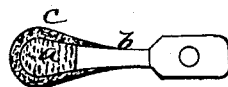
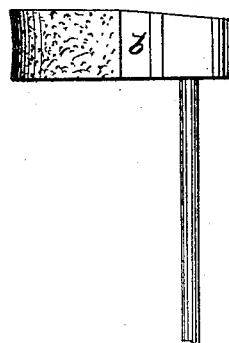


*E. Forbes,*  
*Piano Action,*  
*Nº 1,971,      Patented Feb. 10, 1841.*

*Fig. 1.*



*Fig. 2.*



# UNITED STATES PATENT OFFICE.

EDWIN FOBES, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO TIMOTHY GILBERT.

## MANNER OF CONSTRUCTING THE HAMMER-HEADS USED IN PIANOFORTES.

Specification of Letters Patent No. 1,971, dated February 10, 1841.

*To all whom it may concern:*

Be it known that I, EDWIN FOBES, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Hammer-Heads of Pianofortes, and that the following is a full and exact description of the same.

The said description taken in connection with the accompanying drawings herein-after referred to composes my specification, setting forth and exhibiting the principles of construction of my improvement, (by which it may be distinguished from other inventions of a like character), and such parts or combinations therein as I claim and for which I solicit an exclusive property to be secured to my assignee Timothy Gilbert of Boston in the State of Massachusetts.

My invention or improvement consists in constructing the upper portion of the hammer head of cork, over which the soft buff leather is to be stretched and glued in the usual manner forming the striking part of the hammer.

Figure 1, of the drawing exhibits an end view, and Fig. 2 a side elevation of a hammer head formed on my improved plan.

The cork *a*, is therein represented as resting on, and glued or otherwise properly confined to the body *b* of the head. The cork is intended to supply the place of the under strips or layers of leather generally applied to the top of the hammer and constituting the body, over which the outer layer of thick buff leather is stretched and glued. In the drawings this latter is denoted at *c*, passing over the cork and a sufficient distance down each of the sides of the wooden part *b* of the hammer as shown in Fig. 1. The cork *a*, is to be shaped as seen in the end elevation or it may be slightly varied according to taste and fancy or as

circumstances require. The great advantage resulting from this peculiar construction of the hammer head is very perceptible in the loud and soft tones. In a gentle stroke of the hammer on the string, the stiffness of the cork renders the sound, produced therefrom, both clearer and sharper, than the entire leather head, while in the heavier blows, the elasticity of the cork is not only fully sufficient to bring forth the requisite sound, but prevents in a very great degree the harshness of tone often perceptible in piano fortes with hammers of the old construction. Another and material advantage consists in the simplicity of the parts and consequent saving in the labor and expense of manufacturing the same.

I claim—

Forming the top of the hammer heads of piano fortes of cork, over which the soft buff leather, or striking part of the head is to be stretched and confined in the usual manner; the whole being arranged substantially as herein above described and shown in the drawings.

In testimony that the within description, in connection with the accompanying drawing, therein referred to, forms a true and correct specification of my improvement in the hammer heads of piano fortes setting forth its principles of construction and operation, in such full, clear and exact terms, as to enable any person skilled in the art or science to which it appertains, to make, construct and use the same, I have hereunto subscribed my name, in presence of two witnesses, on the eighteenth day of December in the year eighteen hundred and forty.

EDWIN FOBES.

Witnesses:

R. H. EDDY,

EZRA LINCOLN, Jr.