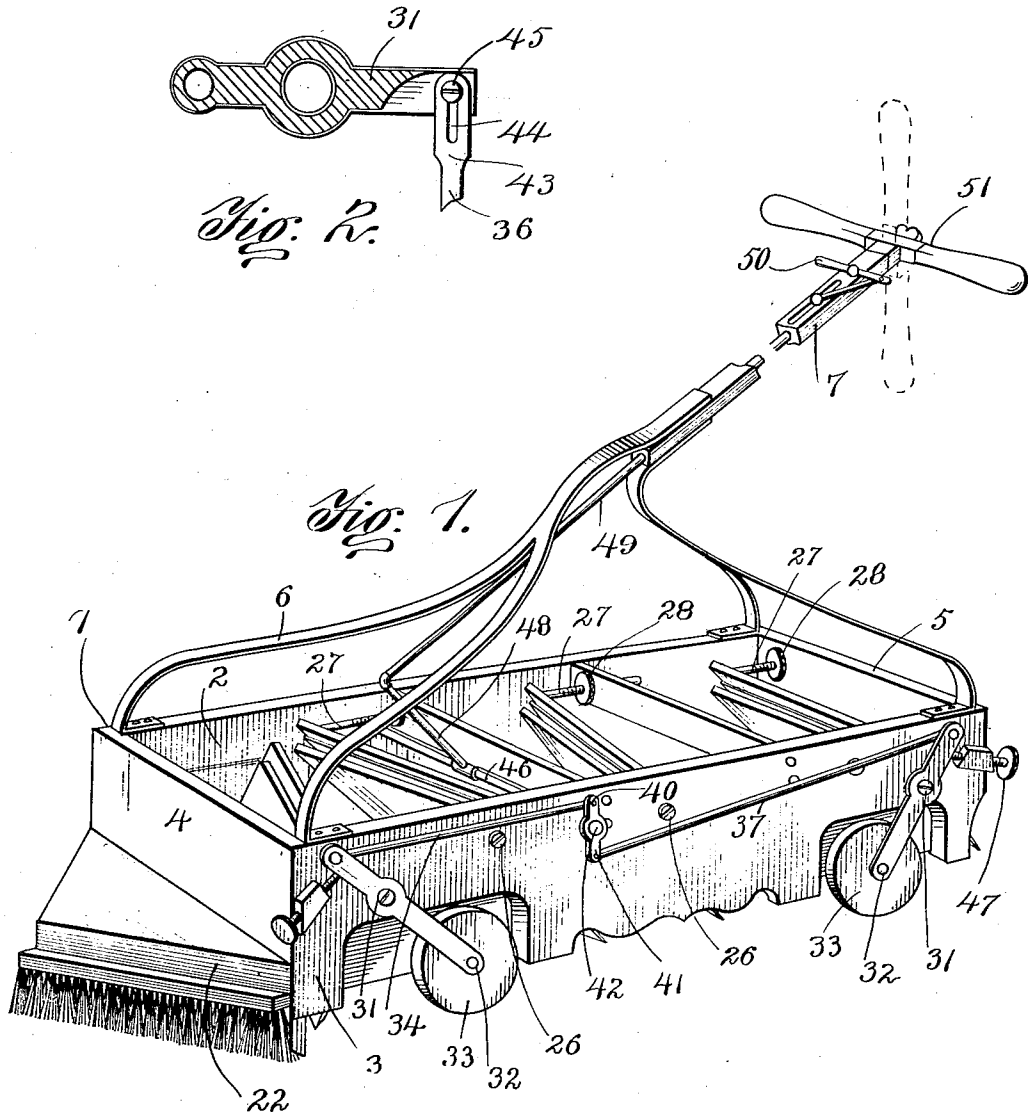


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FLOOR PLANER AND SCRAPER.
APPLICATION FILED MAY 2, 1911.

1,053,284.

Patented Feb. 18, 1913.

3 SHEETS—SHEET 1.



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Fig. 3.

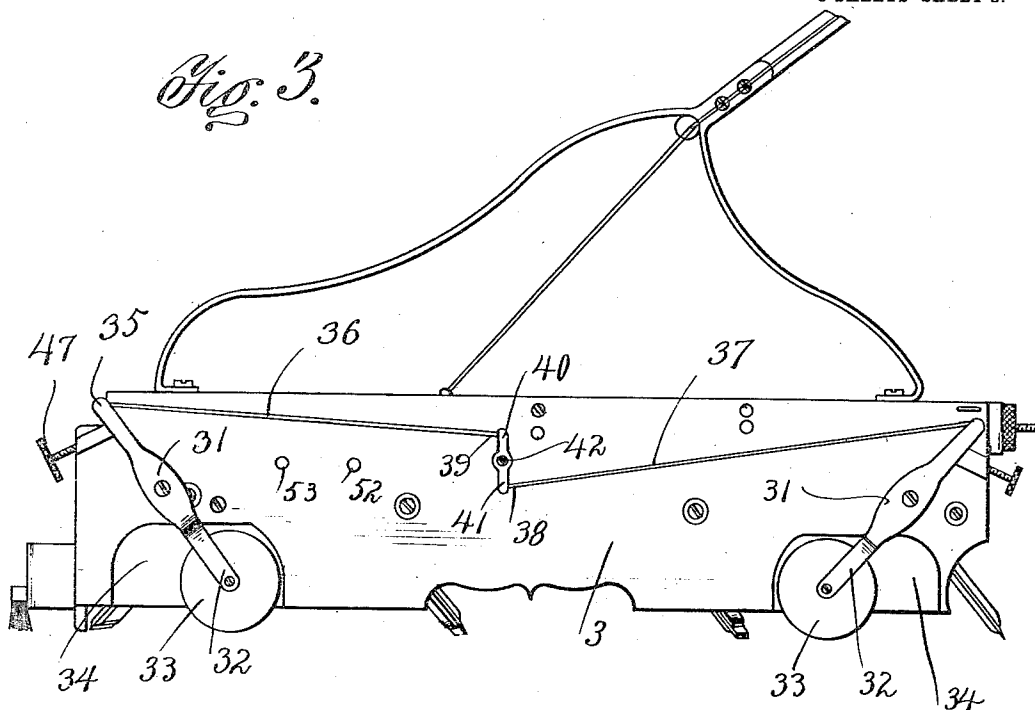
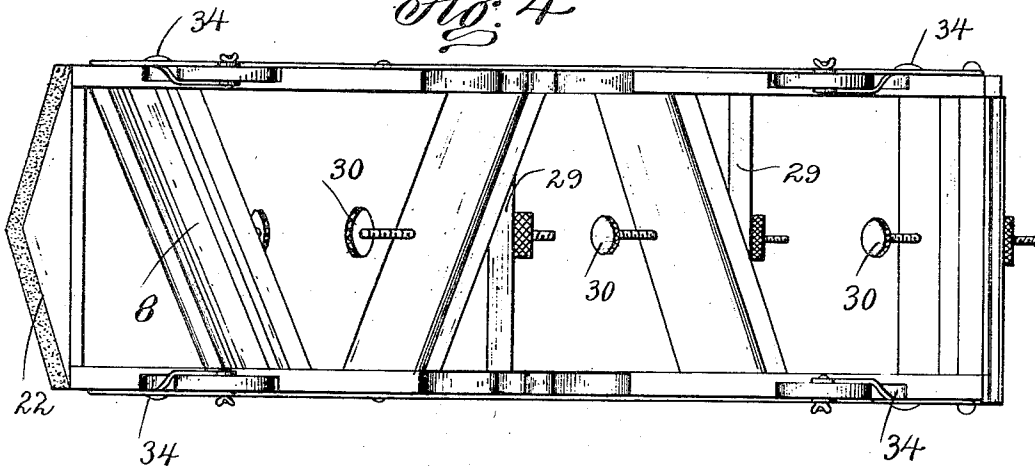


Fig. 4.



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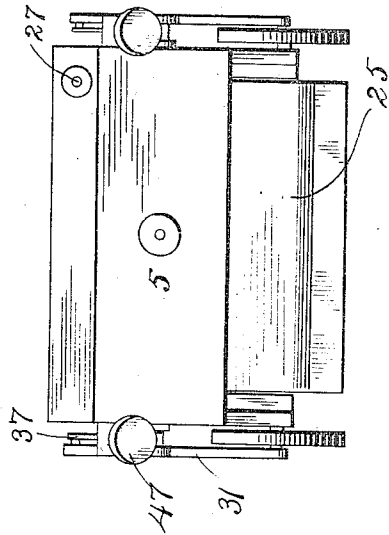
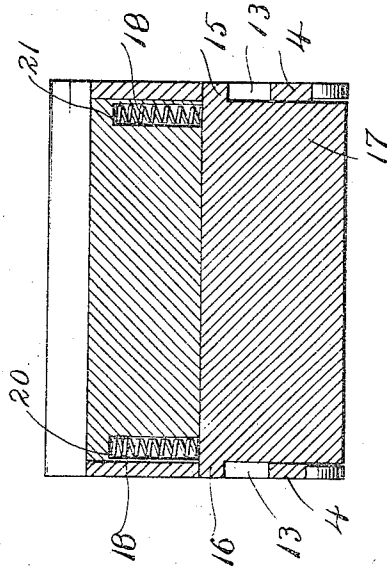
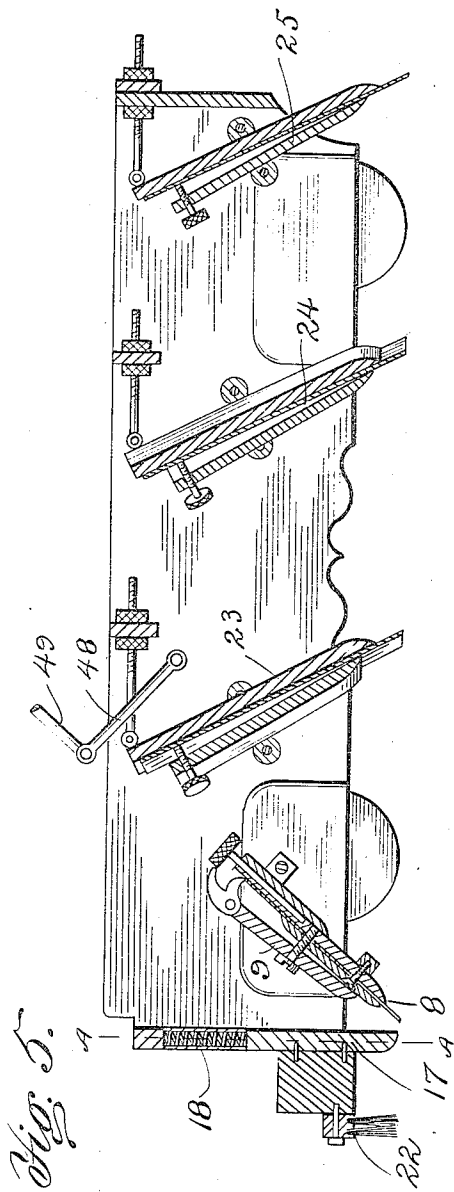
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UNITED STATES PATENT OFFICE.

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FLOOR PLANER AND SCRAPER.

1,053,284.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed May 2, 1911. Serial No. 624,620.

To all whom it may concern:

Be it known that I, CARL EKBERG, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Floor Planers and Scrapers, of which the following is a specification.

This invention relates to improvements in a combined floor planer and scraper, and has for its object to provide a means whereby a floor may be simultaneously planed and scraped to produce a smooth surface thereon.

With the above, and other objects in view, I have invented the device illustrated in the accompanying drawings in which—

Figure 1 is a perspective view of my device. Fig. 2 is a longitudinal, sectional view of a wheel operating device. Fig. 3 is a side elevation of my invention. Fig. 4 is a bottom plan view thereof. Fig. 5 is a longitudinal, vertical, sectional view. Fig. 6 is a rear end elevation. Fig. 7 is a sectional view taken on line A—A, Fig. 5.

Like reference characters indicate like parts throughout the specification and in the various views in the drawings, in which—

1 is the body of the floor planer and scraper, having side walls 2 and 3, a front wall 4, and a rear wall 5. Upon the upper edge of this body is a frame 6, supporting a handle 7, by means of which the device is operated. Located within the body, near its forward end, is the angularly disposed planer 8, running diagonally from the side 2 to the side 3 of the body. This planer is mounted in a frame 9, that is provided with a thumb screw 10, by means of which the plane may be properly set. The forward ends 11 and 12 of the sides 2 and 3 are recessed at 13 and 14, to receive the extensions 15 and 16 of the plate 17, which is held normally in a lowered position by means of the springs 18 and 19, located in bores 20 and 21, in the end wall 4. Secured to the plate 17 is a triangular brush 22, which is adapted to sweeping shavings or other trash from in front of the machine.

Pivotally mounted and angularly disposed within the body are three scrapers, 23, 24, and 25. These scrapers are mounted upon the screw shafts 26, which have their bearings in the sides 2 and 3 of the body.

Secured to the upper part of these scrapers are right angular arms 27, the ends of which are threaded and have set screws 28, thereon, by means of which the vertical angle of the scrapers may be readily adjusted. The blades 29 of the scrapers are adjusted by means of set screws 30.

Members 31 are pivotally mounted to the rear and forward ends of the sides 2 and 3, and on these members are mounted wheels 33. These wheels set in recesses 34 in the side walls 2 and 3 of the body. To the upper ends 35 are secured link rods 36 and 37, the opposite ends 38 and 39 of which are pivotally secured to the opposing ends 40 and 41, of the members 42 which are mounted upon the shaft 46. Ends 43 of the linked rods 36 are provided with elongated slots 44, by means of which they are pivoted to the member 41 by the pintles 45. This slot permits the links to adjust themselves to the various angles to which the wheels may be set.

Adjacent to the ends 35 of the members 31 are set screws 47 by which the movements of the members 31 may be adjusted. The rod 46 is rotatable and has mounted thereon a vertical rod 48 to the upper end of which the rod 49 operated by a lever handle 50 is secured. The operation of this lever handle is adapted to raise or lower the wheels in relation to the body of the device, so that when it is desired to roll the device across the floor without having the planers or scrapers come in contact therewith it may be done by simply raising the lever handle 50, thus rotating the rod 46 and the members 42, drawing the links 36 and 37 centerward, vertically adjusting the angle of the members 31, and thereby raising the body up from the floor.

The cross handle 51 on the handle 7 is rotatable, so that the machine may be operated close to a wall, in which case the handle 51 may be thrown away from the wall so as not to interfere therewith.

The floor planer may be readily converted into a floor sweeper, for while the means for elevating the carriage or casing serves to regulate the depth of cut of the scrapers and planers, said last-named members may be raised out of engagement with the floor over which the casing is rolled, and owing to the resilient support for the brush 22, said brush is adapted to be kept down in con-

fact with the floor when the casing is elevated. However, whether or not the planer and scraper members are moved out of engagement with the floor the brush will be automatically pressed downwardly by the springs 18, when the body of the casing is being elevated. Normally the weight of the casing will hold the brush 22 in contact with the floor against the tension of the compressible springs 18, the lugs 15 and 16 formed on the member 17 moving in the openings 13; the path of movement of the lugs 15 and 16 is from the top to the bottom of the openings 13 when the springs 18 are relaxed, and the latter will be relaxed when the casing is elevated, for as the abutments 4 move to engage the lugs 15 and 16 there will be a space between the top of the member 17 and the mouth of the spring housing 20 and 21 and the springs 18 will be free to expand in said last-named spaces, thereby preventing the member 17 from moving upwardly, which would lift the brush 22 out of engagement with the floor. In operating this planer and scraper the screws 47 are set so as to allow the body to come down on the floor. The planers and scrapers are then lowered to the floor.

In operation the lever handle 50 is raised, thereby raising the body from the floor when the device may be rolled to a position to start work. The planers and scrapers are adjusted by means of the set screws to cut the proper depth into the floor. The lever 50 is thrown down and the device is then ready for operation. After the first strip has been planed on both of the opposing sides of the room the device is put into position for planing the second strip, and then the screws on the side walls on which the wheels are contacting the planed portion of the floor are set so that that side of the machine will be held sufficiently high to prevent the planer and scrapers from cutting deeper into the planed portion at which time the machine is ready for operation until the last strip is reached, at which time the wheels are again adjusted to a level with the wheels thus straddling the last strip. Thus the last strip of planing is brought down to a level with the rest of the floor.

As some floors are harder than others it will be necessary at times for the machine to be heavier than at other times, therefore I have provided openings 52, by means of which weights 53 may be hung onto the sides of the device so as to properly weigh it down.

Having now described my invention, that which I claim to be new and desire to procure by Letters Patent is:—

1. In combination a casing, a transversely extending member moving vertically at one end of said casing, a brush carried by said

member, wheels normally holding said casing above the floor, a plurality of scraping members carried by said casing and normally engaging a floor, springs compressingly holding said brush in contact with the floor synchronously with said scraping members, means for elevating said casing to move said scraping members out of engaging position, said springs relaxing when said casing is elevated to force said brush in contact with the floor, and means for actuating said last-named means

2. In combination a casing, oppositely arranged pairs of wheels, said casing formed with relatively elongated recesses in which said wheels are mounted to be flush with the sides of the casing, a lever pivoted intermediate its ends substantially centrally of each side of said casing, pairs of levers pivoted to each side of said casing and having arms disposed in opposite oblique positions and holding a pair of wheels, links pivotally connecting said last-named levers with the opposite ends of said first-named levers, said first-named levers being normally held vertically by said links, a plurality of scraping members mounted in said casing and normally engaging a floor, and means for turning said first-named levers obliquely to cause said wheels to lift said casing.

3. In combination a casing, oppositely arranged pairs of wheels, said casing formed with relatively elongated recesses in which said wheels are mounted to be flush with the sides of the casing, a lever pivoted intermediate its ends substantially centrally of each side of said casing, pairs of levers pivoted to each side of said casing and having arms disposed in opposite oblique positions and holding a pair of wheels, links pivotally connecting said last-named levers with the opposite ends of said first-named levers, said first-named levers being normally held vertically by said links, a plurality of scraping members mounted in said casing and normally engaging a floor, means for turning said first-named levers obliquely to cause said wheels to lift said casing, a handle connected to said casing, and means carried by said handle for actuating said last-named means.

4. A device of the character described comprising a casing, oppositely arranged pairs of wheels, said casing formed with relatively elongated side recesses in which said wheels are disposed flush with the sides of the casing, a transversely extending shaft mounted in said casing, a handle connected to said casing, an arm mounted on said shaft, a rod slidably mounted on said handle for engaging said arm to turn said shaft, said shaft projecting from the sides of said casing, a lever pivoted intermediate its ends to each projecting end of said shaft, scrap-

ing members mounted in said casing and normally engaging the floor, levers carried by the sides of said casing and supporting said wheels, and means controlled by said
5 first-named levers and actuating said last-named levers to cause said casing to be elevated.

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

CARL EKBERG.

Witnesses:

HENRY MARTIN,
OSCAR HERNAN.