

I. E. STUMP.
SIGNAL HORN.
APPLICATION FILED JAN. 17, 1911.

1,013,905.

Patented Jan. 9, 1912.

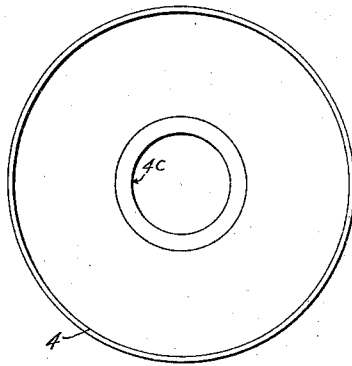


Fig 1

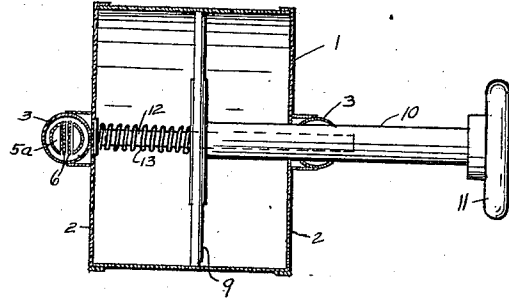


Fig 2

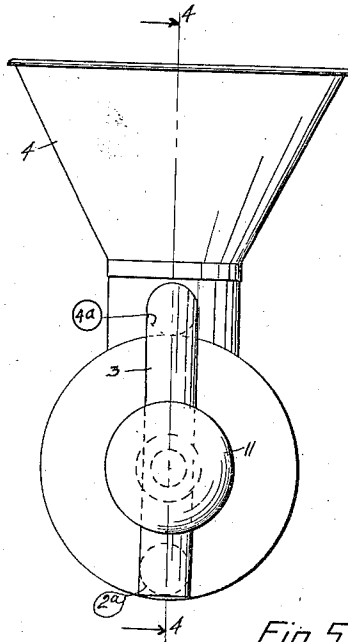


Fig 3

Fig 5

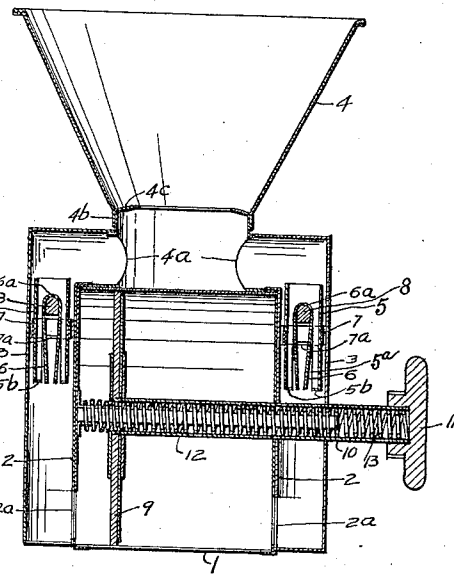
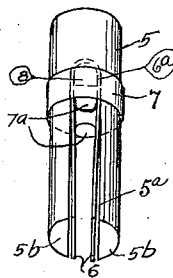


Fig 4

Witnesses

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UNITED STATES PATENT OFFICE.

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SIGNAL-HORN.

1,013,905.

Specification of Letters Patent.

Patented Jan. 9, 1912.

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To all whom it may concern:

Be it known that I, IRA E. STUMP, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Signal-Horns, of which the following is a specification.

My invention relates to improvements in signal horns, and is particularly designed and adapted for use in connection with automobiles, motor-trucks, and other vehicles, the primary object of the invention being to provide a generally improved manually operated horn of this class, of exceedingly simple, cheap, and efficient construction, better adapted to its intended purposes than any other device of the same class with which I am acquainted.

The invention is designed as a substitute for, and an improvement over the ordinary bulb horn now commonly employed in connection with automobiles and other vehicles.

With the above mentioned and other objects in view, the invention consists in the novel construction, arrangement, and combination of parts, hereinafter described, illustrated in one of its embodiments in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification, Figure 1 is a front elevation of the improved horn. Fig. 2, a central sectional view through the plunger casing of the improved horn. Fig. 3, a side elevation of the improved horn. Fig. 4, a sectional view taken on line 4—4 of Fig. 3. Fig. 5, a perspective view of one of the reed plugs or holders used in the improved horn.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The improved signal horn comprises a plunger casing 1, preferably of cylindrical form as shown, and provided with heads 2, said heads being provided with ports 2^a, communicating with conduit pipes or tubes 3, carried by the heads 2, said conduits 3, communicating with the horn bell portion 4, through oppositely arranged openings 4^a, in the base portion 4^b, of the latter. The flanged portion 4^c, of the base of the bell may be provided with a suitable screening for the exclusion of dust, and each conduit pipe or tube is provided with a tubular plug or holder adapted to carry or contain a

sounding element or vibrating tongue, such for example as hereinafter described, said plugs or holders being preferably of tubular form and each comprising a main body portion 5, open at one end and provided at the other with a slotted portion 5^a, said slot portion being adapted to receive and contain the sounding element or member, said sounding element or member preferably comprising a single strip of metal bent upon itself, forming a U-shaped looped portion 6^a, with oppositely extending vibrating tongues or reeds 6, adapted to close or form the sides of the slot 5^a, the free ends of said tongues or reeds being adapted to impinge against the ends 5^b, of the tubular body 5 as illustrated most clearly in Fig. 5 of the drawings.

As a means for removably and adjustably mounting each reed plug or holder in the tubular conduits 3, a sleeve or ring member 7, is provided, said sleeve member being adapted to fit within the conduits 3, and being preferably provided with oppositely disposed inwardly extending lugs or projections 7^a, adapted to fit between the tongues or reeds 6, said sleeves or members 7, being preferably longitudinally adjustable upon the holders 5, whereby the vibrations of the reeds may be controlled and regulated. The loop portion 6^a, of the sounding element or double reed 6, is preferably secured within the plugs or holders 5, by means of a securing pin or cross member 8.

As a means for forcing the current of air through the conduit pipes 3, and holders 5, whereby to vibrate or sound the vibrating tongues or sounding elements in a well understood manner, a plunger piston 9, is mounted in the casing 1, intermediate the port heads 2, said plunger piston being provided with a tubular plunger stem 10, extending through a suitable opening in one of the heads 2, and provided with an operating knob or handle 11. A guide stem 12, is mounted on the opposite head 2, and extends within the tubular plunger stem 10, said guide stem being surrounded by and carrying a coiled spring 13, whereby said plunger piston and stem when manually moved or actuated in the inward movement will be moved against the resistance of said spring, thus forcing air through one of the conduit pipes and taking in air through the opposite conduit pipe, and when the pres-

sure used in forcing the plunger piston inwardly is removed said spring will retract or move the plunger piston and stem in an opposite direction, thus operating to vibrate
5 the sounding elements or reeds in an obvious and well understood manner.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my
10 invention will be readily understood.

Having thus described an embodiment of my invention, what I claim and desire to secure by Letters Patent is,—

1. In a signal horn, a tubular holder provided with a cross member and a slot, a U-shaped sounding element looped across said
15 cross member and having its tongues dis-

posed within said slot, and a movable sleeve having projections interposed between said
tongues.

2. In a signal horn, a tubular holder provided with a slot, a cross member carried by
said holder, a sounding element carried by
said cross member and having oppositely
disposed reeds within the sides of said slot, 25
and a sleeve movable on said holder and provided with lugs in engagement with said
reeds.

In testimony whereof I have affixed my signature in presence of two witnesses.

IRA E. STUMP.

Witnesses:

O. C. BILLMAN,

E. P. SCHLOSSER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."