M. FERRER.

PAINTING MACHINE.

APPLICATION FILED APR. 25, 1916.

**1,207,386.**

Patented Dec. 5, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

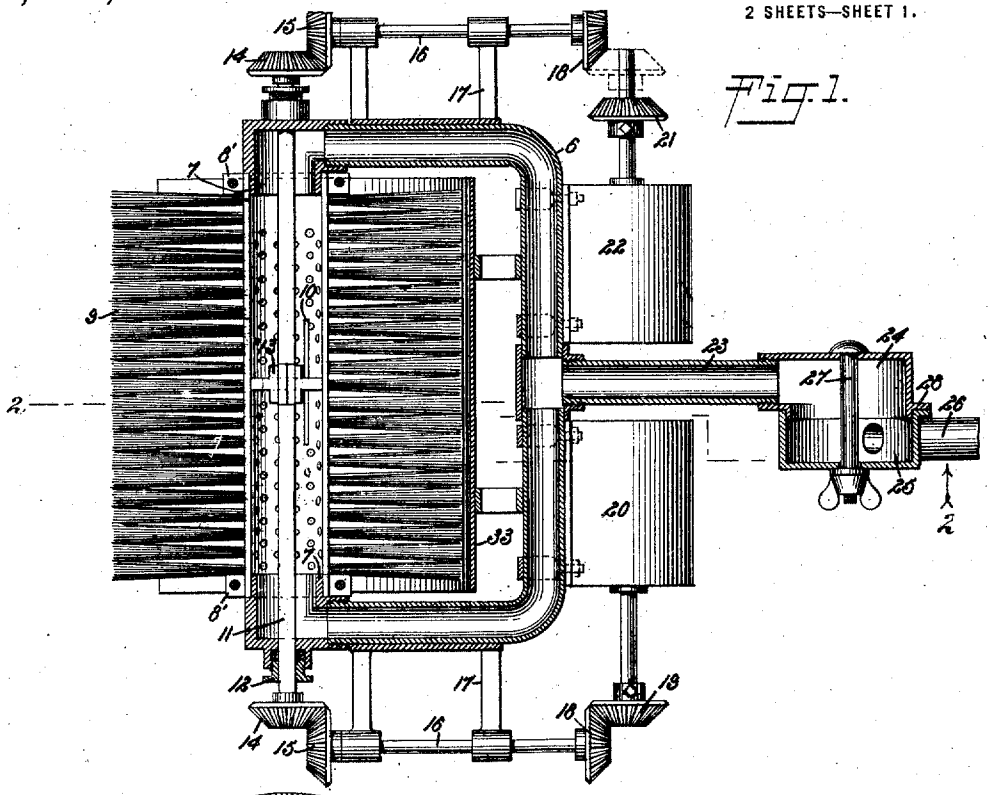



Fig. 2.

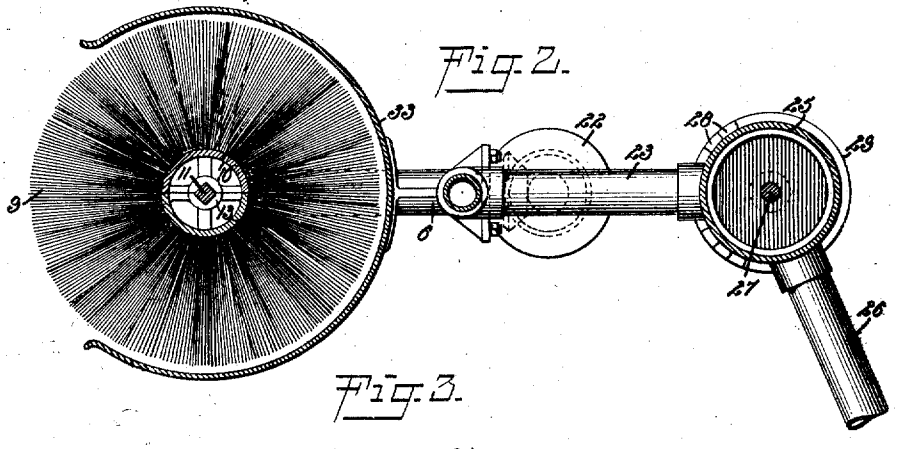
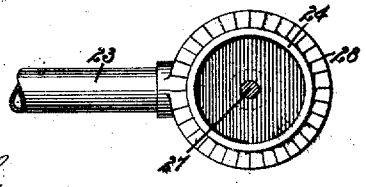



Fig. 3.




WITNESSES

William F. Goebel.

INVENTOR

M. Ferrer

BY Munn & Co.

ATTORNEYS

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2 SHEETS—SHEET 2.

Fig. 4.

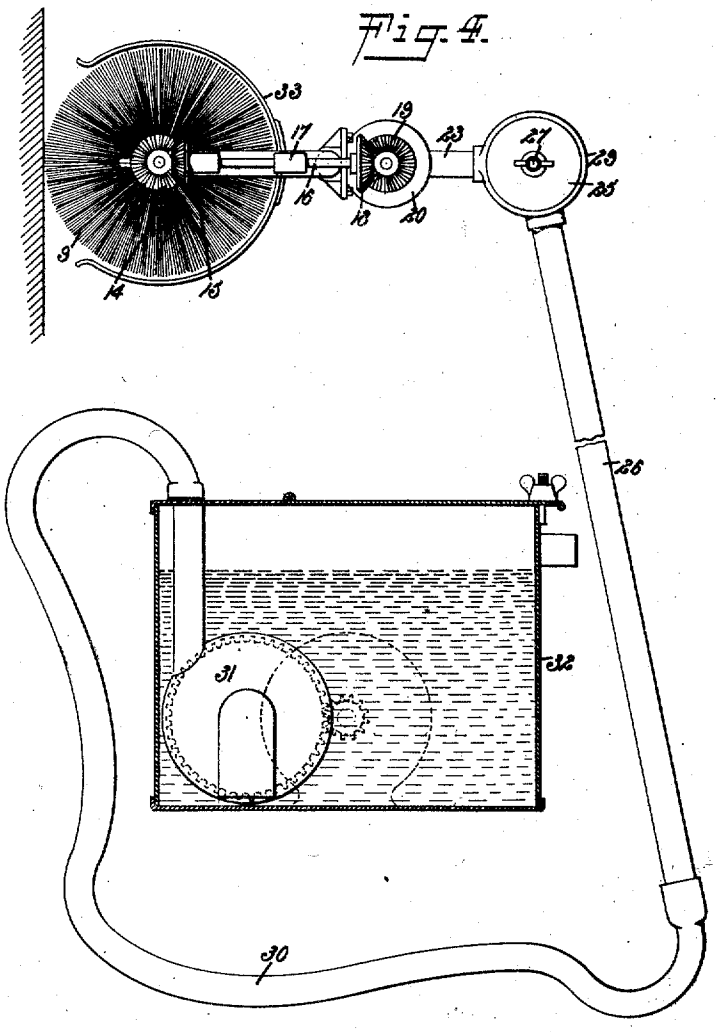
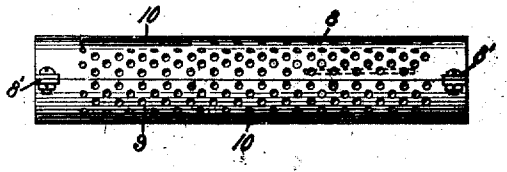



Fig. 5.




WITNESSES

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INVENTOR

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ATTORNEYS

# UNITED STATES PATENT OFFICE.

MAXIME FERRER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO TOLLEF TOLLEFSEN, OF BROOKLYN, NEW YORK.

## PAINTING-MACHINE.

1,207,386. Specification of Letters Patent. Patented Dec. 5, 1916.

Application filed April 25, 1916. Serial No. 93,399.

*To all whom it may concern:*

Be it known that I, MAXIME FERRER, a citizen of France, and a resident of the city of New York, Bath Beach, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Painting-Machine, of which the following is a full, clear, and exact description.

My invention relates to painting machines of the type having a force feed and a revoluble member adapted to either clear the surface to be painted or apply the paint thereto.

The object of the invention is to provide a simple, inexpensive and efficient machine particularly adaptable for cleaning and painting ships.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed.

In the accompanying drawings, forming part of the application, similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a cross section through the revoluble brush and the distributing frame associated therewith and carrying the brush; Fig. 2 is a transverse section on line 2—2, Fig. 1; Fig. 3 is an end elevation of the swivel joint section of the distributing frame. Fig. 4 is an elevation of the painting machine, the reservoir being shown in section; and Fig. 5 is an elevation of the brush core.

Referring to the drawings, 6 is the U-shaped tubular distributing frame which has at the extremities inwardly-directed alining bearing portions 7. A tubular core 8, formed of two longitudinal sections, is mounted to revolve on the bearing portions 7, the core having flanged portions 8′ at the ends thereof whereby the sections are secured about the bearing portions. The sections of the core carry bristles 9, slots 10 being provided in the core sections to feed paint from the distributing frame to the bristles or cleaning fluid.

A shaft 11 is mounted to revolve in the extremities of the distributing frame 6 coaxial with the core 8. Stuffing boxes 12 are provided at the projecting ends of the shaft to prevent leakage of any material flowing through the frame to the core. The tubular core 8 is coupled to the shaft 11 by extensions 13 forming a rigid part of the core sections which grip an angular portion of the shaft through the medium of the bolts which connect the sections of the core. The projecting ends of the shaft are provided with bevel gears 14 in mesh with similar gears 15 each carried by shaft 16. Each shaft bears in a bracket 17 extending from the side of the distributing frame 6. Each of the shafts 16 carries also a second bevel gear 18. One of said bevel gears 18 meshes with a gear 19 mounted on the shaft of an electric motor 20. The gear 18 of the other shaft may be engaged by a bevel gear 21 carried by the shaft of an air motor 22. The gears 19 and 21 are so mounted that either of the two may be engaged or disengaged from the corresponding gear 18 whereby the core 8 may be rotated through the medium of either motor. The motors 20 and 22 are secured to the bottom of the U-shaped frame on opposite sides of the inlet extension 23 to the distributing frame 6, so as to balance on the frame.

The extension 23 of the U-shaped distributing frame carries a swivel-joint section 24, the coöperating section 25 of the joint being secured to a distributing conduit 26 and the two sections being retained in engagement by a bolt 27. The section 24 has a serrated flange 28 with which coöperates a similar serrated flange 29 of the other section, whereby the U-shaped frame can be placed at any desired angle to the distributing conduit 26. The distributing conduit 26 serves also as a handle for manipulating the distributing frame and is connected to a flexible conduit 30 which is in communication with a pump 31 preferably located within a reservoir 32. The reservoir 32 normally contains paint which the pump delivers to the tubular core 8, the core distributing the same to the bristles through the passages 10. The brush being revoluble by any of the motors, the centrifugal force will feed the paint from the core toward the end of the bristles, a guard 33 being provided about the bristles to allow the same to distribute the paint only on to the surface to be painted.

In lieu of using the pump 31 the reservoir may be connected to an air-pressure system and the paint fed directly through the conduit 30 to the distributing frame 6. In

place of the paint brush, a cleaning brush may be substituted to clean the surface to be painted; and in place of forcing paint, a cleaning liquid may be forced through the distributing frame so as to facilitate the cleaning. Thus, the machine may be used as a paint remover or cleaner and as a painting machine.

I claim:

1. In a painting machine, a U-shaped tubular frame having inwardly directed bearing portions at the extremities thereof, a brush having a tubular core revolubly mounted on said bearing portions, a shaft revolubly mounted in the extremities of said frame, means securing the middle of the core of the brush to the shaft, means for revolving the shaft, and means for supplying paint to the U-shaped frame, said core having distributing openings forming an outlet for the paint.

2. In a painting machine, a tubular handle, a tubular U-shaped frame, a swivel joint connecting the frame to the handle, a tubular brush core engaging the extremities of the U-shaped frame and mounted to revolve thereon, a shaft co-axial with the core and revolubly mounted in the frame, said core having means coupling it to the middle of the shaft, means for revolving the shaft, and means for supplying paint to the handle whereby the same is directed to the frame and core, said core having slots forming an outlet for the paint.

3. In a painting machine, a U-shaped tubular frame having inwardly directed bearing portions at the extremities thereof, a brush having a tubular core revolubly mounted on said bearing portions, a shaft revolubly mounted in the extremities of said frame coaxial with the tubular core, means securing the middle of the core of the brush to the shaft, means for revolving the shaft carried by the frame, a tubular handle for the frame, a swivel joint connecting the handle to the frame, and means for supplying a liquid to the handle whereby the same is distributed through the frame to the tubular core, said core having a slot forming an outlet for the liquid.

4. In a painting machine, a U-shaped tubular frame having inwardly directed bearing portions at the extremities thereof, a brush having a tubular core revolubly mounted on said bearing members, a shaft revolubly mounted in the extremities of said frame disposed coaxially with the core, said core having means engaging the shaft substantially in the central part to rotate with the shaft, a motor secured to the bottom of the U-shaped frame, motion transmission means provided on the side of the frame coupling the motor to the shaft, a tubular handle, a swivel joint connecting the handle to the frame, said joint having serrated portions whereby the angularity between the handle and frame may be varied, means for supplying liquid to the core of the brush through the handle, swivel joint and tubular frame, said core having slots constituting outlets for the liquid, and a guard for said brush secured to the frame.

MAXIME FERRER.