US 20050229346A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0229346 A1**

Learned, III (43) **Pub. Date: Oct. 20, 2005**

(54) **ISOKINETIC BRISTLE BUNDLE BRUSHES**

(76) Inventor: **Addison W. Learned III**, N. Abington, MA (US)

Correspondence Address:
AW Learned III
Box 164
N. Abington, MA 02351 (US)

(21) Appl. No.: **10/825,793**

(22) Filed: **Apr. 16, 2004**

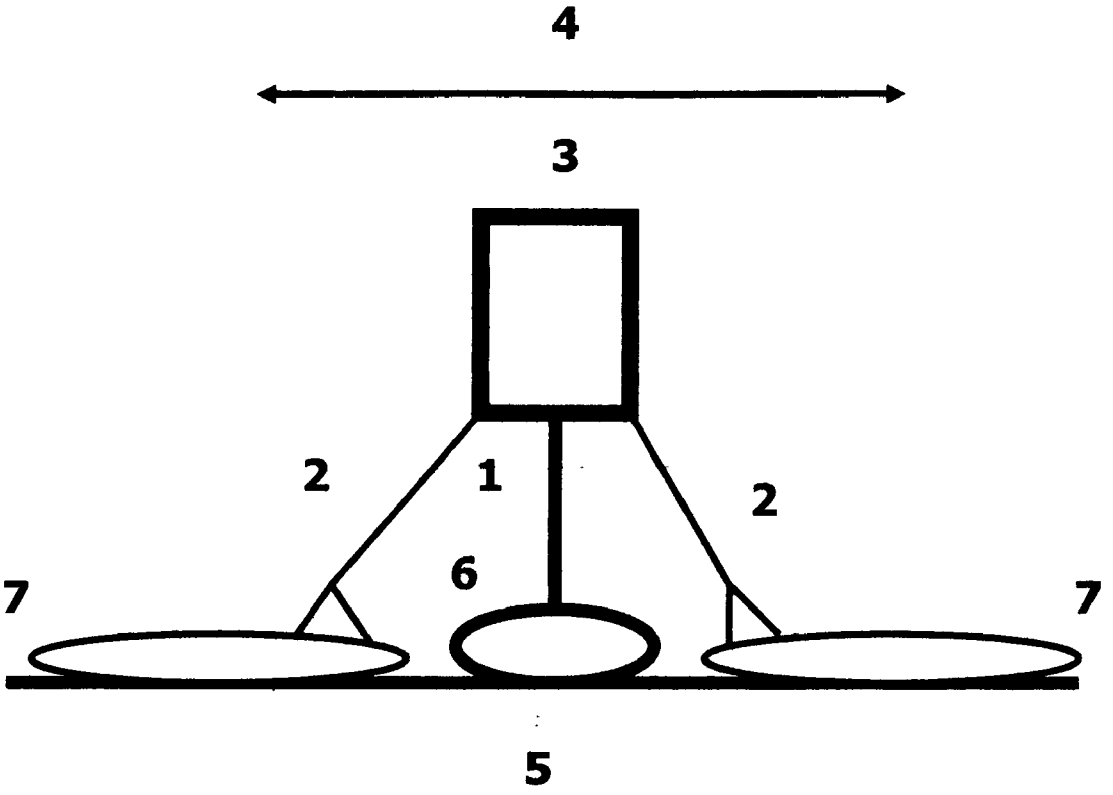
Publication Classification

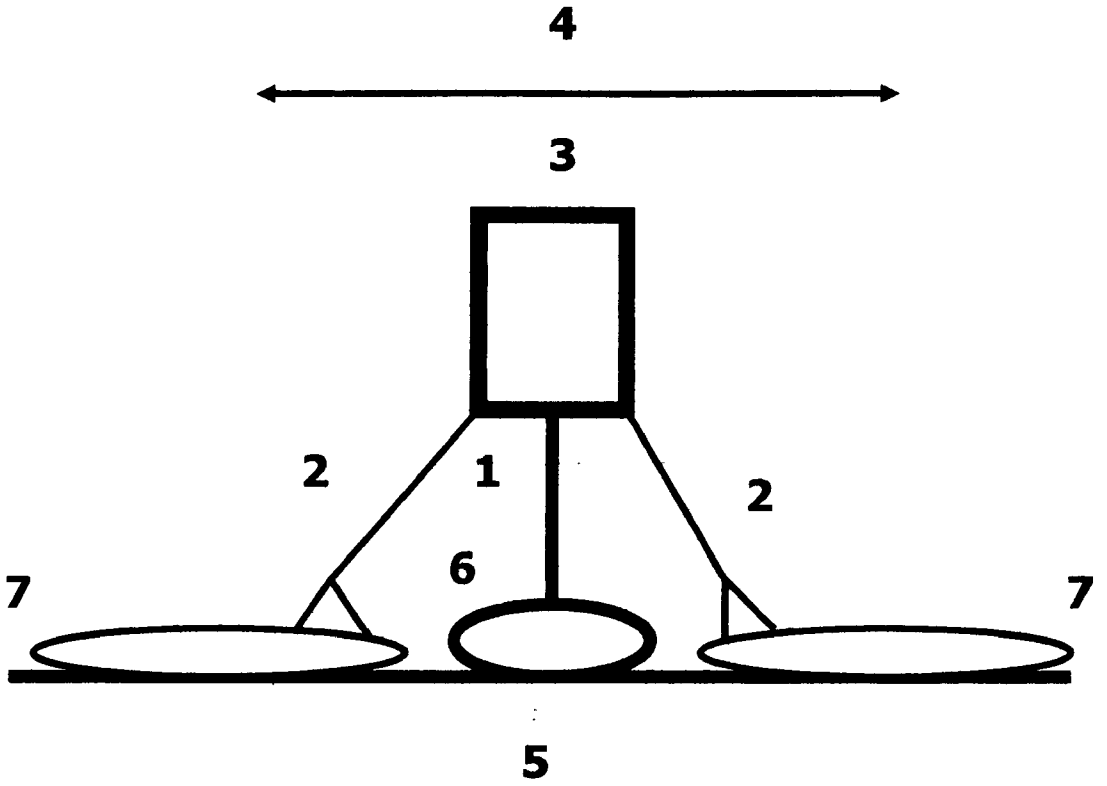
(51) **Int. Cl.**[7] **A46B 9/00**

(52) **U.S. Cl.** **15/159.1**; 15/160; 15/DIG. 5

(57) **ABSTRACT**

A paintbrush having an elongated handle has a brush head containing a continuum of bristles configured from a multiplicity of primary short bristles and secondary longer bristles with split and smaller diameter distal extremities. The effect of the primary shorter bristles is to release coating liquid onto the longer bristles during bending. The effect of the distal end of the secondary longer bristles is to function as smoothing of the discharged coating in lieu of physical stroking requiring human muscular strain.





INVENTOR:

FIGURE 1

ISOKINETIC BRISTLE BUNDLE BRUSHES

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] This invention relates generally to brushes used for applying coatings, containing bundles of bristles fixed to a distal end of a handle, and specifically the bristles used for transferring the coating material from the liquid contained as fluid bulk within a container, to deposit, disperse and smooth said liquid to an even thickness upon an architectural surface.

[0003] Surface coatings of paint, varnish, shellac, lacquer, and plastic formulations, utilize brushes (embodiments, commonly identified as paintbrushes, of bristles arranged on the distal end of a handle).

[0004] 2. Discription of the Prior Art

[0005] Manual brushes for applying coating materials are widely available in a variety of size, shapes and types with a wide assortment of bristles made from synthetic and animal hairs. Animal hairs are prescribed for use on volatile coatings; synthetic hairs are used on water based coatings; a blend of various hairs is used for general purpose coating material. Animal hairs have split ends, each branch of dimensionally finer diameter than the stem. Synthetic hairs generally have thicker diameter hairs, some bundles are wedge shaped at the contacting end.

[0006] Brushes with small amounts of coating are repeatedly stroked left-right, up-down, waved in random motions until the coating is spread and smoothed. The spreading is accomplished in the earlier strokes with human controlled forces (isokinetically) while the smoothing is accomplished in the later strokes with lighter human controlled forces (isokinetically) against the surface being coated.

OBJECTS OF THE INVENTION

[0007] A general object of the present invention is to provide a coating brush that will decrease the physical strain expended to perform the stroking necessary to effect spreading and smoothing of the coating materials.

[0008] A specific object of the invention is to provide an improved coating brush having a bristle arrangement that minimizes the human judgment required to control physical forces.

SUMMARY OF THE INVENTION

[0009] An improved coating brush is provided with a specific arrangement of bristles at the distal end of a handle for reduced human physical effort. The brush bristles include two or more types of bristle with specific distal lengths relative to each other. The smaller diameter, split bristles protrude beyond the stiffer, synthetic bristles.

BRIEF DESCRIPTION OF THE DRAWING

[0010] **FIG. 1**. Is a side elevation view of two bristles depicting the bristle distal ends during a right-to-left stroke when forced against an architectural surface.

I claim:

1. "A coating" brush "with" bristles, presented against an architectural surface simultaneously at lengths, maintained by the embodiment, such that finer hairs protrude longer than stiffer hairs.

* * * * *