May 19, 1942. P. J. FABER 2,283,324

STAND FOR MICROPHONES AND THE LIKE

Filed April 24, 1939

Fig. 1

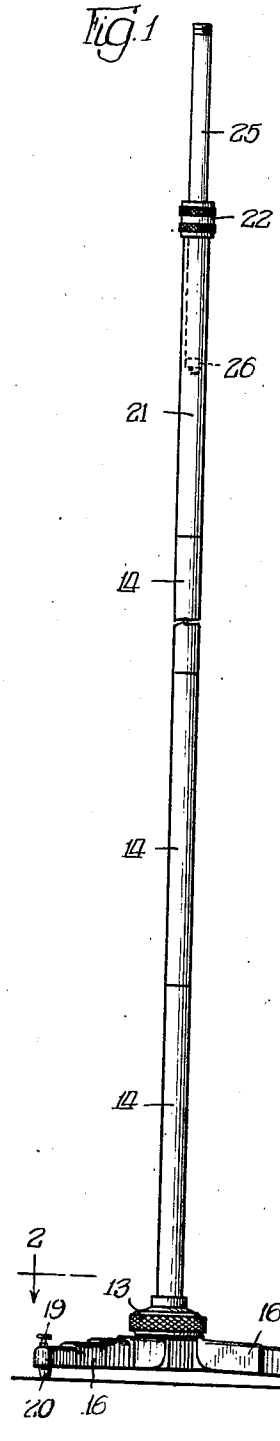


Fig. 2

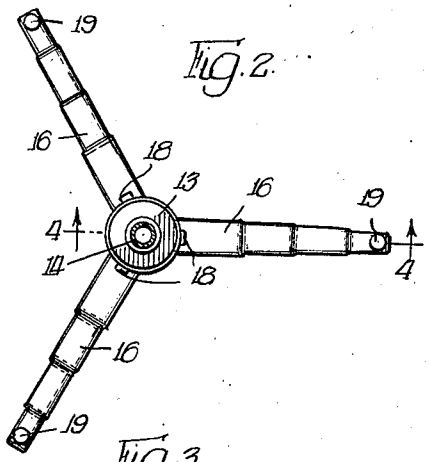


Fig. 3

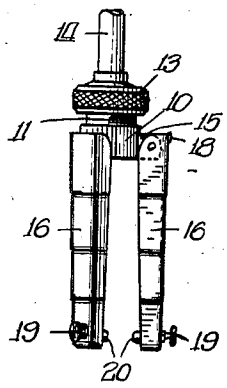


Fig. 5

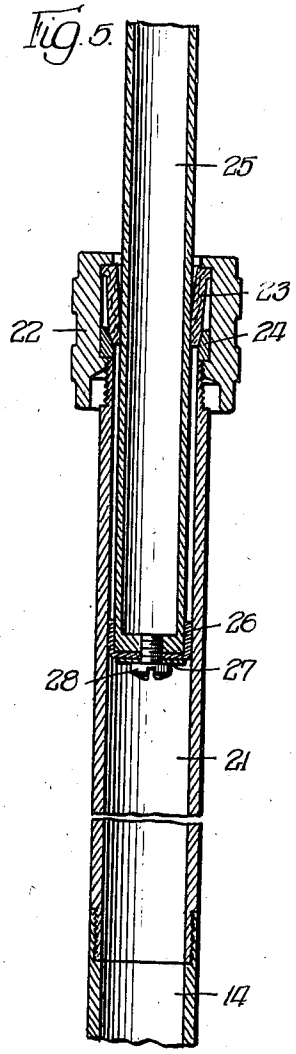
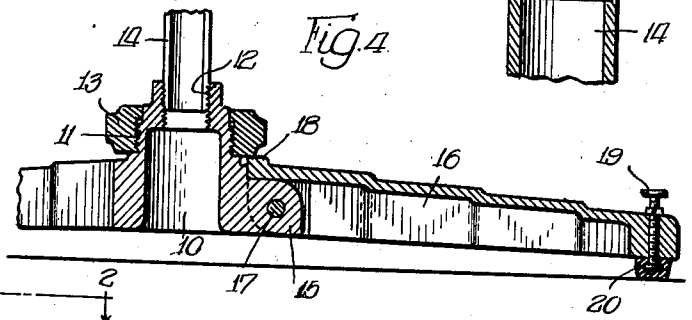


Fig. 4



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2,283,324

STAND FOR MICROPHONES AND THE LIKE

Peter J. Faber, Chicago, Ill.

Application April 24, 1939, Serial No. 269,660

4 Claims. (Cl. 248—194)

This invention has to do with stands and supports for microphones and the like such as used for public address systems, radio broadcasts, etc.

It is an object of this invention to provide a stand which is sturdy and will stand a lot of abuse, which may be adjusted to various heights depending on whether it is to be used on a speaker's table, for children, or for people of various heights.

It is also an object of this invention to provide a stand in which the base is collapsible and may be fitted into a small space; but when opened has a firm locking means retaining it against collapsing.

It is a further object to provide a stand which has adjustable base means to compensate for uneven surfaces.

It is another object of the invention to provide an improved form of retaining member holding the slideable section against undesired movement and exerting friction, in the desired amount against vertical movement. In this connection the slideable member is spaced from the sides of the sectional tube holding the slideable member in such a way that no rattling occurs or other undesirable noise which would be transmitted to the microphone.

It is a further object to provide a device which is relatively inexpensive and is simple to manufacture, easy to assemble and operate, and meets the need for a portable, collapsible stand for microphones used in public address systems and the like.

Other objects and advantages of the invention will appear as the nature of the improvements is better understood, the invention consisting substantially in the novel construction, combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawing, and finally pointed out in the appended claims.

In the drawing:

Figure 1 is a side elevation showing the device of the present invention. In this figure a portion of one of the extension tube sections of the device is broken away to shorten the figure and the slideable extension tube is shown in dotted lines as inserted in the top extension tube section;

Figure 2 is a plan view showing the base assembly in extended form; that is, in operating position;

Figure 3 is a side elevation showing the base assembly in collapsible position, showing the first extension tube section as fragmentary;

Figure 4 is a view taken on the lines 4—4 of Figure 2, looking in the direction of the arrows, showing the first extension tube section as fragmentary; and

Figure 5 is a fragmentary sectional view showing the extension tube section with the slideable extension tube therein in operable position.

Referring more in detail to the construction shown in the various figures, number 10 is the base, which has the external threads 11 and the internal threads 12.

The locking ring 13 screws over the threads 11, and the threads 12 receive an extension section tube 14 which is externally threaded to correspond.

The base 10 has the lugs 15 which are shown as extending out in three directions and to which are fastened the arms 16. These arms are fastened to the lugs 15 by means of the pins 17. The arms 16 fit securely against the base 10 when in extended position and these arms are held securely against movement in a direction which would permit the base 10 to drop down by the fact that they have been rotated around the pin 17 to where their inner end comes flush against the base 10.

The inner end of arms 16 have their bottom portions rounded as will be best discerned in Figure 3 and as shown by dotted lines in Figure 4 so that the arm is free to move from the extended position of Figure 4 to the position shown in Figure 3 or vice versa as the case may be.

To lock arms 16 in extended position, the locking ring 13 is threaded down to contact the tops of the arms 16 and draws them downward until they fit tightly against the face of the base 10.

In this arrangement, when the arms are locked in extended position by locking ring 13, the microphone stand may be picked up by the extension section tubes and moved from place to place without its collapsing or rattling and it will continue to maintain a solid, firm base assembly until the locking ring 13 is loosened.

In manufacture, the base assembly is usually completed with the exception of the locking ring, and a small raised ledge 18 is usually provided on the arms 16. The arms are then moved to extended position and held firmly in that position and then the raised ledge 18 on all the arms machined in the same operation so as to secure a surface which the locking ring 13 will contact on all arms of the assembly at the same time. This prevents the assembled arms from having an uneven contacting ledge and therefore movement play which would be objectionable, as it

would be noisy and form an insecure support for the stand.

In connection with this base assembly I have shown the adjusting screws 19 which are preferably threaded through one or more of the arms 16 at the end and have the rubber tips 20. If the floor is uneven or it is desired to tilt the microphone slightly on one side or the other the adjusting screws 19 may be threaded in or out as desired to provide such adjustment.

It is to be understood that the locking ring 13 could, in slightly different shape be provided on the bottom of the base 10 in such a way that it would hold the arms 16 in extended position as is now done. In such a case however the locking ring 13 would have to be entirely removed before the arms 16 are collapsed into the position of Figure 3 and would have to be carried separately from the base assembly. It is preferable therefore that the locking ring arrangement shown be used, but it is not the intention to limit this disclosure to such an extent that it will not cover a locking ring placed on the bottom as well as above the arms.

The extension section tube 14 is provided with external threads on one end and internal threads on the other so that as many sections of this tube may be used as the situation calls for. Ordinarily, for use on a speakers' table where the person using the microphone is seated, only the upper extension tube section 21 will be used. This will be threaded directly into the base number 10 by means of the inner threads 12.

This upper extension section tube differs from the other extension section tubes in that it is preferably provided with external threads on each end. On the upper end it has the collar 22 which is threaded on to the upper threads. Inside this collar is the leather or fabric washer 23. This washer 23 slips into the internal circumference of the metallic ring 24. This metallic ring 24 is preferably bevelled on its internal circumference so that the further down the fabric washer 23 is moved, the further inward it is forced by the surface of the ring 24. The washer 23 seats against a retaining ledge on the upper portion of the collar 22 so that it is forced downward with rotation of the collar on the threads of the extension section tube 21.

A slideable extension tube 25 fits inside the tube 21 and the collar 22. The extension tube is spaced from the upper portion of the tube 21 and from the collar 22 by means of the fabric washer 23. The fabric washer 23 likewise holds this extension tube against vertical movement except when forced, and will retain the tube in the position in which it was placed so that the microphone (not shown) on top of the tube 25 be adjusted for height within the limits of the tube 25 by setting in a desired portion. The tube 25 may be moved vertically, however, by exerting sufficient force to overcome the friction of the washer 23.

The bottom of the tube 25 has the fabric cap 26, preferably of felt or the like, which fits over the end of the tube and spaces it from the sides of the extension section tube 21. As here shown, this fabric cap 26 is held into position by means of a small metallic washer 27, and the screw 28.

The above mentioned fabric cap 26 in addition to maintaining the tube 25 from contact with the sides of the tube 26 at the lower portion of the tube 25, serves as a stop which will catch on the washer 23 and prevent the tube 25 from being pulled apart from the tube 21. This allows the person desiring the microphone at its full height to pull up on the tube until it reaches the stop without danger of disconnecting the two tubes, and without incurring a bump of metal on metal which would be transmitted to the microphone and be objectionable.

As above pointed out, a person who is seated in front of a desk would ordinarily use the base assembly with the extension section tube 21 as a support for the microphone. The person who is standing with the microphone on the table would ordinarily wish an additional extension section tube 14 between the tube 21 and the base 10. Such an arrangement as the latter would ordinarily be desired for use of the microphone on a floor where the persons talking are children or other short people. If the use is for stage where adults would be primarily interested in using the device, three or more sections 14 would be used between section 21 and the base. Variation to accommodate the height of persons differing as much as one foot or more may be had by use of the extension tube 25.

Incidentally, the base assembly having three arms provides not only a very firm rest and support for the microphone but permits use on such places as banquet tables without interfering with the dishes or taking up an objectionable amount of room.

The parts of the base assembly may be cast or otherwise manufactured with a degree of accuracy which makes it unnecessary to machine the arms after they are assembled in order to assure exact fit for correct positioning of the stand.

One particular feature of the stand arrangement as a whole is that it forms a very compact bundle when disassembled for shipping or transportation. The use of the stand with a portable amplifier for example is handled by having a so-called "crows-foot" of the type sometimes used to hold up lighting fixtures fastened into the case of the amplifier, which "crows-foot" is externally threaded to match the inner threads on the base. When the base is collapsed by having the arms folded or grouped close together, it may be screwed on to the "crows-foot" and will be firmly held in the case in a very small space. The various extension section tubes may be separated and placed in small retaining clips or the like in a space in the carrying case without much room being needed. As thus packed for carrying, the articles will not rattle or injure any of the other equipment, will always be in place, and will be easily and promptly accessible for use when needed.

It is still a further object to provide a device having a microphone support adjustable for height, said adjustment being effectuated for adding or removing sections which for the purpose of this application may be designated "extension section tubes," and likewise having a separate adjustment for height by means of slideable or vertically adjustable means, preferably inserted in one or more of the extension section tubes, which last named adjustment may be designated "extension tube" for the purpose of this application, and said extension tube being preferably retained at adjusted position by friction means or the like.

The form of the invention herein shown and described presents a preferred embodiment thereof, and delineates its adaption to practical use, but it is to be understood that the present disclosure is to be considered from the illustra-

tive standpoint and not as imposing restriction or limitation on the invention.

While I have herein shown and described certain features of my invention, still I do not wish to limit myself thereto, except as I may do so in the claims.

I claim:

1. A base for a microphone stand and the like consisting of a base member, a plurality of arms journaled to the base member and movable thereon opening outwardly forming a support, and movably inwardly grouping said arms when not in use as a support, locking means comprising a locking ring threaded on the base member whereby threading the ring on the threads locks the arms when in extended position and unthreading the ring from the threads releases the arms from extended position, and means receiving and retaining a removable extension section tube in said base member.

2. A base for a microphone stand and the like consisting of a base member, a plurality of arms journaled thereon with their extremities movable outwardly forming a support with the arms in extended position, and movable inwardly grouping the arms when not forming a support, a locking ring on the base locking the arms in extended position, and means receiving and retaining a removable extension section tube in said base member.

3. A base assembly for a microphone stand comprising in combination a base member, a plurality of arms movably connected to said base, locking means operable to hold said arms in extended position, said locking means comprising a locking ring threaded on said base member and contacting the said arms when it is tightened downward on said threads, retaining the inner ends of said arms tightly against said base member, and thus locked against movement with respect to said base member, adjustable means on each arm adjusting the position of the arm with respect to the floor, and means receiving and holding the microphone support on said base, substantially as described.

4. A base assembly for a microphone stand comprising in combination a base member having means receiving and retaining a removable extension section tube, lugs on said base member, arms journaled on said lugs and rotatable to bring one end of said arm flush against the face of the base member when the arms are in extended position, and an adjusting means on the other end of at least one of said arms spacing the end of said arm from the support on which the base assembly rests, and means holding said arms firmly in extended position, said holding means consisting of a locking ring adjustably carried by said base member and adjustable to contact each of said arms and hold them flush against the face of the base member, substantially as described.

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