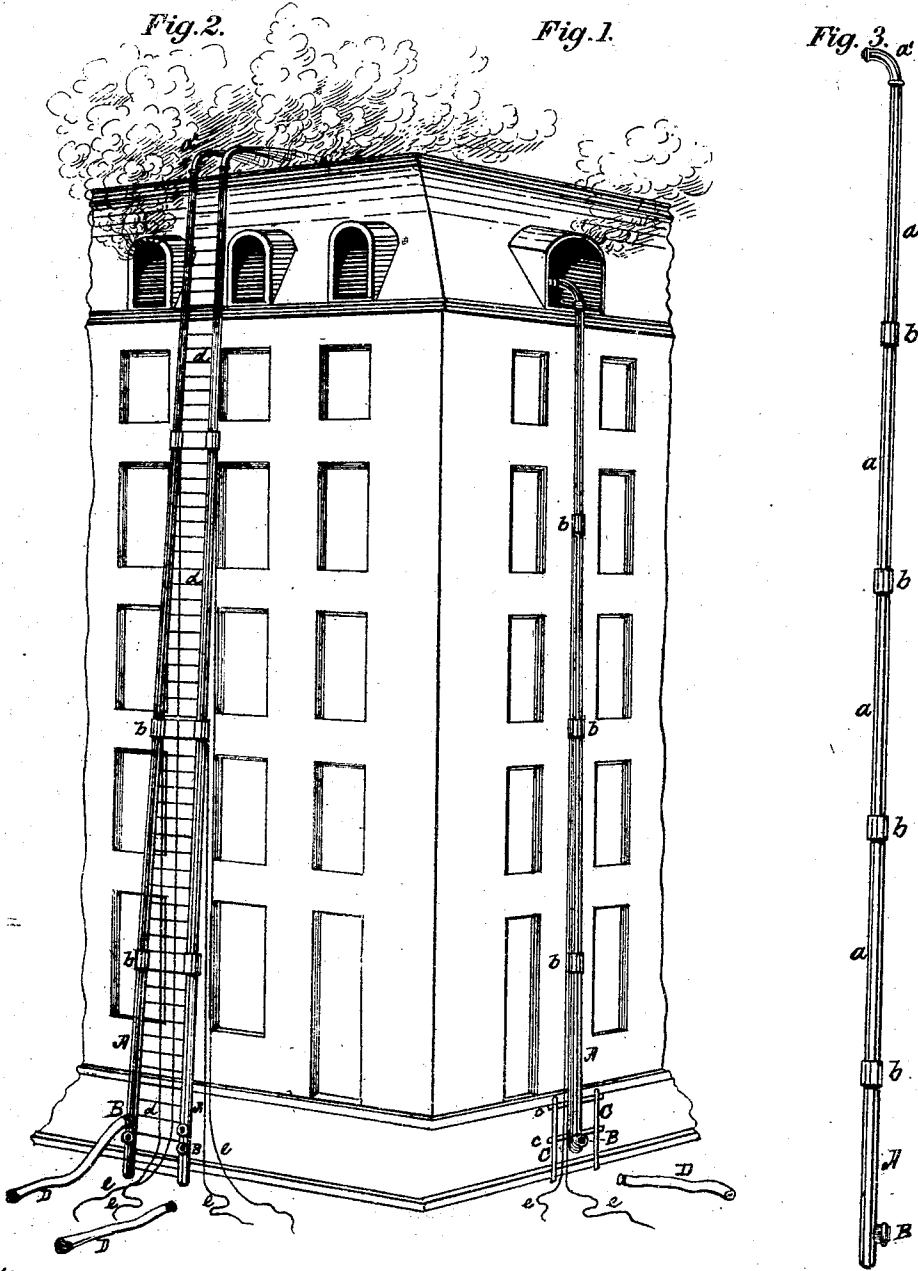


A. WATSON.

Extinguishing Fires in High Buildings.

No. 145,920.

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Attest:
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UNITED STATES PATENT OFFICE.

AUGUSTUS WATSON, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN EXTINGUISHING FIRES IN HIGH BUILDINGS.

Specification forming part of Letters Patent No. **145,926**, dated December 23, 1873; application filed April 8, 1873.

To all whom it may concern:

Be it known that I, AUGUSTUS WATSON, of Washington city, in the county of Washington, in the District of Columbia, have made certain Improvements in the Means for Extinguishing Fires, of which the following is a specification:

The object of my invention is to introduce into use a means of pumping water to extinguish a fire that is burning in any building, however high, in contradistinction to throwing it through a nozzle and through the air toward or into the fire; and it consists in the employment of a tube of metal or other material of sufficient length and strength to stand the pressure caused by forcing the water up through it, and pouring it upon or in such close proximity to the fire that the entire water is made available to extinguish the fire, even upon or in the highest buildings.

In the drawings, Figure 1 represents a building on fire and a front view of a tube through which the water is forced, pouring the water through an attic window upon the fire in the building; and Fig. 2 shows how two such pipes can be formed into a ladder, and have two streams of water act upon the top or any part of the highest buildings; and Fig. 3 represents a side view of Fig. 1.

A represents the metal pipe, preferably made of steel, to secure strength and avoid great weight; but it may be made of any metal having the requisite strength and stiffness, and may be made in as many sections or pieces, *a*, as may be necessary to reach the location of the fire. The lower piece of this tube may be of a considerable length to the joint *b*—say, twenty or thirty feet—and then above the lower section the pieces may be of any length to be easily handled and quickly joined to the base or bottom section and to each other, until the length of pipe secured together will reach the location of the fire. The top piece, *a'*, is bent or deflected, so as to give direction to the water, and any amount of curvature or angle in said piece *a'* may be employed to give such direction to the water as may be necessary, and it is made fast to the sections, to be water-tight and have great strength. The several sections *a* of the pipe A are joined together in any successful and practical way of joining water or

gas pipes, and have the same water or gas tight. B is a projecting open screw-flange, to which the hose D, from a steam or other engine for forcing water into the tube A, is to be screwed when the tube is raised and in use. Any number of these connections may be used, so that several steamers may be used to pump water into a single pipe. C C are legs or a stand for the support of the pipe A, having transverse bars *c c* attached thereto, and also attached to the base-section of pipe A, and by which the pipe is supported; and the stand is also used for turning the pipe, so that the upper bent piece *a'* may deliver the water that is forced through pipe A directly toward or onto the fire.

A pipe thus formed and put together in sections, and receiving the water from one or more engines through the hose D, is ready to be raised into position, which is done by the same process that a ladder of equal length would be raised, and, being of metal, can be thrust into the fire without danger, or it can be forced through a window, breaking the glass, sash, or blinds that may intervene, and then pour the water forced through it directly upon the fire in the room to which the window belongs; or, if the roof is on fire, the top end is raised high enough to pour the water onto the burning roof, as seen in Fig. 2.

If the pipe to be used has to be of great height, the sections may be curved, to be convex on the street or outer side of the pipe.

In raising the pipe, the stand C will be at some distance from the burning building, and the top *a'* will either go into a window, as seen in Fig. 1, or bear against the walls of the building, as seen in Fig. 2. Guy-ropes *e e* are attached to the pipe to assist in raising or moving it.

Two of these pipes may be formed into a ladder, as seen in Fig. 2, and have hose-connections with steam or other engines for forcing water, by having the transverse rounds *d* of small light pipe, thus affording a means, whenever necessary, of persons going up on the ladder, or for escape by persons who may unfortunately be in the building and no other means of escape.

By such a device water can be raised to any height within the strength of the pipe to sus-

tain and the power to raise it, and this, too, without bringing the operators into close contact with the fire, or into danger of falling walls, as when the pipe is raised and in position it tends itself, as no nozzle or hose is attached that requires manipulation by firemen to give direction to the water, as the object is to get the upper end of the pipe into or as close to the fire as possible, so that all the water forced through the pipe is made available to put out the fire. No water is wasted, as is the case in ordinary engines that force water through a flexible hose and a nozzle held by a fireman, throwing the water through and in contact with the air, making the water into spray or mist, that will not have the effect to put out the fire; and a great proportion of the water does not reach the fire by being thus forced against the air, which deflects it, and it becomes useless by striking against the walls, or where no fire is burning. Further, the pipe

is removable and separable, so as to accommodate any height at which the fire is burning.

I am aware that flexible hose with a delivering-nozzle has been used in connection with metal pipes; but I do not claim such device, as I wish to avoid the use of a nozzle and such flexible hose, as, by their use, it is necessary to have some one to operate the delivery-nozzle, which must always be a dangerous position to be in, and then the water must, of necessity, be thrown a considerable distance, as the person cannot stand the great heat when the nozzle is in close contact with the fire; but

What I do claim is—

The sectional tube A, having water-ingress openings and hose-connections B and delivery end *a'*, constructed substantially as and for the purpose described.

Witnesses: AUGUSTUS WATSON.

BENJAMIN SEVERSON,
CHARLES W. BROWN.