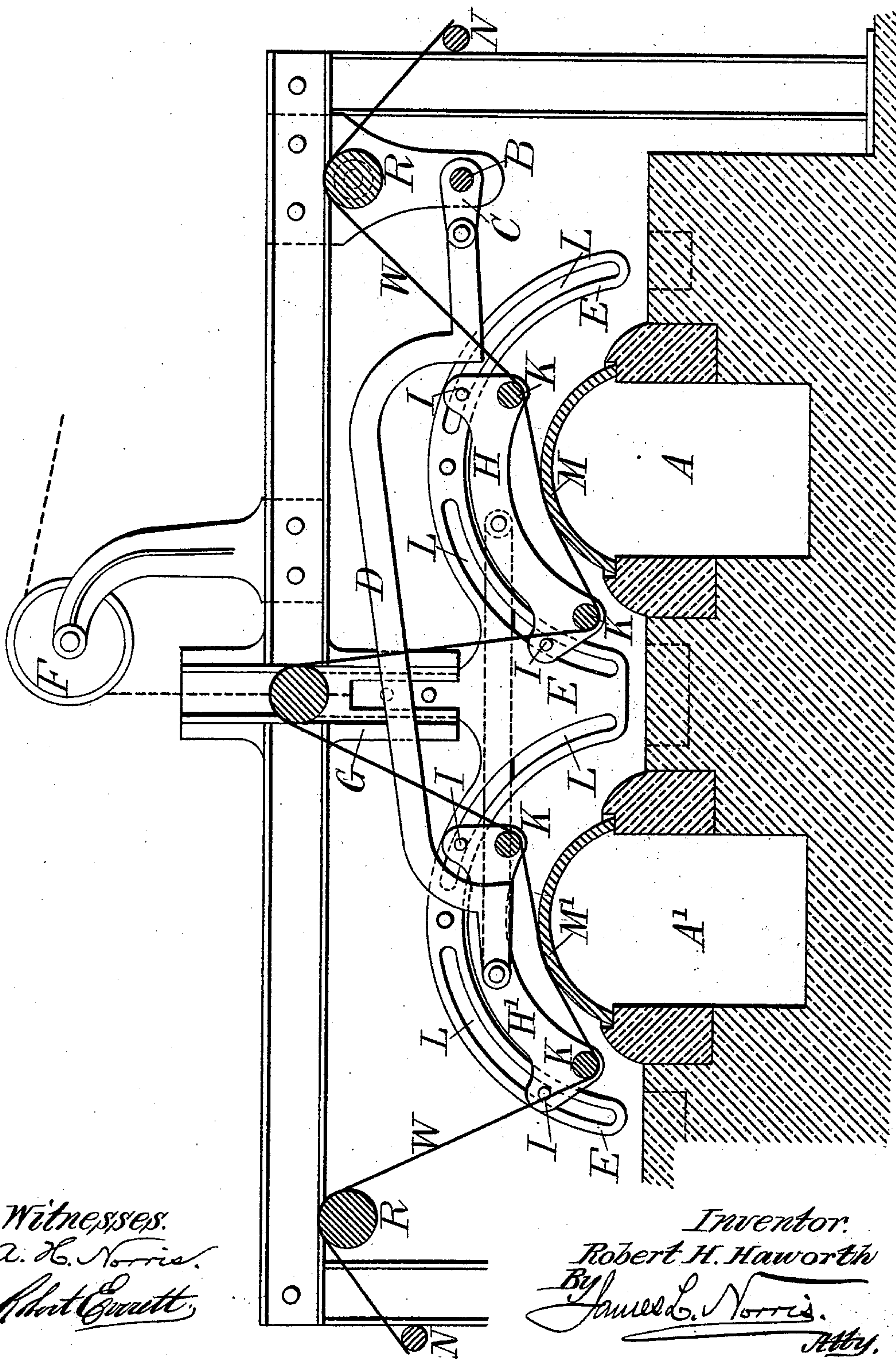


(No Model.)

R. H. HAWORTH.  
APPARATUS FOR SINGEING FABRICS.

No. 538,585.

Patented Apr. 30, 1895.



Witnesses:  
A. H. Norris.  
Robert Everett,

*Inventor.*  
*Robert H. Haworth*  
*By* *James L. Norris.*  
*Atty.*



# UNITED STATES PATENT OFFICE.

ROBERT H. HAWORTH, OF MOSCOW, RUSSIA.

## APPARATUS FOR SINGEING FABRICS.

SPECIFICATION forming part of Letters Patent No. 538,585, dated April 30, 1895.

Application filed February 6, 1895. Serial No. 537,509. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT HENRY HAWORTH, a subject of the Queen of Great Britain, residing at Moscow, in the Russian Empire, have invented a certain new and useful Apparatus for Singeing Fabrics, of which the following is a specification.

This invention relates to apparatus for singeing fabrics so arranged that the fabric, instead of always moving over one part of the heated metal, which part is thereby more or less cooled, is caused while it travels onward, to move over different parts of the metal which are thus kept at the heat required for singeing.

The accompanying drawing is a transverse section of apparatus constructed according to this invention arranged with two singeing stoves A A', which extend longitudinally as far as is necessary for the greatest width of fabric that is to be singed.

At each end of the stoves A A' there is a frame E which, by means of chains passing over pulleys F or otherwise, can be raised or lowered in guides G. The frame E consists of two circular segments united, each segment having two circular slots L in each of which is engaged a pin I projecting from each of two oscillating frames H H'. A shaft B caused to revolve by any suitable motor has at each end of the stove structure a crank C, the crank pin of which is connected by a link D to the oscillating frame H', to which is linked the frame H. Each of the frames H H' carries a pair of round bars K, which might be rollers, each bar extending from the oscillating frames at the other end.

The stoves A A' are covered by metal plates M M' nearly semicylindrical, which are maintained at the glowing heat necessary for singeing.

The fabric W to be operated on is caused

by suitable draw rollers to travel continuously over stationary bars N and guide rollers R and under the bars K by which it is made to bear tangentially on the hot plates M M' and as the frames H H' oscillate to and fro the spots where the fabric tangentially bears on the plates are continuously changed so that every such spot, after one contact of the fabric with it, has time to become heated again before there is another contact. By lowering the frames E the extent of contact of the fabric with the hot plates can be increased, and by raising the frames E it can be lessened or the fabric may be taken entirely out of contact with the plates. Although I have shown two stoves and oscillating frames in duplicate, obviously only one set, or more than two sets of stoves and frames may be used.

Having thus described the nature of my invention and the best means I know for carrying the same into practical effect, I claim—

The combination in an apparatus for singeing fabrics, of stoves having cylindrical stove-plates, an oscillating frame movable in an arc approximately concentric with the stove-plates, means for actuating the oscillating frame, and guides carried by the oscillating frame for guiding the fabric and causing it to move to and fro over the stove-plates, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 18th day of January, A. D. 1895.

ROBERT H. HAWORTH.

Witnesses:

THOMAS LEACH,  
*Mill Manager.*

JOHN ALLAN,  
*Engineer.*