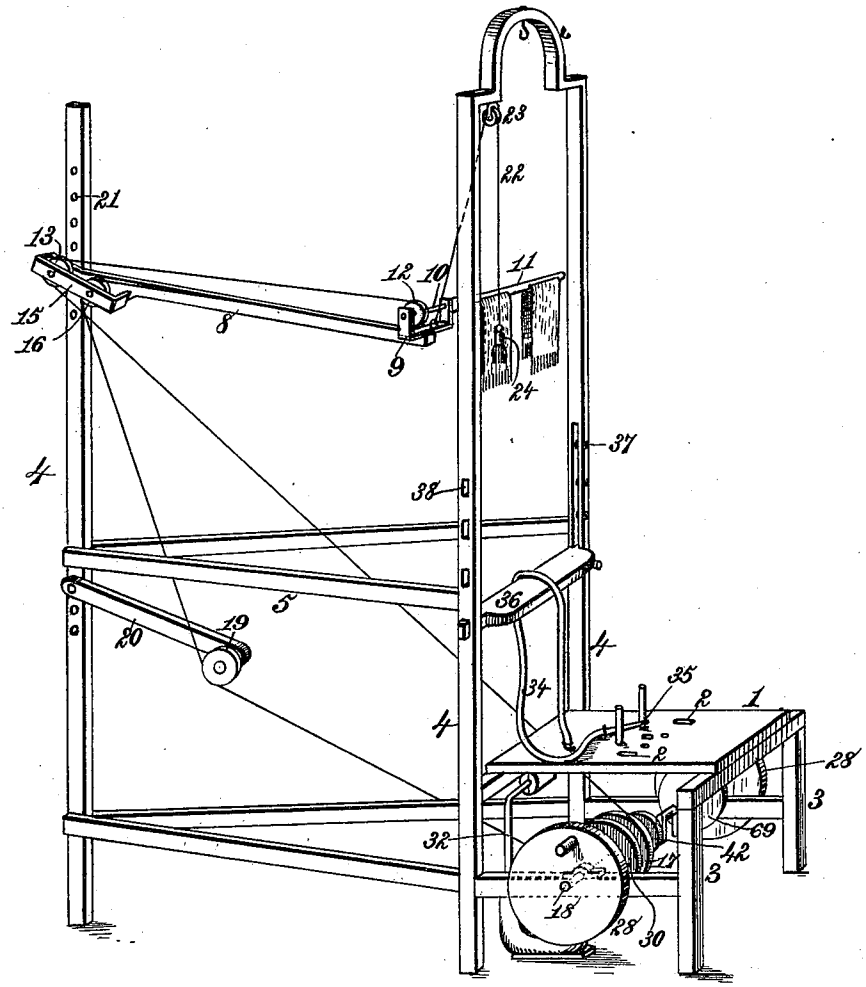
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J. W. JAMES.

BATHING MACHINE.

No. 350,489. Patented Oct. 12, 1886.

Fig. 1.



Witnesses.
Robert Emmett.
Jo. L. Coombs

Inventor.
Jack W. James.
By James L. Norris.
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N. PETERS, Photo-Lithographer, Washington, D. C.

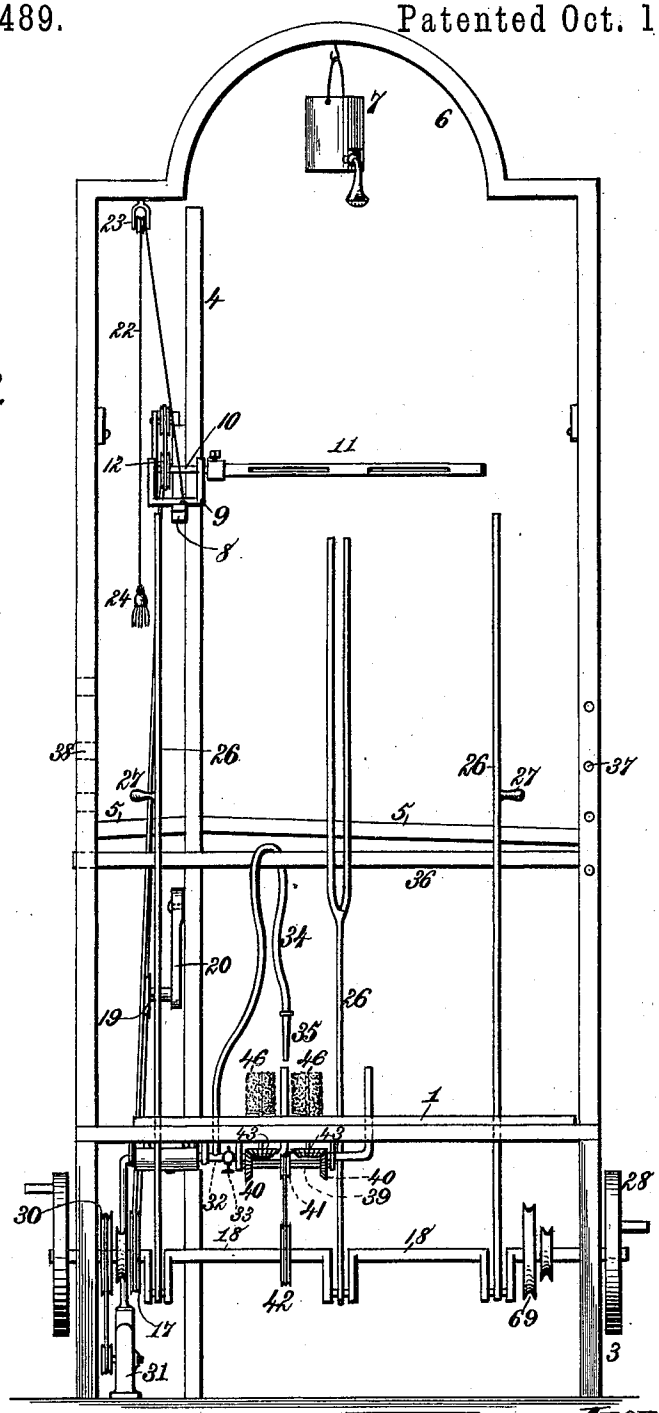
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Fig. 2.



Witnesses.
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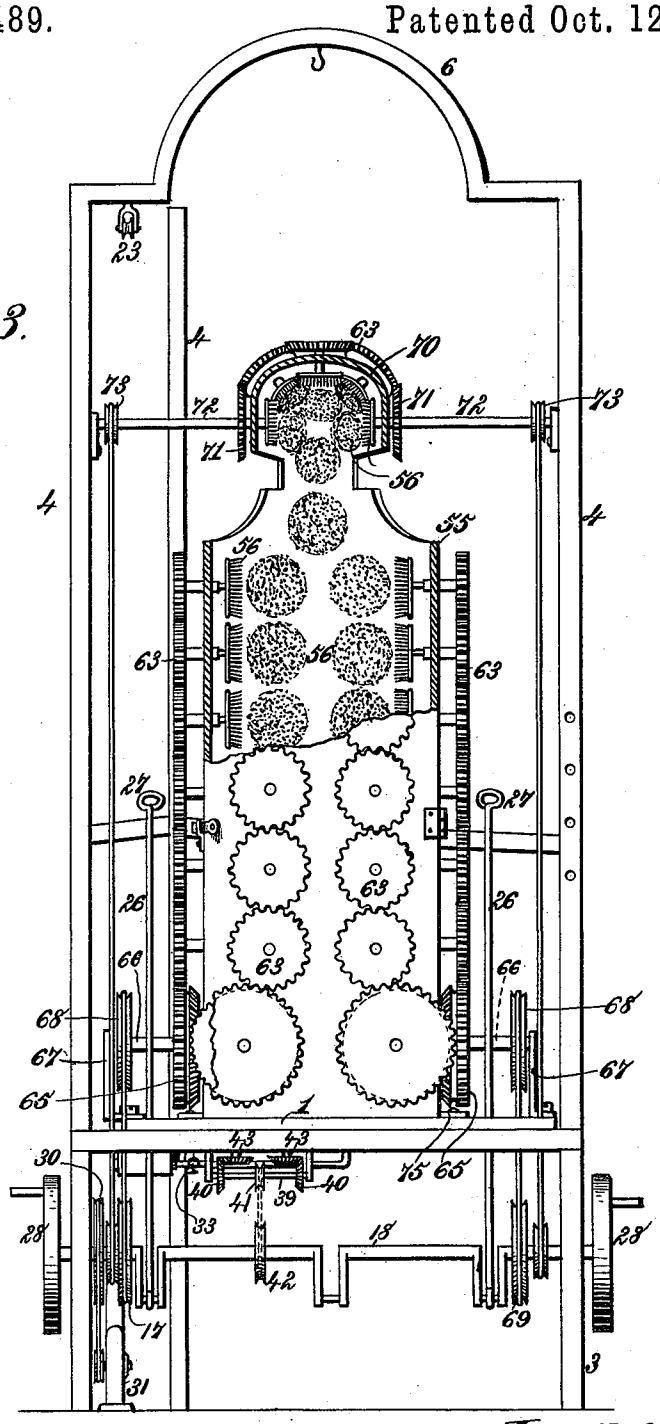
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Fig. 3.



Witnesses.
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(No Model.) 4 Sheets—Sheet 4.

J. W. JAMES.

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Fig. 4.

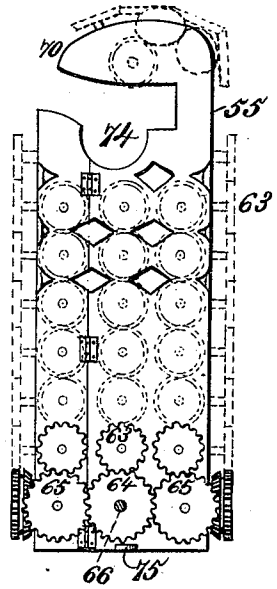
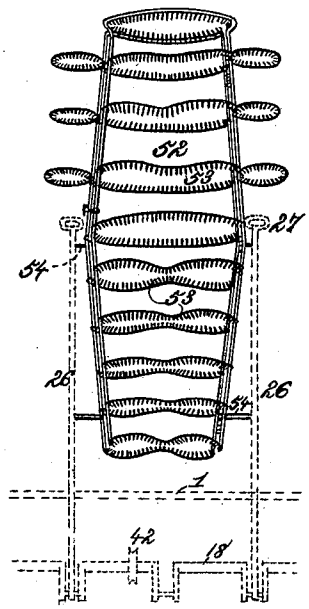


Fig. 5.



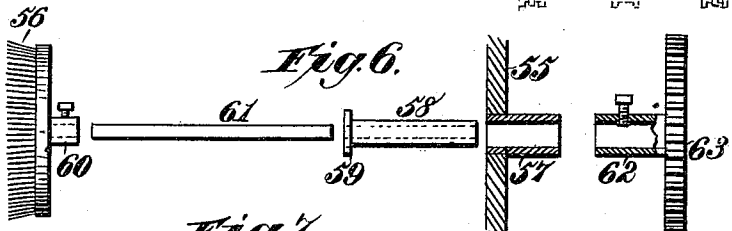


Fig. 6.

Fig. 7.

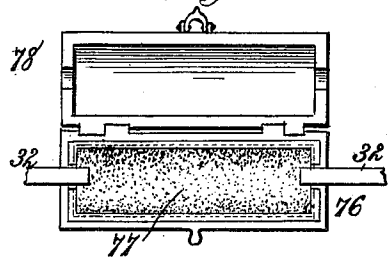


Fig. 8.

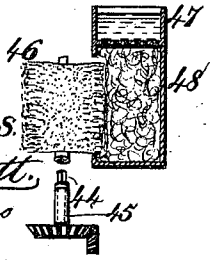


Fig. 9.

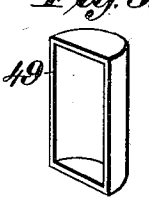


Fig. 10.

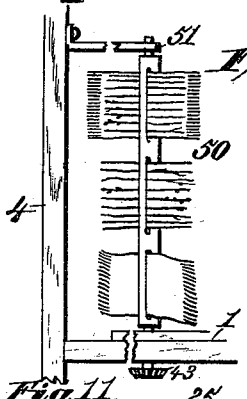
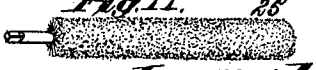


Fig. 11.



Witnesses.
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UNITED STATES PATENT OFFICE.

JACK WILLIAM JAMES, OF CUBA, TENNESSEE.

BATHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 350,489, dated October 12, 1886.

Application filed July 13, 1886. Serial No. 207,916. (No model.)

To all whom it may concern:

Be it known that I, JACK WILLIAM JAMES, a citizen of the United States, residing at Cuba, in the county Shelby and State of Tennessee, have invented new and useful Improvements in Bathing-Machines, of which the following is a specification.

My invention relates to improvements in bathing-machines; and it consists in the construction and combination of devices hereinafter set forth and claimed.

In the annexed drawings, illustrating the invention, Figure 1 is a perspective of my improved bathing-machine. Fig. 2 is a front elevation of the same. Figs. 3 and 4 are detail sectional views of a stationary metallic bathing envelope or casing provided with rotary brushes. Fig. 5 represents a bathing appliance composed of brushes attached to a reciprocating wire frame adapted to envelop the body of the bather. Figs. 6 to 11 are views of details to be hereinafter referred to.

The numeral 1 designates a platform having openings 2, and provided with supports 3. At the rear of this platform is a frame composed of uprights 4, connected by horizontal braces 5. Two of these uprights or standards 4, next the platform, are connected at the top by a cross piece or arch, 6, from which is suspended a showering or douche device, 7, of any convenient form.

To the rear standard 4 is pivotally attached an adjustable forward-projecting arm, 8, the front end of which carries a transverse bar or cross-tree, 9, having upturned ends forming bearings for a pulley-shaft, 10, one end of which projects beyond the innermost bearing, and into this end of said pulley-shaft is screwed a detachable towel-shaft, 11, which is slotted or otherwise arranged for the attachment of a towel or towels.

On the pulley-shaft 10 is a pulley, 12, driven by cord or belting from a pulley, 13, mounted in a frame, 15, which, together with the arm 8, is vertically adjustable on the rear standard 4 of the bathing-machine frame. The frame 15 also carries a pulley, 16, which is driven by cord or belting from a large pulley, 17, on a cranked power-shaft, 18, beneath the platform 1, that supports the bather. The belting that connects the pulleys 16 and 17 is held taut by a belt-tightener, 19, supported at the free end of a bar, 20, which is pivoted to the rear upright 4 in such a manner as to be vertically adjustable according to any change in the location of the pulley-supporting frame 15, said upright being provided with a vertical series of apertures, 21, for the pivot of the belt-tightener, and for the fastenings of the pulley-frame.

To the outer end of the pivoted towel-supporting arm 8 is attached one end of a cord, 22, which is passed over a pulley, 23, and carries at its other end a weighted tassel, 24. By grasping this cord 22 the bather, standing on the platform 1, can raise and lower the rotary towel-shaft 11 at will, while the attached towels are being rotated in contact with the body. If desired, the towel-shaft 11 can be detached from the pulley-shaft 10, and a rotary flesh-brush, 25, Fig. 11, can be substituted therefor, to be used in applying friction to the back of the bather.

The cranked power-shaft 18 has attached thereto several upright rods, 26, which pass through the slots 2 in the platform 1, and are adapted to support a bathing-suit of any suitable construction. The outer rods 26 are each provided with a hand-hold, 27, through which the bather can move the bathing-suit up and down on his body, and at the same time actuate the cranked shaft 18, and through it the towel shaft 11 or rotary brush 25, as the case may be, by means of the intermediate connections. It will be observed that the central rod 26 is bifurcated, one prong or arm going up in front of the bather and the other behind. The shaft 18 has a fly-wheel, 28, at each end, so that when set in motion it will continue to rotate for some time, and one of these fly-wheels has a handle, 29, through which the apparatus can be operated by an attendant instead of the bather.

On the shaft 18 is a pulley, 30, for driving a blower-fan, 31, which is provided with a bifurcated air-discharge pipe, 32, for sending currents of air up the bather's body through the legs of the bathing garment or otherwise. The air-pipe 32 is provided with a cut-off valve or cock, 33, to cut the air off and send it instead through a flexible tube, 34, having a nozzle, 35, at its end, which enables the bather to direct a current of air up either sleeve into the bosom or down the back. A bar, 36,

forming a seat for the bather, is extended between the forward uprights 4, and is so arranged as to be adjusted to any height by means of a bolt at one end passing through either of a series of perforations, 37, in one upright, while the other end of the bar is supported on either of a series of bearings, 38, formed on or attached to the opposite upright.

Beneath the platform 1, and journaled in a suitable hanger secured to the under side thereof, is arranged a rotary shaft, 39, carrying a pair of bevel-pinions, 40, and an intermediate pulley, 41, through which said shaft and pinions are driven by belting from a pulley, 42, on the power-shaft 18. The bevel-pinions 40 mesh with similar pinions, 43, on the lower ends of a pair of vertical brush-shafts, 44, which are journaled in sleeves 45, Fig. 8, that are supported in openings made in the platform 1 of the machine.

The brush-shafts 44 are provided with detachable cylindrical brushes 46, to be used in bathing and anointing the feet. These brushes can be supplied with olive-oil or with any suitable ointment in any convenient manner; but I prefer to place the oil in a small tank or receptacle, 47, located in the top of a box, 48, the lower part of which is filled with cotton, sponge, or like absorbent material. The bottom of the oil-receptacle 47 is perforated to allow the oil to pass into the absorbent material, and one side of the box 48 is left open, so that the absorbent material, saturated with oil, can be brought in contact with the rotary brushes while the same are in motion, thus furnishing the requisite supply of oil. The brushes can also be supplied with prepared suet or other ointment by bringing them in contact with the open side of a semi-cylindrical box, 49, Fig. 9, in which such ointment is packed, the shape of the box enabling all of the ointment to be consumed therefrom without waste by simply bringing the box into contact with the rotating brushes. By thrusting the feet successively between the rotating brushes 46 the oil or ointment, as the case may be, will be applied with suitable friction, thus affording a convenient remedy for cold feet dependent on defective circulation, and also a means for rendering the feet soft and pliant. These rotary brushes 46 can be used for blacking boots and shoes, the boxes 48 and 49 being supplied with water and blacking, respectively, and dry brushes being employed for polishing. If desired, one of the short rotary brushes 46 can be replaced by a longer cylindrical brush, 50, Fig. 10, consisting of a slotted shaft, say, three or four feet long, carrying a quantity of long broom-straw, and with towels passed through the slots and secured therein, the broom-straw serving to hold the towels straight and stiff while they are used to fan and slap the body as the brush rotates. The upper end of this long slotted brush-shaft may be supported in a bearing, 51, projecting from one of the uprights of the machine-frame.

Any suitable bathing-suit can be attached to the vertical rods 26, and be thereby reciprocated in contact with the bather's body. In Fig. 5 I have shown a skeleton suit or frame, 52, composed of wire, with bristles or brushes 53 of other suitable material attached. This frame is formed in two parts or vertical halves hinged together on one side and provided with fastenings on the other side. At suitable intervals on each side of the suit are fastenings 54, for attaching the suit to the vertical rods 26, so that when the latter are put in motion the suit, with attached brushes 53, will be reciprocated in contact with the body of the bather.

Instead of a reciprocating suit, I may employ a stationary inclosing frame or casing, 55, provided with a series of rotary brushes, 56, as shown in Figs. 3 and 4. The stationary frame 55 is secured to the platform 1, and is composed of cast metal, say, one-quarter of an inch thick. The frame need not be solid, but is preferably reticulated, and its front portion is hinged on one side and provided with suitable fastenings on the other, so that it serves as a door to admit the bather, and is afterward secured in place. The stationary metal frame or casing 55 supports a number of fixed horizontal tubes, 57, Fig. 6, through each of which is passed a hollow shaft, 58, having a flange or head, 59, at its inner end. The rotary brush 56 on the inside of the casing 55 has a hollow shank, 60, which is secured by a set-screw to a shaft, 61, that is passed through the hollow shaft 58 and through the hollow shank 62 of a spur-gear, 63, on the outside, said shank 62 being provided with a set-screw, by which it is secured to the hollow shaft 58 and solid brush-shaft 61, thus connecting the parts in such a way that they can be adjusted in and out to bring the brushes 56 against the bather's body. Three vertical rows of these rotary brushes 56 and spur-gears 63 are arranged in each side of the metallic frame or casing 55, and the gears 63 in each row are made to mesh together, as shown. In the front and back of the frame 55 are also two or three rows of such brushes and gears. Beneath the gears 63, in the side of the frame and meshing therewith, are three larger intermeshing gears, 64 and 65. The central side gears, 64, has spur-teeth only, and is mounted on a shaft, 66, which has one bearing in the frame 55, and an outer bearing in a bracket, 67, supported by the standards 4, or otherwise. On this shaft 66 is a pulley, 68, driven by cord, chain, or belting from a pulley, 69, on the power-shaft 18. The outside gears, 65, are double-faced or provided with both spur-teeth and miter-teeth, so as to mesh both with the central gear, 64, and also with corresponding miter-gears on the front and back of the frame, thereby actuating all the brush-gears. The cap or head piece 70 of the frame 55 is provided with a similar system of rotary brushes 56 and gears 63, actuated from

a central gear, 71, on each side, which is mounted on a shaft, 72, having a pulley, 73, that is driven by a cord, chain, or belting from a pulley on the power-shaft. As the bather stands in the stationary suit or casing 55, his arms are passed through side openings, 74, to enable him to grasp the hand-holds 27 of the rods 26, and so operate the shaft 18 to actuate the rotary brushes 56; or said shaft can be operated by an attendant. The lower end of the stationary metallic casing or suit 55 is provided with perforated feet 75, through which it can be screwed to the platform of the machine. It can thus be readily detached and another suit of different kind substituted whenever desired. If desired, the air-pipe 32 may be interrupted at a convenient point and made to communicate with a receptacle, 76, Fig. 7, containing any suitable absorbent material, 77, saturated with perfume or with a disinfectant, that can thus be carried in contact with the body by the action of the fan. This receptacle 76 has a close-fitting cover, 78, provided with a suitable fastening, and may be made of any suitable material. The absorbent material placed in the receptacle 76 serves to expose a large surface to the air-current, and avoids waste of the perfume or disinfectant.

Having thus described my invention, what I claim is—

1. In a bathing-machine, the combination of a platform, an upright frame at the rear of said platform, an adjustable pivoted arm, 8, projecting forward from the rear upright of said frame, a rotary shaft, 10, carried by said arm and adapted to support a brush or towel, means for actuating said rotary shaft, and a cord and pulley for oscillating the supporting-arm of said shaft, substantially as described.

2. The combination of a platform, a douche or shower device suspended above the platform, a fan-blower having a bifurcated air-discharge pipe provided with a cock, a flexible tube communicating with said pipe between the cock and fan, and a perfume or disinfectant receptacle, also communicating with the air-discharge pipe of the fan, substantially as described.

3. The combination of a slotted platform, a power-shaft journaled beneath said platform and provided with pulleys and fly-wheels, rods attached to said shaft and projecting through the platform, a horizontal shaft supported in a hanger beneath said platform and provided with bevel-gears, said shaft having a pulley belted to a pulley on the power-shaft, and a pair of cylindrical rotary brushes arranged in a vertical position above the platform, and having shafts provided with bevel-gears meshing with the gears on the horizontal shaft, substantially as described.

4. The combination, with the vertical rotary brushes 46, of the open-sided box 48, packed with absorbent material, and having at the top a tank, 47, provided with perforated bottom, and the semi-cylindrical box 49, substantially as described.

5. The combination, with a horizontal rotary shaft for carrying a brush or towels, of a vertical rotary shaft having a brush and towels attached thereto for applying friction to the body of a bather, substantially as described.

6. The combination, with a slotted platform and a power-shaft journaled beneath said platform and provided with fly-wheels and pulleys, as described, of a stationary metallic frame or body casing secured to said platform and provided internally with a series of rotary brushes and externally with cogged gearing connected with said brushes and with the power-shaft, substantially as described.

7. The combination, with the metallic casing 55, having tubular bearings 57, of the rotary brushes 56, having hollow shanks 60, the brush-rod 61, detachably secured to said hollow brush-shank, the tubular shaft 58, having flanged end 59, and the gear 63, having a hollow shank, 62, detachably secured to the shafts 58 and 61, whereby the brushes 56 are adjusted longitudinally, substantially as described.

8. The combination, with the slotted platform 1 and power-shaft 18, having pulleys 69 and rods 26, of the stationary metallic frame 55, having a hinged door in its front, arm-openings 74 in each side, and a series of internal rotary brushes, 56, actuated by gears 63, 64, and 65, driven by pulleys 68 and by belting from the power-shaft, substantially as described.

9. The combination, with a bathing apparatus, of the blower-fan 31, air-pipe 32, and a perfume or disinfectant receptacle, 76, communicating with said air-pipe and filled with an absorbent material for the perfume or disinfectant, substantially as described.

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

JACK WILLIAM JAMES.

Witnesses:

THOS. T. TAYLOR,

J. M. COLEMAN, Jr.