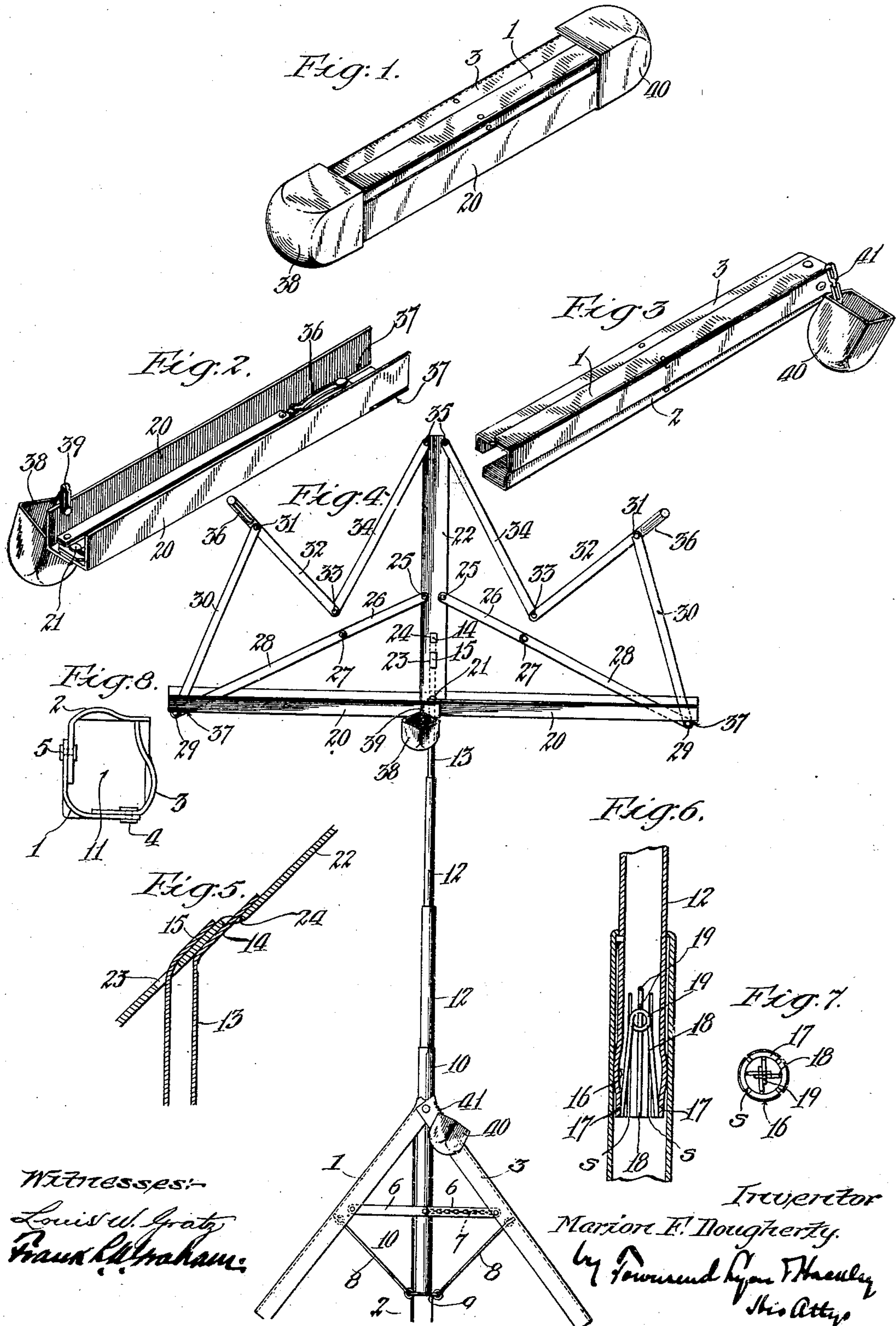


M. F. DOUGHERTY.
MUSIC STAND.

APPLICATION FILED OCT. 22, 1908.

935,592.

Patented Sept. 28, 1909.



Witnesses:
Louis W. Grady
Frank L. Abraham

Inventor
Marion F. Dougherty
by Townsend Lyon Thackeray
His Atty.

UNITED STATES PATENT OFFICE.

MARION F. DOUGHERTY, OF LOS ANGELES, CALIFORNIA.

MUSIC-STAND.

935,592.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed October 22, 1908. Serial No. 459,083.

To all whom it may concern:

Be it known that I, MARION F. DOUGHERTY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Music-Stand, of which the following is a specification.

This invention relates to music stands, and the main object of the invention is to provide a music stand which can be collapsed and folded up into a compact package which can be easily carried in the pocket.

A further object is to so construct the device that the legs will act as the housing or sides of the box-like package which incloses all of the parts of the stand when it is folded up.

Other objects relate to details of construction which will be brought out in the following description.

Referring to the drawings:—Figure 1 is a perspective view of the package into which the device is folded. Fig. 2 is a perspective view of one of the folded sections. Fig. 3 is a perspective view of the other folded section. Fig. 4 is a front elevation of the music stand as extended ready for use. Fig. 5 is an enlarged longitudinal view through the upper end of the supporting post. Fig. 6 is a longitudinal section through the lower portion of one of the sections of the supporting post illustrating the friction grip. Fig. 7 is an end view of the lower end of the lower telescopic section. Fig. 8 is an end view on a large scale of the folded legs.

The device comprises three legs 1, 2 and 3, each leg being L-shaped in cross section, and the upper end of leg 3 is pivoted at 4 to the upper end of leg 1, while the upper end of leg 2 is pivoted at 5 to the upper end of leg 1, as clearly shown in Fig. 8. It should be noted that there is no pivotal connection between legs 2 and 3. This method of pivotal connection enables the three legs to be extended in the form of a tripod, as shown in Fig. 4, or to be folded together as shown in Fig. 3. A pair of connected links 6 forming a toggle brace is connected between legs 1 and 2, and a similar toggle brace is connected between legs 1 and 3, which toggle braces when straightened serve to hold the legs firmly in extended position, as shown in Fig. 4. A chain 7, seen in dotted lines in Fig. 4, may be hooked across between legs 2 and 3 in lieu of the toggle it being inexpedient to employ a toggle between legs 2 and 3 as the

latter swing in planes at right angles to each other when being folded in or out as will be apparent from a glance at Fig. 8.

The legs support a telescopic post by means of three links 8, which are pivotally connected to the respective legs and the eyes 9 on the lower section 10 of the telescopic post. The lower section 10 extends through the opening 11 formed at the upper ends of the three legs 1, 2 and 3 and as shown in Fig. 8 the upper edges of the legs are flared outwardly somewhat so that the opening 11 will be approximately a circle when the legs are extended and will thus give plenty of room for the passage of the section 10. Telescoping within the section 10 is a plurality of sections 12, 13, the upper section 13 having two tongues 14 and 15 which lie at an angle to the section, as shown in Fig. 5. The lower end of each of the telescoping sections 12 and 13 is provided with a series of longitudinal slots *s*, as shown in Fig. 6, and is bulged at 16. The slots *s* form four wings 17 and between each pair of wings is a U-shaped spring 18 coiled at 19, the two lower ends of each spring 18 being soldered or otherwise secured to the adjacent ends of the wings 17. One of the springs is longer than the other and straddles it, its coil 19 lying above the coil 19 of the lower spring. This construction produces an expansion end which frictionally grips the inner wall of the tube in which it slides with sufficient firmness to prevent the tubes from sliding down when extended.

The music rack comprises a pair of angle bars 20 pivoted at 21, and pivotally supported by the center pivot 21 is a center bar 22 which as shown in Fig. 5 is offset and has a wide slot 23 below the bend and a narrow slot 24 formed in the bend which slots are adapted to respectively receive tongues 15 and 14 of the upper telescopic section 13 to detachably secure the music rack to the post. Pivoted at 25 to the center bar 22 is a pair of short links 26 which in turn are pivoted at 27 to longer links 28, the outer ends of the latter being pivoted at 29 to links 30, the latter being pivoted at 31 to links 32 which in turn are pivoted at 33 to links 34, the latter being pivoted at 35 to the upper end of the center bar 22. The ends of links 32 extend beyond the pivot 31 and are provided with spring clips 36 for retaining the leaves of music. The outer ends of the angle bars 20 are slit for a short distance, as

at 37, as clearly shown in Fig. 2, to permit the links 28, 30 to be inserted therein, as indicated in Fig. 4, and held from lateral movement with respect to the angle bars 20.

5 A cap 38 is connected by a chain 39 with one of the angle bars 20 at a point near the pivot 21 so that when the two angle bars are folded, as shown in Fig. 1, the cap 38 may be slipped over the end of the package to
10 hold the two sections of the package together. A similar cap 40 is connected by chain 41 to one of the legs and serves to close the other end of the package when the parts are folded. When extended the cap 38 may
15 also be convenient as a receptacle for holding small articles.

The device, when extended, has the appearance shown in Fig. 4. To fold the device the music rack may be slipped off from
20 the tongues 14, 15 and the two angle bars 20 swung toward the middle bar 22, the links 28, 30 having first been slid out of slots 37, and at the same time that the angle bars 20 are swung toward each other the various
25 links 26 to 34 inclusive are folded in so that the two angle bars 20 when folded completely together have the form shown in Fig. 2 in which the various links all lie flatly and in orderly form against the bottom of
30 the trough-like section formed. The telescopic sections 12, 13 are collapsed into the lower tube section 10 and the legs 1, 2 and 3 are folded together so that when folded they appear as shown in Fig. 3 which forms a
35 package of a size which will just fit within the trough-shaped package shown in Fig. 2 and after being placed therein the caps 38, 40 are slipped on the respective ends to hold the two parts together and close the ends
40 thus producing a neat appearing package of most compact form which may be readily carried in the pocket.

What I claim is:—

1. A collapsible music stand comprising
45 folding legs, a telescopic post supported by said legs and adapted to be housed between said legs when folded, a folding music rack detachably mounted on said post and when folded forming a trough-like case of three
50 sides adapted to receive the folded legs and post sidewise, and means for holding said parts folded.

2. A collapsible music stand comprising
55 three legs two of which are pivoted to the other, a telescopic post extending through an opening formed at the top of said legs, links connecting the respective legs with the lower end of said post, folding braces for holding
60 said legs in extended position each of said legs comprising an angle bar and when folded forming a hollow receptacle adapted to house said telescopic post and links and folding braces, and a folding music rack detachably mounted on said post and provided
65 with two angle bars forming when folded a

trough-like receptacle housing the other parts of the rack and adapted to receive and house the folded legs and post.

3. A collapsible music stand comprising
70 three legs two of which are pivoted to the other, a telescopic post extending through an opening formed at the top of said legs, links connecting the respective legs with the lower end of said post, folding braces for holding
75 said legs in extended position each of said legs comprising an angle bar and when folded forming a hollow receptacle adapted to house said telescopic post and links and folding braces, a folding music rack detachably mounted on said post and provided with
80 two angle bars forming when folded a trough-like receptacle housing the other parts of the rack and adapted to receive and house the folded legs and post, and caps adapted to be slipped over the ends of said
85 folded parts when brought together.

4. A collapsible music rack comprising
90 three legs L-shaped in cross section two only of which legs are pivoted directly to the other, thereby permitting the three legs to fold and form a square package, a telescopic post slidable through the articulated ends of
95 said legs, links connecting the respective legs with said post the lower ends of the inner sections of said post being slotted to form fingers each finger being bent to form a bearing surface for frictionally gripping the inner wall of the tube in which it lies, means
100 within the slotted ends of said tubes for pressing said fingers outwardly, and a music rack carried by the upper section of said telescopic post.

5. A collapsible music stand comprising
105 folding legs, a telescopic post supported thereby the upper section of said post having two tongues parallel with each other and extending at an angle to said section, a music rack comprising two angle bars pivoted together, a center bar pivoted at the
110 joint between the angle bars said center bar having two slots adapted to receive the respective tongues on said upper section, and a system of links pivoted to the center bar and adapted to support the music.

6. A collapsible music stand comprising
115 folding legs, a telescopic post supported thereby the upper section of said post having two tongues at an angle to said section, a music rack comprising two angle bars pivoted together, a center bar pivoted at the
120 joint between the angle bars said center bar having two slots adapted to receive the respective tongues on said upper section, and a system of links pivoted to the center bar and adapted to support the music, the outer
125 ends of said angle bars being slotted to receive the ends of certain of said links for holding said links firmly in position.

7. A collapsible music stand comprising
130 folding legs, a telescopic post supported

thereby the upper section of said post having two parallel tongues at an angle to said section, a music rack comprising two angle bars pivoted together, a center bar pivoted
5 at the joint between the angle bars said center bar being offset and having two slots one of which is in the head of the center bar, said slots being adapted to receive the respective tongues on said upper section, a
10 system of links pivoted to the center bar and adapted to support the music, a link on both sides of the center bar protruding beyond its pivot, and spring clips attached to said protruding ends for grasping the music
15 sheets.

8. A collapsible music stand comprising folding legs, a telescopic post supported by

said legs and adapted to be housed between said legs when folded, a folding music rack detachably mounted on said post and adapted
20 ed when folded to receive the folded legs and post, caps adapted to be slipped on the ends of said folded parts, a short flexible connection connecting one of said caps with the upper end of one of said legs, and a
25 short flexible connection connecting the other cap with a part of said music stand.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 14th day of October 1908.

MARION F. DOUGHERTY.

In presence of—

G. T. HACKLEY,

FRANK L. A. GRAHAM.