

(No Model.)

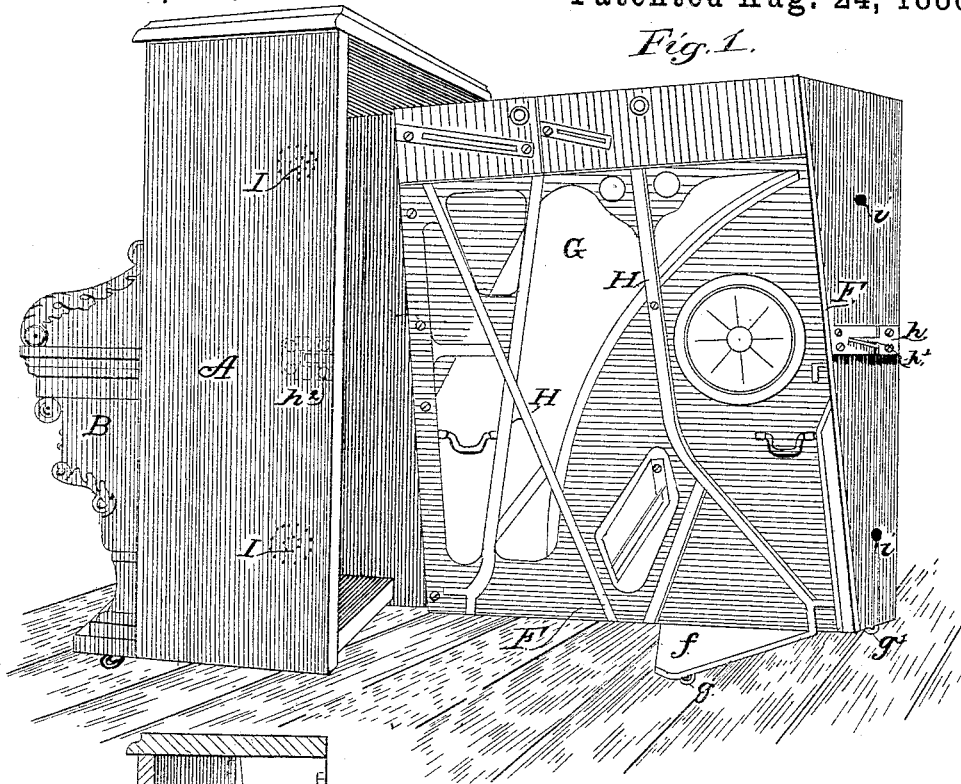
J. W. COOPER.

PIANO CASE.

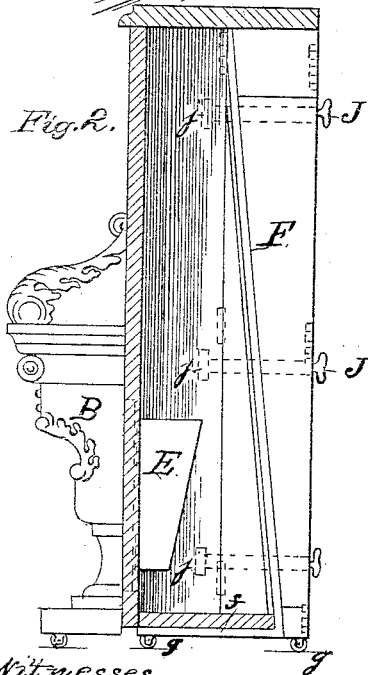
No. 348,110.

Patented Aug. 24, 1886.

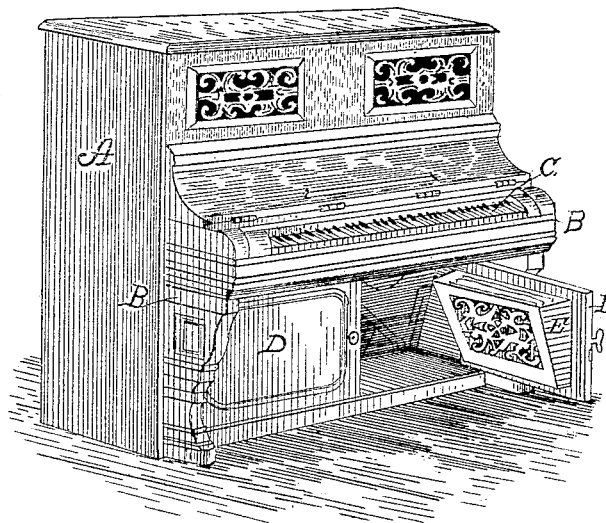
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOHN W. COOPER, OF BOSTON, MASSACHUSETTS.

## PIANO-CASE.

SPECIFICATION forming part of Letters Patent No. 348,110, dated August 24, 1886.

Application filed December 19, 1885. Serial No. 1 6,307. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. COOPER, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Piano-Cases; and I do 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.

My invention relates to pianos, and is particularly designed as an improvement in the construction of the case of upright pianos, whereby the string-supporting frame may be readily detached or opened away from the main portion of the casing containing the piano-actions, to afford free access thereto, either for the purpose of making repairs, tuning, cleaning, or detaching it altogether, as when it is desired to transport the instrument. The advantages are at once manifest.

The invention consists in combining with the case containing the piano actions a back hinged thereto at one end, and supporting the sounding-board and string-frame, said back being provided with an extension projected forward under the bottom of the casing, and having a caster depending therefrom and from the back to support and steady the back when opened or moved away from the case, the hinges to be made separable or not, as desired.

It further consists in a two-part guide-casting attached to the case and back, to give proper position to the parts when together, and in providing locking-bolts to securely and rigidly fasten the parts in place, thereby avoiding any loose joints.

It also consists in novel details of construction, as shown, and in the particular combinations of parts more fully hereinafter set forth and claimed.

In the drawings, Figure 1 is a perspective view of a piano constructed according to my invention, the back being shown opened. Fig. 2 is an end view with the side cut away, showing a modified form of hinging the back to the case. Fig. 3 is a perspective view of

the piano with the lower right door open, showing it provided with a music-portfolio.

The casing A is of usual construction and ornamentation, and of a type corresponding to upright pianos. It is provided on its front side with brackets B, which support the key-board C. Below the key-board are doors D, having portfolios E on their inner side, for the reception of the music. The casing incloses and supports any well-known piano action. (Not shown, as it forms no part of my invention.)

The back F supports the sounding-board G and string-frame H, of any known construction, and is hinged at one side to a side of the casing, preferably on its rear edge. An extension or foot-piece, *f*, projects forward from the bottom edge of the back piece, and is provided with a caster, *g*, a corresponding caster, *g'*, being provided at the outer end of the back to take the weight and relieve the friction when operating the back, the extension *f* simply steadying and preserving the upright position of the back.

To insure a correct position of the back when closed, that side opposite the hinges is provided with a casting, *h*, having a V-shaped projection, *h'*, horizontally arranged thereon, with its converging end toward the case. This projection engages a correspondingly-shaped recess in a casting, *h''*. (Shown in dotted lines on the inner side of the case.) These castings are so disposed that the back is directed to a proper position when closed, so that the strings will come opposite their respective hammers, as will be readily appreciated. When the back is closed, to prevent any movement thereof, the bolts pass through openings I in the side of the case and corresponding openings, *i*, in the side of the back.

While the back may be hinged to the outer rear edge of the side of the casing, it is evident that it may be hinged in any suitable manner. For instance, the side of the casing may be divided vertically, and the outer division secured to a side of the back and hinged at its inner edge to the fixed division, as clearly indicated in Fig. 2. In this latter construction it is found expedient to lock the two divisions together when the parts are in position. To effect this result nuts *j* are set in

the fixed section at intervals along its length, and bolts J, passing transversely through the hinged section secured to the back, enter and are screwed into the nuts, in a manner well understood.

5 The foot-piece *f* may be separate and attached to the back; but it is preferred to form it as an integral part of the metal plates which form the inner face of the back, as best shown  
10 in Fig. 2.

The hinges are made separable, in order to detach the back from the case, when desired.

It will be observed that the doors D are arranged beneath the key-board, which doors,  
15 when open, permit the performer to rest the feet upon the bottom of the case. Again, such doors afford easy access for repairing the pedal-movements. The space between the front of the case and the back has never been utilized  
20 for any purpose, save for the inclosure of the piano-actions; but as there is always an excess of room I have devised a way to economically use a portion thereof by providing the doors with a portfolio to receive the music  
25 when not in use. The doors being open, the music is within convenient reach of the performer, who may select a piece and return that not required to the portfolio without the necessity of scattering the music, as it may be  
30 accomplished without the performer leaving his or her seat.

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

1. In an upright-piano case, the combination of a back movably connected therewith, 35 having the sounding-board and string-frame attached thereto, and a foot-piece projecting forward from the lower edge of the back, substantially as and for the purposes set forth. 40

2. The combination, with an upright-piano case, of a back hinged thereto at one edge, and supporting the sounding-board and string-frame, a two-part guide-casting having one 45 part attached to the case and the other part secured to the edge of the back opposite its hinges, to give proper position to the back when closed, and bolts to lock the parts together, substantially as described, and for the 50 purposes specified.

3. The combination, with the case, of a back removably connected therewith, a metal plate lining the inner side of said back and supporting the sounding-board and string-frame, a foot integral with the plate and projected 55 forward from its lower edge, and casters attached to the forward edge of the plate and back, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in 60 presence of two witnesses.

JOHN W. COOPER.

Witnesses:

JOHN J. WOODSIDE,  
E. M. ROBERTS.