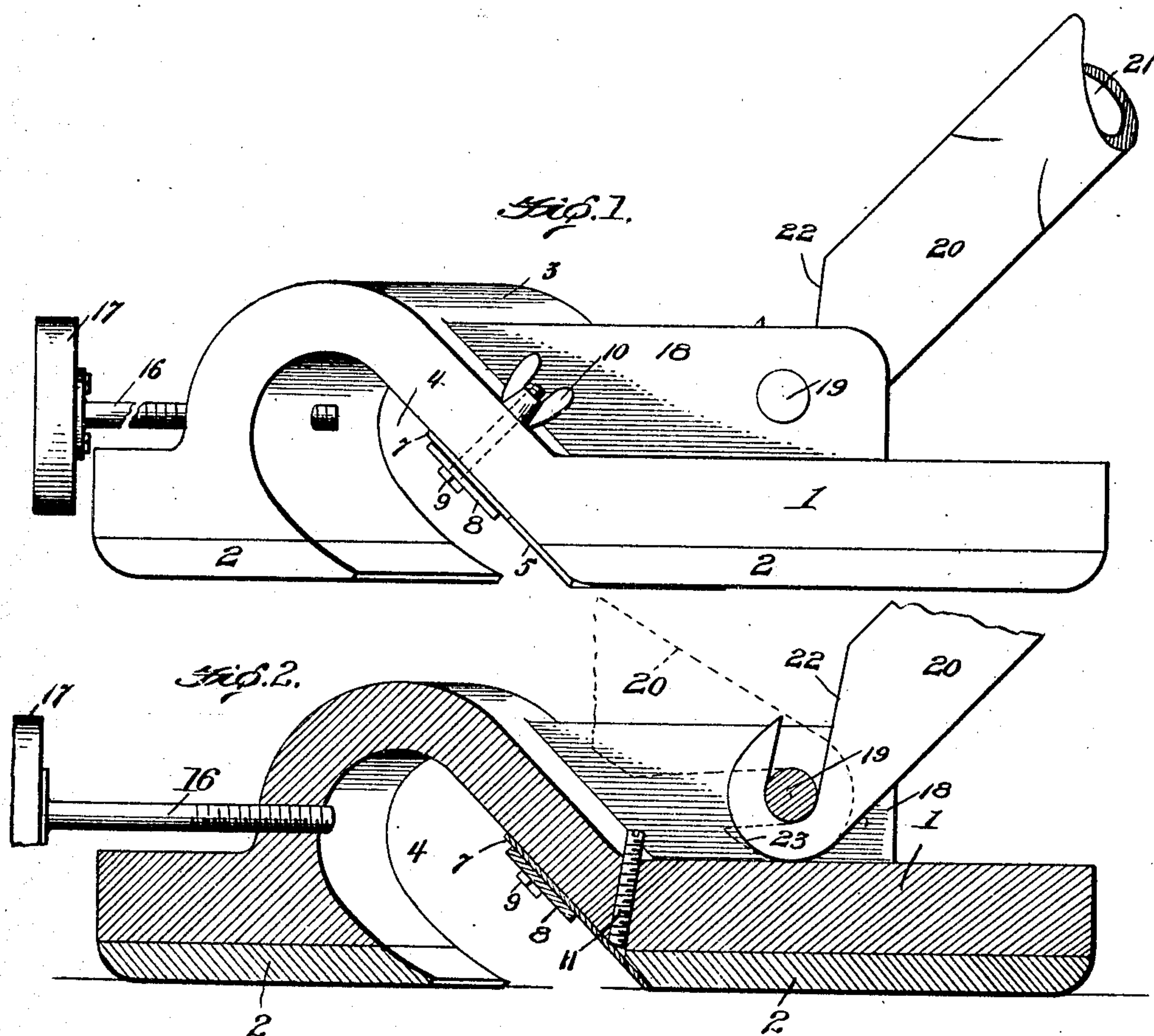


No. 871,450.

PATENTED NOV. 19, 1907.

W. SHEARS.  
FLOOR FINISHING DEVICE.  
APPLICATION FILED FEB. 24, 1906.

2 SHEETS—SHEET 1.



Witnesses

*B. M. Offutt*

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2

Inventor,  
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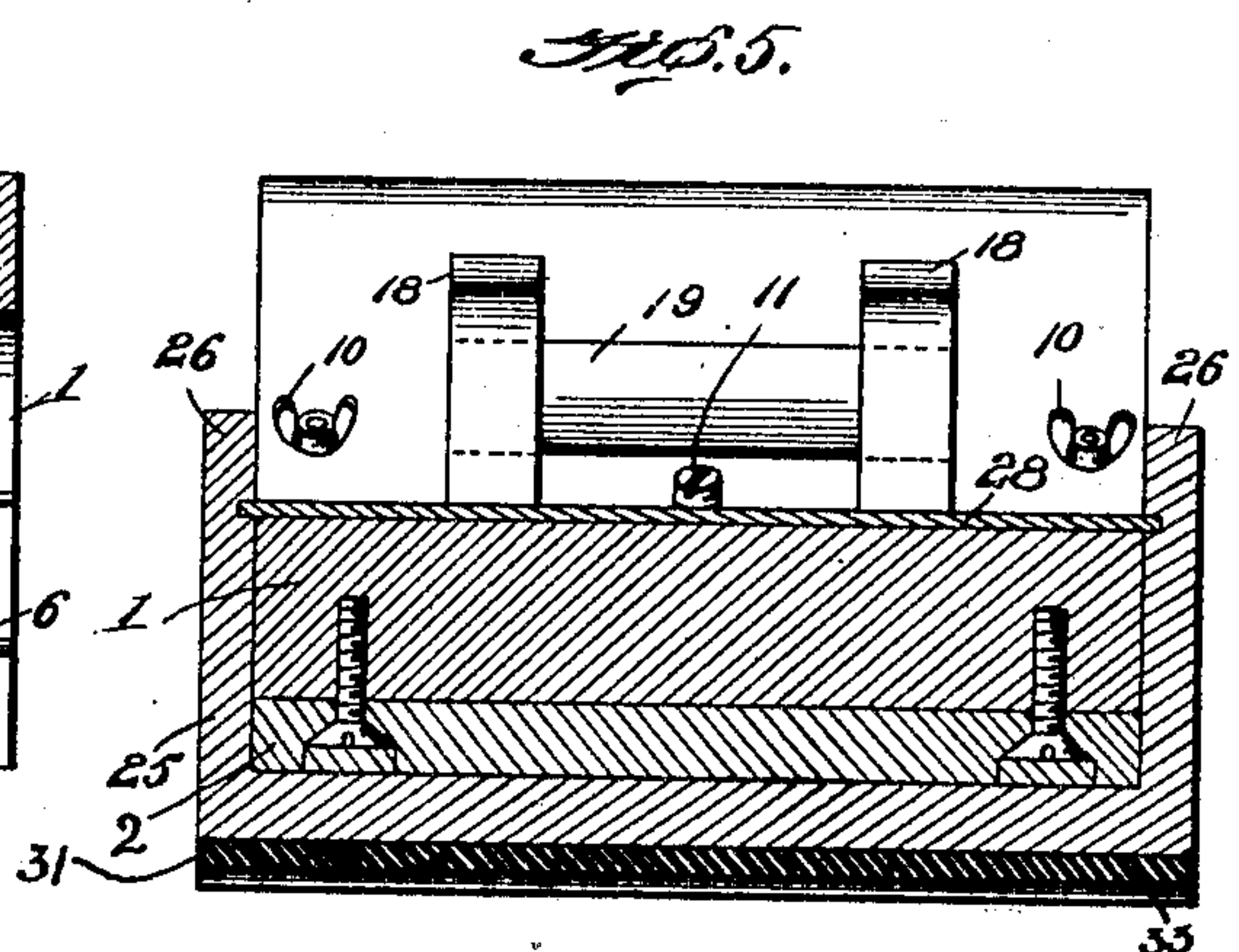
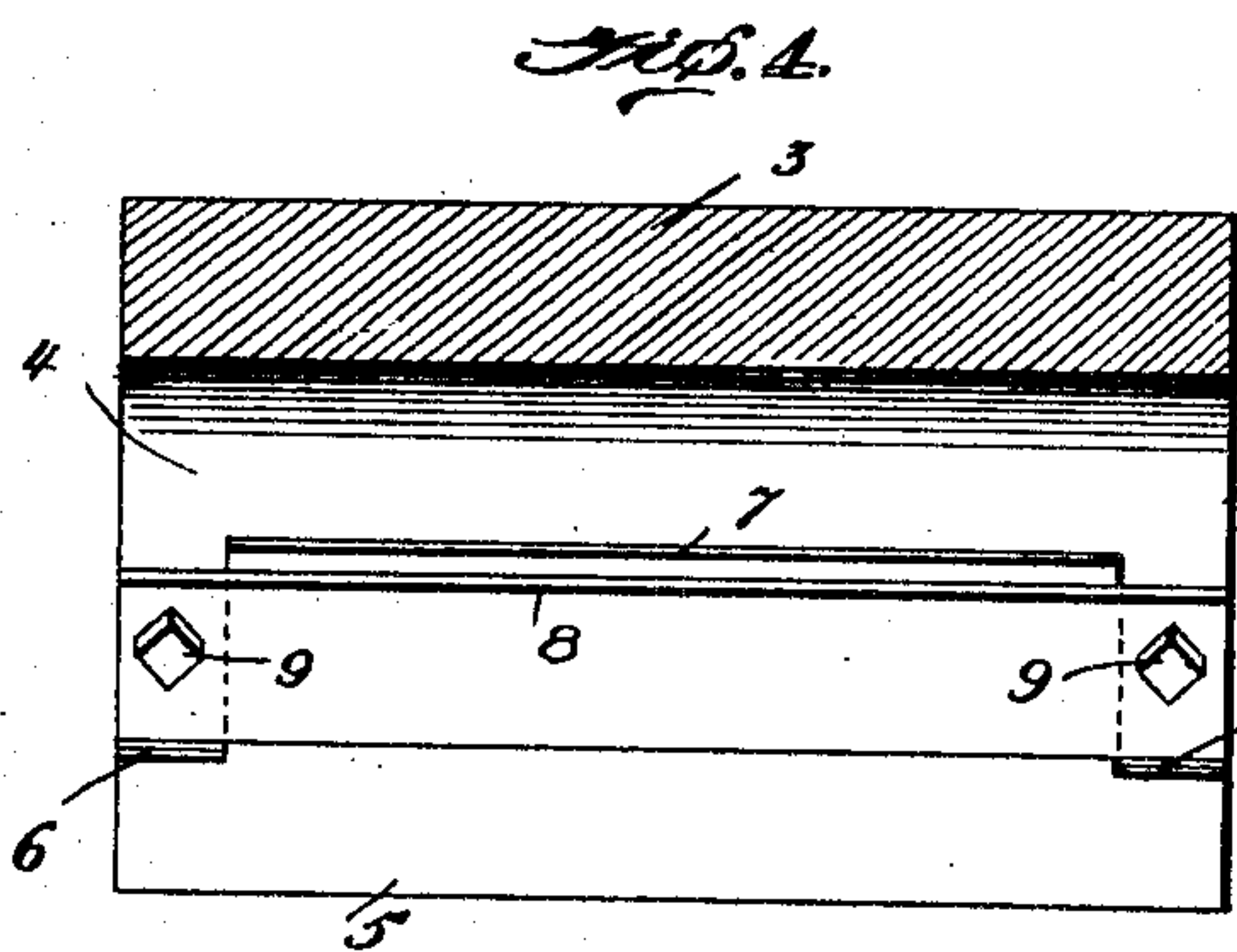
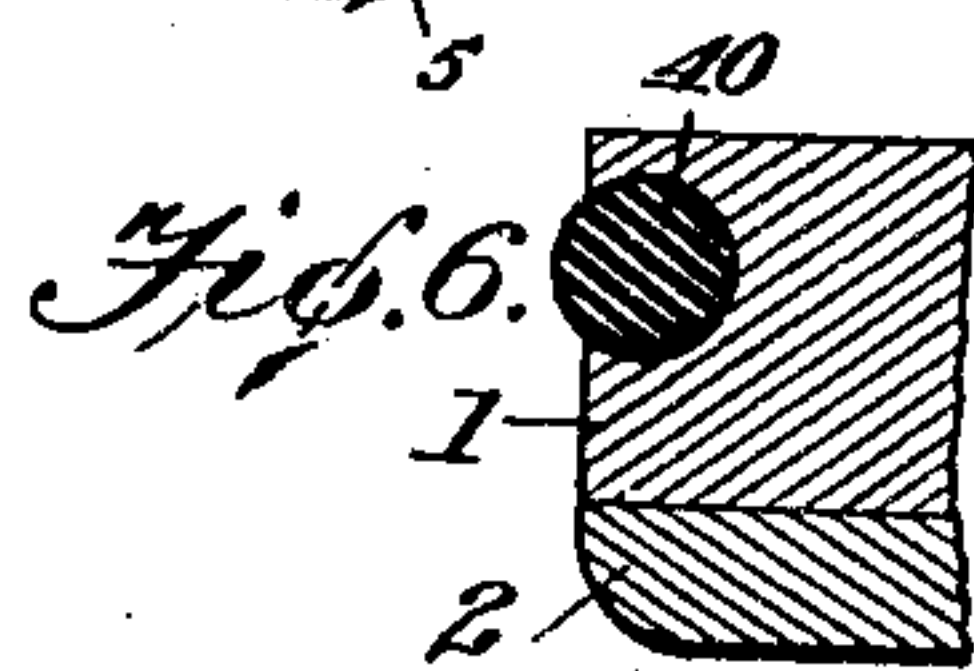
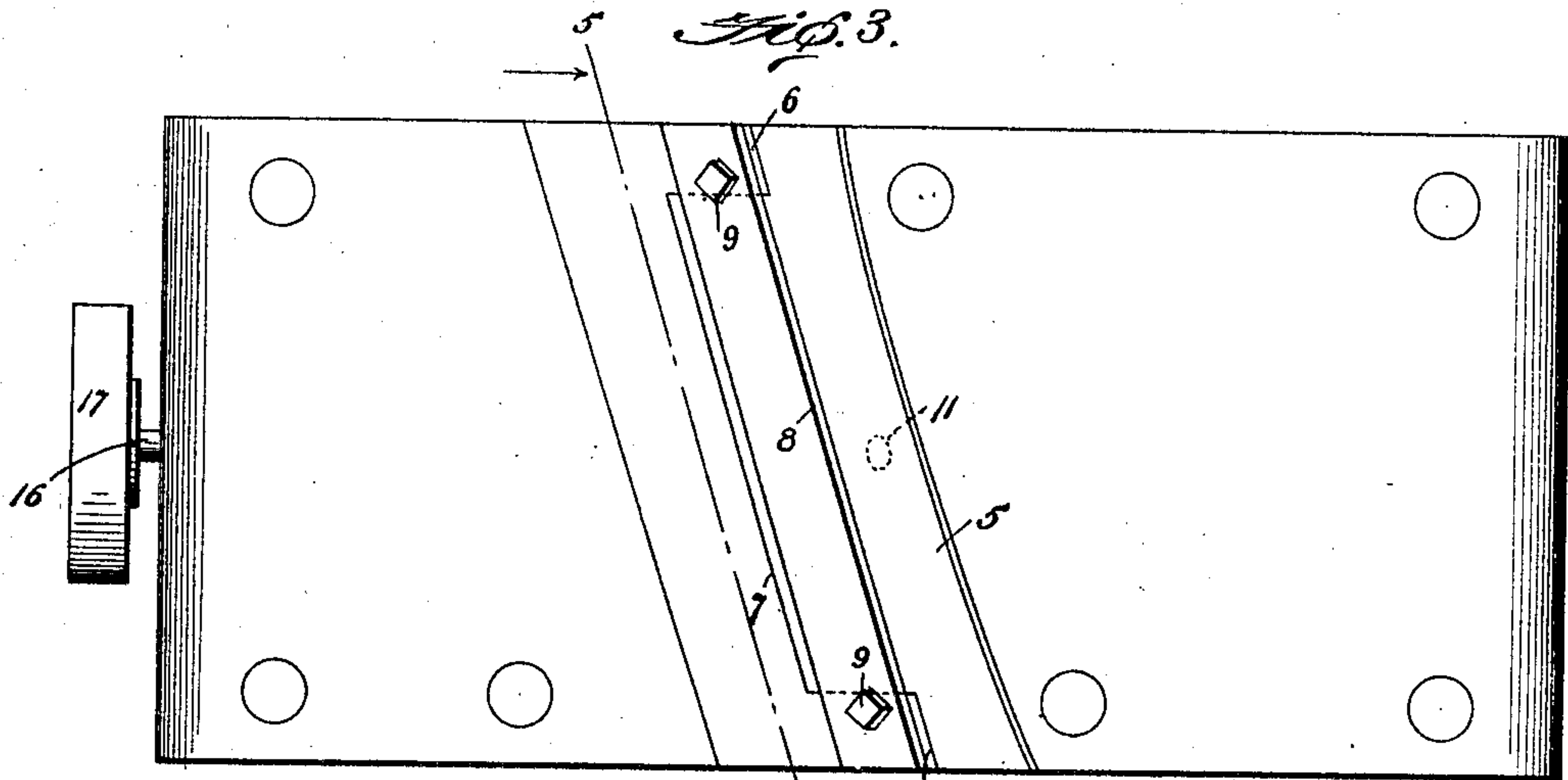
*Theodore Dalton*  
att'y.

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2 SHEETS—SHEET 2.



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Atty.



# UNITED STATES PATENT OFFICE.

WILLIAM SHEARS, OF SAULT STE. MARIE, MICHIGAN.

## FLOOR-FINISHING DEVICE.

No. 871,450.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed February 24, 1906. Serial No. 302,731.

*To all whom it may concern:*

Be it known that I, WILLIAM SHEARS, a citizen of the United States, residing at Sault Ste. Marie, in the county of Chippewa and State of Michigan, have invented new and useful Improvements in Floor-Finishing Devices, of which the following is a specification.

This invention relates to a tool for scraping or finishing floors; and it has for an object to provide an improved implement of this character that will be simple in construction, durable in use and efficient in operation.

The invention embodies a combined tool of the character named and for the purposes stated which includes two parts which, when assembled, serve as a sandpapering or finishing tool, there being means provided for clamping several layers of sand paper thereon, and also means for permanently clamping a yielding pad or backing for the sheets of sandpaper, whereby the polishing face of the tool may conform to any irregularities or inequalities in the surface to be polished and also yieldingly engage the latter.

Further, the invention embodies a scraping tool which may be used independently of the sandpapering or polishing implement by removing it therefrom and which may be clamped in the sandpapering implement by improved devices that permit of convenient and rapid connection and disconnection of the parts; the said scraping tool having certain characteristics that enhance its operation, the same being provided with a veneered or faced contact surface which is preferably formed of lignum-vitæ or other hard anti-friction material.

One of the important features of my invention resides in the improved handle fastening means, the same being constructed so as to be readily detached from the tool and when attached it provides a substantial connection therewith but is capable of swinging in a vertical plane so as to bring it to the most convenient position for use.

Further, the floor scraping tool embodies a construction by which a polishing brush may be readily attached and detached as will be more fully described in the body of the specification.

With these objects in view, the invention consists in the construction, combination and operative aggroupment of parts, all as will be more fully described hereinafter, illus-

trated in the accompanying drawings and finally pointed out in the appended claims.

In the drawings: Figure 1 is a side elevation of my improved scraping tool. Fig. 2 is a longitudinal, vertical section of the tool, showing in dotted lines the position of the handle fastening when it is to be detached from the implement. Fig. 3 is an inverted plan view of the tool. Fig. 4 is a transverse section on the line 5—5 of Fig. 3, showing the scraping blade and the manner of mounting the same. Fig. 5 is a transverse sectional view through the rear end of the tool. Fig. 6 is a detail in section of a modified form of buffer.

Making renewed reference to the drawings wherein similar characters of notation indicate corresponding parts throughout the several views, 1 designates the block or body of the scraping tool which is preferably made of metal and of such weight as to apply the requisite pressure of the scraping blade to the floor without undue exertion on the part of the workman. The bottom or contact face of this block is provided with a veneer or lignum-vitæ or other hard anti-friction material, whereby the tool may readily slide back and forth over the floor. This veneer is secured to the block 1 in any suitable manner but preferably by screws which are countersunk. Intermediate its ends, the block 1 is formed with a projection beneath which is an under-cut recess or reëntrant portion 4. This recess is substantially transverse of the block but is preferably on an incline thereto as shown, the angle being such as to discharge the scrapings or refuse at one side of the tool.

Within the inclined recess is mounted the scraping blade which, as shown in Fig. 4, consists of a blank 5 having portions cut away at its rear ends, as at 6, and having an intermediate extension 7 which is engaged by a clamping plate 8. The clamping plate is engaged by suitable bolts 9 the shanks of which are threaded and engaged on the upper face of the plate by thumb screws 10, as shown in Figs. 1 and 5, thereby securing the scraping blade 5 against the rear wall of the recess with its beveled cutting edge facing the rear of the tool, as shown in Figs. 1 and 2. By this means of attaching the scraping blade the latter may be readily adjusted by releasing the thumb screws 10, but when in use the extension 7 of the blade is engaged by



its clamping plate 8, while the lower portion thereof is free to be acted upon by a screw 11 threaded in the wall of the projection 3 and having its inner end terminating adjacent to the edge of the blade at the center thereof, as shown in Figs. 2 and 3. By screwing down on this screw 11 the blade 7 may be sprung slightly downwardly at its center so as to bow or concave the blade in the direction of its length and cause the central portion thereof to engage the floor surface with a greater degree of resistance and in some instances prevent the end edges of the blade from digging into the floor and forming scratches or grooves.

In the ordinary use of the scraping tool the blade is first adjusted so as to have its edge a little above the outer surface of the veneer and then when it is acted upon by the screw 11 the central portion of the blade will protrude slightly beyond the bottom of the veneer.

It will be seen that the blade may be readily removed for sharpening or for the insertion of a new blade, and to do so it is only necessary to release the grip of the clamping plate 8 thereon and slide the blade from beneath the same.

The shape of the under-cut recess 4 is such as to present a spatulate curve in cross section which permits a correspondingly shaped lug upon a polishing brush to be slid and held therein.

In the front wall of the projection 3 is mounted a rod 16 which is preferably screw threaded therein so as to be adjustable, and on its end is mounted a suitable buffer 17 which is preferably made of rubber. This buffer prevents the tool from coming in contact with the base board or with the walls of the building, as will be obvious.

On the upper surface of the block 1 and extending rearwardly from the projection 3 thereof are a pair of ears 18 in which is secured a pin 19. 20 designates a handle fastening member which is provided with a socket 21 to receive the handle. This fastening member is also provided at its end with an inclined slot 22 that opens out into one face of the member to provide a hook, the bill 23 of which is of such thickness as to completely fill the space between the bottom of the pin and the top of the block 1 so that the member 20 cannot become accidentally de-

tached or wobble on its pivot pin 19, but by virtue of the inclination of the slot 22 the member 20 may be removed from the tool by throwing the handle over to the position shown in dotted lines in Fig. 2, in which position the slot will be parallel with the upper face of the block, and sliding said member rearwardly.

In Fig. 6 I have shown a modified form of buffer which consists of a strip of rubber or other yieldable material 40 fitted into an opening in the front edge of the block 1. This modified form of buffer may be substituted for the aforesaid buffer 17.

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

1. A tool of the character described embodying a block having an upward extension near one end and also provided with a recess beneath the extension extending throughout the length of the latter, the bottom of the block upon opposite sides of the recess being provided with an anti-friction contact surface, a scraping blade disposed adjacent the rear wall of the recess, means including a clamping plate disposed against the outer face of the plate to hold the latter against displacement, a screw disposed out of alignment with said plate for engagement with the blade to concave the scraping edge of the latter, a buffer carried by the block, and an operating handle secured to the block.

2. A tool of the class described embodying a block having an upward extension and also provided with a recess beneath the extension, the bottom of the block upon opposite sides of the recess being provided with an anti-friction contact surface, a scraping blade disposed adjacent the rear wall of the recess, means including a clamping plate disposed against the outer face of the blade to hold the latter against displacement, means disposed out of alignment with said plate for engagement with the blade to concave the scraping edge of the latter, and an operating handle secured to the block.

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

WILLIAM SHEARS

Witnesses:

M. R. MEACHAM,  
THEODORE DALTON.