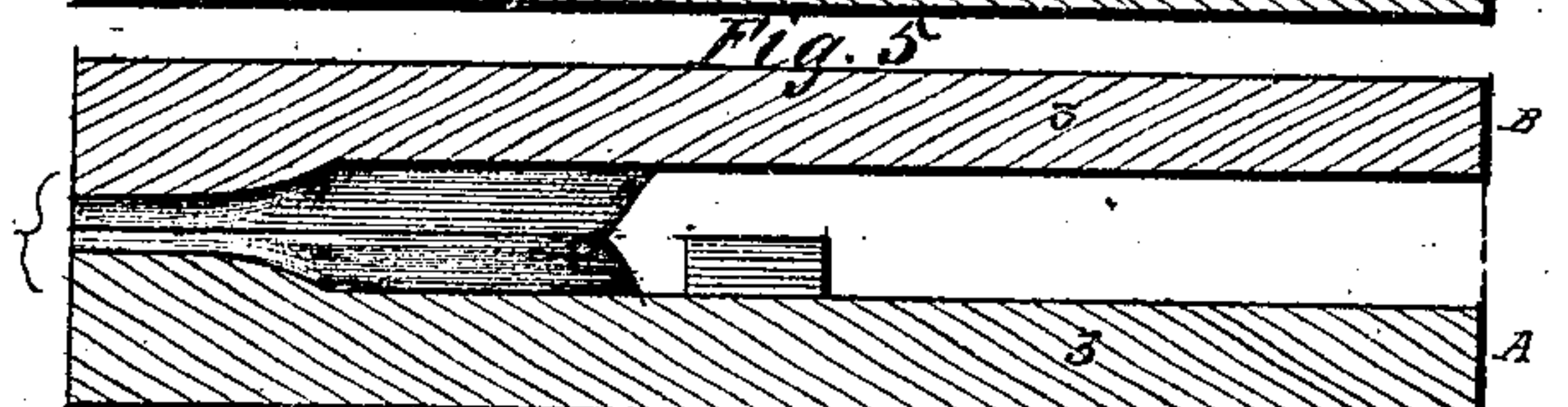
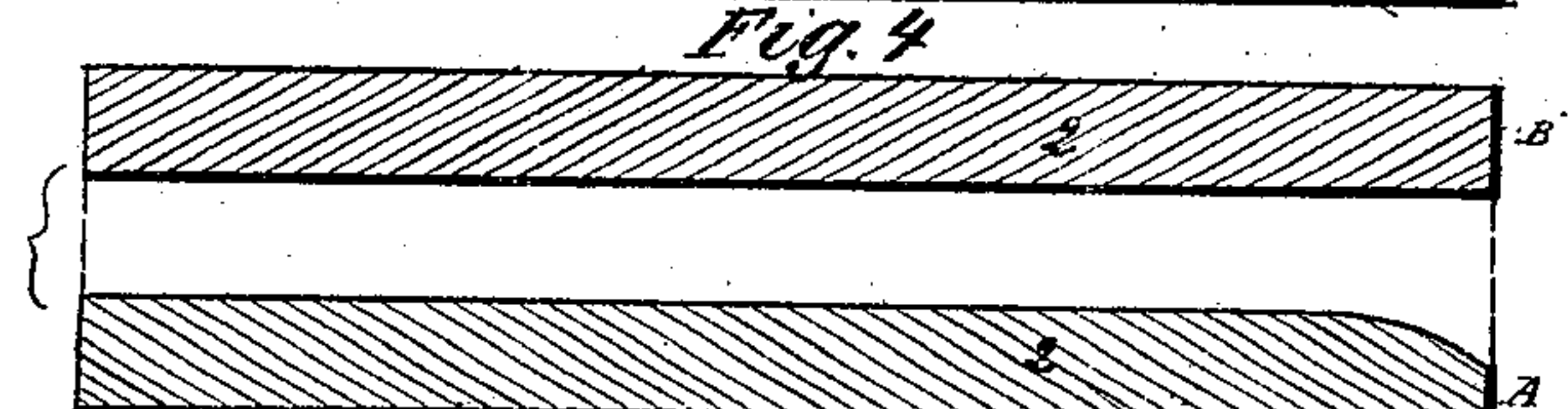
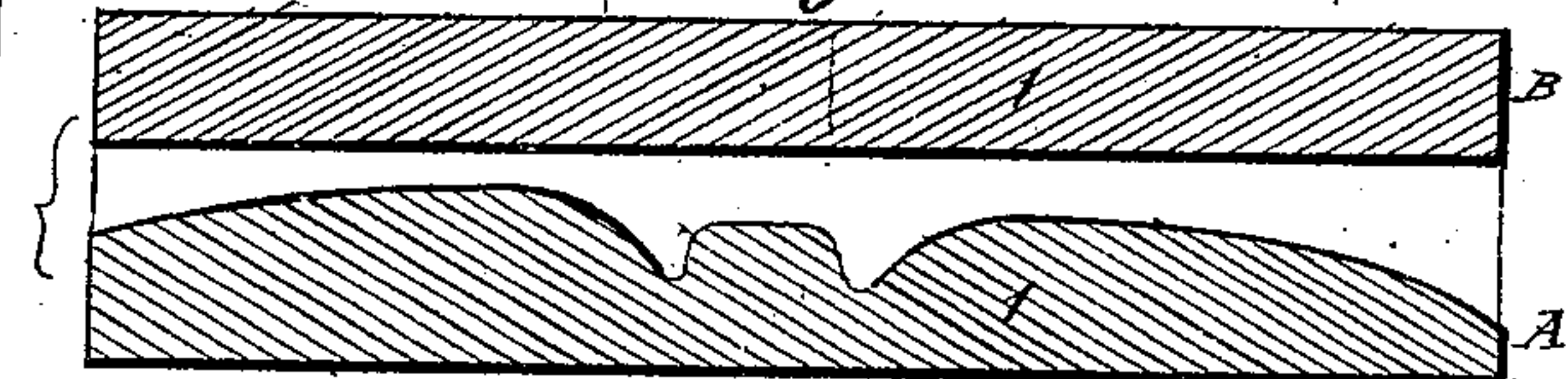
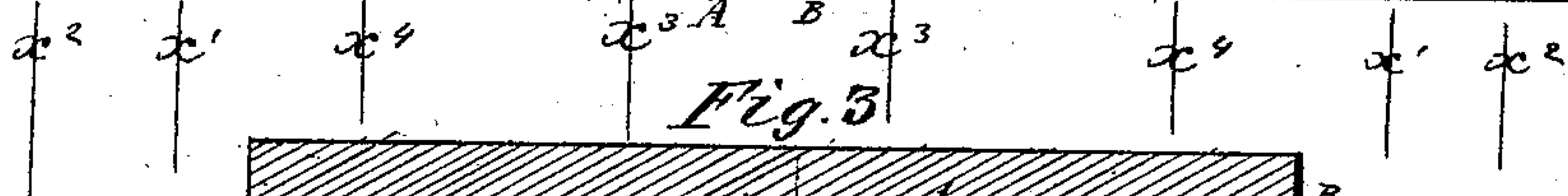
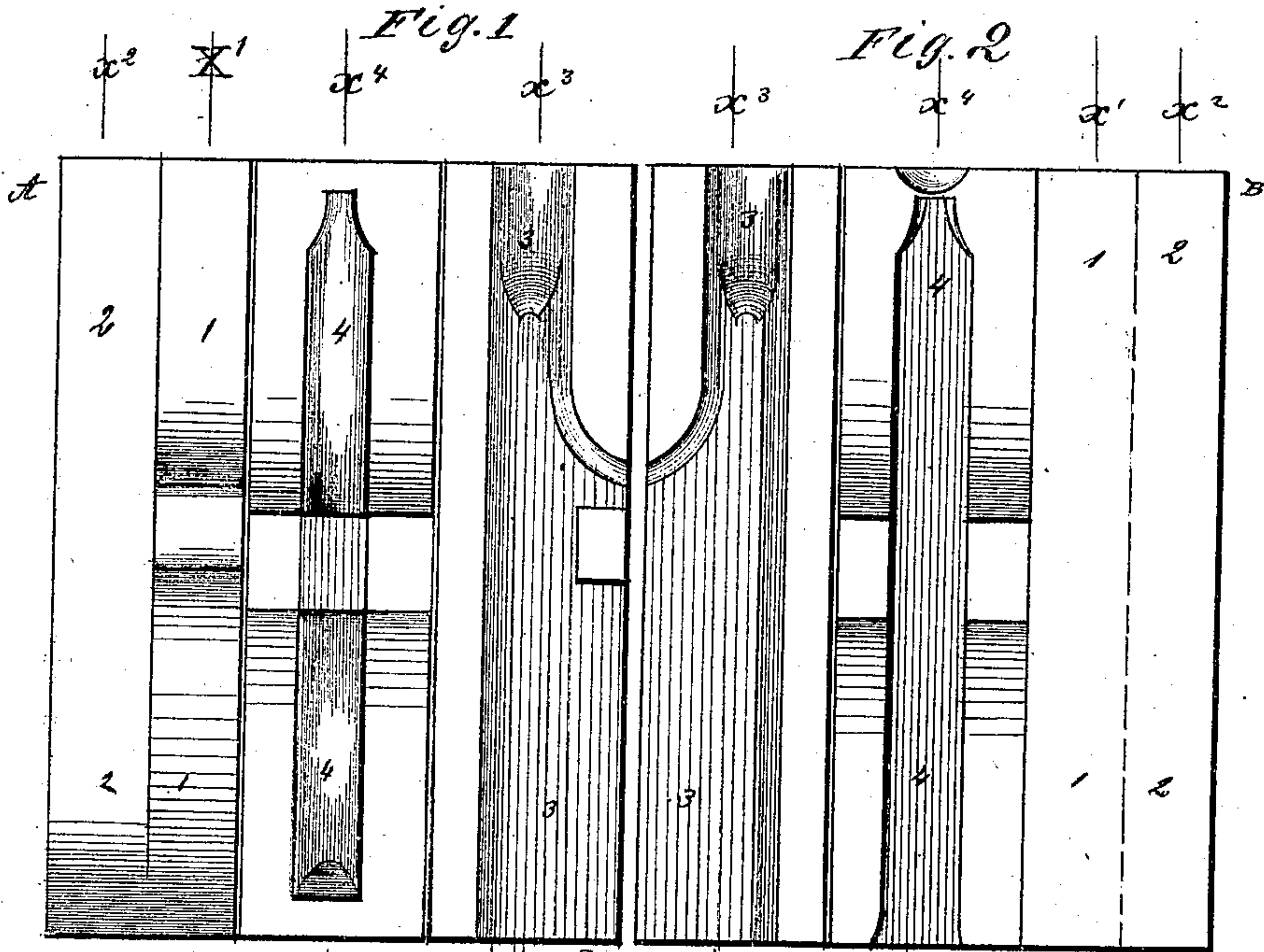


F. VAN PATTEN.
Making Fifth Wheels.

No. 109,781.

Patented Nov. 29, 1870.



Witnesses:
A. W. Almqvist
S. S. Mabee

Inventor:
F. Van Patten

PER *[Signature]*
Attorneys

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Fig 7

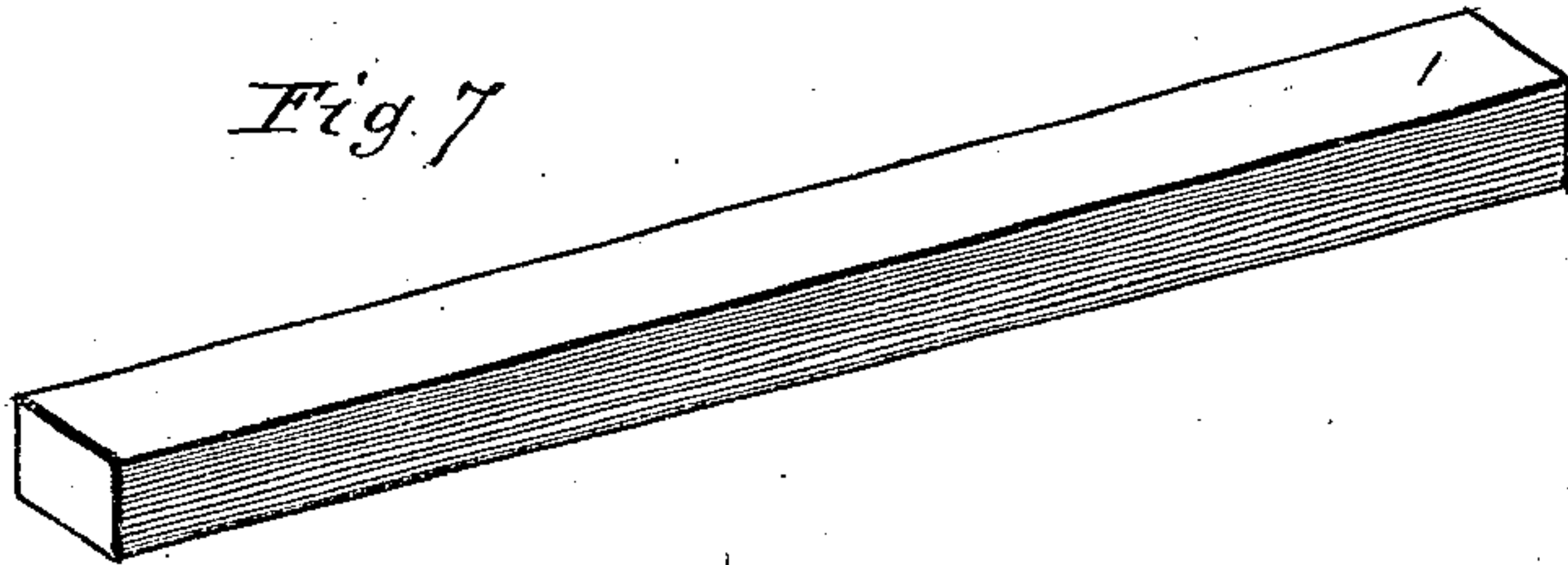


Fig 8

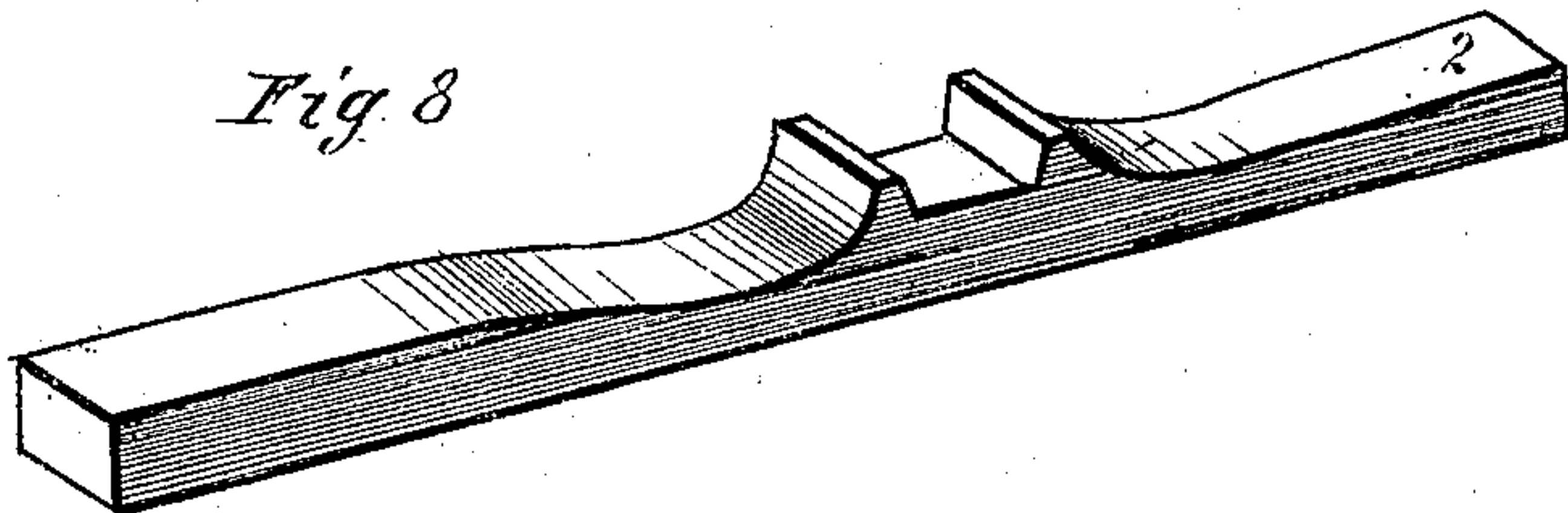


Fig 9

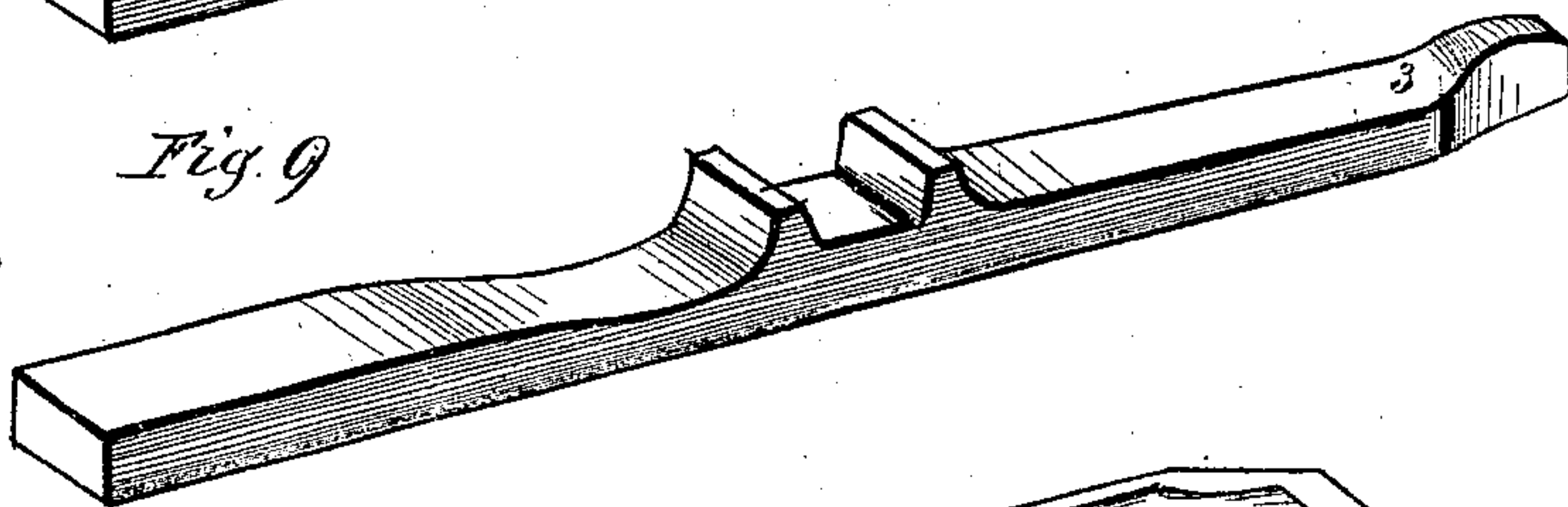


Fig 10

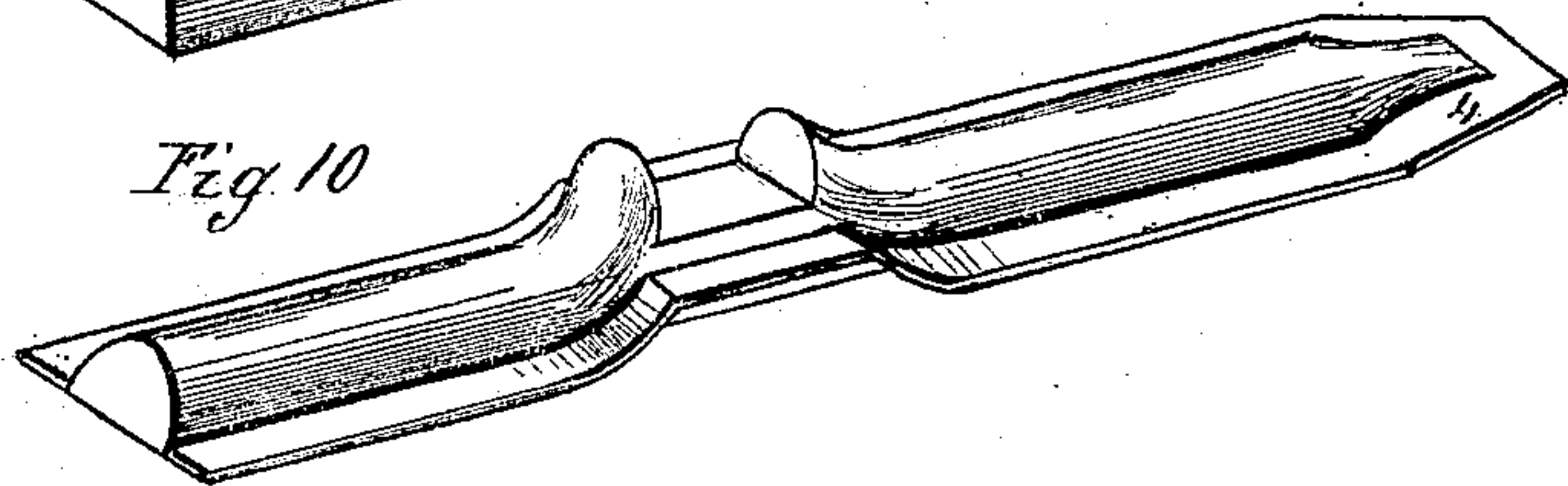
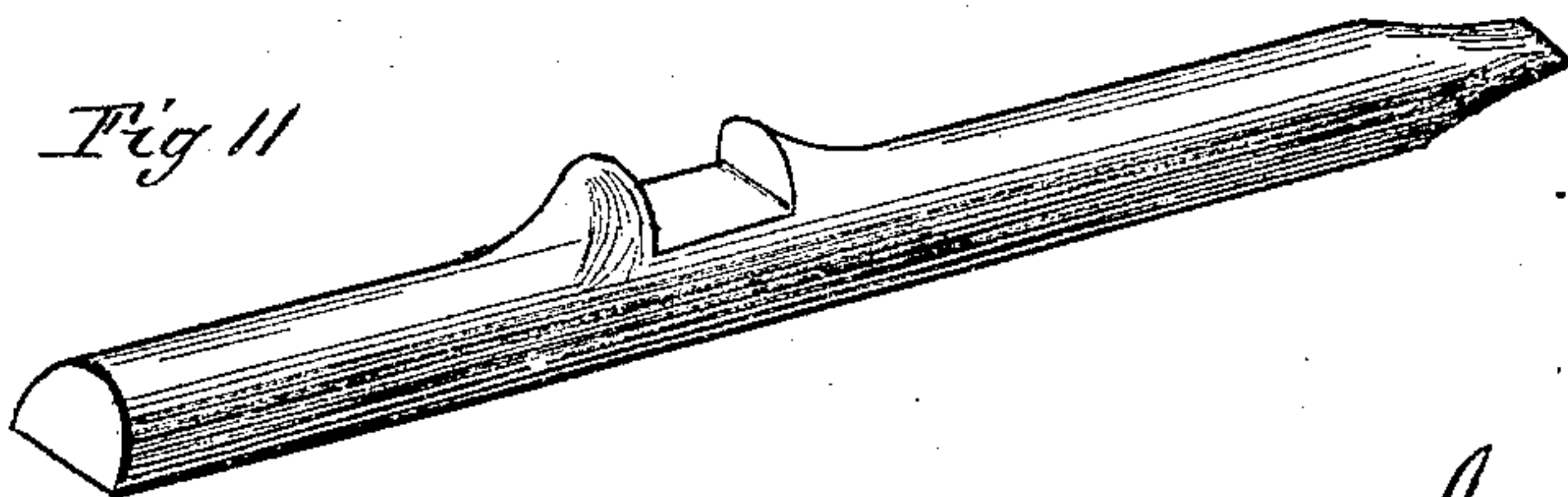


Fig 11



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United States Patent Office.

FREDERICK VAN PATTEN, OF AUBURN, NEW YORK, ASSIGNOR TO HIMSELF,
E. D. CLAPP, AND M. S. FITCH, OF SAME PLACE.

Letters Patent No. 109,781, dated November 29, 1870.

IMPROVEMENT IN DIES FOR FORGING FIFTH-WHEEL HEADS.

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

To all whom it may concern:

Be it known that I, FREDERICK VAN PATTEN, of Auburn, in the county of Cayuga and State of New York have invented a new and useful Improvement in Dies for Forging Fifth-Wheel Heads; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a face view of the lower die-plate.

Figure 2 is a face view of the upper die-plate.

Figure 3 is a detail section of the dies, taken through the line $x^1 x^1$, figs. 1 and 2.

Figure 4 is a detail sectional view of the same, taken through the line $x^2 x^2$, figs. 1 and 2.

Figure 5 is a detail sectional view of the dies, taken through the line $x^3 x^3$, figs. 1 and 2.

Figure 6 is a detail sectional view of the dies, taken through the line $x^4 x^4$, figs. 1 and 2.

The foregoing are shown on Sheet I of drawing.

Figure 7, Sheet II, represents the bar to be operated on by die No. 1;

Figure 8, the blank, after being operated on by die No. 1;

Figure 9, the blank, after being operated on by die No. 3;

Figure 10, No. 4, the blank as it comes from the finishing-die No. 4; and

Figure 11, No. 5, the blank No. 4 trimmed and ready to be welded to the half-round iron to form the fifth-wheel.

The bar and blanks unfinished are numbered 1, 2, 3, and 4 respectively, to correspond with the separate numbered dies by which they are operated on.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved means for forging the heads for fifth-wheels, finishing their tops or upper sides, and finishing their front and rear ends ready for welding; and

The invention consists in the construction of the dies for forming the said heads, as hereinafter described.

The bar No. 1 to be operated upon, shown in fig. 7, is first placed in the breaking-down die No. 1, Sheet I, and, after being struck by the hammer carrying the top dies, it is turned one-quarter and placed in the plane or edging-die, marked No. 2, between which two dies it is alternated two, three, or four times, according to the weight of the hammer, the operation being continued until the blank fits the die exactly. The

blank is now in the form represented by No. 2, fig. 8, Sheet II.

The blank No. 2 is now placed, on its edge, in the gauge-die marked 3, the two lugs of the blank embracing the tenon-like projection of the die, to hold the blank in such a position that the stock may be properly distributed for the finishing die, and reducing the blank into the form shown by No. 3, fig. 9, Sheet II, the main points being to have sufficient stock at the forward end of the blank and reduce the blank to the proper width.

The blank No. 3 is then placed in the finishing-die 4, which brings it to the form No. 4, shown in fig. 10, Sheet II, and finishes the forging.

No. 5, fig. 11, Sheet II, represents No. 4 trimmed off and ready for welding to the half-round iron to form the wheel.

The dies are arranged in the order shown in the drawing, to bring the finishing-die, which requires the most strength, beneath the center of the hammer, to diminish the danger of breaking the tenons of the dies.

The notches in the breaking-down die are to collect stock to form the lugs, and the bevel at the back end of said die is to leave stock to fill the back end of the finishing-die after the blank has been properly edged in die No. 3.

The concave at the forward end of die No. 3 is to flatten the forward end of the blank, and so distribute the stock that it will fill the forward end of the finishing die No. 4.

The die No. 3 also edges the blank, reducing it to the proper width to enter the finishing-die, and so distributes the stock that it will exactly fill the said finishing-die when acted upon by the hammer.

The finishing-die brings the lugs to the proper form and distributes the stock to the forward and back ends of the blank ready for welding to the front rod and to the half-round iron that forms the body of the wheel, the stock being so distributed that the rear end of the head does not require to be upset when welding.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The two sets of dies, 1 2 3 4, formed in the die-plates A B, for finishing the heads of fifth-wheels ready for welding, substantially as herein shown and described.

FREDERICK VAN PATTEN.

Witnesses:

HORACE T. COOK,
OTIS W. BAKER.