(No Model.) 2 Sheets—Sheet 1.

T. SMYTH.

WEATHER BOARD SAW.

No. 571,889. Patented Nov. 24, 1896.

Fig. 1.

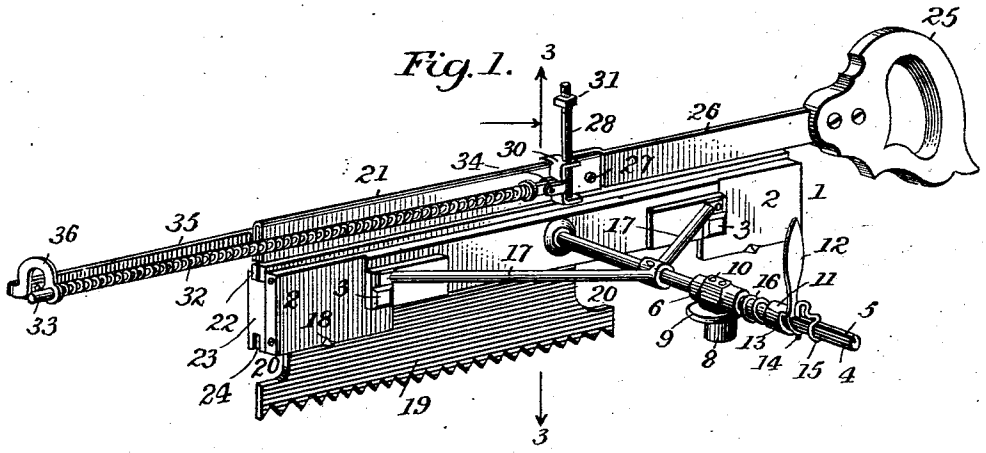


Fig. 2.

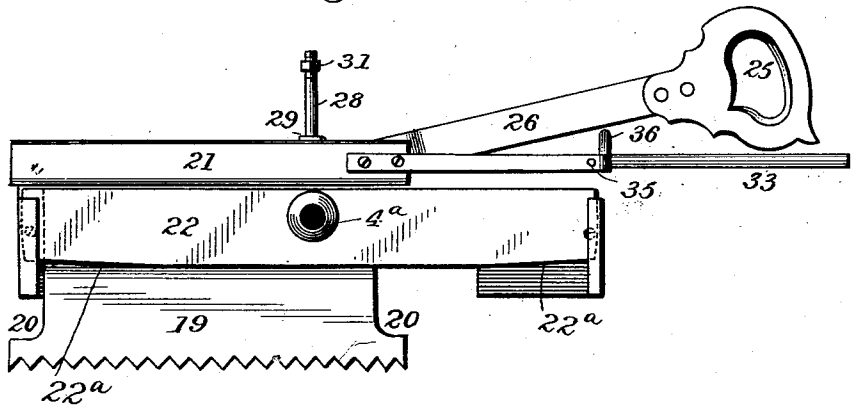
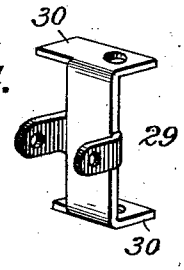


Fig. 4.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

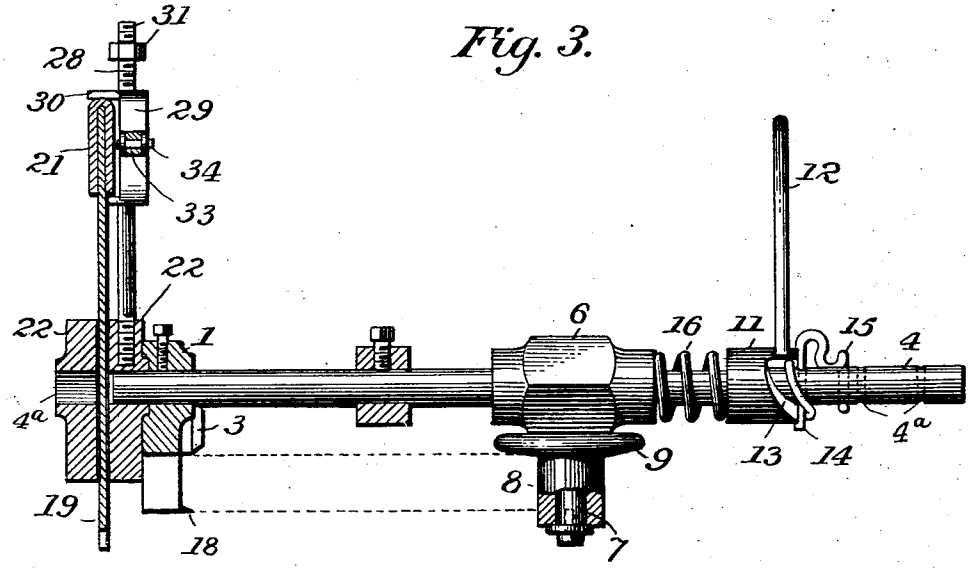
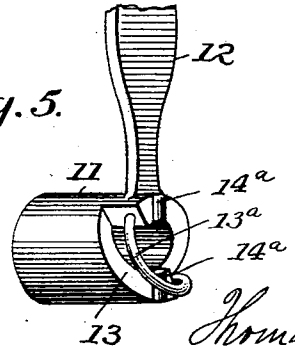


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS SMYTH, OF FREDERICKTOWN, MISSOURI.

WEATHER-BOARD SAW.

SPECIFICATION forming part of Letters Patent No. 571,889, dated November 24, 1896.

Application filed August 20, 1896. Serial No. 603,379. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SMYTH, a citizen of the United States, residing at Fredericktown, in the county of Madison and State of Missouri, have invented certain new and useful Improvements in Weather-Board Saws, of which the following is a specification.

The object of my invention is to produce a saw for cutting the ends of weather-boards squarely and evenly, the said saw being provided with guides to direct it and clamping devices for holding the guides in position to saw the weather-boards after they have been nailed to the building.

To these ends the invention consists in certain features and combinations of features, among which are a saw-blade having a suitable handle, guides for the blade, means for clamping the guides to a board or strip, a spring for drawing the saw in one direction, and a suitable handle for the saw, and other details, all of which will be described hereinafter.

In the accompanying drawings, Figure 1 is a perspective view of the weather-board saw. Fig. 2 is a side view. Fig. 3 is a section taken on the line 3 3 of Fig. 1, and Figs. 4 and 5 are views of detached parts.

Referring to the drawings, 1 indicates a stock or frame upon which the various parts of the invention are mounted. This stock is a rectangular block which is wider at the ends than in the middle, the lateral extensions 2 at the ends forming clamping-jaws, as will be hereinafter explained. Above the jaws 2 are projections or shoulders 3, which rest upon the face of the casing or guide-strip when the jaws are brought against it. Projecting at right angles from the middle of the stock is a rod or shaft 4, having a groove 5. Upon this shaft slides a sleeve 6, having on its under side a pin 7. Upon the pin is mounted a roller 8, having at its upper end a projecting flange 9. The sleeve is prevented from turning on the shaft 4 by pins or screws 10, which enter the groove 5. The roller 8 is pressed inward by a sleeve-cam 11, having a handle 12 and one or more spiral cam-surfaces 13. The cam-surfaces bear against a pin 14, which passes through the shaft 4 and has a tail 15, which winds around the shaft for preventing the pin from being accidentally withdrawn. Parallel with one of the cam-faces 13 is a bar 13^a, which prevents the cam and pin 14 from becoming separated when the cam is turned back to release the casing. When the cam is turned forward to lock the casing, the pin 14 becomes seated in a diametrical groove 14^a on the cam-face, and the cam is thereby prevented from slipping. The shaft 4 has a series of perforations 4^a (shown in dotted lines in Fig. 3) for the pin 14, thus permitting the cam to be adjusted for different widths of casing. Between the cam and the sleeve 6 there is a spring 16 surrounding the shaft for the purpose of giving the roller a yielding bearing upon the casing. The shaft 4 is sustained in place by suitable braces 17. The stock is held on the casing, as best shown in Fig. 3, by the clamping-pieces 2 and the roller 8, the shoulders 3 of the stock and the flange 9 of the roller being brought down on the face of the casing. The stock may be slid up or down the casing without unlocking it by applying a moderate force to it. At the base of the jaws 2 I preferably use small teeth 18, which pass into or under the edge of the casing to prevent the stock from slipping off. These teeth do not, however, prevent the stock from being slid lengthwise of the casing.

The saw-blade 19 is substantially rectangular in form, but is cut away at its ends, leaving projections 20 along the toothed edge. The blade 19 is fastened in a rigid back 21. The blade slides between guides 22, which are connected at their ends by screws or other suitable fastenings. These guides are preferably rectangular in general outline, as shown, and their ends, which are slightly rounded, are held in clips 23, which are attached to the stock 1. The guides are free to move up and down in the clips, and they are provided with central perforations 4^a, by means of which they are pivoted upon the shaft 4, which passes nearly through the inner guide, as shown in Fig. 3. The lower edges of the guides may be tapered at the ends, as shown at 22^a, to fit against the face of the siding. The clips 23 are provided at their lower ends with notches 24, which permit the projection 20 on the saw to pass through, thus permitting the saw-blade to cut close to a porch-floor or roof. The saw is driven by means of a handle 25 and a connecting-rod

26, said rod being fastened to the back by a removable screw-threaded pivot 27. The handle is thus detachable and may be attached to either end of the saw-back. In Fig. 1 it is shown attached to one end and in Fig. 2 to the other end. Upon the back of the inner guide is a projecting pin 28, upon which slides a guide-piece 29. This piece carries two projecting plates 30, one above and the other below the back of the saw. The guide-piece is free to slide on the pin 28, so that the saw may adjust itself to the depth of the kerf, but it is prevented from slipping off the pin by a nut 31.

I usually provide a spring for drawing the saw in one direction, thus rendering it easy to operate. As shown, this spring 32 is supported on a rod 33, which is attached at its inner end to the guide-piece 29 by means of a pivot 34. Rigidly attached to the saw-back is an extension 35, which has an arm 36, through which the rod 33 passes, the said arm forming one bearing for the spring 32. The arm 36 supports the outer end of the rod 33, and as the rod is pivoted to the guide-block 29, through which the back of the saw passes, the rod and spring are always parallel with the saw-back.

In operation the weather-boards are nailed to the building and their ends permitted to project irregularly beyond the line of the casing. The casing-strip is then adjusted in position over the weather-boarding and nailed temporarily to the building. The weather-board saw is then connected to the casing-strip by clamping the strip between the jaws 3 and the roller 8, as shown in Fig. 3. The saw is then operated and two or more of the weather-boards are cut, the number depending upon their width. The saw can be shifted either up or down upon the casing to cut the adjacent weather-boards by turning the cam 11 backward to unlock it and forward to lock it in its new position. It is intended simply to slide the stock up or down the casing without removing it, the teeth 18 holding it in place. When the weather-board nearest the roof or a porch-floor is reached, it can be cut if the handle be shifted to the position shown in Fig. 2, the end of the saw-blade being free to pass through the slot or opening 24 in the end plate 23.

It will be observed that the saw-guides may be turned on the shaft 4 until their ends are released from the clips 23. The guides carrying the saw, &c., may then be removed from the shaft and reversed and then again placed on the shaft and engaged with the clips, thus reversing the position of the saw. My improved device is thus adapted for cutting on either side of the casing-strip.

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

1. In a weather-board saw, the combination with the stock, the saw and means supported on the stock for guiding the saw, of jaws upon the stock, gages or shoulders adjacent to the jaws, a shaft supported at right angles to the stock, a clamping-roller provided with a flange, and a support for the roller arranged to slide upon the shaft, substantially as described.

2. In a weather-board saw, the combination with the stock, the saw and means supported on the stock for guiding the saw, of clamping-jaws upon the stock, gages or shoulders adjacent to the jaws, a lateral shaft supported upon the stock between the jaws, a sleeve upon the shaft, a clamping device supported on the sleeve and a cam arranged to move said sleeve, substantially as described.

3. In a weather-board saw, the combination with the stock, the saw and means supported on the stock for guiding the saw, of a lateral shaft, the sleeve sliding upon the shaft and carrying a roller, the cam rotating on the shaft, the pin upon which the cam-surface bears and the spring interposed between the cam and the sleeve, substantially as described.

4. In a weather-board saw, the combination with the stock, and the saw-guides 22, of the clips 23 connecting the stock and guides, and the saw-blade having extensions 20 at its serrated edge, substantially as described.

5. In a weather-board saw, the combination with the stock, the saw, and means supported on the stock for guiding the saw, of the handle arranged to draw the saw in one direction and a spring interposed between the stock and the saw to assist the saw in the opposite direction, substantially as described.

6. In a weather-board saw, the combination with the stock, the saw, and means supported on the stock for guiding the saw, of the pin 28, the guide-piece sliding upon said pin and having flanges which engage the saw-back, the rod connected with the guide-piece, a spiral spring upon the rod and the perforated arm attached to the saw, the said rod passing through said arm, and the spring bearing against it, substantially as described.

7. In a weather-board saw, the combination with the stock, the saw, and means supported on the stock for guiding the saw, of a handle-bar, and means for pivotally connecting said bar to either end of the saw, substantially as described.

8. In a weather-board saw, the combination with the stock, of a pair of rectangular guide-plates for the saw, clips in which the ends of the guide-plates are movably mounted, said clips being attached to the stock, and a shaft attached to the stock, said guides being centrally pivoted upon said shaft, substantially as described.

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

THOMAS SMYTH.

Witnesses:
J. M. RHODES,
L. W. DAY.