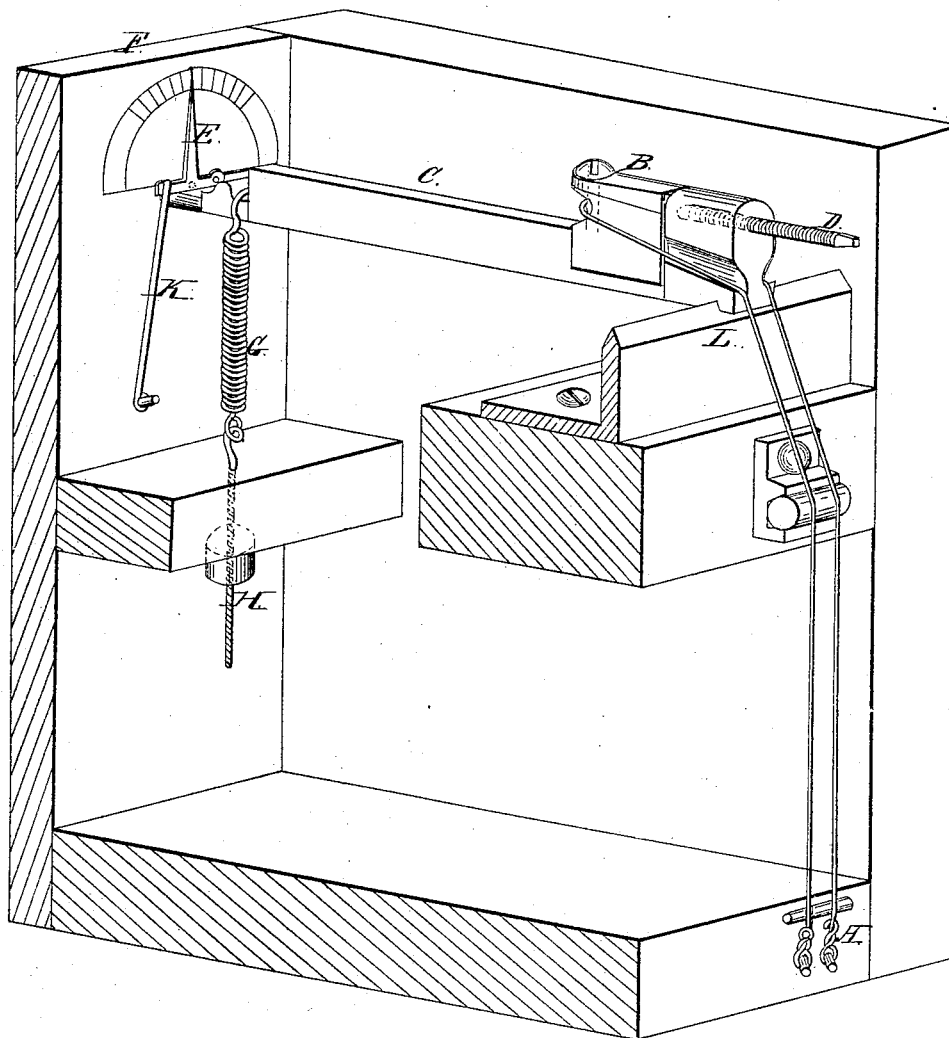


*Choplain & Chollet,*  
*Stringing Pianos,*  
*Nº 51,559.* *Patented Dec. 19, 1865.*



*Witnesses;*  
*E. Branch,*  
*D. S. Constant,*

*Inventors;*  
*A. Choplain,*  
*E. Chollet.*

# UNITED STATES PATENT OFFICE.

ANTOINE CHOPLAIN AND PIERRE E. CHOLLET, OF NEW YORK, N. Y.

## IMPROVEMENT IN STRINGING PIANOS.

Specification forming part of Letters Patent No. **51,559**, dated December 19, 1865.

*To all whom it may concern:*

Be it known that we, ANTOINE CHOPLAIN and PIERRE E. CHOLLET, of city and State of New York, have invented a new and Improved Method of Stringing Piano-Fortes, by which they can be tuned by persons unacquainted with music, or even by deaf and dumb persons; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Our invention has for its object to place within the reach of any person who plays the piano-forte the means of tuning his own instrument as perfectly as possible, without greater exertion than that required to wind up a clock, and without being obliged to rely upon the correctness of his ear. If it is important to have pianos correctly tuned, what must be the condition of those pianos scattered throughout the country out of reach of professional tuners, and which consequently remain sometimes for years without being tuned?

Our invention is intended to meet difficulties of this kind.

Each note is generally composed of two strings, and has a tension of about eighty pounds. In our system each double string is formed of a single wire fastened to a lever placed on a blade or fulcrum L, which lies flat on the block. This lever reduces the back stress to about eight pounds, which tension is sustained by a spring, G. When the temperature distends the strings, the spring draws back and makes up for the loss. When the repeated blows of the hammer have produced too great an effect, and have caused the spring to lose somewhat of its tension, all that is necessary to restore its pitch is to bring back the alidada or index-point F (which is placed above the extremity of the lever C) till it coincides with the straight line or zero-mark thereon.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation according to the drawings, and to the letters of reference marked thereon.

A are fastening-pins of the two ends of the double string, the other ends of which, in a connected form, pass around the adjustable slider or guide on the lever C, in the manner shown in the drawings.

B is the slip-guide, placed on the lever C, above the fulcrum L, in order to tune the double string.

C is a lever which controls the tension of the double string by means of the spring G and screw D.

D is a screw which is turned by means of a key in order to move the slip-guide B, and consequently tune the string.

E is the alidada or index, which is fixed at the extremity of the lever C, above the spring G, showing the amount of tension of the string.

F is the zero-line upon which the index-pointer E adjusts itself when the string is in proper tune.

G is a spring which gives the double string the necessary tension by means of the lever C.

H is the screw which regulates the tension of the spring G.

K is a small elastic cord or spring, which causes the free end of the index-lever to press continually against the free end of the lever C.

When the temperature distends the strings, the spring G contracts its coils, and thus compensates for the loss of tension; when the repeated blows of the hammer have produced too great an effect, the relaxation of lever C moves away the alidada E from the zero-line F, showing the distention of the string. By turning the screw D with a key, the slip-guide B is adjusted along the lever C, and thus affects the tension of the string and brings back the alidada or index onto the zero-line, and the string resumes its proper pitch at once, without the tuner being obliged to rely upon his ear, as in the old way of tuning.

This apparatus can be adapted to all piano-fortes already made.

What we claim as our invention and desire to secure by Letters Patent, is—

The apparatus for stringing piano-fortes by which they can be tuned by persons unacquainted with music, or even by deaf and dumb persons, as above described.

New York, October 14, 1865.

A. CHOPLAIN.  
E. CHOLLET.

Witnesses:

D. C. COUTARD,  
H. GOULET.