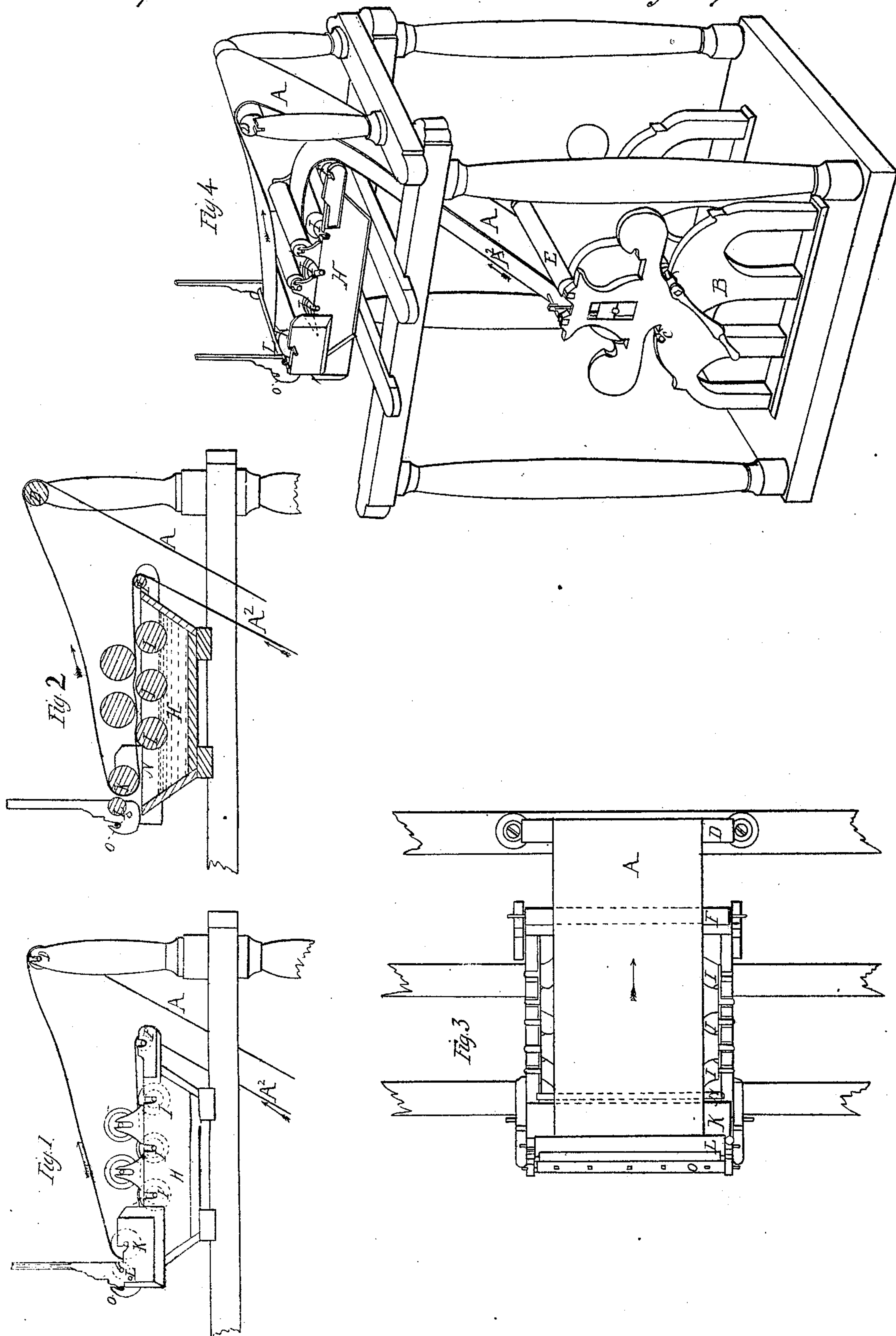


J. Hunter. Calico Printing.

N^o 7602.

Patented Aug. 27. 1850.



UNITED STATES PATENT OFFICE.

JAMES HUNTER, OF BLOCKLEY, PENNSYLVANIA, ASSIGNOR TO JEREMIAH KNIGHT, OF PROVIDENCE, RHODE ISLAND.

MODE OF CLEANSING AND DRYING GUM ELASTIC OR CLOTH BANDS IN CALICO-PRINTING.

Specification of Letters Patent No. 7,602, dated August 27, 1850.

To all whom it may concern:

Be it known that I, JAMES HUNTER, of the township of Blockley, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful mode of washing or cleansing the endless apron or calico-printers or other endless blankets of coloring-matter without taking the blanket from the machine, which is described as follows, reference being had to the annexed drawings making part of this specification.

Figure 1, is a side elevation of the apparatus added to the printing machine for washing the blanket. Fig. 2, is a vertical longitudinal section of ditto. Fig. 3 is a top or bird's eye view of ditto. Fig. 4 is a perspective view of ditto and of a machine for printing calico to which the washing apparatus is added.

Similar letters on the several figures refer to the same parts.

The arrows indicate the direction of the movement of the apron or endless blanket during the operation of printing and washing.

The nature of my improvement consists in the arrangement of some suitable apparatus by which the endless gum elastic or vulcanized india rubber or other bands or cloth after passing through the printing machine, and receiving the surplus coloring matter upon them are made to pass over rollers or other convenient contrivance revolving in water, and thence between two smooth squeezing rollers, one of which has a doctor or scraper attached to it. The effect is, to remove the coloring matter from the cloth, while the rollers and scraper partially dry it and remove from the surface any thread or lint which may still adhere, and the band or blanket thus cleansed returns to the printing machine in a condition to perform its portion of the work without imperfection.

To enable others skilled in the art to make and use my invention, I will now describe its construction and operation and for that purpose I have hereto annexed drawings exhibiting one mode in which my invention may be conveniently used.

The endless gum elastic cloth or vulcan-

ized india rubber band or other kind of endless blanket marked A A which encircles the cylinder of the printing machine marked B, C C representing the engraved copper rollers, after passing over roller D enters the printing machine at roller E, passes around the cylinder and becomes partially covered with the coloring matter, and this colored portion of the band is marked A². In order to cleanse it, as described, it is directed over a roller marked F placed in an upper story, or at a convenient distance from the printing machine and near to which is a box or vessel containing warm or cold water, marked H; within this box or vessel I place a number of rollers marked I I I smooth or covered with cloth or otherwise and immersed about one third their diameter and which revolve by suitable connection with the motive power, and over which rollers the endless blanket or cloth thus covered with coloring matter passes for cleansing the cloth of the coloring matter, the blanket or cloth leaving the water at the extremity of the box or vessel H. The coloring matter having been disengaged by the washing rollers I water and scraper or doctor N, the cloth or band passes between two pressure and drying rollers K L which compress and partially dry it; these rollers also revolve by any suitable mechanical connection with the motive power. In printing certain styles, or using certain kinds of colors I sometimes find it advantageous to place a metal scraper or doctor marked N in close contact with and across the gum band or blanket, to remove the threads and lint which may adhere to it. A thin metal plate or doctor marked O is placed in close contact with the roller L, and all threads or lint caught upon the roller in its revolution from the cloth or blanket are thus scraped from the roller at each revolution. Thus the blanket or cloth is washed and dried and cleaned. This blanket or cloth then by appropriate rollers D E returns thus prepared or cleansed to the printing machine.

I do not claim any particular form or structure or number of rollers nor the application of gum elastic bands as printing cloths, nor the manner of cleansing them

by friction of a thin scraper or doctor upon the band or blanket, but

I do claim as my invention—

The arrangement of the rollers and vat
5 above described for washing the india rubber bands or other endless blankets used in calico or other printing, said rollers being

only partly immersed in water and other parts being arranged and operated as set forth.

JAS. HUNTER.

Witnesses:

E. CHAPIN,

M. A. DEXTER.