

UNITED STATES PATENT OFFICE.

WINSLOW H. HOLMES, OF HASTINGS, MICHIGAN.

IMPROVEMENT IN PROCESSES FOR PRINTING IN COLORS.

Specification forming part of Letters Patent No. **164,647**, dated June 22, 1875; application filed January 20, 1874.

To all whom it may concern:

Be it known that I, W. H. HOLMES, of Hastings, in the county of Barry and in the State of Michigan, have invented certain new and useful Improvements in Processes for Printing in Colors; and do hereby declare that the following is a full, clear, and exact description thereof.

The nature of my invention consists in printing in colors without duplicates by cutting away suitable parts of the paper sheets clasped over the platen of a printing-press, so that by the action of atmospheric contraction or compression no impression is given to that part of the electrotype where not desired.

An impression is first taken of the whole plate or form in, for instance, green ink upon the platen-sheets. Such parts as are required to have a different color are then cut out from the platen-sheets, and the desired number of copies printed, which will then only show certain parts of the plate or form, the rest being left blank. The plate is then washed off and the second color put on, and an impression taken of the same, when the parts previously printed green are cut out, except where brown is desired. Then red is printed over the green. And in like manner any number of colors may be printed from the same plate or form, new platen-sheets suitably cut out being required for each impression. Suitable pins or guides must be used so as to get a perfect register in each case. A thin sheet of paper may be pasted over the whole face of the platen-sheets after cutting, so that any ragged ends or edges will not

interfere with the feeding, which thin sheet of paper will not interfere with the atmospheric compression or contraction.

Where the platen-sheets are cut away when an impression is taken on paper or card-board against the form, the absence of a platen surface at these parts produces atmospheric compression or contraction, and prevents that part from printing. Therefore by this process no injury can happen to the type or form, and an unlimited number can be worked as well as one copy.

This process is simple and cheap. It saves the cost of duplicates, and a perfect blending of colors is produced.

Tint-blocks can be worked by this method with blank designs without cutting or mortising the block.

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

The within-described process of printing in two or more colors from one plate, block, or form by cutting away certain parts of the platen-sheets, so as to prevent any impression from being taken of the corresponding parts of the plate, block, or form, substantially as herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 22d day of December, 1873.

WINSLOW H. HOLMES.

Witnesses:

A. J. BROWNE,
N. BAILEY.