No. 669,480. Patented Mar. 5, 1901.

G. HAVELL.

TELESCOPIC STAND.

(Application filed Nov. 21, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

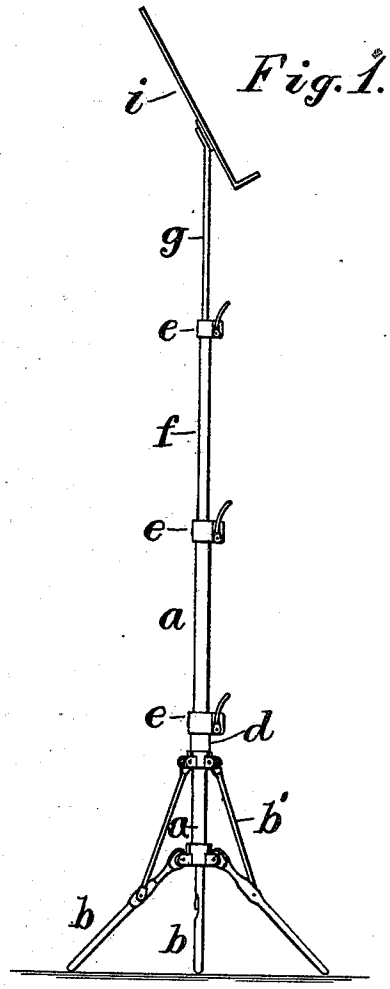


Fig. 7.

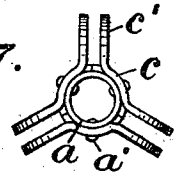


Fig. 8.

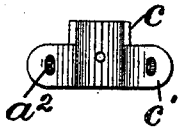


Fig. 5.

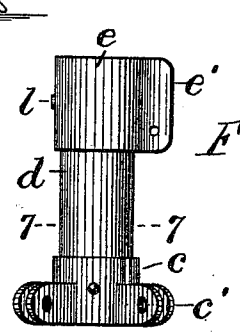


Fig. 6.



Attest:
L. Lee.
Walter F. Talmage

Inventor.
George Havell, per
Thos. S. Crane, Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 669,480. Patented Mar. 5, 1901.

G. HAVELL.

TELESCOPIC STAND.

(Application filed Nov. 21, 1899.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 4.

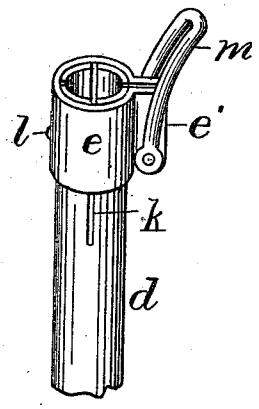


Fig. 2.

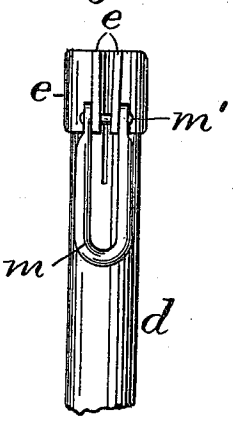


Fig. 9.

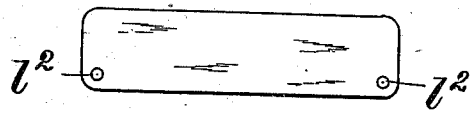
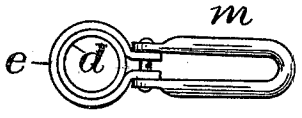


Fig. 3.



Attest:
L. Lee.
Walter H. Talmage

Inventor.
George Havell, per
Thomas L. Crane, Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE HAVELL, OF NEWARK, NEW JERSEY, ASSIGNOR TO HAVELL MANUFACTURING CO., OF SAME PLACE.

TELESCOPIC STAND.

SPECIFICATION forming part of Letters Patent No. 669,480, dated March 5, 1901.

Application filed November 21, 1899. Serial No. 737,797. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HAVELL, a citizen of the United States, and a resident of Newark, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Telescopic Stands, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The object of the invention is to furnish a construction for a telescopic stand which may be used to support a music-rack, book-rack, or other appliance and may be manufactured entirely of sheet metal and tubing. By the use of such material the parts may be constructed more cheaply and be highly finished with the least possible expense.

The invention consists partly in the construction of the slider upon the bottom tube and partly in the hinge-joints which connect the bottom tube and the slider with the hinged parts.

The invention will be understood by reference to the annexed drawings, in which—

Figure 1 is a side view of a music-stand embodying the invention with the clamps pinched upon the post-sections, and Fig. 2 an edge view of the top of the slider with the yoke unlocked. Fig. 3 is a plan of the same with the yoke extended laterally. Fig. 4 is a perspective view of the same. Fig. 5 is a side view of the slider, and Fig. 6 is a section of the same on line 7 7 in Fig. 5. Fig. 7 shows the lower end of the bottom tube with the leg-joint thereon, and Fig. 8 is an inside view of one of the segments for the leg-joint. Fig. 9 shows the blank for the clamp-strap.

a represents the bottom tube, to which the legs *b* are pivoted by means of the leg-joint segments *c*. The slider *d* is movable upon the tube *a* and has hinge-segments *c* secured upon its lower end and a clamp *e* secured upon its upper end. The segments *c* upon the slider form a hinge-joint for the links *b'*, connected to the legs. The post-sections *a* and *f* are of sheet-metal tube, provided each with a clamp *e* upon its upper end.

g is the section carrying the rack *i*.

The tubes *a* and *f* are formed each at the top with slits *k*, and each of the clamps *e* is formed of a strap fitted around such split portion of the tube and provided upon one side with a clamping-yoke *m*. The portions of the post slide within one another in the usual manner, and the respective clamps operate upon the split ends of the tubes to grip the movable portions within the same. The strap of each clamp is provided with longitudinal ears *e'*, and the strap is secured to the tube by a rivet *l*. The forked yoke or bridle *m* is fitted upon one end of the ears *e'*, and the ears or yoke are so proportioned as to crowd the ears together when the fork of the yoke is pressed upon their edges, as represented in Figs. 1 and 4. The clamp *e* is formed from the rectangular blank shown in Fig. 9, with rivet-holes l^2 in each end, and when bent into the form shown in Fig. 3 a rivet *m'* is extended through the hinged ends of the yoke and both of the ears to prevent the yoke from spreading when it crowds the ears together.

The segments *c*, which form the leg-joint upon the tube *a* and the link-joint upon the slider *d*, are formed each with a hub-section to which the letter *c* is applied and with a wing-section marked *c'*, such wings forming parallel ears when the hub-sections are secured upon the tube by rivets *a'*. Each of such segments is stamped of one piece of sheet metal, and the contiguous edges of the hub-sections are proportioned to abut, as shown at c^2 in Fig. 7, to separate the ears from one another sufficiently to admit the end of the leg *b* or link *b'*. The ears *c'* of the segments are stamped with holes a^2 to admit the rivets, which complete the hinge-joints. The tubes *a*, *d*, and *f*, the segments for the hinge-joints, and the straps for the clamps are all formed of sheet metal and are thus polished and plated with much less expense than where castings are employed for the clamps or joints. The yokes *m*, the legs *b*, and the links *b'* are formed of wire, which may also be polished and plated with the least possible expense, and the construction thus affords the means for producing an ornamental stand very cheaply.

It has been found by experience that the sheet-metal clamps are more effective than those formed of cast metal, as they are more flexible and serve to contract the split end of the tubular post most effectively. Although

the slider is formed of five pieces—the tube *d*, clamp *e*, and three hinge-segments *c*—it can be manufactured and finished up more cheaply than a casting performing the same functions.

The rivets *a'*, which secure the segments *c* upon the slider-tube, are made flush upon the inner side of the tube to permit the same to move freely upon the bottom tube of the post.

Having thus set forth the nature of the invention, what is claimed herein is—

1. In a telescopic stand having a tripod, and a split socket supported thereby, the combination, with the jointed legs and the bottom tube *a*, of the leg-joint having three sheet-metal segments formed each in one piece and comprising hub and wing sections secured concentrically upon the tube *a* with the wing-sections parallel and spaced apart to admit the legs.

2. In a telescopic stand having a collapsible tripod, the slider formed of the tube portion *d*, the sheet-metal clamp portion *e*, the three sheet-metal segments comprising hub and wing sections secured concentrically upon the tube portion *d* with the pairs of wing-sections parallel and spaced apart to admit the legs, and perforated for a rivet to form a hinge portion for the legs.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE HAVELL.

Witnesses:

J. D. CLARK,

THOMAS S. CRANE.