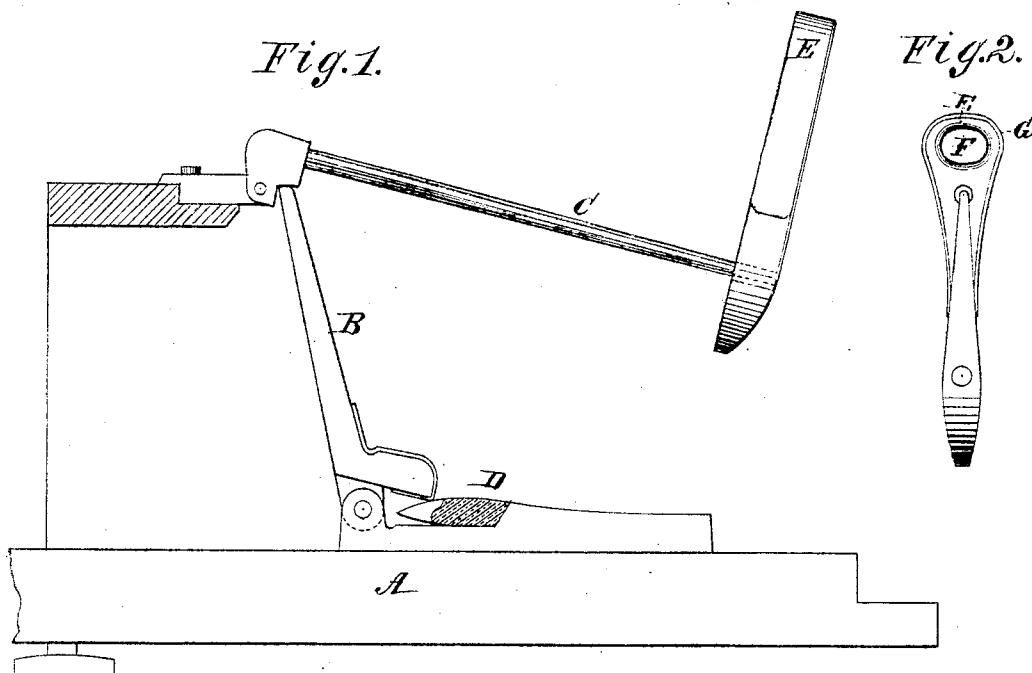


J. SHAUDELE.

Pianoforte Actions.

No. 134,940.

Patented Jan. 14, 1873.



Witnesses:
A. Mathys
A. M. Danner

Inventor:
John Shaudelle
PER *Wm. B.*
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN SHAUDELLE, OF HUNTSVILLE, ALABAMA.

IMPROVEMENT IN PIANO-FORTE ACTIONS.

Specification forming part of Letters Patent No. **134,940**, dated January 14, 1873.

To all whom it may concern:

Be it known that I, JOHN SHAUDELLE, of Huntsville, in the county of Madison and State of Alabama, have invented a new and useful Improvement in Piano-Forte Actions, of which the following is a specification:

This invention has for its object to produce a piano-forte hammer-head which shall present a thin and elastic surface to the string and retain its original elasticity after long and constant use; and the invention consists in the construction of the hammer-head of India rubber provided with an opening near its tip or striking-surface, as will be hereinafter more fully described.

In the drawing, Figure 1 is a side elevation of the action, and Fig. 2 is a detail view of the hammer.

A represents the key; B, the jack; and C, the hammer, about the relative arrangement of which parts there is nothing new. D represents a tapering India-rubber block-spring, attached to the key and bearing against the under side of the heel portion of the jack B, for causing the upper end or point of the latter to be always maintained in contact with the butt portion of the hammer. E represents the hammer-head, which is formed of India rubber, applied to the body of the hammer in any suitable manner, and provided with a transverse opening or passage, F, near its tip, as shown. The India-rubber head is preferably

covered with a single layer of felt or leather, G; but the same may be dispensed with when desired.

The advantages derived by the use of a hammer constructed as above described are as follows, viz: The same does not become indurated and hard by use, as the elasticity of the rubber is always maintained. The opening near the tip of the hammer-head presenting a thin and elastic surface to the string, the hammer retains its original elasticity after long and constant use. A uniformity of tone from the piano, which varies when the ordinary felt hammer is employed after the same has grown hard from continuous action on the strings. The strings of the piano are saved from wear and tear, by reason of the perpetual softness of the hammer-head. There is economy in both hammers and strings, as the latter are not worn out, and there is no necessity for a new hammer to develop a soft, gentle tone.

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

An India-rubber hammer head for pianos, provided with an opening near its tip or striking-surface, as described.

JOHN SHAUDELLE.

Attest:

J. R. SLAUGHTER,
R. D. WILSON.