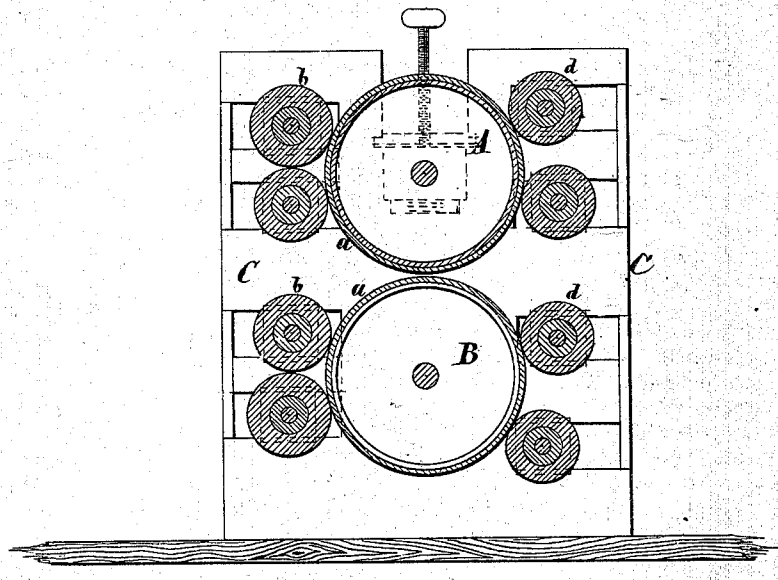
S. H. BINGHAM.

Rotary Printing-Presses.

No. 139,360. Patented May 27, 1873



Witnesses:
Fred Haynes
Ferd Brusch

Samuel H. Bingham
per Wales, Brown & Allen
Attorneys

UNITED STATES PATENT OFFICE.

SAMUEL H. BINGHAM, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF, EDWARD B. BINGHAM, OF NEWARK, NEW JERSEY, GEO. W. VAN ALLEN, OF NEW YORK CITY, AND WILLIAM N. STONE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN ROTARY PRINTING-PRESSES.

Specification forming part of Letters Patent No. **139,360**, dated May 27, 1873; application filed January 30, 1873.

To all whom it may concern:

Be it known that I, SAMUEL H. BINGHAM, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented an Improved Printing-Press, of which the following is a specification:

The drawing represents a vertical transverse section of my improved printing-press.

The object of this invention is to so construct a printing-press that the exactly opposite sides of a sheet, or the outer sides of two sheets can be simultaneously printed; and the invention consists in constructing a press with two printing-cylinders, which are in line with each other and between which the sheet passes, so that each cylinder will apply its imprint to the side of the sheet with which it is in contact, while the same is passing through the press.

The invention is applicable to all such presses not containing type, whose cylinders are either lithographic stones, or covered with prepared zinc or other metallic impression-plates.

In the accompanying drawing, the letter A represents the upper printing-cylinder, and B the lower. They are hung parallel to each other in a frame, C, of suitable kind, and are both, or either one of them, adjustable in their bearings to be brought sufficiently close together to apply the requisite degree of pressure to the sheet passing between them. These rollers are represented as covered with printing-plates *a a*, but may be made of stone or other material not containing type. Suitable inking-rollers *b* are used in connection with these cylinders for the purpose of applying ink to their surfaces, and also suitable damping or wiping rollers *d*. A sheet passing between the two rollers A B will, it is evident, be printed on both sides; and the two cylinders may be prepared to produce different impressions on the opposite sides of the sheet, or also the same impression, as may be desired. And whenever it is not desired to print two sides of one sheet, I may pass two sheets between the two rollers A B, in which case the upper cylinder will print the upper face of the upper sheet, and the lower cylinder the lower face of the lower sheet.

Claim.

The combination with each other of two lithographic or chemically-prepared printing-cylinders A B, which are so arranged in one frame as to constitute pressure-cylinders for each other, for printing with their smooth and unengraved sufaces different or like matter upon opposite sides of one or more sheets, substantially as specified.

S. H. BINGHAM.

Witnesses:
D. MISELL,
A. V. BRIESEN.