July 12, 1927. 1,635,480

O. B. JACOBSON

FLOOR SURFACING MACHINE

Filed July 18, 1925

FIG. 1.

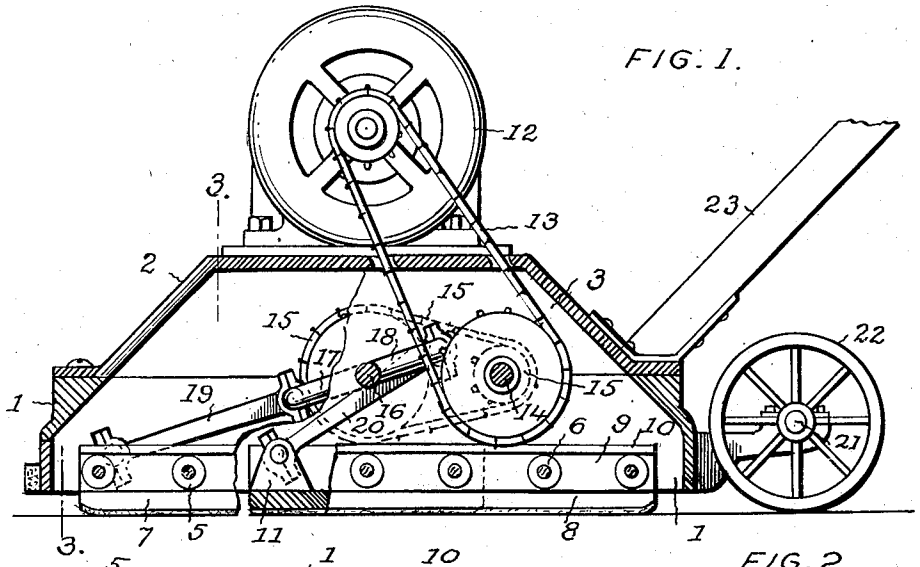


FIG. 2.

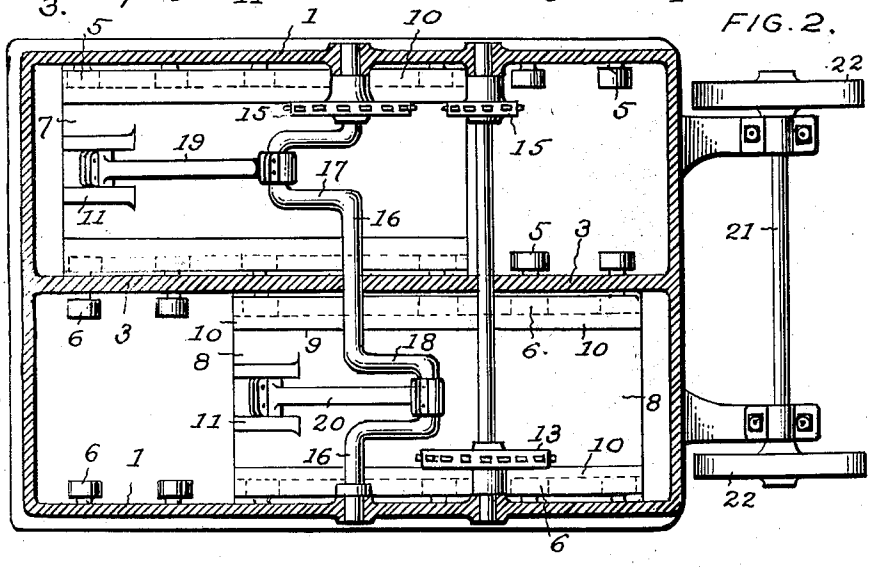
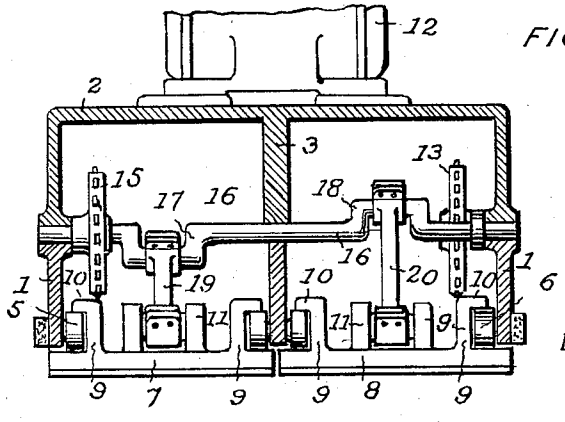


FIG. 3.



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UNITED STATES PATENT OFFICE.

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FLOOR-SURFACING MACHINE.

Application filed July 18, 1925. Serial No. 44,565.

This invention relates to that class of floor surfacing machines in which a pair of surfacing heads of the rectangular slab type are arranged side by side in the housing of the machine and receive simultaneous reciprocation in opposite directions from a driving mechanism mounted upon said housing. And the present improvement has for its object:—

To provide a structural formation and combination of parts and features, affording a substantial and efficient supporting and guiding means for the reciprocating surfacing heads or slabs of the machine combined with a housing shell or structure adapted to support the operating mechanism of said heads or slabs in the attainment of a compact and substantial machine as a whole, all as will hereinafter more fully appear.

In the accompanying drawing:—

Fig. 1, is a side elevation with parts broken away and with the enclosing shell or housing in section.

Fig. 2, is a top view with the shell or housing in section.

Fig. 3, is a transverse section on line 3—3 Fig. 1.

Like reference numerals indicate like parts in the different views.

The main shell or housing of the machine is of an open bottom shell form, divided midway its height into a main lower section 1 and a top section 2 of a cap form, with the two sections fixedly connected at their meeting edges and with said edges formed with counterpart recesses constituting journal bearings for the transversely arranged shafts of the hereinafter described driving mechanism of the machine. In the present improvement, the cavity of the shell or housing is divided by a longitudinal wall or partition 3, which in turn is divided midway its height in a manner complementary to the above described division of the main shell or housing.

The end walls 4 of the shell or housing are preferably of the inclined form as shown, with a view to lightness and convenience in the manipulation of the machine by the operator.

Adjacent to the lower ends of the side walls of the lower shell section 1 and of the wall or partition 3, are arranged pairs of opposed and longitudinally extending series of track rollers 5 and 6, forming guide tracks for the pair of surfacing heads or slabs now to be described.

The above referred to surfacing heads or slabs 7 and 8 of the machine are of a rectangular plate form with their under faces adapted to receive and hold sheets of sand paper or like abrading material, secured in place in any usual manner.

On their upper faces the heads or slabs 7, 8, carry longitudinal ribs 9 near their respective side edges with such ribs having overhanging top flanges 10 which in connection with the adjacent upper faces of the heads or slabs provide longitudinal channels for tracking engagement with the aforesaid track rollers 5, 6, of the main shell or housing and of the longitudinal partition 3 of the same. In addition the upper faces of the slabs 7, 8, carry upstanding ears 11 for pivotal attachment of the pitmans of an operating mechanism as follows:

An operating electric or like motor 12, is secured to the top of the main shell or housing of the machine, with its armature shaft connected by sprocket wheel and chain connection 13, or like gearing, with an intermediate transverse shaft 14 journaled within the shell or housing and in a set of the bearing recesses formed at the line of division between the lower and upper portions 1, 2 of said shell and the like portions of the partition 3, as heretofore referred to.

Operatively connected, by a sprocket wheel and chain connection 15, with the aforesaid transverse shaft 14, is a transverse crank shaft 16, also mounted within the shell or housing in manner similar to that above described in connection with the intermediate transverse shaft 14.

In the present improvement the crank portions 17 and 18 of the crank shaft 16 are arranged in diametrically opposed relation to each other as shown, and have individual operative connections, by pitmen 19 and 20 with the respective surfacing heads or slabs 7 and 8, and as so arranged are adapted to impart simultaneous reciprocation to said heads or slabs in opposite directions.

At one end of the main shell or housing, a transverse axle 21 is arranged for the support of wheels 22, upon which the machine as a whole and in a tilted condition can be moved from location to location as required. And in connection with such wheel provision, the shell or housing is provided with a handle 23, for such use, as well as for moving the machine along the floor as the surfacing of the same progresses.

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

In a floor surfacing machine, the combination of a main casing open at bottom and formed by upper and lower sections with the abutting faces of such sections formed with complementary portions of a plurality of bearing recesses, and a central longitudinal partition in said casing, a pair of surfacing slabs having side by side relation, track connections between the lower casing section and the surfacing slabs comprising longitudinal track flanges extending laterally from the sides of one part, and track rollers on the other part having engagement with said track flanges, a crank shaft mounted in the bearing recesses in seam between the casing sections and formed with a pair of diametrically opposed crank members, pitmen connecting said crank members with the surfacing slabs, and means for imparting rotation to the crank shaft.

Signed at Waukegan, Illinois, this 20th day of June, 1924.

OMAND B. JACOBSON.