J. M. BRANIG.

Tuning-Pin for Pianos, &c.

No. 166,253. Patented Aug. 3, 1875.

Fig. 1

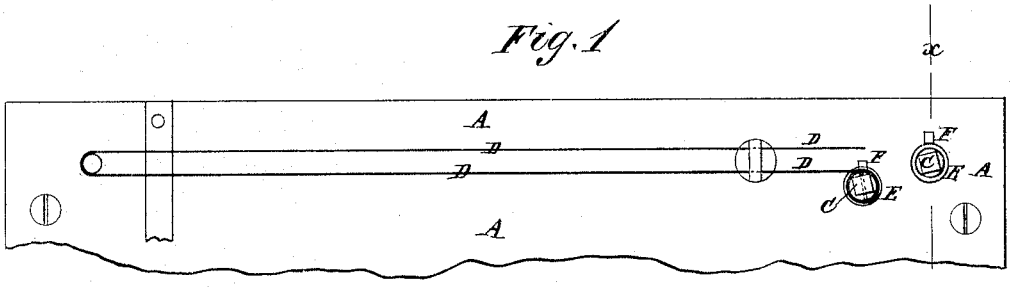


Fig. 2

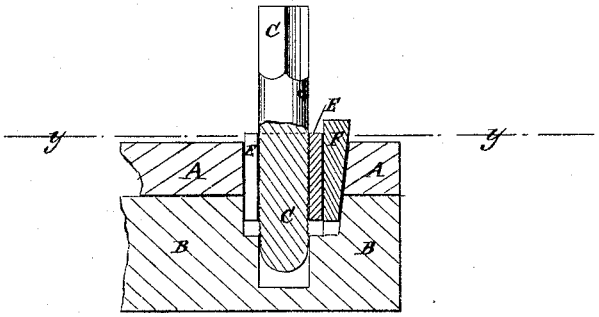
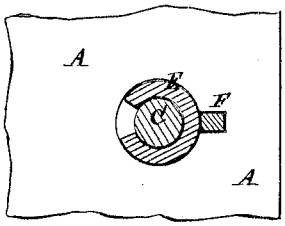


Fig. 3



WITNESSES:

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JULIUS M. BRANIG, OF NEW YORK, N. Y.

IMPROVEMENT IN TUNING-PINS FOR PIANOS, &c.

Specification forming part of Letters Patent No. **166,253**, dated August 3, 1875; application filed July 10, 1875.

To all whom it may concern:

Be it known that I, JULIUS M. BRANIG, of the city, county, and State of New York, have invented a new and useful Improvement in Lock Tuning-Pin, of which the following is a specification:

Figure 1 is a top view of two of my improved tuning-pins, shown as attached to the iron plate or frame. Fig. 2 is a detail longitudinal section of one of the pins, taken through the line *x x*, Fig. 1. Fig. 3 is a detail cross-section of one of the pins, taken through the line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to enable the tuning-pins of a piano or other instrument to be firmly secured in place in such a way that they may be detached and again inserted without loosening them or injuring their screw-threads.

The invention consists in the open bushing, made of brass or other metal softer than the tuning-pins, and the wedge, in combination with the plate and the tuning-pins, as hereinafter fully described.

A represents the iron plate or frame of a piano, and B is the long block. C are the tuning-pins, to which the wires D are attached in the usual way. The pins C pass through holes in the plate A, and screw into the block B. The holes in the plate A are made larger than the pins C, and have a bushing, E, made of brass or other metal softer than the pins C, inserted in them around the said pins C. The bushing E is made open at one side, and of such a size that its edges will not quite meet around the pin, as shown in Fig. 3. F is a wedge driven into a notch in the plate A, at the outer side of the bushing E, opposite its opening, as shown in Figs. 2 and 3. The wedge F forces the middle part of the bushing E inward against the pin C, so that the bushing E may always bear against the pin C in at least three points, so as to support it firmly.

The soft-metal bushing E enables the pin C to be put in and taken out without injuring its threads, and also beds it firmly in the plate A.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The open bushing E, made of brass or other metal softer than the pins C, and the wedge F, in combination with the plate A and the tuning-pins C, substantially as herein shown and described.

JULIUS M. BRANIG.

Witnesses:

JAMES T. GRAHAM,

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