Oct. 13, 1931. J. GAILHOFER 1,827,003

FLOOR AND THE LIKE POLISHING APPLIANCE

Filed Nov. 12, 1928

Fig.1

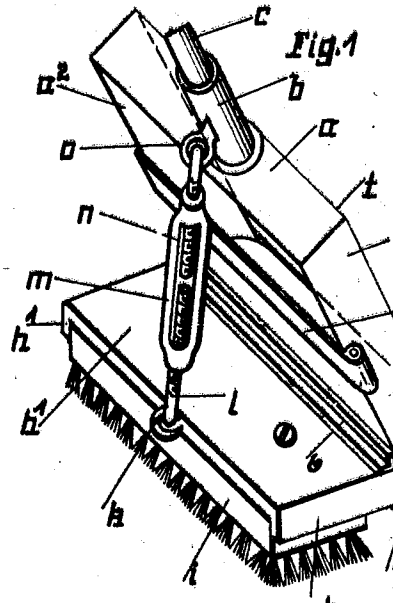


Fig.2

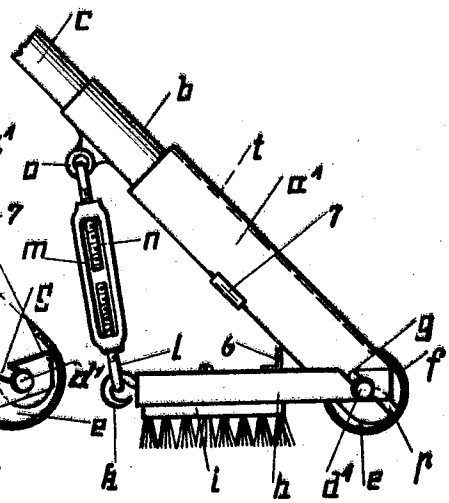


Fig.3

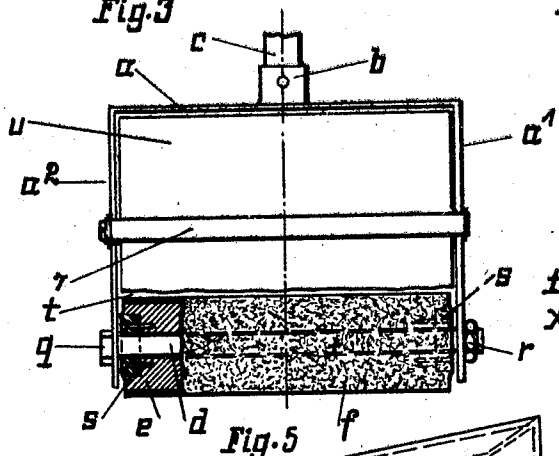


Fig.4

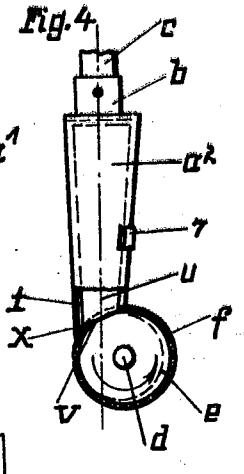
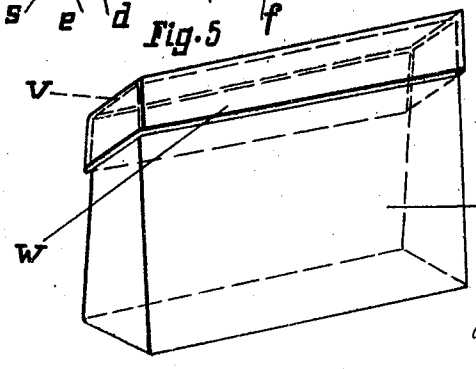


Fig.5



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UNITED STATES PATENT OFFICE

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FLOOR AND THE LIKE POLISHING APPLIANCE

Application filed November 12, 1928, Serial No. 318,922, and in Germany May 11, 1928.

My invention relates to improvements in machines for use in polishing floors, floor coverings and the like. The polishing medium, preferably wax in form of paste is brought on the floor and consumed or worked upon by a brushlike instrument. The means for waxing the floor are connected with the polishing means in a simple manner. By improvements of the said kind it is possible to evenly distribute suitable polishing medium as wax to the floor or like surface and to rub or polish the said surface after the polishing medium has been applied thereto. The alternate waxing and rubbing of polishing is done by lifting and lowering of the push handle. Further the arrangement has the advantage that the roller for putting on the wax is held fast in one direction and freely rotatable in the other direction, so that the application of wax to the floor occurs only by the free rotation of the roller, while by holding the roller against rotation the wax may be also rubbed into the floor by the roller itself.

The apparatus is very simple, handy and light, because only two frames are joined one with the other, by which one frame which carries the push handle, serves as carrier for the wax box, while the other frame carries the brush.

The wax box rests with its discharge opening on the roller and is cut off obliquely at the mouth. By putting it in the frame with its discharge opening upon the roller the projecting edge of the wax box prevents a rotation of the roller in one direction and allows rotation thereof only in the opposite direction. Hence the wax is always applied only by rotation of the roller in one direction and at the same time the roller forms an obturation for the wax box and prevents waste of the wax paste.

In the drawings:

Fig. 1 is a perspective of the apparatus,

Fig. 2 is a side elevation of the same,

Fig. 3 is a rear elevation of the frame with the roller and a piercing shaft,

Fig. 4 is a side view according to Fig. 3, and

Fig. 5 is a detail perspective of the wax box with a cover.

A U-shaped frame a, a^1, a^2 is provided with a socket b which serves in a usual manner for the attachment of a push handle c. The sides a^1, a^2 of the frame (Figs. 1 and 2) have bearings on the journals d^1 of a roller e, and the roller is provided with a peripheral cover of cloth or felt. The journals d^1 engage in slits g of arms h^1 which carry a brush body i which is secured to the heavy carrier plate h^1 by screws. The carrier plate h^1 has a ring k into which grips the hook l of a turnbuckle or other longitudinally extensible connecting element m. The screw n of the turnbuckle is connected to a ring o of the shell b. Frame a, a^1, a^2 and brush body i are adjustably connected together by the turnbuckle m, because the frame sides a^1, a^2 lie fast against an angle iron 6, fixed to the carrier h^1. The journals d^1 are introduced by slits p transposed out of the centre line in the sides a^1, a^2 and easily exchangeable. Casual disengagement of the journals from the slits p is impossible, because by the turnbuckle m a force is exerted which holds the axle in the carrier by the arms h.

In the form according to Fig. 3 and 4 the axle d is longitudinally movable in the roller e and has at one side a head q and on the other a nut, by which the axle is fastened in its position on the sides a^1, a^2. The roller e of wood has metal plates s, which serves as bearings for the axle d, reposing in the sides a^1, a^2. These plates s may be formed also as ball- or roller-bearing.

The frame a, a^1, a^2 is covered by a wall t at the front side and the rear side has an attaching band 7 which is pivotally connected to the frame side a^2 and has a snap at the free end to effect an elastic connection with the frame side a^1.

In the receptacle formed by frame a, a^1, a^2, from wall t and band 7 rests the box u, which is filled with wax-paste, and the opening v of which is cut obliquely and can be closed by a sliding cover.

The vessel u is made of tin-plate and has only smooth walls, so that the wax can freely move in and drop from the vessel and be

applied by the roller to the floor. As shown in Fig. 4 the vessel u is arranged with its discharge opening on the roller e, so that the roller closes snugly against the lower edges of the walls of the vessel. The edge x going over the roller, allows only a rotation of the latter in the direction of the arrow, but prevents an opposite rotation. When the roller is revolved by movement of the apparatus in one direction, a certain quantity of wax may be drawn from the box as much as is necessary at the moment, and the roller caused to spread a thin wax layer on the floor.

In operation the frame a, a^1, a^2 is after unscrewing the turnbuckle m is taken from the brush part and the wax receptacle is brought into the frame and the journals of the roller e are introduced in the slits p and thereafter into the slits g of the brush carrier h. By adjusting the turnbuckle the frame is joined to the brush carrier. The apparatus normally rests on the brush because the frame h is heavy and by a little lifting of the push handle the wax roller may be lowered to the floor for use and the brush lifted as will be understood.

A material economy in the wax employed is effected, the apparatus is very readily manipulated and owing to its simplicity and solid construction always available.

Having thus described the nature of my said invention, I declare that what I claim is:

1. A machine of the class described, having a weighted rubbing element, a roller mounted for rotation and arranged near one side of said rubbing element, means to supply polishing material to said roller a handle whereby said machine may be manipulated, said weighted rubbing element when bearing on a floor operating by its superior weight and in coaction with the handle to hold said roller in elevated position above the floor.

2. A machine of the class described, having a rubbing element provided at one side thereof with bearings, a roller mounted in said bearings, a frame pivotally mounted with respect to said bearings and roller and provided with means whereby the machine may be manually operated and a vessel serving as a reservoir for polishing material, said vessel being detachably mounted in and carried by said frame and having an opening wherewith to apply polishing material directly to the peripheral surface of the roller.

3. In a machine of the class described, a polishing element having arms extending to one side thereof, a roller having axle journals detachably mounted in said arms, a frame having side members detachably mounted on said axle journals, said frame being provided with means whereby the machine may be manually operated and a reservoir vessel for polishing material carried by said frame and arranged to supply such material to the periphery of the roller.

4. A machine of the class described, comprising a rubbing element provided with a stop member, a frame pivotally connected to said rubbing element and arranged when in one position to bear against said stop member, a roller mounted for rotation the axis of which is substantially coincident with the pivotal axis of the frame, means carried by the frame to supply polishing material to the roller, the said frame having means whereby the machine may be manually operated and a longitudinally extensible connecting element between said frame and said rubbing element and arranged to coact with said stop member to hold said frame and said rubbing element rigid, the one with respect to the other.

5. A machine as claimed in claim 4, in which said connecting element is a turnbuckle and said turnbuckle is detachably secured at one end.

6. In improvements in floor and the like polishing appliances, a brush having a carrier member provided with an angle iron and also provided with arms having slots, a frame for containing polishing material and having arms provided with slots, a roller having axle journals mounted in the slots of the frame arms and the brush carrier arms, and connecting means between the brush carrier and the frame to cause the latter to bear against the angle iron.

7. In floor and the like polishing appliances, a brush having a carrier member provided with an angle iron and also provided with arms having slots, a container for polishing material and having arms provided with slots, a roller having axle journals mounted in the slots of the frame arms and the brush carrier arms, and connecting means between the brush carrier and the frame to cause the latter to bear against the angle iron.

In witness whereof, I affix my signature.

JOSEPH GAILHOFER.