

No. 824,121.

PATENTED JUNE 26, 1906.

T. F. JOHNSON.
DEVICE FOR TREATING WOOL.
APPLICATION FILED MAR. 27, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

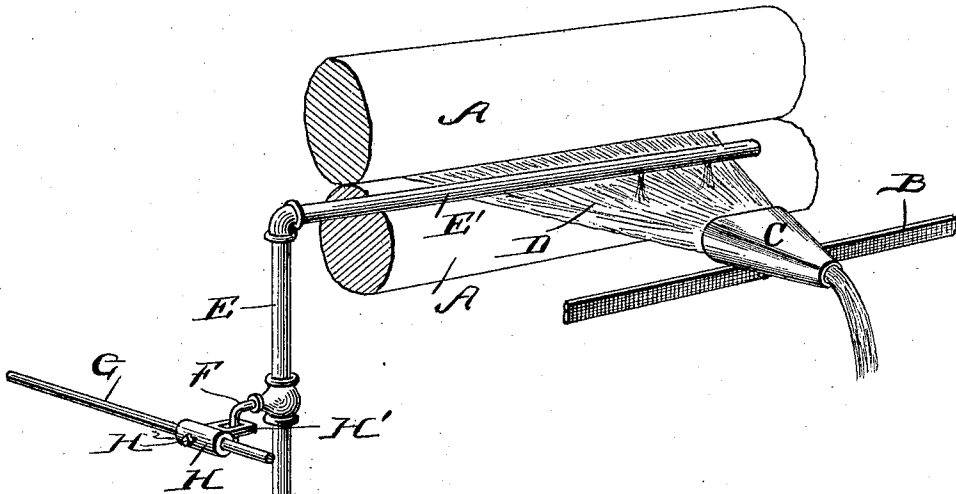


Fig. 2.

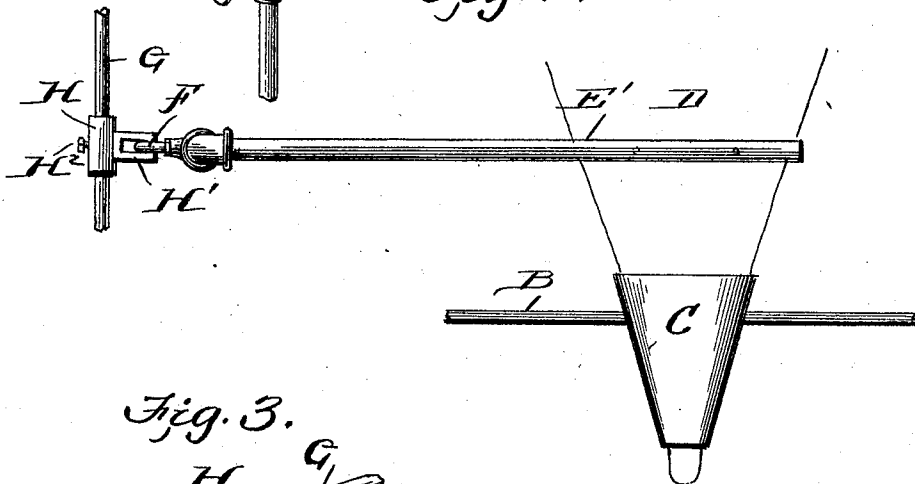


Fig. 3.

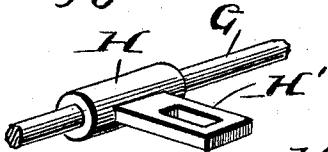
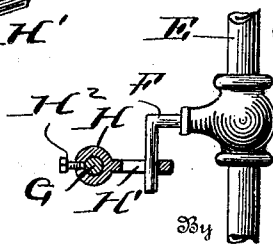


Fig. 4.



Witnesses
M. D. Blodell,
E. B. McBath.

Inventor
T. F. Johnson.
O'Meara & Brock

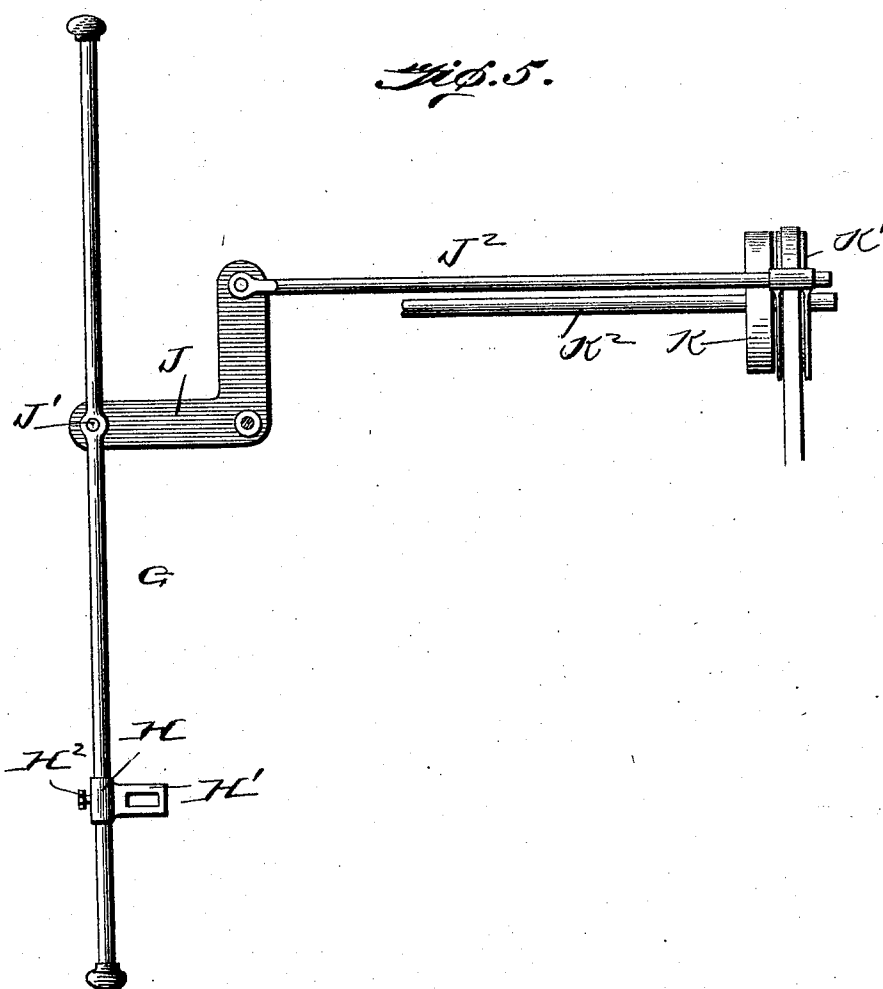
Attorneys

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2 SHEETS—SHEET 2.



Witnesses
M. Offutt
E. B. M. Bath

Inventor
T. F. Johnson
By *Oliver & Brock*
Attorneys

UNITED STATES PATENT OFFICE.

THOMAS F. JOHNSON, OF CAMDEN, NEW JERSEY.

DEVICE FOR TREATING WOOL.

No. 824,121.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed March 27, 1905; Serial No. 252,326.

To all whom it may concern:

Be it known that I, THOMAS F. JOHNSON, a citizen of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented a new and useful Improvement in Devices for Treating Wool, of which the following is a specification.

This invention relates to the treatment of wool in the combing-room of a worsted-factory on its passage from the gill-box and prior to its further manipulation, the special object of the invention being to form the sliver and prepare the wool by setting it for subsequent steps necessary in its manipulation and to avoid the necessity for allowing the wool to stand in order to secure the proper set.

It has been customary to obviate the tearing of the wool by reason of its dryness by laying it in a damp place for some time before commencing the process of setting or forming into the sliver. It is also advantageous to form the sliver by turning the edges of the wool over upon the center, thus giving it the proper set.

I accomplish the objects of my invention by providing a stationary funnel through which the wool is passed and by providing a pipe adapted to discharge water upon the wool as it passes from the gill-box to the funnel, and I also provide means for automatically cutting off the supply of water as the gill-box is stopped and turning it on when the rollers of the gill-box are again started.

In the accompanying drawings, Figure 1 is a perspective view of my device, a portion of the rollers being shown. Fig. 2 is a plan view of my device. Fig. 3 is a detail view of an adjustable sleeve on the regulating-rod. Fig. 4 is a section through said sleeve and rod with a valve-stem and a portion of the supply-pipe in elevation. Fig. 5 is a plan view of the regulating-rod and its connection with a belt-shifter.

In the drawings, A represents the rollers through which the wool passes on its way to the combing-machine, B a suitable bar arranged in front of and parallel to the said rollers, and C a tapering funnel fixed on the bar and through which the wool D is passed on its way to the combing-machine. A water-supply pipe E is placed on one side of the device and has a perforated horizontal arm, which projects above the wool sliver and discharges water thereon at a point between the rollers and funnel C. The pipe is provided

with a hand-valve E² and also with a valve having a valve stem or lever F. A rod G is connected to one arm of a bell-crank J, and the other arm of the bell-crank is pivotally connected to a belt-shifter J², which shifts a drive-belt to and from a fast and a loose pulley K and K', respectively, the fast pulley K driving the gill-box. The rod G is of any suitable length and is pivoted immediately its ends to the bell-crank J and is preferably formed with knobs at each end. The operator attending the gill-box shifts rod G longitudinally when it is desired to stop and start the gill-box, thus throwing the belt-shifter J² in the desired direction. This rod carries an adjustable sleeve H, which on its inner side is provided with a projecting slotted plate H', the valve-lever F engaging the said slot. The sleeve H is locked in its adjusted position by means of a set-screw H². It will be obvious that movement longitudinally of the rod G will move the lever F, and thereby actuate the valve controlled by said lever, and the extent of such movement of the valve will depend on the adjustment of the sleeve H on the rod G with respect to lever F. The amount of water discharged on the wool sliver can thus be regulated with either of the valves and the entire flow automatically cut off when the gill-box is stopped. As the wool sliver enters the funnel C the edges are gradually folded over on the center of the moving strip of wool and the sliver issues from the funnel in a set condition, and by reason of the moisture imparted to it by the treatment herein described its further manipulation can be at once proceeded with, and it is not necessary to wait until the wool has become set before running the same to the combing-machines. Wool thus treated is not only delivered to the combing and roving machines in good condition, but the entire process is greatly expedited.

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

1. In combination with a funnel adapted to receive wool from a gill-box, means for discharging water on the wool between the gill-box and the funnel, and means for automatically cutting off the supply of water on stoppage of the gill-box.

2. The combination with a funnel adapted to receive a wool sliver from a gill-box, a water-supply pipe having a vertical portion and a horizontal, perforated portion extend-

ing above the sliver between the gill-box and the funnel, a valve and valve-lever adapted to control the supply of water, a rod adapted to be moved longitudinally when the gill-box
5 is started and stopped, and a sleeve on the said rod having a slotted, projecting plate in engagement with the valve-lever, said sleeve

being adjustable, as and for the purpose set forth.

THOMAS F. JOHNSON.

Witnesses:

ISAAC WHELDON,
WILLIAM P. KRAMER.