

(No Model.)

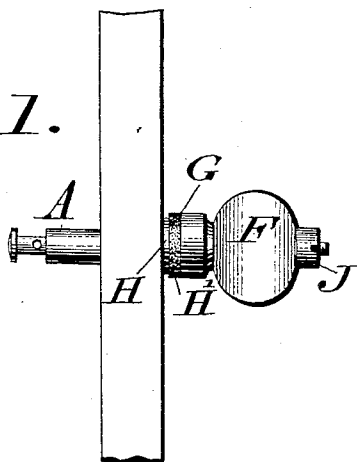
G. A. ERNST.

PIN FOR STRINGS OF MUSICAL INSTRUMENTS.

No. 493,917.

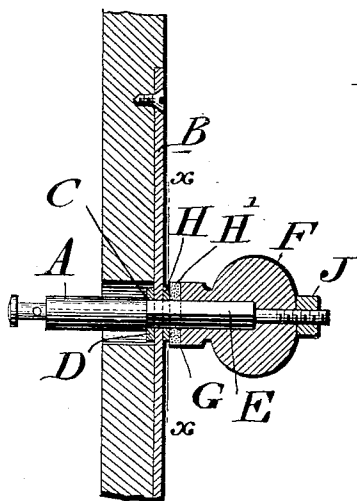
Patented Mar. 21, 1893.

*Fig. 1.*

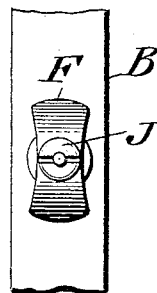


*Fig. 2.*

*Fig. 4.*



*Fig. 3.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## PIN FOR STRINGS OF MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 493,917, dated March 21, 1893.

Application filed October 19, 1892. Serial No. 449,307. (No model.)

*To all whom it may concern:*

Be it known that I, GUSTAV A. ERNST, a citizen of the United States, residing in the city and county of Camden, State of New Jersey, have invented a new and useful Improvement in Pins for Strings of Musical Instruments, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a bearing for the pin of a string of a musical instrument, the same being formed of a metallic plate which is attachable to and removable from the instrument, said pin having shoulders which bear against said plate on opposite sides of the same and turn thereon, all as will be hereinafter fully set forth.

Figure 1 represents a side elevation of a pin for the strings of a musical instrument embodying my invention. Fig. 2 represents a longitudinal section thereof. Fig. 3 represents an end view thereof. Fig. 4 represents a section on line *x, x*, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings: A designates a pin which is mounted on the metallic plate B, the latter being secured to the finger piece or head of a stringed instrument, said pin being formed with a shoulder C, which bears against one side of said plate, a washer D being interposed between said shoulder and plate for evident purposes.

E designates the stem of the pin which constitutes the journal of the same, it being the part which has its bearing in the plate B, and carries the head F of the pin, said stem being squared or angular, and entering a similar shaped opening in the head, whereby the head and stem may rotate as one. The inner end of the head forms a shoulder G, which as will be seen, is on the side of the plate B opposite to the shoulder C, there being interposed between said shoulder and the plate B the washers H, H', the washer H which is directly in contact with the plate B being formed of metal and having a squared opening to fit the angular portion of the stem. The outer end of the stem E is threaded for the engagement of a nut J for tightening purposes.

It will be seen that when the parts are in position as in Figs. 1 and 3, the pin is nicely

connected with the plate B, and may be rotated to wind or unwind the attached string as required. As the head is prevented from rotating independent of the pin and vice-versa, slipping of the pin is obviated. Should it be required to adjust the friction of the pin on the plate, the nut J is rotated in either direction, so as to tighten or loosen the pressure of the opposite washers D and H on the plate B, it being noticed that said nut retains the several parts in operative position and permits the separation of the same when said nut is properly removed.

It will be seen that the device is formed in a simple and inexpensive manner, a matter of considerable importance in articles of the class, it being also seen that the washers D and H rub on the plate B on the rotation of the pin, and the pin is thus removed from the wood so that there is no grinding or wearing action on the latter.

The plate B may be readily attached to the finger board or head of the instrument, the pin being a fixture thereof. Should said plate be worn by the rubbing or grinding action of the washers or shoulders of the pin, it may be removed and replaced by a fresh plate, leaving said piece or head of the instrument intact.

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

1. A pin for a stringed musical instrument having a shoulder, a connected stem, a removable head non-rotatable on said stem and forming a shoulder, a shoulder opposite to that on the pin, and a nut engaging the outer end of the stem and bearing against the head, in combination with a metallic plate through which said pin passes, the shoulders being on opposite sides of said plate, said plate being attachable to and removable from the face of the piece or head of the instrument substantially as described.

2. A pin for a stringed musical instrument formed of a pin proper, a journal or stem of angular form connected therewith, a knob or head having an angular opening fitted on said stem, a nut engaging the end of the stem and bearing against said head, shoulders on the stem and head, and loose washers on the stem in contact with said shoulders in combination

with a metallic plate through which said pin freely passes and which has said loose washers on opposite sides of the same, said plate being attachable to and removable from the face of the piece or head of the instrument substantially as described.

3. A metallic plate, a pin passing freely through the same, a portion of said pin being angular, a head on said pin, the inner end of said head forming a shoulder on one side of the plate, said pin having a shoulder thereon

on the opposite side of said plate, and washers in contact with said shoulders and plate, the openings of said head and washers being angular to accord with the angular portion of the pin, said plate being attachable to and removable from the face of the piece or head of the instrument, substantially as described.

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Witnesses:

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