

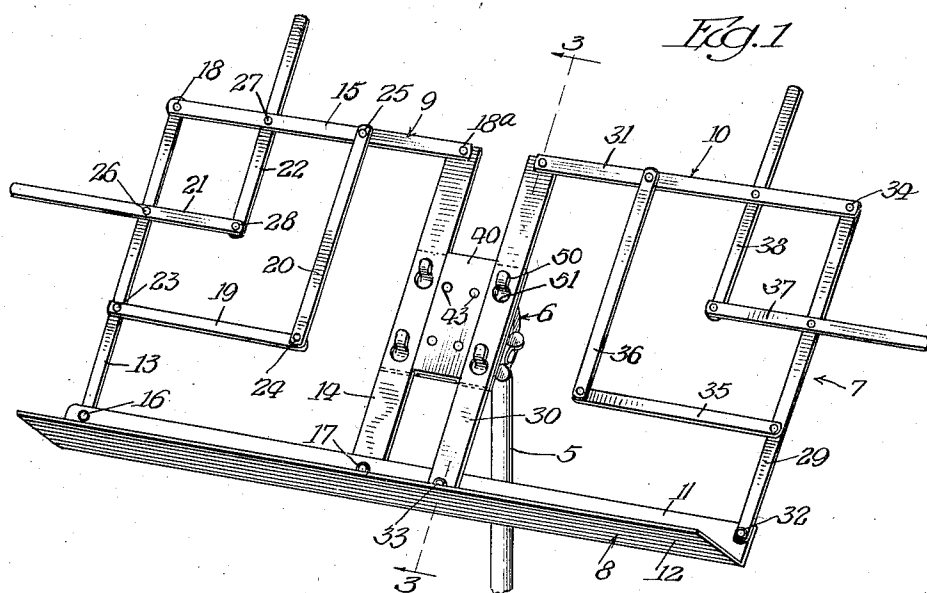
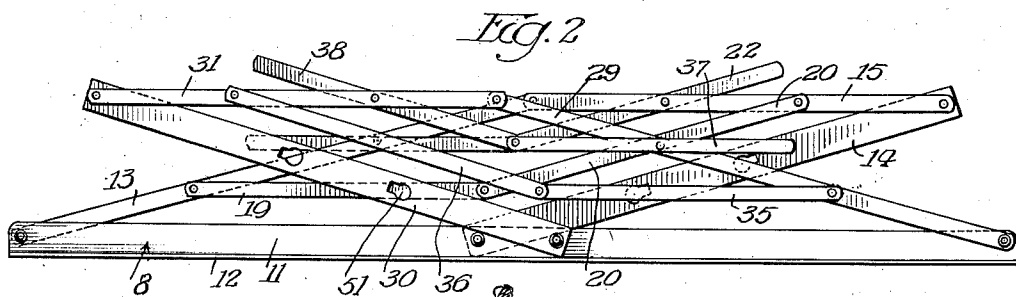
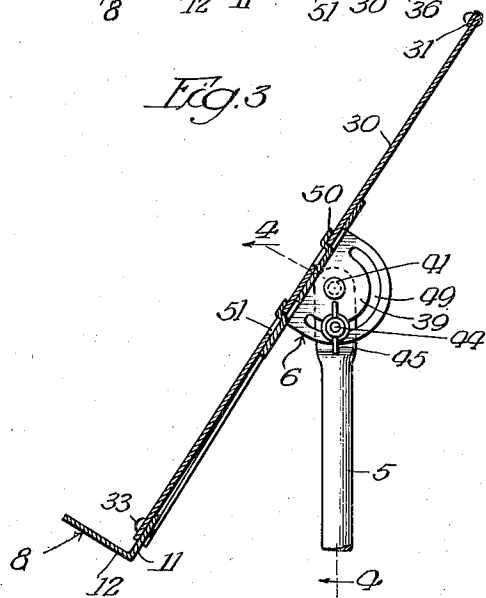
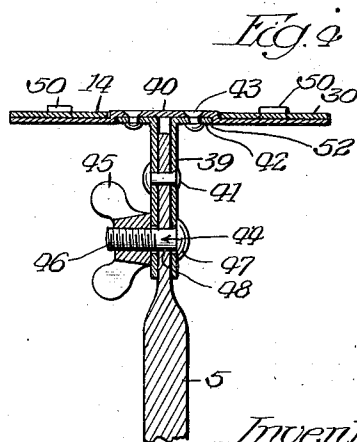
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MUSIC STAND

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MUSIC STAND

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2 Claims. (Cl. 45—121)

The present invention relates generally to stands. More particularly the invention relates to that type of stand which is adapted to be used by musicians to support or hold book or sheet music and comprises (1) a standard which is provided at its lower end with legs for supporting it in an upright or vertical position and has a bracket pivotally connected to the upper end thereof; and (2) a rack which is detachably connected to, and is supported for vertical angular adjustment by, the bracket at the upper end of the standard and comprises a one-piece horizontally extending angle bar-type ledge forming bottom member and a pair of laterally spaced collapsible link formed music supporting frames.

One object of the invention is to provide a music stand of this type in which the frames of the rack are so constructed and are pivotally connected to opposite ends of the top flange of the bottom member in such manner that when they are swung into their collapsed position one fits against and is substantially coextensive with the front face of the top web and the other fits against and is substantially coextensive with the back face of said top web of the bottom member and is in lapped relation with respect to the one frame and the rack as a whole is hence extremely compact and occupies but a minimum space when the frames are in their collapsed position.

Another object of the invention is to provide a music stand of the type under consideration in which the bracket for supporting or carrying the rack so that it may be swung or adjusted vertically into different positions comprises a rectangular plate which underlies the central portions of the inner side links of the collapsible frames and the detachable connection between the rack and the bracket is in the form of upwardly extending outstruck tongues on the side margins of the plate and tongue receiving slots in the inner side links of the frames.

A further object of the invention is to provide a music stand of the type and character last mentioned in which the central portion of the tongue-equipped plate of the bracket is raised with respect to the side margins and forms a spacing member which fits between, and abuts against the inner edges of, the inner side links of the frames and serves to prevent the frames from swinging or tilting sidewise out of their normal position when the rack is in connected relation with the bracket.

A still further object of the invention is to provide a music stand which consists of but a

small number of parts, may be manufactured at a low and reasonable cost, and is generally an improvement upon and simpler in construction than previously designed stands of the same general type.

Other objects of the invention and the various advantages and characteristics of the present music stand will be apparent from a consideration of the following detailed description.

In the drawing which accompanies and forms a part of this specification or disclosure and in which like numerals of reference denote corresponding parts throughout the several views:

Figure 1 is a perspective of the music stand embodying the invention;

Figure 2 is a front view showing the rack detached from the bracket at the upper end of the standard and the frames in partially collapsed position;

Figure 3 is an enlarged section taken on the line 3—3 of Figure 1 and showing in detail the construction and design of the tongues and slots which form the detachable connection between the rack and the bracket; and

Figure 4 is an enlarged section taken on the line 4—4 of Figure 1 and illustrating in detail the cross-sectional construction of the plate of the bracket and the manner in which the central raised portion thereof fits between the inner side links of the frames and serves to hold the frames against relative tilting or swinging movement when the rack is in its fully extended or normal position and in connected relation with the bracket.

The stand which is shown in the drawing constitutes or represents the preferred embodiment of the invention and is adapted primarily for use by musicians in that it is designed to support in an elevated and substantially vertical position book or sheet music. It is formed of metallic parts and consists of a standard 5, a bracket 6 at the upper end of the standard, and a music supporting rack 7 on the bracket. The standard 5 is adapted to be supported or held in a vertical or upstanding position by means of legs (not shown) at the lower end thereof. The bracket 6 is pivotally connected to the upper end of the standard, as hereinafter described, and serves to support the rack 7 so that it may be tilted or swung vertically into different positions.

The rack 7 consists of a horizontally extending angle bar type bottom member 8 and a pair of laterally spaced or positioned rectangular link-formed frames 9 and 10. The bottom member 8 forms a ledge on which the rack supported music

is adapted to rest and consists of a top web 11 and a bottom web 12. The web 11 is formed integrally with and extends at right angles to the bottom web 12. The frame 9 is associated with one end of the bottom member 8 and comprises an outer side link 13, an inner side link 14, and a cross-link 15. The side links 13 and 14 are arranged in parallel relation and extend upwards and at right angles with respect to the bottom member 8 when the frame 9 is in its extended or normal position. The lower end of the outer side link 13 fits against the back face of said one end of the top web 11 of the bottom member 8 and is connected pivotally to the top web by means of a rivet 16. The inner side link 14 is the same in length as the outer side link 13 and the lower end of the inner side link 14 fits against the back face of the central portion of the top web 11 and is pivotally connected to the web by a rivet 17. The cross-link 15 extends parallel to the bottom member 8 of the rack and extends between and is pivotally connected by rivets 18, 18^a to the upper or distal ends of the side links 13 and 14. By reason of the fact that the links 13, 14 and 15 of the frame 9 are connected pivotally, as hereinbefore described, the frame is adapted to be swung toward the opposite end of the bottom member 8 into a collapsed position wherein the links thereof are in longitudinal alignment and fit against or lap the back face of the top web 11 of the bottom member 8. The combined length of the outer side link 13 and the cross-link 15 is substantially equal to the length of the bottom member 8 and therefore the frame 9, when in its collapsed position is no longer than and does not project beyond the bottom member 8. The frame 9 in addition to the side links 13 and 14 and the cross-link 15 comprises a pair of links 19 and 20, and a pair of links 21 and 22. The link 19 underlies and extends parallel to the cross-link 15 and the link 20 is positioned inwardly of, and is parallel with, the outer side link 13. The outer end of the link 19 is pivotally connected by a rivet 23 to the central portion of the outer side link 13 and the other or inner end of the link 19 is pivotally connected by a rivet 24 to the lower end of the link 20. The upper end of the last mentioned link fits against the front face of the cross-link 15 and is pivotally connected by a rivet 25 to the central portion of the cross-link. The links 19 and 20 assist the side links 13 and 14 and the cross-link 15 in forming a backing or support for the rack supported music and are positioned or disposed in longitudinal alignment and in lapped relation with respect to the back face of the top web 11 of the bottom member 8 when the frame 9 is in its collapsed position. The links 21 and 22 also assist the side links 13 and 14 and cross-link 15 in forming a backing for the rack supported music and are adapted when the frame 9 is in its collapsed position to lap the back face of the top web 11 of the bottom member 8. The link 21 is disposed beneath and extends parallel to the cross-link 15 and the central portion thereof is pivotally connected by way of a rivet 26 to the central portion of the outer side link 13. As shown in Figure 1 of the drawing, the link 21 is positioned or located at a point one-third of the distance from the rivet 18 to the rivet 16 and the link 19 is positioned midway between the link 21 and the rivet 16. The central portion of the link 22 fits against the back face of the cross-link by a rivet 27 which is located at a point one-third of the distance from the rivet 18 to the rivet 18^a. The lower end of the

link 22 is pivotally connected to the inner end of the link 21 by a rivet 28. The outer ends of the links 21 and 22 project respectively beyond the outer side link 13 and the cross-link 15 when the rack 9 is in its normal or extended position, as shown in Figure 1, serve to support sheet music which is large in size. The link 20 is located midway between the link 22 and the inner side link 14. The rivets 18, 28, 24 and 17 are in alignment, that is they are disposed in the same plane and hence the frame 9 collapses freely.

The frame 10 of the rack 7 is associated with the opposite or other end of the bottom member 8 and comprises an outer side link 29, an inner side link 30, and a cross-link 31. The links 29 and 30 are spaced apart the same distance as, and are equal in length to, the links 13 and 14 of the frame 9 and extend upwardly and at right angles with respect to the bottom member 8 of the rack 7 when the frame is in its extended or normal position. The lower end of the outer side link 29 fits against the front face of the top web 11 of the bottom member 8 and is pivotally connected to said other or opposite end of the top web by means of a rivet 32. The lower end of the inner side link 30 is spaced a small distance from the inner side link 14 of the frame 9, as shown in Figure 1. It fits against the top web 11 of the bottom member 8 and is pivotally connected to the top web by means of a rivet 33. The cross-link 31 is the same in length as the cross-link 15 and extends between and is pivotally connected by rivets 34 to the upper or distal ends of the side links 29 and 30. As a result of the arrangement of the side links 29 and 30 and the cross-link 31, and the manner in which these links are pivotally connected, the frame 10 may be swung towards the frame 9 into a collapsed position. When the frame is in its collapsed position the side links 29 and 30 and the cross-link 31 fit against the front face of the top web 11 of the cross-member 8 and are in lapped relation with respect to the links of the frame 9. In addition to the side links 29 and 30 and the cross-link 31, the frame 10 comprises a pair of links 35 and 36 and a pair of links 37 and 38. The links 35 and 36 correspond to the links 19 and 20 and are pivotally connected to the outer side link 29 and the cross-link 31 in the same manner as the links 19 and 20 are pivotally connected to the outside link and cross-link of the frame 9. The links 37 and 38 correspond to the links 21 and 22 of the frame 9 and are arranged in similar relation. The combined length of the outer side link 29 and the cross-link 31 is slightly less than the length of the bottom member 8 of the rack 7 and as a result the frame 10, when in its collapsed position, does not project beyond the ends of the bottom member 8. By reason of the fact that the side links of the frame 10 fit against the front face of the top web 11 of the bottom member 8 and the side links of the frame 9 fit against the back face of the top web the frame 10 is forwardly positioned with respect to the frame 9 and neither frame interferes with the other when the rack 7 is collapsed.

The bracket 6 at the upper end of the standard 5 consists of a pair of side plates 39 and a top plate 40. The side plates are substantially semicircular and are positioned in laterally spaced relation and on opposite sides of the extreme upper end of the standard 5. As shown in Figures 3 and 4 the standard is formed of rod type stock and the upper end thereof is flattened so that the side plates 39 of the bracket 6 fit flatly thereagainst. A rivet or stud 41 ex-

tends through the side plates and the flattened upper end of the stand and connects the bracket to the standard so that it, together with the rack 7, may be swung or adjusted vertically into different angular positions. The straight portions of the side plates are bent outwards or side-wards in opposite directions in order to form ears 42. The central portion of the top plate 40 fits against these ears, as shown in Figure 4, and is fixedly secured to the ears by means of rivets 43. The bracket 6 is releasably locked in its various adjusted or tilted positions by means of a bolt 44 and a wing-nut 45. The bolt is located beneath the stud 41 and comprises an externally threaded shank 46 and a head 47. The shank extends through a hole 48 in the flattened upper end of the standard 5 and arcuate slots 49 in the side plates 39 of the bracket 6. The head 47 of the bolt fits against one of the side plates and the wing nut 40 is mounted on the threaded portion of the shank of the bolt and when tightened operates to clamp the side plates to the flattened upper end of the standard. The central portions of the inner side links 14 and 30 of the collapsible frames are adapted to rest on the side margins of the top plate 40 of the bracket 6 and the rack is connected to the bracket by means of upwardly extending tongues 50 on the top plate of the bracket and slots 51 in the central portions of the inner side links. The tongues 50 are formed integrally with, and struck outwards from the side margins of the top plate of the bracket and are adapted to extend through the slots 51 and form hooks for supporting the rack. Preferably there are two tongues on each side margin of the top plate and these tongues, as shown in Figure 2, are positioned one above the other. The slots 51 extend longitudinally or lengthwise of the inner side links of the frames and have enlarged lower ends to permit of ready entry of the tongues. When the rack is in connected relation with the bracket the tongues 50 fit within the upper or narrow ends of the slots 51 and prevent relative sideways swinging or tilting of the frames. The central portion of the top plate 40 of the bracket is raised with respect to the side margins and forms a spacing member which fits between and abuts against the inner side edges of the inner side links of the frames and serves to prevent the frames from swinging or tilting sidewise out of their normal position when the rack is in connected relation with the bracket. Preferably the central portion of the top head of the bracket is raised to such an extent that the top or front face thereof is flush with the upper faces of the links 14 and 30, as shown in Figure 1. As a result of raising the central portion of the top plate and forming the spacing member between the inner side links of the collapsible frames 9 and 10 a recess 52 is formed in the bottom of the plate. The ears 42 on the side plates 39 of the bracket fit within this recess, as shown in Figure 4.

When it is desired to dismantle the stand the rack 7 is disconnected from the bracket 6 by sliding or moving it upwards in order to disengage the tongues 50. After release of the rack the frames 9 and 10 are collapsed by swinging them towards one another into a position wherein they are in lapped relation and one fits against the back face of the top web 11 of the bottom member and the other frame fits against the front face of this web. When it is desired to assemble

the stand the frames 9 and 10 are swung upwards into their extended or normal position (see Figure 1) and the rack is then applied or connected to the bracket by inserting the tongues 50 through the slots 51 and into hooked relation with respect to the inner side links of the frame. When the rack is in connected relation with the bracket the raised central portion of the top plate of the bracket fits against the inner edges of the inner side links of the frames and prevents the frames from swinging or tilting sidewise of their normal position as heretofore pointed out. In order angularly to adjust the rack when the latter is connected to the bracket, it is only necessary to loosen the wing-nut 45 and then swing the rack together with the bracket into any desired position.

The herein described music stand consists of but a small number of parts and hence may be manufactured at a low and reasonable cost. Due to the construction and arrangement of the collapsible frames the rack when disconnected from the bracket and collapsed occupies but a small space and may be conveniently carried or transported from place to place.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:

1. A music stand comprising in combination a rack consisting of a one-piece horizontally extending ledge-forming bottom member and a pair of rectangular link-formed laterally collapsible frames associated with the ends of the bottom member respectively and comprising laterally spaced inner side links, a bracket for supporting the rack mounted on a standard and embodying a plate having the side portions thereof designed to underlie the central portions of the inner side links of the frames, detachable connections between said central portions of the links and the aforesaid side portions of the plate for releasably securing the rack to the bracket, and a member at the central portion of the plate and adapted to abut against the inner side edges of said side links and hold the frames against relative sideways tilting when the rack is secured to and supported on the bracket.

2. A music stand comprising in combination a rack consisting of a one-piece horizontally extending ledge-forming bottom member and a pair of rectangular link-formed laterally collapsible frames associated with the ends of the bottom member respectively and comprising laterally spaced inner side links with longitudinal slots therein, and a bracket for supporting the rack mounted on a standard and embodying a plate the side margins of which are adapted to underlie the slotted portions of the inner side links of the frames and have upstruck tongues adapted to coact with the slots in order releasably to secure the rack to the bracket, and the central portion of which is raised with respect to the side margins and forms a member adapted to fit between and abut against the inner edges of the inner side links of the frames and prevent relative tilting or collapsing of the frames when the rack is supported by and secured to the bracket.

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