

G. FRIEDMAN.
FLOOR WIPER.

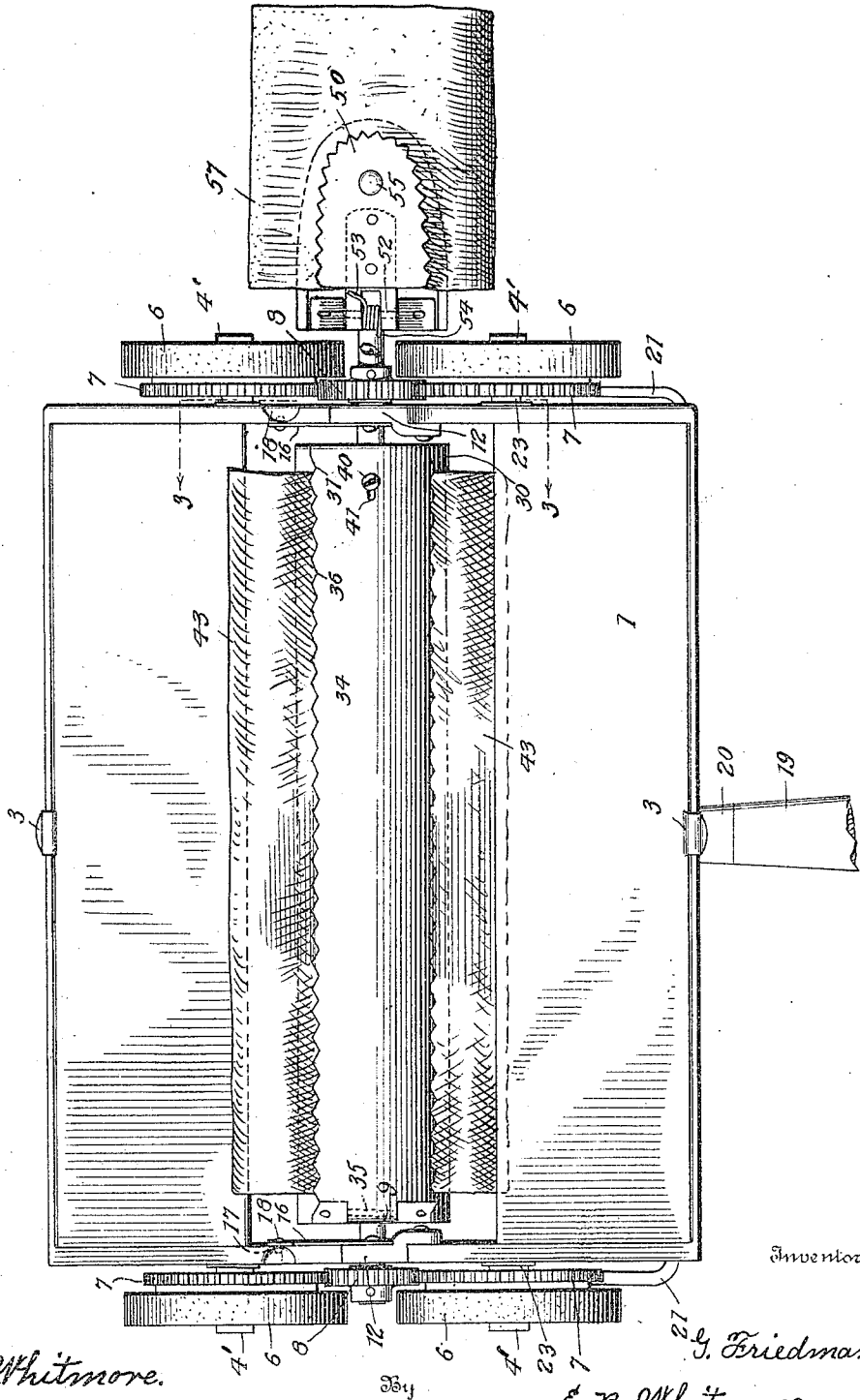
APPLICATION FILED JUNE 8, 1909.

960,879.

Patented June 7, 1910.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

A. M. Whitmore.
C. E. Rudslund.

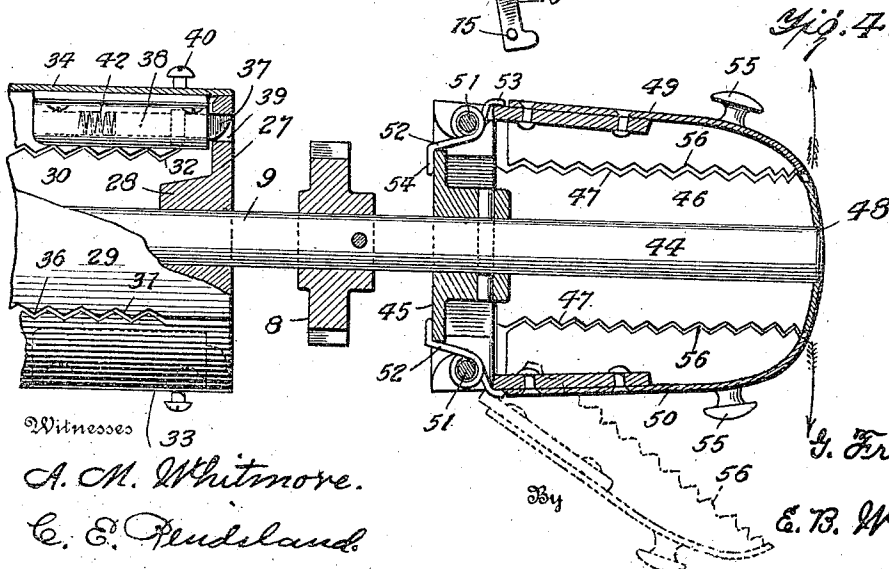
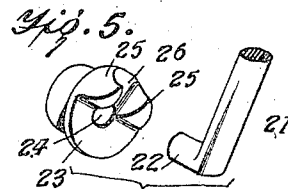
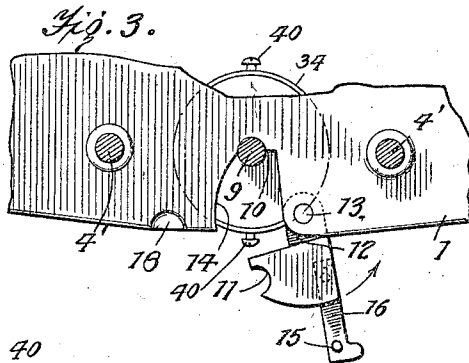
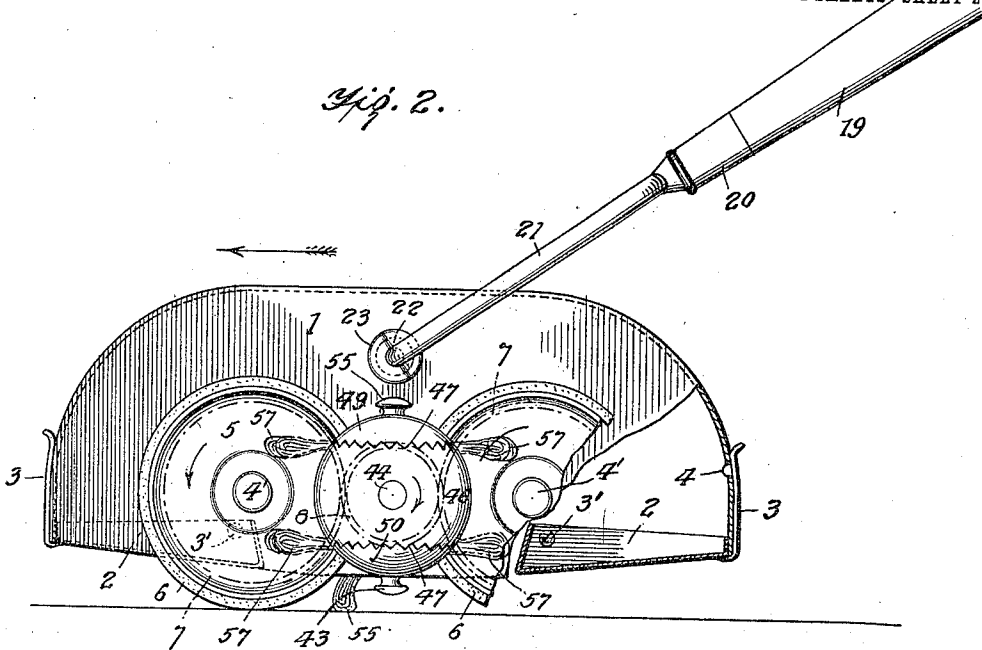
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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

GOSTE FRIEDMAN, OF JAMESTOWN, NEW YORK.

FLOOR-WIPER.

960,879.

Specification of Letters Patent. Patented June 7, 1910.

Application filed June 8, 1909. Serial No. 500,920.

To all whom it may concern:

Be it known that I, GOSTE FRIEDMAN, of Jamestown, in the county of Chautauqua and State of New York, have invented a new and useful Improvement in Floor-Wipers, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My present invention is an implement designed primarily for house use, for cleaning wood floors. Such floors, oiled or polished, are much used instead of carpets, being, in some instances, partially covered by loose or movable rugs. These floors show the dust and soon get untidy in appearance.

My present device is designed primarily for going over such floors to wipe up the dust. It is applicable for use on ballroom floors and other large floors not carpeted. The wipers, which are in the form of fibrous pads, may, if desired, be sometimes dampened in order to enable them to better hold the dust. The device is provided with an extension shaft carrying a short pad overhanging the housing or inclosure of the main pads and designed for taking up the dust in the corners and close up against the washboard of the room. The cylinder is of novel construction, to facilitate the application and removal of the pads, as is also the extension member which carries the supplemental pad. The journal bearings are constructed with movable portions so as to permit of the ready insertion or removal of the shaft carrying the wiping cylinder.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a bottom plan view of my improved floor wiper. Fig. 2 is an end elevation with a portion of the casing broken away and parts shown in section. Fig. 3 is a detail in elevation showing the movable portion of the journal bearing. Fig. 4 is an enlarged detail with parts broken away and portions in section showing a portion of the main cylinder, the shaft and the means for clamping and holding the extension pads. Fig. 5 is a perspective detail of one of the

swivel bearings for the handle, and the co-operating portion of said handle.

Like numerals of reference indicate like parts in the several views.

Referring to the drawings, 1 designates the body or casing of the device which in all respects similar to that of an ordinary carpet sweeper.

2 are the dust pockets or dust pans pivotally mounted, as at 3', so as to be turned down to allow of the removal of the dust and dirt when desired, being held in their closed position by suitable means as the spring catches 3 having the projections 4 snapping into openings in the sides of the casing, as will be readily understood upon reference to Fig. 2.

4' are the stub axles mounted in the end walls of the casing and on each freely revolves the wheels 5 provided preferably with the rubber tires 6, as indicated in Figs. 1 and 2 for the usual purpose of such tires or bands. Fast to the inner face of each of these wheels is a gear wheel 7, seen best in Fig. 1, which gear wheels are designed to mesh with the smaller gear wheels 8 on the shaft 9, there being one of such gear wheels 8 upon said shaft just outside of each of the end walls of the casing, as will be readily understood upon reference to Fig. 1, the gear wheels 8 being fastened upon the shaft in any suitable manner.

The shaft is mounted in journal bearings in each end wall of the casing, each of these bearings having one half fixed in the end wall and the other half 11 carried by an arm 12 pivotally mounted at 13 to the said end walls of the casing, the end wall being cut away, as at 14, as seen best in Fig. 3, to receive the movable portion of the bearing, and the latter being held in place by means of a stud 15 projecting from a spring arm 16 carried by the arm 12 which carries the movable portion of the bearing said stud being adapted to engage in a depression 17 in the inner face of the end wall. The under face of this end wall may be provided with a cut away portion, as seen at 18 to allow of more ready access to the spring arm to actuate the same when it is desired to remove the shaft.

19 is the handle by which the device may be moved over the floor in the same manner that an ordinary carpet sweeper is manipu-

lated. This handle engages in a socket 20 carried by the bail 21 of metal. The free ends of the arms of the bail are turned inwardly at substantially a right angle to the length of said arms, as seen at 22.

23 are swivel pieces rotatably mounted within suitable openings in the end walls of the casing and are made removable. They have each a central opening 24 and upon each side of said opening cam lugs 25, between which is a recess 26 into which the end portion of the bail is designed to be received. In applying the handle, these swivel or rotatable journal bearings are inserted in place in their openings in the end walls of the casing, then, by inserting one of the bent ends 22 of the bail or yoke in place within the opening of one of the swivel members, the other may be readily inserted in its place by springing it outward, allowing the end portion of the yoke or bail to ride over one or the other of the cam lugs and then springing into its recess between them. The handle is thus held to the frame by spring action and cannot accidentally get out of place during the use of the device, but can be readily detached, when desired, by simply springing outward one of the end portions of the yoke or bail. Fig. 5 shows one of the swivel bearings for the handle with the right angled end portion of the bail or yoke about to be engaged therein.

The shaft 9 carries the main portion or cylinder with its pads and also the extension cylinder and its pads. The main cylinder comprises two end portions or caps 27, each with a hub portion 28 embracing and suitably secured to the shaft 9. Around these caps or end portions 27 are secured the oppositely disposed fixed portions 29 and 30 of the cylinder, which may be affixed thereto in any suitable or well-known way, the edges thereof being toothed or serrated, as seen at 31 and 32 respectively. The remaining portions of the periphery of the cylinder are formed of the portions 33 and 34, each being hinged at one end, as seen at 35, and each having its opposite edges toothed or serrated, as seen at 36. The other end of each of the hinged portions is provided with a spring actuated bolt 37, as seen best in Fig. 4, slidable within a suitable casing or the like 38, secured upon the under side of the hinged member and the free end of the bolt being adapted to engage in an opening 39 in the cap 27. Any suitable means, as a screw 40, movable in a slot 41 in the hinged member, serves to retract the bolt against the action of its spring 42, so that the hinged member or section may be moved upon its hinge when it is desired to remove or replace a pad. These pads 43 are of felt or analogous material and are held in position by being retained within the space between the adjacent edges of the members 29 and 30 by

the hinged portions 33 and 34, the cooperating serrations or toothed portions of these members serving to firmly clamp the pads in position, said pads projecting a proper distance beyond the periphery of the cylinder and through the opening in the bottom of the casing in the same manner as do the brushes of the ordinary carpet sweeper, so as to contact with the floor or surface to be wiped. After the pad is placed in position, the hinged member is closed, the rounded nose of the bolt riding over the cooperating portion of the end or cap 27, and, after the member is closed, the spring serves to project the bolt into the opening 39 in the cap or end 27, so as to securely hold the hinged member in its closed position and prevent disengagement of the pads.

For the purpose of wiping the floor in corners and close to the washboard, I provide the extension pad and its holding means, as seen clearly in Figs. 1, 2 and 4. For this purpose, the shaft 9 is extended beyond the end of the casing and beyond the adjacent rollers, as seen at 44, and upon the inner end of this extension of the shaft, at a proper distance from the gear 8, there is affixed to the shaft a head 45, as seen best in Fig. 4, which is provided with oppositely disposed relatively fixed curved portions 46 which have their free edges serrated or toothed, as seen at 47 in Figs. 2 and 4, these portions extending around the end of the shaft and having an opening to receive the extreme outer end thereof, as seen at 48 in Fig. 4. The remaining portions of the cylinder which carries the extension pads comprises the members 49 and 50, oppositely disposed, as seen in Figs. 1, 2 and 4, the same being hinged to the cap or end piece 45 by means of suitable hinges 51 and springs 52, which latter are coiled about the pintles of the hinges, as seen in Fig. 4, with one end extended, as seen at 53, and bearing against the movable member, and the other extended, as seen at 54, and bearing against the outer face of the end or cap 45. By this means, the hinged members 49 and 50 are kept normally closed, yet, by reason of the knobs or handles 55, they are moved upon their hinges, as will be readily understood from the dotted lines in Fig. 4, when it is desired to insert or remove a pad. The edges of the hinged portions 49 and 50 are toothed or serrated, as seen at 56, which serrations cooperate with the serrations of the fixed portions of the cylinder. The pads 57, of felt or analogous material, are clamped between the toothed or serrated edges of the movable and fixed members in the same manner as are the pads of the main cylinder, as will be readily understood upon reference to Fig. 2.

In use, the device is propelled over the floor by the operator taking hold of the

handle 19, the same as he or she would in propelling a carpet sweeper. The dust is wiped up by the pads and is deposited in the dust pans 2 within the casing, from which it may be removed in the usual way.

The extension wiper permits of the wiping of the floor in the corners and along the baseboard or washboard, as will be readily understood. In some cases, the fibrous pads may be dampened to better hold the dust, particularly the extension pads, for which there are no dust pockets or dust pans, as are provided for the pads of the main cylinder.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is:—

1. In a device of the kind described, a casing, a shaft mounted therein, a cylinder on the shaft within the casing having movable portions, pads held by said movable portions, said shaft being extended at one end beyond the casing, movably mounted means on said extended end for holding fabric pads so as to project beyond the periphery of the shaft, spring hinges for said movable portions, and automatic fastening means for holding them in their closed position.

2. In a device of the kind described, a casing, a shaft mounted therein and having

one end extended, a head on said extended end, fixed portions of a cylinder on said head, and cooperating movably mounted sections carried by said head to clamp pads between said sections and fixed portions.

3. In a device of the kind described, a casing, a shaft mounted therein and having one end extended, a head on said extended end, fixed portions of a cylinder on said head, and cooperating spring actuated pivotally mounted sections carried by said head, the adjacent edges of the fixed portions and movable sections being serrated to hold pads.

4. In a device of the kind described, a casing having journal bearings in its end walls, with a portion of the walls adjacent said bearings cut away, arms pivotally mounted on the end walls adjacent the cut away portions, complemental portions of journal bearings carried by said arms, and spring arms carried thereby and having means for locking the complemental portions in closed position.

In witness whereof, I have hereunto set my hand this 3d day of May, 1909, in the presence of two subscribing witnesses.

GOSTE FRIEDMAN.

Witnesses:

W. E. ANDRUSS,

A. FRIEDMAN.