

(No Model.)

2 Sheets—Sheet 1.

W. J. JOHNSON.

Process of Drying Stereotype Matrices.

No. 234,480.

Patented Nov. 16, 1880.

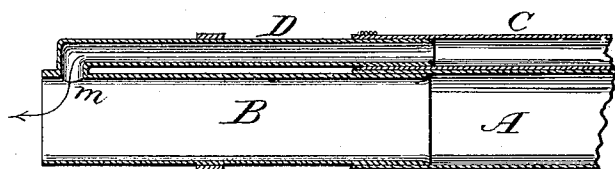
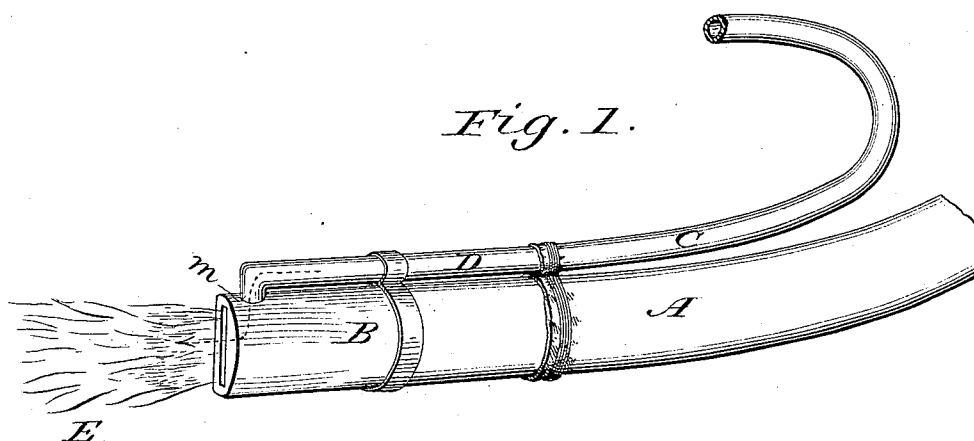


Fig. 2.

Witnesses:

Harry Matthews

S. C. Gallahue

Inventor:

William J. Johnson,
per C. A. Shaw,
Att'y.

(No Model.)

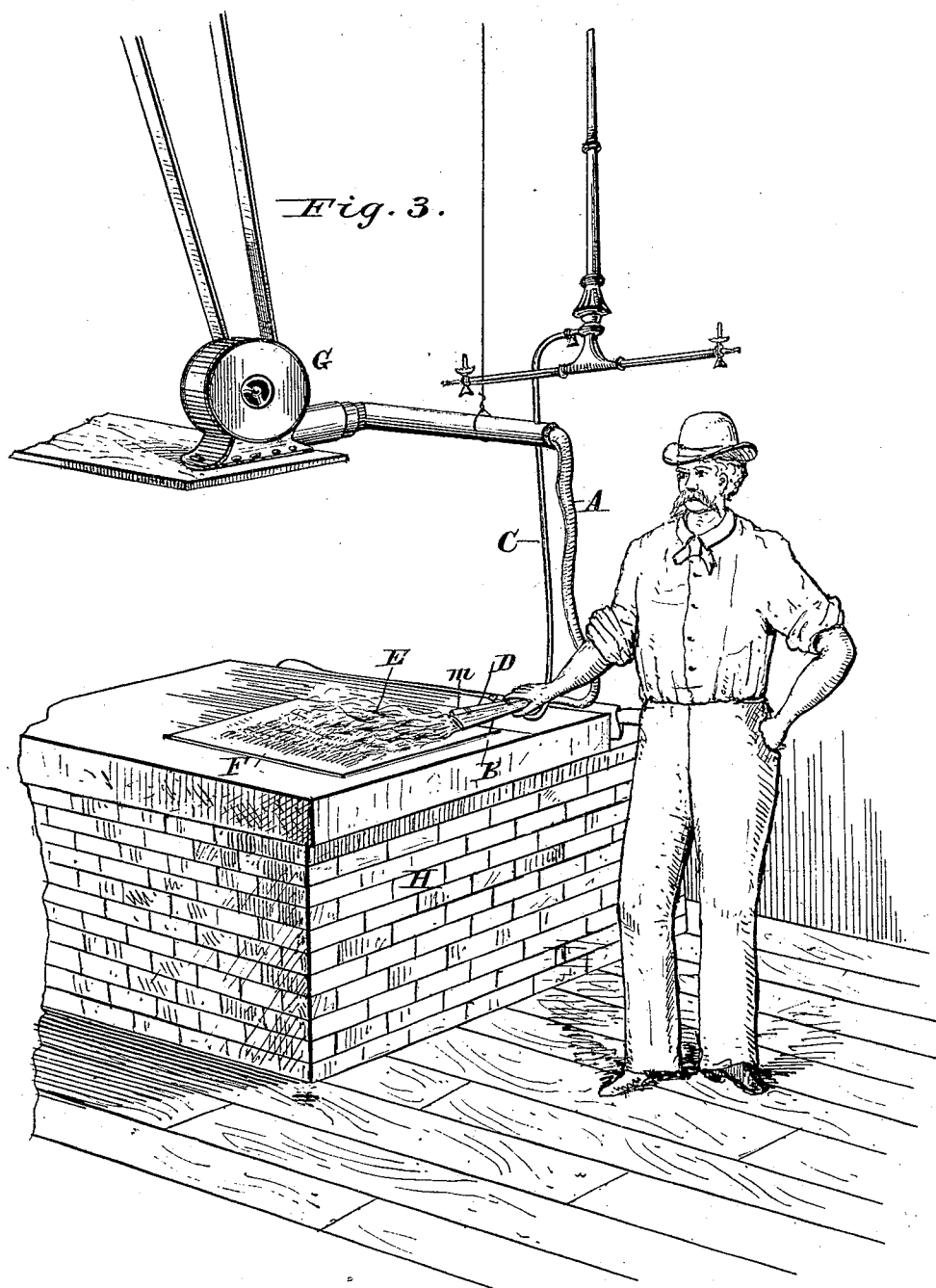
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WITNESS:

D. C. Gallaher
H. D. Butler

INVENTOR:

Wm. J. Johnson
per C. C. Shaw
att.

UNITED STATES PATENT OFFICE.

WILLIAM J. JOHNSON, OF BOSTON, MASSACHUSETTS.

PROCESS OF DRYING STEREOTYPE-MATRICES.

SPECIFICATION forming part of Letters Patent No. 234,480, dated November 16, 1880.

Application filed August 28, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. JOHNSON, of Boston, county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in the Process of Drying the Matrices used in Casting Stereotype-Plates for Printing, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to construct the necessary apparatus and use said process, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a sectional side elevation, and Fig. 2 a vertical longitudinal section, of the nozzle. Fig. 3 illustrates the manner of performing the process.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My improvement relates principally to drying the matrices employed in stereotyping the "forms" in newspaper offices. These matrices are composed of paper-pulp and other similar materials, and after an impression of the type or form is taken they are usually dried in ovens or by steam-plates preparatory to casting the stereotype for use on the press.

In drying matrices of this kind in the usual manner it has been found that the depressed portions or parts between the types known as "blanks" do not dry as rapidly as the raised portions or parts corresponding with the types, thus causing delay in preparing or casting the plates at a period in the process when time is of the utmost importance.

To overcome this difficulty is the object of my present invention, which consists in applying a jet of flame or current of very hot air directly to such parts of the matrix as require to be more thoroughly dried after coming from the ovens or hot plates. The method of accomplishing this will be understood by the following description:

In the drawings, A is a flexible air-tube

provided with the nozzle B, and C a flexible gas-pipe provided with the nozzle D. The gas-nozzle D discharges into the air-nozzle B at *m*, or near its outer end, the gas and air being mixed in about the proportions of ten or twelve parts of air to one of gas, or in such proportions as to produce a blue flame when the gas is burned. The nozzles, however, may be dispensed with and the gas-pipe C be arranged to enter directly into the air-pipe A, if desired.

The pipe A is connected to an ordinary fan or blower, G, for supplying air, the pipe C being supplied from the nearest gas-main.

In the application of my improvement the gas and air are both turned on in proper proportions, and ignited to form the blaze, as seen at E. The pipes are then manipulated to direct the blaze onto such portions of the matrix F as require additional drying, after having been removed from the ovens or hot plates. The matrix may rest face upward upon the table or support H.

Instead of the blaze or flame E, a flame from ordinary gas unmixed with air, or a current of very hot air, may be employed, being conveyed through a flexible tube in substantially the same manner as described; but I prefer to use a flame resulting from the combustion of a mixture of air and gas applied directly to the surface of the matrix, and rapidly moved from place to place on the same to prevent burning or injury.

Having thus explained my invention, what I claim is—

The process herein described of drying matrices used in casting stereotype-plates for printing, the same consisting in directing a jet of flame or heated air against the matrix, and moving said jet over the surface thereof in contact with the undried parts, substantially as described.

WILLIAM J. JOHNSON.

Witnesses:

EDWARD P. CALL,
CARL G. ZERRAHN.