

A. WILBAUX.

Apparatus for Printing on Solid or Inflexible Surfaces.

No. 142,541.

Patented September 2, 1873.

Fig. 2.

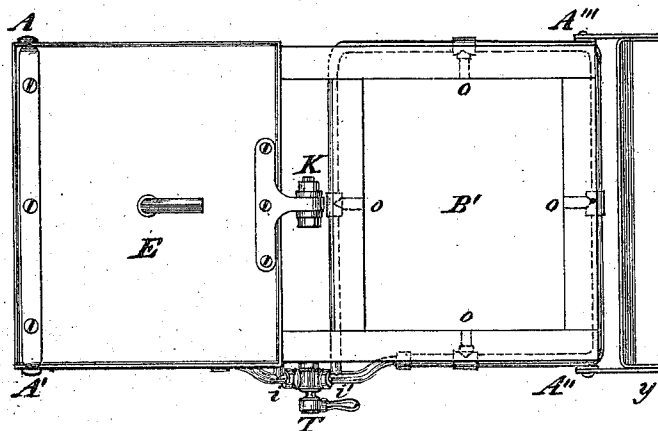


Fig. 3.

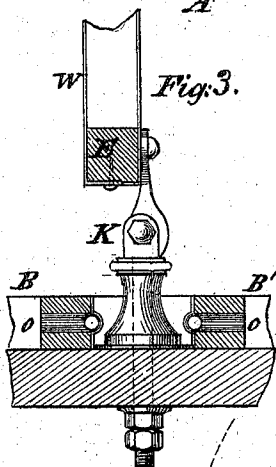


Fig. 4.

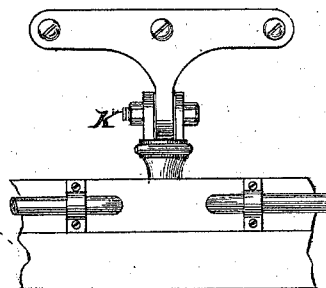
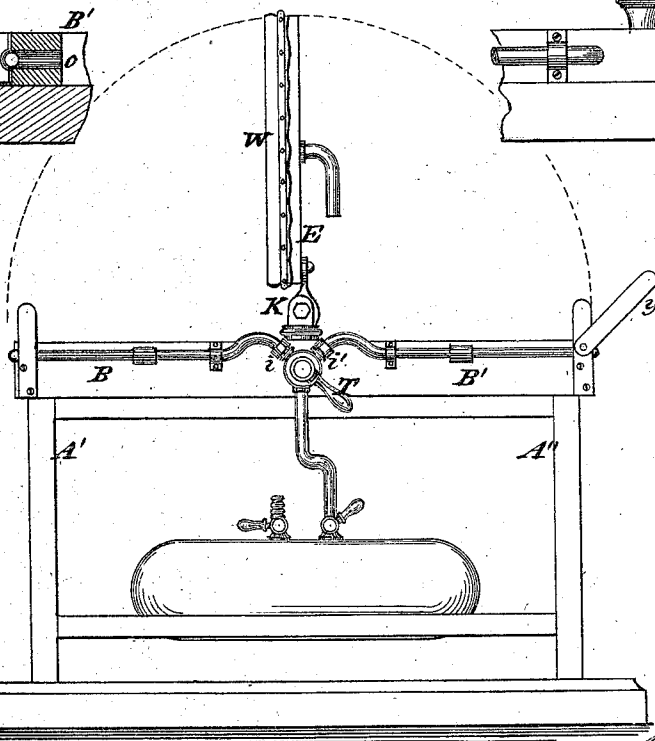


Fig. 1.



Witnesses
John Becker
Geo. Haynes

Amédée Wilboux
per Brown & Allen
attorneys

UNITED STATES PATENT OFFICE.

AMÉDÉE WILBAUX, OF PARIS, FRANCE.

IMPROVEMENT IN APPARATUS FOR PRINTING ON SOLID OR INFLEXIBLE SURFACES.

Specification forming part of Letters Patent No. **142,541**, dated September 2, 1873; application filed March 10, 1873.

To all whom it may concern:

Be it known that I, AMÉDÉE WILBAUX, of Paris, in the Republic of France, have invented Improvements in Apparatus for Printing upon Solid or Inflexible Surfaces, of which the following is a specification:

This invention relates to apparatus for printing upon solid or inflexible surfaces in which atmospheric pressure is applied directly to the printing-surface to produce the impression; and the invention generally consists in a certain construction of apparatus in which a swinging frame or platen arranged for operation in connection with a stationary frame and system or arrangement of pipes to exhaust the air by their connection with a vacuum-chamber are used, in combination, substantially as hereinafter described, with a sheet of caoutchouc or other flexible material impervious to air, on any type or pattern whatever, such as typography, engraving, lithography, or any well-known printing-surface, the sheet of caoutchouc being destined to receive and transfer the impression from the type to the glass, metal, or other solid or inflexible surface, whatever may be its form.

On the accompanying sheet of drawings, Figure 1 is a front view of one of my improved printing-machines. Fig. 2 is a plan of the same. Figs. 3 and 4 are enlarged views of detached portions.

On a table, A A' A'' A''', mounted on legs or standards, are fixed two iron or wooden frames, B B', which are closed at the bottom, and of suitable depth to receive the type or other die, from which the impression is to be taken for transferring. These two frames are arranged on the table a short distance apart, and their upper edges may be rabbeted or formed with corner clips or studs to receive the platen in proper position. A movable frame or platen, E, is supported on a hinge and swivel bearing between the frames B B', so that it may be raised or lowered and swung around, so as to cover either of said frames, as desired. A rectangular pipe, shown more clearly in Fig. 2, is arranged to surround each stationary frame externally, which communicates with the interior of the frame by branch pipes *o* passing through its sides. These rectangular pipes are furthermore con-

nected by pipes *i i'* with a three-way cock, T, by means of which either one of the frames B B', as desired, is put in communication with a vacuum-chamber. The frame E is suitably constructed to receive and retain a sheet of caoutchouc, W, in a stretched condition, to form a bottom to said frame, which constitutes the platen of the apparatus, and is of a flexible or yielding character, and impervious to air.

In operating this apparatus, I place in the frame B a form of type or other subject to be copied or transferred, and in the frame B' the material to which the transfer is to be made; then lower the frame E onto the form in frame B, and by turning the cock T open communication between said frame and the vacuum-chamber, when the caoutchouc platen will be brought in contact with the form by atmospheric pressure, and receive the impression either on its own surface or on an interposed paper. The cock T is then turned to close the vacuum-chamber and admit air to the frame B, when the frame or platen E may be raised and swung over the frame B' to make the transfer to whatever material may have been placed therein. The platen being thus brought into position, the cock T is to be turned to put the frame B' in connection with the vacuum-chamber, when the pigment received on the platen or paper will be transferred by atmospheric pressure in the same manner as that in which it was received, when the cock may be again turned to admit air and close the vacuum-chamber. This operation may be repeated as often as desired by repeating the application of ink or other pigment to the form in frame B.

What I claim as new, and desire to secure by Letters Patent, is—

The movable frame E, with its attached yielding sheet or covering W hung by a cross joint or hinge, K, to a vertical pivot, in combination with the stationary frames B B', the three-way cock T, and pipes for alternating the pressure of the atmosphere to opposite ends of the table, essentially as herein described.

AMÉDÉE WILBAUX.

Witnesses:

J. MOFFETT,
T. DOYEN.