

## UNITED STATES PATENT OFFICE.

WILLIAM THOMAS, OF GERALDINE, NEW ZEALAND.

## ART OF PRINTING.

SPECIFICATION forming part of Letters Patent No. 754,257, dated March 8, 1904.

Application filed September 19, 1902. Serial No. 124,107. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM THOMAS, journalist, a subject of the King of Great Britain and Ireland, residing at Geraldine, in the Colony of New Zealand, have invented a new and useful Improvement in the Art of Printing; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention has for its object the utilization of a type-writing machine, the impression from the type of which may be developed for the production of surfaces for printing.

In the production of surfaces for printing by the agency of a type-writer the type-bars of which produce impressions in some plastic substance there is a practical objection to the process owing to the shoulder of one letter disturbing the matrix of the neighboring letter. This is principally due to it being necessary to employ hard-hitting machines; but the objection is removed if means are at hand whereby impressions can be made by a light touch on the keys.

In carrying out my invention I employ an ordinary type-writing machine from which to obtain impressions of matter in some soft spongy material, which impressions are afterward developed for the production of the form. The soft plastic substance I prefer to use is flong or flong-paste, and I have found that if a thin sheet of lead is placed upon the flong a good matrix will result from the impact thereon of the type-bar.

In the formation of a stereotype a mold of the first impressions is made in fine wax, which gives the matter in relief. The broad parts of the mold are then reduced with a chisel or a knife to give extra prominence to the matter. A second matrix in plaster-of-paris is then formed from the wax mold, and from this matrix the stereo is cast. By this it will not be necessary to use a hard-hitting machine, as if the impressions are not deep enough they can be made more distinct by bringing the matter more into relief while it is in the wax mold.

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

In the production of surfaces for printing, the utilization of a type-writing machine from which to obtain impressions of the matter in matrix composed of thin lead backed by a layer of flong or flong-paste, forming a mold in wax from the impressions and reducing the broad parts of the mold where necessary, a second matrix in plaster-of-paris from the mold, and a stereotype from the second matrix, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM THOMAS.

Witnesses:

P. M. NEWTON,

RICHARD D. THOMAS.