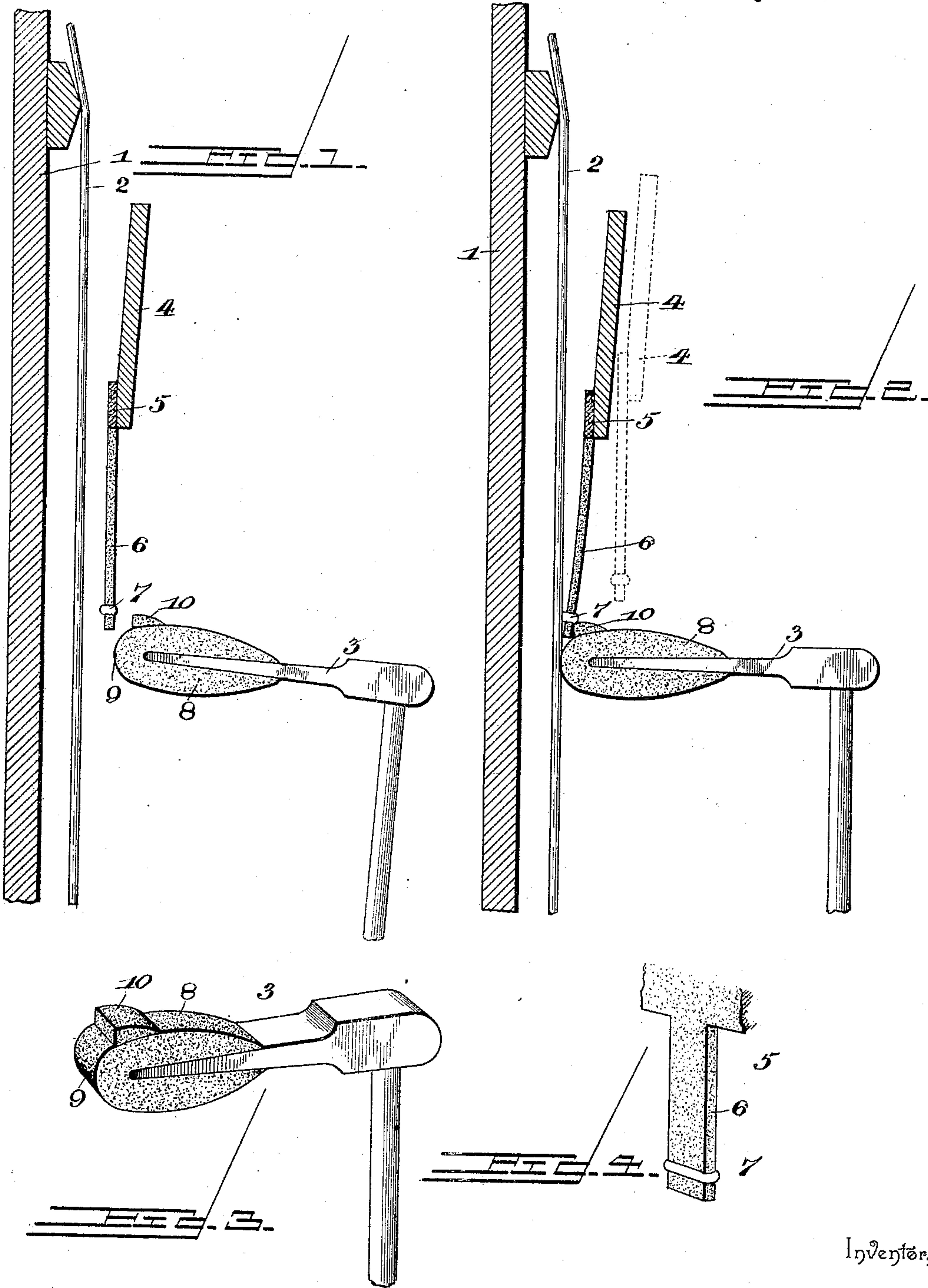


(No Model.)

F. K. NATECZ.
PIANO ATTACHMENT.

No. 543,538..

Patented July 30, 1895.



Inventor,

Witnesses

Wm. H. Doyle
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By *his* Attorneys.

Felix K. Natecz,

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UNITED STATES PATENT OFFICE.

FELIX K. NATECZ, OF BROOKLYN, NEW YORK.

PIANO ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 543,538, dated July 30, 1895.

Application filed May 23, 1895. Serial No. 550,398. (No model.)

To all whom it may concern:

Be it known that I, FELIX K. NATECZ, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Piano Attachment, of which the following is a specification.

My invention relates to an improvement in piano-actions; and the object in view is to provide simple and improved means for adding brilliancy to the tone of a piano without eliminating the usual character of tone produced by the impact of a clothed hammer upon the string, the brilliancy being imparted to the tone by the addition of means for producing a metallic sound adapted to combine with and thereby modify the usual tone; and, furthermore, to provide means whereby the metallic quality of the tone may be eliminated when the ordinary piano tone is desired.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a vertical section of a piano-action provided with an attachment embodying my invention, the parts being shown in the positions which they occupy prior to striking a key. Fig. 2 is a similar view showing the relative positions of the parts as a hammer strikes the string. Fig. 3 is a detail view in perspective of a hammer-head constructed in accordance with the invention. Fig. 4 is a detail view of one of the flexible tongues forming the auxiliary strikers.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the drawings I have shown the device embodying my invention applied to the action of an upright piano, and referring thereto 1 represents the frame, 2 a string, and 3 a hammer-head, which may be provided with any ordinary or preferred operating devices. Arranged parallel with the plane of the strings is an adjustable or shifting bar 4, carrying a series of auxiliary strikers 5, which in this case consist of flexible tongues 6, having metallic heads 7. These metallic heads consist of split rings or loops which embrace the

tongues near their lower extremities and are secured thereto by pinching the sides of the loop, and in practice these heads are preferably made of wire.

The hammer-head 3 is provided with the usual clothing 8 to strike the string, and projecting laterally from this head and set back slightly from the plane of the impact-point 9 thereof is an ear or projection 10. The extremity of the flexible tongue, beyond the metallic head 7 of the auxiliary striker, is adapted to be arranged in the path of this ear or projection 10 when the shifting-bar 4 is lowered, as indicated in full lines in Figs. 1 and 2, whereby when the hammer is operated its impact-point 9 strikes the string and the ear or projection 10 forces the head of the auxiliary striker against the string simultaneously. This produces a combination of a metallic ring with the ordinary tone produced by a clothed hammer striking a string, and the result is an accession of brilliancy and a modification of the character of the tone without eliminating the resonance and body inherent in the usual tone.

Any suitable means not shown in the drawings may be employed for operating the shifting-bar to arrange the tongues in the path of the ears or projections of the hammers or remove the same out of the path thereof, in order that the ordinary piano-tone or the tone produced by the contact of a padded hammer with a string may be attained.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. In a piano, the combination with strings and hammers, of a series of auxiliary strikers, and ears or projections carried by the hammers and adapted to engage said auxiliary strikers, respectively, and bring them in contact with the strings simultaneously with the hammers, substantially as specified.

2. In a piano, the combination with strings and hammers, of auxiliary strikers having metallic heads, and ears or projections on the hammers to engage said strikers and bring them in contact with the strings simultane-

ously with the hammers, substantially as specified.

3. In a piano, the combination with strings and hammers, of auxiliary strikers having
5 flexible tongues and heads adapted to strike the strings, and lateral ears or projections carried by the hammers and set back from the planes of the impact points thereof, said
ears or projections being adapted to engage
10 the tongues and force the heads of the aux-

iliary strikers in contact with the strings simultaneously with the hammers, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 15 the presence of two witnesses.

FELIX K. NATECZ.

Witnesses:

JOSEPH E. SEGRELL,
E. B. WOOD.