the bell-hammer. Fig. IX is a perspective view of the bell and part of the graduated bar.

My invention relates to a bell and its attachments of a type-writer; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, 1 represents the carriage, of which 2 indicates the roller; 3, the rear rail or bar upon which the carriage moves, and 4 the front rail or bar upon which the carriage moves, and which is graduated. The rail or bar 4 is made fast to the frame 5 of the machine, and the carriage is connected to the rail 4 by means of clips or projections 7, the clips being cut-away to pass above and beneath the head 13 of the frame 5, as shown in Fig. II. The rail or bar 4 is connected to the head by a screw 9 and pin 10, as shown in Figs. III and VI. The frame has a horizontal portion 11, as shown in Figs. I, II, III, and VI, and a vertical portion 12, as shown in Figs. I, II, III, and VI, the bar or rail 4

resting against the head 13 of this vertical portion, and the screw 9, the head of which is countersunk into the rail or bar, passing into the latter, as shown by dotted lines in Fig. VI. 55

The pin 10 is formed upon or secured to the head 13, and merely enters a hole in the rail or bar 4, and this pin, together with the screw, holds the rail or bar rigidly in place.

I have shown only one horizontal portion 60 11 and its parts; but at the other end of the frame 5 there would be a duplicate of this, which it is deemed unnecessary to show.

15 represents the bell or gong connected to the lower end of an arm 16, by which it is made fast to the rail or bar 4 by means of a head 17 on the arm, which has a projection 18, (see Fig. V,) that fits in a groove 19 on the rail 4, and by means of a block 20 connected to the head 17 by means of a set-screw 70 21, and which has a feather 22, that enters a groove 23 in the rail or bar.

By tightening on the set-screw 21 it will be seen that the bell will be firmly clamped to the rail 4, and by loosening of the set-screw 75 the bell may be adjusted to any position on the rail and then tightened again by the screw.

Pivoted to the arm 16 at 24 is a hammer 25, the stem 26 of the hammer having a head 80 27, through which the pivot-pin passes, and to which is secured a trip-block 28 by means of a pivot-pin 29. The trip-block is notched at 30, where it bears against the head 27, and it has a point 31, against which impinges a 85 projection 32 on the carriage.

When the carriage is moving in the direction indicated by the arrow in Fig. VII, the projection 32 comes against the point of the trip-block 28 and lifts the hammer, which, 90 when the projection passes the trip, falls upon the bell and gives the signal. Then as the carriage moves in the other direction the projection comes against the trip-block 28, as shown in Fig. VIII, and, tilting it, passes 95 without causing the hammer to strike the bell, the head 27 of the hammer bearing against a projection 33 on the arm 16, which prevents the hammer from being moved into contact with the bell when the carriage is 100 moving in the direction indicated by the arrow, Fig. VIII. There is sufficient elasticity

in the stem 26 of the hammer for the hammer to strike the bell when it falls from the position shown in Fig. VII. Just after the bell has been rung the clip 7 comes against the head 17 or block 20 and stops the movement of the carriage, as indicated in Fig. IV.

On the end of the rail 4 is a screw having an enlarged head 36, by which the arm is prevented from accidentally getting off the rail.

The object of the graduating bar or rail 4 is to afford an easy means of adjusting the bell to the proper place.

I claim as my invention—

1. In a type-writer, the combination of the carriage, rail 4, clip 7, securing the carriage to the rail, an arm secured to the rail by means of a head thereon, a block, and a set-screw, the head and block having feather-and-groove connection with the rail, a bell secured to the arm, a hammer pivoted to the arm and provided with a trip-block, and a projection on the carriage for engaging the trip-block, substantially as and for the purpose set forth.

2. In a type-writer, in combination with the carriage and rail 4, an arm secured to the

rail by means of a head thereon, and an adjustable block, a bell on said arm, and hammer pivoted to said arm, and having a trip-block engaged by a projection on the carriage, substantially as and for the purpose set forth.

3. In a type-writer, in combination with the carriage, rail 4, arm secured to the rail by means of a head thereon, and an adjustable block, said block and head having feather-and-groove connection with the rail, a bell on said arm, a hammer provided with a head by which it is pivoted to the arm, a trip-block pivoted to the head of the hammer, and a projection on the carriage for engaging the trip-block, substantially as and for the purpose set forth.

4. In a type-writer, the combination of the carriage, rail by which the carriage is supported at one side, frame 5, having horizontal portion 11, vertical portion 12, and head 13, to which the rail is secured by means of a pin 10 and set-screw 9, substantially as and for the purpose set forth.

GODFREY H. LASAR.

In presence of—

GEO. H. KNIGHT,
JOSEPH WAHLE.