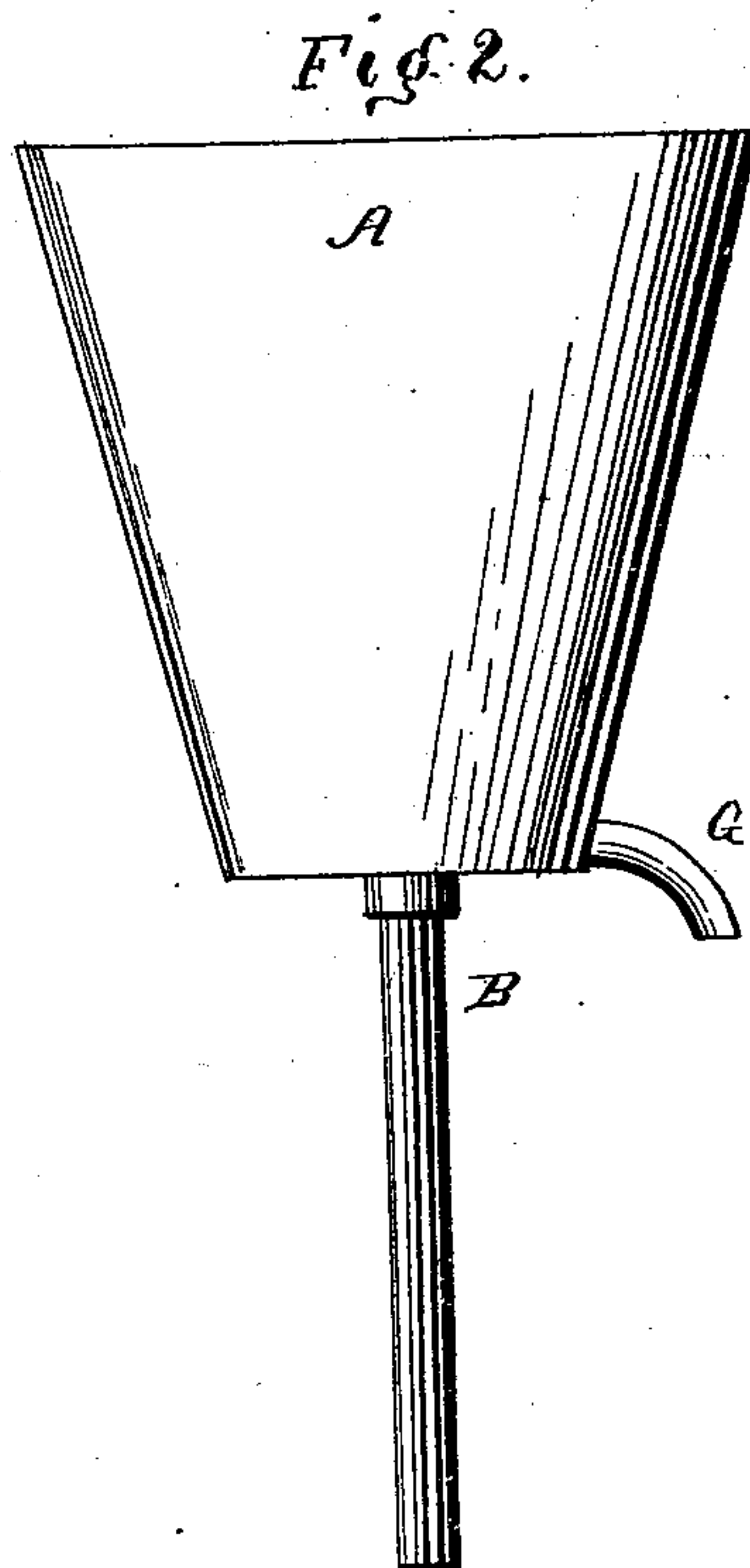
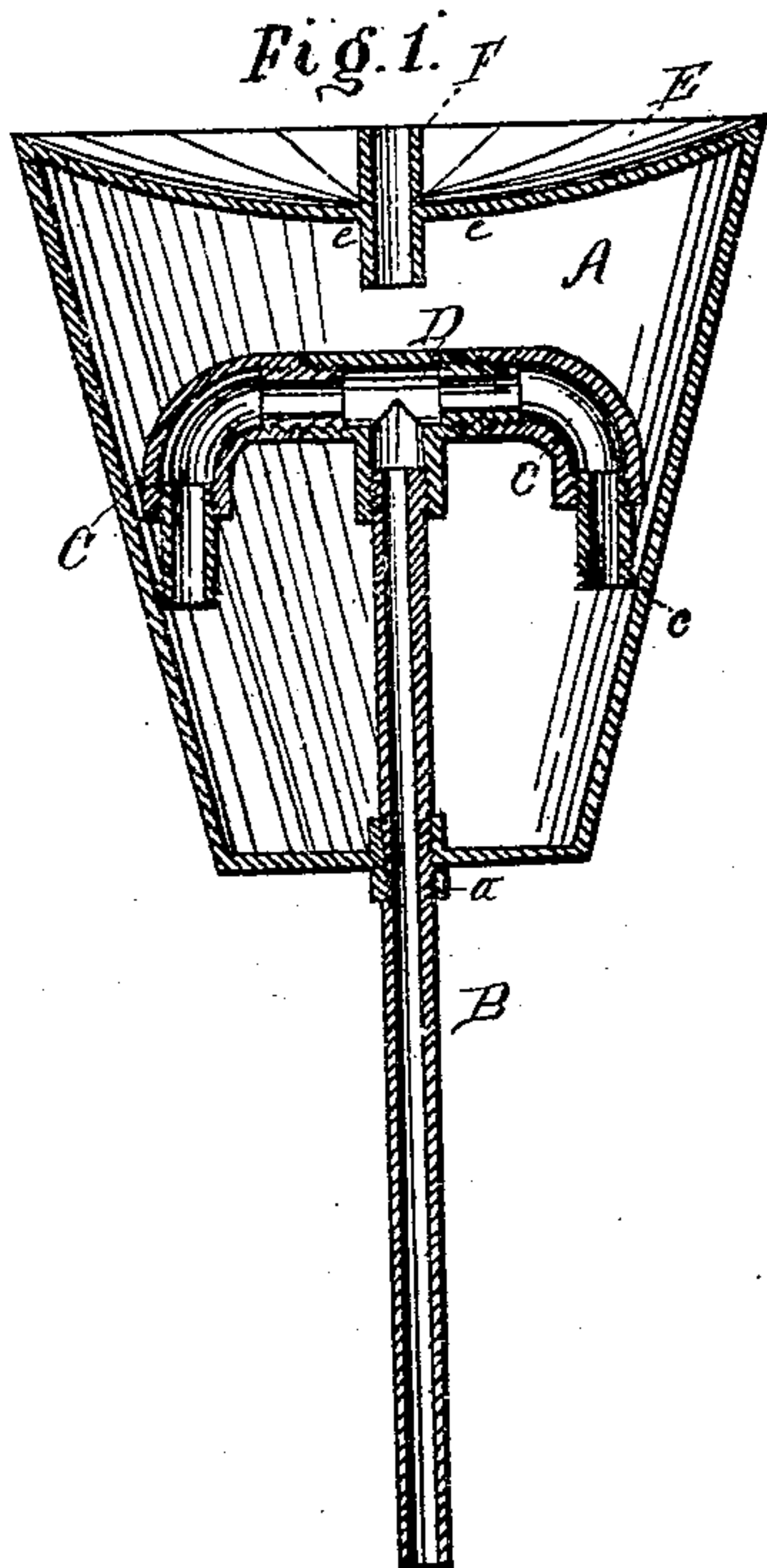


(No Model.)

J. E. CHAFER.  
EXHAUST STEAM TRAP.

Patented Oct. 3, 1882.

No. 265,242.



WITNESSES:

Edw. S. Tracy.  
Geo. M. Halum

John E. Chafar, Inventor.  
By Geo. E. Tracy,  
Attorney.

# UNITED STATES PATENT OFFICE.

JOHN E. CHAFER, OF CLEVELAND, OHIO.

## EXHAUST-STEAM TRAP.

SPECIFICATION forming part of Letters Patent No. 265,242, dated October 3, 1882.

Application filed June 26, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN E. CHAFER, of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and Improved Exhaust-Steam Trap; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the accompanying drawings, and to letters of reference marked thereon.

My invention relates to certain new and useful improvements in traps for the exhaust-pipes of steam-engines, and has for its object the providing of such a device as will prevent the escape of steam directly into a smoke stack or the outer air, as in passing into the smoke-stack or shaft it is liable to mix with the smoke and soot and cause the formation of a moist, sticky, and heavy mixture of carbon and water, which is a source of objection for many and obvious reasons. I design to overcome these objections by means of the device shown in the accompanying drawings, in which—

Figure 1 is a vertical sectional view, and Fig. 2 an outer perspective view, of my exhaust-trap.

A, Fig. 1, is a chamber of some suitable metal and about of the form shown.

B is the exhaust-pipe leading from the engine, and to which is attached the chamber A at the point *a*.

C C are branching pipes, in about the curve

shown, terminating in downwardly-projecting tips or ends *c*. The steam passes from the point D into these branches, and the exhaust escapes into the chamber A, and there, to a greater or less extent, is condensed, any slight excess of steam passing out at the top through the pipe F. If there is any drip from this opening it falls into the conical top E and flows back into the chamber A through the holes shown by dotted lines *e e*. The water collecting in the chamber A is led to any place desired by means of a tube, (shown in Fig. 2 at G.)

The construction of this device is so simple as to render it very inexpensive to construct, and as there are no series of plates or chambers to pack or confine the steam, it cannot cause back-pressure, which is a serious objection to other devices for this purpose.

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

In an exhaust-steam trap, the combination of the chamber A with the pipes B and C, substantially as and for the purposes set forth and described.

This specification signed and witnessed this 27th day of May, 1882.

JOHN E. CHAFER.

Witnesses:

GEO. C. TRACY,  
EDWARD S. TRACY.