

G. WOODS.
Piano Case and Frame.

No. 200,850.

Patented March 5, 1878.

Fig. 2.

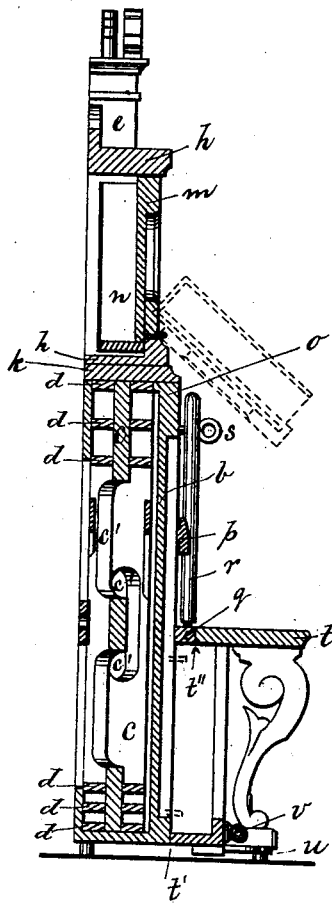
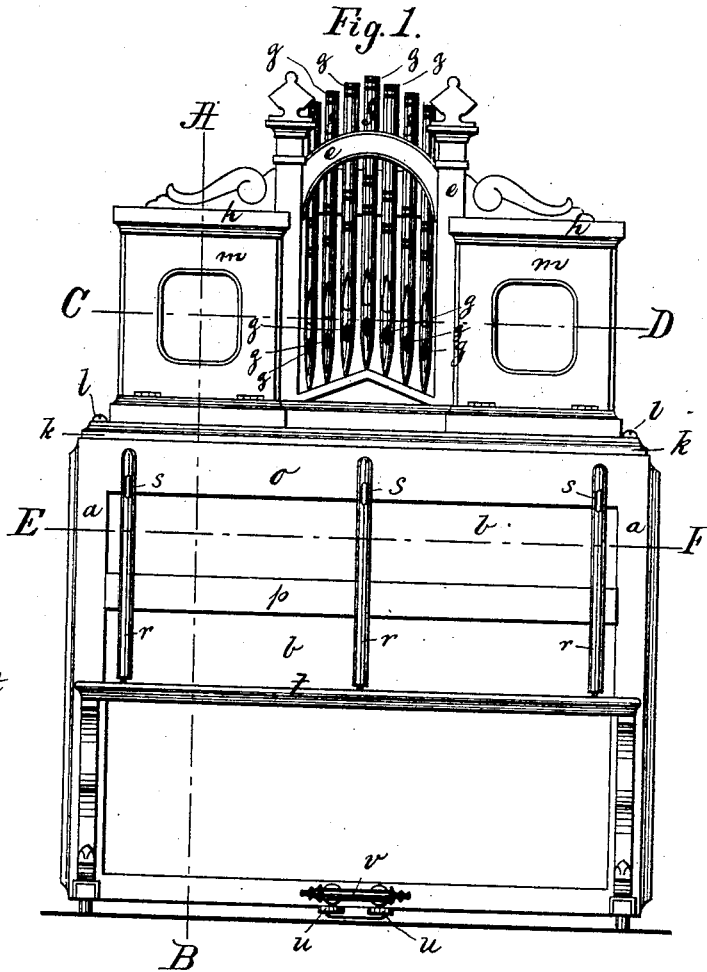


Fig. 1.



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INVENTOR:

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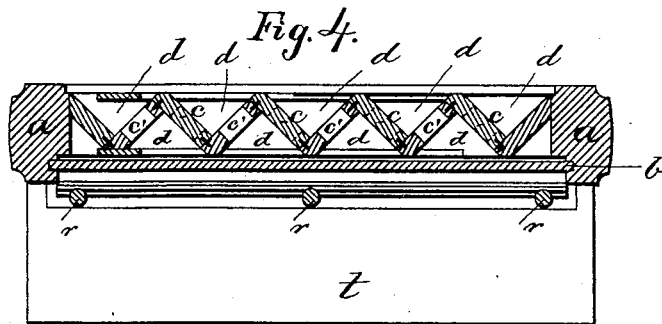
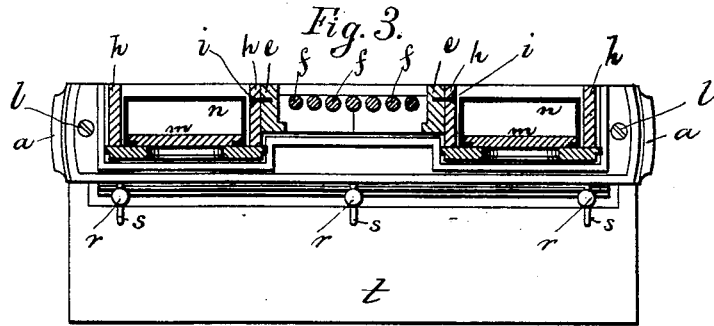
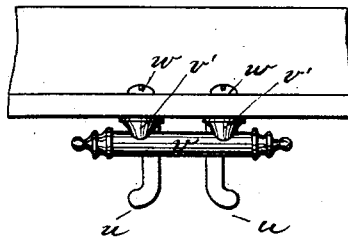


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE WOODS, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN PIANO CASES AND FRAMES.

Specification forming part of Letters Patent No. 200,850, dated March 5, 1878; application filed December 7, 1877.

To all whom it may concern:

Be it known that I, GEORGE WOODS, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Piano Cases and Frames; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in piano cases and frames; and consists, first, in the employment of a corrugated frame made in the shape of several Vs joined together, which parts are tongued and grooved properly together lengthwise, and provided in the upper and lower ends with V-shaped braces, by which the said frame is made very firm and durable.

Perforations of suitable size and shape are made through the corrugated frame, so as to admit the free and unobstructed undulations of the sound-waves behind the sounding-board. To the front of this improved frame is secured the sounding-board.

The aforesaid corrugated frame, by its peculiar construction, will allow of lateral expansion or contraction without injury to the case or other parts, but is made unyielding and exceedingly strong in the direction of the strings of the instrument, or nearly so, and the perforations in the said frame make it very light in proportion to its great strength.

My invention further consists in the arrangement of hinged music-receptacles above the main case of the instrument. Each of said receptacles consists of a plate or door hinged in its lower end to a frame detachable from the central pipe-rack by means of screws or similar fastenings, so that the whole of the top above the main case can be taken apart and be packed properly in a very reduced compass. To the inside of each of said hinged doors or plates is secured a box, open at its upper end, which box serves as a receptacle for music, &c., that is easily accessible when the hinged door is swung forward toward the player, and it may be swung forward far

enough to allow sheet or book music, &c., to drop out by its own weight, if so desired. When the sheet or book music is not required for use it is placed in the receptacle, and is then turned around its hinges to an upright position, in which position it will be automatically retained without the need of any locking device, on account of the center of gravity of the books or sheets and receptacle coming inside of the fulcrum, around which they are swung and supported.

The front of the frame or case that constitutes the key-board, and on which the keys are supported, is made detachable from the main frame, so as to be able to put the instrument in through a very small passage, a narrow corridor or stairway, as may be required.

On the accompanying drawings, Figure 1 represents a front elevation of my invention. Fig. 2 represents a vertical section on the line A B, shown in Fig. 1. Fig. 3 represents a cross-section on the line C D, shown in Fig. 1; and Fig. 4 represents a cross-section on the line E F, also shown in Fig. 1. Fig. 5 represents a plan view of the treadle-protector.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a a represent the uprights of the case, and *b* represents the sounding-board. Between the uprights *a a* and behind the sounding-board *b* is located the corrugated frame, that is composed of the boards *c c c*, tongued together, as shown in Fig. 4, and provided with perforations *c' c' c'*, (shown in Figs. 2 and 4,) for the purposes set forth.

d d d represent V-shaped braces in the upper and lower ends of the corrugated frame *c c c*, which braces are secured to the frame with glue, or in a similar manner, by which the relative positions of the different parts of the frame *c c c* is fully retained, as shown.

e represents the ornamental pipe-frame above the main frame of the piano, in which the ornamental organ-pipes *f f f* are located, as shown in Figs. 1 and 3. To each side of the pipe-frame *e* is secured a frame, *h h*, by means of suitable screws *i i*, Fig. 3, and in this manner the said frames *h h* can easily be detached from the pipe-frame *e*, as may be re-

quired, so as to pack within a small compass. The frame *e* is secured by means of screws or otherwise to the plate *k*, that is fastened to the top of the piano-case by means of screws *l l*, as shown in Figs. 1 and 3. Each of the open frames *h h* is provided with a plate or cover, *m m*, that is hinged in its lower end to each of the frames *h h*, as shown in Figs. 1 and 2.

n n represent the receptacles for book or sheet music, which receptacles are respectively secured to the inside of each of the hinged plates or covers *m m*. The boxes *n n* are open in their upper ends and closed at the bottom, and their position, when folded outward, is fully shown in dotted lines in Fig. 2.

o represents the wrest or tuning pin block, and *p* represents the hammer-rail. *q* represents a horizontal rail, on which the posts *r r r*, for hanging the action on, are supported. *s s* represent holding-screws, passing through the upper ends of the posts *r r r*, and screwed into the wrest-pin block *o*, as shown.

t represents the frame for supporting the keys on, which frame is made detachable at *t t'* from the main case or frame, for the purpose stated. *u u* represent the treadles in the lower part of the key-board frame. Above

the treadles *u u* is secured the foot-guard *v*, provided with projections *v' v'* and holding-screws *w w*, as shown in Fig. 5, by means of which the operator's feet are prevented from scraping against the case of the piano.

I wish to secure by Letters Patent, and claim—

1. The herein-described musical-instrument frame, consisting of the parts *c c c*, united together, so as to form a continuous corrugated frame, as and for the purpose set forth.

2. In combination with the corrugated frame *c c c*, the V-shaped braces *d d d* and perforations *e' e' e'*, as and for the purpose set forth.

3. In combination with the case of a musical instrument, the herein-described music-holder, consisting of the open frame *h*, the hinged cover *m*, and receptacle *n*, as and for the purpose set forth.

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

GEORGE WOODS.

Witnesses:

ALBAN ANDRÉN,
HENRY CHADBOURN.