S. T. Sanford

Stencil Plate Printing Press.

No. 17340. Patented May 19, 1857.

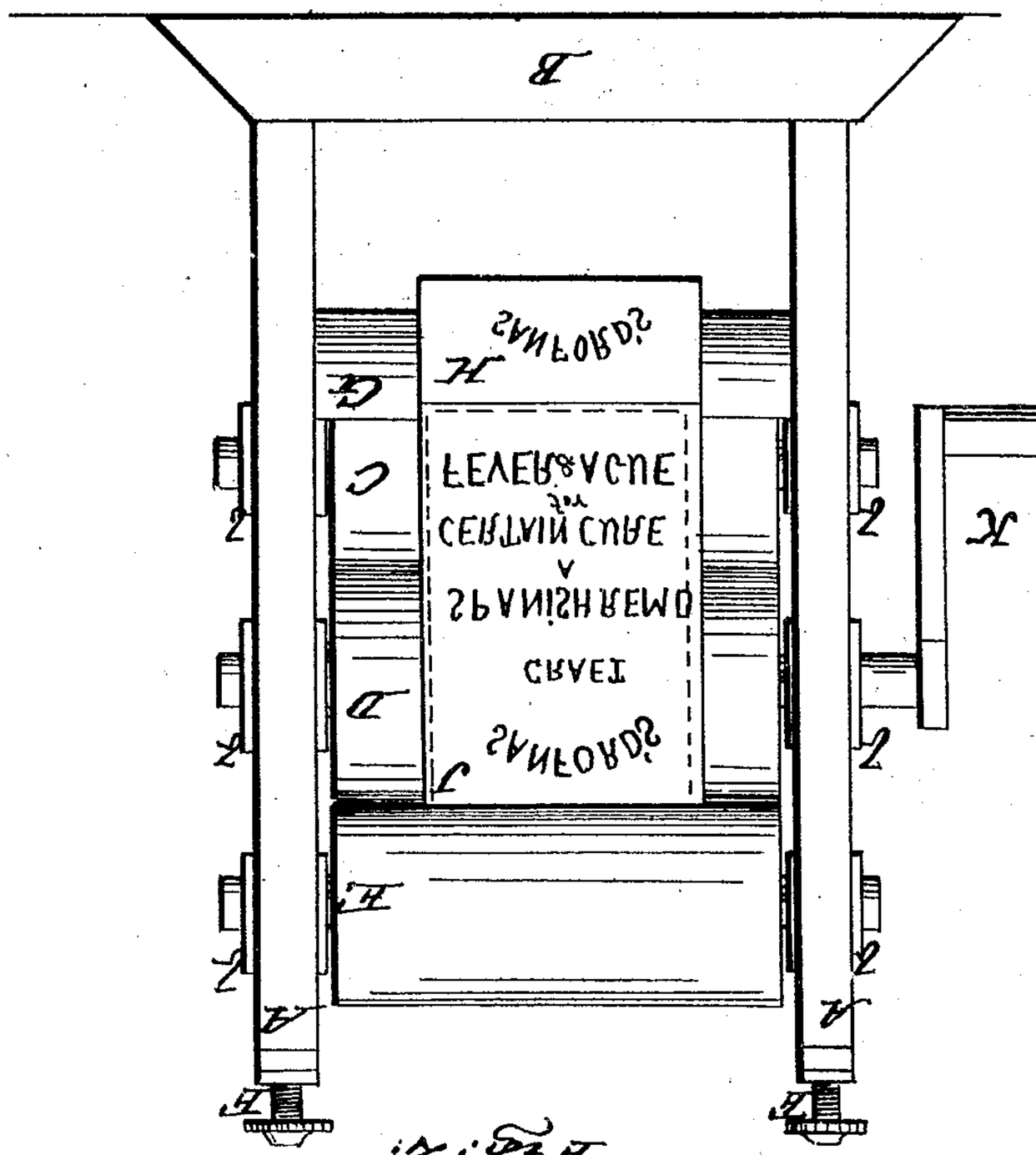

Fig. 2.

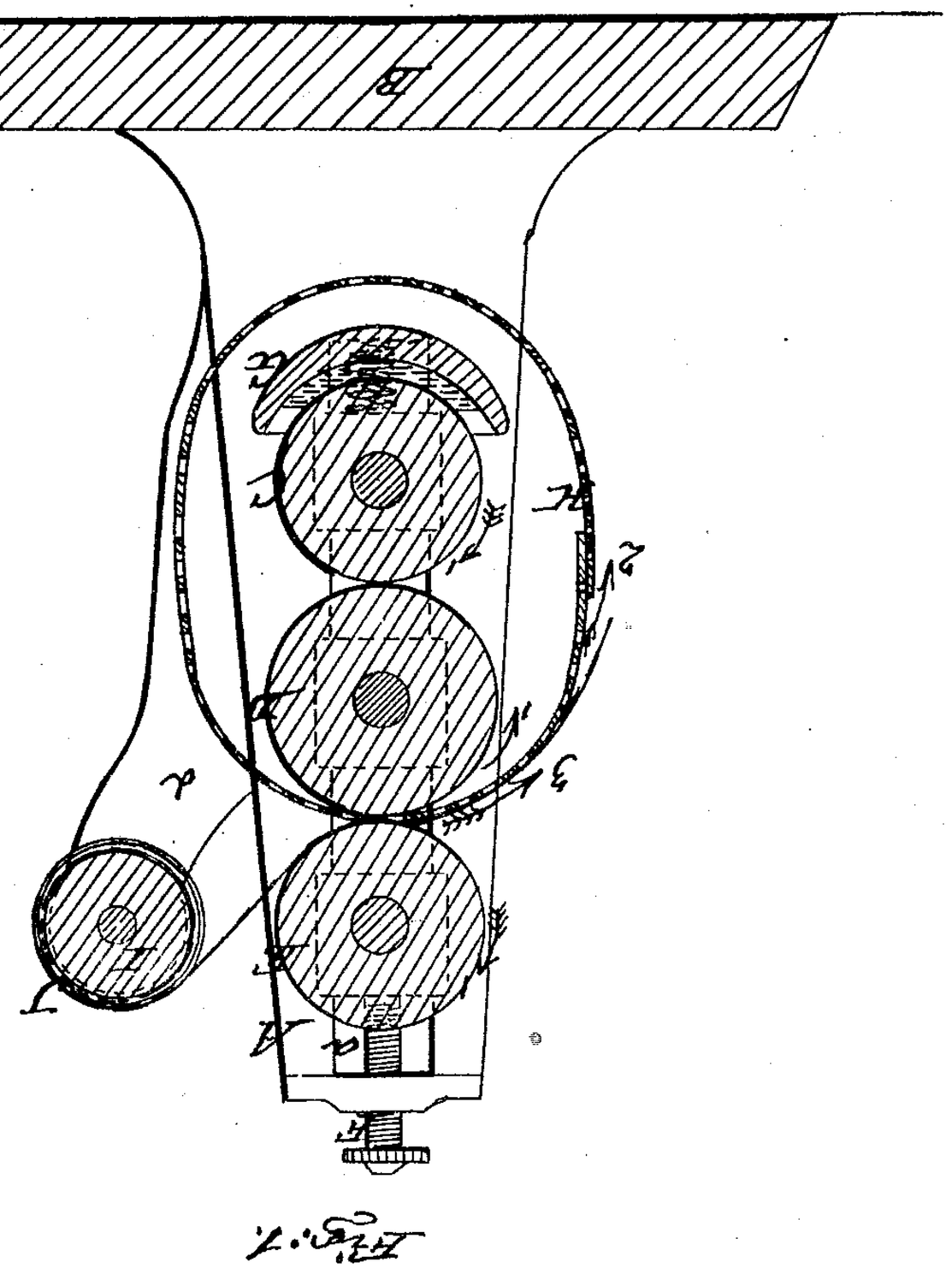

Fig. 1.

UNITED STATES PATENT OFFICE.

SAMUEL T. SANFORD, OF FALL RIVER, MASSACHUSETTS.

STENCIL-PLATE PRINTING.

Specification of Letters Patent No. 17,340, dated May 19, 1857.

To all whom it may concern:

Be it known that I, SAMUEL T. SANFORD, of Fall River, in the county of Bristol and State of Massachusetts, have invented a new and Improved Machine for Stenciling, which machine I term a "Stencil-Plate Printing-Press;" and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a transverse vertical section of my improvement. Fig. 2, is a front view of ditto.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to that species of press in which the printing is done by means of a stencil plate used in combination with color or printing rollers.

My improvement consists in having the stencil plate made in the form of an endless belt or ring.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, A, represent two heads which are properly secured to a base B. The heads A, A, have slots *a*, made in them, one in each, and in the slots the bearings *b*, of rollers C, D, E, are fitted. The bearings of the center roller D, are permanently secured in the heads A, A, but the bearings of the upper roller E, may be moved or adjusted by set screws F, F, and the bearings of the lower roller rest on spiral springs *c*.

Between the two heads A, A, and directly underneath the lower roller C, an ink chamber or reservoir G, is placed, the roller C, working in said chamber or reservoir.

The rollers C, D, E, are formed of an elastic or yielding substance or composition, precisely the same as in the ink rollers of the usual printing presses.

H, represents an endless stencil plate belt. This belt is formed of sheet metal of the usual thickness, or such as is commonly used for such purpose. The stencil plate passes between the two rollers D, E, and underneath the ink chamber or reservoir G. The belt, H, is cut through so as to form a series of stencils or a continuous one, as may be desired.

I, represents a roller the journals of which are fitted in supports *d*, attached to the heads A, A. The roller I, may be constructed of wood, and the roll of cloth, paper or other material J, to be stenciled or printed is rolled thereon.

To one end of the axis of the roller D, a crank K, is attached.

The operation is as follows: As the crank K, is turned motion is given the three rollers C, D, E, the rollers rotating in the direction indicated by the arrows 1, and the stencil belt H, moving in the direction indicated by arrow 2. The roller C, is supplied with ink from the fountain or reservoir G, and the roller D, receives the ink from the roller C. The paper or cloth J, is placed between the two rollers D, E, the paper or cloth being upon the stencil plate H. The paper or cloth moves in the direction indicated by arrow 3. The upper roller E, presses the cloth or paper firmly upon the stencil belt H, and the roller D, in consequence of being soft, pliable or elastic is pressed up through the stencil and leaves the impression upon the cloth or paper J.

It is essential that the rollers C, D, E, be composed of a soft or pliable material, especially the roller D, so that its periphery may protrude through the perforations of the stencil belt and leave the impression or marking upon the cloth or paper J. The roller E, also, by being constructed of the same material, serves to force the cloth or paper J, through the perforations in the stencil belt.

I would remark that a series of rollers E, might be placed around the roller D, and several rollers of paper or cloth stenciled at once or at the same time.

In the *London Mechanic's Magazine*, Vol. 57, page 393, (1852,) may be found a description of a stencil press which consists in the use of flat or curved stencil plates in combination with color rollers composed of flexible materials, for depositing colors on fabrics through the plates. I therefore disclaim the invention of said device. But, to the best of my knowledge and belief, it is new to have the stencil plate made in the form of an endless belt, as herein set forth.

Therefore I claim, and desire to secure by Letters-Patent—

Having the stencil plate made in the form of an endless belt, H, as and for the purposes set forth.

SAMUEL T. SANFORD,

Witnesses:

THOMAS S. LINDSEY,

D. STILLWELL.