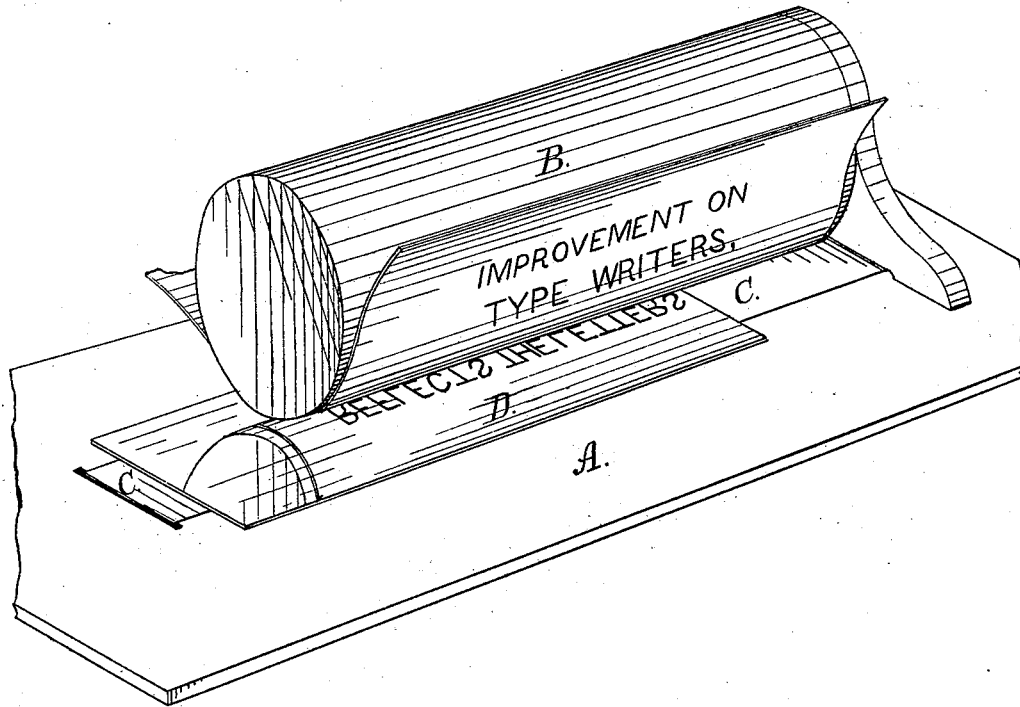


P. DEMING.  
TYPE-WRITER.

No. 191,120.

Patented May 22, 1877.



*Witnesses.*

*E. J. Bennett*  
*C. J. Mattison*

*Inventor.*

*Philander Deming.*  
*by*  
*William H. Low*  
*Attorney.*

# UNITED STATES PATENT OFFICE

PHILANDER DEMING, OF ALBANY, NEW YORK.

## IMPROVEMENT IN TYPE-WRITERS.

Specification forming part of Letters Patent No. 194,120, dated May 22, 1877; application filed April 18, 1877.

*To all whom it may concern:*

Be it known that I, PHILANDER DEMING, of the city and county of Albany, and State of New York, have invented a new and useful Improvement in Type-Writing Machines, of which the following is a full and exact description:

The object of my invention is to remedy a serious defect in all type-writing machines wherein the impression of the letter is made by the type striking upward against the bottom of the cylinder upon which the paper is held. This defect consists in hiding the impression from the view of the operator, so that he cannot determine whether the work is done correctly or not.

To remedy this imperfection I interpose between the paper for receiving the impression and the types by which the printing is effected a reflector, so arranged that the letters, as they are impressed upon the sheet, will be reflectively shown therein, so that the operator can see the result of his labor as it progresses.

The accompanying drawing, which forms a part of this specification, and to which reference is made, shows a perspective view of a portion of the upper part of a type-writing machine, embracing the parts to which my invention relates.

As shown in the drawing, A is a portion of the upper plate of the case, containing the types and their operating mechanism, which may be of any style of the peculiar construction wherein the types are carried upward to leave their impress at or near the under side of the paper-holding cylinder.

B is the cylinder for holding the paper upon which the printing is done, which may be arranged to operate in any manner desired; C, the ink-ribbon, commonly used in type-writing machines for coloring the impression made by the type; D, the reflector fixed beneath the cylinder B and above the types, whereby the printing is effected. It has its reflecting-face turned upward, lying in a horizontal or in an inclined position, as may be best suited for obtaining a clear view of the line of letters as their impression is left upon the paper. It may be made so as to extend across the entire top plate of the machine, in

which case an opening must be made in it for the purpose of allowing the types to pass up through, so that they may come in contact with the paper; or it may only be of sufficient length to extend from the terminal point reached by the end of the cylinder B when a line of the writing is completed to near the point where the type-impression is made, sufficient space being left at its end for the free passage of the types.

As each letter is stamped upon the paper it will be presented to the eye of the operator in an inverted position in the reflector D, enabling him to determine at a glance as to the accuracy of his work.

When used in machines in which the ink-ribbon is employed to color the impression, it (the reflector) is interposed between the ribbon and paper, where it also serves as a guard for preventing the ribbon from crocking the paper; but it is clearly manifest that it may be applied to any kind of type-writer in which the letter is printed by an upward-moving type, whether the colored impression of the letter is made by the aid of the ink-ribbon or by any other means. It may be secured in its place permanently by means of screws or other fastenings, by means of hooks engaging in the slots in the top plate A, through which the ribbon passes, or by any suitable means that may suggest themselves.

I claim as my invention—

1. In type-writing machines wherein the letter-impressions are made at or near the bottom of the paper-holding cylinder B, and are thereby hidden from the eye of the operator, a reflector, D, arranged between the type and the paper, as herein described, for the purpose of reflectively showing the line of letters, as herein specified.

2. In type-writing machines, a reflector, D, having its reflecting-surface turned upward, interposed between the paper-holding cylinder B and ink-ribbon C, as and for the purpose herein specified.

PHILANDER DEMING.

Witnesses:

WILLIAM H. LOW,  
E. J. BENNETT.