Jan. 9, 1923.

1,441,919.

P. A. GSTALDER.

GRAINING TOOL.

FILED APR. 16, 1921.

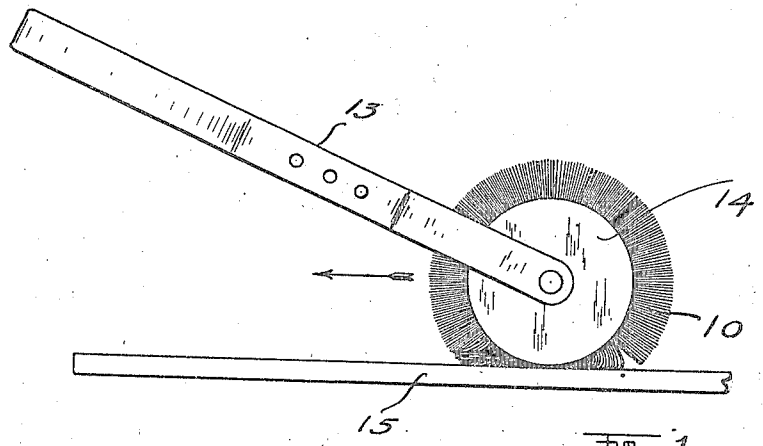


Fig. 1

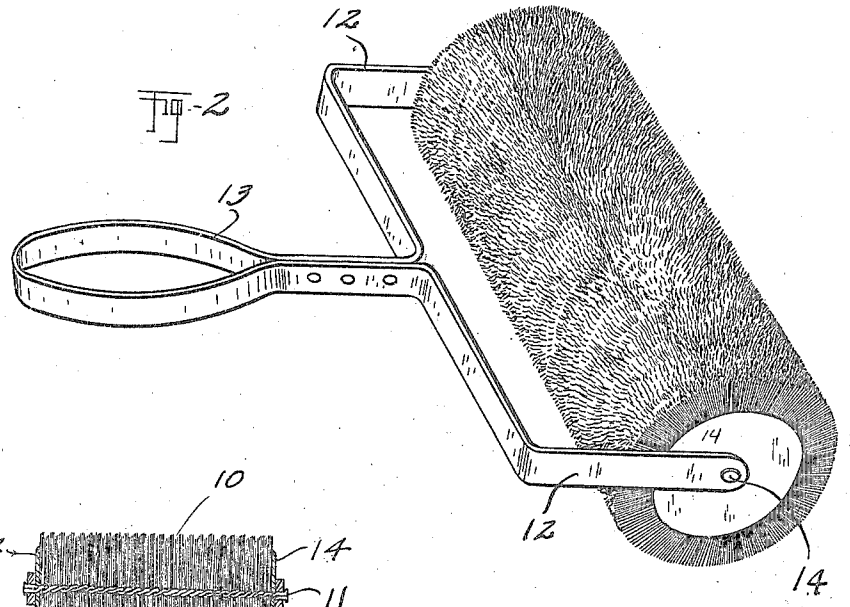


Fig. 2

Fig. 3

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Patented Jan. 9, 1923. 1,441,919

UNITED STATES PATENT OFFICE.

PAUL A. GSTALDER, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO THE OHIO VARNISH COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

GRAINING TOOL.

Application filed April 16, 1921. Serial No. 461,971.

To all whom it may concern:

Be it known that I, PAUL A. GSTALDER, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Graining Tools, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to graining appliances and is primarily concerned with the construction of a tool adapted for use in producing a stippled effect on the surface to be grained.

In graining to represent certain kinds of wood, it has been found that an appearance similar to the natural grain may be secured by producing a stippled effect upon the distemper coat. For stippling the surface to be grained, various tools have been employed, among them being brushes having comparatively stiff bristles, the surface being patted in successive regions by the side of the brush. In employing such a tool, however, I have found that it is difficult to properly blend the different regions treated to make a continuous appearance. The operation is tedious and the result not entirely satisfactory.

One of the objects of my invention is the provision of a graining tool for permitting a surface to be stippled with rapidity and uniformity. I effect this by providing a rotary brush and means for limiting the approach of the bristles to the surface treated, so that the brush may bear, with equal force, upon the surface irrespective of the pressure placed upon the operating handle.

In carrying out my invention I employ a tool comprising a rotatable brush, having a suitable handle for supporting the brush upon its axis, and for permitting the tool to be moved across the surface to be grained. Furthermore, I provide narrow disks, associated with the brush, for limiting the approach of the bristles to the graining surface, so that the bristles bear with equal pressure irrespective of the pressure placed upon the handle, while the narrow tread of the disks prevents their forming objectionable lines on the surface.

The means for accomplishing the above objects will be more fully set forth in the following description, which relates to the drawings, and the essential characteristics of my invention will be set forth in the claim.

In the drawings, Fig. 1 is an elevation of a graining tool embodying features of my invention; Fig. 2 is a perspective view of the tool shown in Fig. 1; Fig. 3 is a section taken through the axis of the brush and showing one form of brush construction.

Designating the parts shown in the drawings by the use of reference characters, in the various figures, I have shown a brush 10 as comprising a series of bristles which protrude outwardly from and are secured to a shaft or core 11. This brush is shown in Fig. 3, as having a twisted wire core which acts as a supporting shaft, but for purposes of producing a stippled effect upon the surface to be grained, it is not essential that this form of construction be employed. The main requisites are that the bristles be close together and protrude beyond the periphery of a set of disks 14 which will be hereinafter described.

The ends of the shaft 11 are journaled in bearings which may comprise a pair of arms 12 which straddle the ends of the brush and are mutually joined to the handle 13. In Fig. 2 I have shown a handle as comprising a one-piece member which is bent into a U-shape. The ends of such member may comprise the shaft supporting arms, and the intermediate portion thereof may comprise the handle.

To limit the approach of the brushes to the surface to be grained, I provide a pair of stiff disks 14 which are positioned at each end of the brush and adjacent the shaft supporting arms 12. In Fig. 1 the brush is shown in use upon a surface 15, and in such position it will be noted that the bristles are bent in various directions on that part of the tool which is adjacent the graining surface. In this figure the disk 14 is shown as being in peripheral engagement with the surface 15, and the handle is shown as being in a position convenient for producing the stippling operation. To prevent the disk from leaving a line upon the distemper coat, I make the disk very thin or bevel the periphery thereof, as at 15, almost to a cutting edge, which edge possesses a sufficient degree of keenness to prevent the formation of a line and at the same time to avoid cutting the surface to be grained. The disks may well be of metal

soldered or otherwise rigidly secured to the brush core.

In operation, the stippling tool is rolled over the surface to be grained after the distemper coat has been applied. During this operation, pressure is exerted on the handle of the brush, until the disks 14 may abut the graining surface, whereby the approach of the bristles is definitely limited.

As the tool is drawn over the surface, the bristles on the near side of the tool successively "slap" the surface, so to speak, and then as the turning of the tool carries them under the core, they lie along the surface, and finally as they straighten out, give a slight snapping or "kicking" action to the surface. The result is that while the stippled coat produced has no appearance of successive regions therein, there is some variation or individuality due to the kicking action referred to, which varies with the speed and pressure on the handle.

By making the core materially smaller than the bearing disks, as shown in Fig. 3, the bristles bend in a somewhat spiral direction, producing the effect described, and without either breaking them or reducing their resilience.

Having thus described my invention, I claim:

In a graining tool, the combination of a cylindrical bristle brush, a handle pivotally mounted on said brush for rolling the same along the surface to be grained, discs secured to the brush at the ends thereof, said discs being adapted to limit the approach of the bristle and brush to the surface to be treated, said discs comprising members peripherally sharpened to prevent marks upon the surface to be grained, the discs having a materially less diameter than that of the brush to cause the bristles to kick as the brush rolls over the surface to be grained.

In testimony whereof, I hereunto affix my signature.

PAUL A. GSTALDER.