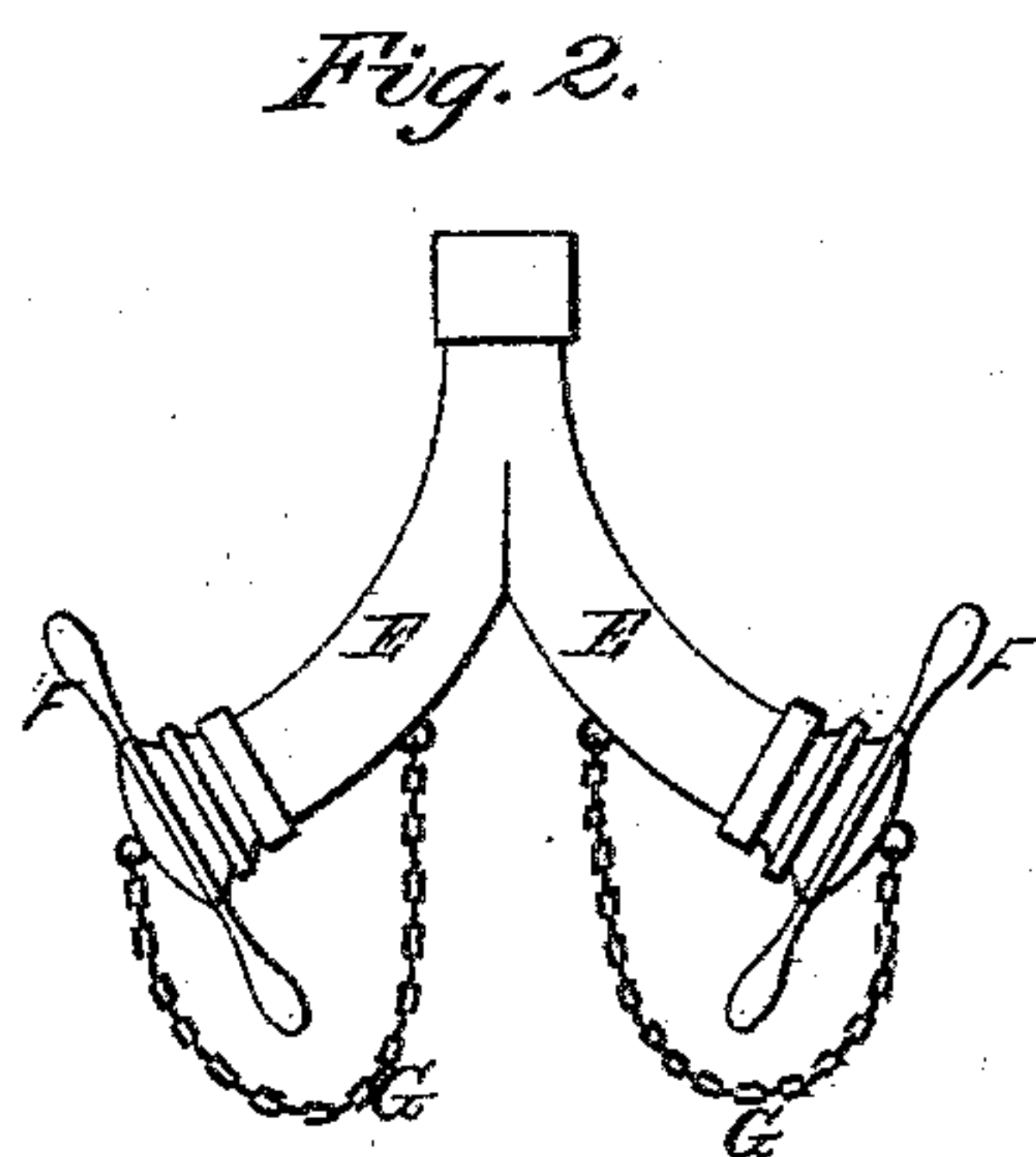
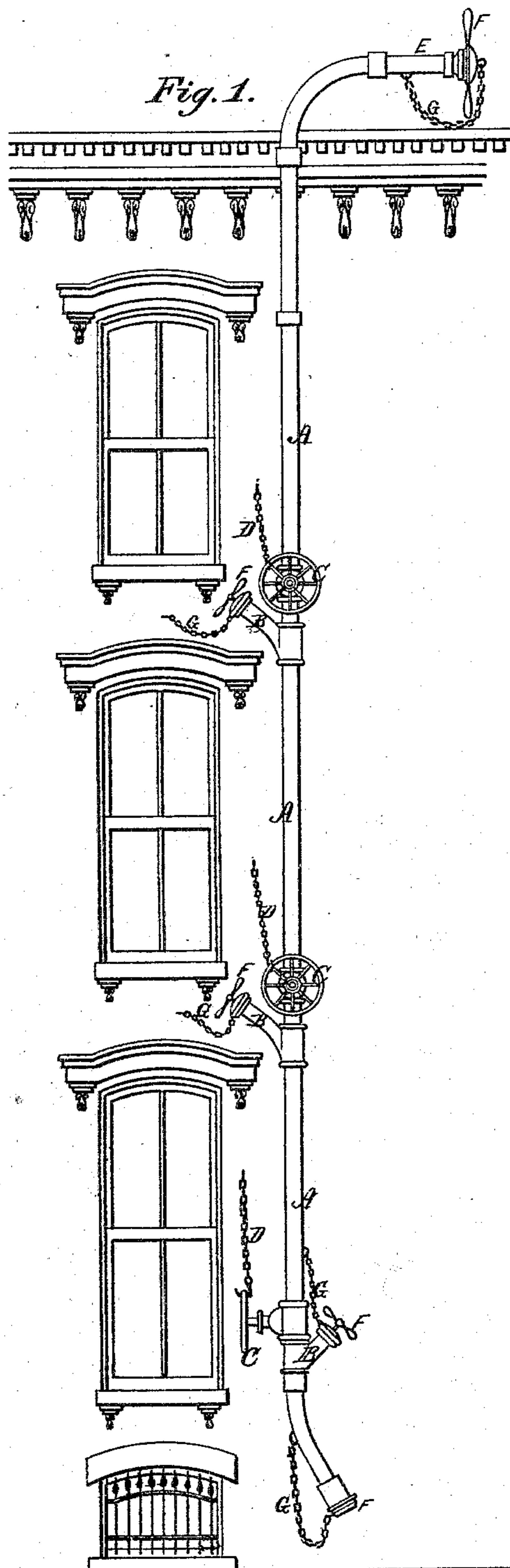


H. PALMIERI.
Stationary Fire-Pipes for Buildings.
 No. 136,537. Patented March 4, 1873.



Witnesses.
 John Dyer
 Arthur S. M. Intire

Inventor.
 Henry Palmieri
 By Atty. Wm. C. S. Intire

UNITED STATES PATENT OFFICE.

HENRY PALMIERI, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN STATIONARY FIRE-PIPES FOR BUILDINGS.

Specification forming part of Letters Patent No. 136,537, dated March 4, 1873.

To all whom it may concern:

Be it known that I, HENRY PALMIERI, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Swift-Connecting Fire-Pipe; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making a part of this application.

My invention relates to a novel means of protecting large and closely-built residences and business houses against the rapid spread of the flames in case of fires. It has for its object a system and arrangement of pipes, secured either within or upon the outside of buildings, which shall be adapted to receive, at or near the base or ground line, a coupling with the public fire-engine on the street, and at each story and upon the roof a ready and accessible connection for the discharging or spraying hose; and to these ends my invention consists in arranging upon the interior or exterior of the walls of buildings a system or line of pipes, as will be hereinafter set forth.

Previous to my invention all means to facilitate the operations of the firemen have been imperfect in one or more particulars, thus rendering every and all the devices with which I am familiar inoperative and ineffective. One of the serious difficulties to which I allude is the contraction of the conduit-pipes at some one or more points, either by valves or otherwise. This difficulty induces to an unequal pressure, resulting generally in the bursting of the coupling-hose. Another is the wasting of water at a point where it is not necessarily required; and still another is the inability to control the water so as to have it transferred at any given story of a building to a spraying-hose without the delay of raising a column of water in the vertical pipes above that point.

By my invention all these difficulties are overcome, and a perfectly-operating device is the result.

To enable others skilled in the art to fully understand the same, I will refer by letters to the accompanying drawing, in which—

Figure 1 is a detail or partial elevation of a three-story-and-basement building having arranged thereon and upon the outside my im-

proved pipe, and Fig. 2 is a detail view of the roof-branch.

A is an ordinary iron pipe secured to the wall in a vertical position, curved outwardly at the base, and provided with a screw-thread to receive the engine-coupling. Near the sill of the windows in each story, in convenient reach, are short branch-arms, B, which are made in a curve, (as all angles must be avoided;) and immediately above each of said arms is arranged a Ludlow valve, C, which is held by a chain, D, always in an open condition. The valve is of such a character as not to interfere with the interior capacity of the pipe when open. Upon the roof is a branch, E, of curved form adapted to receive either one or two hose. All of the branch-arms are provided with screw-threads to permit a perfect coupling with the hose, and, in order that they may always be in the proper condition to readily couple, they are provided with sealing-caps F, which are retained against loss by chains G.

The operation is as follows: Supposing the fire to exist within the second story. The engine by a coupling is connected with the conduit at its base; but, before the engine is put in operation, the chain D to the valve C at the second story is unhooked, when the valve is immediately and automatically closed. This prevents the ascent of the water beyond that point; and when the cap F is removed, and the carrying and spraying hose is connected, the whole pressure exercised by the engine, with only the decrease in the power required to lift the column to the second story, is at once felt by the stream passing into the hose, for no water is allowed to ascend beyond the point where it is required. The valves and caps would all be left as found, and the one at that point only unhooked, and so on to the roof.

There is no waste of water at any point where it is not required, and the force acquired from the engine is also jealously husbanded and made use of just at the point where it is most required.

I am aware that it has been suggested to utilize an iron rain-spout for the purpose or use of a fire water-conduit from the engine; but this is impracticable, as it is liable to be

frozen up, and the base or terminus, necessarily open at all times, is likely to become battered so as to render it impracticable to readily form the connection with the engine-hose. I am also aware that a means has been devised for flooding roofs, to prevent them from being ignited by falling sparks and cinders, by providing a vertical pipe terminating on the roof in angular branches perforated to spread and spray the water, and thus submerge the roof. This is applicable only for its intended purpose, and necessitates an unnecessary waste of water, as well as an unnecessary deluging, sometimes, of the premises.

The gist of my invention rests in the system and arrangement of pipes in all its details, avoiding all the objections existing in

known methods, and thus providing a safe and reliable means for utilizing a given supply and pressure of water at any point or points desired.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with a vertical conducting water-pipe, of the series of connections or branches and screw-caps at different altitudes and the automatically-operating shut-off valves, arranged immediately above each branch, the whole constructed in all its details substantially as and for the purposes set forth.

II. PALMIERI.

Witnesses:

JNO. JAY WARD,
WM. S. DUNLAP.