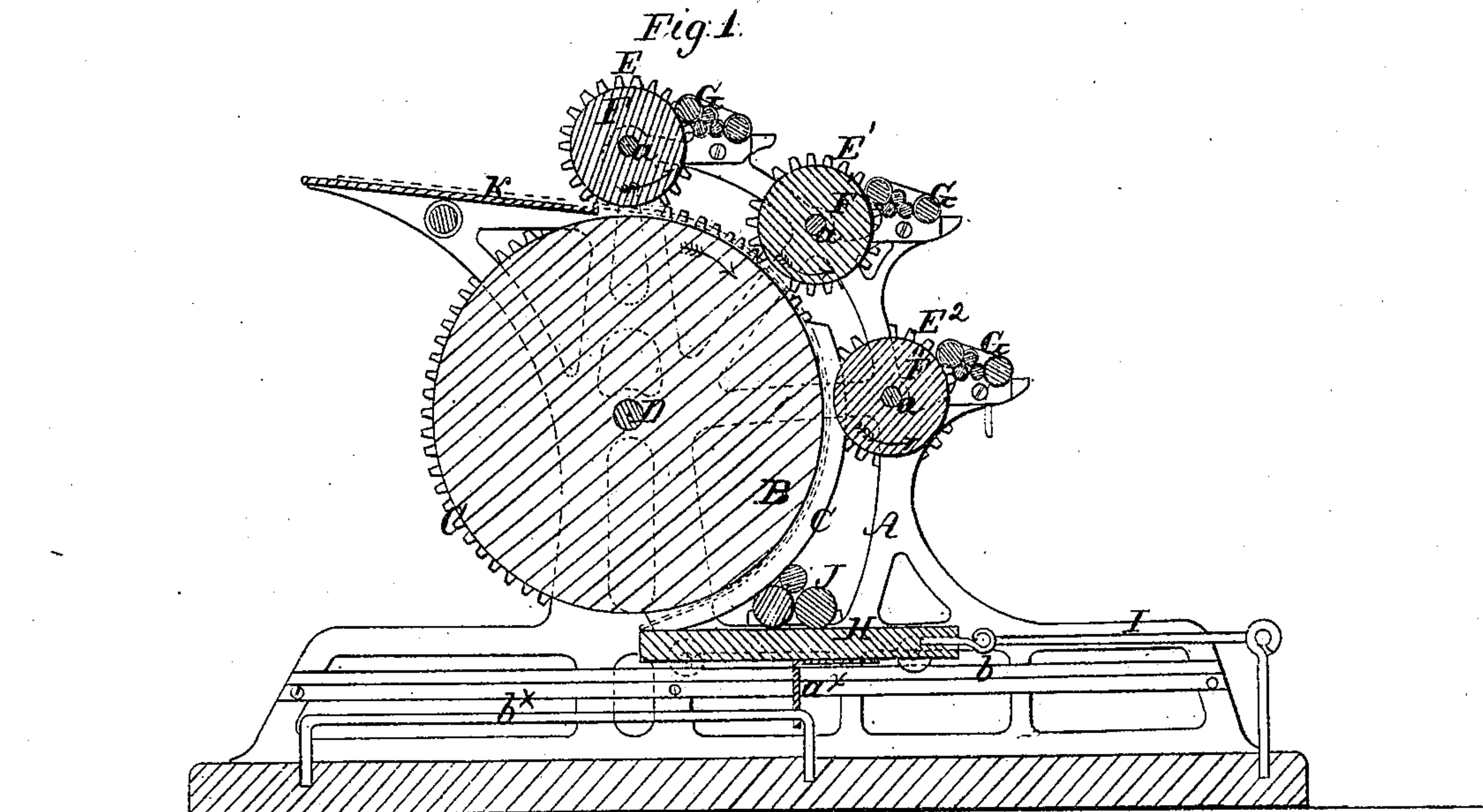
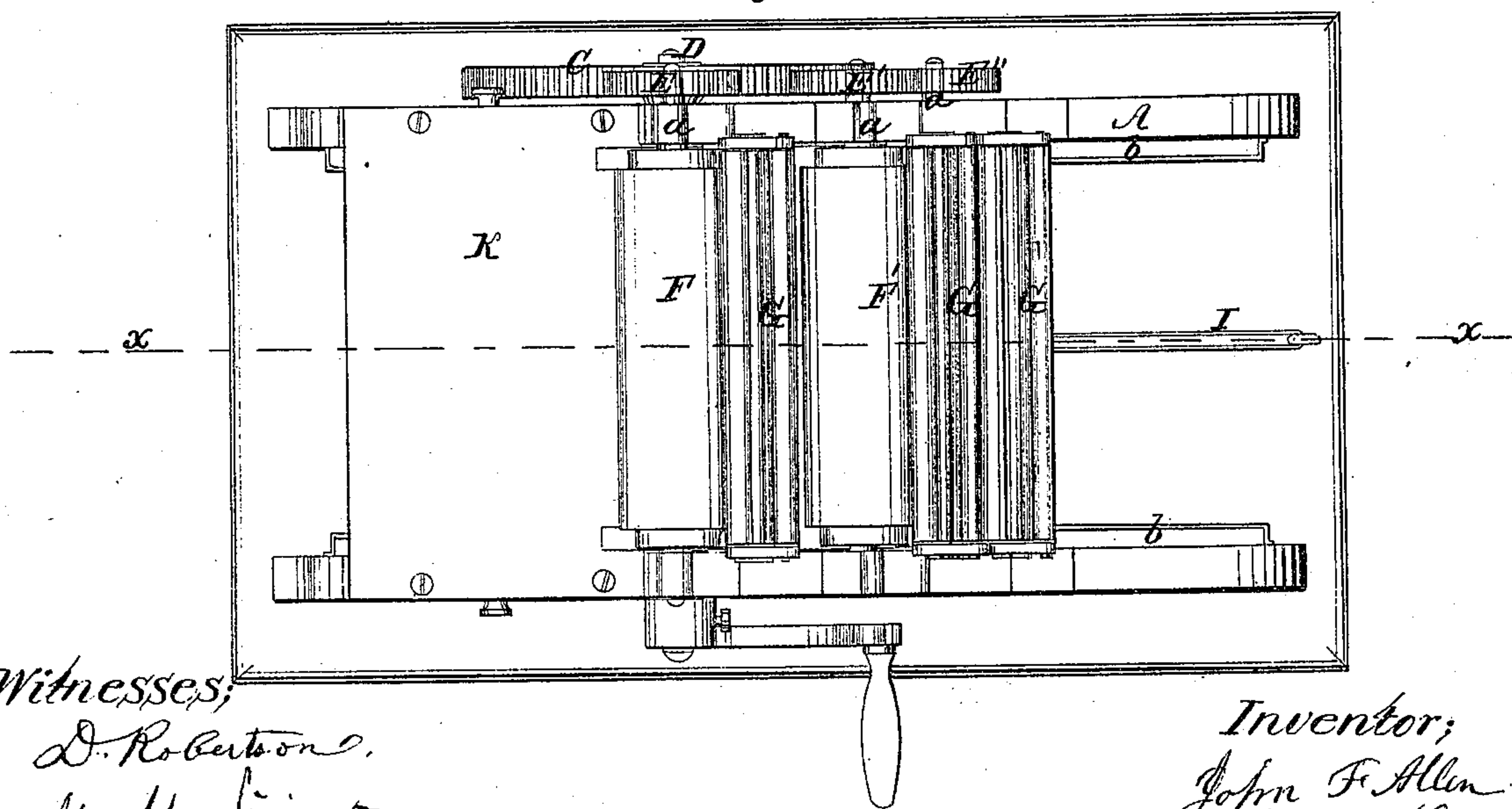


*J. F. Allen & R. W. McGowan.*  
*Color Printing Press.*  
*N<sup>o</sup> 40892. Patented Dec. 15, 1863.*

*Fig. 1.*



*Fig: 2.*



*Witnesses;*

D. Robertson.

M. M. Livingston

*Inventor;*

John F. Allen.  
R. W. McGowan



# UNITED STATES PATENT OFFICE.

JOHN F. ALLEN AND R. W. MCGOWAN, OF NEW YORK, N. Y.

## PRINTING-PRESS.

Specification forming part of Letters Patent No. 40,892, dated December 15, 1863.

*To all whom it may concern:*

Be it known that we, J. F. ALLEN and R. W. MCGOWAN, of the city, county, and State of New York, have invented a new and Improved Printing-Press for Printing in Colors; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of our invention, taken in the line  $xx$ , Fig. 2; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to a new and improved printing-press for printing with a plurality of colors simultaneously or at one operation, the sheets to be thus printed upon being required to pass but once through the press.

The invention consists in the employment or use of a rotary cylinder in combination with a series of cylindrical forms or type-cylinders and a reciprocating form or type-bed, all arranged to operate as hereinafter fully set forth.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents the framing of the press, which may be constructed in any proper manner to support the working parts, and B is a cylinder which is placed transversely in the framing, and has a toothed wheel, C, at one end of its shaft D, said wheel being at the outer side of the framing and gearing into three pinions, E E' E'', which are on shafts  $a$  of cylinders F F' F''. These cylinders may have types or electrotypes adjusted to their peripheries when letter or typographical printing is to be done, and if pictures are to be printed said cylinders may have their peripheries engraved, or engraved plates or electrotypes of the same secured to them. Each cylinder has a design upon it which corresponds to a particular color of the picture to be printed. For instance, all the red portion of a picture may be on cylinder F, the blue on F', and the yellow on F''. Each of the cylinders F F' F'' is provided with a system of inking rollers,

G, which may be arranged in the usual or in any proper manner.

H is a reciprocating bed, which works on horizontal ways  $b b$  in the lower part of the framing A, and has a pendant,  $a^x$ , attached to it, which works on a guide,  $b^x$ . This bed has a flat form placed upon it, and has a spring, I, of india-rubber or other suitable elastic material attached to one end of it. The form on the bed H is inked by rollers J.

To each end of the cylinder B there is attached a segment projection,  $c$ . These projections extend around rather more than a quarter of the circumference of the cylinder B, as shown in Fig. 1. These segments, as the cylinder B is rotated, bear upon the bed H and cause it to be drawn underneath said cylinder, the spring I being thereby stretched or distended, so that when the projections  $c$  leave the bed the latter will be brought back through the medium of the spring I.

The form on the bed H is inked with a different color, making in all four colors.

Any other proper means may be employed for operating the bed H.

K is a feed-board, which is placed on the upper part of the framing A, and from which the sheets are fed upon the cylinder B, the sheets passing under the cylinders F F' F'', where they receive the different-colored impressions, and then passing down between the bed H and cylinder B, where they receive the last impression, and are discharged from the press by the usual fly arrangement.

Any number of cylinders F F' F'' may be used as desired.

We do not claim separately any of the parts herein described; but

We do claim as new, and desire to secure by Letters Patent—

The cylinders B F F' F'' in combination with the reciprocating form-bed H, all arranged to operate in the manner substantially as and for the purpose herein set forth.

JOHN F. ALLEN.

R. W. MCGOWAN.

Witnesses:

D. ROBERTSON,

M. M. LIVINGSTON,