

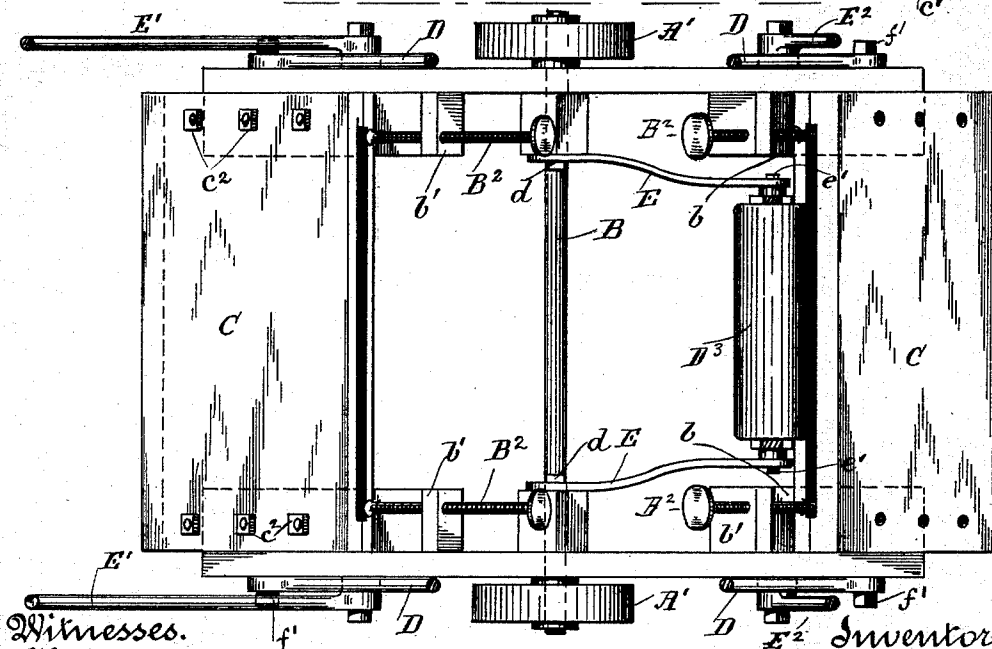
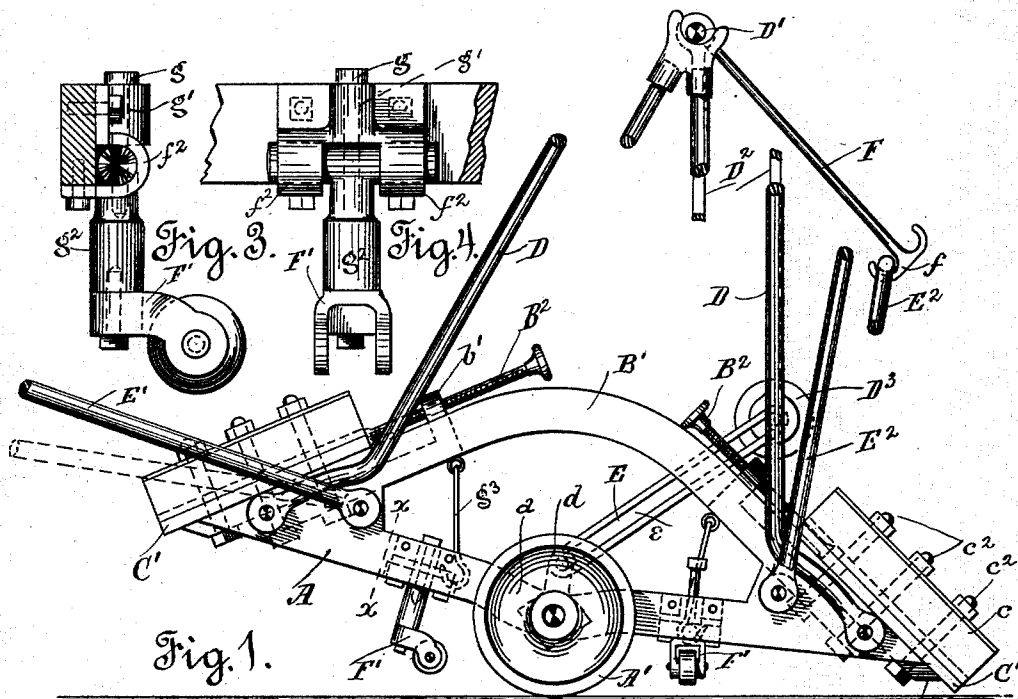
(No Model.)

2 Sheets—Sheet 1.

F. C. SCHROEDER.
FLOOR SCRAPING MACHINE.

No. 483,173.

Patented Sept. 27, 1892.



Witnesses.

Stoughton
Seth Warner

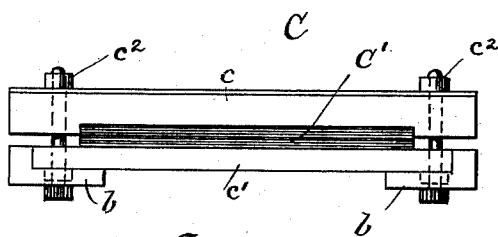
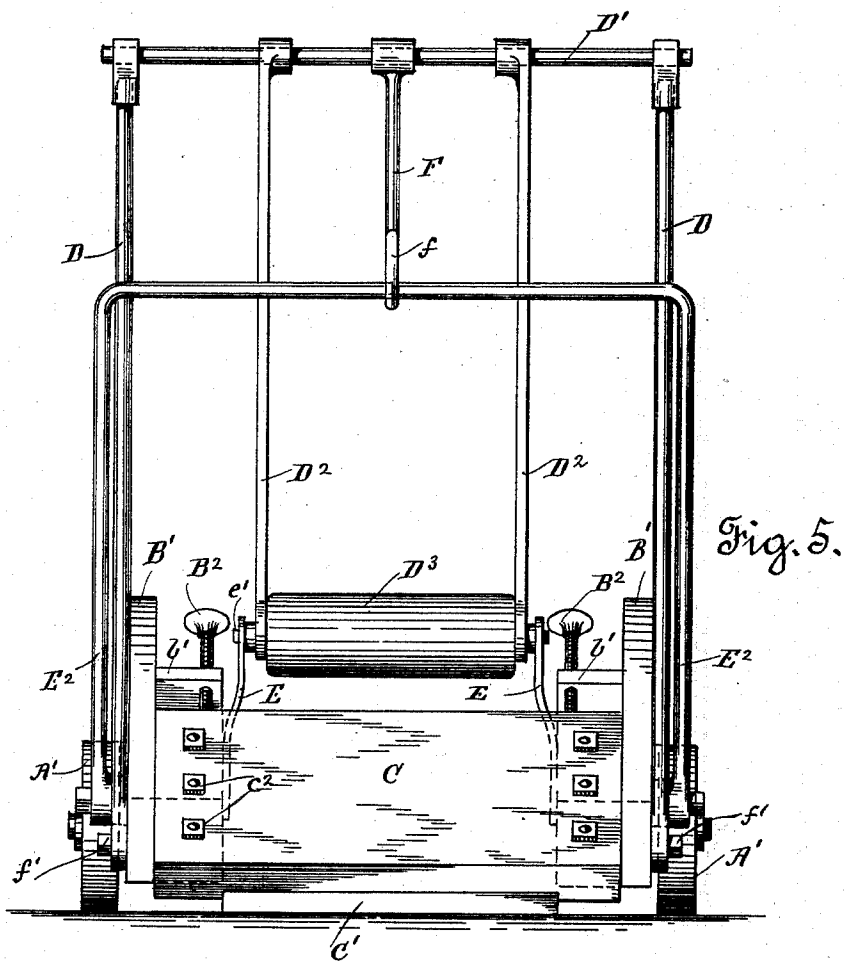
Fig. 2.

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Frederick C. Schweder
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H. J. Forteverde.

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Fig. 6.

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att'y

UNITED STATES PATENT OFFICE.

FREDERICK C. SCHROEDER, OF ALAMEDA, CALIFORNIA.

FLOOR-SCRAPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 483,173, dated September 27, 1892.

Application filed June 10, 1891. Serial No. 395,757. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK C. SCHROEDER, a citizen of the United States, residing at Alameda, in the county of Alameda and State of California, have invented certain new and useful Improvements in Floor-Scraping Machines; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

My invention has relation to certain new and useful improvements in floor-scraping machines, which consists in the arrangement of parts and details of construction, as will be hereinafter more fully set forth in the drawings and described and pointed out in the specification.

The object of my invention is to provide a machine which with its forward movement will effectually scrape the floor, so as to provide a smooth even surface thereon, and in providing regulating mechanism whereby adjustability may be given unto the cutting-tool of the scraper.

My invention further consists in providing a scraper which shall be simpler in its construction, less expensive, and more effectual in its operation than any device of a similar nature heretofore known to me.

Referring to the drawings forming a part of this application, wherein similar letters of referencedenotecorrespondingparts throughout the entire specification, Figure 1 is a side view in elevation, showing the entire machine; Fig. 2, a top plan of Fig. 1; Fig. 3, a cross-sectional view taken on line *x x*, Fig. 1; Fig. 4, a front view of Fig. 3, showing supporting-roller removed; Fig. 5, a front elevation of Fig. 1; and Fig. 6, an end view of the tool-holder, showing tool secured therein.

The letter A is used to indicate the side beams of the machine, and B the axle working in bearings formed in said beams. To the outer ends of the axle I secure wheels A' for allowing the machine being moved across the floor. The beams A run at an incline from center *a* to their outer ends. To said beams are secured the curved supporting-braces B', provided with the inwardly-projecting flanges

b, adapted to form a support or seat for the tool-holder, hereinafter described. To said flanges I secure the tool-holder C, which consists of the two sections *c c'*, the lower one of which rests and moves upon flanges *b* of the curved supporting-braces B'. The upper ends of said flanges are turned upward, so as to form flanged end *b'*, through which adjustable screw-bolts B² work, the lower ends of which bear against the scraping-tool C', secured between the upper and lower sections of the tool-holder. These sections are united or held together, so as to firmly hold the scraping-tool between them, by means of bolts *c*². By loosening said bolts and tightening screw-bolts B² cutting-tool C' may readily be moved downward or outward, so as to compensate for wear thereof.

By practical experiment I have ascertained that the material best adapted for use as a scraping-tool, which will obviate quick wearing thereof and present better scraping-edges, consists of heavy glass the edges of which have been finely ground. Use of tools constructed of such material has demonstrated that floors may be scraped whereon metal tools will take no hold whatever. Consequently by preference I construct my tool of such material, which in length is the width of the machine, as clearly shown in the drawings, of one piece, and about one-half to one and one-half inches in thickness.

As above stated, this tool is securely held between sections *c c'* of the tool-support. As one edge becomes worn down the plate of glass or scraping-tool is turned over and the opposite edge presented to the floor, and so on until all four edges have become worn down, when a new tool is inserted in place thereof.

It will be observed that I secure a scraping-tool at each end of the machine, thus allowing for scraping of the floor as the machine moves in either direction. Owing to the construction of braces B' the scraping-tool contacts with the floor at an incline or angle, thus presenting the sharpest edge of the tool to the wood.

Secured to the beams A of the machine are the vertical uprights D, which meet and are united by cross-rod D' above the machine.

From said rod depends rod D^2 , to which I secure weight D^3 , which is adapted to swing between the uprights and curved braces. As either end of the machine is thrown upward the weight D^3 swings toward the opposite end and holds the same down, so as to give sufficient pressure to the scraping-tool. To the small upright or ear d , projecting from axle B, is pivotally secured guide-rod E, which is provided with elongated slot e , within which outer ends e' of weight D^3 work as the same swing in either direction and serves to maintain the weight in position.

The handles of the machine, which permit of its being moved across the floor, are indicated by the letters E' E^2 , one at each end. These handles are pivotally secured to beams A, and either one which may not be in use is thrown upward and secured to hooked end f of depending rod F, movably secured to cross-rod D' . When the machine is not in use, both of said handles may be held upward by rod F, so as to be out of the way. As either of the handles moves downward the same contacts with side projections f' , so as to act as a lever for throwing either end of the machine downward and shift the swinging weight D^3 . To the side beams A, I secure the casters or supplemental rollers F' , which, being pivotally secured between ears f^2 , may be turned upward or under the machine when not in use. These only serve the purpose of maintaining the scraping-tools from contact with the floor when the machine is to be moved from the floor or when standing over night, and when the same is in use are thrown upward out of way. When lowered for the purpose of holding the scraping-tools from contact with the floor, they are held securely in place by means of bolt or pin g , which works in opening g' and keys the shank g^2 rigidly. The hooked rods g^3 serve to hold the rollers upward when turned beneath the machine, as clearly shown in Fig. 1.

45 Having thus described my invention, what

I claim as new, and desire to secure protection in by Letters Patent of the United States, is—

1. The combination, in a floor-scraper, of the tool-holder arranged at an incline, scraping-tools secured therein so as to have their 50 scraping-edges at an angle to the floor, and the swinging weight supported above the tool for giving sufficient pressure thereto, as and for the purpose set forth.

2. The combination of an oscillatory frame, 55 scraping-tools mounted on the ends of the same, and a shifting weight mounted on a frame above the tools.

3. In a scraping-machine for floors, the combination, with the frame, of curved supporting-braces, scraping-tools at the ends of said 60 braces, vertical rods secured to the frame and united by a cross-rod, and the swinging weight supported by said cross-rod and adapted to shift as either end of the machine is 65 thrown upward, as and for the purpose set forth.

4. The combination of a tilting frame, a swinging weight supported thereby, tools secured on the ends of the frame, and guide-rods adapted to hold the weight over either 70 end of the frame.

5. The combination of a main frame, tools secured to the ends of the same, a vertical frame carried thereby, a hook suspended on 75 said vertical frame, and handles pivoted to the ends of the main frame and adapted to be held in a raised position by the said hook.

6. The combination of the supporting-braces having inwardly-projecting flanges, 80 the tool-holder secured on said flanges, the tools carried by said holder, and the adjusting-screws mounted in the flanges and bearing against the tools.

In testimony whereof I affix my signature in 85 presence of two witnesses.

FREDERICK C. SCHROEDER.

Witnesses:

N. A. ACKER,
J. C. MCKEE.