Jan. 19, 1932. M. H. LOUGHRIDGE ET AL 1,841,618

COMBINATION ARTICLE OF FURNITURE

Filed Feb. 17, 1926

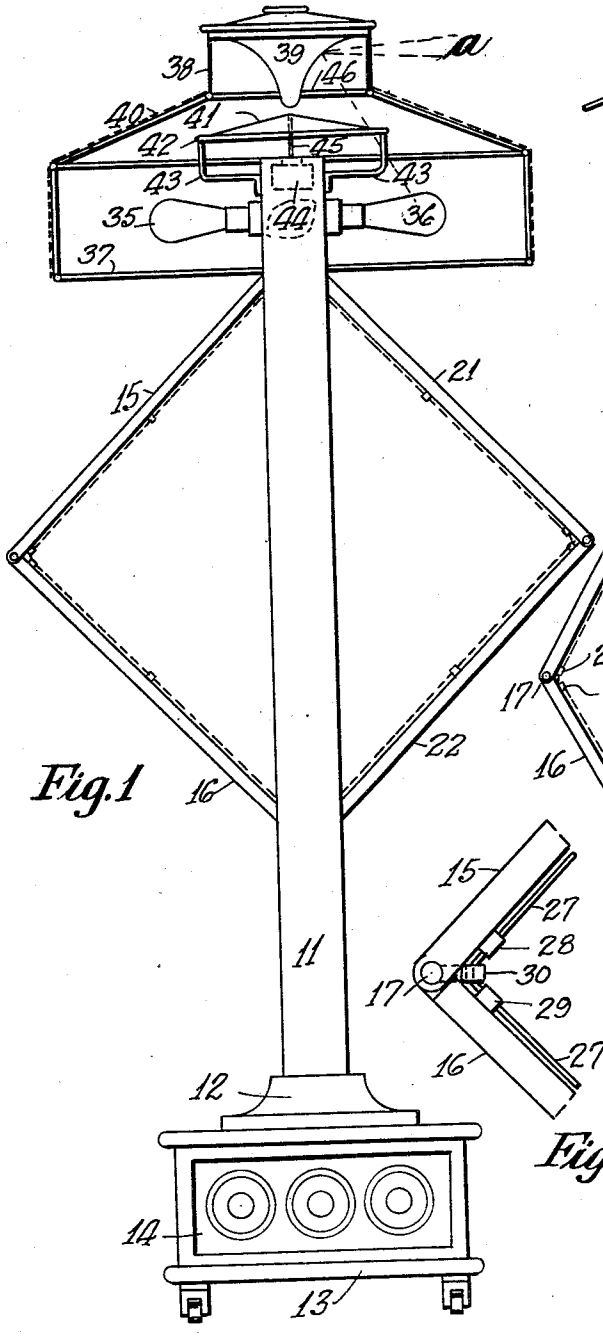

Fig. 1

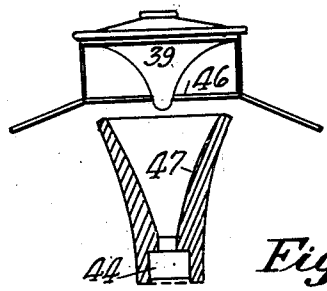

Fig. 4

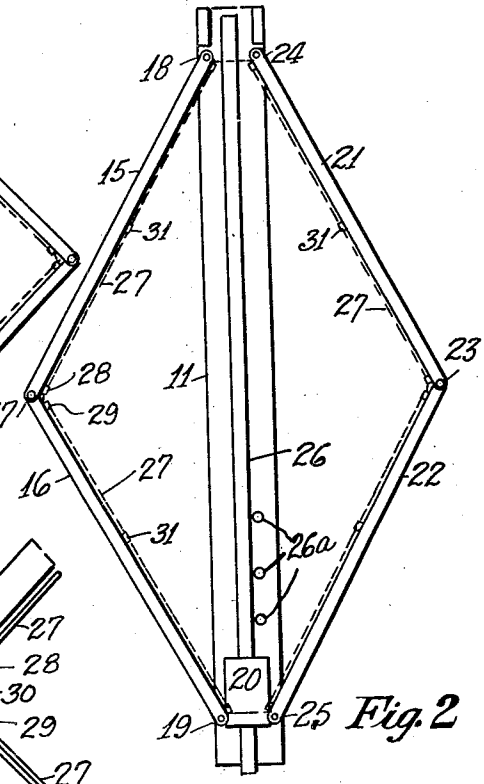

Fig. 2

Fig. 5

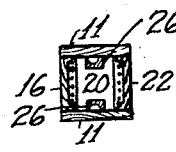

Fig. 3

INVENTORS

Matthew H. Loughridge,

BY John S. Holliday, Dec'd., by J. Margaret Holliday, Admx.

M. H. Loughridge

ATTORNEY.

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UNITED STATES PATENT OFFICE

MATTHEW H. LOUGHRIDGE, OF BOGOTA, NEW JERSEY, AND JOHN S. HOLLIDAY, DECEASED, LATE OF NEW YORK, N. Y., BY JENNIE MARGARET HOLLIDAY, ADMINISTRATRIX, OF WILKINSBURG, PENNSYLVANIA

COMBINATION ARTICLE OF FURNITURE

Application filed February 17, 1926. Serial No. 88,929.

This invention relates to an article of furniture comprising a combination lamp stand, radio loud speaker, loop antenna and a novel type of lamp shade and has for an object to provide a portable article of furniture embodying a radio outfit and lamp stand whereby one stand supports the combined articles thereby saving space, material and cost and adding to the convenience of the user. Other objects of the invention and the novelty of its various features will be more fully understood from the following specification and from the accompanying drawings, in which, Fig. 1 is an elevation of the device complete with the lamp shade shown in section, Fig. 2 shows the vertical part of the stand with one side removed and showing the collapsible loop antenna, Fig. 3 is a section of the vertical stand with the parts collapsed, Fig. 4 shows in section a loud speaker horn under the canopy of the lamp shade, and Fig. 5 is a detail of the joints of the antenna arms.

This invention as shown, comprises a floor lamp with a vertical stem supported on a portable base and having at the top one or more electric lamp bulbs under a shade or canopy and so arranged that it may be used as a floor lamp. The vertical stem is provided with folding sides which can be expanded into the form of a rectangle and which support antenna wires that may be used with any radio outfit. When not in use these arms collapse and form the sides of the stem so that their purpose as an antenna support cannot readily be detected. Under the lamp shade a loud speaker unit is provided at the top of the vertical stem which may be connected with any radio outfit. The loud speaker may be of the diaphragm type or of the horn type. An annular vertical opening is provided in the shade over the loud speaker with an inverted conical reflector to reflect the sound from the loud speaker horizontally above the shade. The base of the device may be used to house a radio set or other sound producing instrument. The entire device has the appearance and dimensions of the usual form of floor lamp, occupies little space and is attractive in appearance. This invention is partially disclosed in our co-pending application, Serial No. 525,917, filed December 30, 1921, which application was directed to the collapsible antenna.

In the drawings 11 is the vertical stem, which, as indicated in Fig. 3 is square in section having a pair of side boards 11 and a pair of opposite sides 16 and 22 enclosing a hollow space in the stem. The sides at right angles to 11 comprise the arms 15 and 16 pivoted at 17 and the arms 21 and 22 pivoted at 23. The arm 15 is pivoted at 18 and the arm 21 is pivoted at 24 to the top of the vertical stem. A block 20 slides vertically inside the stem on the guides 26. This block is pivoted at 19 to arm 16 and at 25 to arm 22. It will be observed from this construction that as the block 20 is raised the arms expand and form the rectangle as in Fig. 1 and when this block is lowered, the arms are collapsed to form the sides of the stem. The extent to which the arms are expanded may be regulated by varying the height to which the block 20 is raised. Stops may be used as at 26*a* to support block 20 in the raised position.

On the interior of these arms a coil of antenna wire 27 is secured by cleats as at 28, 29 and 31. At the joints, the cleat 30 secured to the joint pivot as in Fig. 5 may be provided with the antenna wires threaded through this cleat so that the wires cannot get out of alignment at the joints. The arms may be rabbeted, as indicated in Fig. 3, where desired, to afford better protection for the antenna wires.

The vertical stem 11 through the base 12 is supported by the stand 13 which may be mounted on castors and this stand may house a radio set as indicated at 14.

The lamp bulbs 35 and 36 are secured to the top of the stem. The guides 26, it will be noted from Fig. 3 are hollow forming a conduit for the wires for the lights.

The lamp shade or canopy as shown, is constructed from a wire frame 37 secured to the vertical stem according to well established construction and is covered by silk or transparent material 40. On the vertical axis of this shade vertical bars 38 arise above the

shade and support the inverted conical reflector 39 in the centre of the ring 46. It will be noted that this provides a vertical annular space in the centre of and above the lamp shade which may be enclosed with some material which will keep out the dust but will permit the passage of sound.

One form of loud speaker unit is shown in Fig. 1. This comprises the diaphragm 41 supported at its edges in the annular ring 42 which by brackets 43 is secured to the vertical stem. The centre of the diaphragm by connection 45 is operated by the loud speaker unit 44. In the construction shown in Fig. 4, the loud speaker unit 44 is located at the base of the horn 47 and the orifice of this horn is immediately below the inverted conical reflector 39 and in this respect is similar to the location of the diaphragm 41 under the cone 39 in Fig. 1.

The inverted cone is preferably, a reflector of both light and sound so that the sound produced by the loud speaker is reflected in an annular horizontal plane and part of the light, as indicated by the dotted lines *a*, Fig. 1 is also reflected in the same manner, thus producing a halo around the top of the lamp. It will be noted that in this case the light is reflected from a curved surface producing the effects of the spectrum with attractive lighting effects.

The device is constructed as far as possible from non-metallic materials so as to avoid inductive disturbances in the operation of the radio apparatus.

Having thus described our invention, we claim:

1. In combination, a vertical stem supported on a portable base, a source of light and a shade for said light supported by said stem, a sound emitting device comprising a cone shaped diaphragm in the axial centre of said shade supported by said stem and an opposing cone shaped reflector placed above said diaphragm to reflect sound in an annular horizontal plane.

2. In combination, a vertical stem supported on a portable base, a source of light and a shade for said light supported by said stem, a sound emitting device comprising a cone shaped diaphragm in the axial centre of said shade supported by said stem and a reflector placed above said diaphragm to reflect sound and light in a horizontal plane.

In testimony whereof we affix our signatures.

MATTHEW H. LOUGHRIDGE.
JOHN S. HOLLIDAY,
Deceased.
By JENNIE MARGARET HOLLIDAY,
Administratrix.