

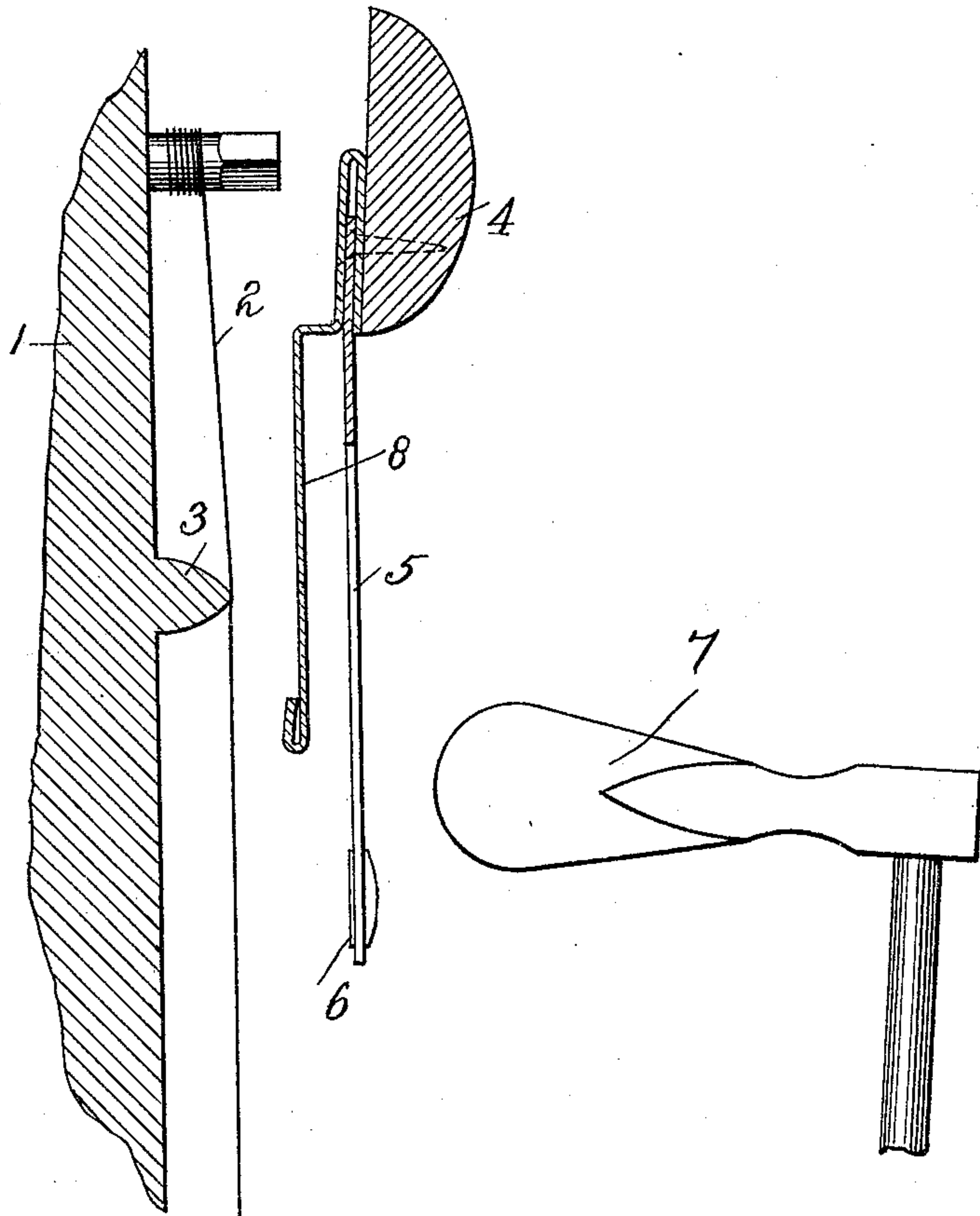
(No Model.)

L. M. FRENCH.  
PIANO ATTACHMENT.

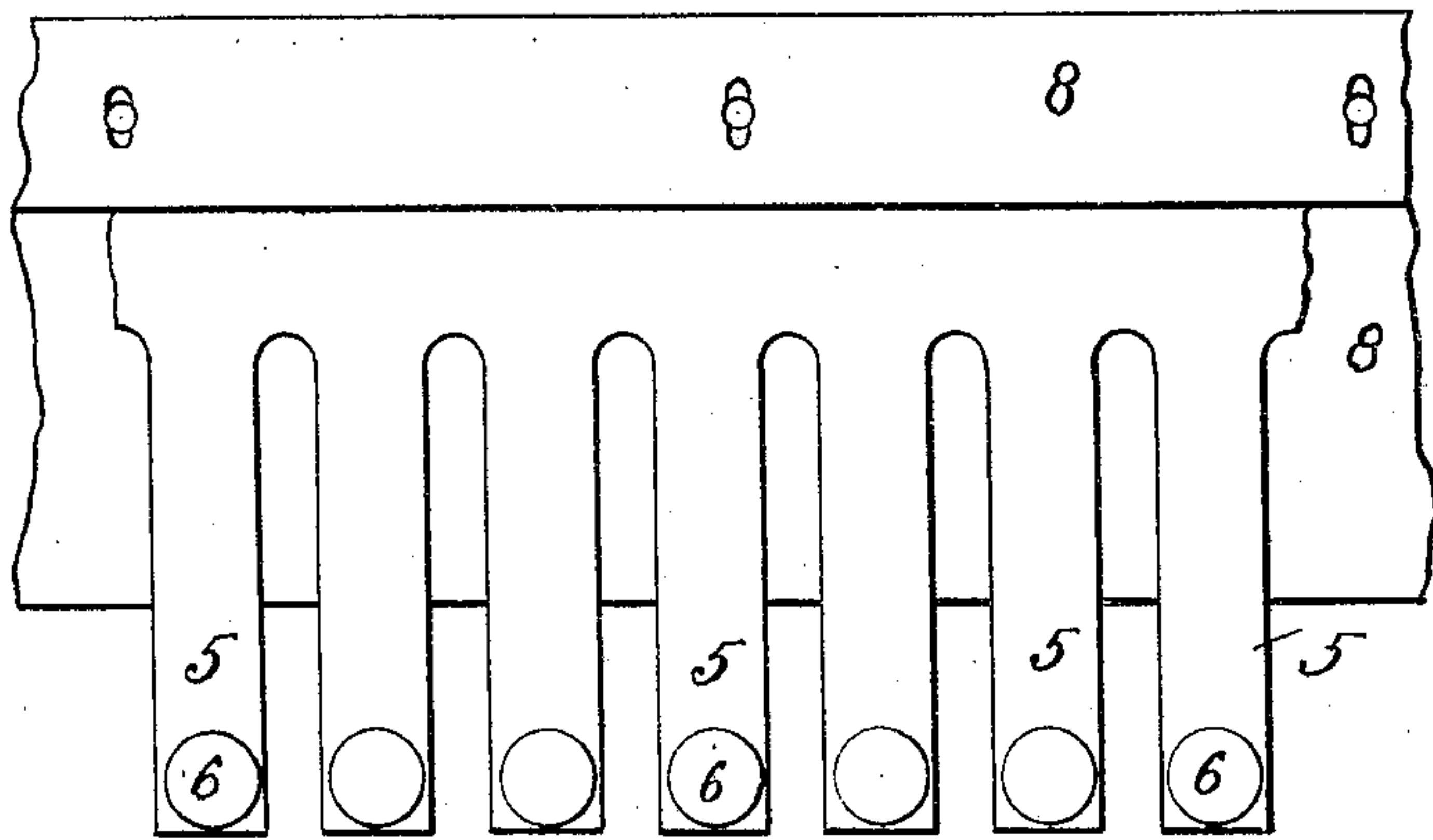
No. 554,418.

Patented Feb. 11, 1896.

*Fig. 1.*



*Fig. 2.*



*Witnesses.*

*Wm. M. Rheem*  
*Wm. S. Bates*

*Inventor.*

*Lamartine M. French*

# UNITED STATES PATENT OFFICE.

LAMARTINE M. FRENCH, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE  
EVERETT PIANO COMPANY, OF BOSTON, MASSACHUSETTS.

## PIANO ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 554,418, dated February 11, 1896.

Application filed June 6, 1895. Serial No. 551,807. (No model.)

*To all whom it may concern:*

Be it known that I, LAMARTINE M. FRENCH, of Chicago, Illinois, have invented certain new and useful Improvements in Piano Attachments, whereof the following is a specification.

This invention is an improvement upon the invention patented to myself and Charles Nalence February 27, 1894, No. 515,426; and it consists in the combination, with the tongues provided with hard strikers, described in that patent, of a shield interposed between said tongues and the strings and occupying such position that the hammers will strike the tongues opposite the lower edge of the shield when the tongues are lowered, the points of the hammers coming just below the edge of the shield so as to flip the strikers against the strings.

In the accompanying drawings I have shown my invention in what I now consider its best form.

Figure 1 is a cross-section showing the strings of the piano with the tongues, the tongue-rail, the shield, and the hammer. Fig. 2 is a face view showing a number of the tongues and the shield behind them separated from the other parts of the piano.

1 is the frame and 2 the string of a piano.

3 is the bridge.

4 is the tongue-rail, 5 the tongues, and 6 the hard strikers of said former patent.

7 is the hammer.

8 is the shield, which may be formed of sheet metal. At its upper part it is doubled

and the bases of the tongues are inserted into the fold, and the whole fastened to the tongue-rail 4 by screws. (Shown in dotted lines in Fig. 1.) The shield is then bent away from the tongues and downward, and its lower edge may be finished by a fold, as shown in said figure.

When the device is lowered to the position shown in Fig. 1 the hammer striking the tongue 5 flips the hard striker at the end of it against the string, but the hammer is prevented from striking the string by the shield 8. I thus secure a much more perfect tone than is secured where the tongues are used without the shield.

The tongue-rail is moved by a pedal and connection the same as shown in said former patent, or in any other suitable manner.

I claim—

1. In combination with a series of tongues provided with hard strikers, a rigid shield between the tongues and the piano-strings, connected to the tongues so as to be moved with them within and out of the action of the hammers, substantially as described.

2. In combination with a series of tongues having hard strikers, a shield made of sheet metal interposed between the tongues and the strings, and having at its upper end a fold to receive and hold the bases of the tongues, substantially as set forth.

LAMARTINE M. FRENCH.

Witnesses:

WM. S. BATES,  
JULIA M. BRISTOL.