

C. FISCHER.
KEYBOARD FOR PIANOS.
APPLICATION FILED JULY 7, 1910.

1,038,549.

Patented Sept. 17, 1912.

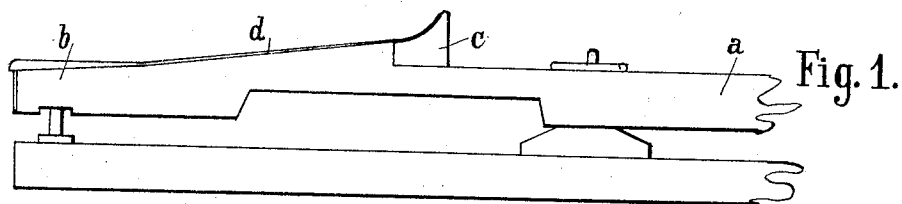


Fig. 1.

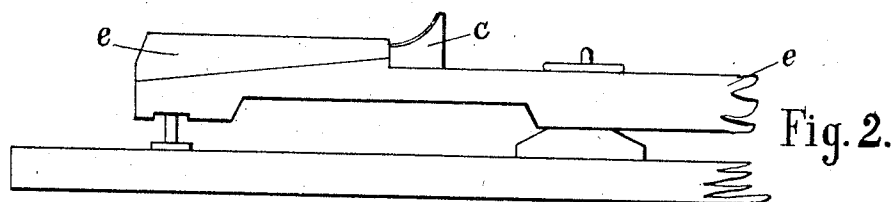


Fig. 2.

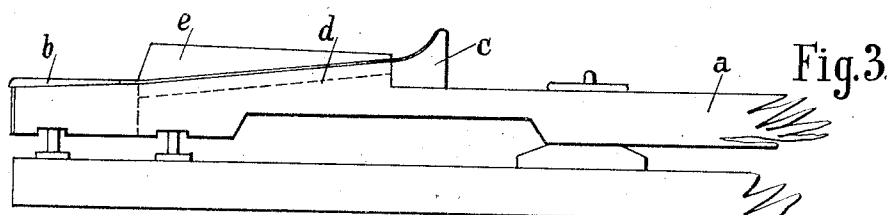


Fig. 3.

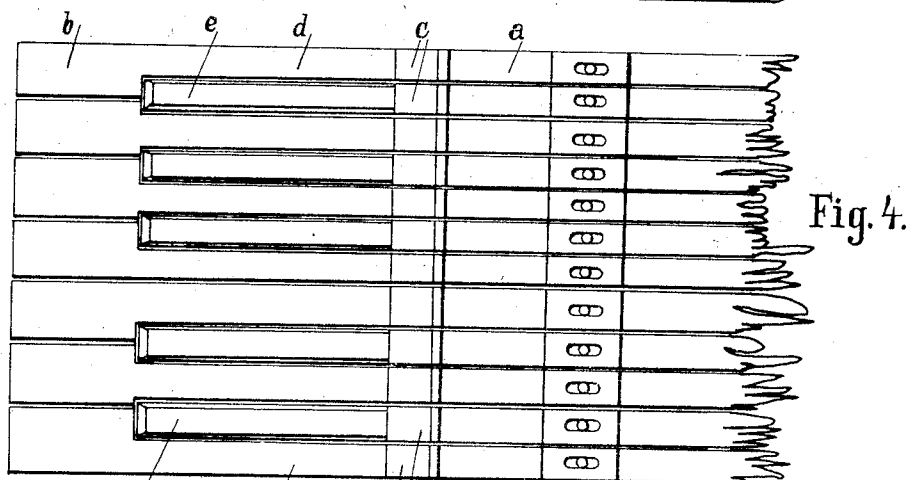


Fig. 4.

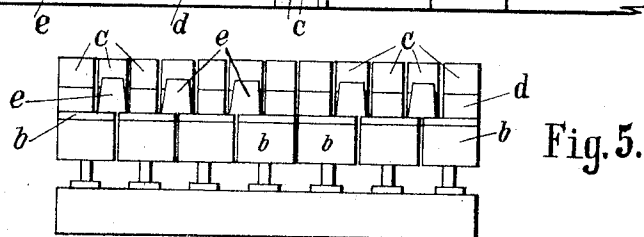


Fig. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

CARL FISCHER, OF BARMEN, GERMANY.

KEYBOARD FOR PIANOS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARL FISCHER, a subject of the King of Prussia, German Emperor, residing at Barmen, Germany, have invented certain new and useful Improvements in Keyboards for Pianos, of which the following is a specification.

This invention relates to the keyboard for key instruments such as pianos, organs, harmoniums and so on in which the white keys are inclined upward toward the black keys. There have already become known keyboards with lower or white keys mounting toward the black keys in a straight unbroken line, but such keyboards suffer from various inconveniences which all result from the fact that the inclined surface of the white key is straight. Owing to the straight line of the lower key the distance between the upper key and the head of the lower key is much greater than at present so that the fingers strike the keyheads too late wherefrom results a certain disagreeable feeling of insecurity for the piano player. This disadvantage further renders it more difficult to play accords comprising notes of half value, all fingers being close together. The keyhead to be struck by the little finger being too far down the touch becomes very difficult as the little finger has to be bent too much, so that the span of the hand is further reduced. A further inconvenience consists in the fact that the vertical distance between the upper and the lower key is different owing to the inclination of the white key heads in the front part of the key board, whereby the insecurity of the playing is still further increased as the striking of the keys in this part of the keyboard is effected only in vertical direction. As the striking of the keys in the front part of the keyboard is effected in vertical direction the keyboard of known construction and with straight keys has further the disadvantage that the fingers slip forward on the key as the keys are inclined, this disadvantage being still increased by the depression of the keys struck. The touch therefore becomes quite different from what the player intended it to be. With the keyboards of white lower keys rising in straight line, the thumb and the little finger have no secure position on the keys owing to the sloping head of the white keys, and

particularly when the middle fingers have to strike the rear parts of the keys, so that much of the force and of the security of the touch gets lost.

According to this invention the hereinbefore mentioned inconveniences connected with the keyboards of known construction are avoided.

In the accompanying drawings the improved keyboard is shown.

Figure 1 is a lateral elevation of a lower key; Fig. 2 is a lateral elevation of an upper key; Fig. 3 shows the keyboard in side view; Fig. 4 is a top view of the keyboard. Fig. 5 is a small front edge view which shows the projections of the keys.

The surfaces of the white lower keys *a* (Figs. 1 and 3) form each an obtuse angle. The heads *b* of the white keys may be either horizontal or inclined in a direction opposite to that in which the rear parts *d* of the keys are inclined. All the keys, the upper keys *a* as well as the lower keys *c* have each a molded projection *e* at the upper end, said projections being either made in one piece with the keys or separate from the same, the blocks being glued upon the keys. Owing to the angular shape of the lower key the distance between the front edge of the upper key and the head of the lower key is reduced, so that the fingers have not to be moved any farther than with the usual horizontal keyboard when the keys of the front part of the keyboard have to be depressed and the playing of accords is not in the least more difficult with this keyboard than it is with the ordinary horizontal keyboard although the lower keys are inclined, as the differences in height are compensated. The difference of height between the upper key and the head of the lower key is at all points the same so that the player has not to reckon with various distances. The angular shape of the lower keys facilitates the hold which the thumb and the little finger find on the keyheads; the hand is better supported and the middle fingers can strike the rear parts of the keys with much greater force. To the touch of the player the keyboard appears to be much flatter than at present and it can be more easily gripped with smaller movements of the hands. The molded projections at the rear ends of all the keys serve for limiting

the keyboard. They may consist of blocks
glued on the keys or they may be made in
one piece with the keys. These projections
serve for various purposes. First they fa-
cilitate the execution of chromatic glissandi
that is to say all keys can be struck suc-
cessively by simply depressing all the pro-
jections. Secondly they serve to increase
the security of the player as he can play
even the rearmost parts of the keys with
free movements of the hands and with out-
stretched fingers without any danger of
pushing against the lid of the piano.
Thirdly they fill in the spaces which are
formed between adjacent keys when the one
or the other of the keys is being depressed,
so that the keyboard offers always the same
aspect to the player, whereby the security
of the player is still further increased.

I claim:—

An improved piano keyboard comprising
black and white keys arranged as usual,
each of said keys having a projection on its
rear end, said projections being alined hori-
zontally and rising to the same height above
the tops of the black keys, the front parts
of the upper surface of the white keys being
substantially horizontal as usual and the
back parts sloping upward and reaching the
level of the tops of the black keys, substan-
tially as described.

In witness whereof I have hereunto set
my hand in the presence of two witnesses.

CARL FISCHER. [L. s.]

Witnesses:

WALTER VONNEGUT,
ALFRED HENKEL.