(No Model.)

W. H. SMITH.

SAW JOINTER.

No. 277,364. Patented May 8, 1883.

Fig. 1.

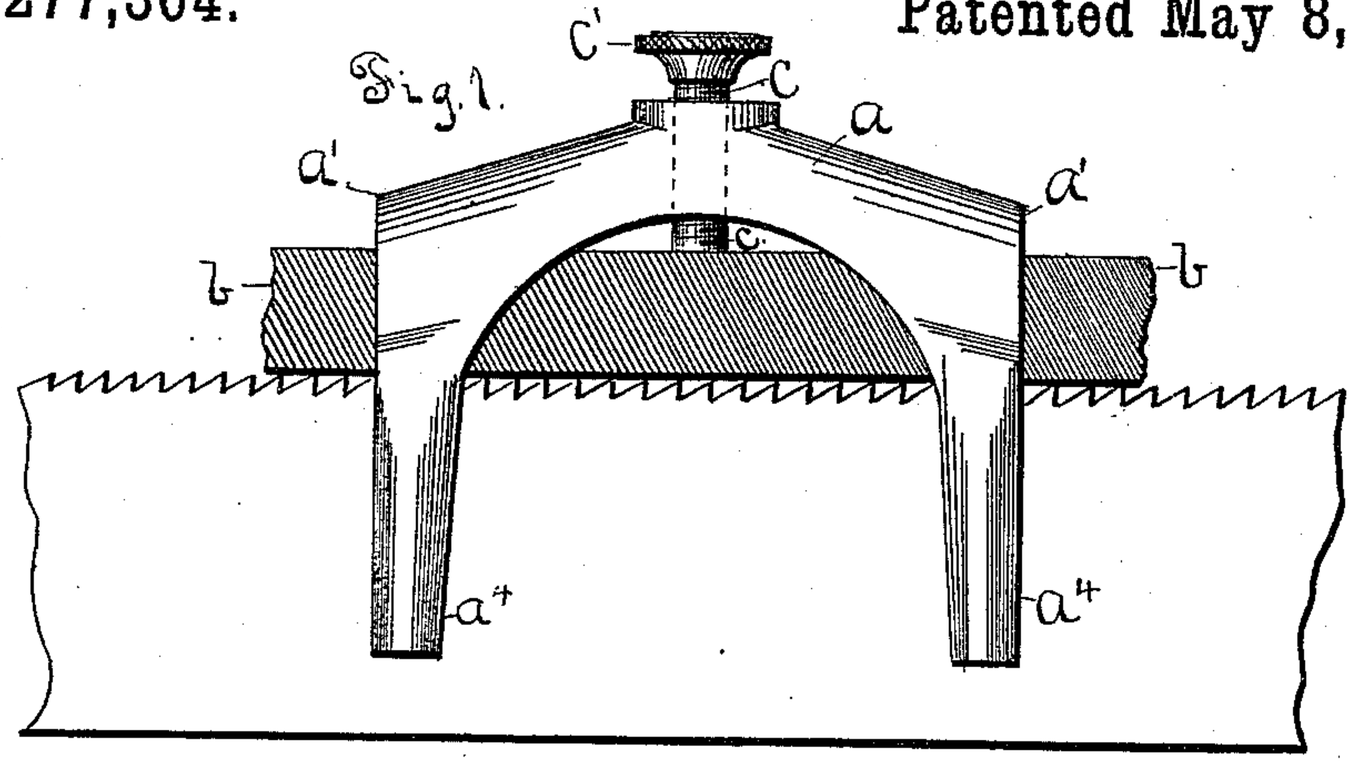


Fig. 2.

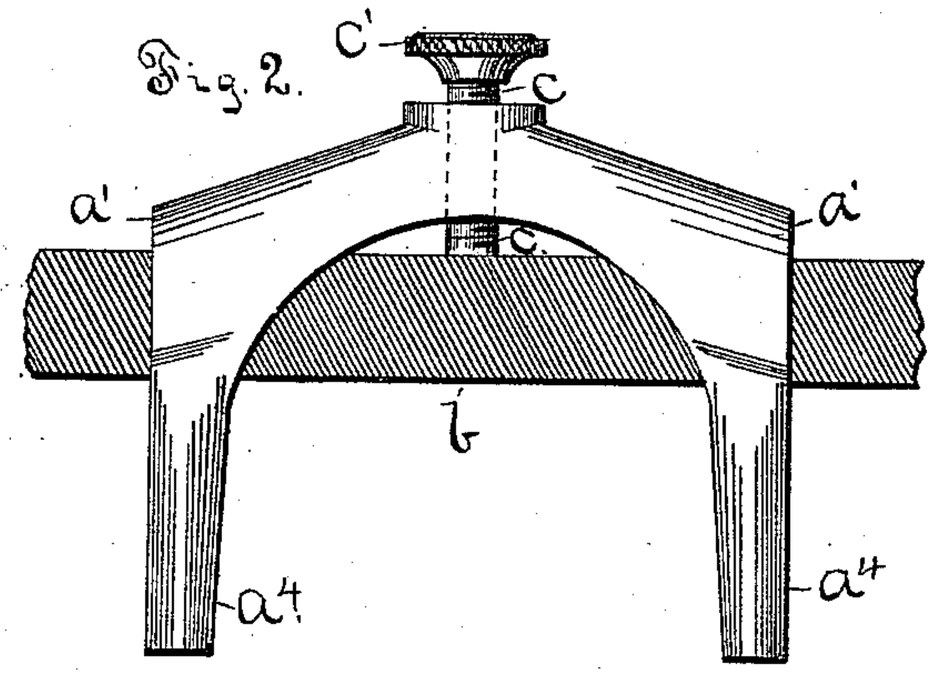


Fig 3.

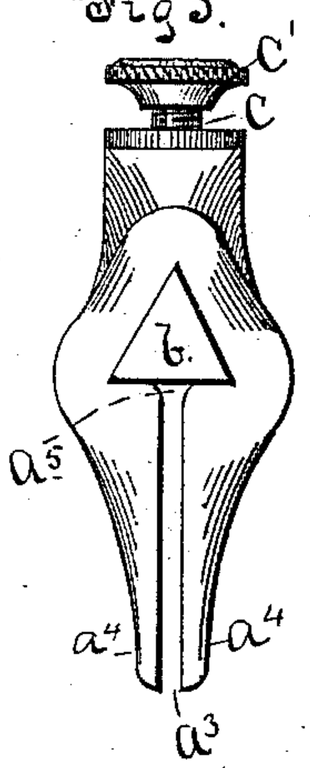
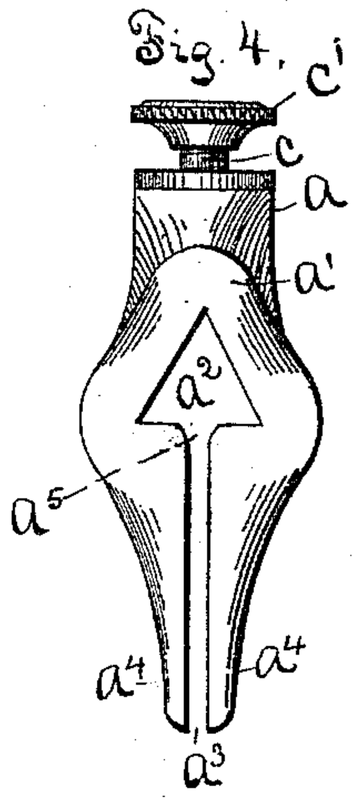


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM H. SMITH, OF UPPER ALTON, ILLINOIS.

SAW-JOINTER.

SPECIFICATION forming part of Letters Patent No. 277,364, dated May 8, 1883.

Application filed February 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SMITH, a citizen of the United States, residing at Upper Alton, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Saw-Jointers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in saw-jointers; and it consists in the construction, combination, and arrangement of the several parts, as will be hereinafter described.

In the drawings, Figure 1 shows my improved jointer on a saw in position for operation. Fig. 2 is a side view of the carrier and file. Fig. 3 is an end view of same, and Fig. 4 is an end view of the carrier with the file removed.

The carrier is composed of the arch *a* and the portions *a'*, depending from the opposite ends of the arch *a*. These portions *a'* are perforated, with the openings a^2 made to fit the file *b*, and are bifurcated by the slot a^3, which furnishes a passage for the saw and forms the portions *a'* into the legs a^4 a^4, which rest on either side of the saw-blade and brace the carrier firmly in position as it is moved along the saw-blades, as will be described. The walls of the slot a^3, where it leads into the file-opening at a^5, are beveled on each side, as shown in Figs. 3 and 4, making the slot wider at its upper end to correspond to and receive the teeth of the saw, which are bent alternately from side to side, as is well understood.

b is the triangular file, passed through the openings a^2, with the middle portion of one of its sides over the slot a^3. This arrangement permits the use of triangular files which for ordinary purposes are worn out, but which are usually but little worn along their middle portion.

c is a clamping-screw, provided with thumb-head *c'*, and working in a threaded opening through arch *a*, and bearing against the file *b*, and securing the same in position in the carrier, as shown.

In the operation of the invention the file is placed in the carrier in the position shown and described, and is secured by the clamping-screw *c*, which holds the file firmly in the carrier, and yet permits of its ready removal when it is desired to turn the file, so as to work with another side, or to replace the same, as will be readily understood. The carrier is then placed on the saw, with the legs a^4 arranged on opposite sides of the blade and the file *b* bearing directly on the edge of the teeth. The device is then moved rapidly back and forth over the teeth of the saw, the object being to reduce the teeth to a uniform length—what is commonly called "jointing"—so that when the saw is filed it will not run to the right or left in the cut.

It will be understood a flat file could be used by constructing the opening a^2 to receive the same; but I prefer the construction described for the reasons before stated.

By my device it will be seen the legs a^4 hold the file from any lateral turning, and by means of the set-screw it is made practically integral with the carrier; yet it may readily be removed for any purpose desired, and the saw may be jointed with mechanical accuracy, any particular skill being unnecessary.

The carrier could be made of wood, metal, or other suitable substance.

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

In a saw-jointing device, the file-carrier consisting of the arch *a* and vertical legs a^4 a^4, depending from the opposite ends of the arch *a*, and having the file-openings a^2 a^2 through their upper ends, and saw-slots a^3, formed from the file-openings downward to the lower ends thereof, and the clamping-screw, arranged at or near the middle of the arch and adapted to be turned down against the upper side of the file, substantially as set forth.

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

WILLIAM H. SMITH.

Witnesses:
ALEXANDER J. SMITH,
WILLIS L. FAIRMAN.