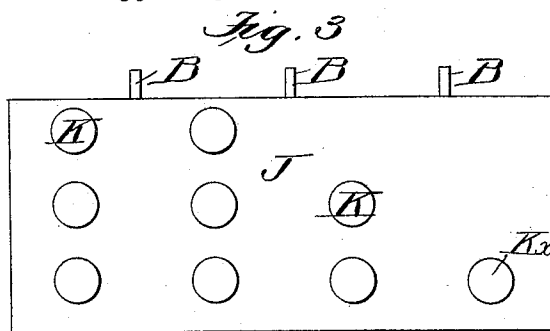
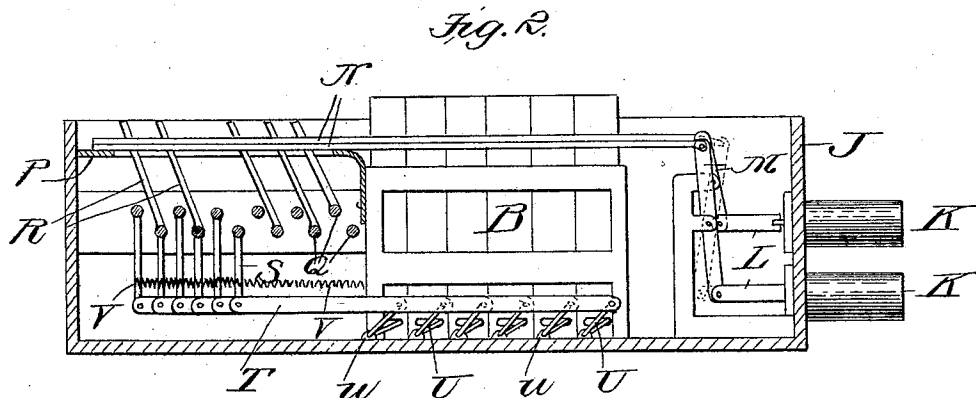
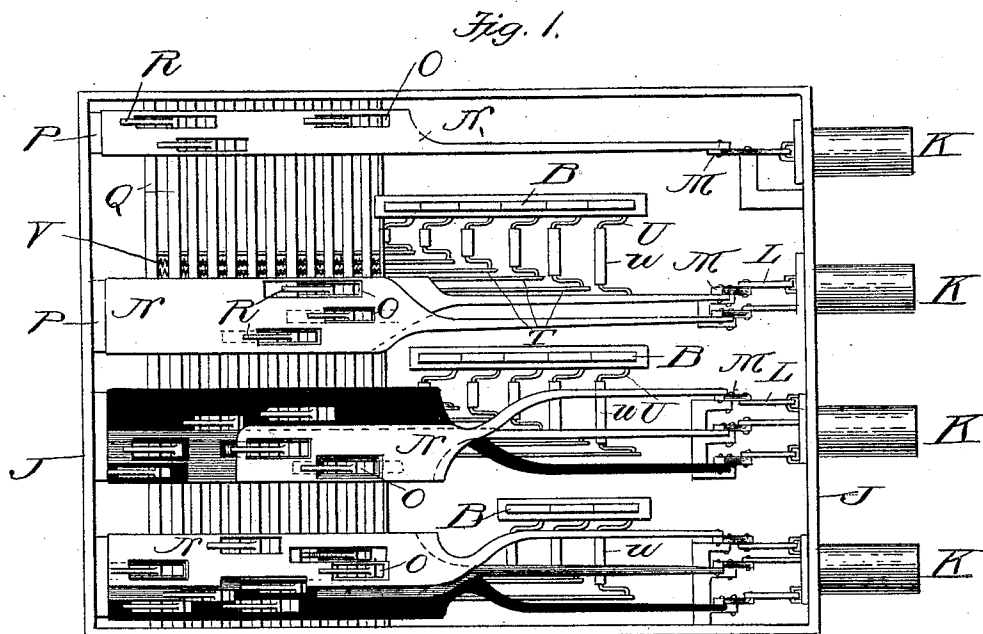


A. PIETSCH.

ATTACHMENT FOR STRINGED INSTRUMENTS.

No. 523,373.

Patented July 24, 1894.



Witnesses
J. H. Cornwall
Hugh N. Wagner.

Inventor
Albert Pietsch
By Paul Bakewell
his atty.

(No Model.)

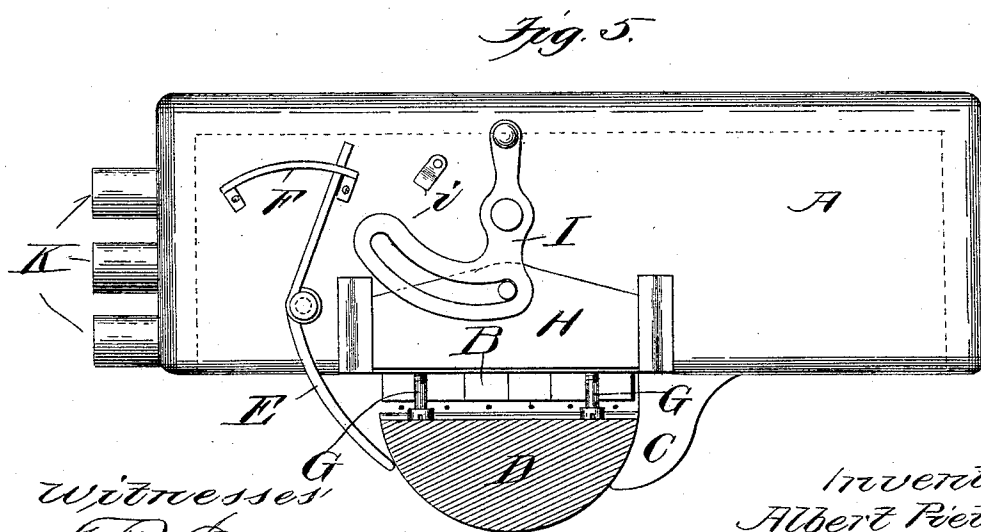
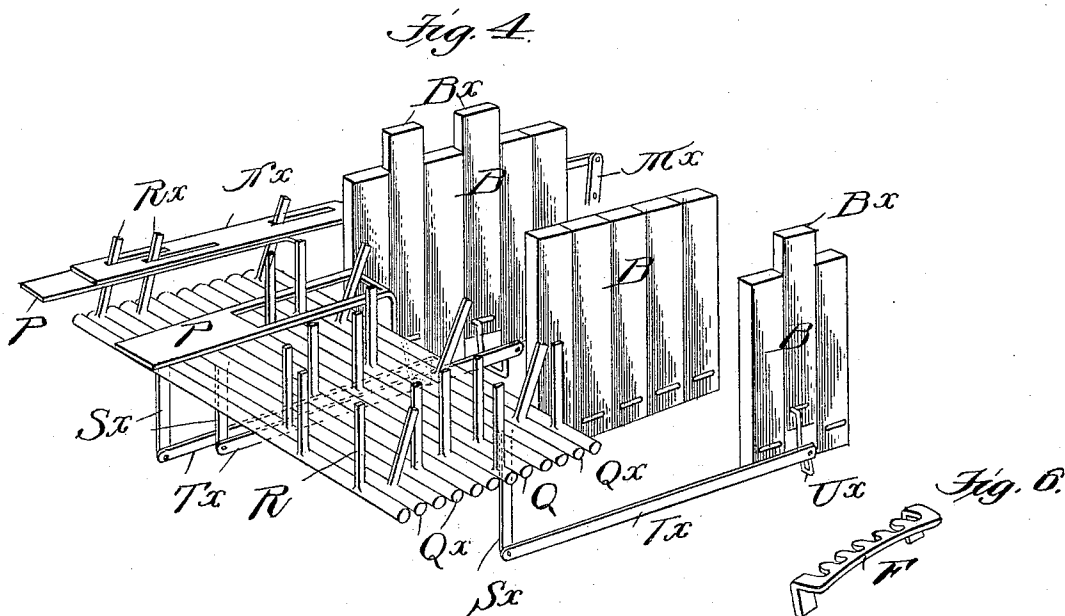
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

ALBERT PIETSCH, OF ST. LOUIS, MISSOURI.

ATTACHMENT FOR STRINGED INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 523,373, dated July 24, 1894.

Application filed April 12, 1894. Serial No. 507,227. (No model.)

To all whom it may concern:

Be it known that I, ALBERT PIETSCH, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Attachments for Stringed Instruments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, wherein—

Figure 1 is a plan-view of my improved attachment, inverted. Fig. 2 is a sectional view thereof, the attachment being inverted. Fig. 3 is an end view showing the positions of the operating buttons. Fig. 4 is a schematic view, illustrating the operation of the parts when one of the buttons is operated. Fig. 5 is a cross-sectional view through the neck of a stringed instrument, looking toward the body portion, showing my improved attachment applied thereto, and means for the securing the same to the neck of the instrument, and Fig. 6 is a detail view of the toothed rack for holding the retaining clamp in an operative position.

My invention relates to a new and useful improvement in attachments for stringed instruments, and consists, generally stated, in mounting within a suitable casing, from which project push-buttons, rock-shafts which are provided with rock-arms, with which arms co-operate slide plates, said slide-plates being operated by the push-buttons; and in providing suitable mechanism between the rock shafts, and banks of keys, which are located in different frets, whereby, upon the operation of any one of the push-buttons, one or more rock-shafts will be actuated to operate one or more strings in one or more frets.

Other minor features of invention reside in the peculiar construction, arrangement, and combination of the several parts, all as will hereinafter be more fully described and afterward pointed out in the claims.

In the drawings, referring to Fig. 5, A indicates the casing, which is preferably open at its bottom, for the passage of suitable tablets or keys B, which are arranged in banks and are so located, relative to the frets on the neck of the instrument, that, when the same are operated, they are depressed to co-operate with a string therebeneath and tone the same to that fret, in front of which said tablets or

keys may be located. Projecting downwardly, from the casing, is a suitable lug C, which is adapted to rest against the neck D of the instrument, while located on the opposite side of said neck and adapted to contact therewith is a clamping device E, which is pivoted on the casing, its upper member being adapted to engage a segmental rack F, by which the tension of the lower member against the neck D may be regulated.

G indicates adjustable stops mounted upon the under side of the casing, which rests upon the face of the neck, and are adapted to regulate the position of the keys B relative to the strings.

Mounted in suitable guides, arranged on the side of the casing nearest the head of the instrument, is a capo tasto H, which is adapted to be forced down by a slot and pin connection with an operating handle I mounted upon the casing, to make different keys. Suitable stop is arranged in the path of the operating handle, through the medium of which said handle is prevented from returning or becoming loosened after the capo tasto is in operative position with the strings.

Within the casing A, is arranged, preferably, a metallic casing or lining J, upon which the several parts of my device are mounted. Projecting through this casing J, and casing A, are buttons K, to the inner ends of which are connected links L for operating levers M. Attached to the upper ends of these levers M, are slide-plates N, whose free ends are slotted, as at O, said slotted ends resting upon a suitable skeleton support P. Mounted within the casing J, beneath the slotted ends of the slide-plates N, are rock-shafts Q, from the upper sides of which project fingers R, which pass through the skeleton supports P and through the slots O in the slide-plates N. Projecting from the lower sides of these rock-shafts Q, are rock-arms or fingers S, to the free ends of which are connected links T. Upon the movement of one of the buttons, one of the slide-plates N is actuated, and through the medium of the slotted connection therebetween and the fingers R, some of the rock-shafts Q whose fingers R are operated upon by the movement of the slide-plate, as shown in Fig. 4, are rocked, and their depending rock-arms S are actuated to move

the links T, and said links T operate the keys or tablets B through the medium of a double-crank U, mounted in suitable bearing *u*, on the casing J, the opposite end of said crank
5 having a slotted connection with the keys B.

I provide the rock-arms S with suitable springs V, to return the parts to their normal positions after actuation.

Referring to Fig. 4, I have illustrated the
10 position of the parts upon the actuation of one of the buttons K, which I will refer to as button K^x, to indicate its position. Upon the actuation of this button K^x, the slotted slide-plate N^x will be moved so as to operate fin-
15 gers R^x and rock-shafts Q^x, permitting the remaining fingers and rock-shafts to remain undisturbed. By the formation of the slots in advance of the other fingers R, upon the actuation of such other fingers R^x on the
20 same rock-shaft, the other slide-plates N will remain undisturbed. When the parts above referred to are moved as shown in Fig. 4, the rock-arms S^x will, through their link connection with the cranks U^x, operate the keys B^x,
25 as shown. This will cause the keys to contact with the strings of the instrument in the following manner: The fifth string will be depressed in the first fret, and the fourth and second strings in the third fret. Upon the
30 actuation of other buttons K, different chords may be obtained in like manner.

I am aware that many minor changes in the construction, arrangement, and combination of the several parts of my device may be
35 made and substituted for those herein shown and described, without in the least departing from the nature and principle of my invention.

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

1. In an attachment for stringed instruments, the combination with a suitable casing, having a projection C thereon, a yielding
45 clamping device E, adjusting screws G, and a capo tasto comprising the parts H and I, substantially as described.

2. In an attachment for stringed instruments, the combination with a suitable casing, push-buttons mounted therein, and projecting beyond the same, levers which are

adapted to be actuated by said push-button, slide-plates connected to said levers, fingers which have slotted connection with said slide-plates, rock-shafts upon which said fingers
55 are mounted, rock-arms projecting from the opposite side of said shafts, springs attached to said rock-arms, double-crank mounted upon the casing which have a link-connection with said rock-arm, and keys which are op-
60 erated upon the movement of said crank, substantially as described.

3. In an attachment for stringed instruments, the combination with a suitable casing, of push-buttons mounted therein and projecting beyond the same, slotted slide plates
65 which are actuated from the push-buttons, rock shafts which have fingers projecting through the slots in the slide-plates, and keys which are operated from the rock shafts to
70 co-operate with the strings of an instrument, substantially as described.

4. In an attachment for stringed instruments, the combination with banks of keys which are located over the strings in different
75 frets, double cranks for actuating the keys, rock arms, a link connection between the rock arms and double cranks, push buttons, and means for actuating one or more
80 keys in one or more banks upon the operation of an individual push button.

5. In an attachment for stringed instruments, the combination with a suitable casing, of banks of keys which are located over
85 different strings in different frets, push-buttons mounted within and projecting from the casing, rock shafts which have connections with the several keys to operate them individually, and suitable mechanism located between the push-
90 buttons and rock shafts, whereby upon the operation of any one of the push-buttons, one or more rock shafts will be actuated to operate one or more keys, substantially as described.

In testimony whereof I hereunto affix my
95 signature, in presence of two witnesses, this 4th day of April, 1894.

ALBERT PIETSCH.

Witnesses:

F. R. CORNWALL,
HUGH K. WAGNER.