

(No Model.)

G. R. VALENTINE.
MORTISING CHISEL.

No. 254,733.

Patented Mar. 7, 1882.

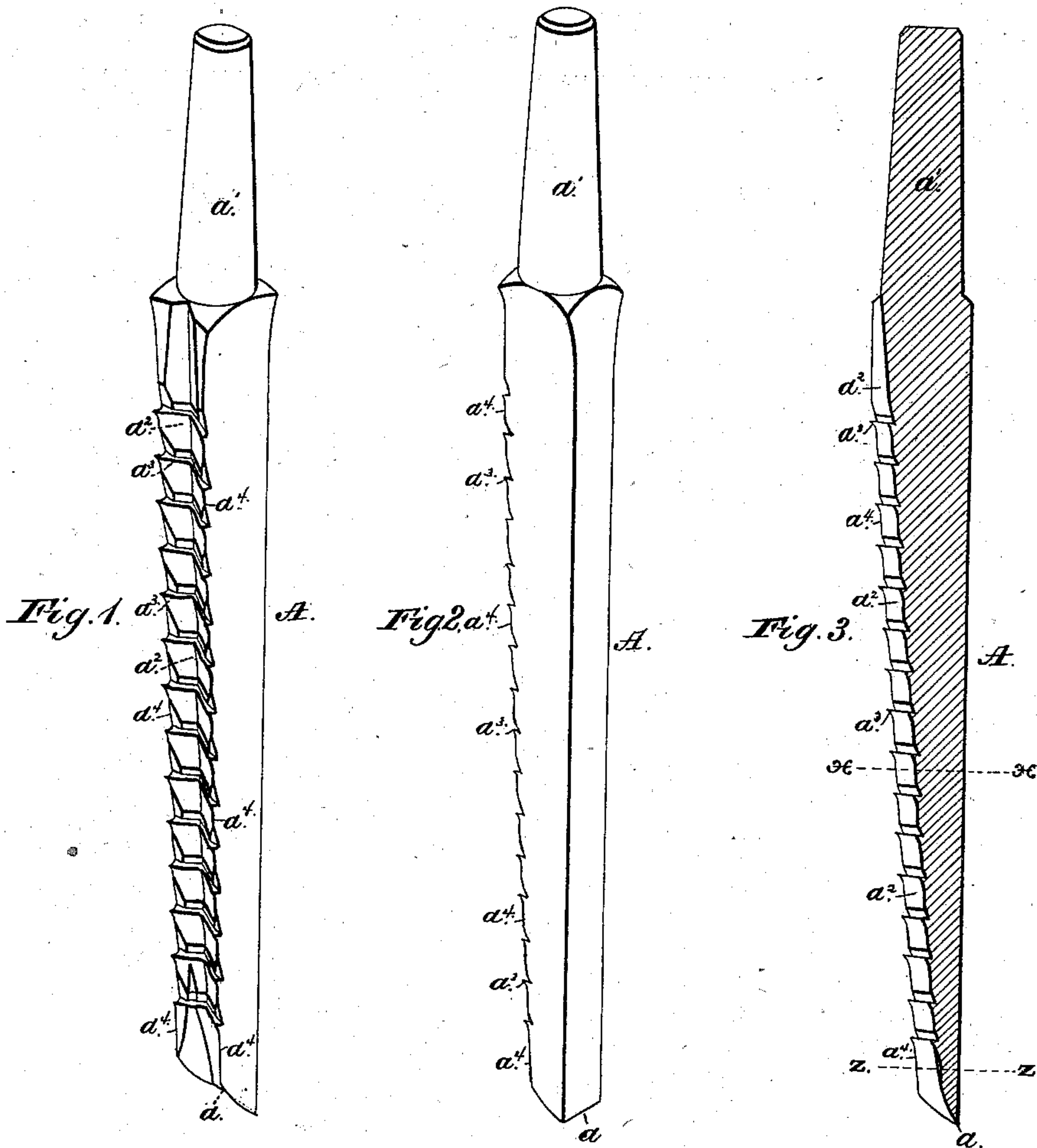


Fig. 4.

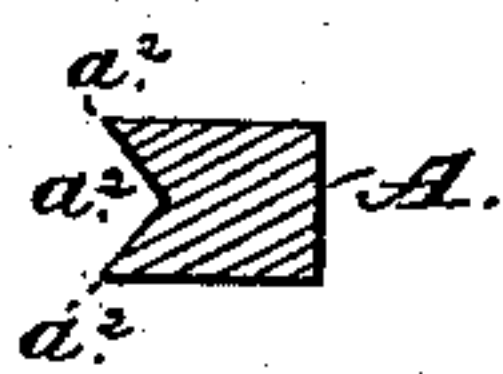
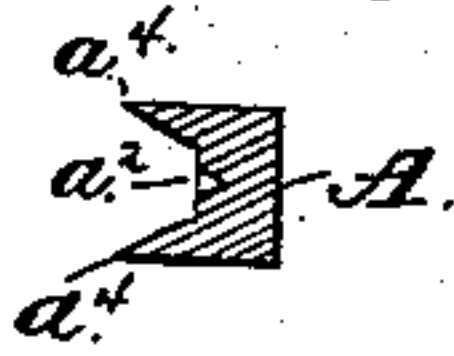


Fig. 5.



Witnesses.
Jas. E. Hutchinson.
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Inventor.
Geo. R. Valentine, by
Geo. S. Prindle, his Atty

UNITED STATES PATENT OFFICE.

GEORGE R. VALENTINE, OF NEW BEDFORD, MASSACHUSETTS.

MORTISING-CHISEL.

SPECIFICATION forming part of Letters Patent No. 254,733, dated March 7, 1882.

Application filed December 10, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. VALENTINE, of New Bedford, in the county of Bristol, State of Massachusetts, have invented certain new and useful Improvements in Mortising-Chisels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my chisel from the front. Fig. 2 is a like view of the same from the rear. Fig. 3 is a central longitudinal section; and Figs. 4 and 5 are cross-sections upon lines xx and zz , respectively, of Fig. 3.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to cause the removal of chips from a mortise during the operation of cutting the same; and to this end it consists in a mortising-chisel provided within its back with a longitudinal groove which has its sides or flanks serrated to form horizontal cutters or teeth, substantially as and for the purpose hereinafter specified.

In the annexed drawings, A represents a mortising-chisel intended for use in cutting a right-angled mortise, the front side of said chisel being straight and plain, its lower end having the usual cutting-point, a , and its upper end being provided with a shank, a' .

Within the back of the chisel is formed a longitudinal groove, a^2 , which has preferably a V-shape in horizontal section, and terminates at or near the point a . The sides of said groove a^2 are provided at regular intervals with serrations or teeth a^3 , which extend horizontally across the same and rake upward, so

that when said chisel is moved in such direction they will engage with and carry upward the chips which have been formed by the downward movement of said chisel.

The edges a^4 of the chisel A, formed by the intersection of its grooved back, are preferably made to operate as cutting-edges, being sharp horizontally, and divided vertically into a number of saw-shaped teeth by the ends of the serrations a^3 .

As thus constructed the chisel is used in the ordinary manner, its point a and cutting-edges a^4 operating to form the end and sides of the mortise downward stroke, while upon the upward stroke the teeth or serrations a^3 engage with and carry in the same direction the chips formed by said chisel.

In consequence of the form of the groove a^2 the chips formed by the downward movement of the chisel A are forced from each side of the mortise inward and rearward, and relieve said chisel from the pressure which usually causes chisels to become wedged when first caused to operate within a mortise.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

A mortising-chisel provided within its back with a longitudinal groove, which has its sides or flanks serrated to form horizontal cutters or teeth, substantially as and for the purpose specified.

In testimony whereof I hereunto set my hand this 2d day of December, 1880.

GEO. R. VALENTINE.

Witnesses:

R. H. EDDY,

E. B. PRATT.