

(No Model.)

2 Sheets—Sheet 1.

W. H. EADS.
CHEMICAL FIRE EXTINGUISHING DEVICE.

No. 548,780.

Patented Oct. 29, 1895.

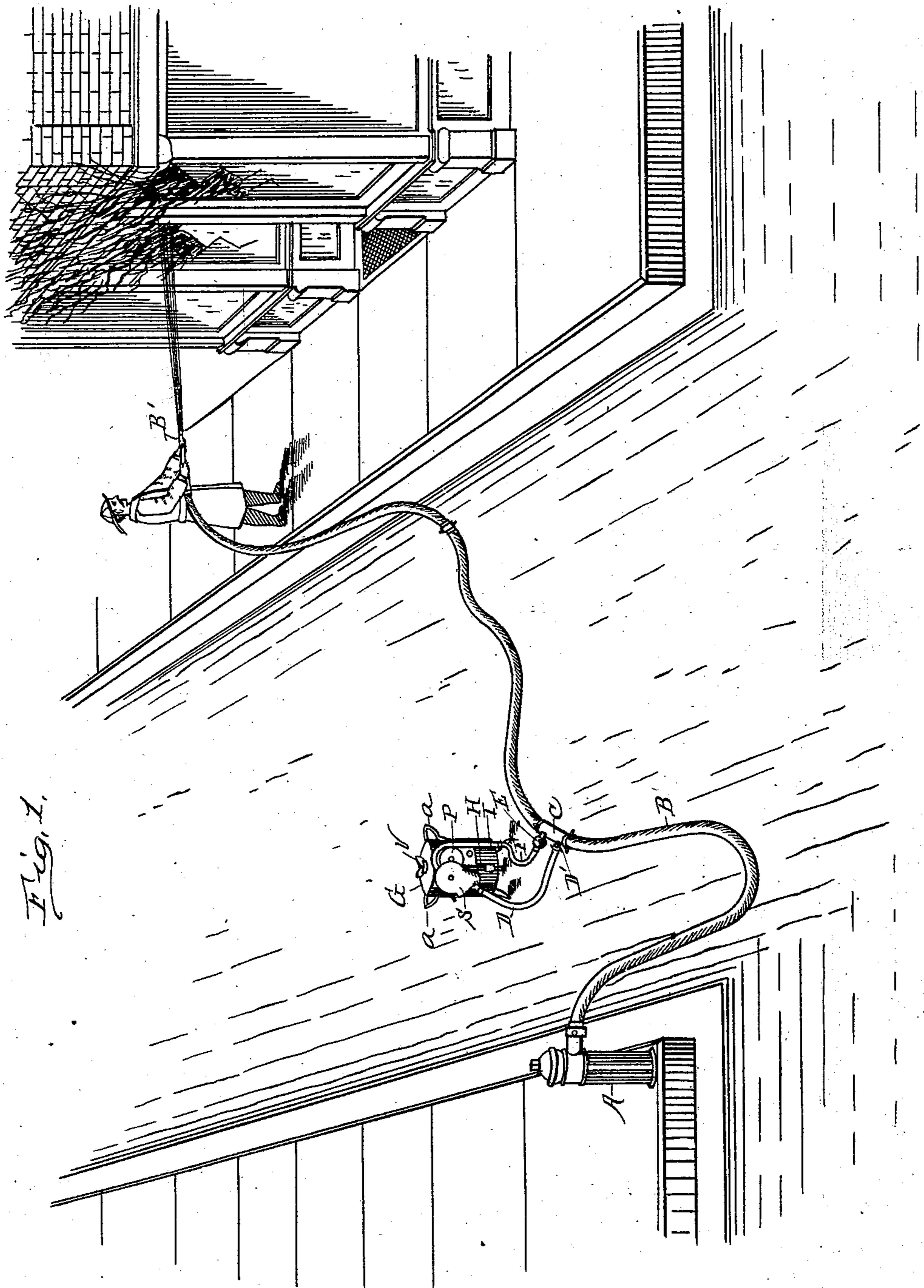


Fig. 1.

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Inventor
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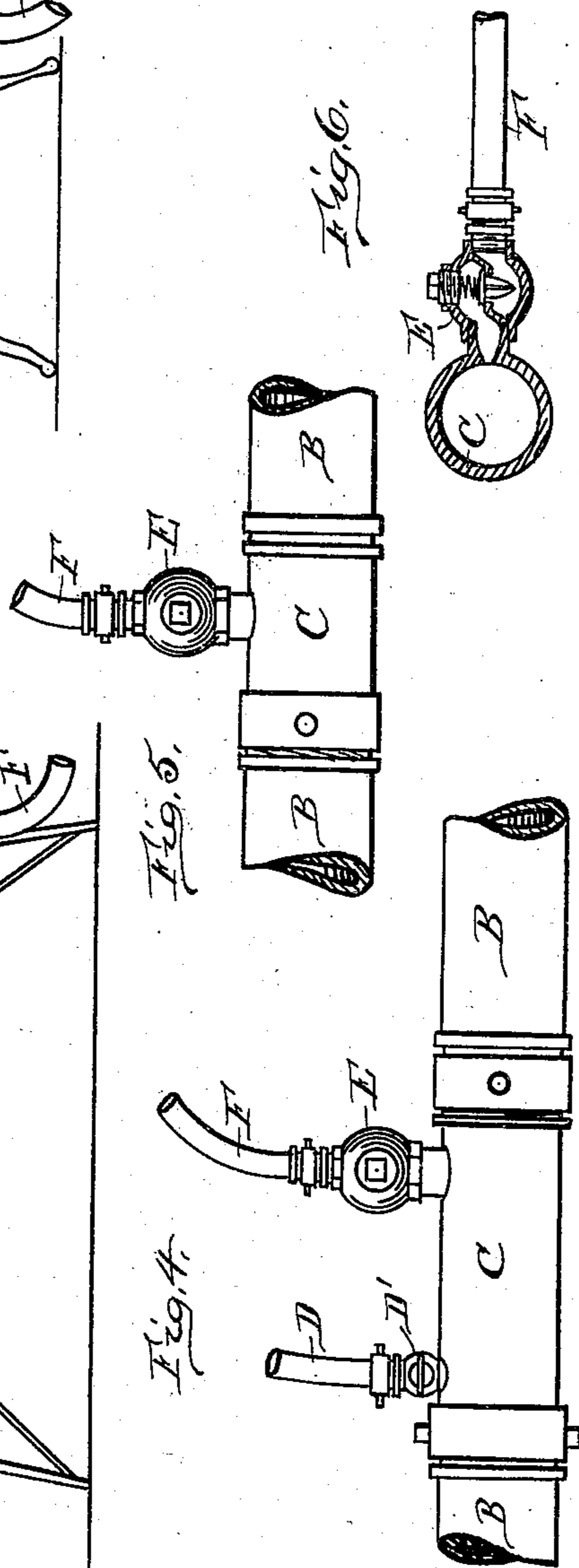
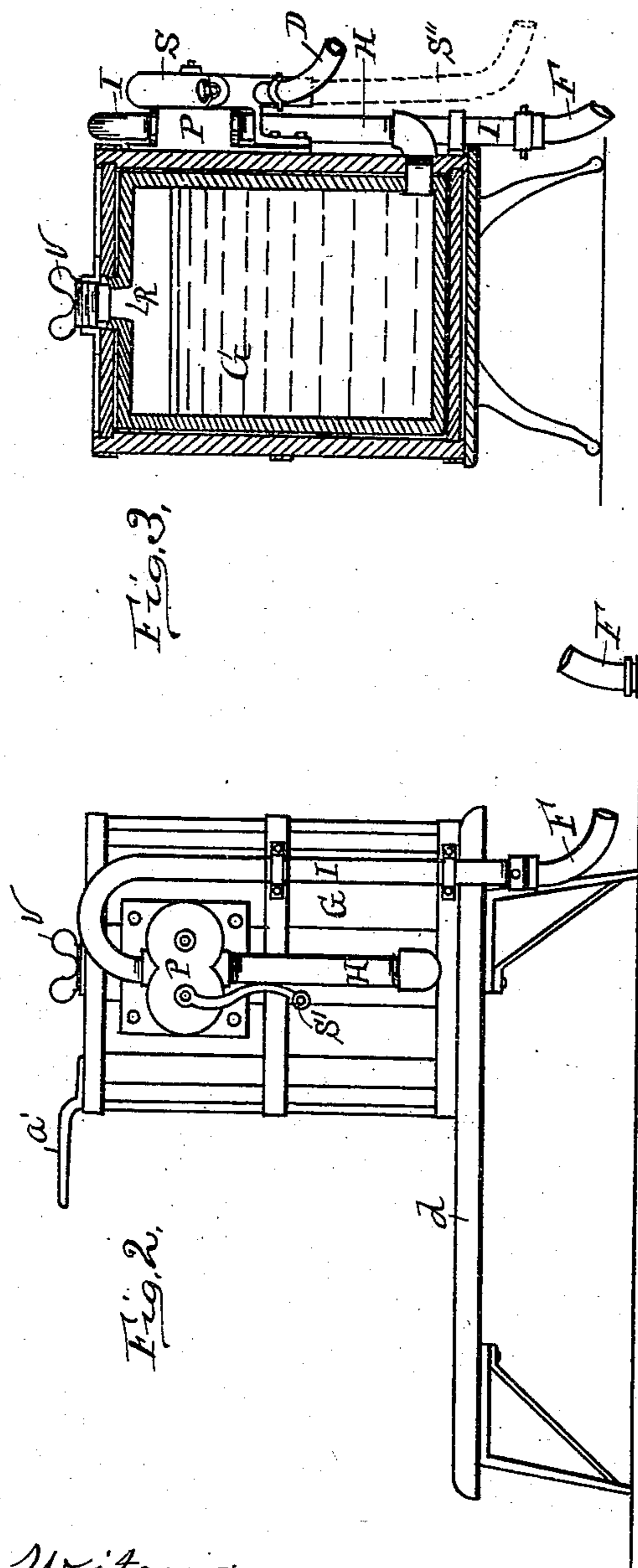
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UNITED STATES PATENT OFFICE.

WILLIAM H. EADS, OF GUTHRIE, OKLAHOMA TERRITORY.

CHEMICAL FIRE-EXTINGUISHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 548,780, dated October 29, 1895.

Application filed December 17, 1894. Serial No. 532,044. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. EADS, a citizen of the United States of America, residing at Guthrie, in the county of Logan, Oklahoma Territory, have invented certain new and useful Improvements in Chemical Fire-Extinguishing Devices, of which the following is a specification, reference being had therein to the accompanying drawings and the letters of reference thereon, forming a part of this specification.

This invention relates to that class of fire-extinguishing devices in which a liquid chemical fire-extinguishing compound is supplied to a stream of water flowing through a hose, so that the water, mixed with the said compound, may be discharged upon the fire.

The chief object of the said invention is to adapt the apparatus for supplying such liquid compound to be conveniently attached to and detached from any ordinary fire-hose and to provide reliable and efficient means for forcing the said liquid compound into the hose.

The said invention consists in the combination of a receptacle for a fire-extinguishing liquid compound with a hose, an intervening detachable tubular connection and a motor and pump connected to the said receptacle, so as to pump the contents thereof into the said hose.

The said invention also consists in the combination of such receptacle, motor, pump, and hose with a pipe connecting said hose to the said motor in order that the force of the current running through the hose may operate the said motor and force the said compound into the hose at a point nearer its nozzle.

The said invention also consists in certain additional features of construction and combination, all as hereinafter particularly set forth and claimed.

In the accompanying drawings, Figure 1 represents a perspective view of the hose and attachments in use for extinguishing a fire. Fig. 2 represents a side elevation of the apparatus for delivering the fire-extinguishing compound to the hose, the said apparatus being arranged to be operated by hand. Fig. 3 represents a vertical central section from front to rear of said apparatus, the motor being shown in elevation and as arranged to be

driven by the water of the hose. Figs. 4 and 5 represent enlarged detail plan views of the pipe-coupling and attachments arranged, respectively, for these two modes of operation; and Fig. 6 represents a cross-section of said coupling on a plane with the center of the check-valve.

A designates an ordinary street-hydrant, B the hose attached thereto, and B' the nozzle through which the hose discharges water on the fire, as shown.

C designates a coupling for the sections of the hose, which is provided with a side pipe F for the ingress of the fire-extinguishing compound, in which pipe a check-valve E is arranged near the said coupling. The latter may have also nearer the hydrant a branch pipe D, provided with a cock D' and made detachable beyond the same.

G designates a receptacle provided at its top with an opening R for the introduction of a fire-extinguishing liquid compound and a screw-plug V for closing the said opening. The suction-pipe H of a pump P, preferably rotary, connects with the interior of this receptacle, and the discharge-pipe I of said pump connects with the pipe F aforesaid. This pump is operated by a water-motor S of any ordinary construction, which is driven by the water of the hydrant through the said hose and the pipe D, the latter pipe making connection between the said hose and the said motor, as shown in Figs. 1 and 4; or the said motor may be driven by a crank-handle S', which is mounted on its shaft, as shown in Fig. 2. The said motor and pump are attached to and supported by the receptacle G. When the motor is driven by water, the said receptacle is provided with handles a and is supported on legs, as shown in Fig. 1. When the hand-operated form is used, the said receptacle is supported on a raised bench d, which affords a seat for the operator. The said receptacle is also provided with a handle a' at its top for his convenience. The receptacle G, with the parts attached to it, is conveyed to the place where it is to be used and its pipes D F are there connected to the coupling C. The attendant then turns on the hydrant and opens the cut-off cock D', when the operation begins, proceeding as before stated; or, if the motor is not to be water-driven, the pipe F is

connected as aforesaid and the attendant turns the crank S' by hand with the same results.

5 The water-motor S may be provided with a waste-water pipe S'' (dotted lines, Fig. 3) when it is desired to conduct the waste-water to some place of discharge other than that where the apparatus is located.

10 If so desired, the apparatus may be mounted on wheels for conveying it from place to place, or may be mounted on a fire-engine and its pump operated thereby, or it may be a fixture in buildings or elsewhere; but in any case it will be operated in conjunction with the
15 hose conveying water for fire-extinguishing purposes, as described.

By closing the stop-cock or by regulating the check-valve so that it will not open, I am enabled to conveniently recharge the recep-
20 tacle G with the fire-extinguishing compound without stopping the flow of water; but such closing is not strictly necessary to that end.

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

1. In combination with a fire-hose, a tubular coupling detachably connecting the sections thereof, pipes D and F attached to the said coupling, a receptacle containing fire-extinguishing material, a pump interposed
30 between said receptacle and pipe F and having tubular connection with the same, means for driving the said pump, the said receptacle being supplied through pipe D and the said pump and means for operating the same be-
35 ing attached to and supported by the casing of the said receptacle substantially as set forth.

2. A receptacle for a fire-extinguishing compound, a pump and a water motor, in combination with a hose having a coupling C, two
40 branch-pipes making connection between this coupling and the said receptacle and motor, a check-valve in one of the said branch-pipes and a stop cock in the other substantially as
45 set forth.

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Witnesses:

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JOHN WAGGONER.