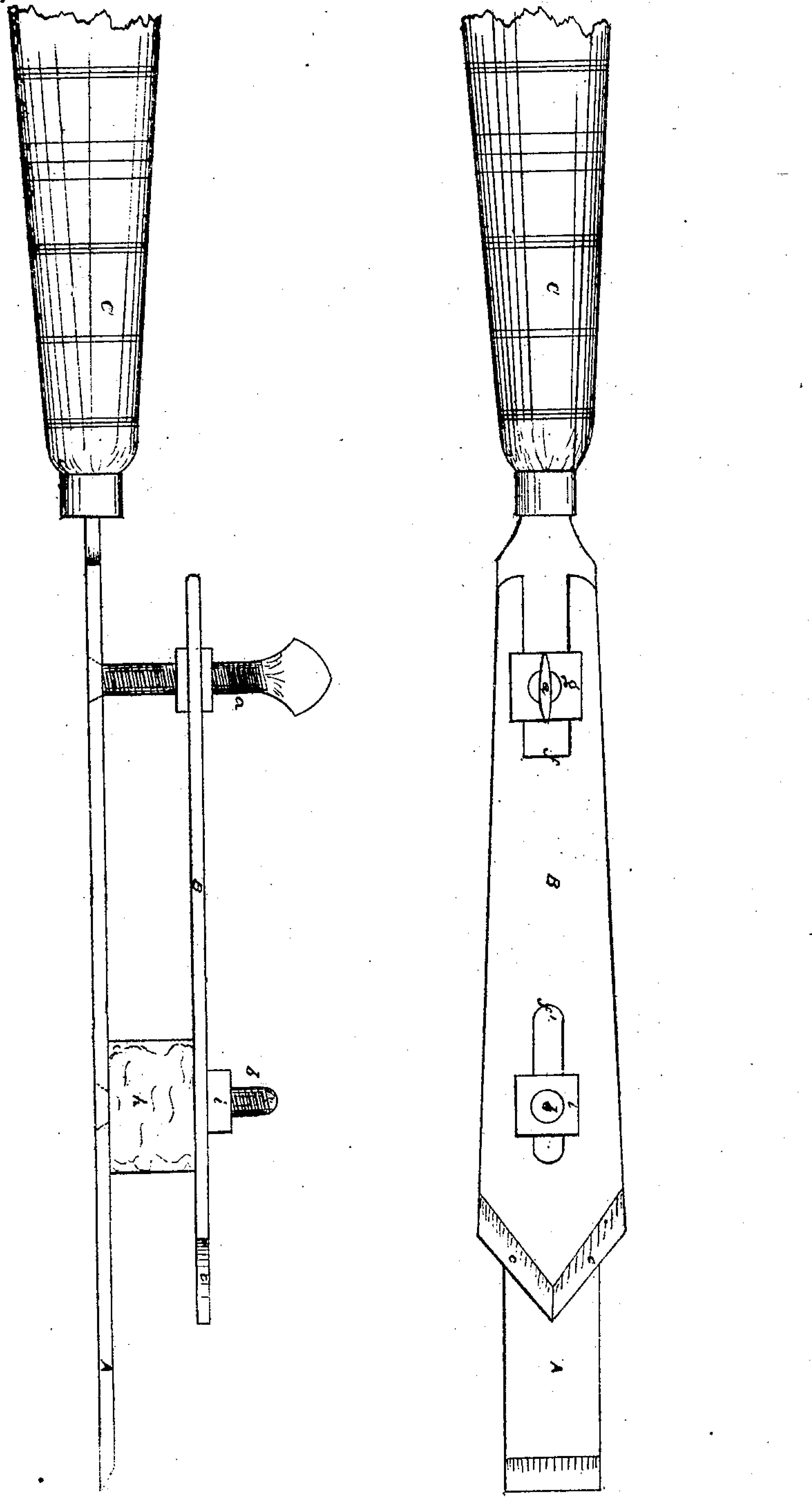
Buttles & Sweet,

Lathe Tool.

No. 101,981. Patented Apr. 19. 1870.



WITNESSES

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INVENTOR

SALMON SWEET & R.P. BUTTLES,
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United States Patent Office.

REUBEN P. BUTTLES AND SALMON SWEET, OF MANSFIELD, PENNSYLVANIA.

Letters Patent No. 101,981, *dated April* 19, 1870.

IMPROVEMENT IN TURNING-CHISEL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, REUBEN P. BUTTLES and SALMON SWEET, of Mansfield, in the county of Tioga and State of Pennsylvania, have invented a new and improved Turning-Chisel; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification.

This invention is designed to cover a want long known to exist, that is, to construct a turning-chisel in such manner as will enable the person using it to adjust it to the desired diameter that is sought, and then accurately and without deviation turn the wood down to the necessary size.

The tool is particularly useful in turning tenons, for the instrument being once set to the size of the hole or mortise, the tenon may at once be turned down to the required size with accuracy and without the aid of a gauge.

In the accompanying sheet of drawings—

Figure 1 represents a plan or top view of our chisel, and

Figure 2, a side view of the same.

Similar letters of reference indicate corresponding parts in the several drawings.

A is a chisel, which may be of any required length and width, with a square cutting edge on one end for the purpose of reducing the tenon to nearly the size required, and a tang at the other, onto which is fitted the handle C.

To this chisel are fitted, with countersunk heads, the screws *a* and *b*, so that they may freely turn.

B is a supplementary chisel, shorter in length than the first-named chisel A, tapering slightly from point to heel.

The outer end of this supplementary chisel is brought to a point and cutting edge by the angular faces *c c*.

Into this supplementary chisel are formed two slots, *f f'*.

Into the slot *f* a sliding nut, *g*, is placed, through which passes the set-screw *a*, and through the slot *f'* the screw *b* passes and holds the chisel in position by the nut *i*.

Now, it will be readily seen that in order to adjust our chisel to turn any desired sized tenon, it is only necessary to turn the set-screw *a*, when the outer end of the chisel B will be more or less depressed or elevated as the diameter of the tenon it is designed to turn may require.

In order to support the chisel B at the screw *b* an elastic cushion, *h*, is provided. This cushion may be of rubber, or a properly-adjusted spring, and is kept in position by the screw *b*, so that when the point of the chisel is elevated or depressed it will yield more or less and yet at the same time firmly support the chisel B in position.

The chisel B is made slightly wider than the chisel A, so that it will make a smooth track for the chisel A to ride on, and thus facilitate the accurate turning of the tenon; and, to prevent any tendency on the part of the chisel B from "dipping," the extreme point is curved slightly upward; and if, in turning, it should become necessary to advance the point of the supplementary chisel B nearer to the point of the chisel A, it may by readily accomplished by loosening the nut *i* and pushing the chisel outward.

In order to use our chisel it is simply necessary to reduce the tenon to nearly the required size with the edge of the chisel A, then by placing the tenon between said chisel and the point of the supplementary chisel B the tenon is turned down to a diameter equal to the space or width between the two chisels, which insures a uniform diameter to the tenon and obviates the necessity of using a gauge to determine when the required size is obtained.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

The herein-described arrangement of the chisels A B, the screws *a* and *b*, and elastic cushion *h*, all constructed and operating substantially as set forth.

R. P. BUTTLES.
SALMON SWEET.

Witnesses:
S. S. GILLETT,
A. K. INGALS.