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LOUD SPEAKER HORN

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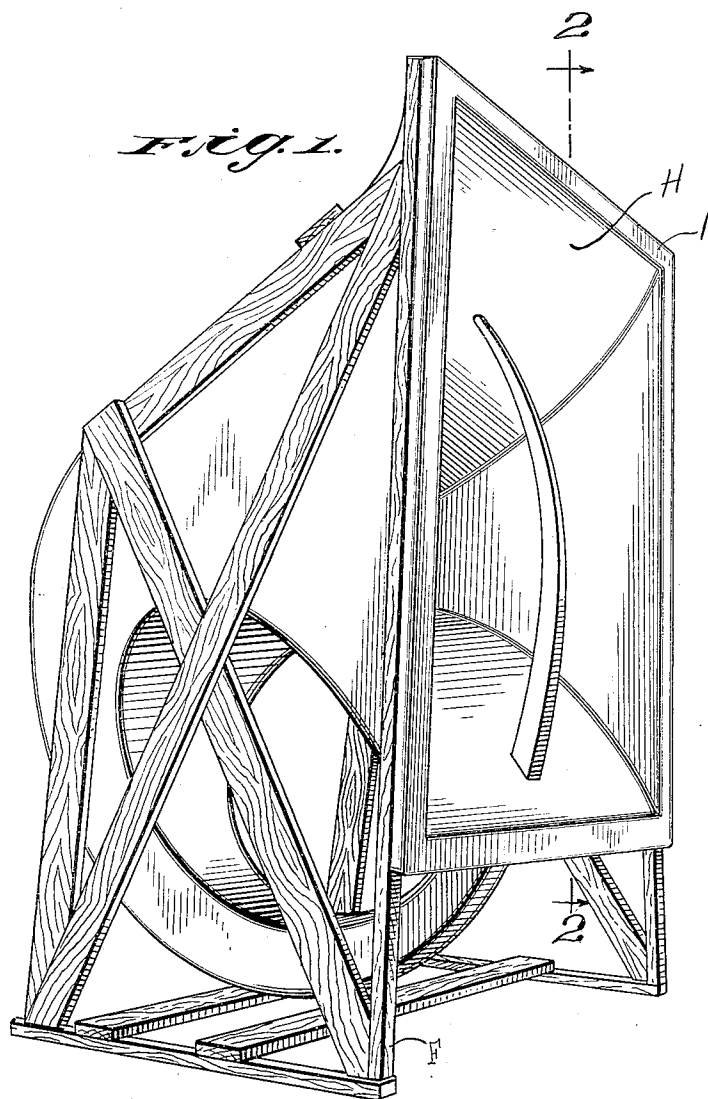
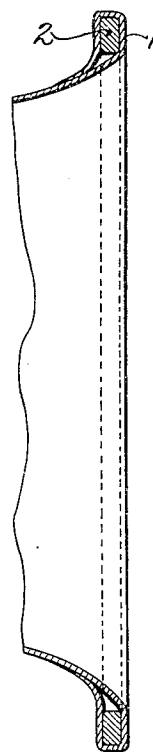


Fig. 2.



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LOUD-SPEAKER HORN

Application filed January 22, 1929. Serial No. 334,144.

My invention relates to a new and improved loud speaker horn.

One of the objects of my invention is to provide an improved loud speaker horn of large size, which is reinforced so that it can be combined with a supporting frame.

Another object of my invention is to provide a combined loud speaker horn of large size, together with a supporting frame therefor.

Other objects of my invention will be set forth in the following description and drawings which illustrate a preferred embodiment thereof, it being understood that the above general statement of the objects of my invention is intended merely to generally explain the same and not to limit it in any manner.

Fig. 1 is a perspective view showing the combined horn and frame.

Fig. 2 is a detail sectional view along the line 2-2 of Fig. 1.

Heretofore in manufacturing large-sized horns of the exponential type for example, it has been difficult to handle and mount the horns without injuring them.

According to my invention, the horn H, which may be of any suitable type or size, but which is preferably a large-sized horn of the exponential type, is made of cloth. The material of which the horn is made is preferably that disclosed in the Max Abrahams U. S. Patent No. 1,501,032 dated July 15th, 1924.

The horn H consists of a bell-portion 1 which is preferably rectangular, and a convoluted horn portion, the narrow portion of which extends through the bell 1 of the horn.

The cloth of which the bell of the horn is composed, is preferably lapped around a frame 2 which is preferably made of wood. The horn which is thus provided with a bell having a reinforced edge, is connected to a frame F, which is preferably made of wood. Such connection may be made by means of nails or any other suitable means.

The combined horn and frame provides a very convenient mount for large-sized horns, of the type used in auditoriums or theatres.

It will be noted that the outer frame F supports the horn solely by means of the inner

frame 2 of the bell of the horn, so that all contact between the horn and solid surfaces is prevented.

While the horn is preferably made of cloth, it could also be made of paper or other pliable material.

This permits the material of the horn to vibrate when sound waves are passed through it, without having the tone affected by contact between the material of the horn, and a rigid body or surface.

In using large-sized horns of this type, it is desirable to damp the vibrations of the horn as much as possible, but nevertheless a certain amount of such vibration results, particularly if a large volume of sound is being delivered. By supporting the horn solely by means of the inner frame 2 of the bell of the horn, such distortion is eliminated or minimized.

It will be noted that the outer supporting frame F is a skeleton frame so that there are no undesirable resonance effects between said frame and the wall of the horn. Likewise, the narrow inlet end of the horn is spaced and separate from the outer supporting frame F, thus minimizing undesirable resonance effects.

I have shown a preferred embodiment of my invention, but it is clear that numerous changes and omissions can be made without departing from the spirit of my invention.

I claim:

1. A combined loud speaker horn and a supporting frame therefor, said horn being supported in said frame substantially at the mouth of bell-portion of the horn, the inlet of said horn being separated from said frame.

2. A loud speaker horn having a bell and a mount for said horn, said bell having an inner reinforcing frame therein which is adapted to connect the horn to a mount, said mount being separated from the inlet end of said horn.

3. A loud speaker horn having a wall made of pliable material, said horn having a bell, said bell having an inner reinforcing frame at its edge, the pliable material of the wall at the edge of said bell being lapped around

said inner reinforcing frame for the edge of the bell.

4. In combination, a loud speaker horn and an outer supporting frame therefor, said horn having a wall made of pliable material, said horn having a bell, said bell having an inner reinforcing frame at its edge, said horn having the pliable material of its wall at the edge of said bell lapped around said inner frame, said inner frame being connected to the outer supporting frame.

5. In combination, a tapered loud speaker horn having its narrow inlet end passing through the wider portion thereof and a supporting frame connected to said wider portion, said supporting frame being spaced from the narrow inlet end of the horn.

In testimony whereof I affix my signature.

ALEXANDER I. ABRAHAMS.

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