No. 885,493. PATENTED APR. 21, 1908.

H. W. LESTER.

HORN.

APPLICATION FILED NOV. 5, 1907.

Fig. 1

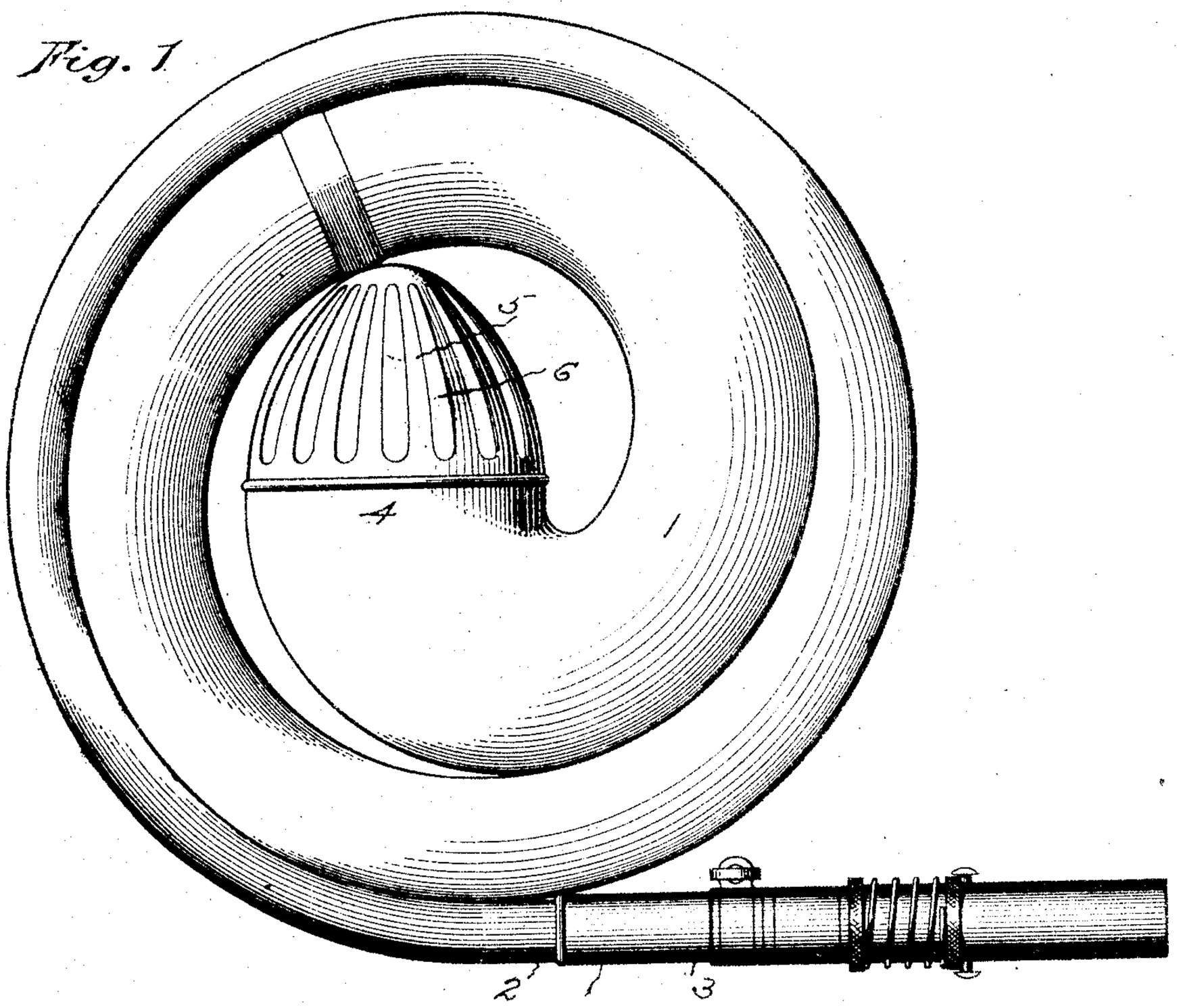
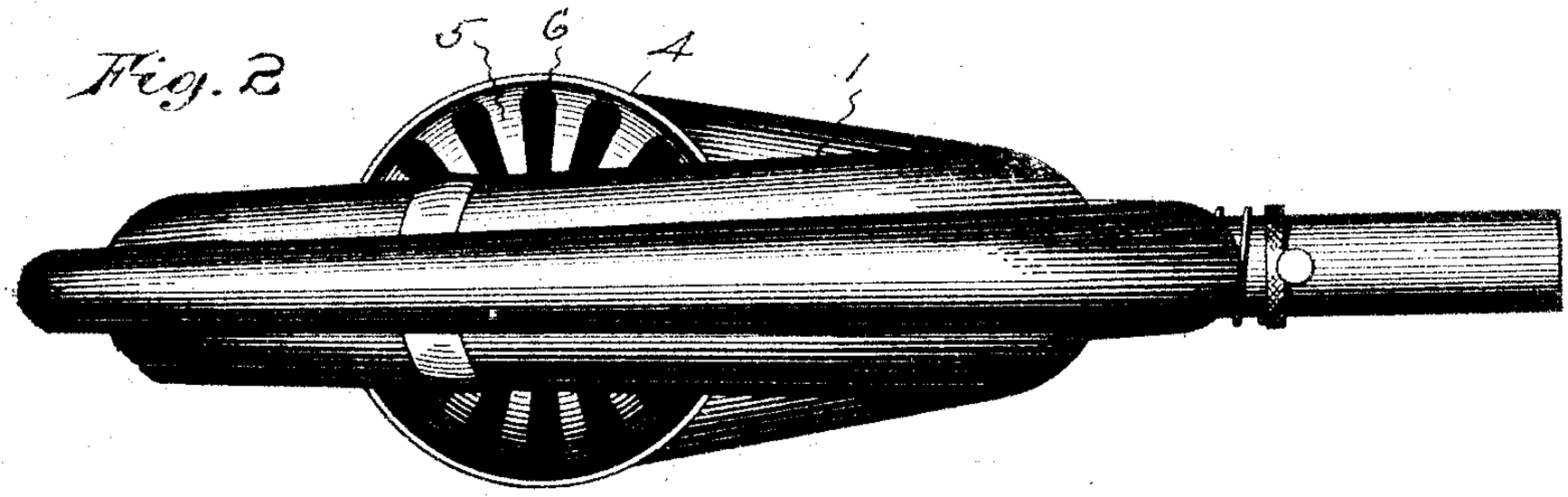


Fig. 2



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HORN.

No. 885,493. Specification of Letters Patent. Patented April 21, 1908.

Application filed November 5, 1907. Serial No. 400,752.

To all whom it may concern:

Be it known that I, HOWARD W. LESTER, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Horns, of which the following is a specification.

This invention relates to a horn which is designed for use in connection with automobiles and motor boats, for the purpose of giving warning signals.

The object of the invention is to produce a compact and neat horn, that is simple and cheap to manufacture, and that will give a full, strong tone when blown, regardless of the direction of the wind or the speed at which the vehicle, to which the horn is attached, is traveling.

Warning horns of this character have customarily been constructed with one or more flaring or bell mouths that project from the center, or the periphery of a convolute body. These flaring mouths, which have commonly been supposed necessary to insure a full toned sound, not only project outward in such manner as to occupy considerable space, and which are in appearance more or less clumsy and bungling and require an unnecessary amount of metal in their construction catch the air currents and prevent the full sound produced by the reed from being emitted. For instance, a bell mouthed horn on an automobile traveling say forty or fifty miles an hour catches the air and causes it to back into the horn against the reed with greater pressure than can be produced by squeezing the bulb usually employed for this class of horns, and consequently the horn will not emit the necessary sound when desired.

The horn which embodies present invention is coiled so that the outlet is at the center, and is of such shape and is so protected that air will not be blown into the tube when the vehicle with which it is used is in rapid motion, allowing a full volume of sound to be emitted when the bulb or other source of air supply is operated and the reed sounded.

Figure 1 of the accompanying drawings shows a side elevation of one form of horn that embodies the invention. Fig. 2 shows an edge elevation of the same.

The body 1 of the horn, which may be made of any convenient metal, preferably thin brass, is formed of a tapering tube wound into a helical coil with the smaller end at the periphery and the larger end at the center.

The smaller or inlet end 2 of the horn is designed to receive a tube 3, which contains a common form of reed, and which is arranged for the attachment of the end of the tube which leads from the bulb or other common means for supplying air for blowing the horn.

The larger or outlet end 4 of the horn, instead of being turned outwardly and provided with a projecting bell or flaring mouth, as is the common horn, is left in the plane of the coils and is tapered down so as to form a conical head 5. This head is perforated, preferably by slots 6, although of course other forms of perforations could be used without departing from the invention.

A horn constructed in this manner is comparatively small and light. It is thin and can be packed in a low box for storing and shipment, and it occupies but a small amount of space on the automobile or other vehicle to which it is attached. Only a minimum amount of metal is required to construct this horn as there are no flaring mouths, and for the reason that there are no flaring mouths, no matter what the speed of the vehicle, air is not blown down into the horn so as to counteract the force of the air that is forced out when the horn is blown.

The invention claimed is:

1. A horn consisting of a tapered convolute body with the smaller end of the body at the periphery and the larger end of the body at the center, said larger end having an ovoid perforated head in the plane of the coils, substantially as specified.

2. A horn consisting of a tapered convolute body with the smaller end of the body at the periphery and the larger end of the body at the center, said larger end terminating in the plane of the coils in a rounded head that is provided with slits, substantially as specified.

3. A horn consisting of a tapered convo-

lute body with the smaller end of the body at the periphery and the larger end of the body at the center, said larger end terminating in the plane of the coils and provided with slits, substantially as specified.

4. A horn consisting of a tapered convolute body with the smaller end of the body at the periphery and the larger end terminating in a rounded head at the center, said head lying in the plane of the coils and provided with perforations on both sides of the plane of the coils, substantially as specified.

HOWARD W. LESTER.

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