

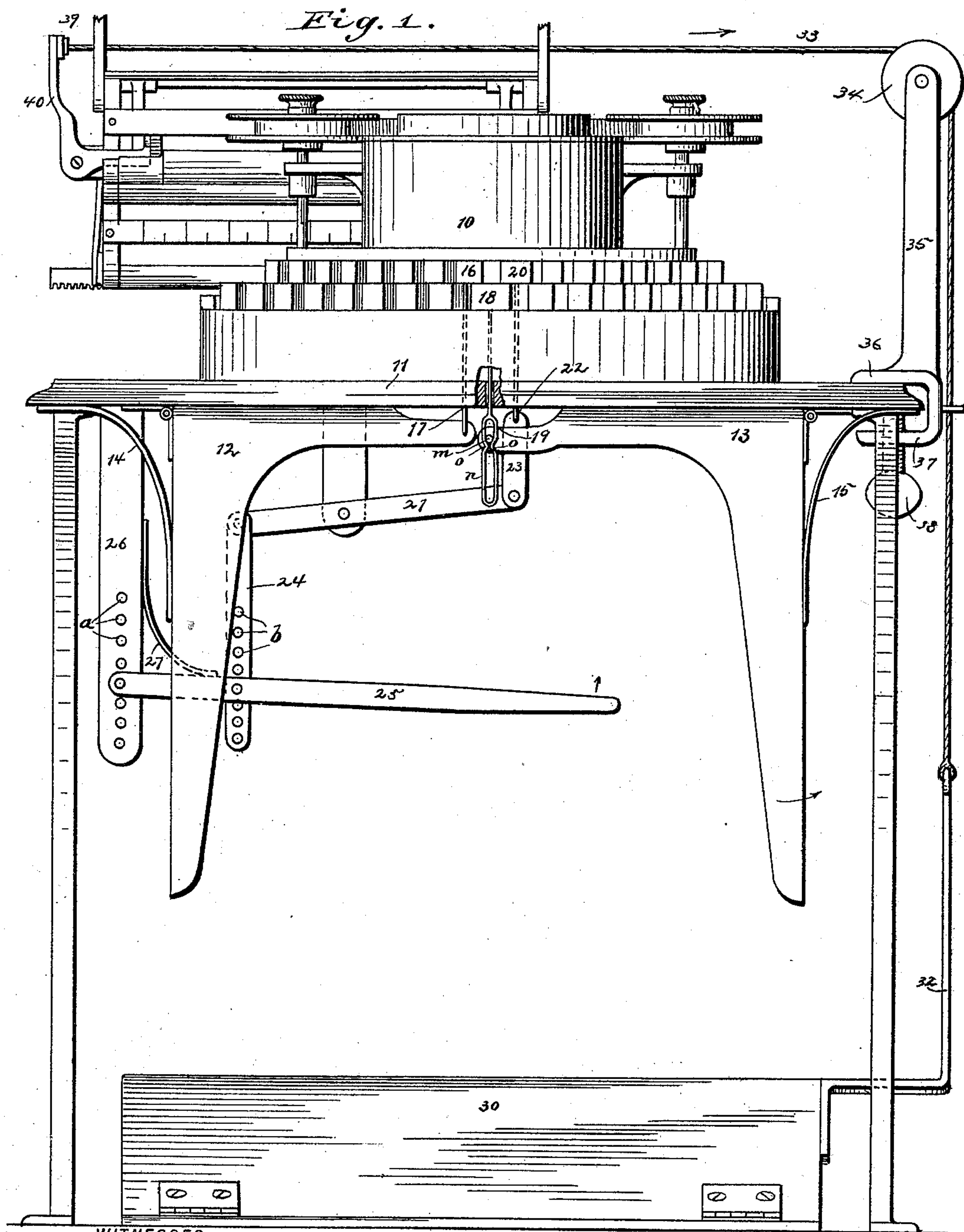
(No Model.)

2 Sheets—Sheet 1.

R. DURRIN & R. SHELDON.
ATTACHMENT FOR TYPE WRITING MACHINES.

No. 424,187.

Patented Mar. 25, 1890.



WITNESSES:

John M. Deemer
C. Sedgwick

INVENTOR

R. Durwin
R. Sheldon
Munn & Co.
ATTORNEY

BY

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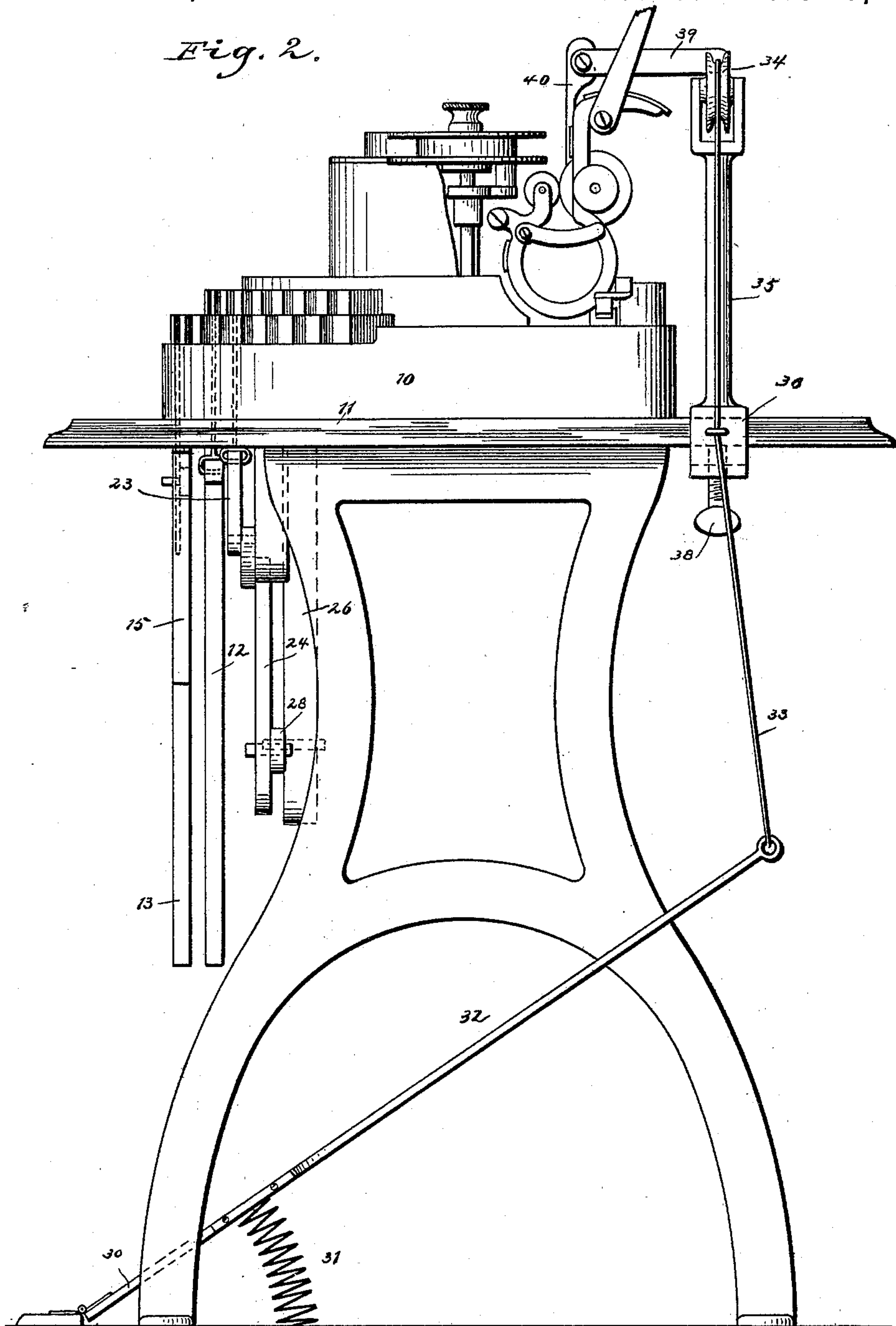
2 Sheets—Sheet 2.

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Fig. 2.



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UNITED STATES PATENT OFFICE.

REUBEN DURRIN AND ROSECRANS SHELDON, OF STREATOR, ILLINOIS;
SAID DURRIN ASSIGNOR TO SAID SHELDON.

ATTACHMENT FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 424,187, dated March 25, 1890.

Application filed March 6, 1889. Serial No. 302,069. (No model.)

To all whom it may concern:

Be it known that we, REUBEN DURRIN and ROSECRANS SHELDON, both of Streator, in the county of La Salle and State of Illinois, have
5 invented a new and Improved Attachment for Type-Writing Machines, of which the following is a full, clear, and exact description.

With certain classes of type-writers the characters and keys are so arranged that a
10 single key will print a number of characters, the position of the characters being changed by means of shifting-keys that have heretofore been operated by hand; but in so shifting the characters one of the operator's hands
15 is necessarily employed to the exclusion of the printing operation, and consequently valuable time is wasted and the view of the keyboard obstructed.

The invention will be first described, and
20 then specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in both the
25 views.

Figure 1 is a face view of a type-writer representing the same as it appears when provided with our improved attachment, the type-writer being of the Hammond type; and
30 Fig. 2 is a side view of the type-writer and attachment.

In the drawings, 10 represents a type-writer of the Hammond type, said type-writer being mounted upon a stand 11, to the under side
35 of which stand there are hinged bell-crank levers 12 and 13 that are normally held in the position in which they are shown in the drawings by springs 14 and 15. The horizontal arm of the lever 12 is connected to the capital-shifting key 16 by a rod 17. The connection between the horizontal arm of the lever
40 13 and the spacing-key 18 is established by means of a rod 19, at the lower end of which there is formed a loop *n*, that is entered by a
45 pin *m*, carried by the lever, the arrangement being such that as the lever is thrown in the direction of its arrow the spacing-key will be drawn down, but, having been drawn down, the pin will pass between the two inwardly-
50 bent sections *o* of the loop, thus permitting the key to return to its normal position after

having been thrown to bring about the required spacing, whereby we provide for a slow return of the lever 13, it being understood that a movement of the knee cannot be brought
55 about as rapidly as a movement of the hand.

In order that the figure-shifting key 20 may be thrown when desired, we mount a practically horizontal lever 21 beneath the table 11 and connect this lever with the key 20 by a
60 rod 22 and a link 23, the outer end of the lever being pivotally connected by link 24 to a horizontal lever 25, that is fulcrumed on a bracket 26 and normally held depressed by a spring 27.

In operating the attachment above de-
65 scribed, if it be desired to throw the capital characters into printing position, the operator presses his or her left knee against the vertical arm of the lever 12, throwing said lever in the direction of its arrow, which movement
70 of the lever will draw down the lever 16 and shift the capital characters to a printing position, leaving both of the operator's hands free for the operation of printing. When it is desired to space, the operator moves the
75 lever 13 by pressing his or her right knee against the vertical arm of said lever, while if it is desired to throw the figures into printing position the knee of the operator is pressed against the lever 25, and said lever is
80 raised, which movement of the lever 25 will draw down the key 20; and in order that the lever 25 may be adjusted to a height such as will be convenient for the operator we form the bracket 26 with a number of apertures *a*,
85 through any one of which the fulcrum-pin of the lever 25 may be passed, and we also form the links 24 with a number of apertures *b*, as represented.

From the construction above described it
90 will be seen that the shifting of the characters and the spacing may be brought about without interfering with the action of the operator's hands.

The attachment employed for shifting the
95 carriage consists of a treadle 30, that is hinged to the floor beneath the stand 11 and normally upheld by a spring 31. This treadle 30 carries a lever-arm 32, to which there is connected a cord 33, that passes over a sheave 34,
100 carried by a standard 35, that is formed with a jaw 36, adapted to fit over the edge of the

stand 11, the lower member 37 of the jaw 36 carrying a set-screw 38, by means of which the standard is clamped to position. From the sheave 34 the cord 33 extends to a rear-
5 wardly-extending arm 39, that is connected to the carriage tripping-lever 40, the arrangement being such that by depressing the treadle the cord 33 will be drawn in the direction of its arrow, and the carriage will be
10 drawn to its starting-point.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, with a type-writer and
15 its stand, of a lever pivoted under the table, a link connected with a shifting-key of the type-writer and contracted between its ends to form a narrow passage, a pin projecting from said lever into the link, and means for

returning the lever and the shifting-key to 20 their normal positions independently of each other, substantially as set forth.

2. The combination, with a type-writer and its stand, of opposed bell-crank levers pivoted under the table with a space between their 25 vertical members for the operator's knees, a lever extending horizontally across the space between said levers to be engaged by the upward movement of the knee, and connections between said levers and the shifting and spac- 30 ing keys, respectively, of the type-writer, substantially as set forth.

REUBEN DURRIN.
ROSECRANS SHELDON.

Witnesses:

H. N. RYAN,
W. S. JACKSON.