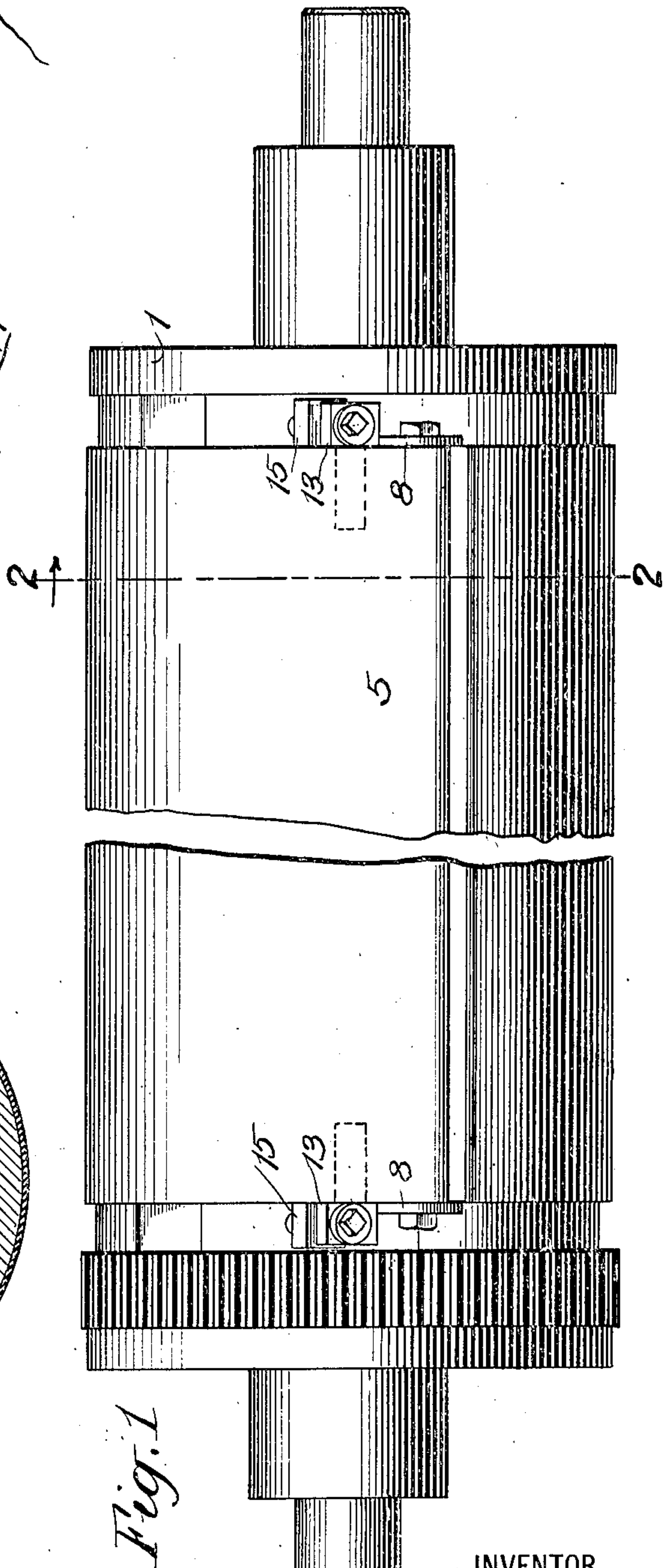
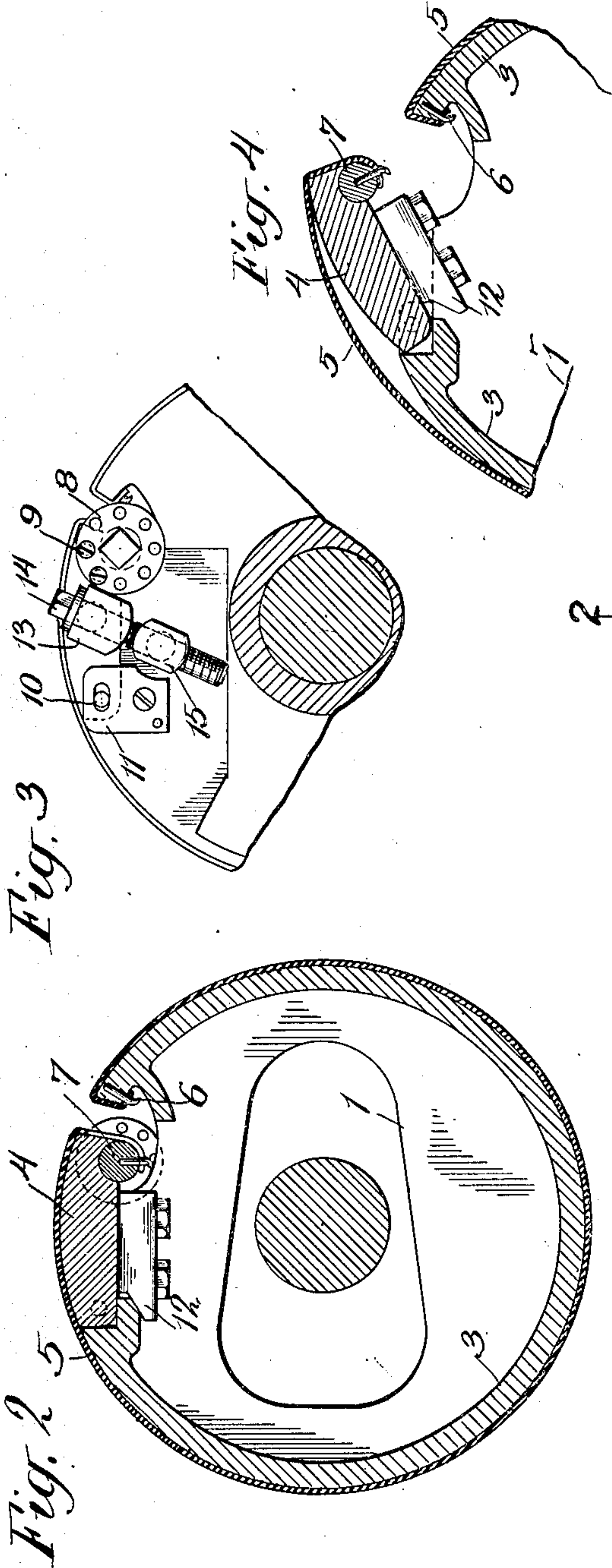


G. E. PANCOAST.
PRINTING PRESS.

APPLICATION FILED MAR. 21, 1905.

912,724.

Patented Feb. 16, 1909.



WITNESSES:

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GEORGE E. PANCOAST, OF BROOKLYN, NEW YORK, ASSIGNOR TO AMERICAN LITHOGRAPHIC COMPANY, A CORPORATION OF NEW YORK.

PRINTING-PRESS.

No. 912,724.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE E. PANCOAST, a citizen of the United States, and a resident of Brooklyn, Kings county, State of New York, have invented certain new and useful Improvements in Printing-Presses, of which the following is a specification.

My invention relates to printing presses, and more particularly to devices for securing the impression or design surfaces in place upon the printing members thereof.

An object of my invention is to provide a construction whereby flexible or limber impression surfaces or blankets or other similar members may be evenly and forcibly strained or stretched into position and held on the impression or other members of printing presses.

My invention also contemplates a construction whereby flexible surfaces may be efficiently strained upon cylindrical or similar supporting surfaces and without leaving an objectionable gap or recess therein.

These and other objects of my invention will more fully appear from the following description.

Having in view these and other objects, which will more fully appear from the following description or will be obvious therefrom, my invention consists in the novel devices, combinations of devices, and improvements herein set forth.

The accompanying drawings, which are referred to herein and form a part hereof, show by way of example one embodiment of my invention as applied to the impression member of a printing press, which embodiment in connection with the description herein will serve to explain the principles of my invention.

Referring to the drawings, Figure 1 is a side elevation of an impression member constructed in accordance with my invention; Fig. 2 is a transverse section of the same taken on the line 2, 2 of Fig. 1; Fig. 3 is an end elevation illustrating certain details; Fig. 4 is a broken sectional view similar to that of Fig. 2 but illustrating the parts in different relative positions.

Referring in detail to the particular embodiment of the invention illustrated in the drawings, 1 represents an impression member having a cylindrical supporting surface. The operative supporting surface of the

cylinder is formed by two sections 3 and 4, which are movable with relation to each other. The section 3 is preferably fixed or immovable with relation to the axis of the cylinder. The section 4 is movably mounted with relation to the section 3 and the other parts of the cylinder so that it may be moved into and out of operative position to enable the ends of a separate flexible member, as the blanket 5, which is to be strained upon and held by the supporting surface, to be secured in place.

The movable section 4 is so mounted that when it is moved into operative position the flexible member will be brought uniformly and forcibly into proper position upon the supporting surface of said cylinder. This may be done in various ways, many of which will be obvious when the principle involved is clearly understood. In the form of the device shown, the supporting member 4 is so mounted that it may be moved outwardly with relation to the axis of the cylinder and in such direction as to shorten the distance between the points at which the flexible member is secured.

As shown in the drawings, the flexible member 5 is in the form of an impression blanket. This blanket may be secured at its opposite edges to the cylinder in any suitable way. As shown, it is permanently secured to the section 3 along one edge by means of a series of hooks 6 projecting inwardly adjacent to the edge of the section 3. At its opposite edge the blanket 5 is secured by means of a series of hooks to a shaft 7 mounted along one edge of the movable section 4. To enable the shaft 7 to be rotated so as to draw the blanket around the impression cylinder, said shaft is squared at its ends and is provided with flanges 8, through suitable perforations of which may be passed one or more holding screws 9. Any other suitable device may be employed for operating and holding the shaft 7.

As shown, the cylinder 1 is provided with a recess or seat adapted to receive the section 4 so that when said section is in place upon said seat, its supporting surface will be substantially continuous with the surface of the section 3 and form a part of the operative supporting surface of the cylinder. To permit the section 4 to be moved in the manner and for the purpose described, it is

hinged or pivotally mounted along one edge, preferably on an axis parallel with and adjacent to the surface of the support, so that it may be moved outwardly from the position shown in Fig. 2 to a position as indicated in Fig. 4.

Preferably, the edge of the section 4 is squared so as to give an approximately radial direction to the adjacent surfaces of the sections 3 and 4, and the pivotal connection between the sections 3 and 4 is formed by pins 10 projecting from the opposite ends of the section 4 and engaging suitable slotted recesses in brackets or lugs 11 fixed to the ends of the cylinder, as shown in Fig. 3. For the purpose of securely retaining the section 4 firmly upon its seat it is preferably provided with one or more lug brackets 12 having a downwardly and rearwardly inclined surface adapted to engage a correspondingly inclined shoulder formed in the cylinder adjacent to the contacting edge of the section 3.

So far as some of the features of my invention are concerned, any suitable means may be provided for moving the section 4 into or out of its operative position for the purpose of stretching the flexible member and releasing it. Preferably, and in accordance with one feature of the invention, means are provided for forcibly drawing the section 4 inwardly from the position shown in Fig. 4 to its operative position shown in Fig. 2 so that by this movement the flexible member may be strained or stretched around the cylinder with great force. As shown, the section 4 is provided at each end with a pivot block 13 in which is journaled a screw 14 having a squared head adapted to be engaged by a suitable wrench. This screw is threaded into a pivot block 15 suitably connected with the end of the impression cylinder.

The construction shown may be operated as follows: The movable section 4 having been thrown outwardly, as shown in Fig. 4, the opposite ends of the flexible member are secured in place upon the hooks. The shaft 7 is then turned so as to draw the flexible member with a suitable degree of force around the supporting cylinder. Then by means of the screws 14 the section 4 is firmly drawn down upon its seat in the cylinder and by reason of the toggle action due to the relative movement of the two sections the flexible member will be strained or stretched around the supporting cylinder with great force, the degree of which will depend upon how far outwardly the section 4 was moved when the flexible member was secured thereto and with what force the shaft 7 was operated.

It will be observed that by reason of the construction shown the opposite edges of the flexible member may be brought as close to-

gether as desired so as to leave little or no gap in the operative surface thereof and at the same time ample space is provided for readily securing the edges of the flexible member in place. Other advantages of the construction will be apparent to those skilled in the art.

My invention in its broadest aspects is not limited to the particular construction shown and described nor to any particular construction by which it has been or may be carried into effect, as many changes may be made therein without departing from the main principles of the invention and without sacrificing its chief advantages.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A printing press including in combination, a support having a movable member which when in normal position is continuous with and forms a part of the operative surface of the support, said movable member being so constructed that when moved out of operative position, a flexible member may be fastened in place and when moved into operative position the flexible member will be brought into position upon the support, and mechanism for forcing said movable member into operative position.

2. A printing press including in combination, a support having a movable member which when in normal position is continuous with and forms a part of the operative surface of the support, a flexible member, means for fastening said flexible member, said movable member being so constructed that when moved out of operative position the flexible member may be fastened and when moved into operative position the flexible member will be brought into position upon the support, and mechanism for forcing said movable member into operative position.

3. A printing press including in combination, a support having a member movable transversely to the operative surface of the support, said member while in normal position being continuous with and forming a part of the operative surface of said support, a flexible member, means for fastening said flexible member, said movable member being so constructed that when moved out of operative position the flexible member may be fastened and when moved into operative position the flexible member will be brought into position upon the support, and mechanism for forcing said movable member into operative position.

4. A printing press including in combination, a support having a member movable transversely to the operative surface of the support, said member while in normal position being continuous with and forming a part of the operative surface of said support, a flexible member, means for fastening one

edge of said flexible member to said movable member, said movable member and said fastening means being so constructed that when the movable member is out of operative position the flexible member may be fastened thereto, and mechanism for forcing said movable member into operative position.

5. A printing press including in combination, a support having a movable member which when in normal position is continuous with and forms a part of the operative surface of the support, a flexible member, means for fastening the flexible member to said movable member, said movable member being mounted to move transversely to the operative surface of the support, and mechanism for forcing said movable member into operative position.

6. A printing press including in combination, a support having a movable member which when in normal position is continuous with and forms a part of the operative surface of the support, and mechanism for forcing said movable member into operative position, said support being mounted to move transversely to the operative surface of the support.

7. A printing press including in combination, a support having a movable member which when in normal position is continuous with and forms a part of the operative surface of the support, a flexible member, mechanism for forcing the movable member into operative position, and means for fastening said flexible member to said movable member, said movable member being so mounted that it may be moved transversely to the operative surface of the support.

8. A printing press including in combination, a support having a member pivotally mounted adjacent to the operative surface of the support, said member while in normal position being continuous with and forming a part of the operative surface of said support, means for fastening a flexible member to said movable member at a point remote from said pivot, and mechanism for forcing the said movable member into operative position transversely to the operative surface of said support.

9. A printing press including in combination, a support having a movable member hinged adjacent to the operative surface of said support said member while in normal position being continuous with and forming a part of said operative surface, means for fastening a flexible member to said movable member at a point remote from the hinge thereof, and mechanism for forcing said movable member into operative position transversely to the operative surface thereof.

10. A printing press including in combination, a support having a cylindrical operative surface and a movable member

which when in normal position is continuous with and forms a part of said surface, said movable member being so constructed that when moved out of operative position a flexible member may be secured thereto and when moved into operative position the flexible member will be brought into position upon the support, and mechanism for forcing said movable member into operative position.

11. A printing press including in combination, a support having a cylindrical supporting surface and a movable member which when in normal position is continuous with and forms a part of said surface, a flexible member, means for fastening said flexible member, said movable member being so constructed that when moved out of operative position the flexible member may be fastened and when moved into operative position the flexible member will be brought into position upon the support, and mechanism for forcing said movable member into operative position.

12. A printing press including in combination, a support having a cylindrical surface and a movable member which when in normal position is continuous with and forms a part of said surface, means for securing a flexible member to said movable member, and mechanism for forcing said movable member into operative position.

13. A printing press including in combination, a support having a cylindrical surface and a movable member which when in normal position is continuous with and forms a part of said surface, means for securing a flexible member to said movable member, and mechanism for forcing said movable member into operative position, said movable member being hinged to said support at a point remote from the securing means thereon whereby when said movable member is brought into operative position the flexible member will be strained into position upon said support.

14. A printing press including in combination, a support having a cylindrical surface and a movable member hinged on an axis parallel with and so located with reference to said surface that said member moves transversely to said surface, means for securing a flexible member to said movable member, and mechanism for forcing said movable member into operative position whereby when said movable member is out of operative position a flexible member may be secured thereto and when moved into operative position the flexible member will be strained into position upon said support.

15. A printing press including in combination, a support having a movable member forming a part of its operative surface, a flexible member, means for fastening the flexible member to said support and said movable member, said movable member be-

ing mounted to move in such relation to the support that the strain on the flexible member will be increased as the movable member approaches its normal position, and mechanism for forcing said movable member into
5 operative position.

In testimony whereof, I have signed my

name to this specification, in the presence of two subscribing witnesses.

GEORGE E. PANCOAST.

Witnesses:

W. P. TEN EYCK,

JACOB MILLER.