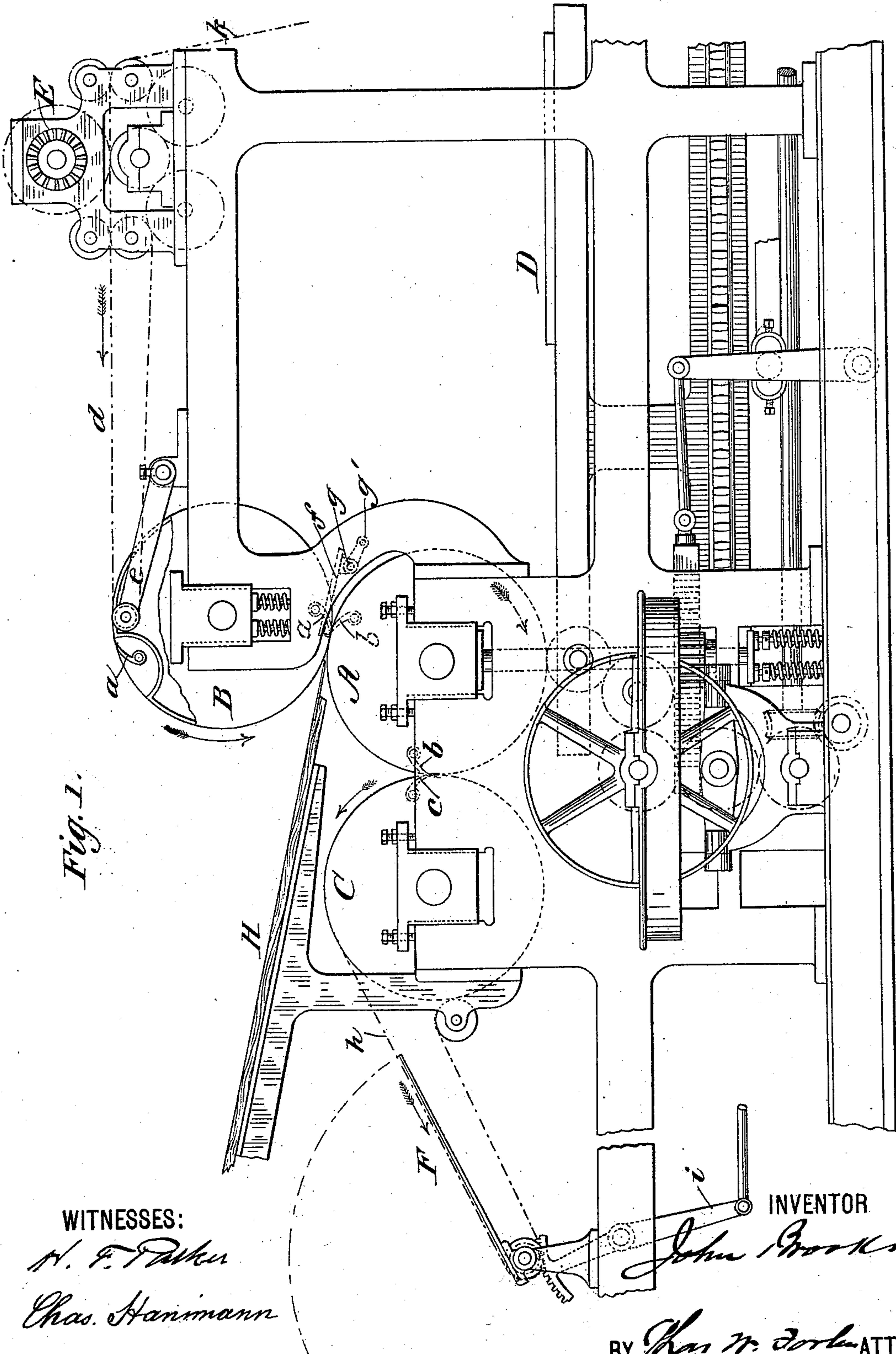


(No Model.)

J. BROOKS.  
PRINTING PRESS.

No. 539,377.

Patented May 14, 1895.





# UNITED STATES PATENT OFFICE.

JOHN BROOKS, OF PLAINFIELD, NEW JERSEY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE POTTER PRINTING PRESS COMPANY, OF SAME PLACE.

## PRINTING-PRESS.

SPECIFICATION forming part of Letters Patent No. 539,377, dated May 14, 1895.

Original application filed August 5, 1889, Serial No. 319,795. Divided and this application filed April 19, 1890. Serial No. 348,716. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BROOKS, a citizen of the United States, residing at Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Printing-Presses, of which the following is a specification.

My invention relates to cylinder presses having an auxiliary feed cylinder or automatic sheet conductor to which the paper is fed automatically by a web cutting mechanism as heretofore shown and set forth in a prior application filed by me August 5, 1889, Serial No. 319,795, of which this is a division so far as the combination of an automatic sheet conductor, and an oppositely extending feed-table with an impression cylinder common to both is concerned.

The object of my invention is to combine with a press, having an automatic sheet conductor, a feed table surmounting the delivering end of the machine, whereby instead of using the web cutting mechanism the sheets may be fed separately by hand in the usual manner from the feed table, and the latter surmounting the delivering mechanism will occupy as little space as possible and promote convenience in the press room.

My invention consists in combining with the impression cylinder and its auxiliary feed cylinder by which the sheets are supplied automatically from the web cutting mechanism, a feed table tangent to the impression cylinder at an opposite side thereof from the direction from which the sheets are fed from the cutting mechanism.

Referring to the accompanying drawing, a single-cylinder press is illustrated, of which—

A is the impression cylinder, B a skeleton feed cylinder or sheet conductor, and C a delivery cylinder.

D, is the type bed, and the mechanism for driving the same in proper relation to the impression cylinder A, is of the character corresponding to that referred to fully in my Letters Patent No. 413,491, issued October 22, 1889. The means of driving the web cutting mechanism indicated at E, is also fully described in said patent and these elements will

not therefore require specific description here. The sheets follow the course indicated by arrows, and the grippers *a, b, c*, of the several cylinders may be operated by any suitable mechanism so as to transfer the head of the sheet from one cylinder to another at the proper time, such as that mechanism described in Letters Patent No. 433,716, granted to me August 5, 1890.

The construction of the skeleton feed cylinder B in a series of flanges having intervals between them lengthwise of the cylinder, and the arrangement of the conveying belts *d* and distending arms *e*, in conjunction therewith, also corresponding to those described in said application.

The feed gage for the feed table consists of a series of arms *f*, extended between the flanges composing the feed cylinder; the gage shaft *g*, receiving its automatic motion to lift the gage and clear the sheets when the grippers *b* arrive in position to seize said sheets in the usual manner. Such automatic motion may be imparted to the shaft *g*, through the rock arm *g'*, from any suitable part of the machine.

F, indicates the flier for delivering the sheets which are conveyed thereto from the delivering cylinder by suitable conveying belts *n*. The flier is also operated from any suitable part of the machine through the rock arm *i*.

Having now identified the well known elements assembled in the accompanying illustration, I will describe the feature of novelty, which consists in combining with the feed cylinder B, above the impression cylinder A, a feed table H, tangential to the impression cylinder A at a point corresponding to the point of contact of the feed cylinder therewith. The feed table H, is thereby brought adjacent the delivering mechanism C, F, for the sheets, lying in an opposite direction with reference to the impression cylinder A from that occupied by the automatic feed mechanism E, B. The feed gage *f*, occupies a position in the circle of the impression cylinder A, corresponding to the point of contact between the two cylinders A, B, where the grippers *a, b* transfer the head



of the sheet when the automatic feed E, *d*, is used, and the feed gage *f*, has a slight lifting movement so as not to interfere with the passage of the shaft of the grippers *a*.

5 In operation, the web *k*, is fed to the cutting mechanism E, from a roll placed in any suitable position. The paper therefrom follows the course of the arrow upon the conveying belts *d*, and after being cut the sheets are  
10 seized by the grippers *a*. The feed gage *f*, is raised out of position being inoperative when the automatic feed is used. The sheets are transferred from the cylinder B to the cylinder A, by the action of the grippers *a*, *b*, and  
15 thence passed in the direction indicated by arrows, into printing contact with the form bed D, being again transferred from the cylinder A, to C, by the action of the grippers *b*, *c*; thence to the flier. When the feed table  
20 is used the feed cylinder B, and cutting mechanism E, are thrown out of gear with the press, and the feed gage *f*, brought into position and operation. The separate sheets upon the feed table are supplied by the op-  
25 erator against the feed gage in the usual manner, being seized by the grippers *b*, following a similar course of printing as above described.

In combining a hand feed with an automatic  
30 feed, the constructions heretofore adopted have embodied a feed table located above the automatic cutting mechanism E and feeding mechanism or sheet conductor B, which in-  
35 creases the height at which the operator stands when supplying the sheets to the feed table, and requires greater amount of vertical space in the press room as well as inconvenience in  
40 handling the paper. The herein improved arrangement of the feed table H in juxtaposition to the delivering mechanism C, F, promotes convenience in handling the paper, which when composed of separate sheets is  
45 done entirely at the one end of the press; the printed sheets being taken also therefrom. Access for supplying and removing the paper  
50 is thus had at a single portion of the machine; the roll of paper from which the web is supplied to the cutting mechanism E, when used, occupying an independent space at the oppo-  
site end of the machine not interfering in any

way with the convenience of the operator at the feed table.

Another important advantage consists in rendering the automatic cutting mechanism E and feeding mechanism or sheet conductor 55 B, accessible for adjustment or repairing or for arranging the paper in starting the press, when a feed table is also employed in the construction of the press.

Having thus fully described my invention, 60 what I claim, and desire to secure by Letters Patent, is—

1. The combination in a cylinder printing press having an auxiliary feed cylinder above the impression cylinder for automatically 65 feeding the paper, of a feed table tangent to the impression cylinder at a point thereof corresponding to the point of contact of the feed cylinder therewith.

2. In a printing press, the combination with 70 the impression cylinder, a feed cylinder above the same, and an automatic cutting mechanism for supplying the sheets to the feed cylinder, of a feed table extending directly to the surface of the impression cylinder from an op- 75 posite side thereof to that occupied by the said automatic cutting and feeding mechanism.

3. The combination in a printing machine of an impression cylinder, a skeleton auxil- 80 iary feed cylinder above the same, to which the sheets of paper may be automatically supplied, of a feed table tangent to the impression cylinder at the point of contact of the feed cylinder therewith and a feed gage op- 85 posite the feed table, within the circle of the skeleton feed cylinder.

4. The combination, in a printing press, of an impression cylinder, a sheet conductor leading to the same, an automatic cutting mechanism for supplying sheets to the sheet 90 conductor, a feed table extending directly to the surface of the impression cylinder from an opposite side thereof to that occupied by said automatic cutting mechanism and sheet conductor, substantially as described.

JOHN BROOKS.

Witnesses:

C. W. FORBES,  
H. F. PARKER.