Nov. 25, 1924. 1,516,579

B. SANDFORTH

DRYING ATTACHMENT FOR PRINTING PRESSES

Filed Jan. 29, 1923

Fig. 1.

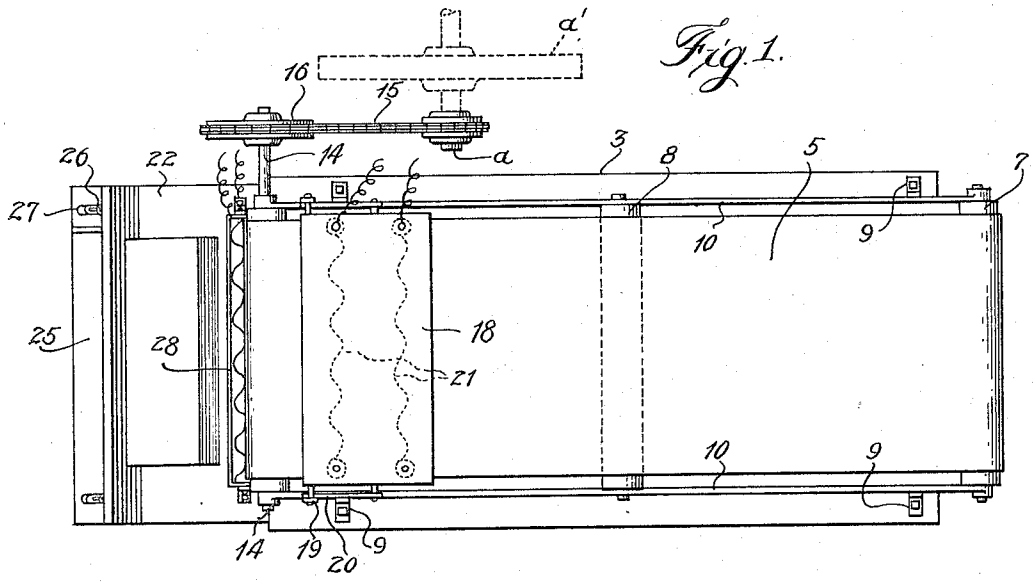
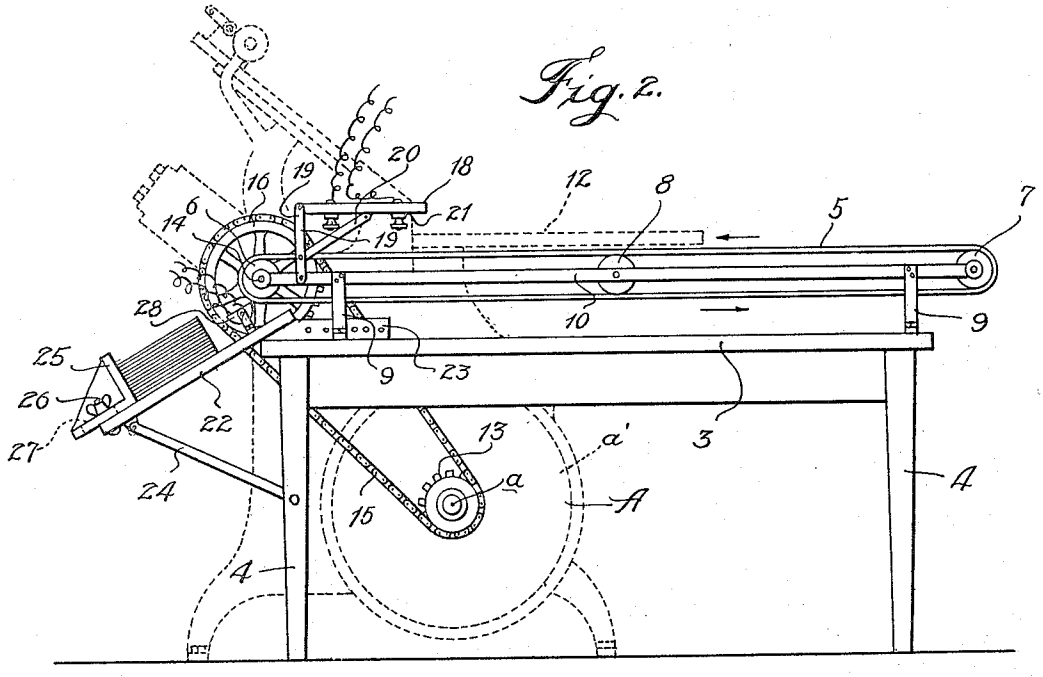


Fig. 2.



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UNITED STATES PATENT OFFICE.

BERNARD SANDFORTH, OF TECHNY, ILLINOIS, ASSIGNOR TO SOCIETY OF THE DIVINE WORD, OF TECHNY, ILLINOIS, A CORPORATION OF ILLINOIS.

DRYING ATTACHMENT FOR PRINTING PRESSES.

Application filed January 29, 1923. Serial No. 615,466.

To all whom it may concern:

Be it known that I, BERNARD SANDFORTH, a citizen of the United States, and a resident of Techny, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Drying Attachments for Printing Presses, of which the following is a full, clear, and exact description.

The invention relates to drying attachments for printing presses.

The object of the invention is to provide simple and improved means for receiving sheets or cards from a printing press, drying them and delivering them into a stack after they have been dried.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Fig. 1 is a plan of a structure embodying the invention. Fig. 2 is a side elevation.

The invention is exemplified in a structure comprising an ordinary table 3 which is supported by legs 4. On top of the table, there is secured a supporting frame for an endless belt 5 which passes around a driven roll 6 and idler roll 7. Centrally, the belt is supported by an idler roll 8. The supporting frame for the belt comprises standards 9 and longitudinal bars 10 which are riveted to said standards and are provided at their ends with bearings for the rolls 6 and 7 respectively. The table and endless belt are adapted to be placed alongside of a printing press and within convenient reach for the printing press operator. Preferably, the endless belt is extended beyond the usual table 12 on the printing press from which the sheets or cards are fed so that the operator can conveniently place the printed sheets or cards on the belt as fast as they are removed from the printing press A, which is of usual construction. The press usually comprises a crank-shaft *a* with a fly wheel *a'* thereon. To automatically drive the belt 5 from the printing press and to cause it to be stopped and started synchronously with the press, a sprocket-wheel 13 is fixed to the projecting end of shaft *a* and connected to drive the shaft 14 of roll 6 by a sprocket chain 15 and a sprocket 16 on shaft 14. Resultantly, as long as the printing press is in operation, the belt 5 will be operated to carry away the printed sheets or cards as fast as the operator lays them upon the belt.

A shelf 18 is supported above the discharge end of the belt 5 by standards 19 and braces 20. Suitable heaters 21, preferably electrical resistance elements, are supported on the underside of shelf 18 to dry the printed sides of the cards or sheets on the belt. Since the belt is automatically driven while the press is in operation, the printed cards or sheets will be successively passed under the heaters. An inclined shelf 22 is provided under the driven roll 6 and the discharge end of the belt. This inclined shelf has its upper end fixed to strips 23 which are secured to standards 9 and brace-links 24 between the lower ends of the shelf and two of the legs 4 of the table 3. A stop bar 25 is adjustably secured to shelf 22 by clamp-bolts 26 and slots 27 to cause the cards or sheets deposited on the shelf 22 to form a stack. If desired, a heater 28 may be mounted adjacent the upper end of shelf 22 to dry the under faces of the sheets or cards as they are leaving the belt 5.

In operation, the printing press feeder, as he removes the printed sheets from the press, will lay them directly onto the receiving end of belt 5. The latter will be automatically operated with the press to successively carry the printed sheets under heaters 21 and over heater 28 if desired and then deposit the sheets on shelf 22 where they will form a stack from which they will be conveniently removed.

The invention exemplifies an attachment which may be readily connected to printing presses of usual construction, which will receive the printed sheets as fast as they are taken from the press and pass them under the heaters and form a stack. No change in the printing press is neccessary in the installment of the attachment. The invention is particularly adapted for smaller types of printing presses which have no built-in drying apparatus. The entire structure may be produced at a low cost and advantageously applied to printing presses now in use.

The invention dispenses with the necessity of the labor in inserting smut sheets between the printed sheets and removing the smut-sheets therefrom; makes it possible to print the reverse side or use the sheets as

soon as they are delivered in the stack and saves the time and labor usually necessary in stacking.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

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

1. In a printing press attachment, the combination of an endless belt, means to support the belt at one side of a platen printing press so the operator of said press can transfer the printed sheets from the platen to said belt, gearing for driving the belt comprising a wheel adapted to be secured to the drive shaft of the press, and a heater to dry the sheets conveyed by the belt.

2. In a printing press attachment, the combination of an endless belt, means to support the belt at one side of a platen printing press so the operator of said press can transfer the printed sheets from the platen to the belt, gearing for driving the belt comprising a wheel adapted to be secured to the drive shaft of the press, a heater to dry the sheets conveyed by the belt, and means to receive and stack the sheets discharged from the belt.

3. In a printing press attachment, the combination of a table, a frame on said table, an endless belt mounted in said frame, means adapted for connection to a printing press for driving the belt, a heater to dry the sheets carried by the belt, and means to receive and stack the sheets from the belt.

4. In an attachment for printing presses, the combination of an endless belt, a frame to support the belt, gearing for driving the belt comprising a wheel adapted to be secured to the drive-shaft of a printing-press, and a heating element supported by the frame and above the belt.

5. In an attachment for printing presses, the combination of an endless belt, a frame to support the belt, gearing for driving the belt comprising a wheel adapted to be secured to the drive-shaft of a printing press, a heating element above the belt, and an inclined shelf to receive the sheets from the belt.

6. In an attachment for printing presses, the combination of an endless belt, a frame for supporting the belt adapted to be placed on the top of a table, gearing for driving the belt comprising a wheel adapted to be secured to the drive-shaft of a printing press, heating elements supported by the framework and above the belt, and an inclined shelf to receive the sheets from the belt.

7. In a printing press attachment, the combination of an endless belt, gearing adapted for connection to a printing press for driving the belt, a plurality of heating elements, one of said elements being disposed to heat one side of each sheet while it is on the belt, and the other being disposed to heat the other side of said sheet, and means to receive and stack the sheets.

Signed at Techny, Illinois, this 10 day of January, 1923.

BERNARD SANDFORTH.