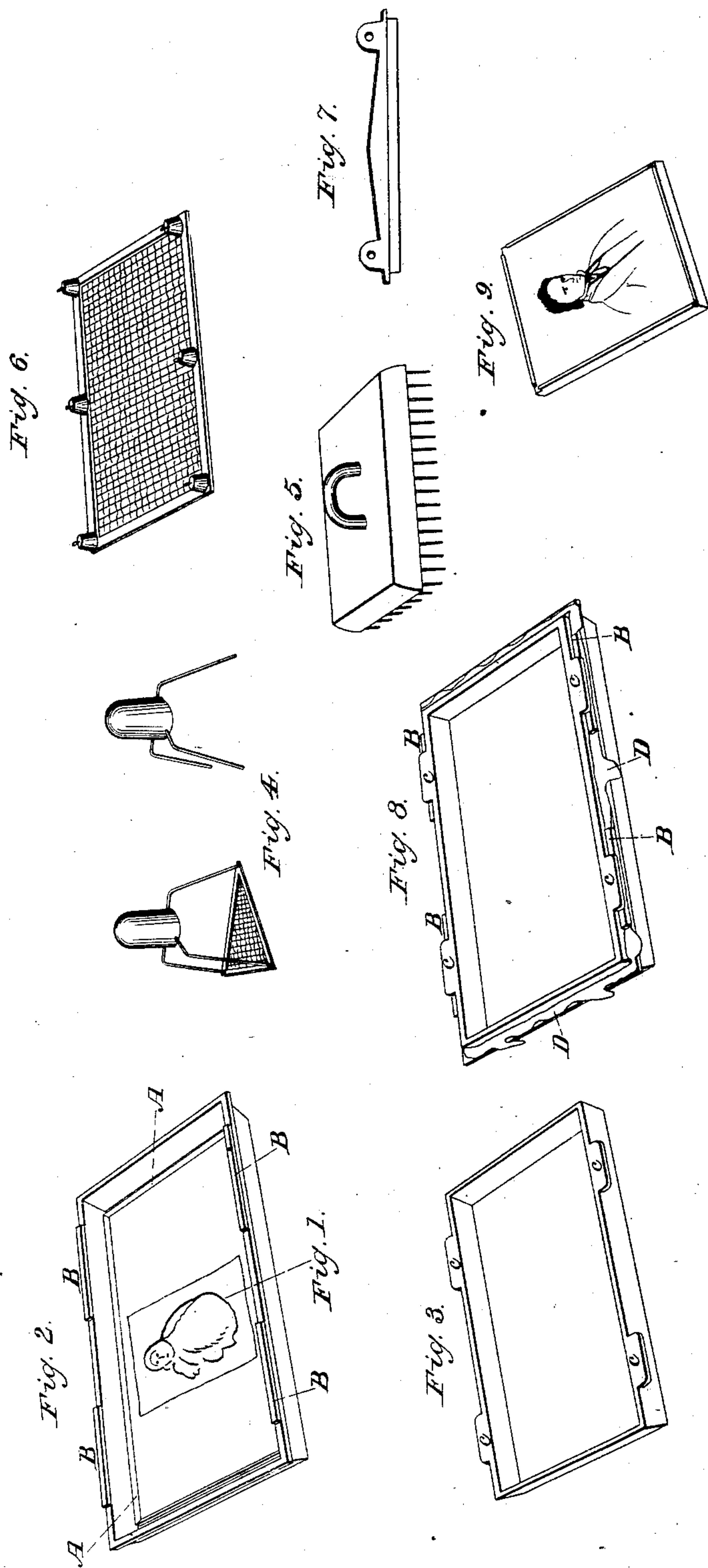


A. H. JOCELYN.

Method of Backing Electrotypes Plates.

No. 17,741.

Patented July 7, 1857.



UNITED STATES PATENT OFFICE.

ALBERT H. JOCELYN, OF NEW YORK, N. Y.

METHOD OF BACKING ELECTROTYPE-PLATES.

Specification forming part of Letters Patent No. 17,741, dated July 7, 1857.

To all whom it may concern:

Be it known that I, ALBERT H. JOCELYN, of the city, county, and State of New York, have invented a new and useful Mode of Backing Electrotypes or other Plates for Printing and other purposes; and I do hereby declare the following to be a full, clear, and exact description thereof, referring to the drawings in illustration thereof, in which—

No. 1 is the shell ready for backing; No. 2, the pan; No. 3, the platen; Nos. 4, 5, 6, weights of various forms for holding down the shells; No. 7, a scraper; No. 8, the pan and platen together.

My method of backing is for the purpose of forming a solid, even, and clean metal back and straightening the face of the electrotypeshell, so as to present a perfect and straight face for printing. Heretofore great difficulty has arisen in keeping the thin electrotypeshells straight while backing, as they are so thin and delicate and require so much handling that they almost invariably become untrue during the process of trimming and separating from the matrix. To obviate this difficulty spiral and other springs have been resorted to for the purpose of holding the shells straight; but these, being cast in with the metal backing, are very objectionable in finishing the plate or mortising, it as they dull the knives and tools and often spoil the plate. Another objectionable feature in backing is that the acid required in trimming the shells rises to the top of the backing and, together with the dross, forms a crust that dulls the shaving-knives; and, lastly, in all other modes of backing the backing metal is uneven, for if there is a plate placed at a proper distance over the shell—such as is used when springs are employed—the shrinkage of the metal will be uneven, and consequently hollows will be found in the plate.

To obviate all these difficulties and perfect the operation by simple and expeditious means has been the object of my invention. For this purpose I proceed as follows: I form the shell by any of the ordinary ways and tin it, as is usual with electrotypeshells. I then take a heated plate or pan having a flat face on the upper side and with a rising ledge all around—say an inch, more or less, high—onto which I lay the face of the electrotypeshell. I then place upon it certain wire-gauze or weights,

(see Nos. 4, 5, 6,) from which thin wire legs project downward and rest upon the shell. By these weights, any sufficient number of which may be used, the shell is pressed down upon the plate and prevented from rising during the next process. I then take properly-heated type-metal in a fluid state and pour it over the shell to a sufficient thickness. I then remove the weights and pass a scraper over the top of the metal, and thus remove all the dross and acid that have arisen from the shell, &c. I then, by means of a crane or other convenient apparatus, bring a metal plate or platen over the melted metal before it sets, and press it down to the proper point to make the plate of the right thickness. This thickness is determined by bearers A and B, that serve as gages to bring the platen down upon. They may be placed in any convenient position to effect the purpose, either, as at A within or B without the pan. By the pressure of the metal down upon the thin shell while it is plastic, I insure a perfect leveling of the shell in all its parts and make it true on its face, however uneven it may before have been. The pressure also consolidates the backing, prevents hollow shrinkages, and frees it from air-holes generally found in cast-metal backs. The skimming clears the back from dross, &c., and leaves a clean, solid, and even surface requiring but little finishing. The platen, not being heated, chills and cools the metal more rapidly than can be done in the pouring processes alone, and the bearers, if arranged close around the shell, will cut off the superfluous metal when the platen is brought upon them. Such is the process devised by me and its advantages.

Having thus fully described my improvements in backing electrotypes and other shells for printing and other purposes, what I claim as my invention, and for which I desire to secure Letters Patent, is—

Backing shells for printing, embossing, and like purposes by pressing type or other suitable metal down upon the shell while in a fluid or plastic state, substantially in the manner and for the purpose herein described and illustrated.

ALBERT H. JOCELYN.

Witnesses:

W. H. STANSBURY,
A. T. JONES.