

May 29, 1923.

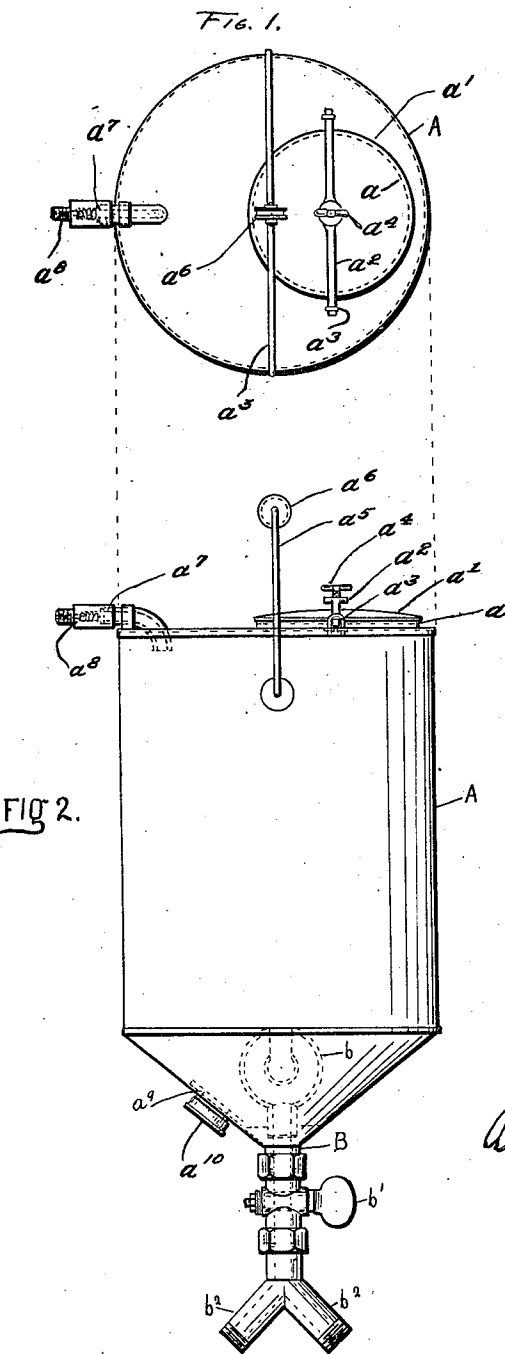
1,456,910

A. RAPISARDI

PAINTING DEVICE

Filed June 21, 1921

2 Sheets-Sheet 1



INVENTOR

Alfo Rapisardi

May 29, 1923.

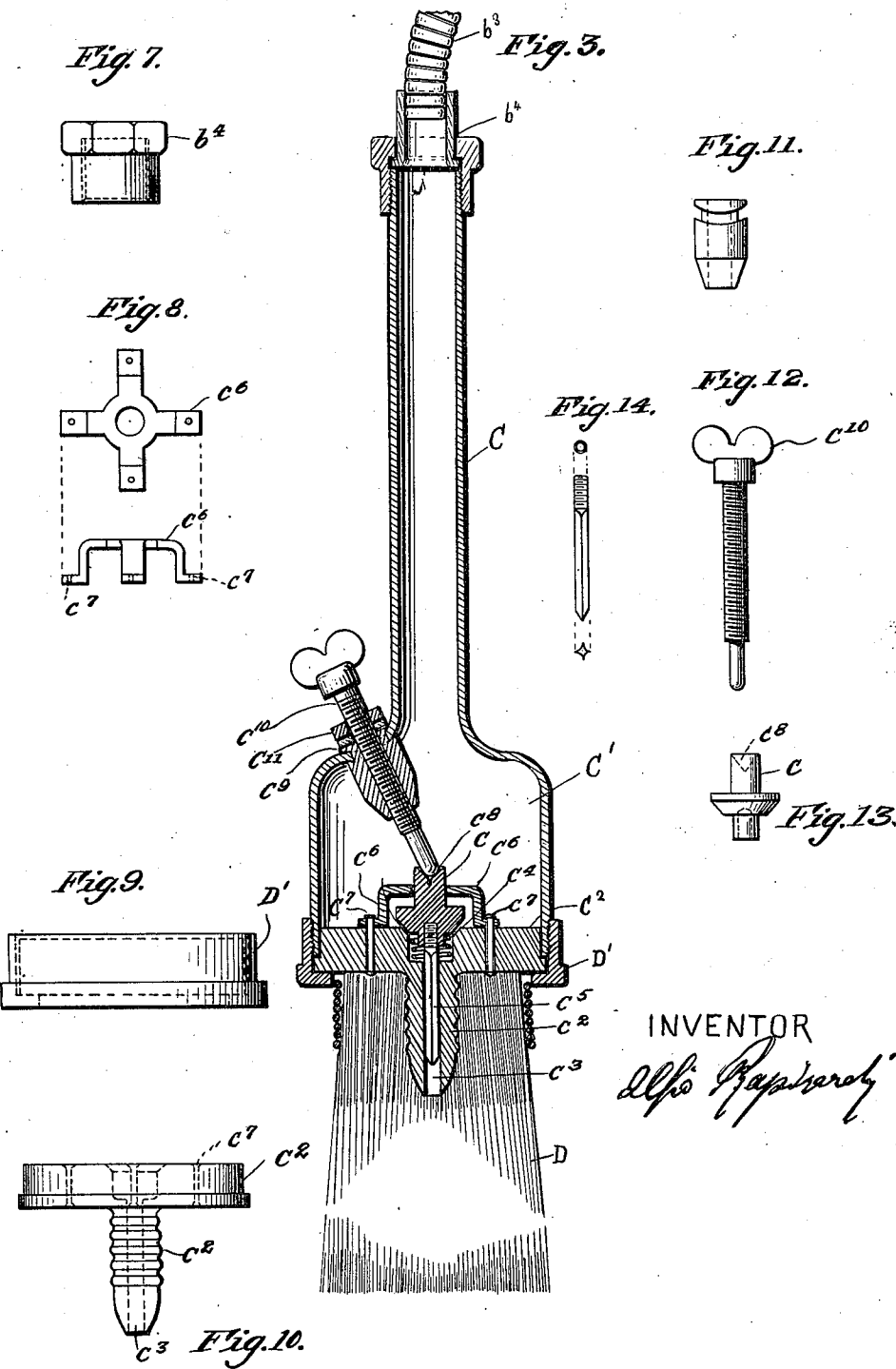
1,456,910

A. RAPISARDI

PAINTING DEVICE.

Filed June 21, 1921

2 Sheets-Sheet 2



INVENTOR

Alfred Rapisardi

Patented May 29, 1923.

1,456,910

UNITED STATES PATENT OFFICE.

ALFIO RAPISARDI, OF BOSTON, MASSACHUSETTS.

PAINTING DEVICE.

Application filed June 21, 1921. Serial No. 479,377.

To all whom it may concern:

Be it known that I, ALFIO RAPISARDI, a subject of the King of Italy, residing at 31 Norman Street, Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in a Painting Device, of which the following is a specification.

My invention relates to an improvement in automatic or self-filling brushes in which the brush is kept controllably filled with paint or varnish from a connected reservoir. The purpose of my invention is to provide a brush to which the flow of liquid may be controlled to vary and equalize the quantity of liquid used and at the same time to prevent the collection of dirt and sediment upon the brush. Furthermore it is my purpose to provide a labor and time saving device particularly of value when large spaces are to be painted.

My invention will best be understood with reference to the drawings in which Fig. 1 is a plan view of the reservoir, Fig. 2 is an elevation of the reservoir, Fig. 3 is a view in vertical section of the brush, Fig. 4 is a view in detail of the cover to the filling opening, Fig. 5 is a view of the strap fastening for the cover, Fig. 6 is a view of the trap, Fig. 7 shows the connection b^4 in detail, Fig. 8 is a view of the positioning arms, Fig. 9 shows the flange D^1 , Fig. 10 is a view of the valve-seating block, Fig. 11 is a view of the needle valve bearing, Fig. 12 shows the needle valve, Fig. 13 is a view of the valve and Fig. 14 is a view of the four-sided pin.

Referring more particularly to the drawings, A is a tank or reservoir preferably constructed of light metal and in the form as shown. The upper surface of this tank which holds the liquid (paint or varnish) has a circular opening as at a through which the liquid is poured into the tank. A cover a^1 is fitted to this opening. The cover a^1 is held in place by means of a strap a^2 the ends of which fit under dogs a^3 mounted on the upper surface of the tank A and the set screw a^4 which passes through a hole in the strap and bears against the cover a^1 . A bail a^5 is suitably attached to the sides of the reservoir and is fitted at its center with a wheel a^6 so that if desired the tank may run on a cable or wire. Into the upper surface of the tank A is fixed a valve a^7 and the tube a^8 for a purpose to be later explained. As shown the lower portion of the tank A is funnel-shaped and within the opening at the apex thereof is set the tube B which projects within the tank a distance. Mounted upon the inner end of the tube B is the part b shaped as shown in Fig. 6. This raises the opening from the tank A into the tube B well above the lower level of the tank. The lower surface of the tank A has an opening as at a^9 fitted with a screw cover a^{10} for the purpose of draining dirt, sediment and settleings from the bottom of the tank. The shape of the part b is such as to prevent such foreign matter from descending the tube B to clog the passage and also to dirty the brush.

The tube B extends downward from the tank and by suitable means is fitted with a shut-off b^1 and extending further is connected with the brush portion of the device. As shown in Fig. 2 the tube B may be double branched b^2 so that two brushes may be in operation from one tank at the same time if the work so requires. Rubber hose b^3 fits over the tube B at the part or parts b^2 . The hose is also fitted with a screw and nut connection as at b^4 in order to be attached to the brush portion of the device.

The brush portion of the device comprises a handle portion C in the form of a tube which enlarges into a chamber portion C^1 . Within this chamber C^1 is set the block C^2 . This block C^2 is constructed to act as a valve seat for a valve c and for the purpose has a central opening as shown at c^1 . The block C^2 is also constructed with an extending finger c^2 through which extends a bore c^3 connecting with the opening above in the block C^2 . The valve c operates against a spring c^4 set in the opening at C^1 as shown. Screwed into the underside of the valve c is the four-sided pin c^5 which extends downward into the bore c^3 . The valve c is held in horizontal position within the opening at c^1 by means of arms c^6 suitably fastened to the block C^2 by straps c^7 . The upper face of the valve c is grooved as at c^8 . Mounted within the wall of chamber portion C^1 is a bearing c^9 through which extends the screw valve c^{10} , the point of which is adapted to register with the groove in the valve c at c^8 . This valve c^{10} is held in fixed position after being properly set by the thumb nut c^{11} .

The brush D is set in a flange or frame D¹ which screws about the outside of the chamber portion C¹. The brush is also attached about the extension finger c² which is
5 grooved for this purpose.

In operating my device the liquid, paint or varnish, is poured into the reservoir A through the opening. The cover a¹ is there clamped on and air is forced into the tank
10 through the valve a⁷ by an ordinary bicycle pump or some air injector. This air pressure serves to lighten the cover a¹ and gives a downward pressure above the liquid so that it will flow freely especially when the
15 tank is below the level where the brush is used. Prior to use the shut-off b¹ has been closed but when ready to use the shut-off is opened permitting the paint to flow down the tube B into the brush handle and brush
20 chamber C¹. The pressure of the liquid forces the valve c down against the spring c⁴ so that the liquid flows down through the opening at c¹ along the pin c⁵ in a thin but steady stream through the bore c³ and then
25 is diffused and distributed among the bristles of the brush D. The screw valve c¹⁰ is then adjusted with relation to the groove at c⁸ to give a minute, moderate or great flow and when adjusted as desired is set right by
30 the thumb nut c¹¹.

The advantages of my device are readily apparent. The tank may be large enough so that a vast surface may be covered without

continually renewing the supply of paint. Time and labor may be saved to great ad- 35 vantage and the reservoir can be filled while the painters are at work. By means of the wheel the tank can be easily moved along a scaffold if desired and the continuous flow of liquid together with the method of pre- 40 venting the paint settlements from gathering in the brush tends towards rapid yet efficient work.

What I claim is—

1. In a device of the kind described, a 45 reservoir having a filling opening in its top surface, a valve located in said top surface to permit the injection of air pressure above the contents of said reservoir, a trap mounted upon a tube projecting into the outlet from 50 said reservoir whereby sediment and dirt are prevented from clogging said outlet and an opening in the bottom of said reservoir to drain sediment and dirt therefrom.

2. In a device of the kind described, the 55 combination of a chamber portion, a brush portion, means comprising a block within said chamber, having an opening extending downwardly through an extension there- 60 of within the brush portion of said device, a spring controlled valve seated in said opening, and arms to position said valve, to permit a constant flow of liquid upon said brush portion, and means cooperating therewith to controllably regulate said flow.

ALFIO RAPISARDI.