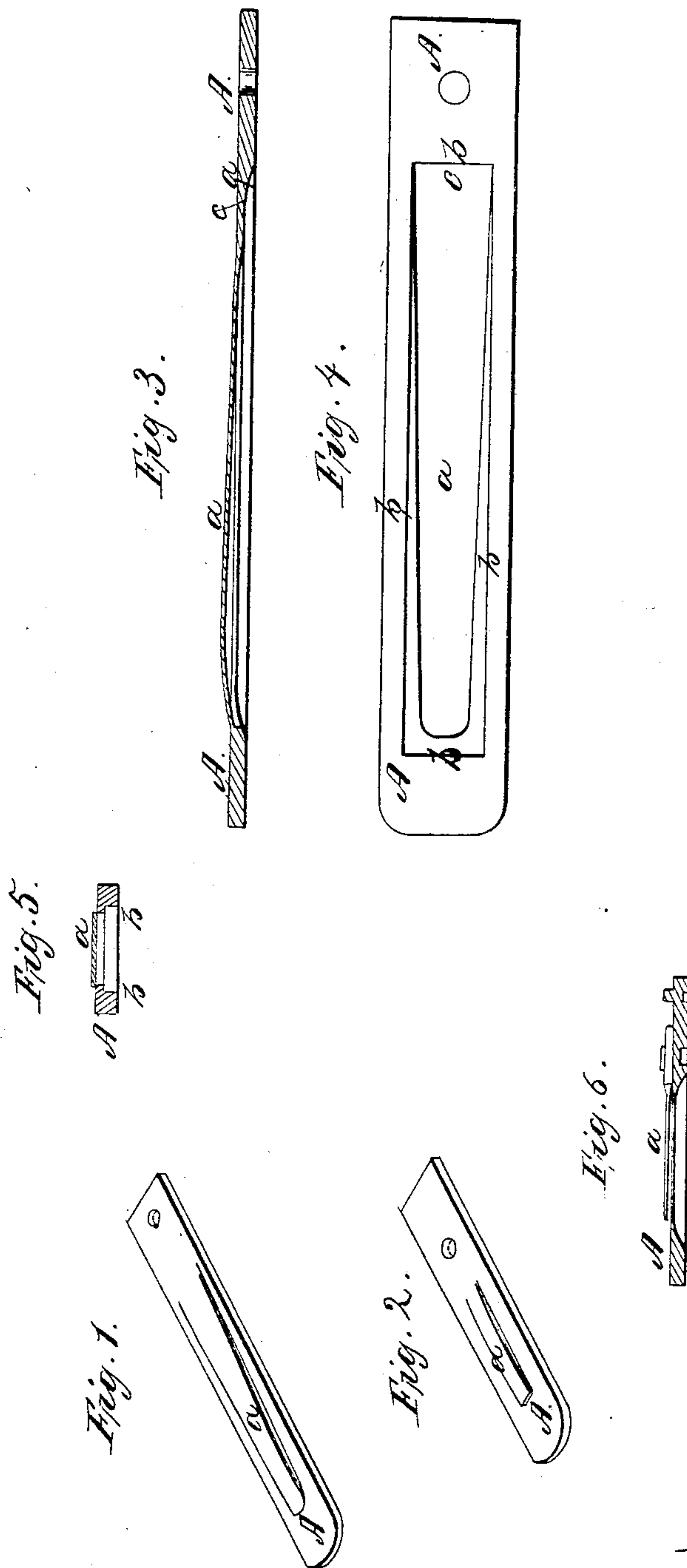


A. H. HAMMOND.  
 REED FOR MELODEONS, &c.

No. 33,143.

Patented Aug. 27, 1861.



Witnesses:  
 J. W. Tusch.  
 W. Tusch.

Inventor:  
 A. H. Hammond  
 by Munn & Co.  
 attys.

# UNITED STATES PATENT OFFICE.

ANDREW H. HAMMOND, OF WORCESTER, MASSACHUSETTS.

## METALLIC REED FOR MUSICAL INSTRUMENTS.

Specification of Letters Patent No. 33,143, dated August 27, 1861.

*To all whom it may concern:*

Be it known that I, ANDREW H. HAMMOND, of Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Reeds for Melodeons and other Musical Instruments Having Reeds of Similar Character; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figures 1 and 2 are perspective views, natural size, of melodeon reeds constructed according to my invention; Fig. 3, a longitudinal section of one of my improved reeds on an enlarged scale; Fig. 4, an underside view; Fig. 5, a transverse section corresponding with Fig. 1; and Fig. 6, a longitudinal section, natural size, of a reed of ordinary construction, the reed proper, or, as it is sometimes termed, the "tongue," *a*, being united with the stock, *A*, by riveting or punching.

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

My invention consists in the construction of the stock of the reed, and the reed proper, or "tongue," of a single piece of metal, by which construction some very important advantages are obtained, among which may be mentioned, 1st., the obviation of all danger of the working loose or rattling of the tongue, and of its lateral displacement; 2nd., the simplification of the process of construction, and the saving of metal, by which the cost both of labor and material is reduced.

To construct the stocks and tongue of one piece of metal, I take a piece of sheet brass or other metal or alloy of suitable size and thickness for the stock *A*, generally of a less thickness than that commonly used for the stock, the reduction of thickness within certain limits being generally considered an advantage apart from the saving of metal; and with a rotating bur or other suitable cut-

ter, I cut in one side a parallel cavity, *b b* (Figs. 3, 4 and 5), of a length about equal to or a little greater than the intended length of the tongue *a*, of a width equal to the widest part thereof where it is united with the stock, and of a depth to leave a suitable thickness to form the tongue *a*. I then, with a punch and die of the size and form desired for the reed, cut out the tongue *a* from the thin portion of the metal left at the back or bottom of the said cavity, leaving it (the tongue) attached to the stock *A* at one end, indicated by *c* in Figs. 1, 2 3 and 4, where the metal has been left by the cutter which cut the cavity *b b* thicker than at the part from which the point of the reed is formed. The punch or die should be so constructed and combined as to leave the tongue entirely above the surface of the stock, so that the tongue can be easily freed at the base and that unnecessary stock may be removed from it, and the reed is afterward passed under a roller to press the tongue down to a level or nearly so with the stock. The freeing of the point of the tongue from the stock is effected by spreading the adjacent end of the stock. I cut the tongue from the stock slightly beyond where the metal has been reduced in thickness to form the tongue, as the tongue will then be free of the stock back of where the tongue bends in its vibration. The reed thus constructed, may be tuned in the usual manner by filing away or otherwise reducing the thickness of the tongue *a*, either near its point or near its connection with the stock.

What I claim as my invention, and desire to secure by Letters Patent, is:

The construction of the stock *A*, and the reed proper or "tongue" *a*, of one piece of metal, in the manner herein described.

A. H. HAMMOND.

Witnesses:

CHAS. W. RICE,  
CHAS. A. CUMMINGS,  
JAS. A. DORMAN.