

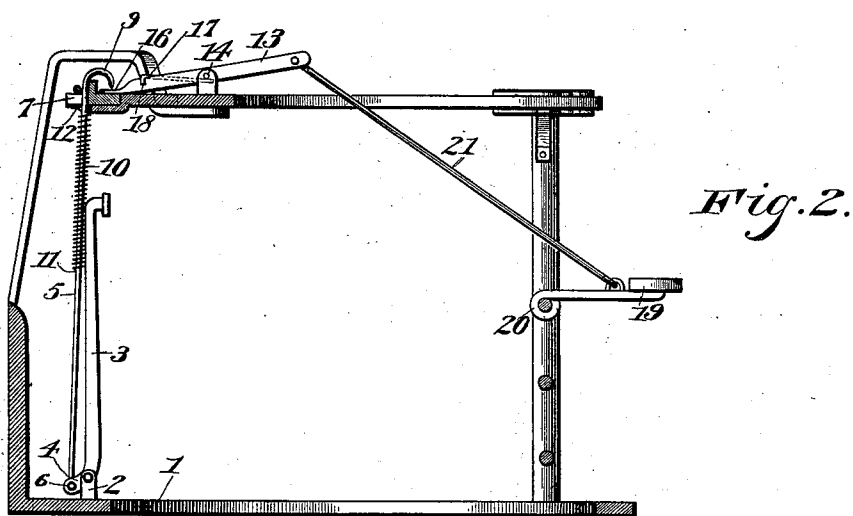
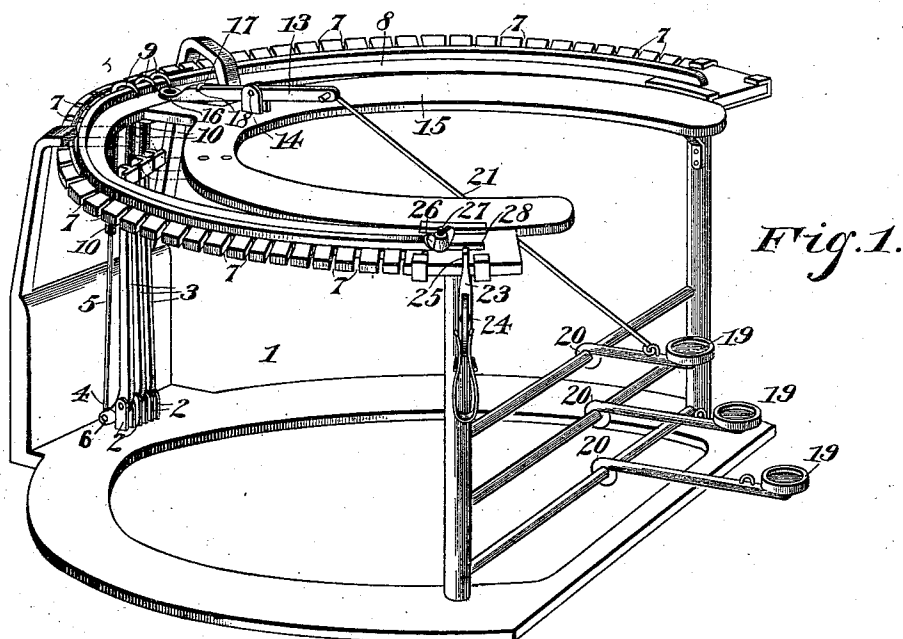
(No Model.)

2 Sheets—Sheet 1.

A. LOWE.
TYPE WRITING MACHINE.

No. 531,321.

Patented Dec. 25, 1894.



Witnesses;

J. M. Theroud
L. J. Myers

Inventor,
Austin Lowe

By Joseph H. Atkins
Attorney

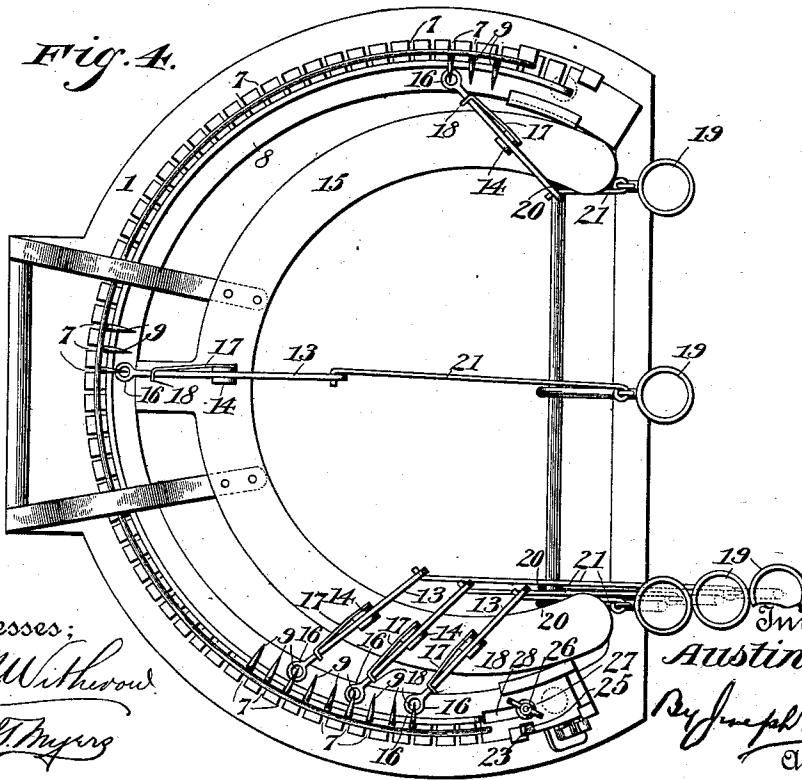
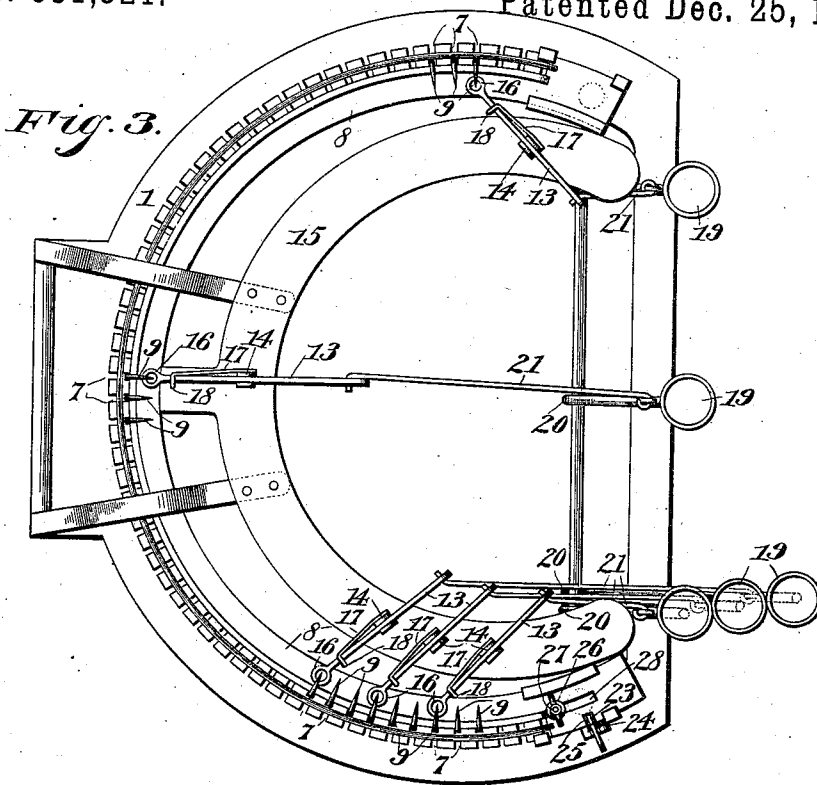
(No Model.)

2 Sheets—Sheet 2.

A. LOWE.
TYPE WRITING MACHINE.

No. 531,321.

Patented Dec. 25, 1894.



Witnesses:

J. M. Withrow
G. T. Myers

Inventor,
Austin Lowe,
By *Joseph L. Kain*
Attorney

UNITED STATES PATENT OFFICE.

AUSTIN LOWE, OF MINNEAPOLIS, KANSAS.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 531,321, dated December 25, 1894.

Application filed December 19, 1893. Serial No. 494,035. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN LOWE, of Minneapolis, county of Ottawa, State of Kansas, have invented certain new and useful Improvements in Type-Writers, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce a device whereby a plurality of type bars may be operated by a single key. By this means the range of type may be largely increased without increasing the size of the key board.

In the accompanying drawings: Figure 1 is a perspective view of my typewriter showing a general arrangement of parts. Fig. 2 is a transverse section of the parts shown in Fig. 1. Fig. 3 is a top plan view of the same, but illustrating an increased number of type bars. Fig. 4 is a similar view showing a change in position of the type bars.

It is thought that the two plan views will serve to more clearly illustrate the invention and, therefore, detail reference will be made to it.

The parts shown in Fig. 1 of the drawings and not described in detail do not form a part of this invention and are illustrated only to show the relation of the parts to the whole.

Referring to the figures on the drawings: 1 indicates the frame of the machine, which may be of any suitable construction. Near the bottom of the frame in suitable bearings, indicated at 2, are pivoted type bars 3, having lever ends 4, by means of which they may be caused to strike against a paper or platen located underneath the frame.

For operating each type bar, a rod 5, pivoted as indicated at 6, to the lever of the type bar, is preferably employed. Each rod passes upwardly through an aperture 7 in a movable, preferably, segmental plate 8 and is provided, at its upper end, with a hook 9. Suitable means for keeping the type bars in the elevated position may be employed, as for example, a spring 10, preferably surrounding a rod 5 to which, at one end, as indicated at 11, it is secured and secured at the other end to the frame, as indicated at 12. A lever 13, pivoted, as indicated at 14, to a frame plate 15, is provided with a spoon end 16 in proximity to the hooked ends 9 of the rods 5. Each lever, in practice, is designed to operate a

plurality of the rods. Each lever, for example, may operate three rods and their connected type bars, as illustrated. The spoon end of the lever is held against the segmental plate 8 as by a spring 17 secured, for example, to the fulcrum 14 and overlapping the end of the lever, as indicated at 18.

19 indicates a key, pivoted, as indicated at 20, to the frame and pivotally secured to a key rod 21, that is secured, in like manner, to the end of the lever 13. By striking the key, the type bar will be depressed in the manner above indicated. The segmental plate, as above stated, is movable as if upon a central axis. By its movement it carries the rods with it so that any one of the rods which a particular lever serves may be brought over the spoon end 16 and be actuated in the manner above described. In this way, three different fonts of type may be employed and by shifting the segmental plate, use may be made of any font preferred. The segmental plate may be actuated to bring the various type bars into operative relation with a particular key, or it may be normally held in a certain position by a spring-actuated lever 23 carried on a stud 24, and adapted to engage a recess 25 in the side of the segmental plate. A thumb nut 26 whose screw 27 projects through a slot 28 in the segmental plate may be employed for fixing the plate in any desired adjustment.

I do not confine myself to the details of construction herein shown and described, but reserve the right to modify and vary them at will within the scope of my invention.

What I claim is—

1. In a type writing machine, the combination with the frame, of a plurality of type bars fulcrumed at the bottom thereof and adapted to imprint upon a sheet beneath the frame, an apertured movable segmental plate carried at the top of the frame, a lever pivotally secured to a fixed part of the frame, a key and key rod connected thereto and a plurality of laterally movable rods pivotally connected with the type bars below their fulcrums, passing through the apertures in the movable plate and having their upper ends above the plate in operative proximity to but not in contact with the lever, substantially as specified.

2. In a type writing machine, the combination with a frame consisting of an upper and

lower segmental plate and connecting parts, of type bars pivoted to the lower plate and adapted when actuated to bring the type into contact with a platen located beneath the frame, an apertured movable segmental plate supported by the upper plate, spring actuated rods pivotally connected to the type bars below their fulcrums and passing through the apertures, hooks upon the upper end of the rods above the movable plate, a pivoted lever provided with a perforated spoon end adapted to engage the hooks when actuated and a key and key rod connected with the lever, substantially as specified.

3. In a type writing machine, the combination with the frame, of a plurality of type bars fulcrumed at the bottom thereof and adapted to imprint upon a sheet beneath the frame, an apertured movable segmental plate carried at the top of the frame, a lever pivotally secured to a fixed part of the frame and provided with an apertured end, a key and key rod connected thereto and a plurality of laterally movable rods pivotally connected with the type bars below their fulcrums, passing through the apertures in the movable plate and having their upper ends above the plate provided with a hook adapted to engage the apertured end of the lever when the same is actuated, mechanism for actuating the movable plate, and means independent of such mechanism for securing the plate in the adjusted position, substantially as specified.

4. In a type writing machine, the combination with the frame, of a plurality of type bars fulcrumed at the bottom thereof and adapted to print upon a sheet beneath the frame, an apertured movable segmental plate carried

at the top of the frame, a lever provided with an apertured spoon end pivoted above the movable plate to a fixed part of the frame, a key and key rod connected thereto, a spring normally depressing the spoon end of the lever and retaining the key in the elevated position, laterally movable rods passing through the apertures in the movable plate provided thereabove with a hook held removably in operative proximity to the lever and pivotally secured at their lower ends to the type bars below their fulcrums, and springs secured to the rods and bearing against the movable plate whereby the type bars are held in the elevated position, substantially as specified.

5. In a type writing machine, the combination with a frame, of a plurality of type bars fulcrumed at the bottom thereof, a movable segmental plate at the top of the frame provided with radial apertures 7, a slot 28 and recess 25, of rods passing through the radial apertures pivoted at their lower ends to the type bars and provided upon their upper ends with hooks, a lever having a spoon end in proximity to said hooked ends, a key rod and key connected with the lever, the actuating lever 23 adapted to engage the recess, the bolt 27 passing through the slot and the nut adapted to be screwed upon the bolt to secure the plate in the adjusted position, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

AUSTIN LOWE.

Witnesses:

W. A. STETLER,
R. C. JACKMAN.