

(Model.)

H. O. HOOPER.
TYPE WRITING MACHINE ATTACHMENT.

No. 427,688.

Patented May 13, 1890.

Fig. 1.

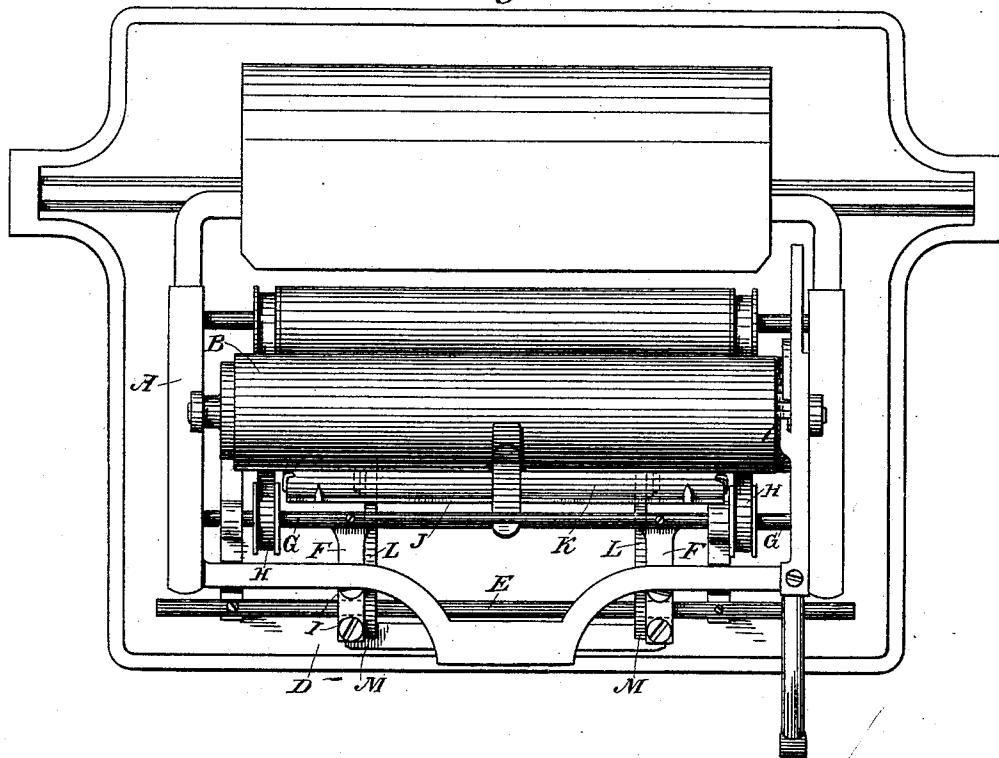
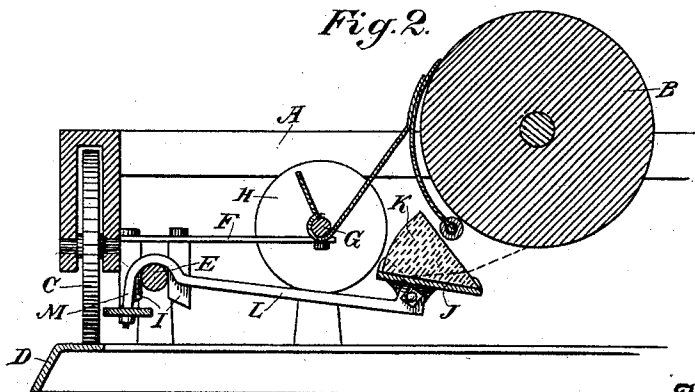


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY OTIS HOOPER, OF SAN FRANCISCO, CALIFORNIA.

TYPE-WRITING-MACHINE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 427,688, dated May 13, 1890.

Application filed May 17, 1888. Serial No. 274,213. (Model.)

To all whom it may concern:

Be it known that I, HENRY OTIS HOOPER, of the city and county of San Francisco, State of California, have invented an Improvement in Type-Writing-Machine Attachments; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an attachment for type-writing machines for the purpose of enabling the operator to inspect the work as fast as the letters are formed and without stopping and turning up the carriage for this purpose.

It consists of a refracting-prism supported beneath the impression-roller and the sheet which passes around it in such a manner that the refraction of light through the prism will present the letters in their proper position to the eye of the writer.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a plan view of a portion of the type-writer, showing the carriage and my attachment. Fig. 2 is a vertical section taken through the impression-roller and part of the carriage-frame, showing the manner of applying my device.

A is the carriage of a Remington type-writer, to which in the present case I have shown my device as applied, and B is the impression-roller.

C is a roller upon which the front of the carriage is supported, this roller traveling on the rail D at the front of the machine.

E is the shifting-rod of the machine, and F are the arms extending from the shaft G, which carries the tape-wheels H. The arms F have the lugs I attached to their outer ends, these lugs extending down upon opposite sides of and clasping the shifting-bar.

In the present case I have shown a support J, to which is fixed the prismatic glass K, which is ground with such angles as to refract the light from the line upon which the type strikes the paper passing around the impression-roller B, and the light is again thrown outward through the convex surface of the refractor, so as to show the letters right side up in their proper position, and also to somewhat magnify them, so that they can be clearly seen the instant they are formed.

The supporting-frame J may be attached in various ways to the carriage, it being manifest that with the different styles of machines different means must be adopted for support-

ing the refractor. In the present case the base J, upon which it lies, has arms L extending forward and having hooks or yokes M, which rest upon the shifting-rod E and between the downwardly-projecting lugs I, against which they abut on the inside, so that as the carriage is moved it will carry the prism or refractor with it. Any equivalent contrivance, however, may be employed to support the prism or refractor and cause it to travel with the carriage, so as to always retain its proper position with relation to the work which is being done.

I am aware that single reflecting-surfaces have been employed which would reverse the characters printed upon the paper, and I am also aware that two reflectors have been used in such relation to each other that the reversed characters would be thrown from the first upon the second, so as to bring them to the eye in their proper position. I do not claim, broadly, either of these devices.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a type-writer, of a transparent prism supported with relation to the impression-roller, so that the characters upon the paper are refracted from its surfaces and presented in an upright position to the eye of the operator, substantially as described.

2. The combination, with a type-writer carriage, of the refracting-prism, supported so as to receive rays of light from the characters which are formed by the type upon the impression-roller and transport them in an upright position to the eye of the operator, and a mechanism by which the said prism is caused to travel with the carriage, substantially as described.

3. The transparent refractor, supported with relation to the impression-roller and carriage of a type-writer and traveling with said carriage, said prism having the refracting and enlarging surfaces, substantially as described.

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

HENRY OTIS HOOPER.

Witnesses:

S. M. HOOPER,

M. B. HULL.