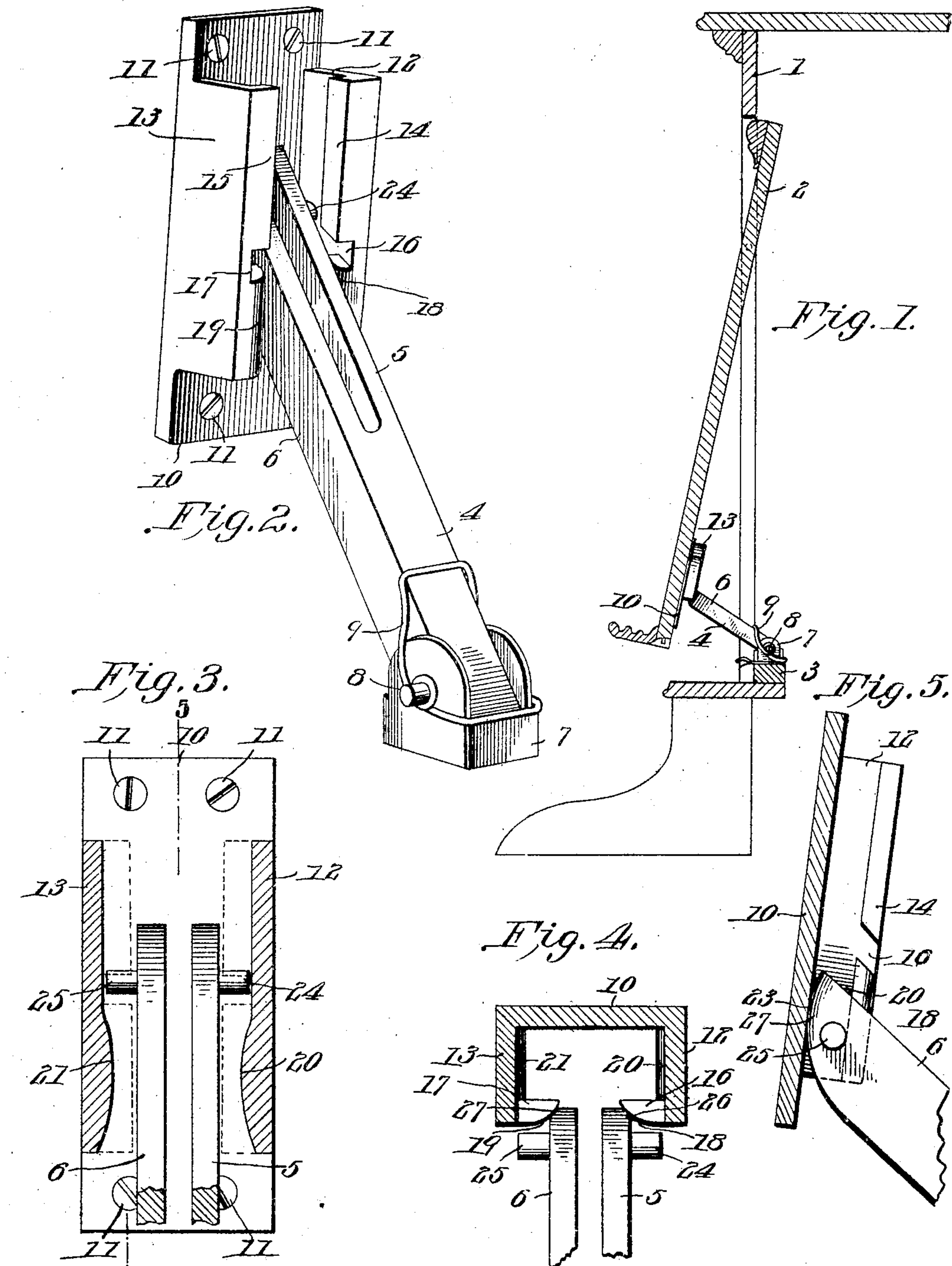


No. 803,019.

PATENTED OCT. 31, 1905.

M. F. RICHARDSON.
PIANO CASE BRACE.
APPLICATION FILED JULY 22, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

MARK F. RICHARDSON, OF NEW YORK, N. Y.

PIANO-CASE BRACE.

No. 803,019.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed July 22, 1905. Serial No. 270,854.

To all whom it may concern:

Be it known that I, MARK F. RICHARDSON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Piano-Case Brace, of which the following is a specification.

This invention relates to piano-cases, and has for its object to provide new and improved means for holding the music-rest or music-desk outward in position to form an inclined support for the music and which will support the music against a considerable pressure.

A further object of this invention is to provide means for holding the music-desk at the approved inclination and which will limit the outward swing of the desk until intentionally disconnected.

A further object of the invention is to provide means for holding the music-desk at the approved angle, which when intentionally disconnected will be automatically connected by simply closing the desk.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a vertical sectional view of a fragment of a piano-case with this invention applied thereon. Fig. 2 is a perspective view of the desk-support. Fig. 3 is a detail view of the channel member, showing the cam-surfaces of the sides and showing the flanges in outline. Fig. 4 is a transverse sectional view of the channel member, showing the rounded corners of the flanges for replacing the brace. Fig. 5 is a vertical sectional view on line 5 5 of Fig. 3.

Like characters of reference indicate corresponding parts in all of the figures of the drawings.

The invention forming the subject-matter of this application is adapted to be attached to any piano-case, as 1, having the usual hinged desk-panel 2, and cross-bar 3.

In its preferred embodiment the device comprises a brace 4, bifurcated at its upper end to form the spring-arms 5 and 6 and pivoted to the hinge member 7, as by the pin 8. The hinge member is rigidly secured to the cross-bar 3, and a spring 9 may be provided to hold the brace 4 normally against the panel 2.

At the point of contact of the arms 5 and 6

the panel 2 is provided with a plate 10, secured in any approved manner, as by the screws 11, and having along its longitudinal and vertical edges the upstanding flanges 12 and 13. The flanges 12 and 13 are provided, respectively, with the internal lips 14 and 15, intermediate the ends of which slots 16 and 17 are formed, and the outer corners of the portion below the slots are rounded, as at 18 and 19. Below the slots 16 and 17 the flanges 12 and 13 are provided with inwardly-curved cam-surfaces 20 and 21. The extremities of arms 5 and 6 are rounded, as at 23 in Fig. 5, for ease of movement along plate 10 and have oppositely-outstanding lugs 24 and 25 proportioned to pass through slots 16 and 17 and be slidably retained by lips 14 and 15 in contact with flanges 12 and 13 and cam-surfaces 20 and 21. The outer corners of the rounded ends of arms 5 and 6 are rounded, as shown at 26 and 27 in Figs. 4 and 5, for engagement with the rounded surfaces 18 and 19 of the lips.

With the parts assembled and disposed as in Fig. 1 the lugs 24 and 25 are below and held in engagement with the cam-surfaces 20 and 21 by the spring of arms 5 and 6, as shown in outline in Fig. 3, so that it will require the exertion of some force to close the desk and move the brace 4 upwardly to the position shown in full lines in Fig. 3. It is obvious that an outward pull upon the desk will reverse the movement of the brace, and the lugs will again engage the cam-surfaces to hold the desk. If it is desired to open the panel wide, it is opened slightly and the brace 4 held from further movement by the hand of the operator, whereupon the lugs 24 and 25 will be drawn outwardly through the slots 16 and 17 and the panel be free to open to the limit. For again connecting the parts it is only necessary to close the panel, when the rounded corners 26 and 27 will contact with the rounded corners 18 and 19 and correct any looseness or displacement of the parts and hold the arms 5 and 6 between the lips until the lugs 24 and 25 reach the slots 16 and 17, when the spring 9 will force the lugs to enter the slots, and the brace is again in operative position.

It is obvious that one of these braces and connections may be mounted at the middle of the panel, or more than one may be applied, if desired.

While this invention is especially applicable to a piano-case, in connection with which

it has been shown and described, it is obvious that it may be applied with equally satisfactory results to other articles.

Having thus described the invention, what is claimed is—

1. The combination with a hinged book-support, of a channel member carried by the support and a pivoted bifurcated brace having its bifurcated end slidably engaged within the channel.

2. The combination with a hinged book-support of a pivoted bifurcated brace, a channel member carried by the support and means for holding the bifurcated end of the brace in slidable engagement with the channel member.

3. The combination with a hinged book-support, of a channel member carried by the support and having inturned flanges and a pivoted bifurcated brace having its bifurcated end slidably engaged by the flanges within the channel.

4. The combination with a hinged member, of a channel member carried by the hinged member and having inturned flanges, and a pivoted bifurcated brace having its bifurcated end provided with lugs engaged by the flanges within the channel.

5. The combination with a hinged member, of a channel member carried by the hinged

member and having inturned flanges, and a pivoted bifurcated brace provided with oppositely-disposed lugs adjacent the bifurcated end with said lugs retained slidably within the channel by the flanges.

6. The combination with a hinged member, of a channel member carried by the hinged member and having cam sides and inturned flanges and a pivoted bifurcated brace provided with oppositely-disposed lugs adjacent the bifurcated end and with the lugs retained by the flanges in slidable engagement with the cam sides.

7. The combination with a hinged member, of a channel member carried by the hinged member and having cam sides and inturned flanges provided with slots, and a pivoted bifurcated spring-controlled brace provided with oppositely-disposed lugs adjacent the bifurcated end and with the lugs proportioned to pass through the slots and be retained by the flanges in slidable engagement with the cam sides.

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

MARK F. RICHARDSON.

Witnesses:

FRANK G. SWARTWOUT,
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