

No. 711,399.

Patented Oct. 14, 1902.

W. HEBDON.
APPARATUS FOR STEAMING CLOTH.

(Application filed Apr. 26, 1899.)

2 Sheets—Sheet 1.

(No Model.)

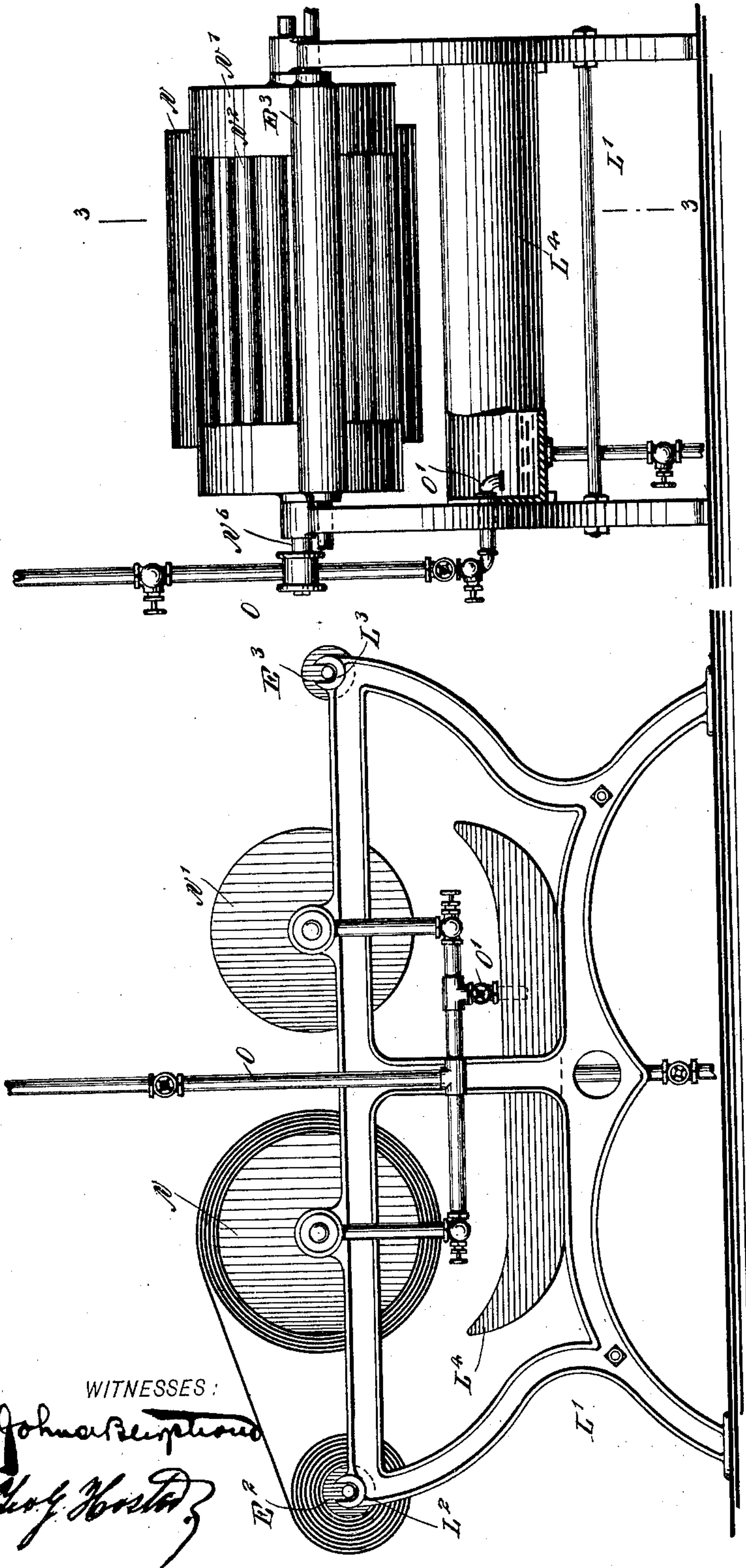


Fig. 2

Fig. 1

WITNESSES:

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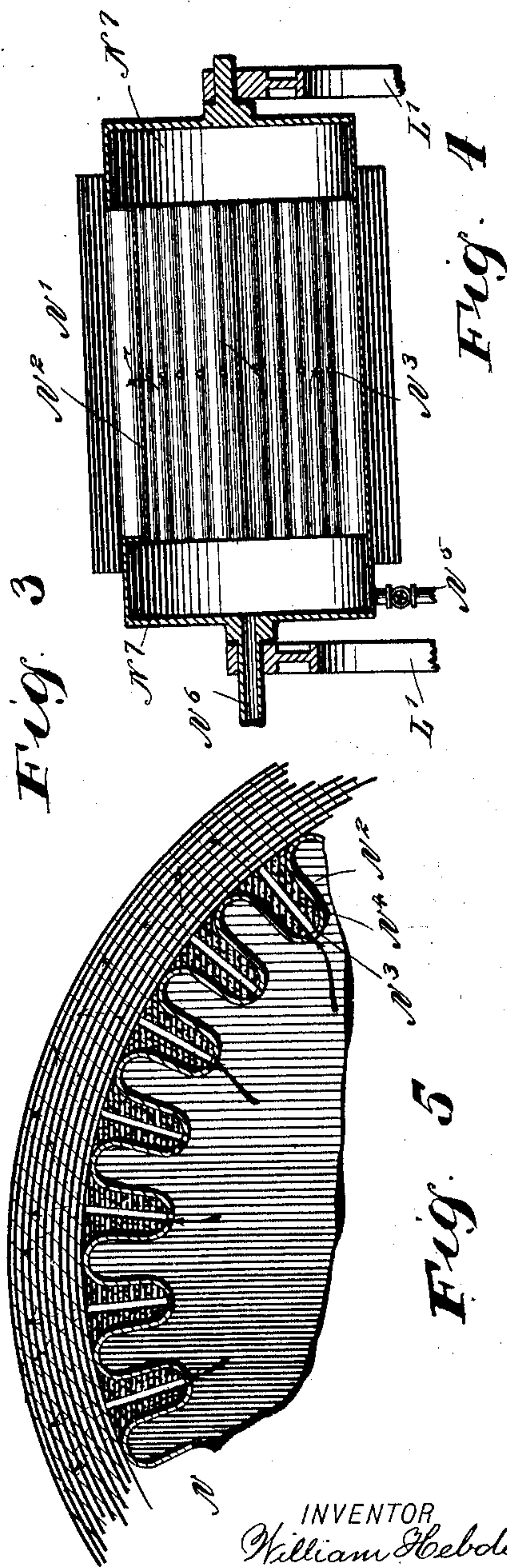
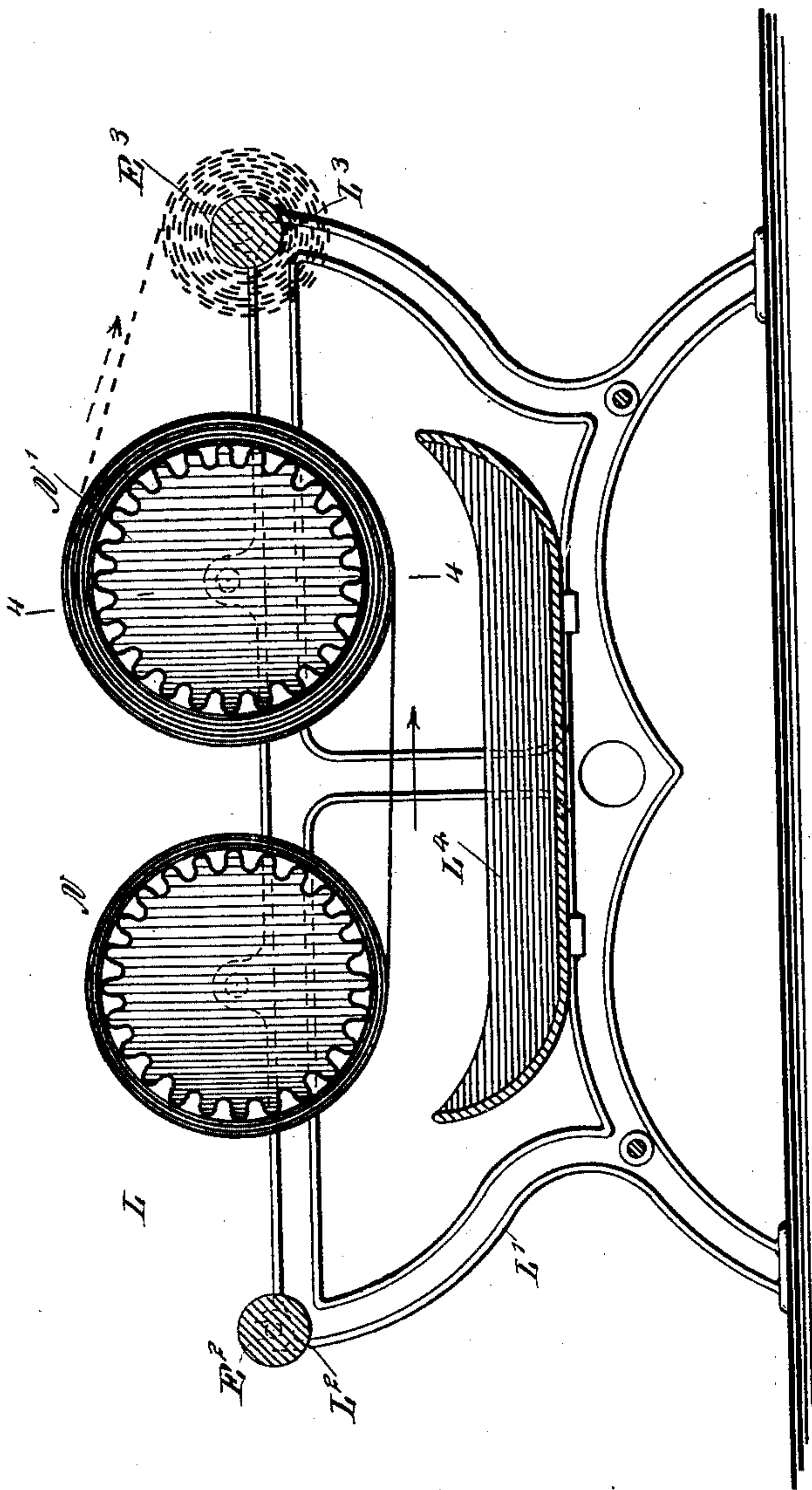
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(No Model.)

2 Sheets—Sheet 2.



WITNESSES :

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UNITED STATES PATENT OFFICE.

WILLIAM HEBDON, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE HEBDON MACHINE AND CLOTH FINISHING COMPANY, OF BOROUGH OF MANHATTAN, NEW YORK, N. Y.

APPARATUS FOR STEAMING CLOTH.

SPECIFICATION forming part of Letters Patent No. 711,399, dated October 14, 1902.

Application filed April 26, 1899. Serial No. 714,527. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HEBDON, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Device for Steaming Cloth, of which the following is a full, clear, and exact description.

The invention relates to an apparatus for shrinking and finishing woolen cloth of all kinds; and its object is to provide a new and improved device for steaming cloth during the shrinking and finishing process which is simple and durable in construction and arranged to insure a thorough and even setting of the fibers to give a firm and permanent finish to the cloth.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claim.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement. Fig. 2 is an end view of the same. Fig. 3 is a sectional side elevation of the same with the cloth wound on different drums, the section being on the line 3 3 of Fig. 2. Fig. 4 is a cross-section of one of the fiber-setting drums, the section being on the line 4 4 in Fig. 3; and Fig. 5 is an enlarged sectional side elevation of part of the same.

The improved device for steaming cloth is mounted on a suitably-constructed frame L', carrying at one end open bearings L² for the reel E², containing the dry cloth to be steamed, as hereinafter more fully described, and the same frame is also provided at its other end with open bearings N³ for a second reel E³, on which the cloth is wound after the steaming process is completed.

On the frame L' are journaled the drums N N', which are alike in construction, and each has part of its rim formed with a transverse corrugation N², having one or more openings N³ at the inner bends of the corru-

gations, so that the steam passing into the drums can pass through said openings N³ to the cloth winding on the drum, without the water of condensation, however, passing to the saturated cloth, as the water settles in the bottom of the drum in the outer bends or in the non-corrugated portions N⁷ of the drum, as will be readily understood by reference to Fig. 4. The corrugations are preferably filled on the outside with a suitable material N⁴, as shown in Fig. 5, the openings N³ extending through the filling material to allow the steam to pass to the cloth, the filling material forming a continuous circular rim for the drum, so that the cloth is not unduly stretched between adjacent corrugations. (See Fig. 5.)

By reference to Fig. 4 it will be seen that but a portion of the rim of each drum is provided with corrugations extending transversely and terminating a distance from each end of the drum, so as to leave the non-corrugated end portions N⁷. The corrugations N² are bent inwardly from the rim and open at their ends into the said non-corrugated portions N⁷, so that the water of condensation within a drum readily passes to the non-corrugated end portions to allow of conveniently drawing the water off from time to time through suitable valved outlets N⁵, connected with one of the said non-corrugated portions.

It is understood that when the water is to be drawn off the drum is held stationary for the time being and that the outlet N⁵ is in a lowermost position, as shown in Fig. 4.

The discharge from the outlet N⁵ is preferably into a drip-pan L⁴, carried on the framework L'. Suitable pipe connections O are provided for supplying the drums with steam, said pipe connections being connected with a boiler or other source of steam-supply and with hollow trunnions N⁶ of the drums N N', as indicated in Fig. 4. The pipes O are provided with valved water-outlets O', adapted to discharge the water of condensation accumulating in the pipes into the drip-pan L⁴.

After the cloth leaves the reel E² it is first wound on the drum end and subjected thereon while being wound up to the action of steam passing through the perforations N³, as above

mentioned, and then the cloth in reverse order is wound up on the other drum N' to insure a thorough and even setting of the fiber of the cloth by the steam throughout the length of the piece of goods.

From the foregoing it is evident that the fiber of the cloth is set by the action of the dry steam to produce a firm and permanent finish equal to that produced by the boil-finishing process at the mill, but requiring less time and labor. It will also be seen that the action of dry steam on the cloth readily destroys any moth or other vermin which may be in the fibers. The cloth thus prepared is then wound up on the reel E³, which is now transferred to other machinery for further treatment of the cloth.

Having thus fully described my invention,

I claim as new and desire to secure by Letters Patent—

A steaming device for steaming cloth in open width comprising a drum, formed with a rim corrugated transversely, the bends of the corrugations extending inwardly, and a filling for each of the corrugations at the outside of the rim, the inner ends of the said inward bends and the said fillings having registering openings passing through the filling for conducting the steam directly from the inside of the drum to the peripheral face thereof and to the cloth wound thereon, as set forth.

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Witnesses:

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