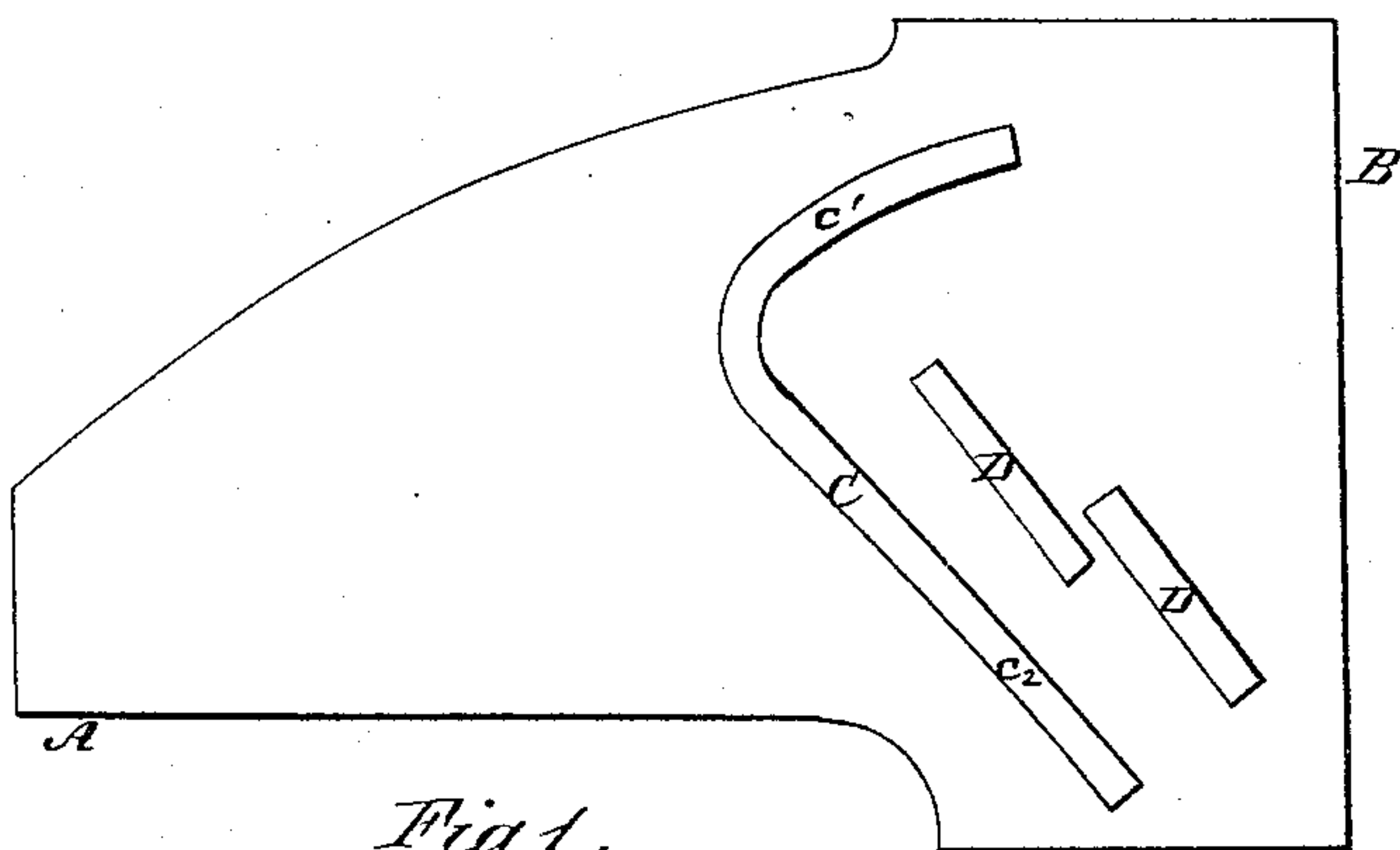


*P. Schuler,*

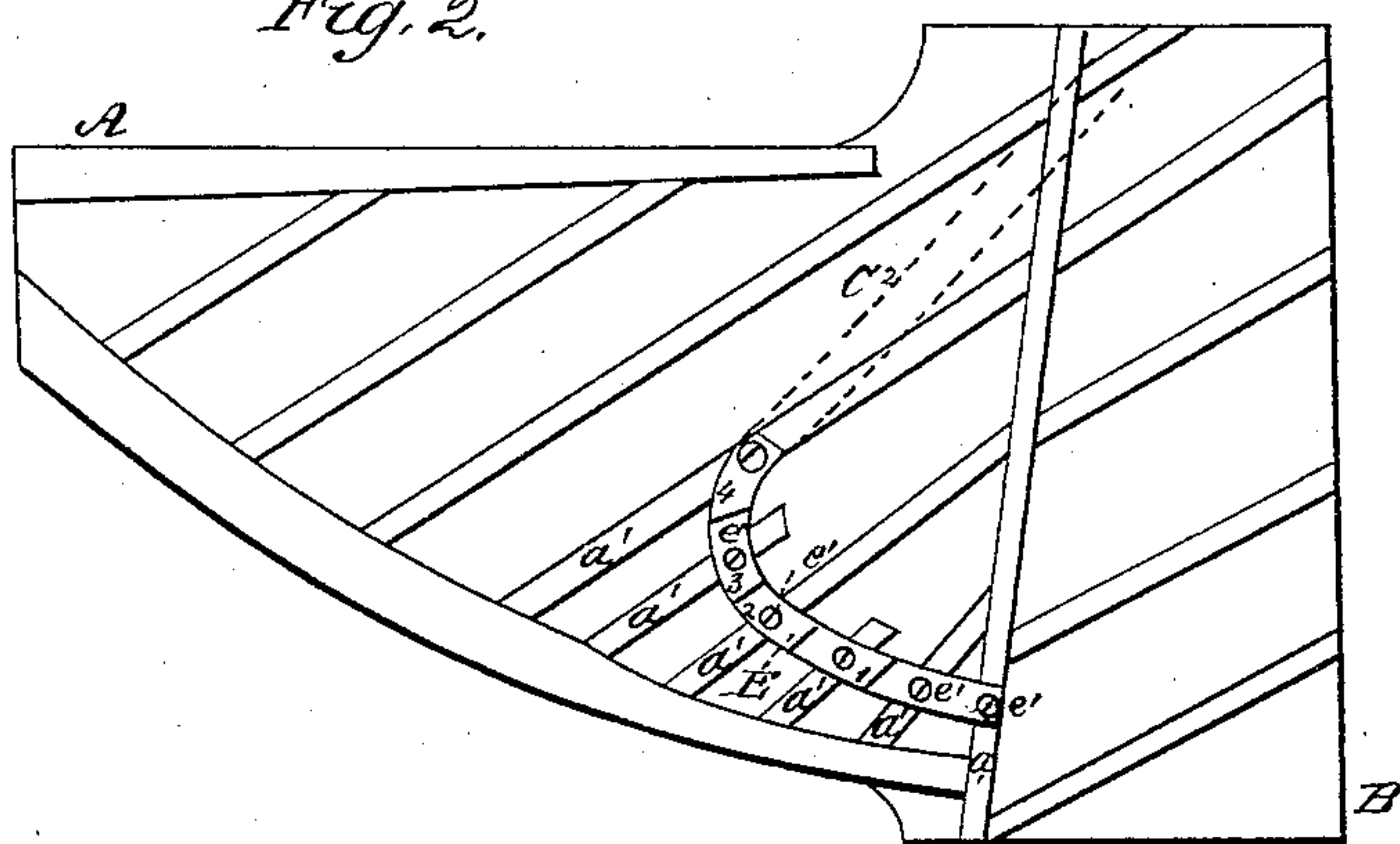
*Piano Sounding Board,*

*No 53,687,*

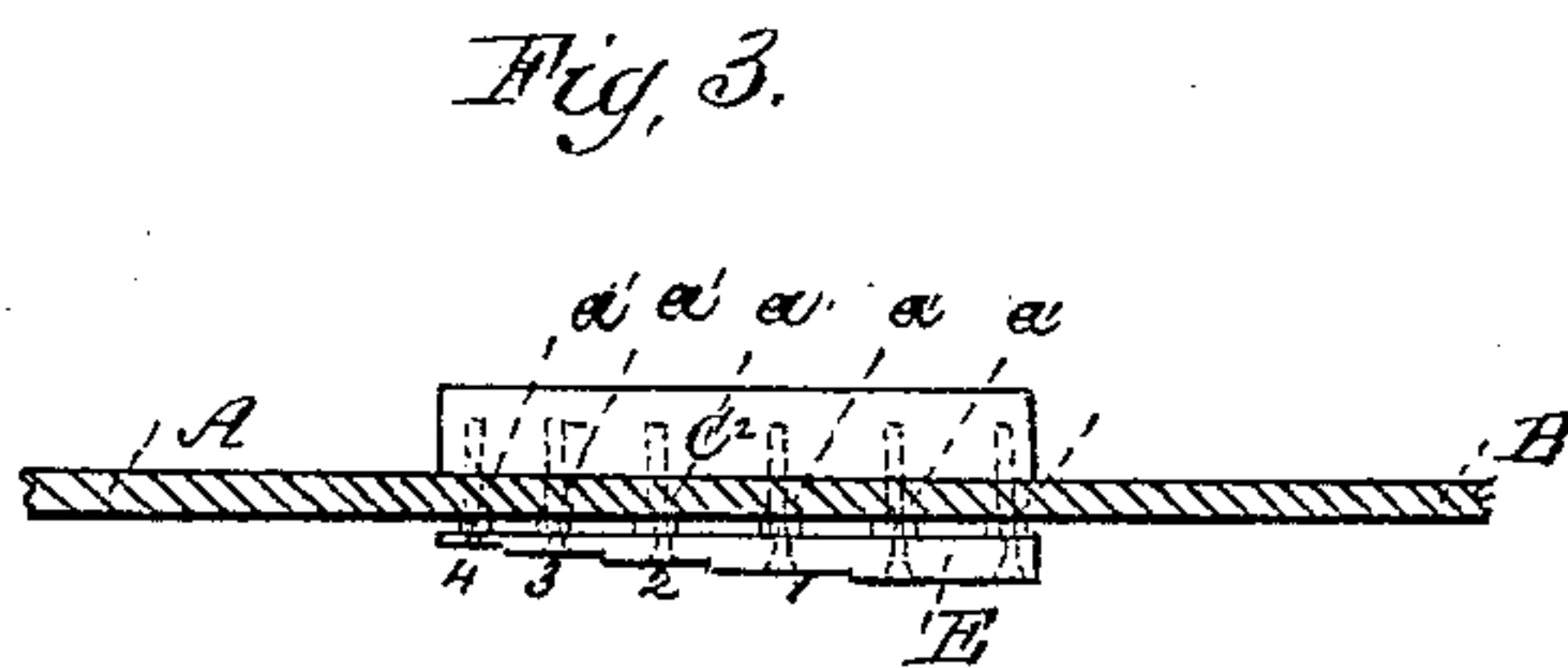
*Patented Apr. 3, 1866.*



*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

*Witnesses,*

*Burj Morison*  
*Jas. Kusmore Jr.*

*Inventor,*

*P. Schuler.*

# UNITED STATES PATENT OFFICE.

P. SCHULER, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN SOUND-BOARDS FOR PIANOS.

Specification forming part of Letters Patent No. 53,687, dated April 3, 1866.

*To all whom it may concern:*

Be it known that I, P. SCHULER, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Pianos; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents the upper side of the sound-board of a piano; Fig. 2, the under side of the same, and showing my improvement applied thereto; and Fig. 3, a sectional side view, like letters and numbers of reference indicating the same parts when in the different figures.

The object of my invention is to improve or increase the strength of the tone or sound of the treble strings of a piano; and it consists in a rigidly-fixed application of a metallic plate to the under side of the sound-board, constructed so that it shall correspond in position, curve, and length with the treble portion of the usual wooden bridge on the upper side of the said board, substantially as hereinafter described.

In the drawings, A B is the sound-board; C, the treble and tenor bridges; D D, the bass bridges, and E the metallic plate applied to the under side of the board.

The plate E may be made of any suitable metal—as brass, iron, or steel; but the latter is believed to be the best—and of such a length and curve as will cause it to correspond with the length and curve of the treble portion *c'* of the bridge C when the plate is applied to the under side of the board and directly beneath the said portion of the bridge, as shown

in Figs. 2 and 3. The plate E is, in this instance, made rectangular in its transverse section, and is diminished in thickness by regular steps 1 2 3 4 as it approaches the tenor portion *c'* of the bridge *c'*, its thicker end being about three-quarters of an inch thick, more or less, and its thinner end about one-fourth of that thickness, the object being to gradually diminish its rigidity as it approaches the tenor portion of the bridge above it. It is rigidly fixed to the under side of the sound-board A B in the position described and shown by means of the screws *e' e'*, which pass through it and the stays *a'* of the sound-board and into the bridge C, and thus confine it closely and firmly in contact with the said stays. (See Figs. 2 and 3.)

It will be seen that this metallic plate E will afford additional strength and stiffness to the treble portion of the bridge C, without affecting unfavorably the tenor portion. I find that it causes a very great improvement in the strength of the tone or sound of the treble strings of the piano.

Having thus fully described my improvement in pianos, what I claim as new therein, of my invention, and desire to secure by Letters Patent, is—

The application of a metallic plate, E, constructed substantially as described, to the under side and directly beneath the treble portion of the bridge C of the sound-board of a piano, substantially as and for the purpose described.

P. SCHULER.

Witnesses:

BENJ. MORISON,  
JOHN WHITE.