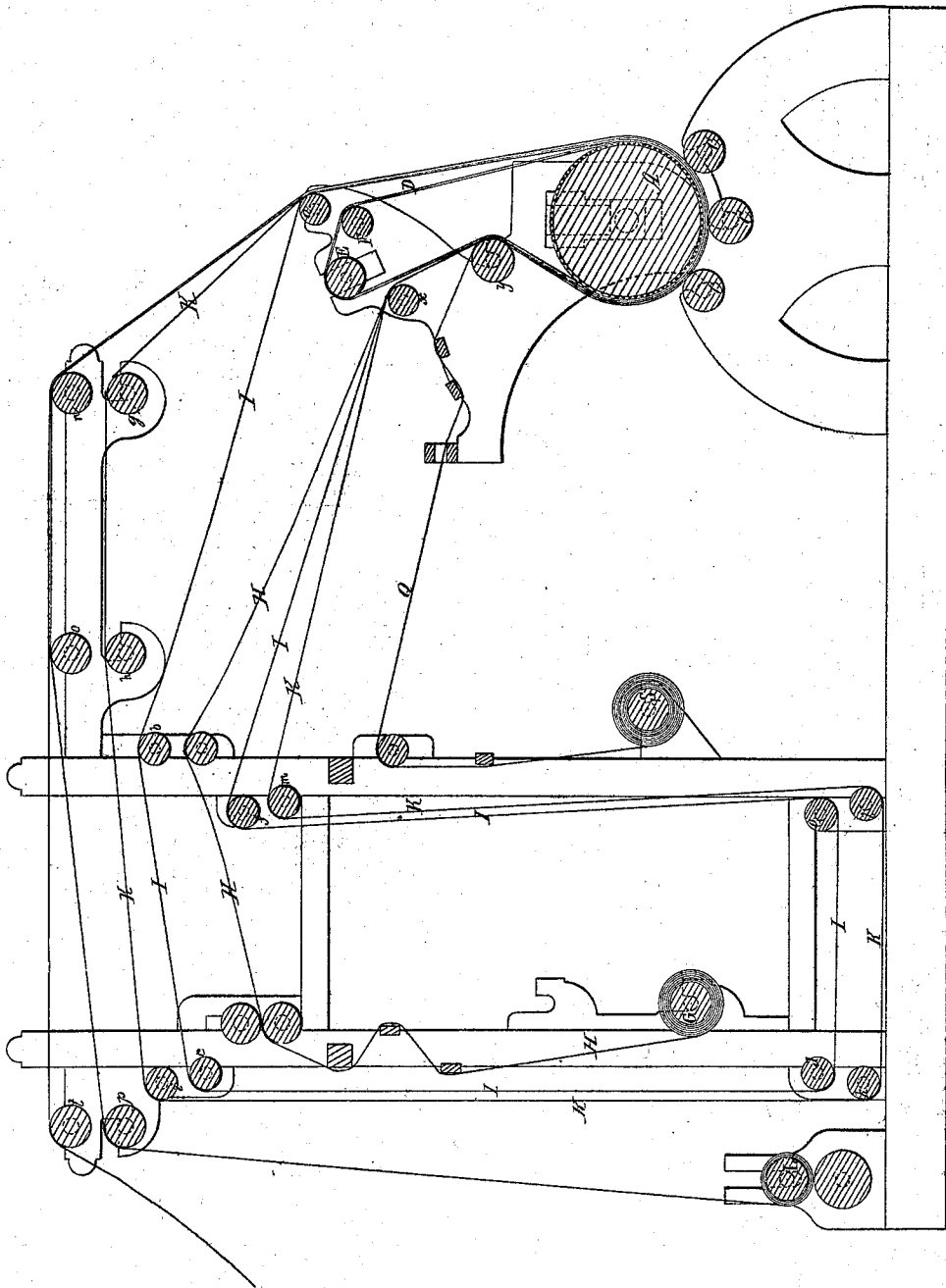


*J. Fallon.*  
*Blanket for Calico Printg.*  
*N<sup>o</sup> 17322.      Patented May 19. 1857.*



# UNITED STATES PATENT OFFICE.

JOHN FALLON, OF LAWRENCE, MASSACHUSETTS.

## BLANKET FOR CALICO-PRINTING MACHINES.

Specification of Letters Patent No. 17,322, dated May 19, 1857.

*To all whom it may concern:*

Be it known that I, JOHN FALLON, of Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Blankets for Calico-Printing Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making part of this specification, in which is represented a vertical section through a cylinder printing-machine having my invention applied thereto.

In machines for printing woven fabrics, it becomes necessary to interpose an elastic material between the surface of the impression cylinder and the stuff to be printed that the latter may be suitably forced into the engraving upon the printing cylinders. Heretofore woolen blankets of great length have been employed for the purpose, the impression cylinder being also covered with several thicknesses of a linen and worsted fabric technically known as "lapping." This arrangement of woolen blanket and lapping is liable to several objections, the most serious of which is its great expense; in addition to this, the texture of the blanket is so coarse that it does not give a sharp and well defined impression of the figure.

Various attempts have been made to find a substitute for the woolen blanket, and thereby to diminish the cost of this part of the printing apparatus; for this purpose several thicknesses of unbleached cotton, called "grays" have been employed, the cotton when soiled passing out of the machine to be bleached and printed, the expense of "lapping" required in this case being the same as that used with the woolen blanket.

As a further substitute for the woolen blanket, a long india rubber blanket has been employed which was cleansed by an automatic washing apparatus and dried by passing over a heated cylinder. This method was cumbersome, the india rubber blanket was originally very expensive and was rendered useless by a slight injury or break upon any part of its length. Again to economize lapping a short india rubber apron has been used in connection with the old woolen blanket, but this was liable to the objections before made to the woolen surface which never gave so fine an impression as where the "grays" were employed.

To remedy all these objections is the object of my present improvement which con-

sists in the employment of a short apron of india rubber, covered by two or three thicknesses more or less of "grays," the latter passing three times over the impression cylinder, then out of the machine by which combination I attain a most perfect surface at a cost far less than that of any heretofore employed.

To enable others skilled in the art to understand my invention I will proceed to describe the manner in which I have carried it out.

In the said drawing A is the impression cylinder. C, the engraved cylinders, the details of which need not be further described. Around the cylinder A passes the short india rubber apron D, which is sustained above the cylinder by the rolls E and F. Over this apron or blanket pass the three thicknesses of "grays" which are arranged as follows: From the roll G the unbleached cotton H, proceeds over suitable carrying rolls to the cylinder A, beneath which it passes in contact with the india rubber apron, thence it passes as indicated by the letter I, over the rolls *a, b, c, d, e, f, x* and *y*, back to the cylinder A, beneath which it runs directly outside the first fold H. Thence it passes as indicated by the letter K, over the rolls *a, g, h, i, k, l, m, x, y*, again beneath the impression cylinder, thence over the rolls *a, n, o, p* to the roll L, upon which it is wound, the material not being again returned through the machine. Beneath the india rubber blanket and upon the surface of the impression cylinder, a thin layer of lapping may be laid for certain species of printing, this is not however under all circumstances necessary. The bleached cotton Q, to be printed, enters the machine from the roll S, passing around the cylinder A, beneath the several folds of grays, and the india rubber blanket, and in contact with the engraved cylinders C, thence the printed fabric passes off over the rolls *a, w, o, t* out of the machine.

The above described combination of india rubber blanket and "grays" possesses the following advantages to a degree never before attained. First, great economy, the original cost of the short india rubber blanket being small, while the "grays" which are uninjured by their passage through the machine, are subsequently bleached and printed; second, the surface produced by the "grays" and india rubber is unequaled

by any other heretofore employed, giving a fine sharp impression far superior to that obtained when the woolen blanket was employed.

- 5 In the above description I have spoken of the use of three thicknesses of "grays" between the india rubber blanket and the stuff to be printed. It is evident however that four thicknesses or even two may be employed under certain circumstances without  
10 departing from the principle of my invention.

What I claim as my invention and desire to secure by Letters Patent, is—

The combination of the short india rubber 15 blanket with the multiple fold of "grays" passing once through the machine and operating in the manner substantially as set forth.

JOHN FALLON.

Witnesses:

GEORGE W. PIERCE,  
ERVA MARBLE.