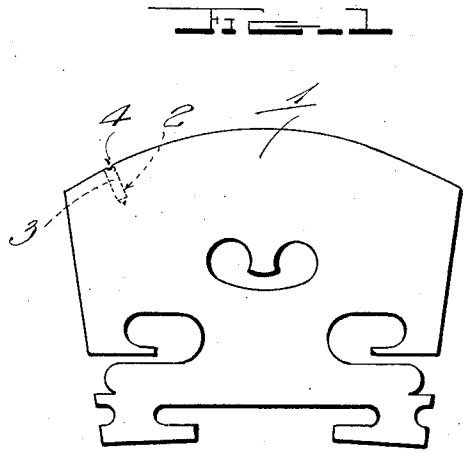
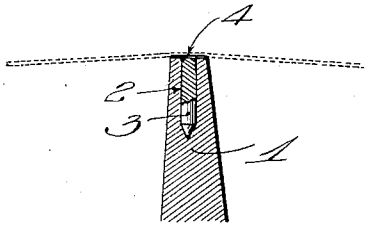
B. J. CHAMPAGNE.

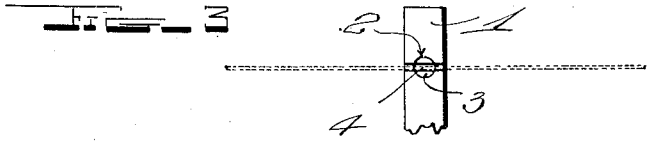
VIOLIN BRIDGE.

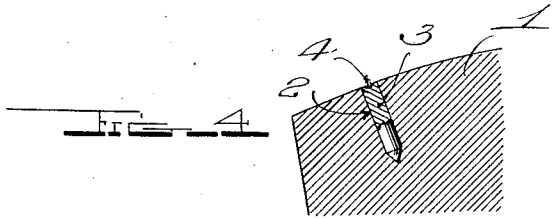
APPLICATION FILED MAR. 22, 1920.

1,362,847. Patented Dec. 21, 1920.









Inventor

Benjamin J. Champagne

By H. B. Williamson & Co

Attorneys

UNITED STATES PATENT OFFICE.

BENJAMIN JOSEPH CHAMPAGNE, OF CONCORD, NEW HAMPSHIRE.

VIOLIN-BRIDGE.

1,362,847. Specification of Letters Patent. Patented Dec. 21, 1920.

Application filed March 22, 1920. Serial No. 367,968.

To all whom it may concern:

Be it known that I, BENJAMIN J. CHAMPAGNE, a citizen of the United States, residing at Concord, in the county of Merrimack and State of New Hampshire, have invented certain new and useful Improvements in Violin-Bridges; and I do declare the following to be a full clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved violin bridge.

Violin bridges in use at the present time are, in the greatest majority of cases, made of wood which is, without a doubt, the best material obtainable for the purpose. However, there is one very bad feature about wood bridges, because when steel strings are used with them, it is found that the material is too soft to afford a proper bearing for these types of springs. It might be well to mention here that the steel "E" string, which is the first string, is preferred by many violinists against any other at the present time, and the poorly made gut and silk "E" strings are becoming less popular every day. The sudden demand for steel strings is due to the fact that there is in use today a small tuning attachment which is applied to the tail-piece, which attachment enables a violinist to accurately tune a steel string which has heretofore been impossible. In view of the fact that a steel string lasts a great deal longer than any other string, and can now be tuned perfectly, the demand for its use is increasing daily, but when used with a wood bridge disadvantages and difficulties arise because of the fact that this type of string saws itself too far down into the bridge, and when placed under tension, its tone is impaired and unbearable. In other words, the tone sounds as though a mute were in use.

To overcome the above set forth disadvantages, I have devised a bridge which has means incorporated therewith to provide a solid and proper bearing for a steel string which will prevent the same from embedding itself into the bridge.

In the accompanying drawing forming a part of this specification and in which like numerals are employed to designate like parts throughout the same:

Figure 1 is an elevation of a violin bridge constructed in accordance with my invention.

Fig. 2 is an enlarged vertical sectional view of the upper portion of the bridge.

Fig. 3 is a top plan view of the end of the bridge embodying my improvement.

Fig. 4 is an enlarged sectional longitudinal view.

In the drawings I have shown a wood violin bridge of the usual construction which I here designate with the numeral 1. Under ordinary circumstances this bridge is provided across its top with notches for the reception of the various strings. As before stated, when a wire or steel string is used, especially the E or first string, it embeds itself too far down into the wood to render the best tone. My improved bridge overcomes this disadvantage, and has to do with the portion of the bridge that forms the support for the E string only, because there are, as a rule, no other steel strings used on a violin.

In carrying out my invention I bore a small hole 2 down through the upper curved edge of the bridge toward the center, and in this hole I place a plug or pin 3 made of suitable hard material. The depth of the bore and length of the pin is such that when the latter is placed in position, its outer end is flush with the curved upper edge of the bridge so that it may be transversely notched as at 4 to provide a seat for the E string. This is the way that I prefer to carry my invention into effect. However, I desire it to be understood that this bearing for the string may be formed in various other ways. With a solid bearing such as I employ, the tone of the string will be materially increased. In fact, I have found from experience that the tone is a great deal more brilliant than when no bearing is used. I have also found that when an E string embeds itself into the wood bridge its tone becomes so muted that it is unbearable to the trained ear of a real musician. Consequently, it will be seen that the bridge constructed in accordance with my invention will be extremely useful, and will not only save the bridge and prolong its life, but will likewise prolong the life of the string which when embedded too far in a bridge is oftentimes broken under the strain of the bow which tends to draw it laterally with respect to its length.

I also desire it to be understood that if desired, the pin 3 may have its inner end pointed so as to embed itself into the lower end of the bore and thus retain itself in position without the use of glue or any other fastening means. While I have shown this pin as being cylindrical in shape, I desire to be understood that it may be any other shape.

A bridge constructed in accordance with my invention will, without a doubt, increase the tone of steel strings and will afford the proper bearing therefor. The writer, being familiar with such devices and having used a bridge of similar construction for the past six months can vouch that a bridge of this construction is entirely satisfactory and accomplishes new and unexpected results. Not only will the life of the bridge itself be greatly increased, and the tone of steel strings more brilliant, but the life of the string itself will be more than doubled. Consequently the use of a bridge of this construction will save the user the expense of buying so many strings and bridges, which ordinarily do not last long.

It is believed, that the foregoing description taken in conjunction with the accompanying drawing will enable persons familiar with such devices to obtain a thorough understanding of the advantages of a bridge constructed in accordance with my invention. In view of this, it is believed that further description is unnecessary.

It is to be understood, however, that the form of my invention herein shown and described is to be taken as the preferred form thereof, and that various minor changes in the shape, size and arrangement of the bearing may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

I claim:

A violin bridge composed of wood, having a vertical hole bored therein from its top toward the bottom, a pin of hard material inserted and secured in the hole, the outer end of the pin being flush with the curved upper edge of the bridge and having a transverse notch formed therein, thus providing a solid bearing for a wire string.

In testimony whereof I have hereunto set my hand.

BENJAMIN JOSEPH CHAMPAGNE.