No. 754,253. PATENTED MAR. 8, 1904.

A. B. STEWART.

MEANS FOR ATTACHING BLANKETS TO CYLINDERS OF PRINTING PRESSES.

APPLICATION FILED JUNE 29, 1901.

NO MODEL.

Fig. 1.

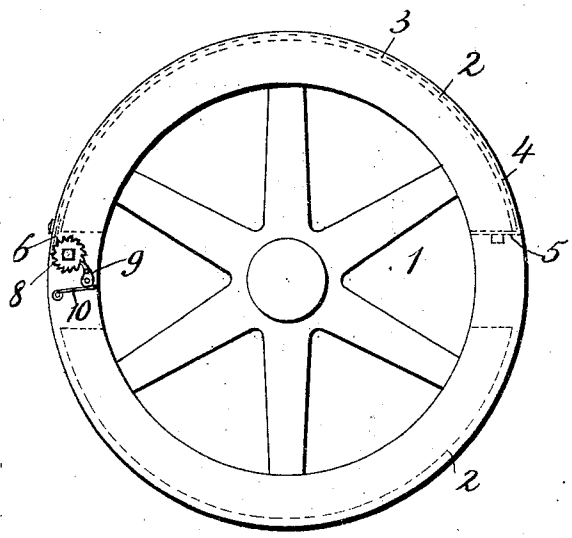


Fig. 2.

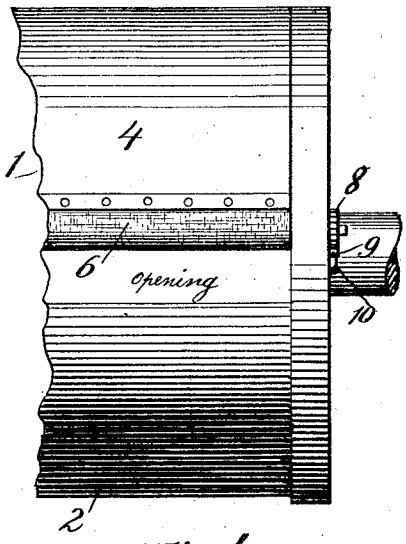


Fig. 3.

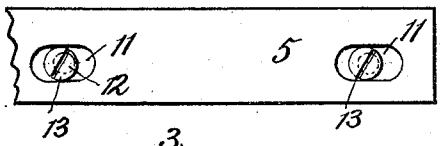


Fig. 4.

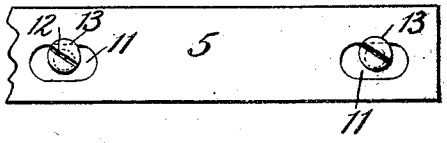
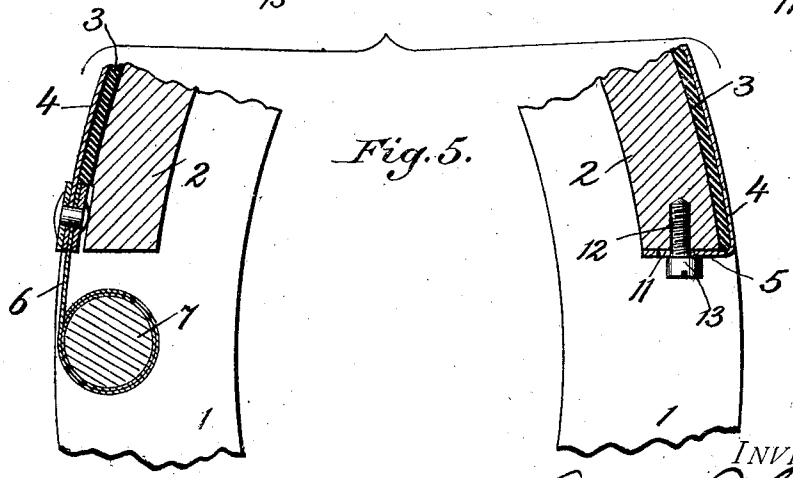


Fig. 5.



WITNESSES:

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MEANS FOR ATTACHING BLANKETS TO CYLINDERS OF PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 754,253, dated March 8, 1904.

Application filed June 29, 1901. Serial No. 66,466. (No model.)

To all whom it may concern:

Be it known that I, ANDREW BARCLAY STEWART, a citizen of the United States, residing in Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Means for Attaching Blankets to Cylinders of Printing-Presses; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to means for attaching blankets to the impression-cylinder of a printing-press or to the equivalent of the impression-cylinder; and it has for its object to provide means which will admit of the ready attachment and detachment of the blanket without the loss of valuable time and without the necessity of an entire removal of the fastening means or parts thereof in the operation of attaching or detaching the blanket to or from the impression-body of the press.

To the accomplishment of the foregoing and such other objects as may hereinafter appear, the invention consists in the construction and in the combination of parts hereinafter particularly described and then sought to be clearly defined by the claims, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is an end view of the impression-cylinder of a printing-press having applied thereto the type of blanket for which my fastening means is particularly well adapted. Fig. 2 is a front elevation of an impression-cylinder with a portion broken away, showing the blanket applied to a segment of the cylinder. Fig. 3 is a front view of the flange portion of the metallic face-plate of the blanket, showing the manner of forming slots in the flange to receive the eccentric-headed clamping-screw, the head of the screw appearing in its unlocked position. Fig. 4 is a similar view showing the eccentric-headed screw in its clamping position, and Fig. 5 is a detail sectional view through one segment of the impression-cylinder with portions broken away and the parts illustrated on an enlarged scale or full size to clearly illustrate the fastening means.

In the drawings the numeral 1 designates a printing-press impression-cylinder having two segmental impression-surfaces 2 of ordinary construction and showing applied to one of the segments a blanket consisting of an elastic body 3 and a flexible metallic face-plate 4, having at one end a flange 5 to bear against one edge of the segmental portion of the cylinder and provided at the opposite end with a canvas strip 6, which is wrapped around a reel-rod 7, by means of which the blanket is drawn close to the face of the cylinder, said reel-rod being provided with a ratchet 8, with which engages a pawl 9 under the influence of a spring 10, so that the rod may be prevented from slipping when turned to tighten the blanket. These parts so far described are in general of ordinary construction and at present in practical use. With the parts so constructed it was the practice prior to my invention to secure the flanged end of the blanket to the cylinder by means of screws passed through the flange of the blanket and into the edge of the cylinder, with the heads of the screws fitting into countersunk portions of the flange. The objection to that method of fastening the flanged end of the blanket to the cylinder is that when it is necessary to add additional packing or elastic body underneath the metal face-plate it is necessary to remove all the screws in order to unfasten the metal face-plate and permit it to be removed so as to supply the additional packing, and, furthermore, the countersunk formation will under some conditions prevent the blanket from being drawn down tightly at the edge of the cylinder where the flange overlaps the edge of the cylinder. These objections are serious, because time is an important factor in the adjustment and fastening of the blankets to the cylinders. To overcome these objections, I have devised the construction consisting in forming eccentric or elongated slots 11, one for each screw, in the flange 5 of the blanket, and in providing screws 12, formed with eccentric heads 13, the eccentric or elongated form of the slot permitting the flange to be slipped

over the heads of the screws when the screw-heads are in one position, so that the blanket may thus be placed in position or removed without the entire withdrawal of the screws, thereby enabling the blanket to be quickly attached and detached without the loss of material time, this being effected by loosening the blanket by unwinding the reel-rod. After the blanket is in position the slack or looseness is taken up by turning the reel-rod, and the flanged end is clamped to the edge of the cylinder by turning the screw so as to bring its eccentric or overhanging head portion over the flange along the edge of the slot in which the screw fits. This has the effect not merely of bringing the eccentric head in such position that the flange will not slip over the head, but also the effect of the head drawing down onto the flange at the same time, so as to draw it closely to the edge of the cylinder, thus securely clamping the flange to the cylinder, while at the same time preventing it from slipping over the head of the screw. It will also be observed that the slot is materially deeper than the thickness of the shank of the screw, which feature enables the flange portion of the blanket to be adjusted or depressed more or less, as may be necessary in order to secure a tight fit of the blanket against the surface of the cylinder at the point where the flange occurs and when adjusted to such position to be held or clamped in that position by the eccentric portion of the head bearing against the face of the flange and by the screw action clamping it to the edge of the cylinder. The advantages of these points or features will be apparent to the skilled in the art, and it will be observed that the means by which they are attained are both simple and efficient.

While I have illustrated and described the invention as applied to an impression-cylinder, yet it will be understood that the invention may be used with other forms of impression-surfaces than the cylindrical form, although it is of especial advantage when employed in connection with impression-cylinders of printing-presses.

While I have illustrated and described the preferred form of the features constituting my invention, yet it is to be understood that changes can be made in the form of the parts and essential features, broadly considered, still be retained.

Having described my invention and set forth its merits, what I claim is—

1. In a printing-press, the combination with the impression-body portion of the press, of a blanket formed with an opening, and a headed clamping device arranged to pass through said opening and adapted to be turned to bring its head down upon the blanket by a drawing action, the opening in the blanket being larger than the greatest diameter of the head of the clamping device so that when the device is in its unclamping position the blanket may be withdrawn over the head of the clamping device, the head of said device when in its clamping position overlapping the portion of the blanket adjacent to the head so as to clamp the blanket by a drawing action, thereby tending to draw the blanket taut upon the impression-body portion of the press, substantially as described.

2. In a printing-press, the combination with the impression-body portion of the press, of an eccentric-headed screw entering the said impression-body portion, and a blanket formed with an opening to receive the eccentric-headed screw, said opening being eccentric to the screw and said screw adapted by rotation to have its eccentric portion brought over the blanket and to exert a screw-drawing action thereon, thereby tending to draw the blanket taut and clamp it to the impression-body portion, substantially as described.

3. In a printing-press, the combination with an impression-cylinder, of a blanket having a flange adapted to fit over an edge of the cylinder and formed with an opening, a reel-rod having the opposite end of the blanket connected therewith, and an eccentric-headed screw passed through the opening in the flange of the blanket and entering the edge of the cylinder, the opening in the flange being eccentric to the shank of the screw, and said screw in its unclamping position permitting the flange portion of the blanket to slip over its head and in its clamping position having its eccentric head clamp the flange to the edge of the cylinder by a drawing action, thereby tending to draw the blanket taut upon the impression-body portion of the press, substantially as described.

4. In a printing-press, the combination with the impression-body portion of the press, of a blanket having a flange formed with an opening, and an eccentric-headed screw entering the body-impression portion, said screw in one position adapted to have the apertured flange portion slip over its head and in another position to have the eccentric portion of the head bear against the flange and clamp it to the impression-body portion by a drawing action, thereby tending to draw the blanket taut upon the impression-body portion of the press, the opening in the flange being materially larger than the thickness of the shank of the screw to permit adjustment of the blanket, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW BARCLAY STEWART.

Witnesses:
HENRY SCHOB, Jr.,
JAS. E. MCKENNA.