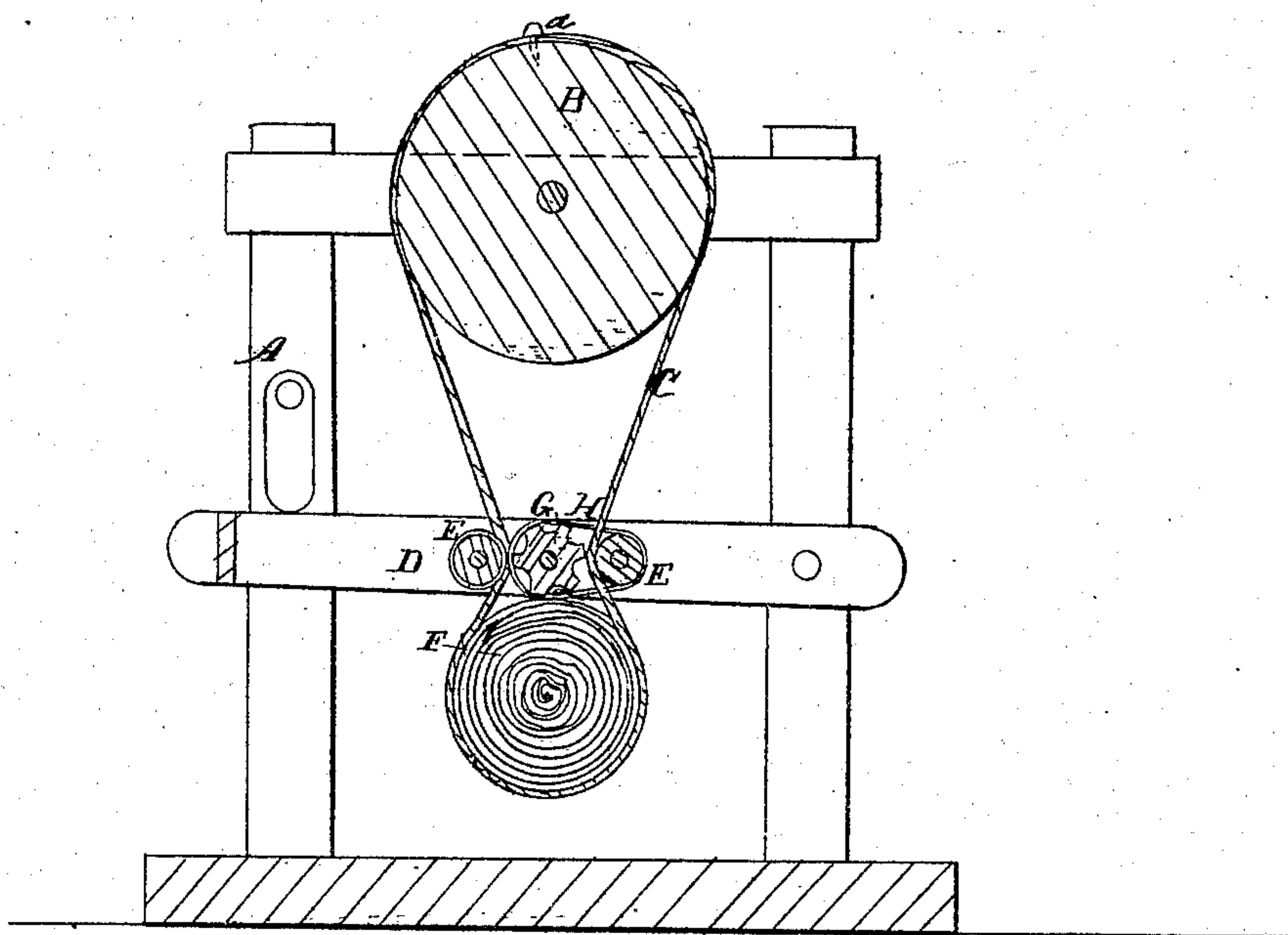


*W. Fuzzard,
Felting Machine.*

No. 16973.

Patented April 7 1857.



UNITED STATES PATENT OFFICE.

WILLIAM FUZZARD, OF CAMBRIDGEPORT, MASSACHUSETTS.

MACHINE FOR FELTING HAT-BODIES.

Specification of Letters Patent No. 16,973, dated April 7, 1857.

To all whom it may concern:

Be it known that I, WILLIAM FUZZARD, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Machine for Felting Hat-Bodies and other Articles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, said drawing being a vertical section of my improvement.

My invention relates to an improvement in a felting machine formerly patented by me and which consisted of an apron attached to a drum and working between two pressure rollers fitting in a swinging or vibrating frame, the articles to be felted being placed on the lower part of the apron.

The improvement consists in the employment or use of a corrugated roller, one or more, attached to the swinging or vibrating frame and placed within the apron so that the roller or rollers will work directly in contact with the articles to be felted and subject them to a pressure or action similar to that produced by the hand when felted by manual labor.

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

A, represents a rectangular framing on the upper part of which a drum B, is placed and C, represents an endless apron which passes over the drum B, and is secured to it at a certain point, shown at *a*.

D, represents a horizontal rectangular frame, one end of which is pivoted to one side of the framing A, the frame D, being within the framing A, and allowed to swing or vibrate up and down within it the frame D, working on its pivots. In the frame D, there are placed two rollers E, E, between which the apron C, passes.

F, represents the article or articles to be felted which are made in the form of a

roll and placed in the lower part of the apron. The rollers E, E, bear upon or against the articles to be felted which have a reciprocating rotating motion imparted to them by the apron C, the apron being operated by giving the drum B, a rotating reciprocating motion. The pressure of the rollers upon the articles F, cause the articles to be felted as they rotate.

The above-described parts constitute my patented machine.

The roller G, constitutes my improvement. This roller is placed in the frame D, within the apron C, and parallel with the rollers E, E. This roller is corrugated longitudinally and bears directly against the upper part of the roll F, as plainly shown in the drawing. The roller G, in consequence of bearing directly against the roll F, subjects the roll to the requisite pressure necessary for the proper or perfect felting of the same. In the original machine the proper action of the rollers E, E, upon the roll F, is not fully obtained in consequence of the apron C, being interposed between the said rollers and the roll. By my improvement this difficulty is obviated and the articles are subjected to an action similar to that given by hand when felted by manual labor. One or more rollers G, may be employed and with either a plain or corrugated surface; the roller or rollers G, also may have a band H passing around them, said band also passing around one of the rollers E.

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

The employment or use of the roller G, one or more, attached or applied to the machine substantially as herein shown and described, for the purposes specified.

WILLIAM FUZZARD.

Witnesses:

JACOB EATON,
C. B. HALL.