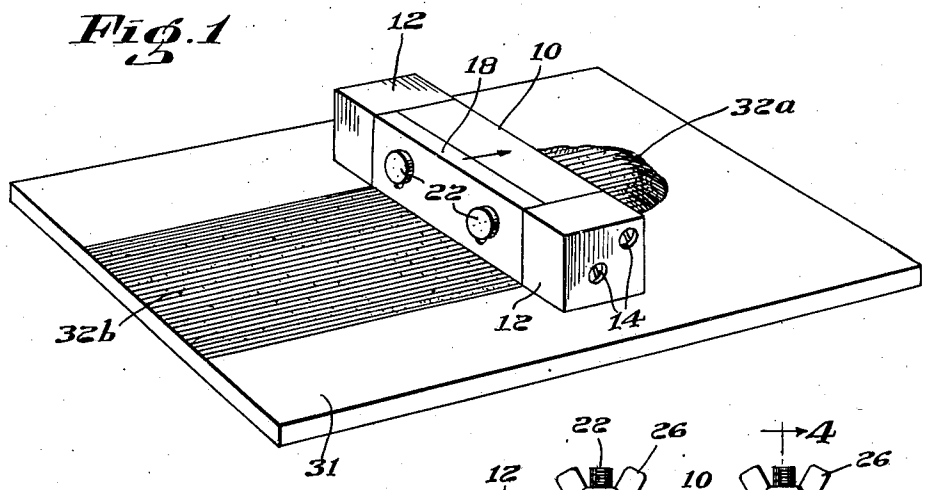
Feb. 14, 1950 J. J. BRADLEY, JR 2,497,578

FILM SPREADER

Filed Sept. 22, 1948

Fig. 1



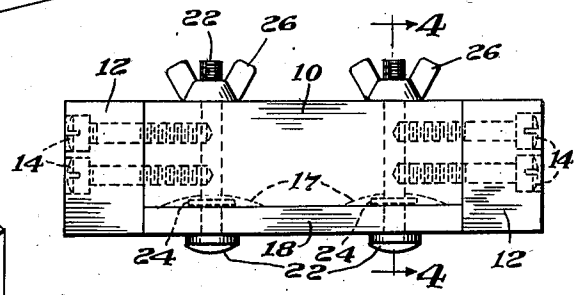
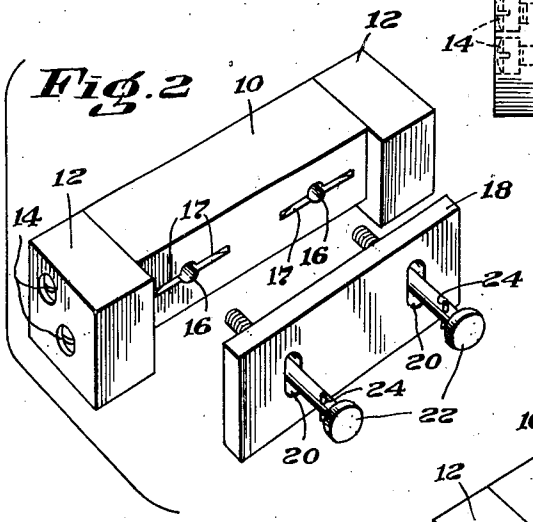


Fig. 3

Fig. 2



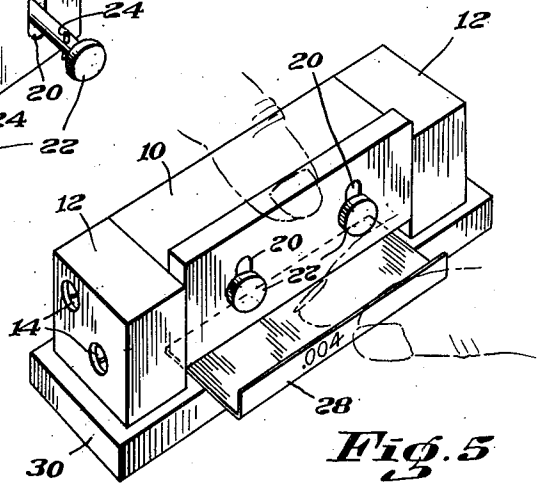


Fig. 5

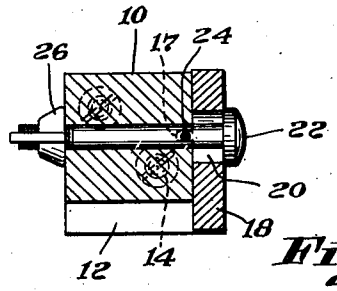


Fig. 4

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2,497,573

FILM SPREADER

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Application September 22, 1948, Serial No. 50,519

1 Claim. (Cl. 91—62.5)

1

My invention relates to film spreaders and in particular to a spreader with which a film may be spread with uniform thickness over a flat surface.

An object of this invention is to provide a device for spreading films over flat surfaces, such that reliable tests may be made to determine the relative values of said films. For instance, in the paint and varnish industry it is often desirable to ascertain how weatherproof a coat of paint is in relation to another coat. To determine such a factor with accuracy it is essential that each coat be spread equally and uniformly.

Other objects and advantages of the invention will appear from the following description taken in conjunction with the accompanying drawing in which—

Fig. 1 is a perspective view of the film spreader as applied to a flat surface,

Fig. 2 is a perspective exploded view of the film spreader,

Fig. 3 is a plan view of the film spreader,

Fig. 4 is a cross sectional view on line 4—4 of Fig. 3, and

Fig. 5 is a perspective view showing the manner in which the blade is adjusted.

The spreader comprises a main body consisting of a rectangular bridge block 10 suspended between two rectangular supporting blocks or legs 12, which are secured to the block 10 by means of screws 14 passing through holes through the sides of the legs into threaded holes in the ends of the block 10. Each of the bottom surfaces of the legs lies an equal distance below the bottom surface of the block 10 and the top surfaces of the legs are substantially flush with the top surface of said block. The forward end surfaces of the legs 12 (in the direction of the arrow, Fig. 1) are substantially flush with the forward side surface of the member 10, and each of their rearward end surfaces lies substantially an equal distance to the rear of the rearward side surface of the block 10. In the bridge block 10 are two slots each consisting of a central hole 16, extending through said block, and lateral slits 17, one on either side of the entrance of said hole in the rearward side of said block.

The blade 18 of the spreader is also a rectangular block and of such a size that its length is equal to the length of the bridge block 10, its height approximately equal to the height of the legs 12, and its width substantially equal to the distance between the rearward-end surface of the legs and the rearward-side surface of the block 10. Through the blade are two holes 20, the vertical

2

axes of which are longer than the horizontal axes. The width of the holes 20 is equal to the diameter of the holes 16. The holes 20 and 16 are in alignment, when the blade and the main body of the spreader are assembled.

To secure the blade to the main body of the spreader two bolts 22 are passed through the holes 20 and the holes 16. At right angles to the axis of each bolt near the head thereof is a pin 24 which, as each bolt is inserted into each of the holes 20, is held in a vertical position to pass through the vertical axis of said hole and then turned at right angles to be inserted into the slit 17. When the bolts have been fully inserted, and the pins 24 have been placed in the slits 17, wing-nuts 26 are screwed onto the threaded ends of the bolts 22 which extend forwardly of the forward side surface of the block 10.

Before the wing-nuts are tightened to hold the blade in place, a shim 28 of a predetermined thickness, corresponding to the desired film thickness, is inserted over a plate 30 (upon which the spreader rests temporarily for the purpose of adjusting the blade), under the block 10 and the blade 18, and between the legs 12. The blade is then lowered until its bottom surface rests flatly and evenly upon the shim. The wing-nuts 26 are then tightened, and the spreader is lifted off the plate and the shim.

In use, the spreader, with its blade adjusted to a height predetermined by the shim 28, is placed upon the surface upon which the film is to be spread, such as the flat surface 31. A supply of material 32*a*, to be spread on said surface as a film, is placed on the surface in front of the blade. The spreader is then drawn firmly along the surface in the direction of the arrow, Fig. 1, and the film is applied in a uniform layer 32*b* equal in thickness to the adjusted height of the blade.

I claim:

A device for spreading films of uniform and predetermined thickness on a flat surface, comprising two rectangular supporting blocks, the basal surfaces of which lie in the same plane, a rectangular bridge block terminally suspended between the inner side surfaces of said supporting blocks above said plane, means to secure the ends of said bridge block to the inner surfaces of said supporting blocks, a blade block adjustably secured laterally against a side surface of said bridge block and engaging terminally against said inner side surfaces of said supporting blocks, the bottom surface of said blade block being in a plane between and parallel to the plane of said basal surfaces of said supporting blocks and the

bottom surface of said bridge block, and means to adjustably secure said blade block to said side surface of said bridge block comprising holes extending from said side surface through said bridge block, slits on either side of the entrances of said holes in said side surface, vertically elongated openings extending through said sliding block and aligned laterally with said holes, bolts extending through said holes and openings, pins at one end of said bolts at right angles to the axes thereof and adapted to pass through the long axes of said openings and lie in said slits, and, removable fastening means on the other ends of said bolts.

JOHN J. BRADLEY, JR.

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