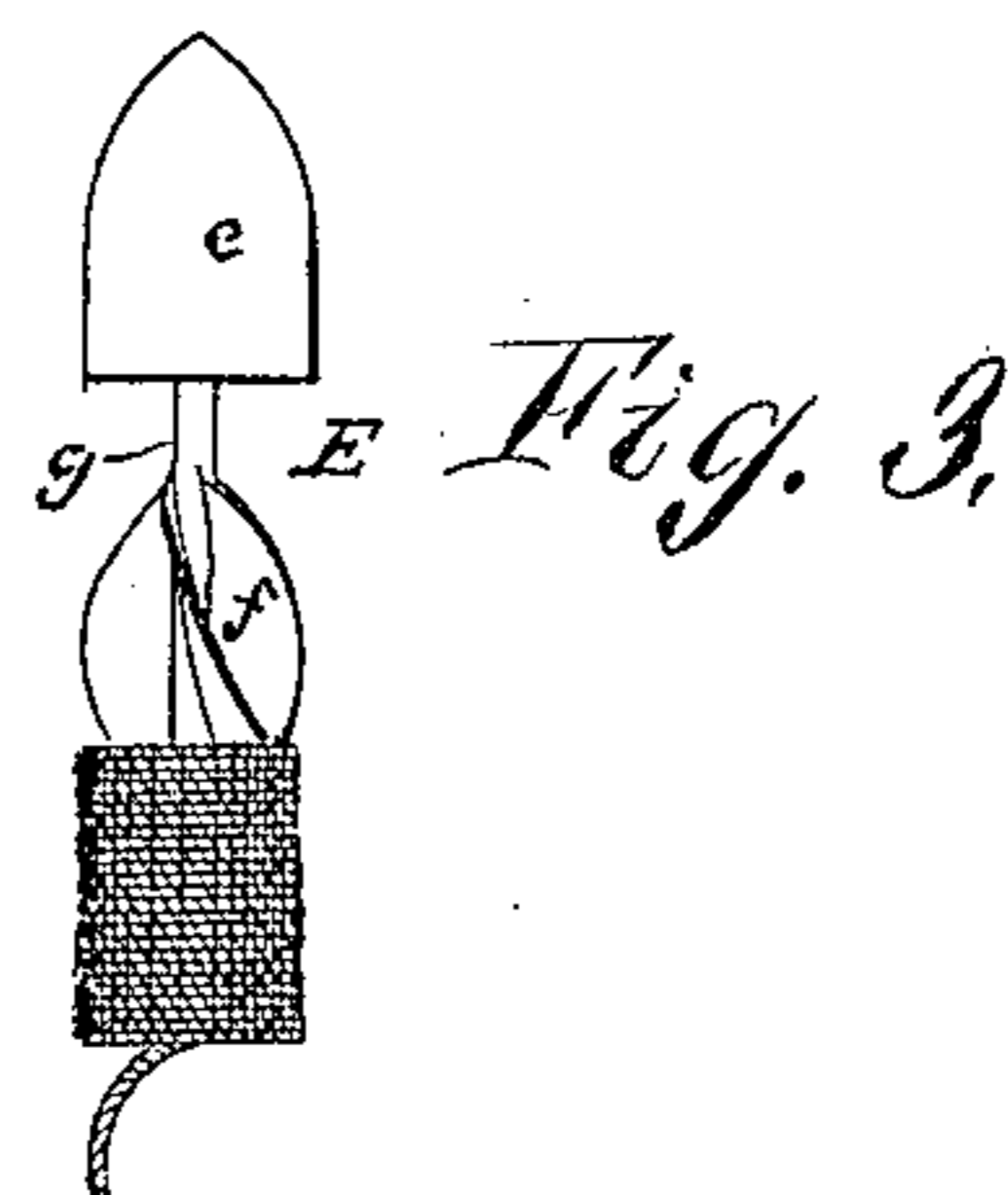
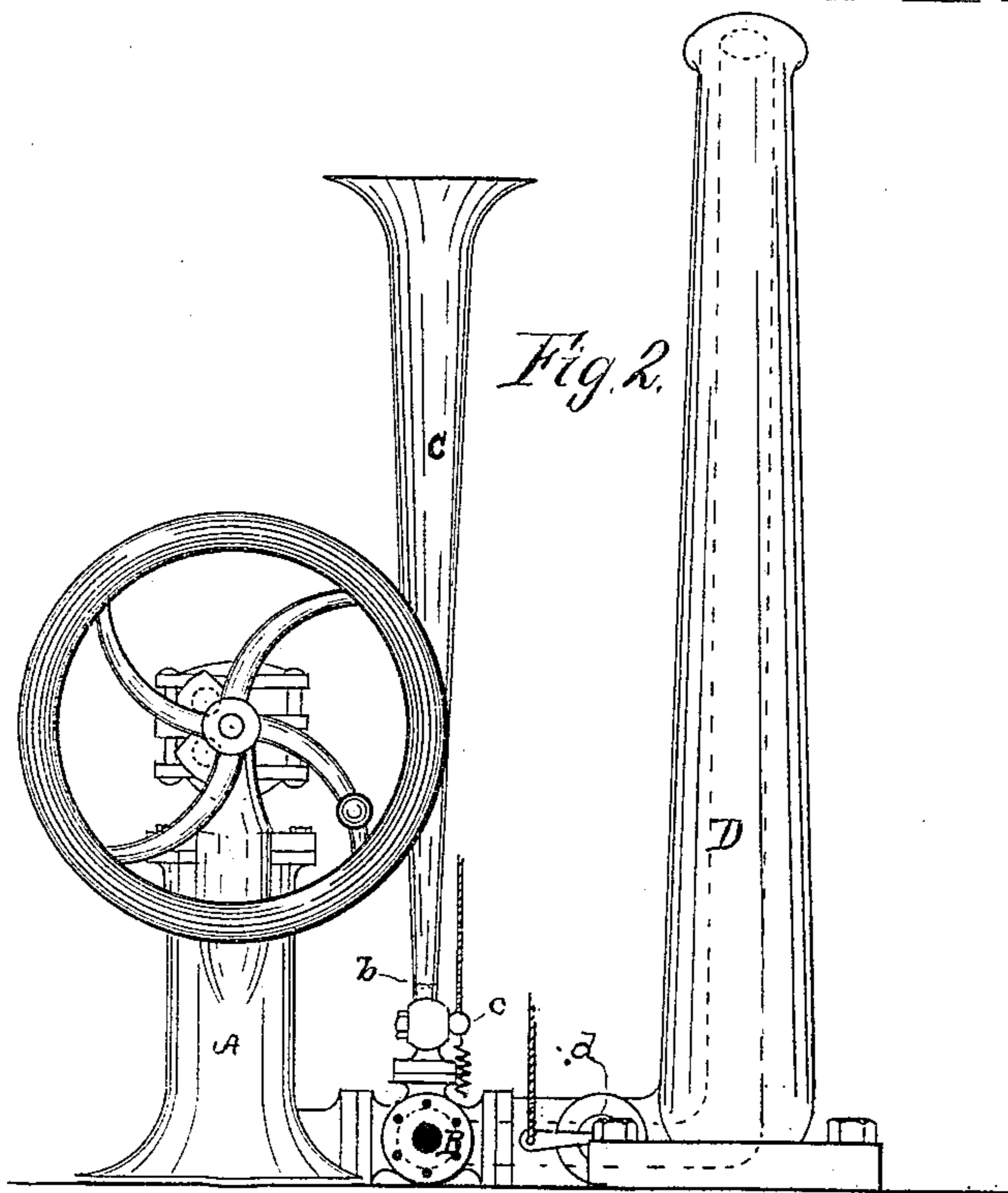
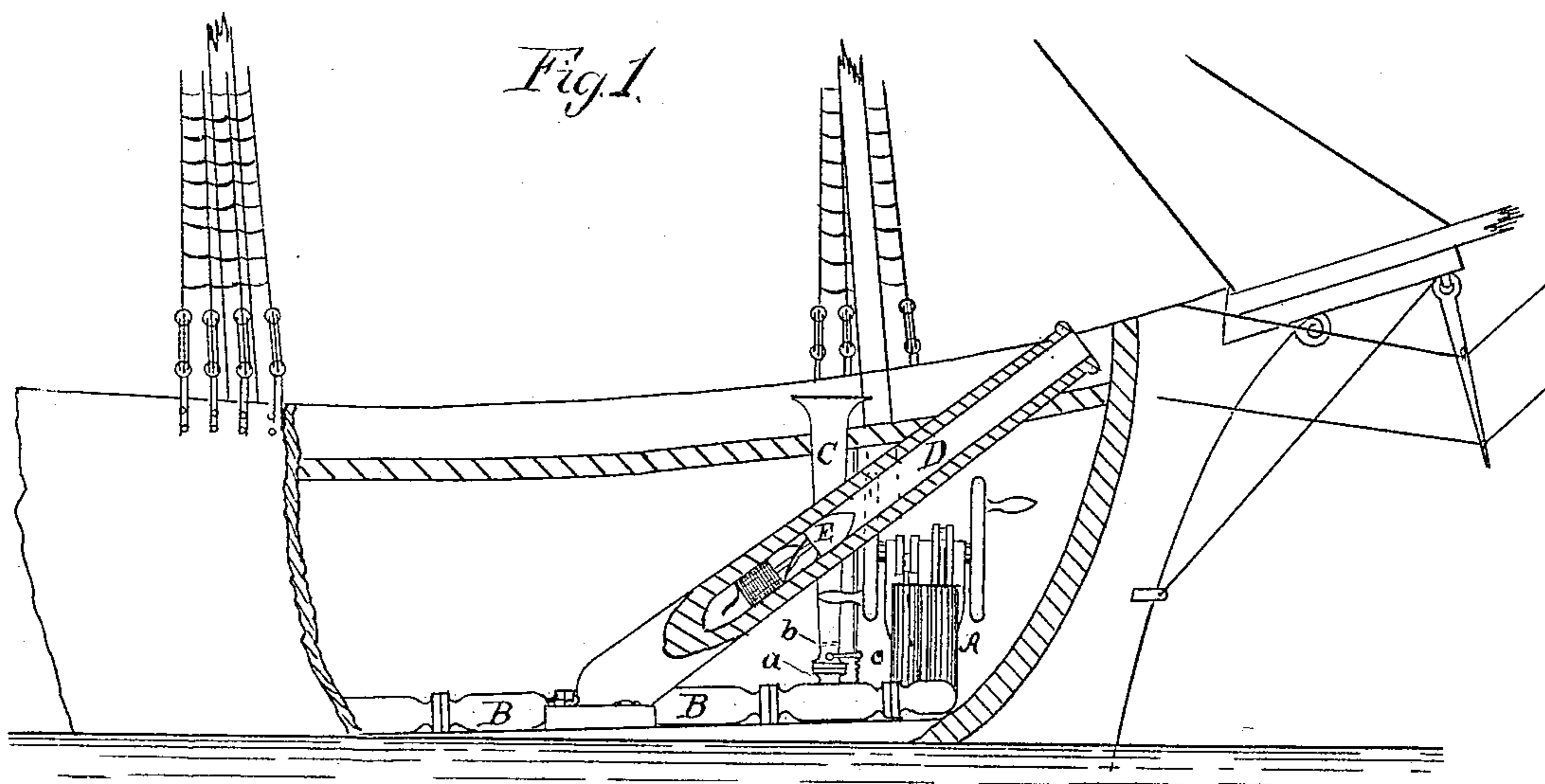


(No Model.)

J. SPEIRS.  
SIGNALING AND LINE THROWING DEVICE.

No. 440,207.

Patented Nov. 11, 1890.



WITNESSES:

*J. Edward Ludington*  
*G. A. J. Pages.*

INVENTOR

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BY  
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ATTORNEY.

# UNITED STATES PATENT OFFICE.

JOHN SPEIRS, OF JERSEY CITY, NEW JERSEY, ASSIGNOR OF ONE-HALF TO  
CORNELIUS H. DU BOIS, OF BROOKLYN, NEW YORK.

## SIGNALING AND LINE-THROWING DEVICE.

SPECIFICATION forming part of Letters Patent No. 440,207, dated November 11, 1890.

Application filed April 1, 1890. Serial No. 346,182. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN SPEIRS, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Signaling and Line-Throwing Devices, of which the following is a specification.

My invention relates to a combined signaling and line-throwing device adapted to be used at life-saving stations and on shipboard, and especially on vessels which have no steam-power.

It consists in connecting a horn or whistle and a pneumatic gun to a compressed-air reservoir in such a manner that each may be operated at pleasure, the reservoir being supplied by an air-compressor which may be operated by hand-power.

Figure 1 is a side elevation of a portion of a sailing-vessel with the side broken away, showing the arrangement of the device. Fig. 2 is a rear elevation of the gun, horn, compressor, and part of the reservoir; and Fig. 3 is a view of the projectile.

The several parts of the device are attached to a lower deck, the gun and horn protruding above the upper deck.

In the device herewith shown the air-compressor A has two cylinders and two hand-wheels, but may be any of the well-known forms, and where practical may be driven by steam or hot air. The reservoir B consists of a series of tubes joined together at their ends, and may be arranged on the aforesaid lower deck or in any convenient place. The tubes are necked in next the flanges by which they are joined and the bore at this point is reduced, so that too great strain shall not come on the bolts which hold the sections together. The horn C is attached to one of the sections *a* of the reservoir, which has an upwardly-extending bore, and may be an ordinary fog-horn with a reed *b* or a whistle, such as is ordinarily blown by steam. It has a valve *c*, which is closed by a spring and opened by a cord, which may be extended to the lookout's post, or it may be operated automatically by a train of wheels such as is often termed "clock-work," the power for driving which is

obtained by a spring or by the compressed air in the cylinder.

The pneumatic gun D is in the form of an ordinary cannon, but longer, is fastened securely to both upper and lower decks, and is inclined upwardly, pointing toward the bow of the vessel. It is connected at the butt-end to the air-reservoir B, and has a valve *d*, Fig. 2, which is operated by a lanyard. The reservoir may have a pressure-gage, (not shown,) by which the pressure in the reservoir may be regulated to throw the projectile a given distance.

The projectile E, Fig. 3, has a conical head *e*, a twisted fan or feather *f*, and a core *g*, around which the line is wound. It is intended to give the fan *f* such a twist that the rotation of the projectile shall correspond in a measure to the unwinding of the line. One end of the line is attached to the inside of the gun and the other to the core of the projectile.

It is not necessary to have the great pressure required for the throwing of the projectile for the fog-horn; but I purpose to provide a device that, should occasion require, sufficient force may be obtained to throw a line to such distance as is ordinarily required for life-saving purposes.

At life-saving stations the reservoir, compressor, horn, and pneumatic gun may be arranged on a platform which may be placed on trucks for transportation.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A projectile consisting of a conical head, a core, and twisted fans or feathers extending from the latter, said projectile being adapted to be connected at one end to a projector by means of a cord arranged to be wound upon the core of said projectile, as and for the purpose set forth.

Signed at New York, in the county of New York and State of New York, this 28th day of March, A. D. 1890.

JOHN SPEIRS.

Witnesses:

TOWNSEND SCUDDER,  
GABRIEL A. J. PAGES.