

UNITED STATES PATENT OFFICE.

WILLIAM CLARK, OF NORTH GREENFIELD, WISCONSIN.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 496,219, dated April 25, 1893.

Application filed November 25, 1891. Serial No. 413,062. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CLARK, of North Greenfield, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Spacing Devices for Type-Writing Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The main object of my invention is to set and hold the platen in position to receive the impression of any character out of its usual position in line with the impression of other characters, and particularly to utilize the ordinary hyphen for an underscore in machines which are not provided with a special character for that purpose.

It consists essentially of a dog or movable part applied to the dog lever or platen holding device of a typewriting machine in such a manner as to hold the platen in place when turned a fractional interval.

For the purpose of illustration I have shown my device in connection with the parts of a caligraph machine, to which it is particularly applicable, although it may be adapted to other machines.

In the accompanying drawings like letters designate the same parts in the several figures.

Figure 1 is an end elevation of the platen and spacing wheel, together with a portion of the carriage and the holdfast dog to which my device is applied, it being shown out of working position. Fig. 2 is a similar view of the parts mentioned, showing the device in working position. Fig. 3 is a reverse view of the holdfast dog and lever in connection with my attachment, and Fig. 4 is a plan view of the holdfast dog without my attachment.

A represents the platen or impression cylinder, B a portion of the carriage frame in which the platen is mounted, C the toothed spacing wheel attached to one end of the platen, D the holdfast dog working with the spacing wheel C to hold the platen at the desired intervals by which it is turned for spacing the lines.

E is the arm upon which said dog is formed or mounted, pivoted to the carriage frame B.

e is a spring connecting the arm E with the carriage frame and holding the dog D in engagement with the spacing wheel C.

F is a type bar shown in the operation of producing an impression upon the platen, in the usual position in Fig. 1, and out of its usual position in Fig. 2, as the effect of my attachment.

The foregoing parts are of the usual construction employed in machines of this class, and as they are found in the No. 2 caligraph machine.

My attachment consists essentially of a pawl or movable part G, adapted to and placed upon one edge of the holdfast dog D, and pivoted to a lever or handle H, which is fulcrumed at *h* to the arm E, or to a block or plate I attached thereto. This plate I is attached to the inner side of the dog D by a screw *i*, and is formed at one edge with a flange *g*, which projects over the edge of the pawl G, holding it in place against the edge of the holdfast dog D. The three parts, the dog, handle and fulcrum block, constituting my attachment, may be assembled and applied to machines as they are now constructed without changing any part thereof. It may be more convenient however, to fit and attach the parts constituting my improvement to the holdfast dog and arm with which it is formed, and to furnish the attachment in connection with said holdfast dog and arm, in applying the device to machines already in use. In practice, to underscore with the ordinary hyphen character, or to cause any character to make an impression below its ordinary position in the line, the platen is turned manually in the direction indicated by the arrow from the position shown in Fig. 1 to that shown in Fig. 2, thereby lifting the holdfast dog D partially out of its seat between two adjacent teeth of the spacing wheel C and leaving a space between it and the advance tooth of said wheel, into which space the pawl G is thrust by means of the handle H. In this way the platen will be held in the position into which it has been turned so as to receive the impression of the type out of their ordinary position on the platen and below the line until the dog D is withdrawn, when the

platen will be returned to its normal position by the spring *e*.

Various changes may be made in the details of construction and arrangement of parts in applying my device to different machines and to accomplish different results within the scope of my invention.

I claim—

1. The combination with the platen, spacing wheel and holdfast dog of a typewriting machine, of a part movable into engagement with the back face of a tooth of the spacing wheel when the holdfast dog is between the back faces of adjacent teeth of said wheel, to hold the platen at a fractional interval of a turn for ordinary spacing, substantially as and for the purposes set forth.

2. The combination with the platen, spacing wheel and holdfast dog of a typewriting machine, of a part movable independently of the spacing lever into and out of range with the teeth of the spacing wheel and constructed and arranged to abut against the back face of a tooth of said wheel when it is turned so as to present a space between the holdfast dog and the back face of the tooth in advance of it, substantially as and for the purposes set forth.

3. The combination with the platen, spacing wheel and holdfast dog of a typewriting machine, of a lever fulcrumed to said dog and a pawl pivoted to said lever and adapted to be moved upon one edge of the dog into the space between it and the advance tooth of

said spacing wheel when the platen is moved a fractional space, substantially as and for the purposes set forth.

4. The combination with the holdfast dog and arm of a typewriting machine, of an attachment for holding the platen at a fractional interval, comprising a lever fulcrumed to said arm and a pawl pivoted to said lever and adapted to be moved thereby along one edge of said dog toward and from its apex, substantially as and for the purposes set forth.

5. The combination with the platen, toothed spacing wheel and holdfast dog of a typewriting machine, of a part movable on one edge of said dog into and out of range with the teeth of said spacing wheel, substantially as and for the purposes set forth.

6. An attachment for holding the platen of a typewriting machine at a fractional interval of the regular spacing for lines, comprising a plate or block attachable to the holdfast dog or arm, a lever fulcrumed to said plate or block and a pawl pivoted to said lever and adapted to be moved thereby upon one edge of the holdfast dog into and out of range with the teeth of the spacing wheel, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM CLARK.

Witnesses:

CHAS. L. GOSS,
F. C. BUDD.