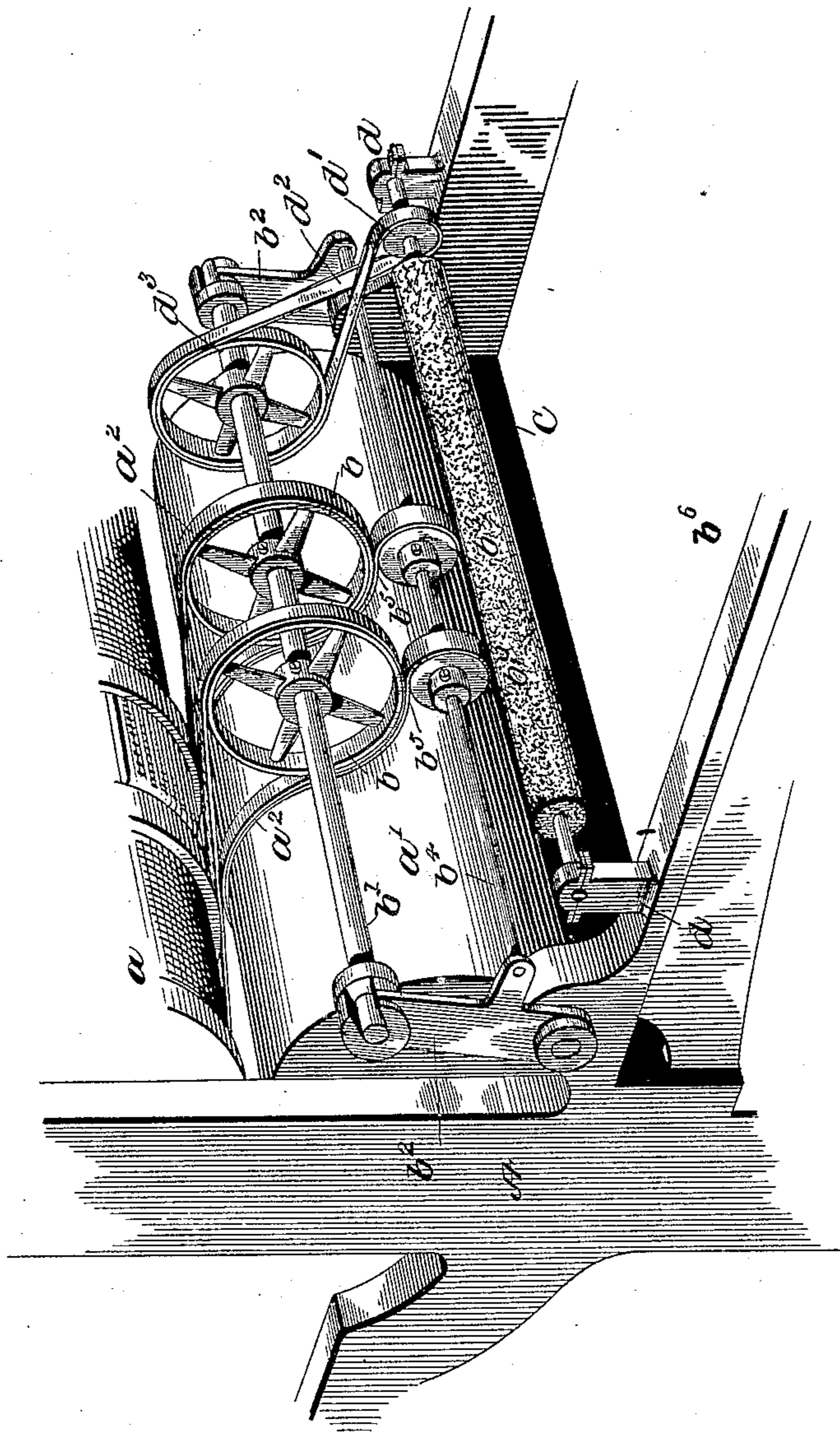


(No Model.)

C. G. HARRIS.
PRINTING PRESS.

No. 577,300.

Patented Feb. 16, 1897.



Witnesses

John Smilie
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UNITED STATES PATENT OFFICE.

CHARLES G. HARRIS, OF NILES, OHIO.

PRINTING-PRESS.

SPECIFICATION forming part of Letters Patent No. 577,300, dated February 16, 1897.

Application filed March 18, 1895. Serial No. 542,229. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. HARRIS, of Niles, in the county of Trumbull and State of Ohio, have invented certain new and useful
5 Improvements in Printing-Presses; and I do hereby 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.

10 This invention contemplates certain new and useful improvements in printing-presses.

In the art of printing great difficulty is experienced, especially in rapidly-operated presses, by reason of the printed sheets of
15 paper becoming charged with electricity, that is, the frictional electricity generated by the rapidly-moving press becomes stored in the paper and causes the same to curl and in some instances coil back upon the press wheels and
20 cylinders, thus greatly interfering with the operation of the press and resulting in considerable loss.

The object of the present invention is to provide simple and highly-efficient means to aid
25 the discharge from a press and to effectually remove from the paper all traces of electricity. This I accomplish by providing an independent roll located transversely across the line of discharge from the press, said roll having an
30 outer surface of absorbent dampened material. This roll is preferably belted to one of the wheels of the press, and has a face speed greater than that of the paper. By means of this rapid revolution the fibers of the roll will
35 slightly contact with the paper and the centrifugal action tends to maintain the dampness or moisture of the roll at the surface thereof, keeping it uniformly moistened at every point.

40 The invention will be hereinafter fully set forth, and particularly pointed out in the claim.

In the accompanying drawing, the figure is a view in perspective of a portion of a printing-press, showing the application of my in-
45 vention.

Referring to the drawing, A designates the frame of a press; a , the plate or type-carrying cylinder; a' , the impression-cylinder; and
50 a^2 , two endless tapes, which pass over the top

of cylinder a' , as ordinarily employed for holding the paper while being printed. The rear wheels or rollers, around which these tapes are passed, are shown at b , and they are adjustably secured on a shaft b' , supported by
55 arms b^2 . I have also shown two small rollers b^3 , mounted on a shaft b^4 , around which are passed two lower tapes b^5 , preferably metallic, said latter tapes encircling cylinder a' and traveling in conjunction with the tapes a^2 .
60 The paper while being printed is carried between these two sets of tapes and is discharged as it passes from between said tapes and wheels b and rollers b^3 onto the receiving-table b^6 . In close juxtaposition to this point
65 of discharge I locate a roll C, mounted at its ends in arms d . The body of this roll may be composed of felt, cloth, soft paper, or other absorbent material capable of being maintained in a moistened state and which is per-
70 vious to water. Upon one end of this roller is a small pulley d' , around which is passed a reversed belt d^2 , which also engages a wheel d^3 , mounted on shaft d' . The power imparted from this latter shaft gives the roll C a motion
75 outward or in the line of discharge, but faster than that of the printed sheet, the discharge of which is thus accelerated. The contact of the printed sheet with the fibers of the moistened surface serves to effectively conduct
80 away the electricity with which said sheet may be charged and remove therefrom all traces of such electricity. The location of the dampening medium is such that all tendency of the printed sheet to coil and travel with the tapes
85 is immediately overcome and the sheet falls directly onto the receiving-table. The roll being rapidly revolved, the centrifugal force will serve to maintain the moisture at the surface thereof and thus keep it uniformly damp-
90 ened throughout its length.

It is obvious that my invention is applicable to different forms of printing-presses from that described, as its usefulness is not dependent upon any particular form of mechanism,
95 the essential feature being to locate the dampened roll in close juxtaposition to the point of discharge, so that all static electricity will be extracted from the papers at or prior to their discharge from the press.

The advantages of my invention are apparent to those skilled in the art and can be readily understood from what has been said.

I claim as my invention—

- 5 In a printing-press, an independent roll located in juxtaposition to the discharge mechanism of the press, and transversely across the line of passage of the paper, or the like, said roll having its surface composed of ab-
10 sorbent material, and means for rotating said

roll at a surface speed equal to or greater than the speed of the paper or the like, which latter is acted upon by said roll, as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses. 15

CHARLES G. HARRIS.

Witnesses:

W. H. SMILEY,
GEO. W. UPTON.