

A FLUID POWERED BRUSH

This invention relates to a fluid powered brush.

Such brushes are known in which a movement is imparted to the brush or bristles or the like to assist in the washing or scrubbing action thereof.

According to the present invention, there is provided a fluid powered brush comprising a brush body, a recess in said body, an unbalanced freely rotatable impeller rotatably mounted in said recess, a brush board carrying bristles attached to said brush body and closing said recess, said brush board being planar with the bristles extending outwardly of the brush board, said impeller being mounted parallel to said plane of said brush board and journaled between said brush body and said brush board to be freely rotatable with respect thereto, means in said brush body for directing a flow of fluid onto said impeller so that on rotation of the impeller the brush body and brush board vibrate due to rotation of the unbalanced impeller, and means in the wall of said recess forming an exhaust for said fluid.

For a better understanding of the invention and to show how the same may be carried into effect, reference will now be made, by way of example, to the accompanying drawing, in which:-

Figure 1 is a plan view of a fluid powered brush,

Figure 2 is a vertical cross-section of the brush, and

Figure 3 is a cross-section taken at right angles to the view shown in Figure 2.

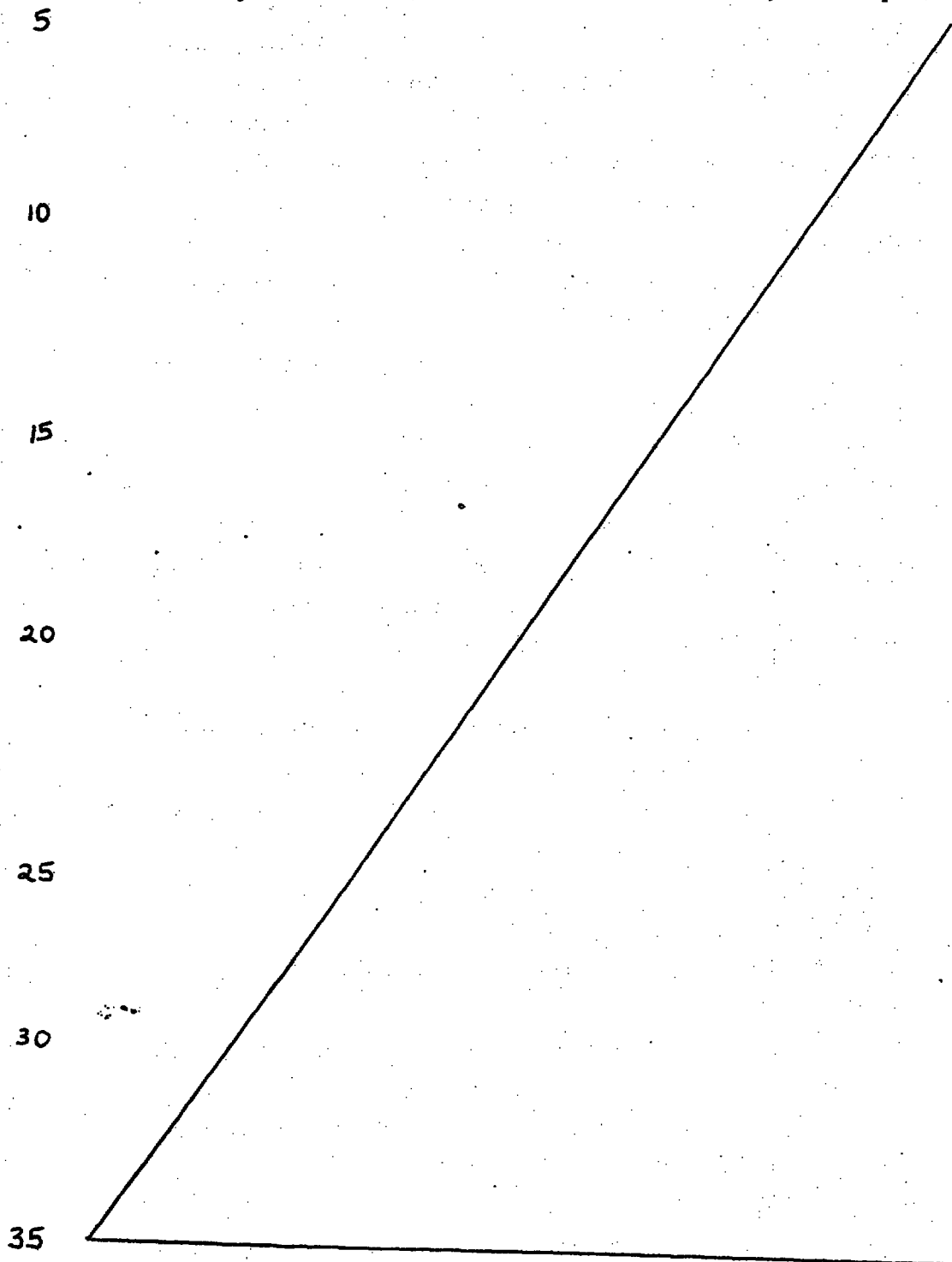
The drawing shows a brush which includes a generally square cup-shaped brush body 1, having an outer covering 2 which is formed at 3 to have a recess 4 to receive a brush board 5 carrying

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bristles 6, the brush board 5 defining a plane from which the bristles 6 outwardly extend.

The brush body 1 is formed with a circular recess 7 formed by wall 10 behind the brush board, an impeller



1 10 being journalled in a bearing 8 in the brush body 1
and bearing 9 in the brush board 5. The impeller 10 also
defines a plane which is parallel to the plane of the
brush board 5.

5 The impeller 10 has a number of blades 12, cups or
the like, and is provided with an eccentric weight or
mass 13, this preferably being provided between two of
the impeller blades 12.

The brush body 1 also comprises a portion 14 to
10 which can be pivoted a handle 15, the handle having a
handle connector 16 connected to the body by a locking
knob or pin 17, so that the angular relationship of the
handle 15 and body 1 can be varied and locked in
position.

15 A means is provided in the brush body 1 for
directing a flow of fluid onto the impeller 10 and this
is achieved by the handle itself being hollow and
carrying a tube or hose 18 or the like, this being
connected at its brush end to a nozzle 19 in the brush
20 body, the nozzle being adapted to direct a jet of fluid
such as water into the impeller blades 12.

The wall 11 of the recess 7 for the impeller 10
can be provided with exhaust ports or passages 20 or the
like for the escape of the water, this water being then
25 allowed to escape through the bristles of the brush.

It has been found that very little water is
required to freely spin the impeller and cause the brush
body to vibrate due to the impeller carrying the
eccentric weight, and this vibration will continue
30 irrespective of the degree of pressure which is applied
to the brush to force the bristles into contact with the
surface being cleaned.

As the impeller is freely spinning and is not
connected to the brushes or bristles in any way then a
35 minimum amount of water is required to spin the impeller.

The brush can be utilised for various purposes
both for cleaning cars, walls, windows, and also can have

- 1 industrial application in cleaning equipment, tanks, vats, vessels and the like.

Also in the domestic scene the brush could be utilised for personal use in the bathroom where the vibratory effect would not only have a cleaning but also a therapeutic and stimulating effect on the skin.

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CLAIMS

1. A fluid powered brush comprising a brush
body, a recess in said body, an unbalanced freely
rotatable impeller rotatably mounted in said recess,
5 a brush board carrying bristles attached to said
brush body and closing said recess, said brush board
being planar with the bristles extending outwardly
of the brush board, said impeller being mounted
parallel to said brush board and journaled between
10 said brush body and said brush board to be freely
rotatable with respect thereto, means in said brush
body for directing a flow of fluid onto said impeller
so that on rotation of the impeller the brush body
and brush board vibrate due to rotation of the
15 unbalanced impeller, and means in the wall of said
recess forming an exhaust for said fluid.

2. A brush as claimed in claim 1, wherein
said impeller comprises a series of vanes and an
eccentric mass positioned between a pair of said
20 vanes.

3. A brush as claimed in claim 1 or 2, wherein
a bearing means is provided in said body and brush
board to carry said freely rotatable impeller.

4. A brush as claimed in claim 1, 2 or 3,
25 wherein said means for directing a flow of fluid
onto said impeller includes a nozzle to direct a
flow of water onto said impeller to rotate same,
said nozzle being connected to a hose associated
with said handle.

30 5. A brush as claimed in any one of the preceding
claims, wherein said means in said recess forming an
exhaust for said fluid is an exhaust port to exhaust the
fluid through the bristles of the brush.

6. A fluid powered brush, substantially as
35 hereinbefore described with reference to the
accompanying drawing.