

(Model.)

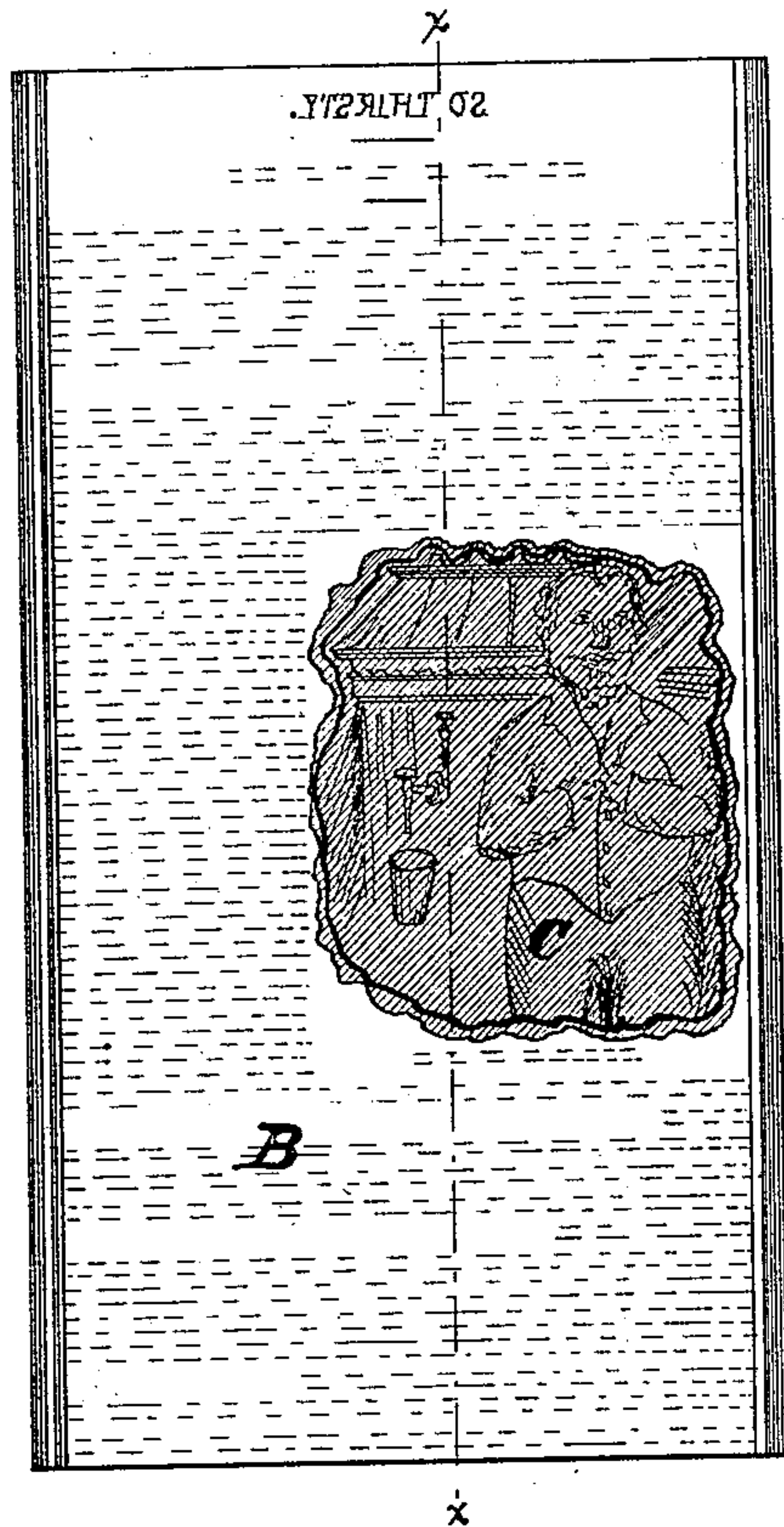
C. N. SMITH.

Art of Uniting Electrotypes and Stereotype Plates.

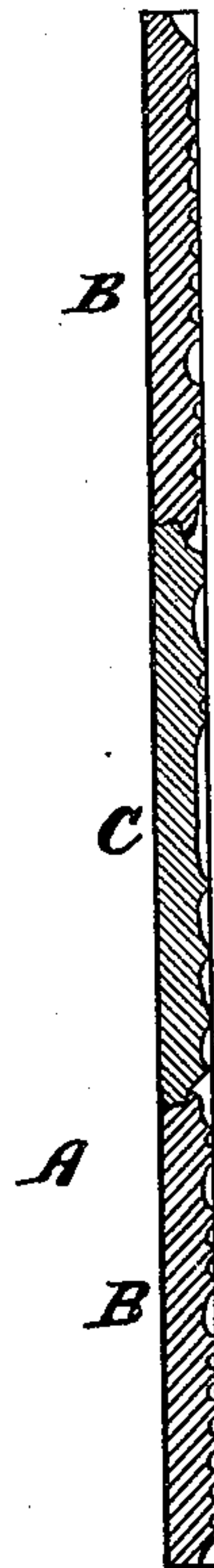
No. 235,034.

Patented Nov. 30, 1880.

*Fig. 1.*



*Fig. 2.*



*Attest:*

*W. L. Baker*

*B. J. Morse*

*Inventor:*

*Chris. N. Smith*

*By F. F. Warner, his-*

*Attorney.*



# UNITED STATES PATENT OFFICE.

CHRIS. N. SMITH, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO JOHN C. McBEAN, OF SAME PLACE.

## ART OF UNITING ELECTROTYPE AND STEREOTYPE PLATES.

SPECIFICATION forming part of Letters Patent No. 235,034, dated November 30, 1880.

Application filed July 13, 1880. (Specimen.)

*To all whom it may concern:*

Be it known that I, CHRIS. N. SMITH, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in the Art of Combining or Uniting Stereotype and Electrotpe Plates with Each Other for Printing; and I do hereby declare that the following is a full, clear, and exact description of the invention, which, in connection with the accompanying drawings, will enable others skilled in the art to which it appertains to practice the same.

In the drawings, Figure 1 represents a face view of a combined electrotpe and stereotype plate embodying my invention, and Fig. 2 a section thereof in the plane of the line  $x x$  of Fig. 1.

Like letters of reference indicate like parts. Heretofore stereotype and electrotpe plates have been combined for printing by carefully cutting out the stereotype to receive the electrotpe, and by then soldering the parts together. The operation of cutting out one plate to receive the other requires much time in order to fit the parts nicely and properly together, and after they have been so fitted further time and labor are spent in soldering them to each other. By this process some difficulty has also been experienced in separating the parts when separation was either desirable or necessary.

The object of my invention is to avoid the objections above suggested; and to that end my invention consists in the method, substantially as hereinafter set forth, which I pursue for that purpose in the practice of the said art.

To carry my invention into effect I prepare a matrix in the usual manner, or as when an electrotpe is set in with the common type for producing a corresponding matrix. After the matrix has been formed and the type used therefor are ready for distribution I remove the electrotpe-plate from its block. By the electrotpe-plate I mean the electrotpe-shell after it has been tinned on its back and provided with a backing of metal or composition in the usual manner, in order to prepare it for its block and for use in printing in connection with ordinary or common type. I then place

the electrotpe-plate with its face or shell downward in that part of the matrix which corresponds therewith. The matrix and the plate so arranged thereon are then placed in a casting-box, such as is commonly used in casting stereotype plates. The box, when closed, will hold the electrotpe in its place in the matrix. The stereotype metal or composition may now be run into the casting-box, when it will run around the electrotpe-plate therein, and also into that part of the matrix not covered or filled by the electrotpe-plate. To prevent uneven contraction the electrotpe-plate should be heated before the stereotype composition is poured into the casting-box. By this means the stereotype-plate and the electrotpe-plate will be firmly united to each other, and both may be removed from the casting-box and from the matrix as soon as the stereotype composition becomes set or chilled. The adjacent edges of the two plates will be nicely fitted together, and their outer edges will be flush and even with each other. The backs may be finished up in the usual manner, and the plates will then be ready for use. If it should be desirable or necessary at any time to detach these plates from each other they may be easily separated.

It will be perceived from the foregoing description that I neither cut out the stereotype-plate to receive the electrotpe-plate, nor use solder in connecting the different plates to each other.

As before stated, any well-known or suitable casting-box for molding stereotype-plates may be employed in carrying out or working my invention, and the process of making both the stereotype-plate and the electrotpe-plate may be the same as heretofore; and I do not here intend it to be understood that my invention relates in any way either to the casting or to the process of making either electrotpe-plates or stereotype-plates, but solely to the art of uniting such plates to be used together in printing.

In the accompanying drawings, A represents an electrotpe combined with a stereotype in accordance with the mode now described. B represents the stereotype composition, and C is the electrotpe. It will be

perceived that the edges of the electrotpe fit nicely into the stereotype, and that they are partly lapped or overlaid by the latter.

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

The method of uniting electrotpe and stereotype plates with each other which consists in forming the matrix in the usual manner, with  
10 the electrotpe-plate in the form from which the matrix is taken, then placing the matrix so made in the casting-box with the face of the

electrotpe (removed from the form) downward, and fitting in that portion of the matrix corresponding with it, and then pouring in the  
15 stereotype composition so as to flow over the matrix and around the electrotpe-plate, thus securely uniting both together, substantially as described.

CHRIS. N. SMITH.

Witnesses:

F. F. WARNER,  
W. S. BAKER.