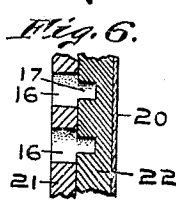
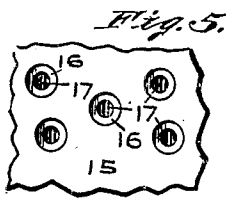
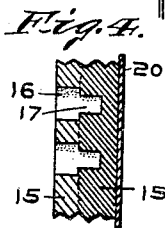
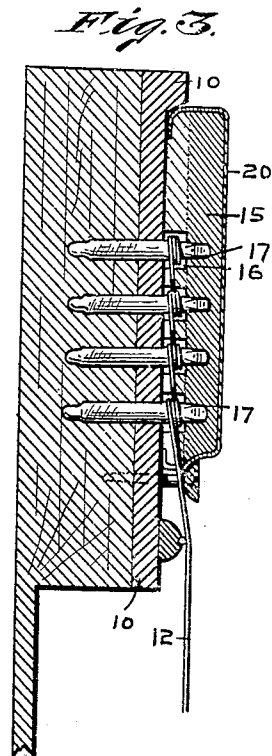
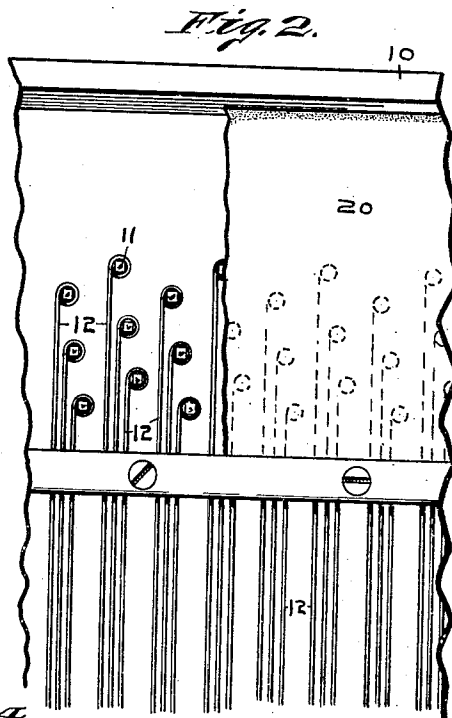
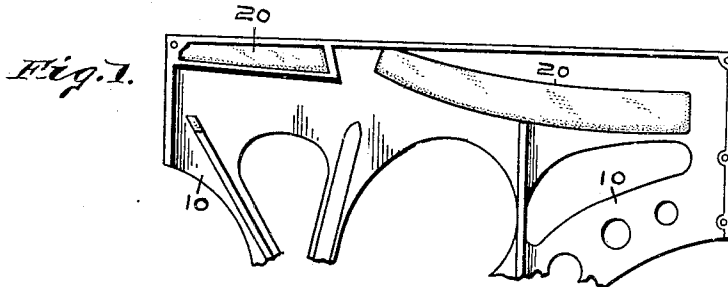


H. J. WEILER.
 PROTECTIVE STRIP FOR PIANO TUNING PINS, STRINGS, &c.
 APPLICATION FILED JAN. 23, 1909.

972,420.

Patented Oct. 11, 1910.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY J. WEILER, OF INDIANAPOLIS, INDIANA.

PROTECTIVE STRIP FOR PIANO TUNING-PINS, STRINGS, &c.

972,420.

Specification of Letters Patent.

Patented Oct. 11, 1910.

Application filed January 23, 1909. Serial No. 473,901.

To all whom it may concern:

Be it known that I, HENRY J. WEILER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Protective Strips for Piano Tuning-Pins, Strings, &c., of which the following is a specification.

This invention relates to protective strips for tuning-pins, strings and wrest-planks for pianos.

The object of the invention is to provide certain means adapted to be placed over the exposed ends of the tuning-pins in pianos, to prevent them from rusting.

A further object of the invention is to provide a fluffy pliable means to cover all of the tuning-pins of a piano, the said strip having depressions to take over the pins so as to permit said strip to be pressed tightly against the face of the wrest plank, for excluding the air from around the exposed ends of the pins and the surface of said wrest plank.

I accomplish the object of the invention by means of the protective strip illustrated in the accompanying drawing, forming a part hereof, in which—

Figure 1 is a fragmentary detail view in side elevation of the upper end of the iron plate upon which the piano-strings are mounted, and showing the protective strip in operation. Fig. 2 is a fragmentary detail view, on an enlarged scale, of the upper portion of the iron plate, showing both the tuning-pins and protective strip in operative position. Fig. 3 is a vertical sectional view of the construction shown in Fig. 2. Fig. 4 is a fragmentary detail sectional view of the protective strip. Fig. 5 is an under-side plan view of the construction shown in Fig. 4. Fig. 6 is a fragmentary detail sectional view of a modified construction of the protective strip.

In the outset of the proposed description, it may be mentioned that considerable trouble has been experienced in the handling of pianos by the rusting of the tuning-pins, and the adjacent strings. This rusting frequently happens in new pianos in a single night, during shipment from the factory; also in the sales rooms, or in the homes, during damp weather. The strings invariably break where they coil around the pins, the strain having a tendency to weaken them and the rust hastens their destruction.

Referring to the drawings, 10 represents the ordinary iron-plate upon which the strings are mounted, and which is old and well known.

11 are the tuning-pins, and 12 the strings.

The protective strip 15 is preferably composed of felt or similar material which is fluffy and pliable so as to fold snugly over the strings and around the pins so as to exclude the air. It may be mentioned that other materials which are pliable and fluffy may be used however, without departing from the spirit of this invention. The strip 15 is provided with the depressions 16 which terminate in the lesser depressions 17. The depressions 16 are sufficiently large to take over the exposed ends of the pins together with the windings of the string 12, and the depressions 17 are sufficiently reduced in diameter to tightly hug the ends of the pins to hold the strip in operating position. The strip 15 is formed of material which varies in degree of density. The less dense portion of the strip is most fluffy and is placed next to the pin and strings so as to exclude air from them. The outer portion of the strip 15 is more dense, making the material more firm so that a firmer hold on the ends of the pins is secured for retaining the strip in operating position. To prevent the strip from absorbing moisture, the exposed surface thereof may be covered with suitable rubber or leather cloth 20, the latter also adding to the appearance of the strip and also providing space upon which advertising matter may be placed.

Fig. 6 illustrates a modified construction of the strip 15 which is built up of a plurality of layers or parts 21 and 22, in which the density of one strip varies from that of the other. These several layers or parts forming the strip are secured together in a suitable manner, and the strip so formed is provided with the usual depressions 16 and 17, as previously described. The strip is also provided with the cover 20, if desired.

Having thus fully described my said invention, what I desire to secure by Letters Patent, is—

1. A protective strip for tuning-pins and strings, of pianos, consisting of a strip of fluffy pliable material, said strip having a plurality of depressions arranged to register with said tuning-pins, the diameters of said depressions being less than the diameters

of the tuning-pins, to permit said strip to snugly fit all of the exposed portions of the tuning-pins.

2. A protective strip for tuning-pins and strings, of pianos, consisting of a strip of fluffy pliable material, said strip having a plurality of depressions arranged to register with said tuning-pins, the diameters of said depressions being less than the diameters of the tuning-pins, to permit said strip to snugly fit all of the exposed portions of the tuning-pins, and a cover on the outside of said strip opposite that side of the strip containing the depressions.

3. A protective strip for tuning-pins and strings, of pianos, consisting of a strip of fluffy pliable material, of different degrees of density in cross section, and provided with depressions on the side of less density adapted to receive the projecting ends of the tuning-pins.

4. A protective strip for tuning-pins and strings, of pianos, consisting of a strip of fluffy flexible material, of different degrees of density in cross section, and provided with depressions on the side of less density adapted to receive the projecting ends of the tuning-pins, and a cover on the outside of said strip opposite that side of the strip having the depressions.

5. A protective strip for tuning-pins and strings, of pianos, a plurality of layers of fluffy material of different degrees of density compressing said strip, said strip having depressions in its less dense surface to per-

mit said strip to snugly engage the exposed surfaces of the tuning-pins.

6. A protective strip for tuning-pins and strings, of pianos, consisting of a strip formed of a plurality of layers of pliable material of different degrees of density, the less dense layers forming one side of the strip, said strip, in its less dense side, containing a plurality of depressions the diameters of which are less than the diameters of the tuning-pins, to permit said strip to snugly hug the exposed portions of the tuning-pins.

7. A protective strip for tuning-pins and strings, of pianos, consisting of a strip formed of a plurality of layers of pliable material of different degrees of density, the less dense layers forming one side of the strip, said strip, in its less dense side, containing a plurality of depressions the diameters of which are less than the diameters of the tuning-pins, to permit said strip to snugly hug the exposed portions of the tuning-pins, and a cover on the side of the strip opposite that side of the strip containing the depressions.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this 16th day of January, A. D. one thousand nine hundred and nine.

HENRY J. WEILER. [L. s.]

Witnesses:

F. W. WOERNER,
L. B. WOERNER.