(No Model.)

C. VAN HAAGEN.

FINGER BOARD FOR MUSICAL INSTRUMENTS.

No. 281,584. Patented July 17, 1883.

FIG. 11.

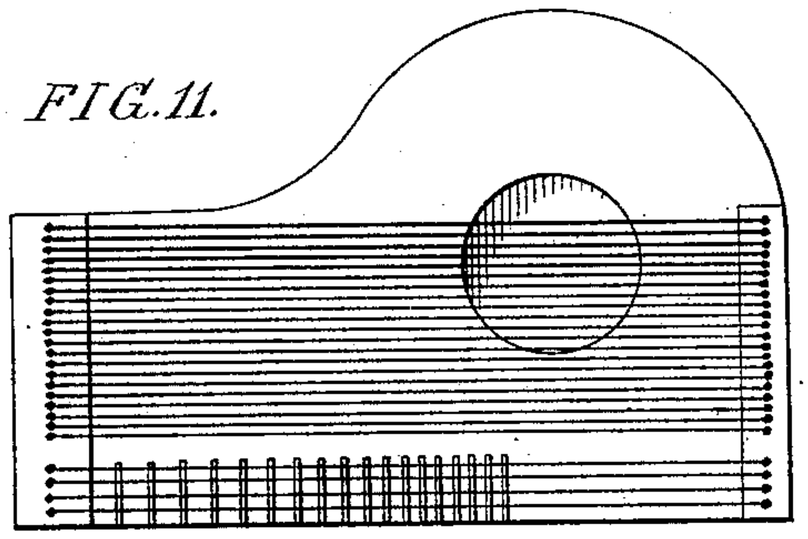


FIG. 1.

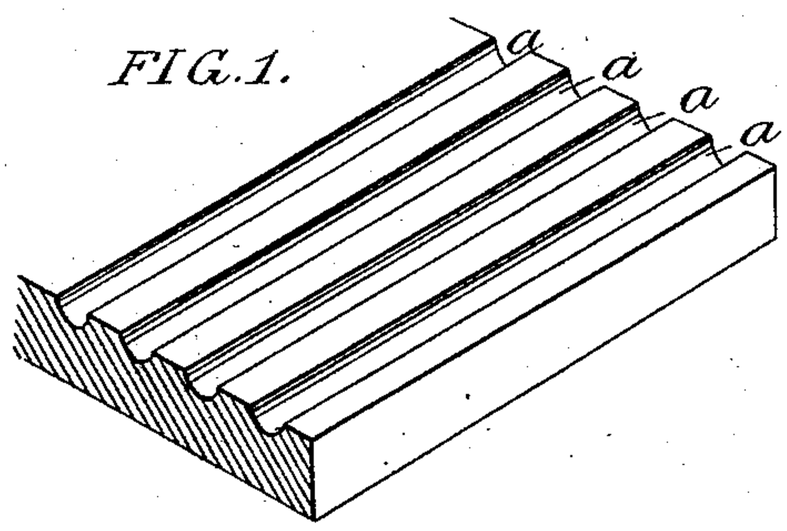


FIG. 2.

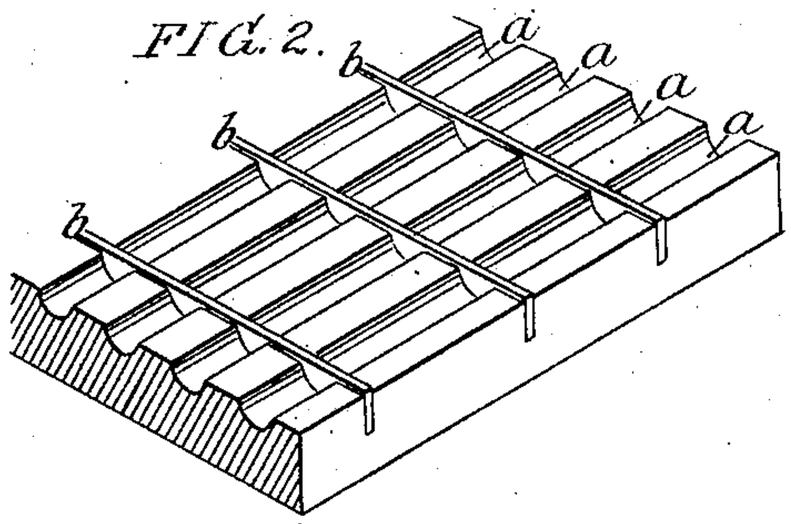


FIG. 3.

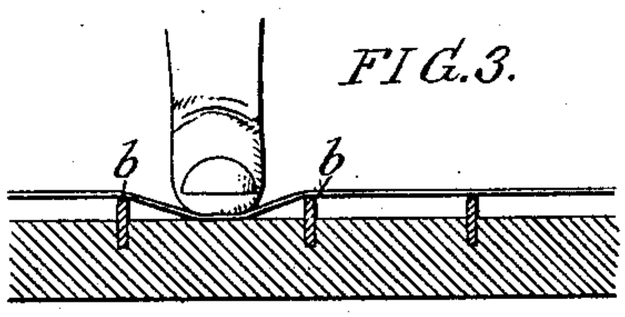


FIG. 4.

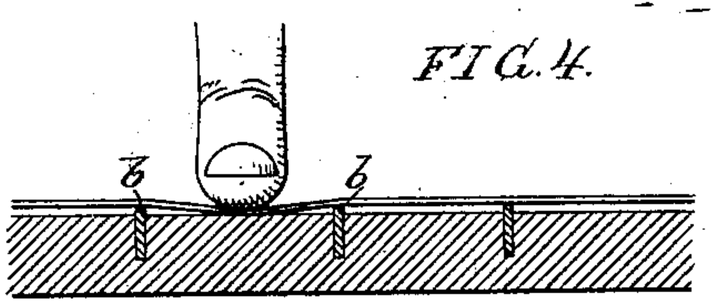


FIG. 5.

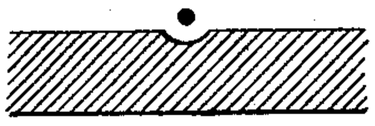


FIG. 10.

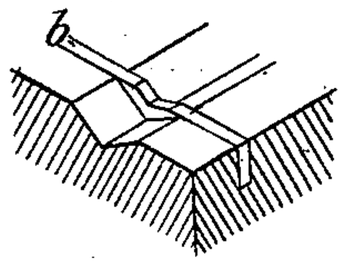


FIG. 7.

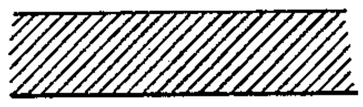


FIG. 6.

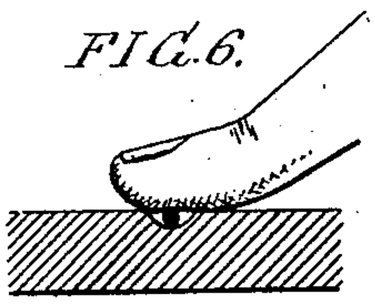


FIG. 8.

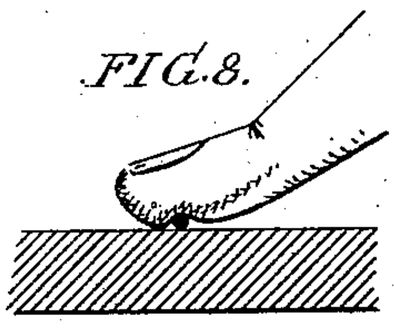
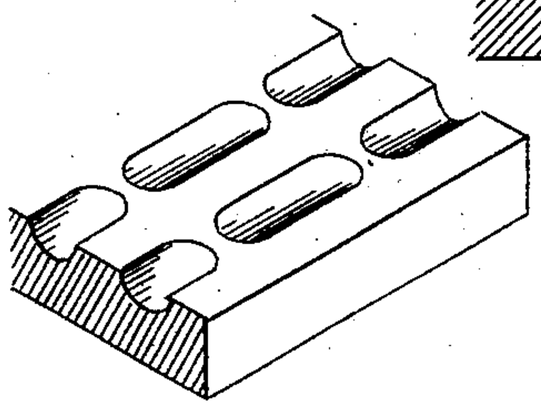


FIG. 9.



WITNESSES:

James J. Jobin

Harry Drury

INVENTOR:

Claus Van Haagen

by his Attorneys

Howson and Sons

UNITED STATES PATENT OFFICE.

CLAUS VAN HAAGEN, OF COLLEGEVILLE, PENNSYLVANIA.

FINGER-BOARD FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 281,584, dated July 17, 1883.

Application filed April 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, CLAUS VAN HAAGEN, a citizen of the United States, and a resident of Collegeville, Montgomery county, Pennsylvania, have invented certain Improvements in Finger-Boards of Stringed Musical Instruments, of which the following is a specification.

My invention consists of an improvement, fully described hereinafter, in the finger-boards of guitars, banjos, zithers, violins, and analogous stringed instruments; and the object of my invention is to relieve performers from the inconveniences arising from the required pressure of the strings against the ordinary flat finger-boards.

In the accompanying drawings, Figure 1 is a perspective view of part of my improved finger-board as constructed for use in violins, violoncellos, &c.; Fig. 2, part of a finger-board for zithers, guitars, banjos, and other like stringed instruments; Figs. 3, 4, 5, 6, 7, and 8, sectional views of finger-boards illustrating my invention and its advantages; Figs. 9 and 10, perspective views of modifications, and Fig. 11 a view of a zither and its finger-board.

In playing on a zither or guitar the strings are pressed by the fingers against the finger-board between transverse ribs *b*, as shown in Fig. 3, so that the string shall have a proper bearing on the ribs. This requires such an effort, and the tips of the fingers are so often and so deeply indented by the strings, Fig. 8, as to cause more or less inconvenience, and this is especially experienced by learners. In order to relieve the fingers from these severe duties, I make in the finger-board longitudinal grooves *a*, one beneath each string, as best observed in Figs. 2, 3, 5, and 6, the usual transverse ribs, *b*, crossing the finger-board and its grooves. In pressing down a string it will enter a groove, as shown in Fig. 6, and the finger, in imparting this pressure, will be assisted by the surface of the board, while the string has the desired bearing on the ribs; hence the tip of the finger will not be so deeply indented as in pressing the string against the usual flat board. This will be understood by reference to Figs. 3 and 4, the former representing a finger in the act of pressing a string against a common finger-board, and Fig. 4 a finger applied to a string which enters a groove of the improved finger-board. Fig. 6 also shows how the tip of the finger is supported by the flat surface of the board when the portion of the string beneath the finger is in a groove.

The invention may be applied to violins in which no transverse ribs are used, and especially to violoncellos and bass-viols, in which the depression of strong heavy strings requires considerable effort on the part of the performer. Fig. 1 shows my improved finger-board for violins and analogous instruments.

Instead of having a continuous groove beneath each string, a series of short grooves may be made in the finger-board, as shown in Fig. 9, the partitions between the grooves in this case forming substitutes for the transverse ribs *b*.

In applying my invention to the finger-board of a bass-viol, I prefer to make the grooves V-shaped, and to notch the transverse ribs *b*, as shown in Fig. 10, the V shape of the grooves offering a firm support for the heavy strings when pressed down by the finger.

I claim as my invention—

1. In a stringed instrument, the combination, with the strings, of a grooved finger-board, one groove beneath each string, substantially as set forth.

2. The combination, with the strings of a stringed instrument, of a grooved finger-board and transverse ribs, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CLAUS VAN HAAGEN.

Witnesses:

HARRY L. ASHENFELTER,

HARRY SMITH.