

UNITED STATES PATENT OFFICE.

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BRIDLE FOR PIANO-ACTIONS.

SPECIFICATION forming part of Letters Patent No. 737,961, dated September 1, 1903.

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To all whom it may concern:

Be it known that I, JAMES F. RAMSEY, a citizen of the United States, residing at Dover, in the county of Strafford and State of New Hampshire, have invented certain new and useful Improvements in Bridles for Piano-Actions; and I do hereby 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.

My invention relates to improvements in piano-actions, and has for its object to provide improved means for connecting up the bridle with its respective parts and to prevent the back-catch from turning upon its rod.

It is well known that the bridle in a piano-action should be so joined to its respective parts that it may be readily disconnected. This has heretofore been generally accomplished by permanently securing one end of the bridle to the hammer-butt and providing the opposite end with a piece of leather, which is usually glued thereto and which is provided with a hole to adapt it to be slipped upon a pin or wire. The glue would soon cause the leather to harden, and then as this leather tip was loosely joined to the wire or pin it would cause a rattle when the piano was in use.

Another defect in the piano-actions now in use is that the head of the back-catch is likely to be caused to turn out of its proper alinement by the action of the elements.

My invention is designed to overcome these well-known objections to the present piano-actions, and consists, broadly, in providing one end of the bridle with a metallic or like tip, which is inserted within a hole in its corresponding part and held therein by a set-screw, and flattening the end of the rod inserted within the head of the back-catch.

In the accompanying drawings, illustrating the preferred embodiment of my invention, and in which like letters of reference denote corresponding parts, Figure 1 is an elevation of a portion of a piano-action embodying my improvement. Fig. 2 is a sectional view showing in detail my improved connection of the bridle, and Fig. 3 is a detail view of the rod for supporting the head of the back-catch.

Referring more particularly to the draw-

ings by letters of reference, 1 is a hammer having the hammer-butt 2, to which is preferably permanently secured a bridle 3 in the usual manner. The opposite or free end of the bridle has preferably a metallic tip 3^a, which is inserted within a hole 4, preferably provided in the back-catch 4^a. The head of said back-catch is supported upon the end of a rod 4^b, having a flattened end 4^c, which enters said head of the back-catch to prevent it from turning. This flattened end is provided with a screw-threaded hole 4^d, which is opposite a hole 4^e, which communicates with the hole 4 in the head of the back-catch. A set-screw 5 is preferably inserted in said screw-threaded hole 4^d and is adapted to engage said metallic tip 3^a of the bridle to firmly connect it to the back-catch.

The bridle when connected up as herein described will not cause a rattle as when connected by the means heretofore generally employed and may be readily disconnected in order that the parts will be free from one another; also, the head of the back-catch will be firmly held in position and not be likely to be turned out of alinement by the action of the elements. It is obvious that the same result may be obtained by permanently securing the bridle to the back-catch and providing the clutch for free end in the hammer-butt; also, that the bridle need not be connected to the exact parts herein shown and described to accomplish the desired object of my invention. I therefore reserve the right to make such changes and alterations as fairly fall within the scope of my invention.

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

1. In a piano-action, the combination of a hammer, a bridle connected to said hammer and having a metallic tip at its free end, a back-catch supported upon a rod attached to the piano-action, said back-catch having recesses or openings to receive said metallic tip and one end of said rod, and a common means of fastening for said rod and tip.

2. In a piano-action, the combination of a hammer, a bridle connected thereto and having a metallic tip at one end, a back-catch having an opening for the reception of said tip, a rod secured to the piano-action and

adapted to enter a second opening in said back-catch, said back-catch having an opening or recess intercepting the aforesaid openings, receiving a common means for fastening said tip and said rod in said back-catch.

3. In a piano-action, the combination of a hammer, a bridle connected to said hammer and having a metallic tip at one end, a back-catch having openings in its lower end, one of said openings adapted to receive said tip, and a rod secured to the piano-action and engaging the other of said openings of said back-catch, said rod having a transverse opening therethrough, near one end, and said back-catch having an opening intercepting the aforesaid openings of said back-catch, and an adjusting-screw entering the last-named opening, the opening of said rod, and engaging said tip.

4. In a piano-action, the combination of a hammer, a rod having a flattened end provided with a screw-threaded hole, a back-catch supported upon said flattened end and provided with a hole or recess, a bridle at one

end permanently secured to said hammer, and a set-screw inserted in said screw-threaded hole and adapted to secure the free end of said bridle.

5. In a piano-action, the combination of a hammer, a bridle connected to said hammer and having a metallic tip at one end, a back-catch having openings or recesses in its lower end, one receiving said tip, a rod secured to the piano-action and having a flattened upper end provided with a screw-threaded opening, said flattened end engaging the other of the openings of said back-catch, and a screw-fastening entering an opening in said back-catch intercepting the aforesaid openings of said back-catch and engaging the screw-threaded opening of said rod and said tip.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES F. RAMSEY.

Witnesses:

JAMES E. LOTHROP,
HAROLD L. LOTHROP.