

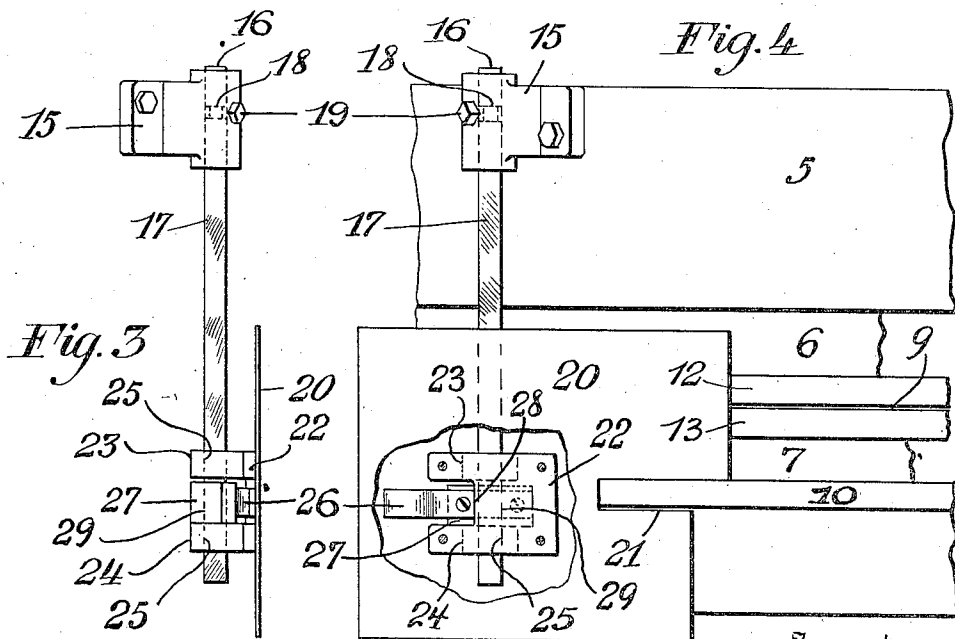
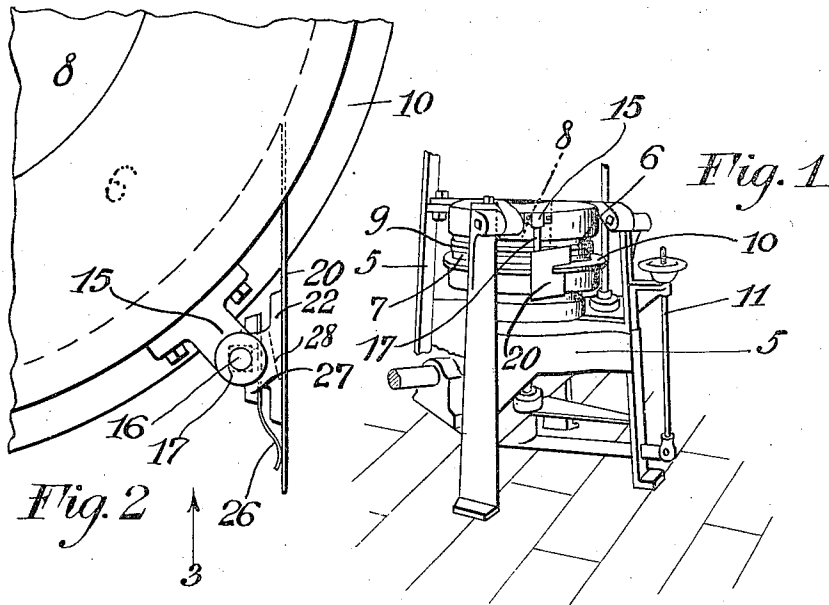
Sept. 25, 1923.

1,468,864

J. W. KENT

PAINT MAKING MACHINERY

Filed Nov. 19, 1921



Inventor

James W. Kent

By his Attorney

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UNITED STATES PATENT OFFICE.

JAMES W. KENT, OF BROOKLYN, NEW YORK.

PAINT-MAKING MACHINERY.

Application filed November 19, 1921. Serial No. 516,322.

To all whom it may concern:

Be it known that I, JAMES W. KENT, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Paint-Making Machinery, of which the following is a specification.

This invention relates to paint making machinery. More particularly the invention relates to the machines known as color mills for grinding or mixing paints. The object of the invention is to provide certain improvements in the scraper or cleaning means employed for scraping the paint off the grinding stone.

In the following specification the invention is fully described in all its details, while the novel features are pointed out in the claims. In the drawing illustrating the invention—

Fig. 1 is a perspective view of a typical color mill equipped with a scraper embodying the invention, certain parts not necessary for understanding the invention have been omitted and parts are broken away.

Fig. 2 is a partial plan view illustrating the scraper.

Fig. 3 is a view in elevation looking in the direction of arrow 3 in Figure 2.

Fig. 4 is a view of the scraper at right angles to Figure 3.

Referring to Figure 1 the reference numeral 5 denotes in general the framework of a color mill, in which the upper stone 6 is held stationary and the lower stone 7 rotates. The paint mixture is contained within the upper stone at 8 and as the lower stone rotates, the paint is ground between the stones and flows out through the annular flat opening between the stones at 9 and down upon the flange 10 of the framework which contains and moves with the lower stone. From the flange 10 the paint is scraped off and flows into the final paint receptacles. The numeral 11 denotes means for adjusting the opening 9, which is done by raising or lowering the lower stone.

All of the foregoing is well known in the art and requires no further description or illustration.

Heretofore it has been customary to employ a scraper adapted to bear against the annular surfaces 12 and 13 of the stones and also against the upper surface of the flange 10 in order to scrape the paint off

and cause it to flow into the final receptacles, not shown.

Such scrapers are in the form of a springy blade adapted to engage said surfaces 12 and 13 and the blade is cut out to straddle the flange 10. The scraper is carried by an arm secured to the frame. It follows from the foregoing brief description, that when the lower stone is adjusted and whereby also the flange 10 moves vertically, the scraper blade is bent or sprung out of true and in time such scrapers become twisted and useless.

The invention aims specifically to overcome the above named objections and to provide a novel and generally improved scraper.

To this end there is secured to the fixed framework 5 in suitable position, a bracket 15 having a bore for receiving the cylindrical end 16 of a scraper stem 17. The latter is provided with an annular groove 18 whereby the stem may be conveniently held in lateral adjusted position by a set screw 19. The scraper stem 17 is squared below the bracket 15.

The numeral 20 denotes the scraper blade which is adapted to bear against the aforesaid stone surfaces 12 and 13 and which blade is further cut out as at 21 to straddle the flange 10. The scraper blade is secured to a scraper holder 22 which has two bosses 23 and 24 rotatably carried on the scraper stem 17 in that the apertures 25 in said bosses are cylindrical and the stem passes through them as shown.

The scraper is pressed against the stones by a scraper spring 26 which is secured to a spring holder 27 carried by the stem 17 between the bosses 23 and 24 aforesaid. The blade holder 22 is cut away as at 28 to permit the spring to act. The spring holder is carried by the stem 17 in non-rotatable relationship, the spring holder having a squared hole 29 to receive the stem.

It will be seen, therefore, that the scraper blade is supported vertically on the flange 10 and not on the stem 17. Were the flange removed, the scraper and spring would slide off the stem. Again, the scraper blade is pressed against the stone surfaces 12 and 13 by the spring 26 thus insuring perfect contact during the work.

The pressure of the spring is adjusted by turning the stem 17 until proper adjustment has been obtained, after which the

set screw 19 is tightened to maintain the stem and scraper in adjusted position.

In other words, lateral adjustment of the scraper is obtained by turning the stem 17. Vertically the scraper is free to slide on the stem in that the scraper is supported by the flange 10.

When the blade encounters unevenness in the surfaces 12 or 13, the blade yields to such unevenness because of the spring 26.

It is, therefore, obvious that when the lower stone, and with it the flange 10, is adjusted, the scraper blade follows the adjustment without being compelled to change its form. On the other hand, it is quite important that the scraper is kept against the stone surfaces 12 and 13 under spring tension, because of the unevenness of said surfaces, it being practically impossible to form them as true circles.

The scraping mechanism as herein disclosed is easy to manufacture, assemble, affix and operate and adjust.

While I have disclosed the invention in the preferred form, I do not wish to be limited to the disclosure otherwise than as required by the appended claims.

I claim:—

1. The combination with a color mill having a fixed stone and a vertically movable stone for grinding the colors, a scraper for said stones, means for supporting said scraper in relatively fixed lateral relationship to the said stones, said means permitting

automatic vertical movement of the said scraper simultaneously with a vertical movement by said movable stone.

2. The combination with a color mill having an upper fixed stone and a lower rotatable and vertically adjustable stone for grinding the colors, of a scraper, means for supporting said scraper in relatively fixed lateral relationship to the said stones, and means for mounting said scraper on said supporting means to permit said scraper to maintain operative relationship with said lower stone by gravity.

3. The combination with a color mill having a fixed upper and a rotatable and vertically movable lower stones for grinding the colors, of a scraper for said stones comprising supporting means secured to said mill, a scraper slidably carried by said supporting means in vertically fixed position with respect to said lower stone and means for yieldingly maintaining said scraper in contact with the said stones.

4. A scraper for color mills of the character described comprising a scraper blade, a spring for keeping said blade yieldingly in contact with the stones in said mill, a post for supporting said blade and spring in fixed lateral relationship with said stones, means permitting automatic vertical adjustment of said scraper blade when the grinding stones in the said mill are adjusted and means for regulating the tension of the said spring.

JAMES W. KENT.