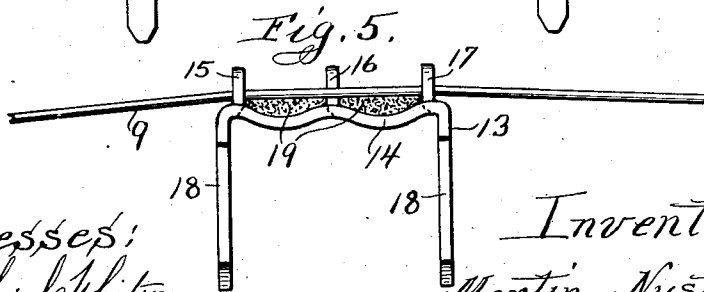
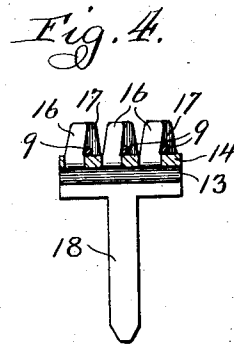
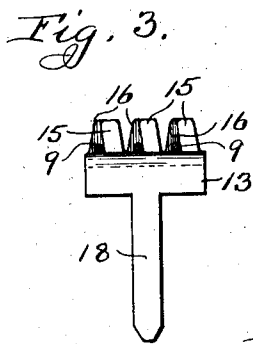
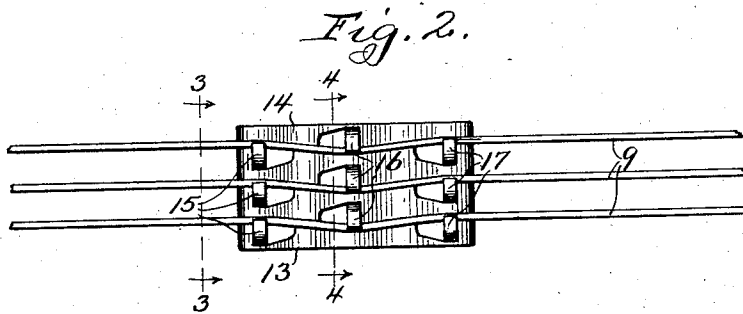
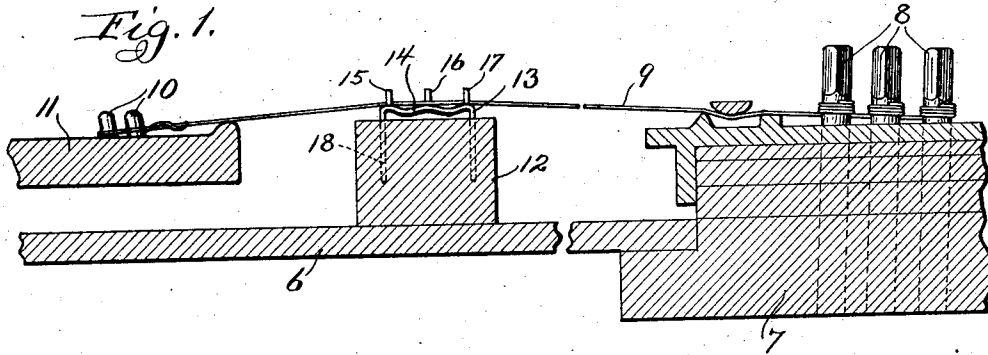


M. NYSTROM.
PIANO AGRAFFE.
APPLICATION FILED SEPT. 19, 1910.

1,026,922.

Patented May 21, 1912.



Witnesses:
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UNITED STATES PATENT OFFICE.

MARTIN NYSTROM, OF CHICAGO, ILLINOIS.

PIANO-AGRAFFE.

1,026,922.

Specification of Letters Patent.

Patented May 21, 1912.

Application filed September 19, 1910. Serial No. 583,530.

To all whom it may concern:

Be it known that I, MARTIN NYSTROM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Piano-Agraffe, of which the following is a specification.

My invention relates to a means for determining the length of the vibrating portion of a piano string or wire placed on the bridge of the sounding board and the objects of my improvements are, first, to prevent injury to the bridge; second, to prevent all twisting or side strain by the strings on the agraffe; third, to enable easy and quick attaching and detaching of the strings to and from the instrument; fourth, to provide means whereby the metallic ring in the strings is prevented; fifth, to make an agraffe which is quickly and easily secured in position on the bridge; sixth, to make a cheap, simple and durable device and other features to become apparent from the description to follow.

Heretofore piano agraffes have been made which after considerable usage would damage the sounding board bridge by causing cracks in the wood usually resulting from the constant strain on the same; others required skill and considerable labor to attach them to the bridge properly and still others which comprised several separable parts would become disassembled when the strings are temporarily removed, for the purpose of replacing them by new ones, or for any other reason; all these objectionable features are eliminated by the use of my improved agraffe, which is made of sheet metal properly formed with three staggered upward extensions for each string, and suitable downward extensions to fit snugly into holes, provided therefor, in the bridge. The three staggered upward extensions are so arranged, that the string passing alternately on opposite sides of said extensions is given a slight zigzag bend but exerts no pressure to either side on the metal plate as a whole.

To describe my invention so that others versed in the art to which it pertains can make and use the same I have illustrated it on the accompanying sheet of drawing forming a part of this specification in which:—

Figure 1, is a fragmentary sectional view of a piano sounding board and wrest plank having my improved agraffe applied there-

to; Fig. 2, is an enlarged plan view of the agraffe detached showing the strings in position; Fig. 3, is an end view of the agraffe taken on line 3—3 of Fig. 2; Fig. 4, is a sectional view of the same taken on line 4—4 of Fig. 2 and Fig. 5, is a side elevation of the same showing the application of felt or other sound deadening material for the strings to rest on.

Similar reference characters refer to similar parts throughout the several views.

In Fig. 1, 6 is the sounding board, 7 is the pin block, 8 are the tuning pins, 9 the strings or wires, 10 the hitch pins, 11 the metal string plate, 12 the bridge and 13 the agraffe forming the subject of my invention.

As clearly shown in Figs. 1 to 4 the agraffe comprises the body portion 14 substantially flat with three parallel raised ridges each of which is provided with three upward extending pins or lugs 15, 16 and 17 respectively, and the two downward extending pins or lugs 18 preferably arranged integral therewith and at opposite ends thereof.

As viewed in Figs. 3 and 4 the pins 15 are inclined slightly to the left, the pins 16 are inclined slightly to the right and the pins, 17 are inclined slightly to the left so as to prevent any tendency of the strings 9 to creep up over the tops of the said pins. The said pins 15, 16 and 17 as clearly seen in Fig. 2 are arranged so that their string engaging sides are staggered to form a slight kink in the string thus giving the string a positive and firm side bearing where it leaves the agraffe and relieving the agraffe from all twisting or side strain so that the strain exerted between the agraffe 13 and the bridge 12 is only one of pressing squarely against the bridge, thus all tendency of injuring the bridge by splitting or otherwise from a constant twisting or side strain is avoided.

While at present I believe the preferred form to be that illustrated and made of a single piece of sheet metal punched and bent into proper form the agraffe may be modified and varied in detail construction without in the least departing from the spirit of the invention.

In assembling the parts the extensions or pins 18 on each agraffe 13 are forced into suitable holes provided therefor in the bridge 12, which fixes the agraffe in

proper position in the instrument. If preferred each agraffe 13 may be secured to the bridge 12 by a single pin or screw.

In Fig. 5, I have illustrated how a piece of felt or wood 19 may be applied to the agraffe for the strings to bear against when it is desired to deaden the metallic ring in the strings.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent of the United States is:—

1. A piano agraffe comprising a horizontally-disposed base plate provided on its upper surface with a row of three alternately staggered side-bearing elements for a string to rest against.

2. A piano agraffe comprising a horizontally-disposed base plate provided on its upper surface with a row of three integral extensions having their lateral bearing surfaces alternately staggered.

3. A piano agraffe comprising a horizontally-disposed base plate provided on its upper surface with three alternately staggered side bearing members for a string to rest against and its under surface provided with a depending fastening extension.

4. A piano agraffe comprising a horizontally-disposed base plate provided on its upper surface with a row of three integral extensions having their lateral bearing surfaces alternately staggered and its under surface provided with two integral fastening pins or extensions.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses this 10th day of September 1910 at Chicago, Illinois.

MARTIN NYSTROM.

Witnesses:

R. J. JACKER,
L. TAXON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."