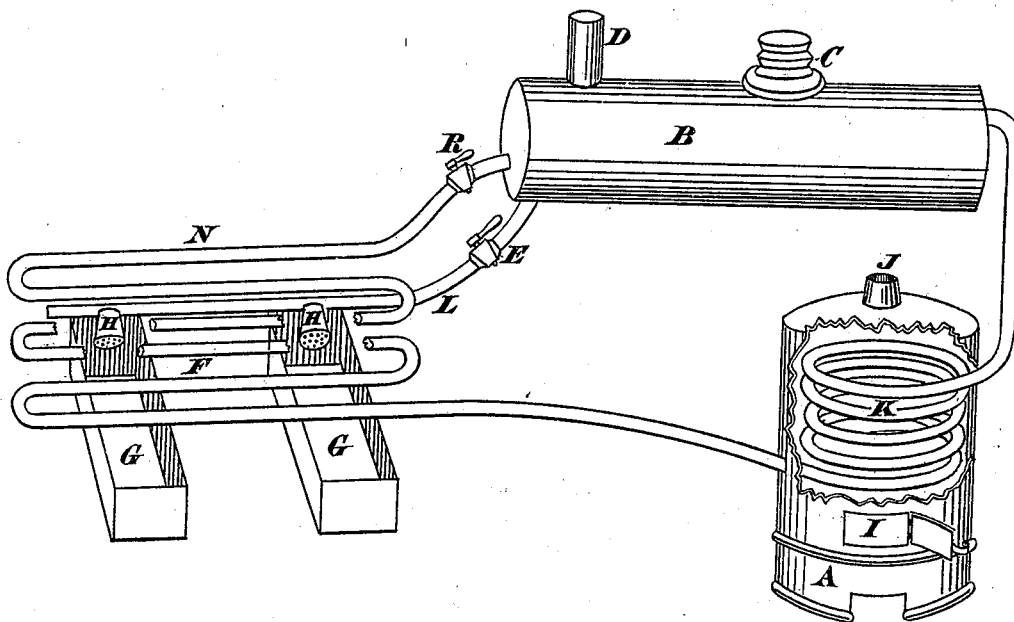


R. DUNLOP.
Devices for Drying and Conditioning Leaf-Tobacco.

No. 196,746.

Patented Nov. 6, 1877.



WITNESSES.

Frank Pardon.
C. Hewitt

INVENTOR.

Robert Dunlop
by J. S. Hewitt
Attorney

UNITED STATES PATENT OFFICE.

ROBERT DUNLOP, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF ONE-HALF
HIS RIGHT TO THOMAS MEIKLE, OF SAME PLACE.

IMPROVEMENT IN DEVICES FOR DRYING AND CONDITIONING LEAF-TOBACCO.

Specification forming part of Letters Patent No. **196,746**, dated November 6, 1877; application filed
August 9, 1877.

To all whom it may concern:

Be it known that I, ROBERT DUNLOP, of the city of Louisville, in the county of Jefferson and State of Kentucky, have invented a certain new and useful Improvement in a Device for Drying and Conditioning Leaf-Tobacco; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, forming part of this specification, and the letters of reference marked thereon.

The drawing is a perspective view of the device, showing its general construction.

This invention relates to a new and useful device in which hot water is used to regulate the temperature of the atmosphere in drying tobacco, and also to produce the required moisture to put it in proper condition preparatory to the further process of its manufacture; consisting, first, in a small cylindrical furnace with a drum or water-tank over it, in connection with a series of pipes, one end of which connects with the water-drum near the bottom, while a part of one pipe is formed into loops horizontally with the remainder, extending beyond the loop, and made to enter the side of the furnace above the fire, where it is again formed into several spiral coils within the chamber, after which the end passes out at the side, turned up, and is made to enter the end of the drum above, which drum is also further provided with a discharge-pipe across the end of the water-pans, with branches at the side over each pan, arranged with perforated strainers on the ends, by which means sufficient spray is produced to moisten the atmosphere when necessary to put the tobacco in proper condition for further use.

In the annexed drawing, A represents the furnace, which may be made in any suitable form. I is the fire-door, and K is the coil of pipe within the chamber, the object of which is to increase the heating-surface, and thereby heat the water more quickly. J is the flue-opening, and B is the water drum or tank over the furnace. C is the supply-opening, and D is the vent-pipe, to which a safety-valve may be attached, if required. N is the main water-pipe, one end of which connects with the rear end of the water-drum near the bot-

tom. A part of this pipe is formed into the loops F in a horizontal manner, and may consist of any required number to produce sufficient heat to dry the tobacco, while the same pipe extends beyond the loops and enters the side of the furnace A above the fire, where it is formed into several spiral coils, K, as shown in the drawing, after which the end passes out at the side, is turned up, and made to enter the end of the water-drum B, thereby forming a free, unobstructed passage for the water from the drum down into the coils below, where it is heated by fire, which causes a constant circulation through the pipe coils and drum. R is the stop-cock for regulating the flow of water, and L is the discharge-pipe across the end of the pans G G, and is provided with branches at each pan. H H are perforated strainers on the end of the last-named branches, for the purpose of producing spray to moisten or condition the tobacco when required. E is the stop-cock to regulate the flow. G G are pans for holding the water discharged from the strainers, which may be increased to any number required.

In order to operate this device, it is only necessary to fill the drum and pipes with water, and start a fire in the furnace, and, by means of the heat, the temperature of the water can be raised to any required degree of heat necessary for drying the tobacco; or, by means of the spray from the strainers and water in the pans, it can be moistened or put in condition for further manipulation.

Having thus fully described the nature and object of this my invention, what I claim as new, and desire to secure by Letters Patent, in a device for conditioning leaf-tobacco, is—

The discharge-strainers H H, by which spray is produced, in combination with the pipe L, drum B, and pipe N, with its loops F, coils K, furnace A, and pans G G, as above described, arranged, constructed, and operated substantially as and for the purpose hereinbefore set forth.

ROBERT DUNLOP.

Witnesses:

FRANK PARDON,
C. HEWITT.