

S. P. BROOKS.

Improvement in Pianos.

No. 122,557.

Patented Jan. 9, 1872.

Fig. 1.

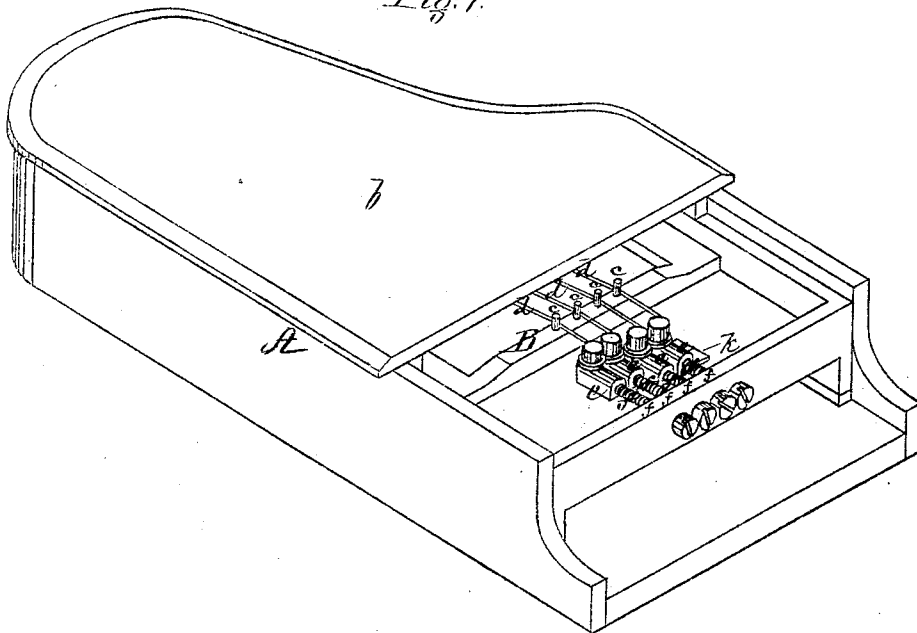
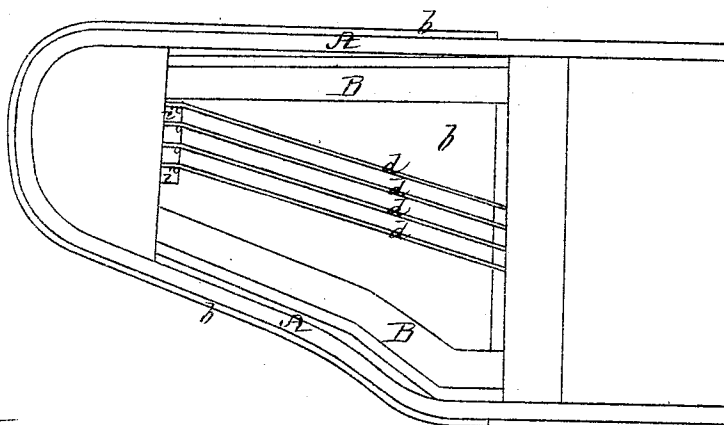


Fig. 2.



Witnesses,
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W. J. Cambridge

Inventor,
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Fig: 3.

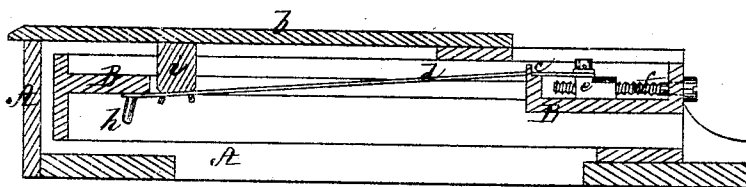
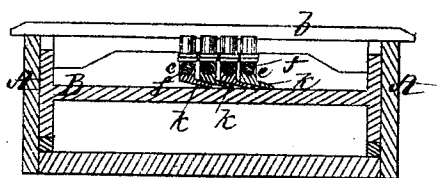


Fig. 4.



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UNITED STATES PATENT OFFICE.

STEPHEN P. BROOKS, OF SOMERVILLE, MASSACHUSETTS.

IMPROVEMENT IN PIANOS.

Specification forming part of Letters Patent No. 122,557, dated January 9, 1872.

To all whom it may concern:

Be it known that I, STEPHEN P. BROOKS, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Piano-Fortes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view of a portion of a piano-forte made in accordance with my invention. Fig. 2 is a plan of the under side of the same. Fig. 3 is a longitudinal vertical section of Fig. 2. Fig. 4 is a transverse section of Fig. 3.

In piano-fortes as heretofore constructed the string-plate has been placed between the lid or cover and a sound-board.

My invention consists in dispensing with the ordinary sound-board and employing the case therefor, and in hanging the string-plate within the sound-board instead of placing it above the sound-board as heretofore, whereby I am enabled greatly to cheapen the construction and improve the tone of the instrument. My invention also consists in a string-plate in which the strings or wires are attached to the under side of the rear and to the upper side of the front portions thereof, whereby the operation of stringing the wires is rendered possible with an instrument constructed in accordance with my improvements. My invention also consists in forming flanges upon the nuts through which the screws for tightening the wires pass, so that in tuning any wire may be tightened or loosened without disturbing the next one.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawing, A is the outer case of the instrument, and *b* the top or cover thereof, the case and top combined forming a sound-board, within which, and separated a short distance therefrom, Fig. 2, is hung or screwed the string-plate B, over the top of the front of which, between pins *c*, are led the strings or

wires *d*, where they are secured to nuts *e*, through which pass the ordinary tightening-screws *f*. These wires *d* are led down under the rear portion of the string-plate, and are caught over pins *h*, this being a convenient way of securing them where the top of the case or sound-board is not intended to be raised. *i* is the "bridge," secured to the under side of the top of the case or sound-board. Each nut *e* has a flange, *k*, formed thereon, which fits under the nut next to it, and by which it is held down firmly upon the string-plate with a pressure produced by the tension of its wire *d*, and, consequently, in tuning, one wire may be loosened or tightened without moving and disarranging any other nut or wire. By thus omitting the ordinary sound-board and making the case answer the double purpose of a sound-board, and also to inclose the mechanism of the instrument, I am enabled to greatly simplify and cheapen its construction, make it lighter, and at the same time improve its tone.

Claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A piano-forte, in which the outer case and cover act as a, and instead of the usual, sound-board, substantially in the manner and for the purpose set forth.

2. I also claim the string-plate hung within the sound-board, substantially as and for the purpose set forth.

3. I also claim the wires, led and secured under the rear and over the front portion of the string-plate, substantially as and for the purpose set forth.

4. I also claim a nut, *e*, provided with a flange, *k*, extending under the adjacent nut, substantially as described, for the purpose set forth.

Witness my hand, this 28th day of September, A. D. 1871.

STEPHEN P. BROOKS.

Witnesses:

N. W. STEARNS,
W. J. CAMBRIDGE.

(112)