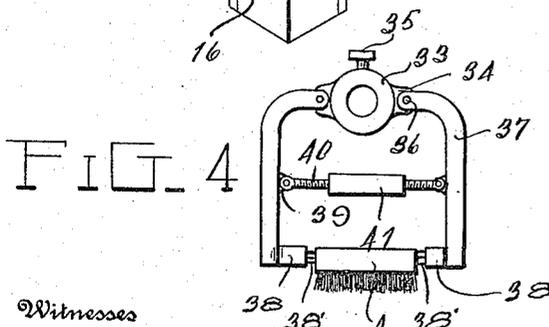
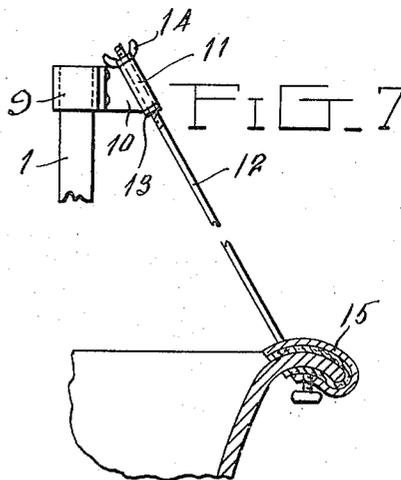
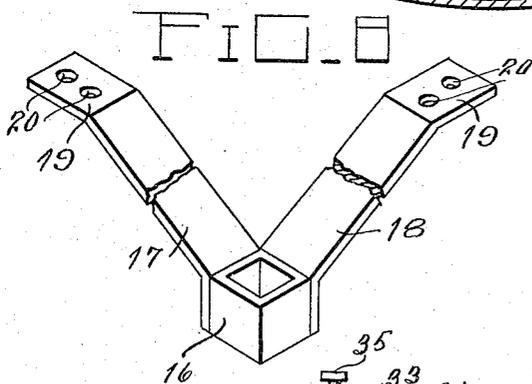
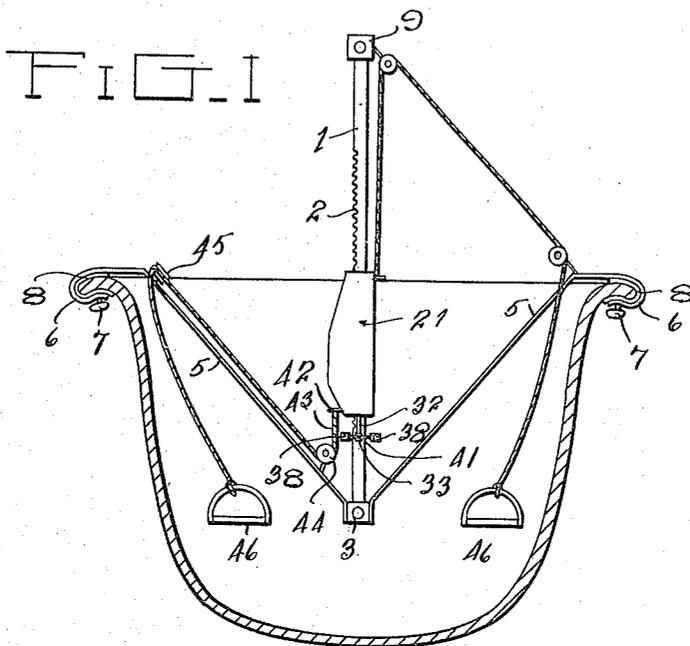


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 BACK BATHER.
 APPLICATION FILED MAR. 26, 1915.

1,167,282.

Patented Jan. 4, 1916.
 2 SHEETS—SHEET 1.



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FIG. 2

FIG. 3

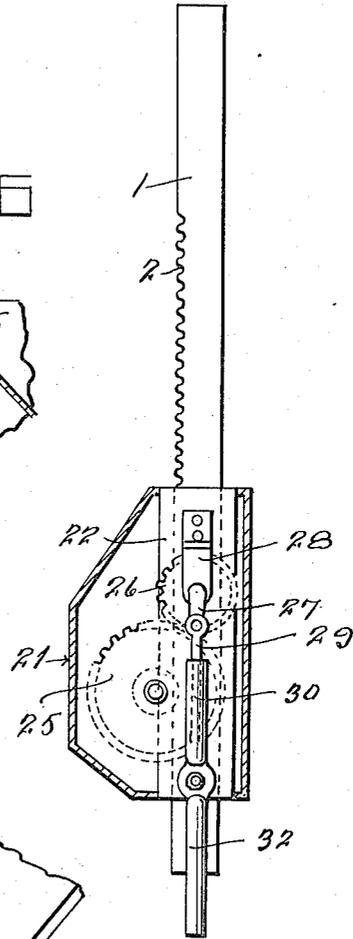
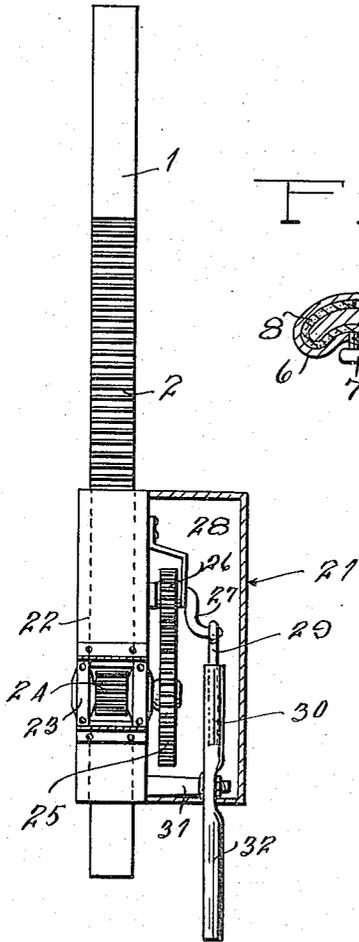


FIG. 6

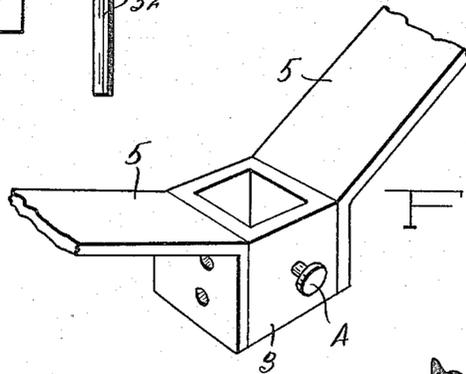
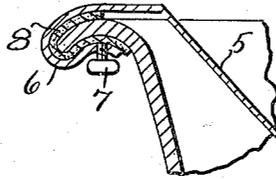


FIG. 5

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OLIVER M. FARMER, OF LEWISTOWN, MONTANA.

BACK-BATHER.

1,167,282.

Specification of Letters Patent.

Patented Jan. 4, 1916.

Application filed March 26, 1915. Serial No. 17,303.

To all whom it may concern:

Be it known that I, OLIVER M. FARMER, a citizen of the United States, residing at Lewistown, in the county of Fergus and State of Montana, have invented certain new and useful Improvements in Back-Bathers; 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.

This invention relates to new and useful improvements in back bathers, and has for its principal object to provide a device by which a person may with little difficulty easily and quickly bathe the back.

Another object of the invention is to provide a mechanical means which is operable without inconvenience to the user and which is capable of being easily and quickly attached to or removed from a bath tub of the usual construction.

A further object of the invention is to provide a novel form of support for the device which is designed to prevent injury to the tub.

Still another object of the invention is to provide a novel means for giving the brush the desired oscillatory motion.

With these and other objects in view, the invention consists in the novel combination and arrangement of parts which will be fully set forth in the following specification and accompanying drawings, in which,

Figure 1 is a view illustrating my improved device attached to a bath tub, the said tub being in section, Fig. 2 is a view partly in section of the rack bar and oscillatory mechanism which coöperates therewith, Fig. 3 is a view similar to Fig. 2 at right angles thereto, Fig. 4 is a view of the brushes and brush holders, Fig. 5 is a fragmentary perspective view showing the lower support for the rack bar and mechanism carried thereby, Fig. 6 is a sectional view showing the method of connecting the lower support to the tub, Fig. 7 is a fragmentary sectional view showing the method of securing the upper support to the tub and illustrating the upper support with the rack bar in place, and Fig. 8 is a detail, fragmentary, perspective view of a modified form of lower support.

Referring to the drawings by characters of reference, the numeral 1 designates the main supporting bar of the device provided

with the rack teeth 2. This bar is held at its lower end in the socket 3, which is provided with a set screw 4 for clamping the lower end of the bar and preventing the same from being accidentally displaced. Riveted or otherwise secured to the sides of the socket 3 are the supporting arms 5, which extend upwardly and outwardly as illustrated in Figs. 5 and 6 and terminate at their outer ends in the bent-back portions 6 which are provided with the set screws 7 to form clamps, the inner faces of which are provided with suitable felt or a similar soft material 8 to prevent the defacing of the flanges of the tub in connection with which the device is used.

The upper end of the bar 1 is supported in the socket 9 having secured thereto in any suitable manner the bracket 10, which is provided at its outer end with the inclined sleeve 11 for the reception of the threaded end of the rod 12 which is provided with the adjusting nut 13 and thumb nut 14 by which the rod is held in place in the sleeve 11. The lower end of the rod 12 is secured in the clamp 15 which is constructed in a manner similar to the clamp 6, and is arranged to be secured to one of the flanges of the tub.

In the modified form of this support illustrated in Fig. 8, the socket 16 is provided and has secured to adjacent faces the upwardly and outwardly extending arms 17 and 18 which terminate in the flanges 19, having formed therein suitable apertures 20 for the reception of screws or other supporting means for the device. This support is adapted for use particularly in connection with shower baths and the like, and it will be evident that it may be screwed or otherwise secured in position so that the bar 1 will be held vertical.

Slidable on the bar 1 is a suitable housing designated by the numeral 21 which is carried by the sleeve 22, having formed thereon suitable outstanding ears 23 which are apertured to form journal bearings for the shaft on which the gear 24 is mounted. This gear 24 is arranged to mesh with the rack teeth 2 of the bar 1 and drive the spur gear 25, which in turn meshes with the gear 26 carried on a suitable shaft, the outer end of which terminates in the crank arm 27 and is supported in the bracket 28. This crank arm 27 has pivotally secured thereto the plunger 29 which is slidable in the sleeve 30,

the lower end of which is pivoted to the arm 31 and is provided with the cylindrical continuation 32 which forms a support for the brush which will be more fully hereinafter described.

The brush above referred to is held in the brush holder illustrated in Fig. 4 which comprises a sleeve 33 having formed at diametrically opposite points a pair of ears 34. A suitable set screw 35 extends into the sleeve and forms a means by which it may be clamped to the cylindrical extension 32 hereinbefore referred to. Pivoted to each of the ears as at 36 are the L-shaped clamping arms 37 carrying at their outer ends the enlargements 38 which are formed with the inwardly extending spikes 38' which are arranged to engage and grip the brush head A so as to hold the brush in operative position. Extending inwardly from the arms 37 are the ears 39 to which are pivoted the threaded links 40 with which the internally screw threaded sleeve 41 coöperates. This sleeve 41 is arranged to adjust the arms so that the enlargements 38 may be adjusted to engage brush heads of different sizes.

Secured near the upper and lower ends of the housing 21 as at 42 are the flexible members 43 which pass over the pulleys 44 secured near the upper and lower ends of the standard 1, and thence over the pulleys 45 secured near the upper ends of the supporting arms 5. These flexible members carry at their ends opposite the ones which are secured to the housing, suitable grips 46 by which the user may operate the device.

It will be apparent from the foregoing that in use the standard 1 is supported in the bath tub as illustrated in Fig. 1, and upon pulling the grips 46 alternately, it will be apparent that the housing 21 will be raised and lowered upon the standard, thus causing the gear 24 to rotate and thereby oscillate the extension 32 and cause the brushes to oscillate during their upward and

downward movement. In this way it will be apparent that the user may easily and quickly wash his back without the necessity of providing an attendant.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that such changes may be made in the combination and arrangement of parts as will fall within the spirit and scope of the invention as defined in the claims.

What is claimed is:

1. A device of the character described including a standard, rack teeth on the standard, a housing, means within the housing to engage the rack teeth, vibrating means cooperating with the teeth engaging means within the housing and arranged to be vibrated thereby upon movement of the housing with relation to the standard, and a brush carried by the vibrating means.

2. A device of the character described including a standard, a housing slidable on the standard, a gear carried by the housing, a gear train operated upon rotation of the gear, a crank, an oscillating arm operatively connected with the crank and arranged to be moved thereby, and a brush removably secured to the arm.

3. A device of the character described including a standard, a housing slidable on the standard, vibratory means within the housing and arranged to be vibrated upon movement of the housing on the standard, means to support the standard in a shower bath, means to move the housing with relation to the standard, and a brush carried by the vibratory means.

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

OLIVER M. FARMER.

Witnesses:

MILTON R. WISE,
FRED J. FRANCIS.