L. DIMOCK.

MACHINE FOR STRETCHING SILK.

No. 29,146. Patented July 17, 1860.

Fig: 1.

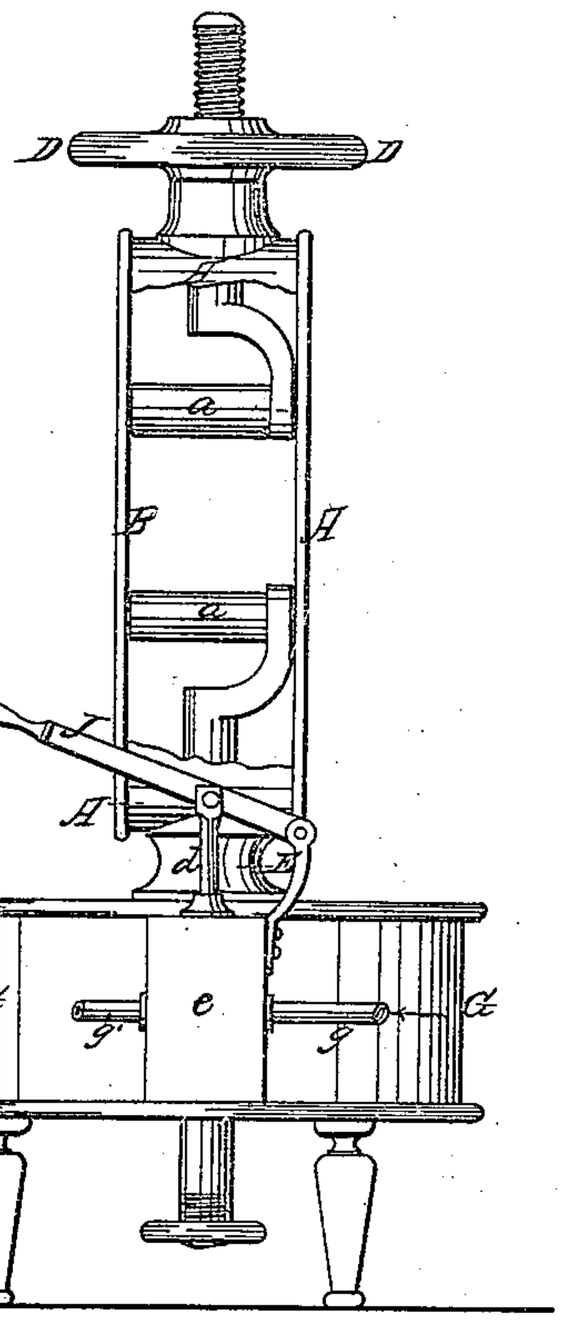
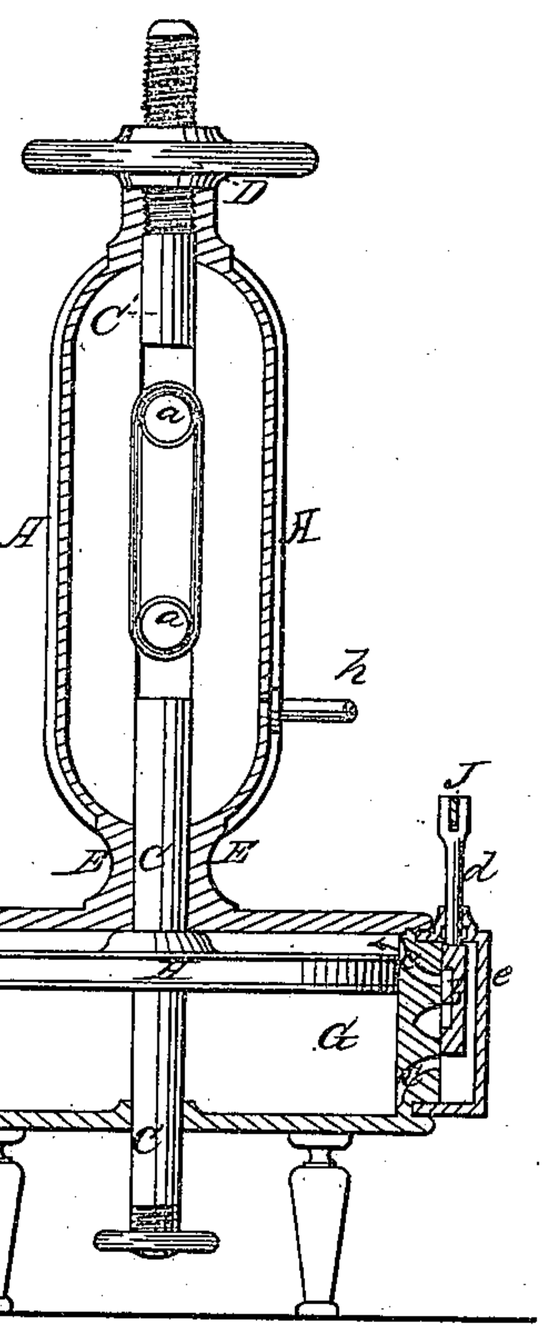


Fig: 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

LUCIUS DIMOCK, OF HEBRON, CONNECTICUT.

MACHINE FOR STRETCHING SILK IN THE BLANK.

Specification of Letters Patent No. 29,146, dated July 17, 1860.

To all whom it may concern:

Be it known that I, LUCIUS DIMOCK, of Hebron, in the county of Tolland and State of Connecticut, have invented a new and Improved Machine for Stretching Silk; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, represents a side elevation of the machine with a portion of the stretching box broken to exhibit the stretching bars. Fig. 2, is a longitudinal vertical section taken through the entire apparatus, showing clearly the construction and arrangement of the stretching bars and the application of steam power to operate them.

Similar letters of reference indicate corresponding parts in both figures.

The object of this invention is to obtain a simple, compact and portable silk stretching and steaming machine the manipulation of which will be simple, while the power may be increased or diminished at pleasure.

To these ends my invention consists in suitably combining with a stretching and steaming box wherein the hanks of silk are placed, to be stretched, a cylinder inclosing a piston which is to be operated by steam or hydrostatic power for giving a direct action upon the stretching bars over which the hanks of silk are placed, and thus perform the operation of stretching and steaming at the same time and with great facility, as will be hereinafter described and represented.

To enable those skilled in the art to fully understand my invention, I will proceed to describe its construction and operation.

In the drawings A, represents an oblong box, standing in an upright position, and of any suitable capacity, having a door B, opening in front which is to be closed tightly, and secured in any suitable manner when steam is let into this box. Passing up and down through the middle of this box, are two hook-headed stretching bars C, C.

The upper bar C′, passes through an enlargement formed on the top of the box A, and receives a hand wheel D, which wheel is used for adjusting the distance between the right angular hooked portions *a*, *a*, for different lengths of hanks of silk,—a male and female screw is cut on the bar C′, and hub of wheel D, for this purpose. The lower stretching bar C, passes down through a neck E, that connects the stretching box A, with the head of a steam box or cylinder G, and is attached in a proper manner with a large and solid piston H, that is suitably packed and made to work up and down in the cylinder G; the bar C, is continued down through this piston H, and through the bottom of the cylinder as shown in Fig. 2. This latter projection of the bar C, keeps it in a steady position in its alternate reciprocating movement.

On one side of cylinder G, is placed an ordinary slide valve *b*, with two ports *c*, *c*, opening on the inside of and at the top and bottom of the cylinder G, above and below the piston H. The slide valve *b*, is operated by a stem *d* that passes up through the top of box *e* and connects with a hand lever J. The steam is admitted into the box *e*, through a pipe *g*, and the exhaust steam escapes through pipe *g′*.

Having thus described the several parts forming my invention, I will proceed to describe its construction and operation.

The hanks of silk are placed over the right-angular hooks *a*, *a*, of the stretchers C, C′, they being properly adjusted, according to the length of hanks to be submitted to the operation, and when this is done the piston H, will be at or near the top of the cylinder G, as shown in Fig. 2. The door B, of box A is now closed tightly and steam admitted into the box A, through pipe *h*, (Fig. 2). The operator now gently raises the lever J, when steam of any desirable pressure will be admitted into the cylinder G, over the piston H, and force the bar C, down, which will effect the stretching of the hank of silk while it is submitted to a steaming process. By reversing the movement of the steam valve, the steam will pass under the piston, and return it to its original position when the door of box A, may be opened, and the silk removed for a repetition of a similar operation.

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

The combination with a steaming and stretching box for stretching hanks of silk, of the cylinder and piston, whereby a direct application of power may be obtained in a simple and compact manner, essentially as described.

LUCIUS DIMOCK.

Witnesses:
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