

Oct. 26, 1971

H. BRECHTEL
DEVICE FOR TENSIONING THE MOUNTING
SHEET ONTO PRINTING MACHINES
Filed Oct. 15, 1968

3,614,926

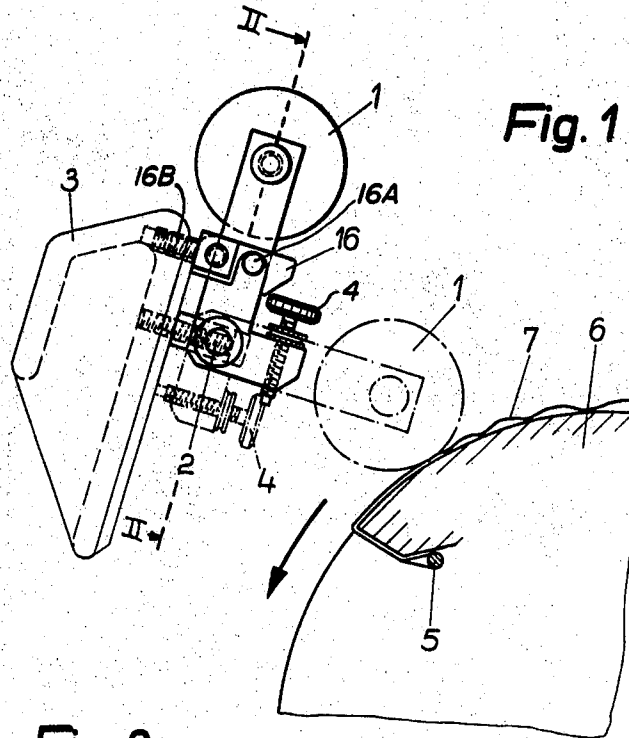


Fig. 1

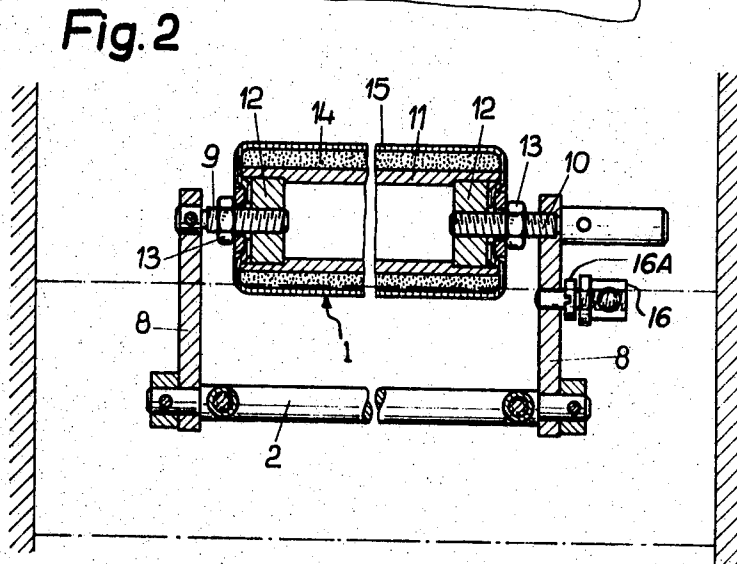


Fig. 2

Inventor:
HEINZ BRECHTELL

By *William P. Collier*

1

3,614,926

DEVICE FOR TENSIONING THE MOUNTING SHEET ONTO PRINTING MACHINES

Heinz Brechtel, Frankenthal, Pfalz, Germany, assignor to Schnellpressenfabrik Frankenthal, Albert & Cie Aktiengesellschaft, Frankenthal, Pfalz, Germany

Filed Oct. 15, 1968, Ser. No. 767,797

Claims priority, application Germany, Nov. 16, 1967, P 16 11 294.0

Int. Cl. B41f 25/00

U.S. Cl. 101—1

3 Claims

ABSTRACT OF THE DISCLOSURE

A cylinder having a coarse surface and pivotably mounted adjacent to the drum of a printing machine so that the cylinder can be urged against the mounting sheet retained on the drum to smoothen out and tension the mounting when the drum is rotated against the cylinder. A ratchet catch is also provided for holding the cylinder out of contact with the drum when it is not in use.

This invention relates generally to a device for tensioning the mounting onto printing machines. More specifically, this invention relates to a device for stretching mountings onto printing machines which produce large size paper prints.

Normally with printing machines which produce large size paper prints, at least two persons are needed for putting the mounting onto the machine in a wrinkle free condition. One of the persons is usually needed to move the machine while the other is needed to smooth the mounting in a wrinkle free condition onto the machine. During such manual operation, it is often found that the mounting is not evenly tensioned around the total width of the printing drum. When this occurs, the hardness of the mounting becomes uneven so that the printing becomes inconsistent on the paper print.

In order to overcome the aforementioned disadvantages of conventional mountings, this invention provides a device which effects a fool proof, wrinkle free mounting and tensioning of the mount, so that only one person is needed to mount and service the printing machine.

The device is provided adjacent to, and parallel to the upper surface of the printing drum and adjacent its retaining means. The smoothening device is provided with a coarse surface, preferably plush, which engages the upper surface of the printing press drum.

In its preferred embodiment, the smoothening device is maintain in a position away from the printing press drum by means of a ratchet. The coarse surface of the smoothening device may be tensioned together with an intermediate elastic layer disposed on the smoothening device.

In a further embodiment, the stationary cylinder may be moved along a longitudinal axis after loosening its arresting nuts.

It is therefore an object according to the present invention to provide a smoothening device for conventional printing machines which applies the mounting to the printing drum in a wrinkle free condition.

It is another object according to the present invention to provide a smoothening device for printing drums which permits the mounting to be applied to the printing machine by a single operator.

It is still a further object according to the present invention to provide a smoothening device for use on print-machines which is simple in design, easy to manufacture and install, and reliable in operation.

Other objects and features of the present invention will become apparent from the following detailed description considered in connection with the accompanying draw-

2

ing which discloses the embodiments of the present invention. It should be understood, however, that the drawing is designed for the purpose of illustration only and not as a definition of the limits of the invention as to which reference should be made to the appended claims.

In the drawing wherein similar reference characters denote similar elements throughout the several views:

FIG. 1 is a side view partly in cross-section of the device of the invention; and

FIG. 2 is a cross-sectional view of the cylinder taken along section II—II of FIG. 1.

Referring to FIG. 1, there is shown the device for tensioning and smoothening the mounting onto a printing press drum 6. The device is shown positioned away from printing press drum 6. If a new mounting is to be applied onto the printing press drum, the device and stationary or non-rotatable cylinder 1 is moved into the position indicated by the broken line in FIG. 1. To pivot cylinder 1 into its broken line position, the cylinder is mounted by means of a pivot bolt 2 on a lateral support 3 which in turn is supported by an adjustable abutment 4. Thus, one merely lifts the ratchet catch 16 off of ratchet pin 16a, thereby permitting support brackets 8 to pivot about bolt 2. In construction, ratchet catch 16 extends outwardly from lateral support 3 by means of threaded screw stud 16b. Cylinder 1 is applied onto the surface of printing press drum 6 at a position following retaining means 5, and smoothenes or flattens rubber mounting cloth or sheet 7 during movement of printing press drum 6 by a single operator in the direction of the arrow (FIG. 1). Cylinder 1 is sufficiently wide to engage the entire width of mounting sheet 7.

As can be seen in FIG. 2, cylinder 1 is mounted on a pair of parallel support brackets 8 by means of stationary trunnion bolts 9 and 10. Cylinder body 11 is mounted so that end portions 12 receive bolts 9 and 10, and are retained by axial nuts 13, so that lateral and rotational movement is impossible. However, the position of cylinder body 11 is adjustable along bolts 9 and 10 by loosening retaining nuts 13. An elastic intermediate layer 14 is mounted over the cylinder body and is covered by a coarse layer 15, preferably plush for contact with the surface of mounting 7.

After rubber cloth 7 is smoothened and tensioned, cylinder 1 is pivotably retracted away from printing press drum 6 and mounted against lateral support 3 by means of ratchet catch 16. Nuts 13 can be loosened to permit a new portion of surface 15 to engage mounting 7 if the old portion becomes worn.

While only a single embodiment of the present invention has been shown and described, it will be understood that many changes and modifications may be made thereunto without departing from the spirit and scope of the invention as defined by the appended claims.

What is claimed is:

1. An apparatus for tensioning and smoothening a mounting retained on a printing press drum, comprising: a pair of parallel spaced-apart support brackets for mounting against the printing press;
- an elongated axial stud for rotatably supporting said pair of support brackets on the printing press;
- a non-rotatable cylinder trunnioned on the ends of said support brackets, said brackets having a first position for engaging said cylinder against the mounting of the printing press drum and a second position for removing said cylinder from the mounting of the drum;
- a catch secured to the printing press for engaging said support brackets to hold said cylinder in the second position, including
- a pin extending outwardly from one of said pair of support brackets having its longitudinal axis parallel

3

with the longitudinal axis of said cylinder, said catch having one end mounted to the printing press and including a recess on its other end for engaging said pin; and

a threaded stud rotatably engaging one of said pair of support brackets so as to provide adjustable abutment of said pair of brackets with the printing press drum.

2. The apparatus as recited in claim 1, wherein said cylinder comprises;

an axle having its ends trunnioned in the arms of said pair of parallel spaced-apart support brackets, a cylindrical body portion supported on said axle, an elastic layer mounted over said body portion, and a coarse layer mounted over said elastic layer for slidable engagement with the mounting on the printing press drum.

3. The apparatus as recited in claim 2, wherein said axle includes a pair of axial bolts, each having at least one restraining nut threadably engaging each end of said body portion in order to prevent rotatable movement of said cylinder about and along its longitudinal axis.

5
10
15
20

4

References Cited

UNITED STATES PATENTS

1,465,386	8/1923	White	-----	101—177
1,726,769	9/1929	Roesen	-----	101—219 X
3,209,685	10/1965	Henkel	-----	101—352 UX
896,736	8/1908	Mason	-----	101—219
1,975,681	10/1934	Brawn	-----	101—247
2,049,169	7/1936	Finch	-----	101—409 X
2,051,511	8/1936	Finch	-----	101—415 IX
2,113,805	4/1938	Hemmerich	-----	38—52 UX
2,634,676	4/1953	McKay	-----	101—329 X
3,309,993	3/1967	Grembecki et al.	----	101—425

FOREIGN PATENTS

1,034,654	7/1958	Germany	-----	101—217
657,120	2/1938	Germany	-----	101—401.3

J. REED FISHER, Primary Examiner

U.S. Cl. X.R.

101—415.1