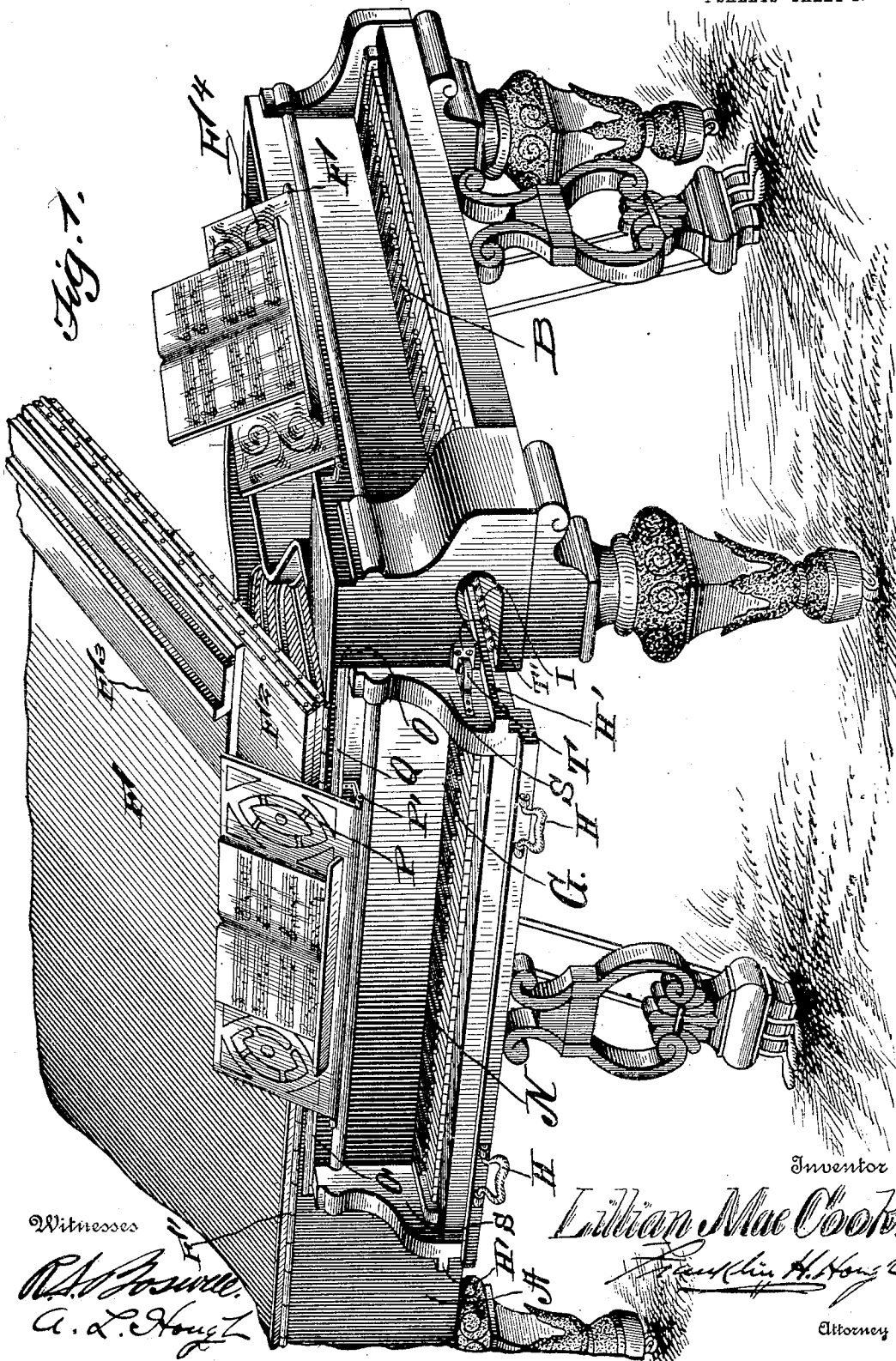


PIANO.

962,748.

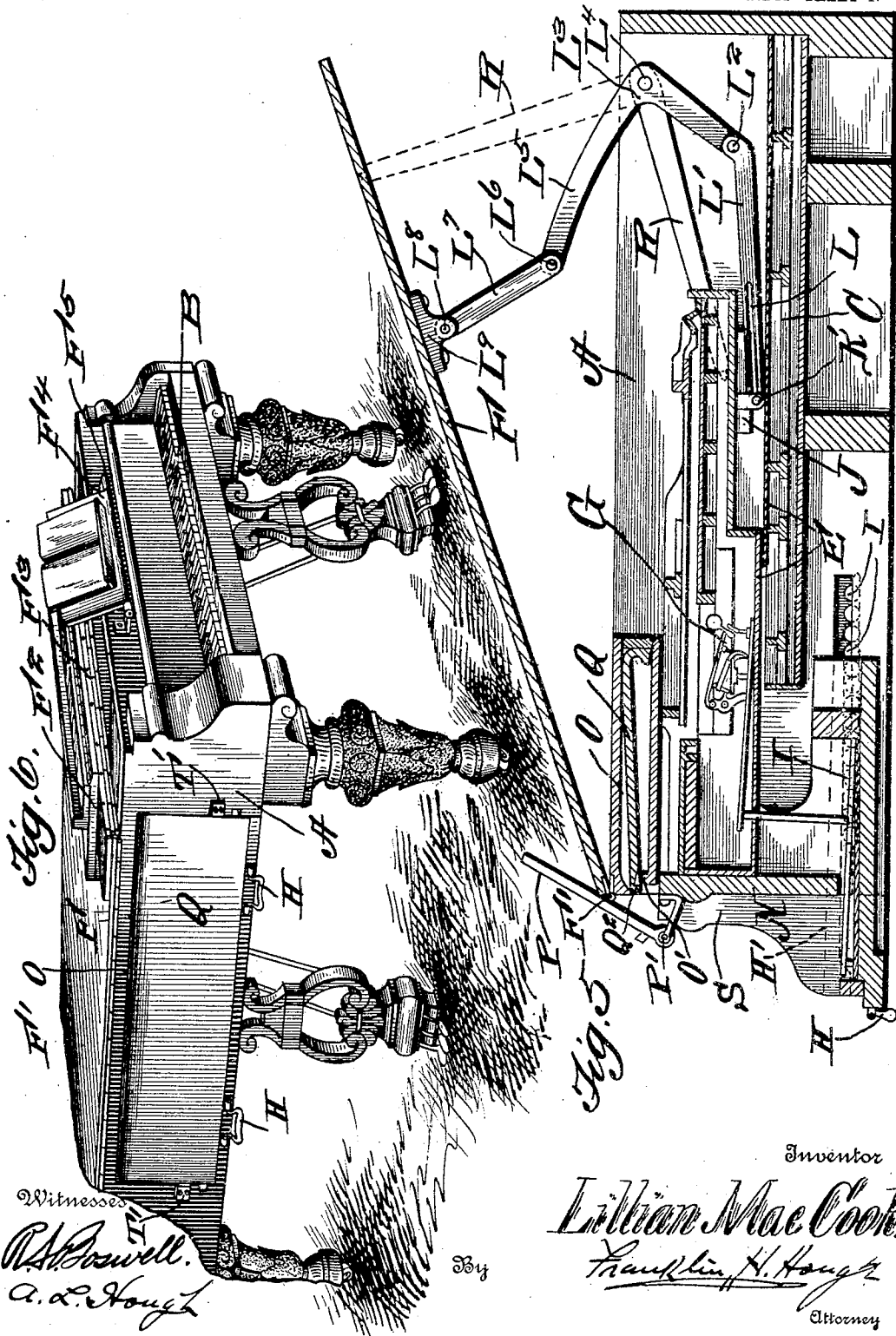
4 SHEETS--SHEET 1.



PIANO.

962,748.

4 SHEETS—SHEET 4.



UNITED STATES PATENT OFFICE.

LILLIAN MAE COOK, OF LIGONIER, INDIANA.

PIANO.

962,748.

Specification of Letters Patent. Patented June 28, 1910.

Application filed September 29, 1909. Serial No. 520,065.

To all whom it may concern:

Be it known that I, LILLIAN MAE COOK, a citizen of the United States, residing at Ligonier, in the county of Noble and State of Indiana, have invented certain new and useful Improvements in Pianos; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in pianos and the object in view is to produce within a single casing of a piano two independent instruments which may be used together or independently, and so arranged that when one of the instruments is moved to adapt the same to be played, the top of the casing will be automatically raised.

The invention consists further of a plurality of instruments of any make contained within a single piano casing and so arranged that the two instruments which are entirely distinct one from the other will not interfere with each other and means for holding one of the instruments at its farthest outer limit and the top of the casing raised.

The invention consists of various details of construction, combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a perspective view of a piano made in accordance with my invention and showing two independent keyboards. Fig. 2 is a top plan view showing in dotted outlines the relative positions of the two instruments and parts being illustrated in section. Fig. 3 is a sectional view on line 3—3 of Fig. 2. Fig. 4 is a sectional view on line 4—4 of Fig. 2. Fig. 5 is a sectional view taken substantially on the same line as Fig. 4 showing the top raised and the one instrument withdrawn partially from the casing, and Fig. 6 is a detail perspective view showing one instrument moved within the casing.

Reference now being had to the details of the drawings by letter, A designates the casing which to all external appearances is

the general shape of a concert grand piano, and B designates the usual keys of the grand piano.

In Fig. 3 of the drawings, I have shown the instrument of the concert grand piano, designated by letter C, and resting at its rear end upon a shoulder C' and at its forward end upon the cross-piece D of the piano casing. The space within the casing is divided by means of a horizontal partition E which may be of any suitable material, such as wood.

The top of the casing is designated by letter F and is hinged at F' adjacent to one edge of the piano in the usual manner. And F² is a folding section of the top which is composed of two pieces hinged together at F³ and adapted, when the piano is opened for use, to be folded back upon the top in the manner shown in Figs. 1 and 6 of the drawings. When the piano is closed, the parts will assume the positions shown in Fig. 3 of the drawings in which the music rack F⁴ hangs upon its pivotal point F⁵ and which music rack, when in use, may be thrown back to the positions shown in Figs. 1 and 6.

As no claim is made in the present invention to any particular form of instrument or parts thereof, further detailed description of either of the instruments which are provided for within the casing is deemed necessary. It will be understood that it is my purpose to provide means whereby any well known instruments of different makes may be employed.

Referring to Fig. 5 of the drawings will be seen the second instrument which is intended to illustrate that of a baby grand piano, the outline of which is shown in Fig. 2 of the drawings and in section in Figs. 3, 4 and 5 and said second instrument is designated by letter G. Said instrument G, a portion of which is shown in Fig. 1 as having been withdrawn a slight distance from the casing, has handles H for convenience in drawing the instrument out from the casing and the sides of the instrument G are provided with flanges H', the under faces of which are adapted to rest upon a series of anti-friction balls I, shown in the cutaway portion in Fig. 1 of the drawings and also in the sectional views 4 and 5, for the purpose of reducing the friction incident to the moving of the instrument to a minimum.

Fastened to the inner wall of the casing

of the piano are the cleats J, shown in Figs. 4 and 5 of the drawings, and adapted to support the inner ends of the instrument and projecting from the bottom of the instrument G is a lug K, shown in edge elevation in Fig. 2, and K' designates a pivotal pin projecting from said lug which passes through an elongated slot L formed in the lever L', which latter is pivotally connected by a pin L² to an angled lever L³ mounted upon a pivot pin L⁴. An arm L⁵ of said angle lever is pivotally connected by means of a pin L⁶ to a link L⁷ which is pivoted at L⁸ to a lug L⁹ upon the surface of the top F.

The outer end of the instrument G, when at its farther inner limit, will be entirely within the casing, and immediately above the keyboard N of the instrument G, when the piano instrument G is pushed back within the casing, is a boxing O having its forward edge open and provided with a beading O' projecting upward along its marginal edge.

Q designates a closing board having the upper end Q' bent hook form and adapted to engage over the beading O' when the board is in a closed position, as shown in Fig. 4 of the drawings. When it is desired to open the forward end of the piano, the board Q is brought forward to a horizontal position and pushed back within the boxing O and made to assume the position shown in Fig. 5 of the drawings. A notch Q² is formed in said board, forming a convenient means to be engaged by the fingers of a person for the purpose of withdrawing the board from the boxing when it is desired to close the opening through which the instrument G is movable. The music rack P, which is pivoted on the pin P', is adapted to fold down to the position shown in Fig. 4 when the parts of the instrument G are closed within the casing and when in use may be swung back to assume the position shown in Fig. 5.

Referring to Fig. 5 of the drawings will be seen a prop R pivotally mounted upon the pin L⁴ and adapted to form means for holding the cover F in a raised position when desired in the event of a person only using the bank of keys of one instrument while the other is positioned within the casing. By the provision of the prop R, it will be noted that the cover may be raised independently of the instrument G as, when the cover F raises and lowers, the link K will slide within the slot L of the lever L' while the instrument G remains stationary.

Fastened to the end pieces S of the instrument G, as shown clearly in Fig. 1 of the drawings, is a latch T which, as the instrument is withdrawn to the position shown in Fig. 1 of the drawings, will spring out to the position shown and abut against a plate T' upon the casing and serve as a means for holding the action G to its farthest outer

limit so that the keys of said instrument may be played upon.

The operation of my invention will be readily understood and is as follows:—A piano action is positioned within the casing F and the board Q closed in the manner shown in Figs. 5 and 6 of the drawings. When it is desired to adapt the second instrument G for use, the board Q may be swung open by the operator and pushed back in the boxing shown in Fig. 5, after which by pulling upon the handles H the instrument G may be withdrawn to the position shown in Fig. 1 of the drawings and, as the instrument G is withdrawn, the top will be thrown to the position shown in Fig. 5 of the drawings. As the weight of the action G is supported upon anti-friction balls, it will be noted that a very slight power will be required to move the instrument back and forth.

While I have shown my invention as applied to the casing of a concert grand piano, it will be understood that I do not confine my invention to any particular make or casing of instrument, as obviously any make may be employed.

What I claim to be new is:—

1. In combination with a piano casing having a hinged top, two complete piano instruments mounted within the casing with a partition between the instruments, one of the instruments being movable into and out from the casing, and connections between the latter and said top whereby, as the movable instrument is withdrawn, the top of the casing may be raised.

2. In combination with a piano casing having a hinged top, two complete piano instruments mounted within the casing with a partition between the instruments, one of the instruments being movable into and out from the casing, connections between the latter and said top whereby, as the movable instrument is withdrawn, the top of the casing may be raised, a latch fastened to the movable instrument and adapted to engage the piano casing to hold the movable instrument at its farthest outer limit and the hinged top at its highest limit.

3. In combination with a piano casing having a hinged top, two complete piano instruments mounted within the casing with a partition between the instruments, one of the instruments being movable into and out from the casing, an angle lever pivotally mounted upon the casing, a link pivotally connecting one arm of said lever and the hinged top, a bar pivoted to the other arm of the lever and provided with an elongated slot, a lug projecting from the movable instrument, and a pin fixed to said lug and movable within said slot.

4. In combination with a piano casing having a hinged top, two complete piano in-

struments mounted within the casing with a
partition between the instruments, one of
the instruments being movable into and out
from the casing, an angle lever pivotally
5 mounted upon the casing, a link pivotally
connecting one arm of said lever and the
hinged top, a bar pivoted to the other arm
of the lever and provided with an elongated
slot, a lug projecting from the movable in-
10 strument, a pin fixed to said lug and movable

within said slot, and means for holding the
top of the piano casing raised and the mov-
able instrument at its farthest outer limit.

In testimony whereof I hereunto affix my
signature in the presence of two witnesses. 15

LILLIAN MAE COOK.

Witnesses:

FRANKLIN H. HOUGH,
ROBERT A. BOSWELL.