

D. E. FORCE.

COMBINED MUSIC STAND AND HOLDER AND CARRYING CASE FOR THE SAME.

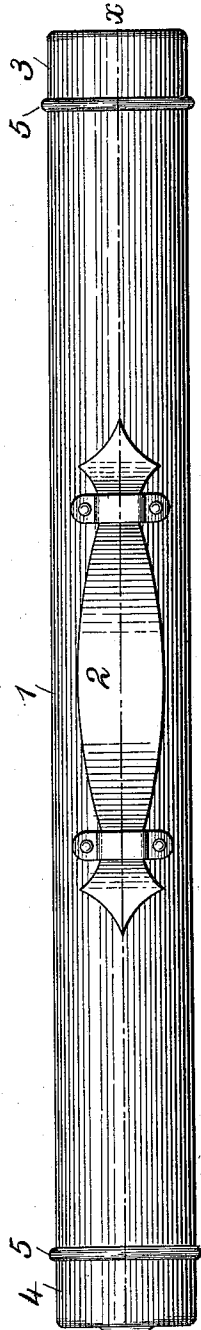
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Patented Jan. 9, 1912.

2 SHEETS-SHEET 1.

1,014,381.

Fig. 1



WITNESSES:

Chas. Claggett
Chas. H. Smith

Fig. 3

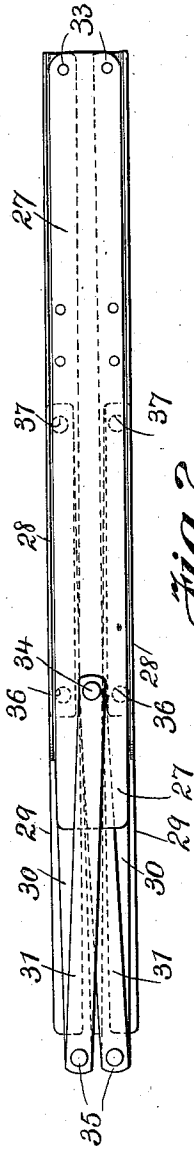
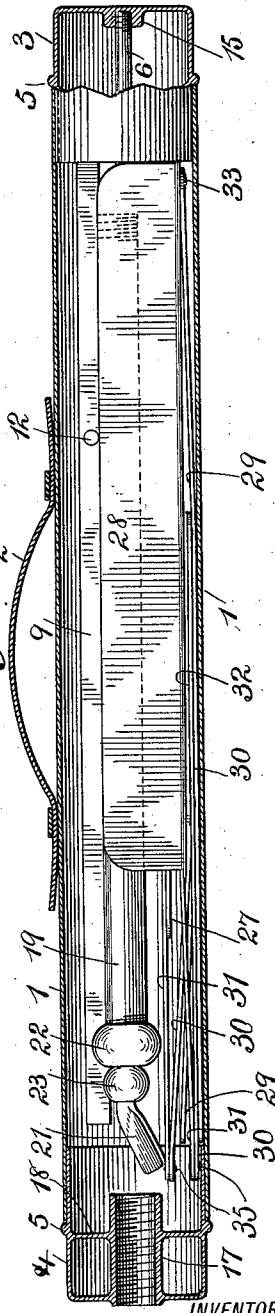


Fig. 2



INVENTOR

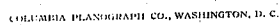
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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

DAVID E. FORCE, OF JERSEY CITY, NEW JERSEY.

COMBINED MUSIC STAND AND HOLDER AND CARRYING-CASE FOR THE SAME.

1,014,381.

Specification of Letters Patent.

Patented Jan. 9, 1912.

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To all whom it may concern:

Be it known that I, DAVID E. FORCE, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented an Improvement in Combined Music Stands and Holders and Carrying-Cases for the Same, of which the following is a specification.

My invention relates to a stand for music combined with a case for holding and carrying the same, so constructed and combined that when not in use the stand can be "knocked down" and inclosed in the case and carried conveniently from place to place, and when in use the case forms a part of the stand, and the invention consists in the novel construction hereinafter described.

In the accompanying drawing, Figure 1 is a plan view of my invention after the stand has been "knocked down" and the folding parts inserted within the member forming the holder or carrying case; Fig. 2 is a side view of the same, with the holder or carrying case in section at the dotted line *x x*, Fig. 1, and showing the folded parts therein in elevation; Fig. 3 is a plan view of the desk in a folded condition; Fig. 4 is an elevation in reduced size of the desk in an unfolded condition; Fig. 5 is an inverted plan view in reduced size, of the lower cap and legs removed from the holder and opened out to the full extent; Fig. 6 is an elevation and partial section of the telescoping tubes and clamping nuts, showing also a modification in the means for attaching the desk to the stand; Fig. 7 is an elevation in reduced size showing the parts assembled for use; Fig. 8 shows a modification in the manner of connecting the telescoping tubes to the body portion when the parts are assembled for use; Fig. 9 is an inverted sectional plan view at the dotted line *y, y*, of Fig. 7, and Fig. 10 is a section at the line *z, z*, of Fig. 7. Figs. 6, 9 and 10 are in enlarged size.

Similar reference numerals refer to like parts throughout the several views.

1 represents a hollow cylindrical member open at both ends and forming the main body of the stand when the parts are assembled for use, and also forming a holder and carrying case for the parts when the members are disassociated or "knocked down." This body member 1 is provided with a handle 2 by which it, with the other parts inclosed therein, may be conveniently carried from place to place.

Fitting within either end of the cylindrical body 1 are caps 3 and 4, which when the stand is "knocked-down" and the parts placed within the body member 1, form ornamental closures for the ends of said member and give the entire device the appearance of an ordinary music roll or case, but these members all perform other functions hereinafter described. The caps 3 and 4 are provided on their outer surface with an annular rib 5 at or near the central part and said caps are of the same diameter at either side of said annular ribs and of a size adapted to fit snugly within the ends of the body member 1. The rib on the cap 3 forms a stop to limit the distance that either end of said cap 3 may be inserted into said body member 1. The cap 4 is preferably secured to the body member 1 by solder or other suitable means. The cap 3 is open at one end and closed at the other end.

6 is a rod, one end of which is secured in any suitable manner to the inner surface of the closed end of the cap 3, at the center thereof. I have shown a boss 15 upon the cap 3, with the end of the rod 6 screwed into a screw threaded hole therein. This rod 6 extends in parallel line with the sides of the cap 3.

Within the cap 3 adjacent its open end there is secured a brace consisting of a central hub 7 and projecting arms 8. These brace arms are permanently connected at their free ends to the inner surface of the cap 3 by solder or in any suitable manner, and the hub 7 has a central perforation through which the rod 6 passes and projects a predetermined distance. The rod 6 is soldered or otherwise permanently fastened to said hub, in order to prevent any possibility of its screw threaded end working loose in the boss 15. 9 9 9 are three rods, one end of each of which is pivotally connected to one of the arms of the said brace, by pins or rivets 10. 11 11 11 are three links, one end of each of which is pivotally connected to one of said rods 9 at a predetermined distance from its pivoted end, by pins or rivets 12, while the other ends of said links 11 are respectively pivotally connected to lugs 13 upon a sliding guide block 14 upon the rod 6 by pins or rivets 16. This construction permits the rods 9 to be brought into parallel line and placed within the body member 1, as shown in Fig. 2, or their free ends to be spread apart to form supporting legs

for the stand when the cap 3 carrying said rods is withdrawn from the body 1 and its reverse end inserted therein, (as shown in Fig. 7). It will thus be seen that when the rods 9 are folded in parallel line and placed within the body member 1 the cap 3 closes one end of said member, and that when it is desired to set up the stand for use, the cap 3 with the rods 9 are withdrawn from the body member 1, the other end of the cap 3 inserted into the end of the body member and the free ends of the rods 9 spread apart to form legs for the stand. When the legs or rods 9 are spread to the full extent of movement and placed upon a floor there is no danger of their closing together involuntarily, but a slight upward pressure upon the links 11 allows the leg rods to be drawn together when removed from contact with the floor.

The cap 4 is open at its inner end and closed at its outer end, except for a central opening into which one end of a tube 17 extends. Within this cap 4 and about central of its length is a partition 18 with a central opening therein through which opening the other end of the tube 17 passes. These parts may be integral, as shown, or the tube and partition may be made separate and firmly secured together and to the cap by solder or otherwise, and this tube 17 is thus securely and immovably held centrally within the cap. This tube 17 is open at both ends and is preferably interiorly screw-threaded. The cap 4 forms an ornamental closure for one end of the body member 1 when the other parts are inclosed therein and the stand not in use.

Tubes 19 and 20 are of different diameter having telescopic connection, the tube 20 being slidably adjustable within the tube 19, while the tube 21 is similarly adjustable within the tube 20. The tube 19 has an exterior screw-thread at each end, and the tube 20 has an exterior screw thread at its outer end. When the parts are assembled for use, one end of the tube 19 is screwed into the screw threaded upper end of the tube 17 in the cap 4. The tube 20 is drawn out of the tube 19 the desired distance, and the tube 21 is similarly drawn out of the tube 20. There is a screw-threaded clamping nut 22 engaging the screw-threaded upper end of the tube 19 and a screw-threaded clamping nut 23 engaging the screw threaded end of the tube 20. There is a washer 24 within each of these clamping nuts, which washers are preferably of fibrous material so that when the nuts 22 and 23 are screwed down upon the tubes 19 and 20, the washers spread and bind upon the tubes, thus retaining them in the position to which they may be adjusted. The tube 21 may be flattened for a predetermined distance at its outer end and this flattened portion bent at

an angle for engagement with the desk for holding a book or sheet of music as shown in Fig. 2, but instead of flattening and bending the end of the tube 21 for this purpose, a separate rod 25 of solid metal may be employed to be inserted into the top of the tube 21, as shown in Fig. 6; by such means the desk may be raised to a greater height than if this rod 25 was not employed, because the rod may be of a length to extend into the tube 21 as far as desired and can be drawn out more or less and clamped in position by a nut 26 and washer 24, such as employed on the tubes 19 and 20.

The desk is so constructed that it can be compacted and inserted into the cylindrical body member 1 when not in use, (see Fig. 2) and for this purpose is composed of a center bar 27, bottom bars 28, diagonal rods 29 and connecting links 30, 31 and 32. These parts are all preferably made of flat metal, the center bar 27 being wider than the rods and connecting links, while the bottom bars 28 are of a width to permit one longitudinal edge to be bent up at right angles a sufficient distance to allow of pivotal connection with the center bar 27, diagonal rods 29 and links 32, and to further provide a rest for a book or sheet music, when extended horizontally, in which position they come together at one end and form a continuous shelf for the music. The meeting ends of the bars 28 are pivoted to the lower end of the center bar 27 on its rear surface by pins or rivets 33 and one end of each diagonal rod 29 is also pivoted at the same place and by the same pins or rivets 33, said rods coming against the rear surface of the upturned edges of the bars 28 respectively. The side edges of the bar 27 are rounded at the lower end of the bar and the ends of the upturned portions of the bars 28 are also rounded to permit the bottom bars 28 being swung upward on said pivot pins 33 more readily. At a predetermined distance from the top of the center bar 27, one end of each link 31 is pivotally connected to the front surface of said center bar by rivets or pivot pins 34, as shown in Fig. 4, but if desired one of the links 31 may be on the front and the other on the rear of said bar and pivoted by a single rivet or pin as shown in Fig. 7, while the other ends of the links 31 are pivoted respectively to the upper ends of the links 30 by rivets or pivot pins 35, said links 30 being pivotally connected approximately central of their length to the diagonal rods 29 by pivot pin 36 and at their other ends to the upper ends of the links 32 by pivot pins 37, while the lower ends of said links 32 are pivotally connected to the rear surface of the upturned portions of the bottom bars 28 near the outer ends of said bars by pivot pins 38. It will thus be seen that this desk may be folded so that all the parts are

in parallel line with the center bar 27 (see Fig. 3) and it may then be inserted within the cylindrical body member 1 as shown in Fig. 2. At a suitable point upon the rear surface of the center bar 27 there is secured a pocket 39 for receiving the flattened bent end of the tube 21 or rod 25 thus connecting the desk with the stand.

A modification in the manner of connecting the telescoping tubes with the main body portion when in use is shown in Fig. 8. In such case the lower end of the tube 19 is not provided with a screw thread, and the inner surface of the tube 17 is not screw-threaded, but plain and smooth, so that the tube 19 may slide therein without undue friction. Springs 40 are soldered or otherwise secured to the tube 17 at a point within the cap 4 below the partition 18, preferably one at each side of said tube 17 and each provided with an inturned bend immediately below the end of the tube 17. These bends form a stop for the lower end of the tube 19 when it is pushed down into the tube 17 and are sufficient to support the weight of the telescoping tubes and desk with the music, but an excessive downward pressure upon the tube 19 will force the springs 40 apart and permit the tube 19 to be forced down a greater distance as shown in dotted lines in said Fig. 8, while the pressure against its sides by the inturned portions of the springs and its frictional contact with the inner surface of the tube 17 will be sufficient to retain said tube 19 in any position desired. By this arrangement an additional advantage in regulating the height of the stand is provided for.

The cap 3 is preferably held in position in the end of the body member 1 by frictional contact with the inner surface of such member, but it is obvious that if desired, said cap may be locked therein by any suitable means.

I claim as my invention:

1. In a folding music stand and in combination, a hollow cylindrical body member, a removable and reversible cap for one end of said body member, a rod permanently fixed centrally within said cap and projecting therefrom a predetermined distance, a brace for said rod attached to said cap, leg rods, one end of each of which is pivotally

connected to said brace, links, one end of each of which is pivotally connected to one of said leg rods, a sliding guide block upon said fixed rod, lugs upon said sliding guide block to which the other ends of said links are pivoted, a fixed cap at the other end of said body member, a centrally disposed open ended tube therein and secured thereto, a partition fixed to said fixed cap and having a central opening through which said tube passes, telescoping tubes one end of the larger of which being adapted to be received within the tube in said fixed cap, springs secured to said fixed tube and by which said telescoping tube is held in adjusted positions within said fixed tube, a folding desk for music, and means for connecting the same with one of said telescoping tubes.

2. In a folding music stand and in combination, a hollow cylindrical body member, a removable and reversible cap for one end of said body member, a rod permanently fixed centrally within said cap and projecting therefrom a predetermined distance, a brace for said rod attached to said cap, leg rods, one end of each of which is pivotally connected to said brace, links, one end of each of which is pivotally connected to one of said leg rods, a sliding guide block upon said fixed rod, lugs upon said sliding guide block to which the other ends of said links are pivoted, a fixed cap at the other end of said body member, a centrally disposed open ended tube therein and secured thereto, a partition fixed to said fixed cap and having a central opening through which said tube passes, telescoping tubes one end of the larger of which being adapted to be received within the tube in said fixed cap, springs secured to said fixed tube and by which said telescoping tube is held in adjusted positions within said fixed tube, a folding desk for music and a bent rod adjustably secured in one of said telescoping tubes and adapted at its free end for connection with said folding desk.

Signed by me this 21st day of February, 1911.

DAVID E. FORCE.

Witnesses:

GEO. T. PINCKNEY,
B. M. ALLEN.