

(No Model.)

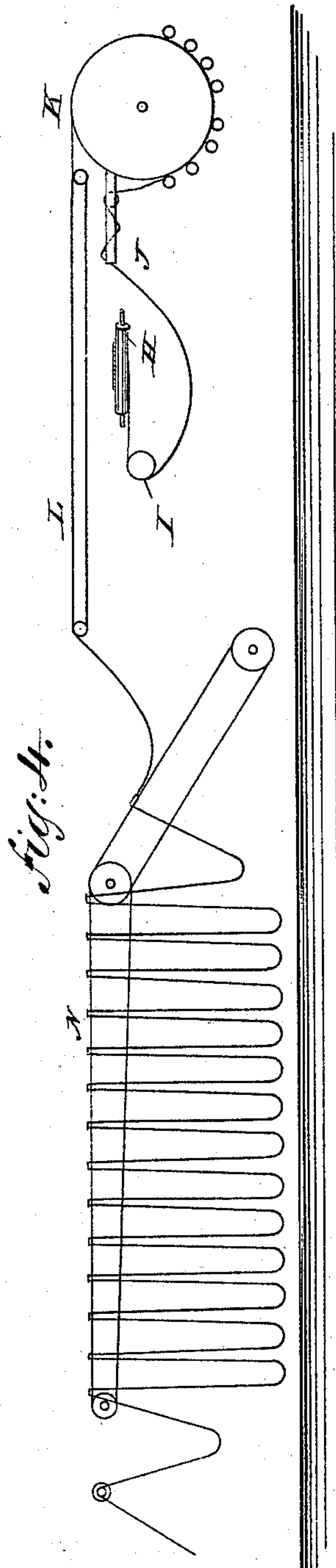
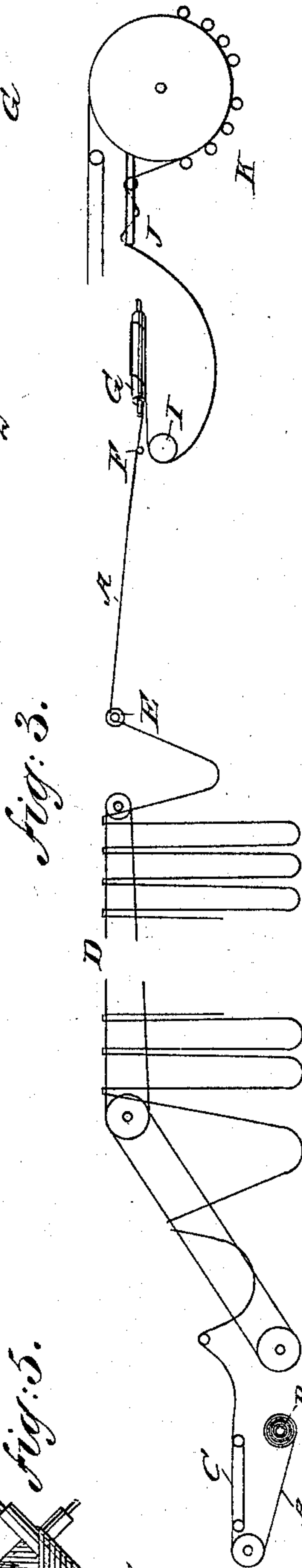
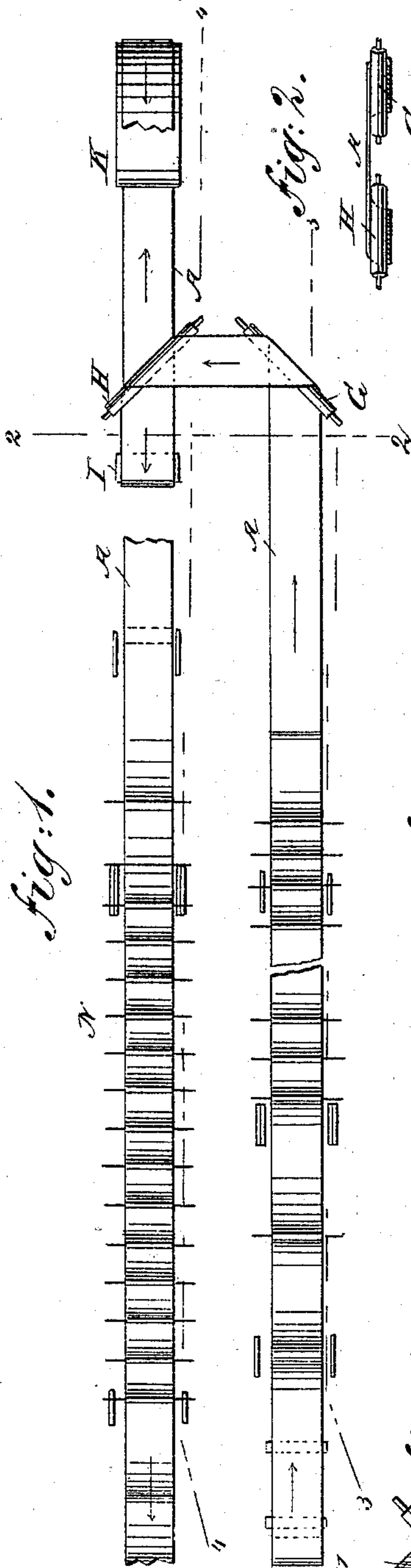
2 Sheets—Sheet 1.

J. E. GLEDHILL.

MACHINE FOR COATING AND PRINTING PAPER.

No. 540,097.

Patented May 28, 1895.



WITNESSES:
Chas. Rice.
Geo. J. Foster.

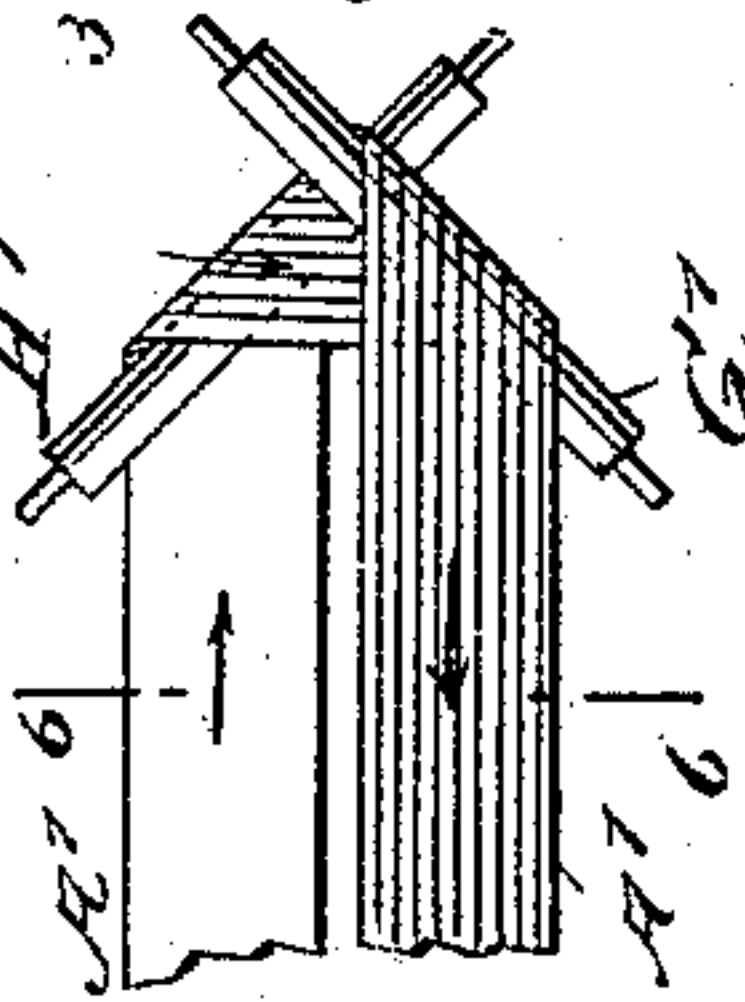


Fig. 6.



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2 Sheets—Sheet 2.

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fig. 7.

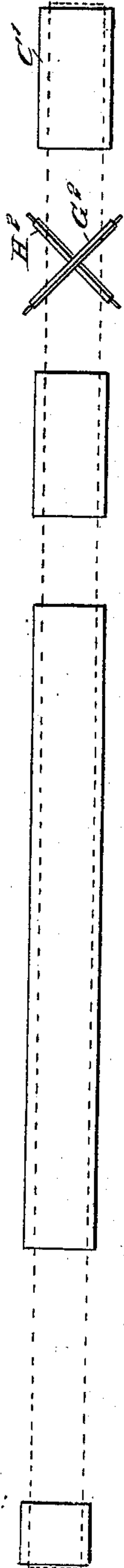


fig. 8.

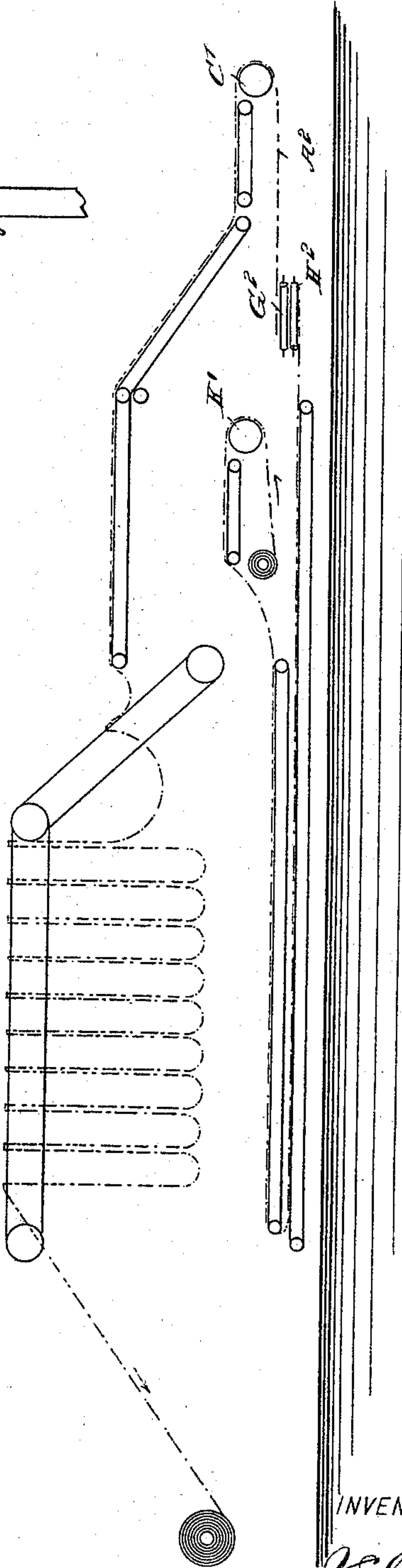
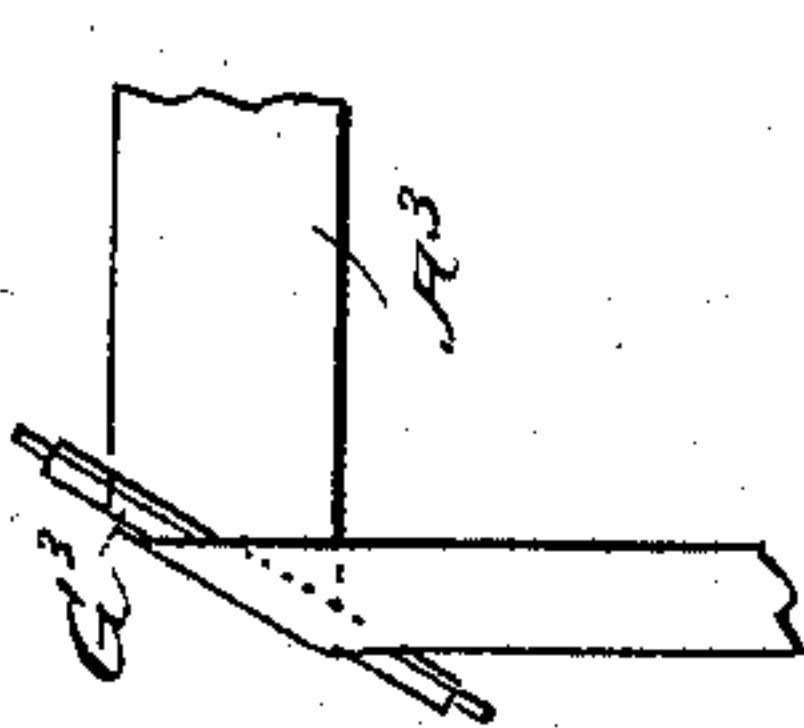


fig. 9.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES E. GLEDHILL, OF NEW YORK, N. Y.

MACHINE FOR COATING AND PRINTING PAPER.

SPECIFICATION forming part of Letters Patent No. 540,097, dated May 28, 1895.

Application filed February 20, 1895. Serial No. 539,092. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. GLEDHILL, of New York city, in the county and State of New York, have invented certain new and
5 useful Improvements in Machines for Coating and Printing Paper, of which the following is a full, clear, and exact description.

The invention relates to wall paper printing and coating machines; and its object is
10 to provide certain new and useful improvements in paper coating and printing machines, whereby the position of the paper can be readily changed while passing from one machine to the other, and the necessity of
15 rolling the paper between the two processes is avoided.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed
20 out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

25 Figure 1 is a plan view of the improvement as arranged on a grounding and printing machine. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1. Fig. 3 is a sectional side elevation of the same on the line
30 3 3 of Fig. 1. Fig. 4 is a similar view of the same on the line 4 4 of Fig. 1. Fig. 5 is a plan view of the improvement as arranged to turn the paper completely over during travel. Fig. 6 is a transverse section of the same on the
35 line 6 6 of Fig. 5. Fig. 7 is a plan view of the improvement as arranged to turn the paper over and return it in the same plane. Fig. 8 is a side elevation of the same, and Fig. 9 is a plan view of the improvement arranged with
40 a single roller.

The device as illustrated in Figs. 1, 2, 3 and 4 is arranged on a paper coating and a printing machine placed one alongside the other so as to occupy comparatively little room. The
45 paper A under treatment unwinds from a roll B, to pass through the grounding machine C, of any approved construction, to receive the ground on one side of the paper. The paper after leaving the grounding machine C is hung
50 up in folds by the lathing and drying device D, to then pass from the latter over the rollers E and F, under an angularly arranged roll G,

to then pass over the same in a transverse direction and over and under a roll H standing at right angles to the roll G, as is plainly
55 shown in Fig. 1. The paper A then passes from under the roll H rearwardly, under a roller I, and thence over and under a series of rolls held to rotate in a support J, to then pass to the printing cylinder of the printing
60 machine K of any approved construction. The side of the paper coated by the coating machine C is now printed with the usual design by the printing machine K, from which the paper passes over the drying device L to
65 the lathing device N on which the paper receives a final drying, previous to being wound up and cut into rolls. Now, it will be seen that by the arrangement described, the position of the paper is changed by the rolls G
70 and H, so as to permit of placing the two machines one alongside the other, and thus considerable room or space is saved in the building.

It is understood that the rolls G and H are
75 supported in suitable frames and may be formed by simple rods over which the paper passes as above described. If it is desired to turn the paper completely over, for instance in coating it on both sides, or in printing on
80 both sides, or coating it on one side and printing it on the other, then the arrangement shown in Figs. 5 and 6 is placed between the two machines. In this case the rolls H' and G' are placed one over the other and at right
85 angles to one another, as indicated in said Figs. 5 and 6, so that the paper A first passes under the roll H' over the top of the same, and under the roll G' and over the top of the latter, to extend in a parallel direction to the
90 paper as it comes to the rolls. Now it will be seen that by this arrangement, that which was the upper surface of the paper, previous to passing to the roll H', is on the under side after the paper leaves the roll G', and consequently the position of the paper not only permits of placing the machines one alongside
95 the other, but also completely turns the paper over, so as to permit of treating it on both sides by the two machines.

As shown in Figs. 7 and 8, the two stationary rolls G² and H² cross each other at their middle and are located directly one above the other, so that the paper A² coming from one
100

machine C' passes first over the roll G², and then under the roll H² to pass to the second machine K' with a reversed face. By this arrangement the paper is run back in the same plane and hence considerable space for the two machines is obtained.

As illustrated in Fig. 9, only one roll G³ is employed so that the paper in passing under or over this roll has its direction changed at right angles, and this arrangement is of great service in L-shaped buildings where the two machines stand in the two wings of the building.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a paper printing and coating machine having two machines, of which one receives the paper from the other, two rolls arranged at angles one to the other, and interposed in the path of travel of the paper between the

two machines, the said paper passing under one roll and over the same to the other roll in a transverse direction, over the second roll, and then under the latter to finally pass to the second machine, substantially as described.

2. In a paper printing and coating machine having two machines, of which one receives the paper from the other, two rolls arranged at angles one to the other and interposed in the path of travel of the paper between the two machines, the said paper passing first under one roll and over the same in a transverse direction, and under the second roll and over the top thereof, to pass in a parallel direction to the second machine, substantially as shown and described.

JAMES E. GLEDHILL.

Witnesses:

EDWARD E. BARNES,
HENRY GLEDHILL, Jr.