

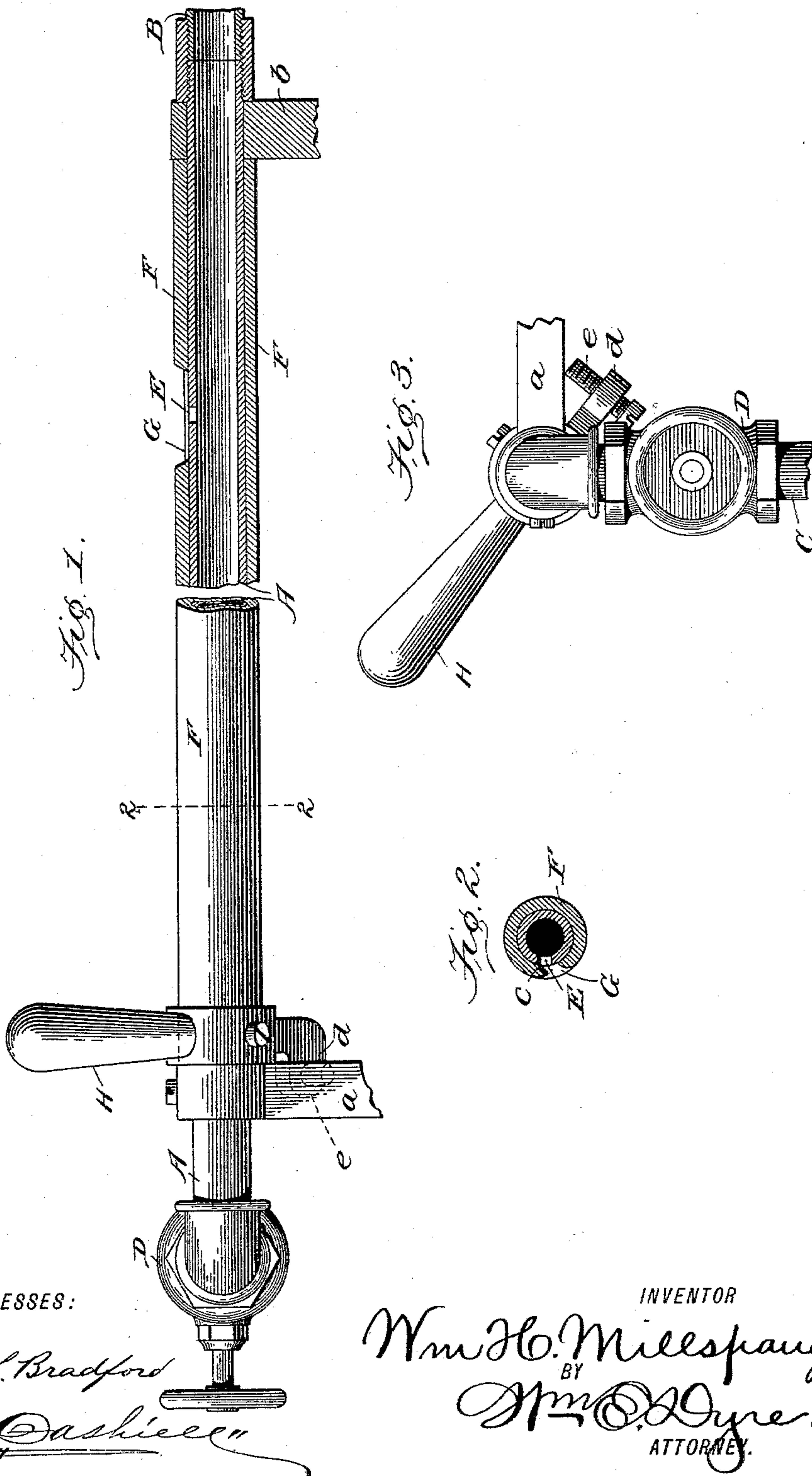
(No Model.)

W. H. MILLSPAUGH.

CLEANSING APPARATUS FOR PAPER MAKING MACHINES.

No. 596,940.

Patented Jan. 4, 1898.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## CLEANSING APPARATUS FOR PAPER-MAKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 596,940, dated January 4, 1898.

Application filed September 22, 1896. Serial No. 606,651. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. MILLSPAUGH, a citizen of the United States, residing at Pulteney, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Cleansing Apparatus for Paper-Making Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to paper-making machines, and has particular reference to cleansing or washing apparatus for use in connection therewith, being a modified embodiment of the principle disclosed in my application filed simultaneously herewith and designated Case A, claiming Letters Patent of the United States covering means for delivering a cleansing fluid in one continuous sheet to parts of a paper-making machine.

The invention has for its object certain improvements upon the perforated shower-pipes heretofore employed for washing the making-wire, the felt conveyers, the dandy-roll, or other parts in a machine of the class stated, to rid them of adhering fibers or extraneous and foreign substances in order that they may properly perform their respective functions.

As further objects my invention contemplates the employment of simple, inexpensive, and durable apparatus, an economical distribution of the cleansing liquids, a corresponding reduction in the size and power of the pumps employed, and a more efficient device generally.

The invention will be hereinafter described, and particularly pointed out in the claims following.

In the accompanying drawings, which form part of this specification, and whereon like letters of reference indicate same parts in the several views, Figure 1 represents, partly in plan and partly in horizontal section, opposite ends of my invention, showing inner and outer tubes, a handle for rotating the latter, and a waste-valve located upon the former. Fig. 2 is a transverse vertical section taken on the line 2 2, Fig. 1, through the inner and outer tubes employed; and Fig. 3 is an end elevation show-

ing a waste-pipe and valve, together with a controlling-lever, a graduating-stop thereon, and one fixed hanger or support.

Reference being had to the drawings and letters thereon, A indicates an inner tube supported in fixed hangers or brackets *a b*, through which it projects and at one end of which it is provided with a threaded coupling B for attachment to a suitable source of water-supply under pump-pressure. The opposite projecting end of inner or supply tube A is finished in a downturned waste-pipe C, guarded by a waste-valve D, and intermediate of these extremities the wall of said pipe is perforated by a series of equidistant ports E, through which cleansing-water or other liquids may be discharged in as many streams.

Surrounding and rotatably mounted upon supply-tube A, between hangers *a b*, against which it abuts, is an outer tube F, broken at intervals in its surface by a series of longitudinal discharge-slots G, adapted to register with the perforations or ports E aforesaid. These slots G are formed by a milling-tool directed at an angle to its cutting-surface, the result being discharge-openings one wall of which *c* presents an acute angle to the action of streams impinging thereon when the apparatus is in use.

Upon one side of the slotted tube F is fixed an overbalanced operating handle or lever H, projecting slightly also upon the opposite side of same tube, there being angled, as at *d*, and equipped with an adjustable screw-stop *e* for engaging the hanger or bracket *a*, as shown by Figs. 1 and 3.

This being substantially a description of my invention, its use is as follows: Outer tube F is rotated upon inner tube A until their ports G E assume the relative position illustrated by Fig. 2, at which time stop *e* will prevent further rotation by engagement with hanger *a*, as in Fig. 3. This accomplished, water admitted to supply-tube A immediately seeks and finds an outlet from each of the ports E, whereby it is forcibly projected in as many streams upon the annular surface *c* of discharge-slots G, and is thence delivered in a series of sheets having diverging sides, which merge into one continuous cleansing-sheet at point of utilization.



If now it is desired to suspend the use of my invention, as above described, and to discharge or cleanse the parts thereof, using for the purpose water under pressure from the same source of supply, tube F is again rotated until stop *e* engages the opposite side of hanger *a*, whereupon all discharge ceases until waste-valve D at end of inner tube A is opened, permitting an unrestricted flow of water to and through the waste-pipe C.

Having thus described this form of my invention, what I claim is—

1. In a paper-making machine the combination with an inner perforated tube, of an outer slotted tube for delivering cleansing liquid in one unbroken sheet, substantially as described.

2. In a paper-making machine the combination with an inner perforated tube, of a rotatable outer slotted tube for delivering cleansing liquid in one unbroken sheet, substantially as described.

3. In a paper-making machine the combination with an inner tube having a series of perforations, a rotatable outer tube having a corresponding series of discharge-slots, and

a handle for rotating said outer tube, substantially as described.

4. In a paper-making machine the combination with a fixed inner tube having a series of perforations, of a rotatable outer tube having a corresponding series of discharge-slots, angular spraying-lips flanking one side of each slot, and a handle for rotating said outer tube on the inner tube, substantially as described.

5. In a paper-making machine the combination with a fixed inner tube having a series of equidistant perforations and a waste-valve, of a rotatable outer tube having a corresponding series of discharge-slots flanked by an angular spraying-lip, and a handle for rotating the outer tube having a graduating-stop for limiting such rotation, substantially as described.

In testimony whereof I subscribe my signature in presence of two witnesses.

WILLIAM H. MILLSPAUGH.

Witnesses:

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