

L. S. FLATAU.
 PAINT MILL.
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1,116,257.

Patented Nov. 3, 1914.

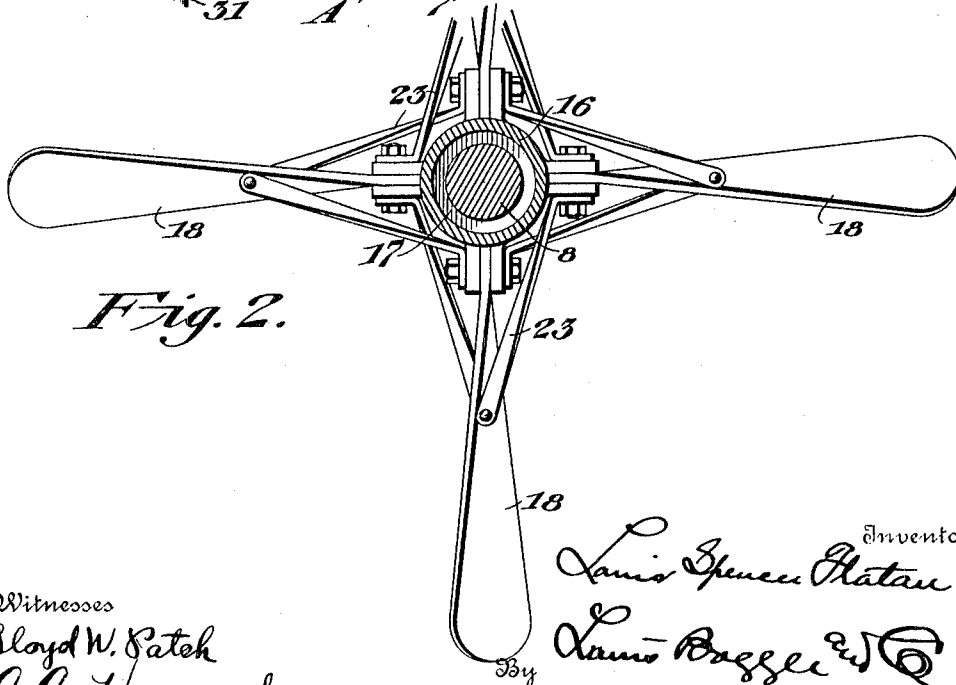
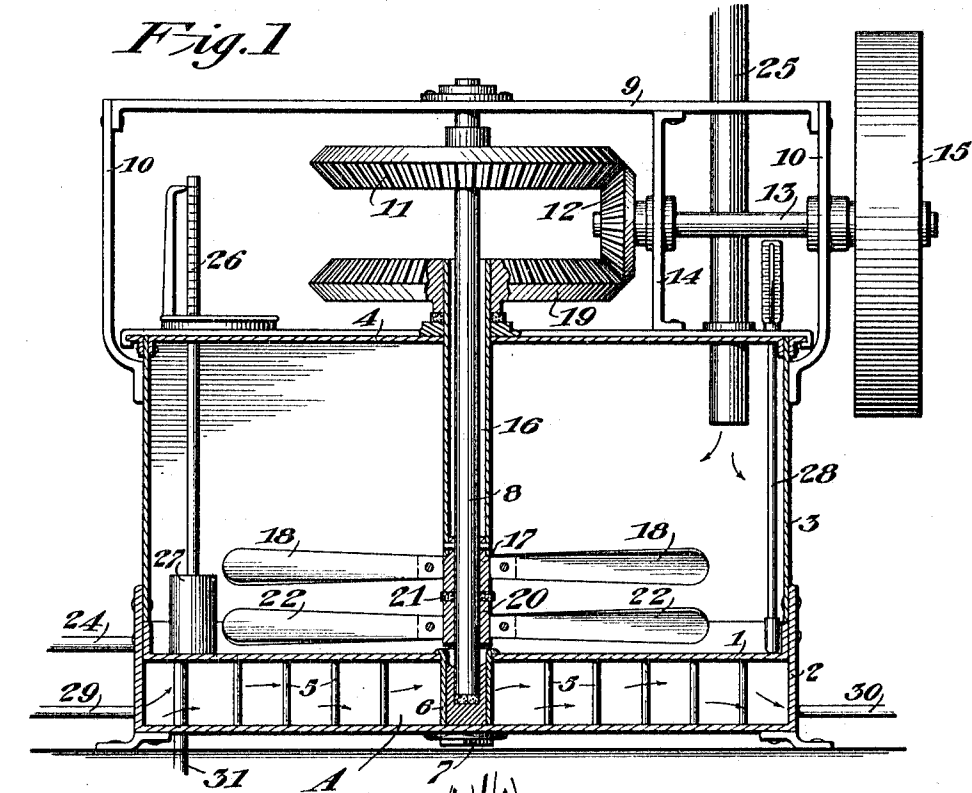


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS SPENCER FLATAU, OF ST. LOUIS, MISSOURI.

PAINT-MILL.

1,116,257.

Specification of Letters Patent.

Patented Nov. 3, 1914.

Application filed March 12, 1910. Serial No. 548,866.

To all whom it may concern:

Be it known that I, LOUIS SPENCER FLATAU, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Paint-Mills, of which the following is a specification.

My invention relates to an improvement in paint mills, and the object is to provide means whereby the ingredients or mixture in making the paint will be thoroughly commingled together.

A further object is the provision of the heating medium for heating the ingredients during the mixing operation.

The invention consists in certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claim.

In the accompanying drawings:—Figure 1 is a vertical sectional view; and Fig. 2 is a detail view of the agitator blades and hub.

A represents the steam chest or heating chamber, and 1 is the top thereof, which is connected to the sides 2 of the heating chamber. Connected to the sides 2 of the heating chamber, and above the top 1, is the body 3 of the paint mill, the top member 1 of the heating chamber forming the bottom of the paint mill, and a cover 4 is mounted upon the top of the body 3. Stay bolts 5, 5, are connected to the top 1 and bottom of the heating chamber A for forming a proper support for the top 1. A hollow nipple or plug 6 connects the top 1, and the bottom of the heating chamber A, acting as a stay bolt, the lower end of the nipple being secured by a screw cap 7, the head of the nipple resting upon the upper surface of the top 1. A propeller shaft 8 is mounted in the nipple, which acts as a bearing for the shaft, and allows it to rotate therein. The shaft passes through the cover 4, and is journaled at its upper end in a supporting bar 9, which is mounted upon uprights 10 which are connected to the body 3 of the mill. A beveled gear wheel 11 is mounted upon the shaft, and meshing with the wheel is a pinion 12, mounted upon a shaft 13, which shaft is supported in one of the uprights 10 on a brace 14, which is supported between the bar 9 and the cover 4. A pulley 15 is mounted upon the shaft 13, whereby power is transmitted to the shaft 13 for causing the propeller shaft to rotate. A tubular shaft 16 is mounted upon the cover 4, and

extends down into the mill surrounding the propeller shaft 8, and connected to the lower end of the shaft 16 is the propeller hub 17, which carries propellers 18. A beveled gear wheel 19 is mounted upon the hollow shaft 16, which gear meshes with the pinion 12, whereby motion is received for rotating the hollow shaft 16 in an opposite direction to the movement of the propeller shaft 8. The propeller shaft 8 has a propeller hub 20 mounted thereon which is below the propeller hub 17 of the hollow shaft 16, and received between the two propeller hubs is a suitable washer 21. Connected to the propeller hub 20 are propellers 22. The propellers 18 and 22 are connected to the hubs 17 and 20 by suitable braces 23, 23, which hold them firmly in position. The propeller blades 18 and 22, are preferably of the screw-propeller type, used in propelling boats. The object of the formation of these blades 18 and 22 in this manner and having them rotate in opposite directions, is to insure the proper agitation of the mixture in making the paint. The blades of the lower propeller hub 20, cause the mixture to be stirred up from the bottom, throwing it upward where it is caught by the propeller blades moving in the opposite direction, so that the ingredients are thoroughly commingled. At the bottom of the mill or tank 3, an outlet pipe 24 is provided for removal of the paint from the tank. An inlet pipe 25 extends through the top of the tank for the admission of the different ingredients. A gage rod 26 extends through the cover, and slidably mounted upon the rod is a float 27. The float, as it is supported by the liquid in the tank, will indicate upon the gage rod the quantity of liquid in the tank or mill. A thermometer 28 is also received in the tank for indicating the temperature of the liquid. A steam pipe 29 is connected to the steam chest A for the admission of steam to the chest for heating the tank, and a pipe 30 is provided for the discharge of the steam from the chest. If desired, pipe 31 may be provided for drawing the paint from the tank through the bottom of the steam chest, instead of drawing it from the side by pipe 24.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

In a paint mill, the combination with a steam chest, of a tank, a hollow nipple hav-

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ing a head which engages the upper surface
of the bottom of the tank, a screw cap hav-
ing screw-threaded engagement with the
other terminal of the nipple for fastening
5 the nipple to the bottom of the steam chest
and connecting the tank and steam chest to-
gether, a bearing removably mounted in said
bore, and a shaft journaled in said bearing.

In testimony whereof I affix my signature
in the presence of two witnesses.

LOUIS SPENCER FLATAU.

Witnesses:

D. O. WRAY,
E. OBERLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."