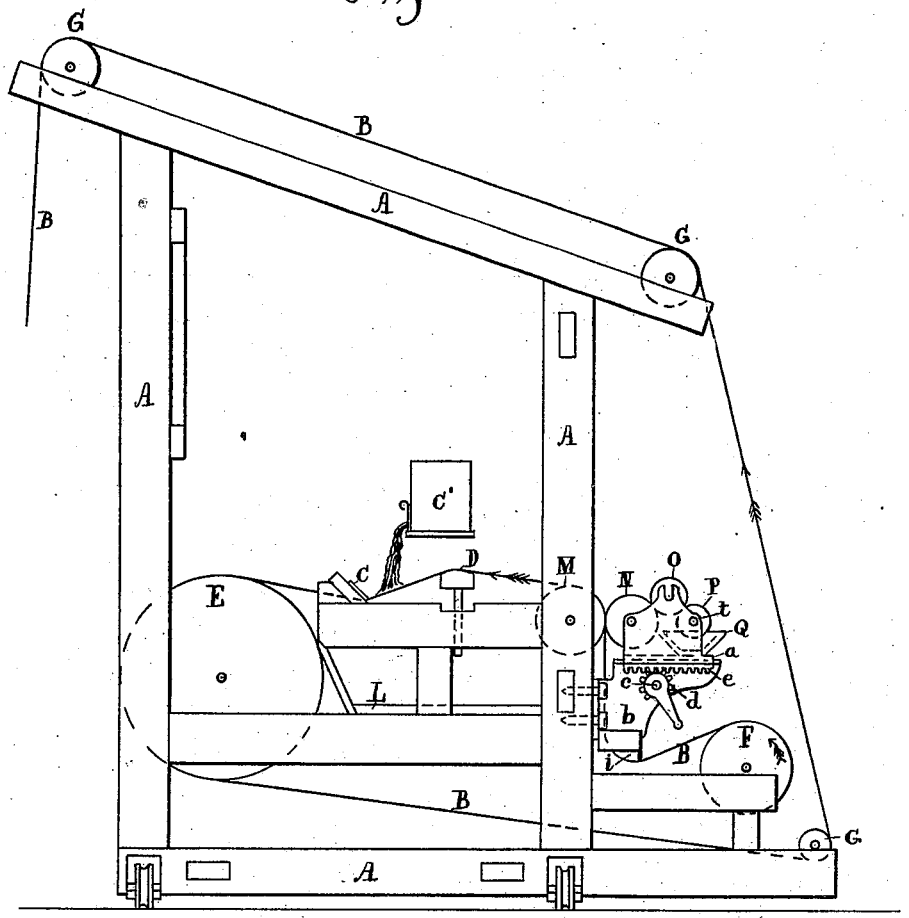
2 Sheets—Sheet 1.

O. CURRIER.

Printing and Painting Machine.

No. 208,892. **Patented Oct. 15, 1878.**

Fig. 1.



Attest.

James W. Hall

John F. Bird

Inventor.

Oscola Currier, per

Thos. S. Crane, Atty.

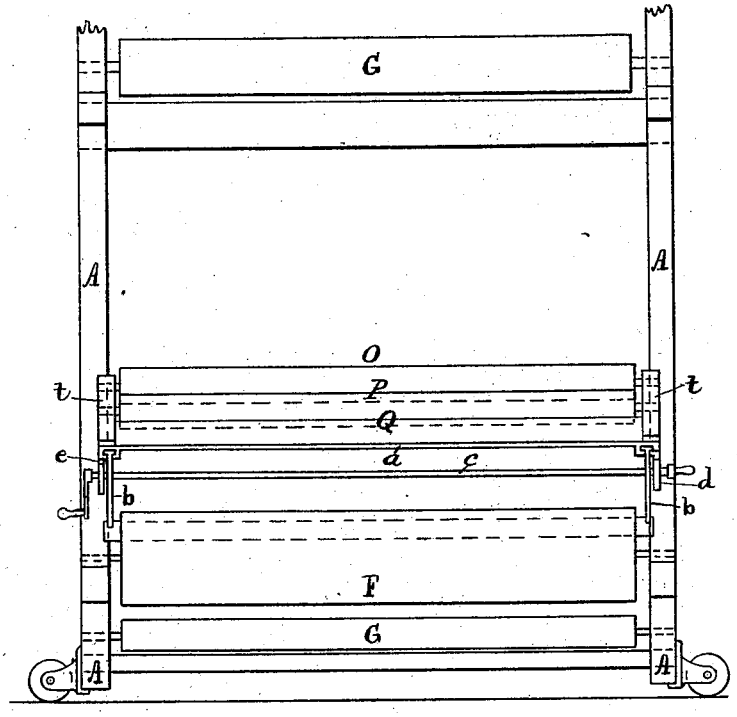
2 Sheets—Sheet 2.

O. CURRIER.

Printing and Painting Machine.

No. 208,892. **Patented Oct. 15, 1878.**

Fig. 2.



Attest

James B. Hall

John F. Bird

Inventor.

Osceola Currier, per

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UNITED STATES PATENT OFFICE.

OSCEOLA CURRIER, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN PRINTING AND PAINTING MACHINES.

Specification forming part of Letters Patent No. **208,892,** dated October 15, 1878; application filed April 20, 1878.

To all whom it may concern:

Be it known that I, OSCEOLA CURRIER, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Printing and Painting Machines, of which the following is a specification:

My invention consists in an attachment to the "long mill," in common use for painting enameled cloth, by which I am enabled to print or marble the surface of the cloth at the same time that the final coat of enamel is applied to the cloth in the usual way, thus saving the labor of imprinting patterns upon the cloth by hand and subsequently varnishing the same.

My method of effecting this printing operation is to attach an engraved roll (so called) to the rear of the frame of the long mill as at present constructed, and to imprint the desired figures upon the enameled cloth when ready for finishing.

The long mill being designed to operate upon a fabric of very considerable length requires special appliances for drawing the cloth through the machine, and peculiar supports for the cloth after painting before it is delivered to the drier. These are shown in Figures 1 and 2 of the drawing, where a side view of a long mill with my attachment is shown in Fig. 1 and a rear view in Fig. 2.

A is the usual framing of the machine; B B, the fabric to be coated with enamel and printed with figures or patterns at the same time. C is the knife, by which the enamel is spread over the cloth when supplied thereto in a flood from the vessel C′. D is a spreader (so called) for smoothing out the fabric sidewise before the enamel is applied. E is the drawing-roll, to which motion is applied to move it in the direction of the arrow, so as to draw the fabric from the reel F past the spreader D and the knife C. G G are supporting and guide rollers, by which the cloth is delivered from the machine after painting, the dry or clean side of the cloth being always in contact with the rollers.

The mills in common use are operated thus: The reel of cloth F is placed in position, and the fabric is carried thence to the spreader D, under the knife C, around the rolls E, G G, and G, in the manner marked at B B. The paint or varnish is applied in a stream from the can C′ between the spreader D and knife C, and the surplus scraped off by the knife flows from each end of C into vessels placed on shelf L.

The cloth is dried after the first and second coats, and the printed pattern with my attachment may be applied to the cloth at the same time that it receives its final coat of varnish, the knife C blurring or softening the printed lines of the pattern beneath the varnish in a very desirable manner.

I will now describe my attachment as applied to the mills thus constructed.

I attach two brackets, *b*, one to each of the posts A at the rear of the machine, and provide standards or bearings *t t* to slide upon the top of the bracket and carry the engraved roll N, feed-roll P, and paint-trough Q. I also provide an impression-roller, M, secured to the frame A in suitable bearings, and adjusted in relation to the roll N so that the cloth will be drawn smoothly over the roll M when it receives the imprint from roll N. This effect is produced by introducing an extra spreader, *i*, between the reel F and roll M, the same being supported by the posts A A beneath the roll M. The cloth thus reaches the roll M free from wrinkles, and passes thence to the spreader D and knife C in the usual manner.

To move the roll N into and out of contact with roll M, I secure racks *e* to the standards *t*, and provide pinions *d* upon a cross-shaft, *c*, revolving in journals in the brackets *b* beneath the standards *t*.

The standards *t t* on the two brackets *b* can be connected by a plate, *a*, for convenient removal from the machine; but this is not an essential feature of my device.

By means of a hand-crank the cross-shaft can be turned at pleasure, and the roll N moved up to the roll M and pressed against it with any desired force.

A distributing-roll, O, is shown, resting upon the rolls N and P; but, if preferred, the feed-roll P may be revolved in contact with the printing-roll, and have its superfluous paint removed by a doctor.

When the material B is liable to wrinkle,

the spreader *i* is also essential, located between the reel F and roll M.

I also retain in use the frictional device usually applied to the reel for straining the cloth uniformly as it passes into the machine.

Having thus described my invention, I claim as follows:

In a long-roll mill for printing and painting cloth, the combination on a single supporting-frame, A, of the following instrumentalities, to wit: reel F, supporting and guide rolls G, vessel C′, printing-roll N, drawing-roll E, impression-roll M, spreaders *i* D, and knife C, substantially as described.

In testimony that I claim the foregoing as my own I hereto subscribe my name in presence of two witnesses.

OSCEOLA CURRIER.

Witnesses:
THOS. S. CRANE,
E. P. ROBERTS.