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PIANO PEDAL AND PROCESS OF MAKING THE SAME.

APPLICATION FILED AUG. 10, 1907.

923,036. Patented May 25, 1909.

Fig. 1.

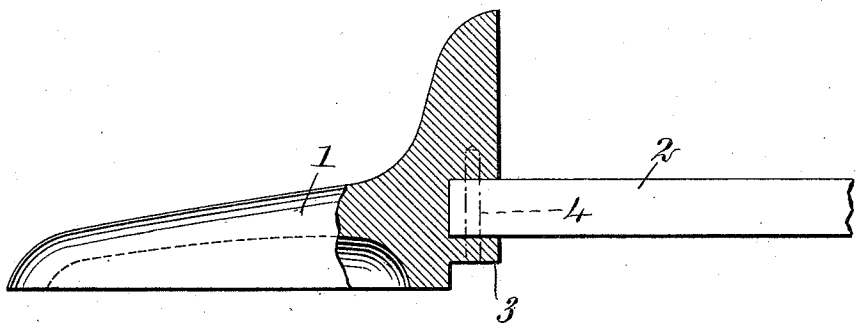


Fig. 2.

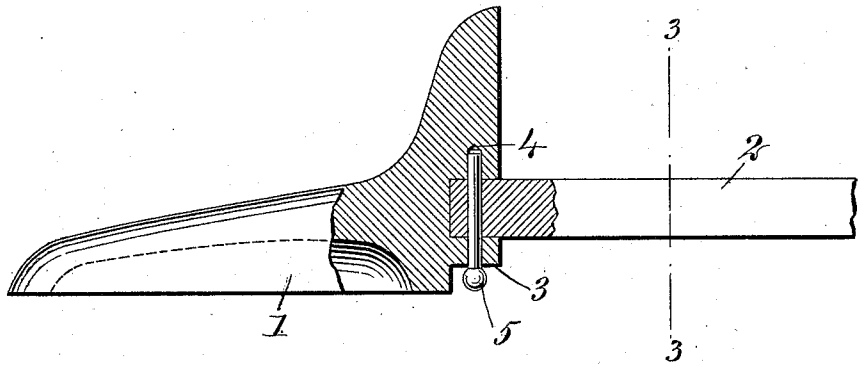
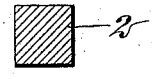


Fig. 3.



WITNESSES

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PIANO-PEDAL AND PROCESS OF MAKING THE SAME.

No. 923,036. Specification of Letters Patent. Patented May 25, 1909.

Application filed August 10, 1907. Serial No. 388,023.

To all whom it may concern:

Be it known that I, ALBERT L. EBBELS, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Piano-Pedal and Process of Making the Same, of which the following is a full, clear, and exact description.

This invention relates to pedals for pianos, organs and similar instruments.

The object of the invention is to produce an improved process for attaching the toe of the pedal to a rod, the general purpose being to decrease the cost of manufacture and to increase the rigidity and strength of the complete, finished article.

The invention consists in the process and in the construction and arrangement of parts, to be more fully described hereinafter and particularly set forth in the claims.

Figure 1 is a side elevation of the pedal, showing the parts in the first stage of the process of manufacture, a portion of the pedal being broken away and in section; Fig. 2 is a view similar to Fig. 1 but representing the finished pedal, and Fig. 3 is a cross section through the back of the pedal, taken on the line 3—3 of Fig. 2.

Referring more particularly to the parts, 1 represents the toe of the pedal. In practicing the invention, a back-rod 2 is set in the wall of the mold in which the pedal-toe 1 is cast. In this way, when the pedal-toe hardens it becomes integral with the back-rod, the end of the rod being embedded in the body of the pedal-toe, as shown in Fig. 1. The toe of the pedal is formed of brass while the rod 2 is of steel, iron or similar material. The mold for the toe pedal is constructed so that a projecting shoulder 3 is formed on its under side, near its point of connection with the back rod. After the pedal is removed from the mold I form an opening 4 in the toe and through the embedded portion of the rod, by drilling upwardly through the shoulder 3, as indicated in Fig. 2. I then insert a pin 5 and drive this pin tight.

I prefer to use a rod of iron or steel, of rectangular or square form, as indicated in Fig. 3. This angular form tends to prevent any tendency of the pedal-toe to rock upon the axis of the rod.

A pedal constructed as described is far superior in strength and durability to the pedals having a rod of brass cast integral with the toe, for brass is too weak to stand the strains to which the rod is subjected. The pedal described has the necessary strength and the usual ornamental appearance where it is in sight. In order to insure that the cast will draw close up to the embedded rod I dip the end of the rod in molten tin just prior to molding.

Attention is called to the fact that when the pedal toe solidifies around the end of the rod, the metal of the pedal toe sets close against the end face of the rod and the metal tends to contract as it hardens, so that a very rigid connection is formed between the parts. This rigidity is increased, however, by the pin 5, which is driven in position and prevents any tendency of the toe to slide off of the end of the rod, and permanently secures it.

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

1. The process of making a piano-pedal, which consists in casting the toe of a pedal with the end of the rod thereof embedded therein, and attaching the embedded portion of the rod to the pedal-toe by a fastening device after casting.

2. The process of making a piano-pedal, which consists in casting the toe of the pedal with the end of the rod embedded therein, drilling through the pedal and the embedded portion of the rod, and driving a pin into the opening formed by the drill.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT L. EBBELS.

Witnesses:

EVERARD B. MARSHALL,

F. D. AMMEN.