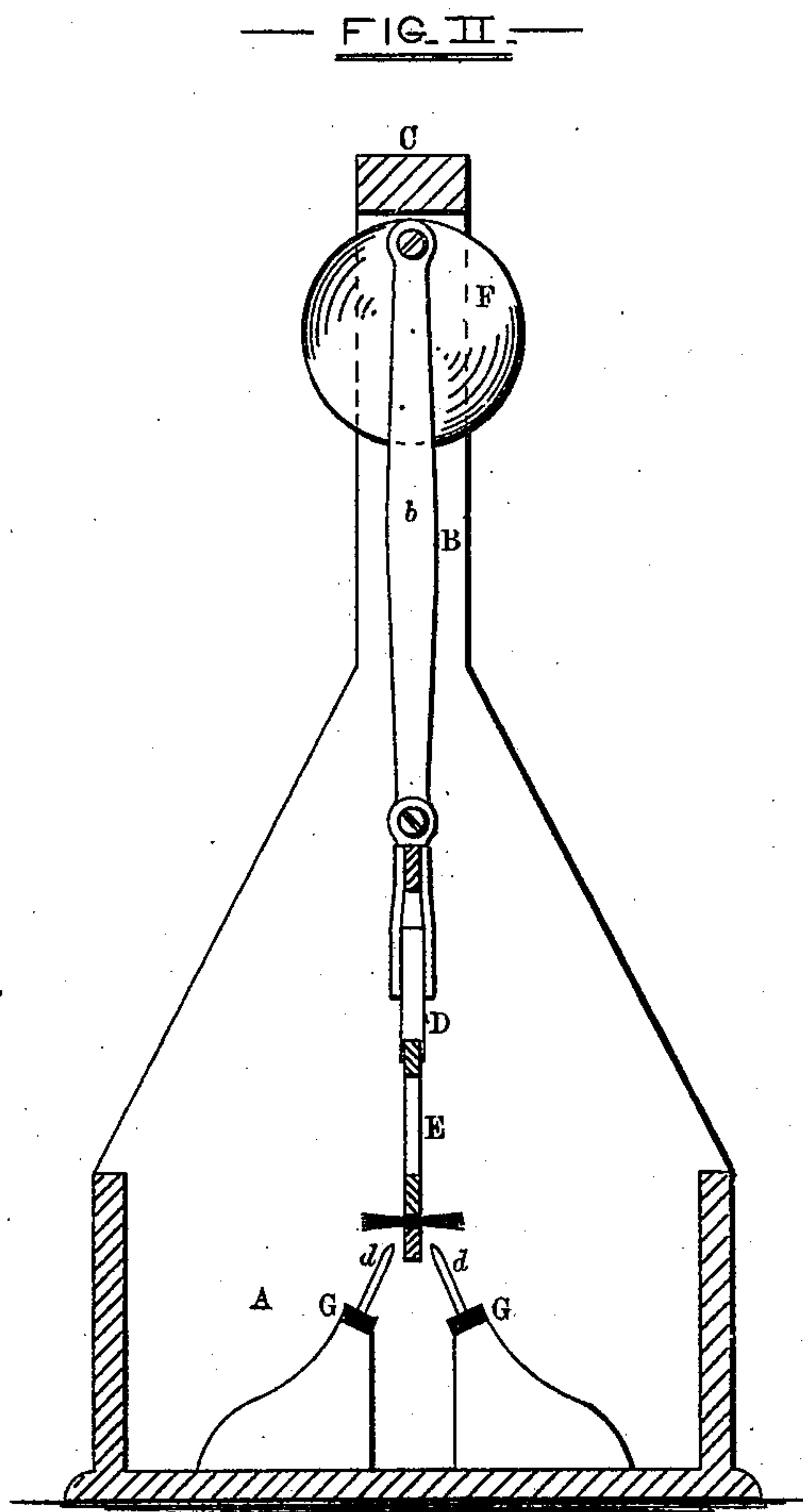
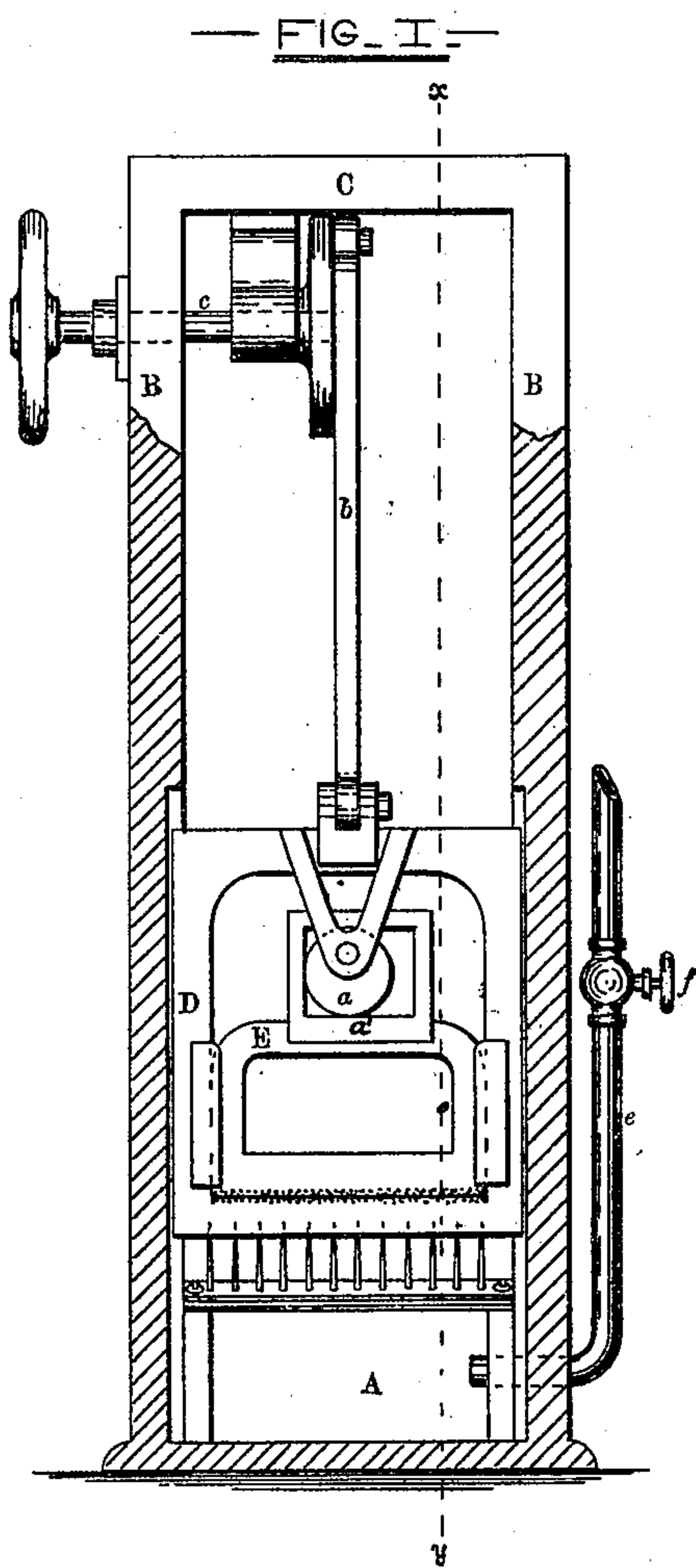


J. WEBB.
BRISTLE-CLEANING MACHINE.

No. 174,881.

Patented March 14, 1876.



— WITNESSES —

Theodore Dost
E. J. Wicks.

— INVENTOR —

James Webb
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UNITED STATES PATENT OFFICE.

JAMES WEBB, OF BALTIMORE COUNTY, MARYLAND, ASSIGNOR TO
WILLIAM WILKINS, OF SAME PLACE.

IMPROVEMENT IN BRISTLE-CLEANING MACHINES.

Specification forming part of Letters Patent No. **174,881**, dated March 14, 1876; application filed
October 7, 1873.

To all whom it may concern:

Be it known that I, JAMES WEBB, of Baltimore county, Maryland, have invented certain Improvements in Machines for Washing and Combing Bristles; and I do hereby declare that in the following specification is set forth a full, clear, and exact description of my invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention relates to improvements in a machine for combing and washing bristles, patented by Louis F. Lannay and William F. Parks December 1, 1868; and consists in a construction of certain parts of the machine and their relative arrangement, enabling the stocks of the combs to be used as wash-boards, and allowing the bristles to be forced past the said stocks, and, in so passing, to be sprung and shaken, thus materially assisting the effect of the liquid in washing out the particles of matter loosened by the combs.

The bristles are washed in a heated liquor, such liquor being raised to the desired temperature in the vat by any suitable method, that preferably adopted by me being the conducting of steam from a generator to the vat by a pipe controlled by valves or cocks.

In the further description of my invention which follows due reference must be had to the accompanying drawing, in which—

Figure 1 is a front elevation of my improved bristle washing and combing machine, chiefly in section; Fig. 2 being a vertical section upon the line *x y*.

Similar letters of reference indicate similar parts of the invention in both the views.

A is a tub or vat, in which the washing-liquor—usually soap and water—is placed. B B are vertical frames rising from the sides of the vat, and connected at the top by the beam C. D is a cross-head, adapted to slide vertically within grooves in the frame B. Within the cross-head is a follower, E, between which and the cross-head D are clamped the bristles to be cleansed. The follower is forced down upon the bristles by means of an eccentric, *a*, operating within a strap, *a'*, which strap is

fastened to the upper part of the follower E. The cross-head and connecting parts receive their motion, by means of a rod, *b*, from a crank-wheel, F, upon the shaft *c*, to which the power is applied.

G G are the bases of the combs. The combs proper are formed of the bases or stocks G and teeth *d*, and placed at an angle, as shown.

I dispense with the mechanism which, in the machine of Lannay and Parks, patented as aforesaid, imparts to the combs a lateral and oscillatory movement, and places the combs at such a distance from the base of the machine as is within the downward limit of the stroke of the crank, in order that the stocks of the combs may be used as wash-boards, as stated. The non-oscillatory movement of the combs allows their stocks to operate as wash-boards at either the up or down stroke of the crank; and experience has shown that the immovability of the combs, whether as to lateral or oscillatory motion, effects a more satisfactory result than that attained by the combs otherwise arranged.

The pipe through which the steam is conducted from a generator to the vat is shown by *e*, and is provided with a cock, *f*, by means of which the current of steam can be controlled.

I have found that, to thoroughly cleanse the bristles with dispatch, a heated washing-liquid is required; and, by the method herein described of treating bristles—viz., by subjecting them to the mechanical action of the machine while they are wholly or partially immersed in a heated liquor—the most satisfactory results are obtained.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

In a bristle-washing machine, the inwardly-inclined teeth *d* and comb-bases G, combined as described, and constituting a fixed comb, for the purpose specified.

JAMES WEBB.

Witnesses:

THODOR DOST,
E. T. WICKS.