

(No Model.)

O. WESSELL, A. NICKEL & R. GROSS.

PIANO DAMPER.

No. 295,317.

Patented Mar. 18, 1884.

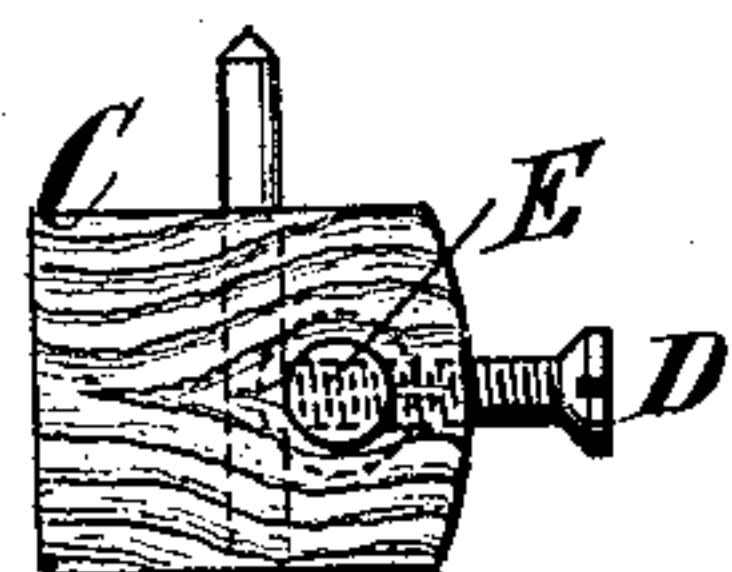
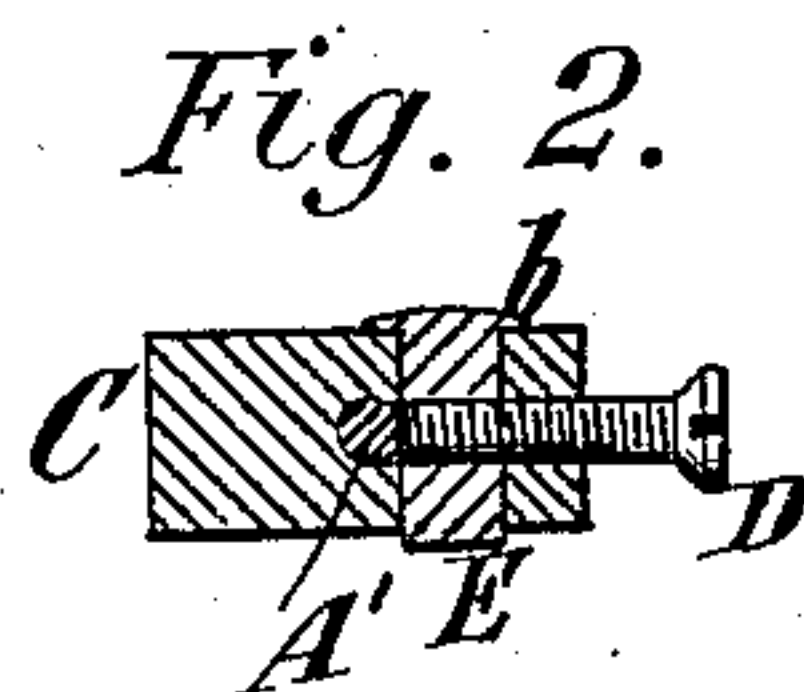


Fig. 1.

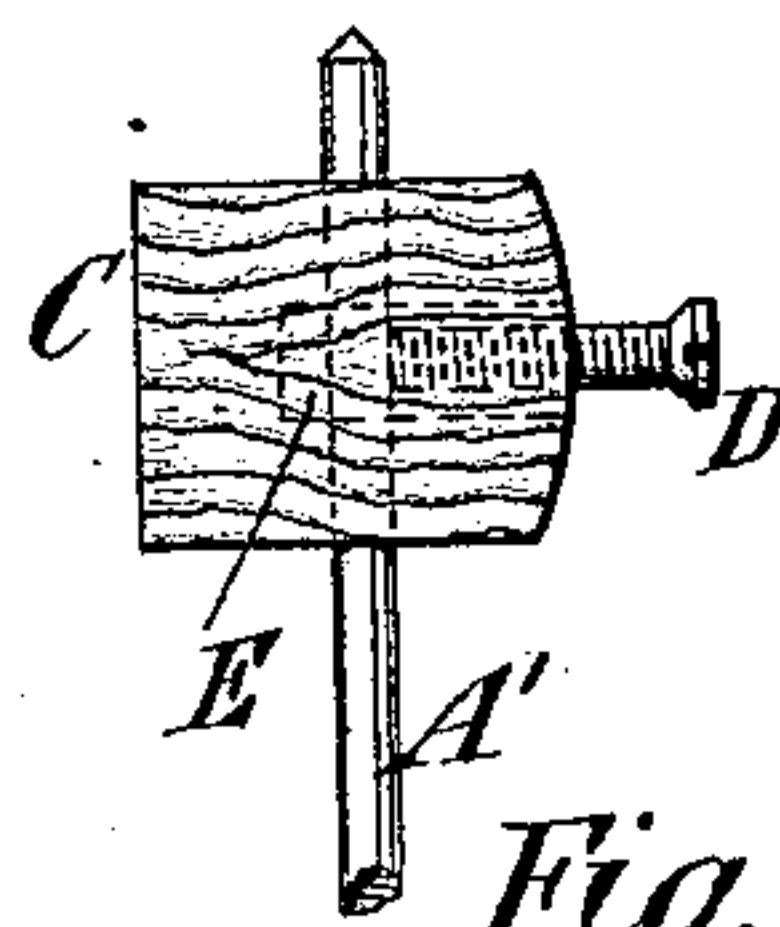
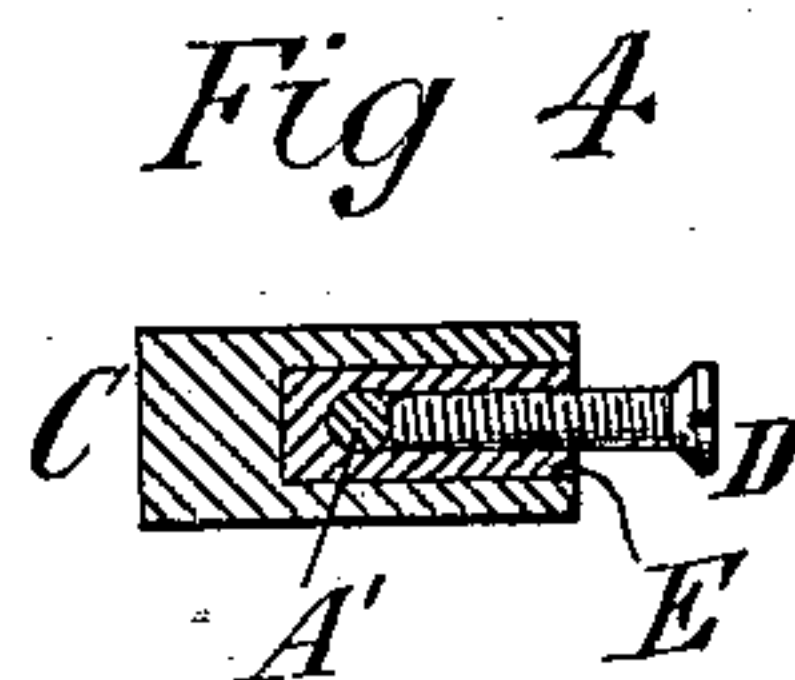


Fig. 3.

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PIANO-DAMPER.

SPECIFICATION forming part of Letters Patent No. 295,317, dated March 18, 1884.

Application filed August 21, 1883. (No model.)

To all whom it may concern:

Be it known that we, OTTO WESSELL, ADAM NICKEL, and RUDOLPH GROSS, of the city and county of New York, and State of New York, have invented a new and useful Improvement in Piano-Dampers, of which the following is a specification.

Our invention is applicable to square, upright, and grand pianos, and relates to the method of attaching or securing the damper-blocks to their levers. The damper-block usually employed consists of a piece of wood bored to receive a portion of the damper-lever, which is made of wire, and having in it a set-screw, which is screwed into the wood of the block and impinges on the lever. The set-screw must extend in a direction cross-wise of or more or less transverse to the grain of the block, else its thread will not hold; and if the set-screw were inserted directly cross-wise of the grain, the damper-lever would extend through the block in a direction directly lengthwise of the grain of the block, and the latter would be very liable to split. In view of these obstacles, wood having fine and crooked or knotty grain, or "silver-grained wood," as it is termed, is selected for the damper-blocks, and even then the blocks are liable to and frequently do split and fall off the levers.

The object of our invention is to obviate these difficulties and to enable straight-grained wood of any kind to be safely used for the damper-blocks.

The invention consists in the combination, with a damper-lever and a block receiving said lever through it, of a nut inserted into the block, and a set-screw engaging with the nut and bearing against the lever.

The invention also consists in the combination, with a damper-lever and a block receiving the lever through it in a direction transverse to the grain of the block, of a nut inserted in the block in a direction also transverse to the grain of the block, and a set-screw extending through the nut and bearing on said lever.

In the accompanying drawings, Figure 1 is a side view of a damper lever and block embodying our invention. Fig. 2 is a sectional view of the block in a plane transverse to the lever. Fig. 3 is a side view of a portion of a

lever and a block embodying our invention in a modified form; and Fig. 4 is a section, corresponding to Fig. 2, of the lever and block shown in Fig. 3.

Similar letters of reference designate corresponding parts in all the figures.

A designates the main portion or butt of the damper-lever, which is pivoted at *a* to the flange B, and A' designates the wire portion of the lever on which the damper-block C is fitted. In both the examples of our invention the lever A' extends through a hole in the block, and the block is secured in place on the lever by a set-screw, D. In attaching damper-blocks to their levers in the ordinary way, the screw D is tapped or threaded directly into the wood of the block; but in both the forms of our invention the screw is screwed into or engaged with a nut, E, which is inserted into the block. Figs. 1 and 2 represent the nut as consisting of a round plug or piece inserted through the block C from side to side, and receiving the screw D transversely through it. This nut may have a head, *b*, as shown, and may be made of metal, rawhide, or even of wood or other material, if desired. Copper rivets—such as are common articles of merchandise—may be used for the nuts, they being drilled transversely and tapped to receive the screws D. Figs. 3 and 4 represent a nut, E, consisting of a round plug or piece inserted into the block C and receiving the lever A' through it. The screw D in this case extends lengthwise of the nut and is threaded into it alone.

In the form of our invention shown in Figs. 3 and 4 the lever A' passes through the nut C itself, and the nut, therefore, takes the strain when the screw D is tightened, and there is no danger of the block splitting; hence the block can have the grain run parallel with or transversely to the lever A'.

In the form of the invention shown in Figs. 1 and 2 the block C itself takes the strain when the screw D is tightened, and in this form the block should have its grain extend transversely to the lever A', as shown.

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

1. The combination, with a damper-lever and a block receiving said lever through it, of

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a nut inserted into the block, and a set-screw engaging with the nut and bearing against said lever, substantially as and for the purpose herein described.

- 5 2. The combination, with a damper-lever and a block receiving said lever through it in a direction transverse to the grain of the block, of a nut inserted in the block in a direction also transverse to the grain of the block, and

a set-screw extending through the nut and bearing on said lever, substantially as and for the purpose herein described.

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