

No. 787,532.

PATENTED APR. 18, 1905.

R. S. McCREERY.
PORTABLE HANDSAW.
APPLICATION FILED AUG. 11, 1904.

2 SHEETS—SHEET 1.

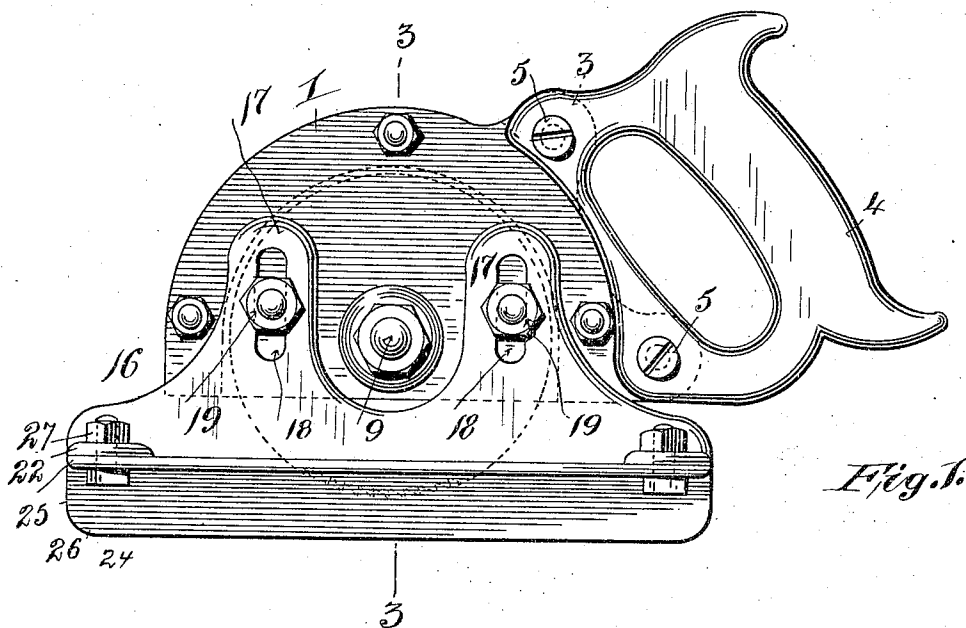


Fig. 1.

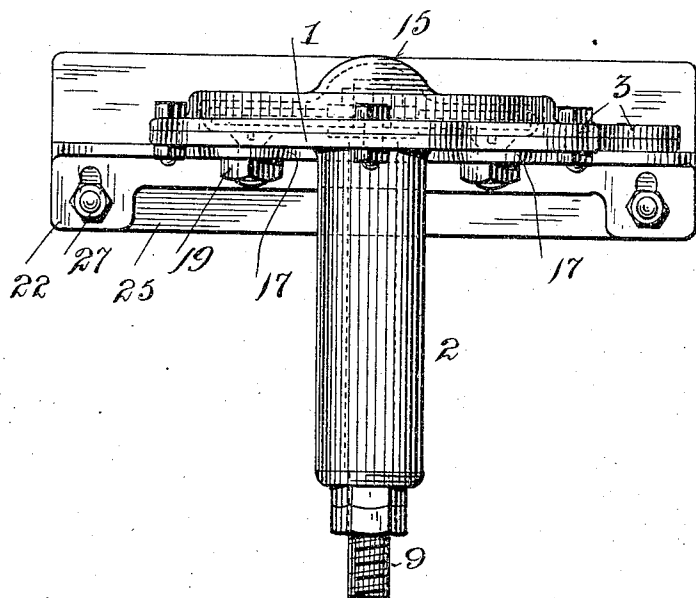


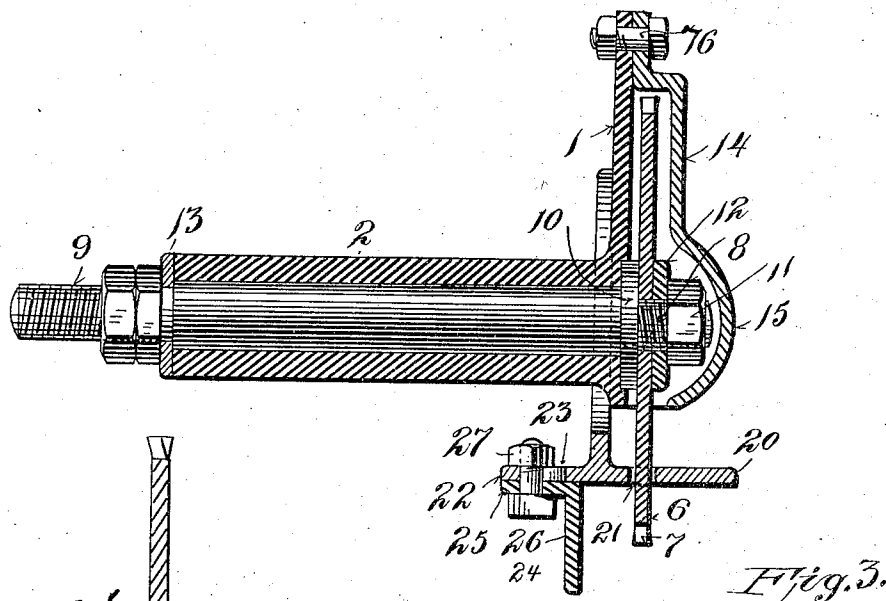
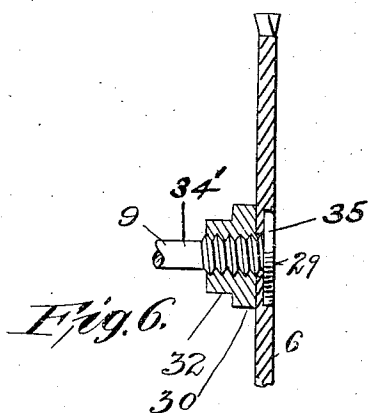
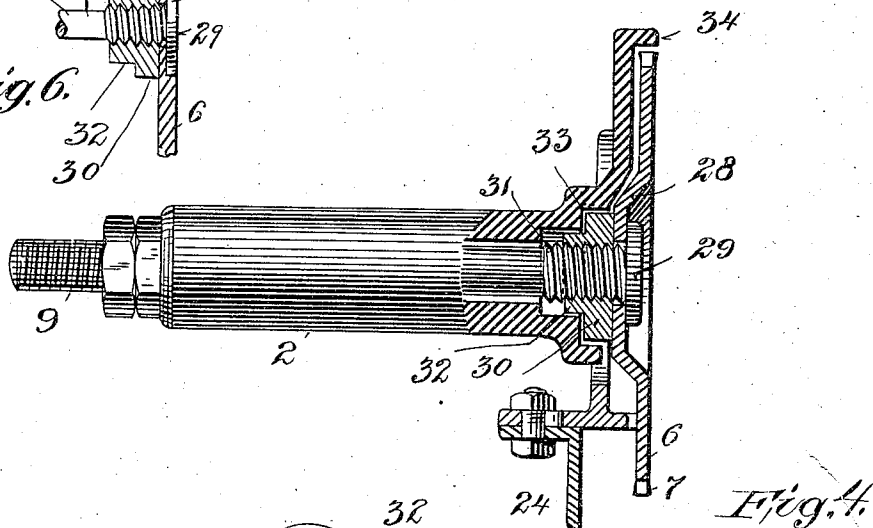
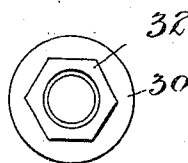
Fig. 2.

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2 SHEETS—SHEET 2.



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Fig. 5.

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UNITED STATES PATENT OFFICE.

ROBERT S. McCREERY, OF HUNTINGTON, NEW YORK.

PORTABLE HANDSAW.

SPECIFICATION forming part of Letters Patent No. 787,532, dated April 18, 1905.

Application filed August 11, 1904. Serial No. 220,323.

To all whom it may concern.

Be it known that I, ROBERT S. McCREERY, a citizen of the United States, and a resident of Huntington, county of Suffolk, and State of New York, have invented certain new and useful Improvements in Portable Handsaws, of which the following is a specification.

My invention relates to a portable handsaw having a revolving blade and adapted to be used more especially in cutting grooves of any desired depth and in places where an ordinary handsaw cannot be used.

One of the special uses of my saw is to cut grooves in window-sills and in the window-sash in order to apply various kinds of weather-strips and to cut grooves in floors at the lower end of a partition, where the ordinary saw cannot be used. Various other uses may be found for my improved device; but the same has been constructed with a view to its particular adaptation for the above purpose.

In the drawings forming a part of this specification, in which similar numerals of reference indicate corresponding parts throughout the several views, Figure 1 is a side elevation of my improved saw without the driving power attached. Fig. 2 is a plan view of Fig. 1. Fig. 3 is a cross-section through the center of the same. Fig. 4 is a similar view, partly in section, of a modification. Fig. 5 is an end view of a bearing-nut used for securing the saw-blade to its axle and which forms a bearing therefor. Fig. 6 shows a modified means for attaching the blade.

In my improved device I provide a suitable circular blade with an axle, a casing for the axle, and vertical and horizontal adjustable guides, whereby the blade may be guided both vertically and horizontally.

Referring to the construction shown in Figs. 1, 2, and 3, I have provided a vertical plate 1, from the center of which extends a hub 2, with a central bore, and from the outer edge of the plate are integral ears 3, to which the handle 4 of any desired shape is attached in any way, such as by the bolts 5.

The hub 2 is made integral with the upright plate, although, if desired, both may be made separate. At 6 is a saw-blade having any

desired shaped teeth 7, the blade being circular and provided with a central aperture through which the end 8 of a longitudinal axle 9 passes and to which it is secured by means of the bearing-flange 10 on the one side and the nut 11 and washer 12 on the opposite side.

Nuts 12^a may be screwed on the opposite end of the axle to form the means for holding the axle and parts together.

As there is serious danger in handling a saw having a revolving blade, I prefer to provide a guard for the plate, and the one which I have herein provided consists of a plate 14, having an outwardly-extending central portion 15 to allow for clearance of the set-nut 11. This guard may be secured to the upright plate 1 in any suitable manner, such as by the bolts 76. When this guard-plate is over the saw-blade, there is little danger of accidents, as most of the blade, with the exception of the part used in sawing, is covered.

In order that the parts may be adjusted so that the blade of the saw will be guided so as cut to a desired depth and to guide it the proper distance from the edge of the woodwork in which the groove is to be cut, I provide both vertical and lateral adjusting-guides, and the exact construction which I have adopted consists of a vertically-adjustable plate 16, having the upper extensions 17 provided with vertical apertures 18, which allow for the vertical adjustment by means of bolts 19, which secure the plate against the plate 1. By spacing the two extensions 17 apart they may pass on either side of the hub 2. A flat longitudinal plate 20 is made, preferably, integral and at right angles to the vertical plate 16 and is provided with a longitudinal aperture 21, adapted to receive the edge of the saw-blade 6, this aperture only extending along part of the length of the plate 20. The flange 20 is made to extend on both sides of the vertical plate, so as to provide an extension 22, having elongated apertures 23. To the flange 22 is secured an angle metal guide, such as 24, by means of the bolts 27, passing through the elongated apertures 23 in the flange 22, having a longitudinally-disposed web 25 and a vertical web 26. The object of the plate 16

being adjustable vertically is to adjust the flange 20 in relation to the edge of the saw-plate so that the flange will govern the depth to which the saw is to cut and to allow for the
 5 decrease in the size of the blade caused by sharpening, &c. The angular plate 24 being adjustable on the flange 22 answers as a guide to rest against the edge of the sill or whatever is to be cut with the saw.

10 I have not described nor shown any means for revolving the axle 9 and simultaneously the saw-blade, because this forms no part of my invention. Any desired means may be attached to the shaft in order to rotate the
 15 blade. I believe that the most desirable way would be to mount a small electric motor to the axle for this purpose, so that a wire may be attached to the motor which could receive its power from any available source, such as
 20 from the electrical wires used for the ordinary electric-light bulbs.

In Fig. 4 I have shown a modification which is adapted for use in sawing a groove in the floor immediately at the edge of a wall
 25 or a partition. For this reason the blade of the saw must necessarily come in close proximity to the wall. To provide for this, I have offset the center of the saw at 28 to give a space for countersinking the attaching means
 30 of the blade. In this construction I have preferably formed an integral head 29 on the end of the axle which rests in the space formed by the offset in the saw-blade. Against the opposite side of the blade I secure the bearing 30, having a nut-head 32, by which the
 35 same may be tightened by screwing the same on the shaft by means of screw-threads 31. In order to form a bearing-socket for said bearing, I have provided an angular recess 33
 40 in the hub-section to receive the bearing. The other differences are in the upper end of the plate 1 being slightly turned inwardly at 34, so as to extend slightly beyond the edge of the saw-blade, and the flange 20 is made to
 45 extend only along the inner side of the saw-

blade. In this particular use it will be understood that the guide-plate 24 may be removed in order that the blade may be brought down to the floor.

In Fig. 6 is another modification of the 50 manner in which the blade may be mounted on the axle for similar uses as that of the construction shown in Fig. 4. In this case a screw 34', having a head 35, is passed through the blade and screwed into a hole in the bearing. In this construction the head 35 is countersunk in the blade without making any special form of blade. 55

It will be understood that where nuts and screws are used to secure the blade on its axle 60 that the threads should run in the opposite direction to the motion of the saw.

While I have shown and described the details of my invention in the exact form in which I have constructed it, I do not wish to 65 be limited in the scope of my invention to such details.

Having described my invention, what I claim is—

1. A portable sawing-machine, comprising 70 a frame-plate provided with a handle and with a laterally-projecting bearing, a shaft in said bearing, a circular saw on said shaft, a gage-plate vertically adjustable on said frame-plate to regulate the depth of the saw-kerf, and a 75 lateral gage-plate horizontally adjustable on said first-mentioned gage-plate.

2. A portable sawing-machine comprising a frame having a handle and a bearing, a shaft in said bearing, a circular saw on said shaft, 80 a removable guard attached to the said frame and adapted to surround the saw, a depth gage-plate adjustably secured to said frame, and a side gage-plate adjustably secured to said depth gage-plate.

Signed this 1st day of August, 1904.

ROBERT S. McCREERY. [L. s.]

Witnesses:

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