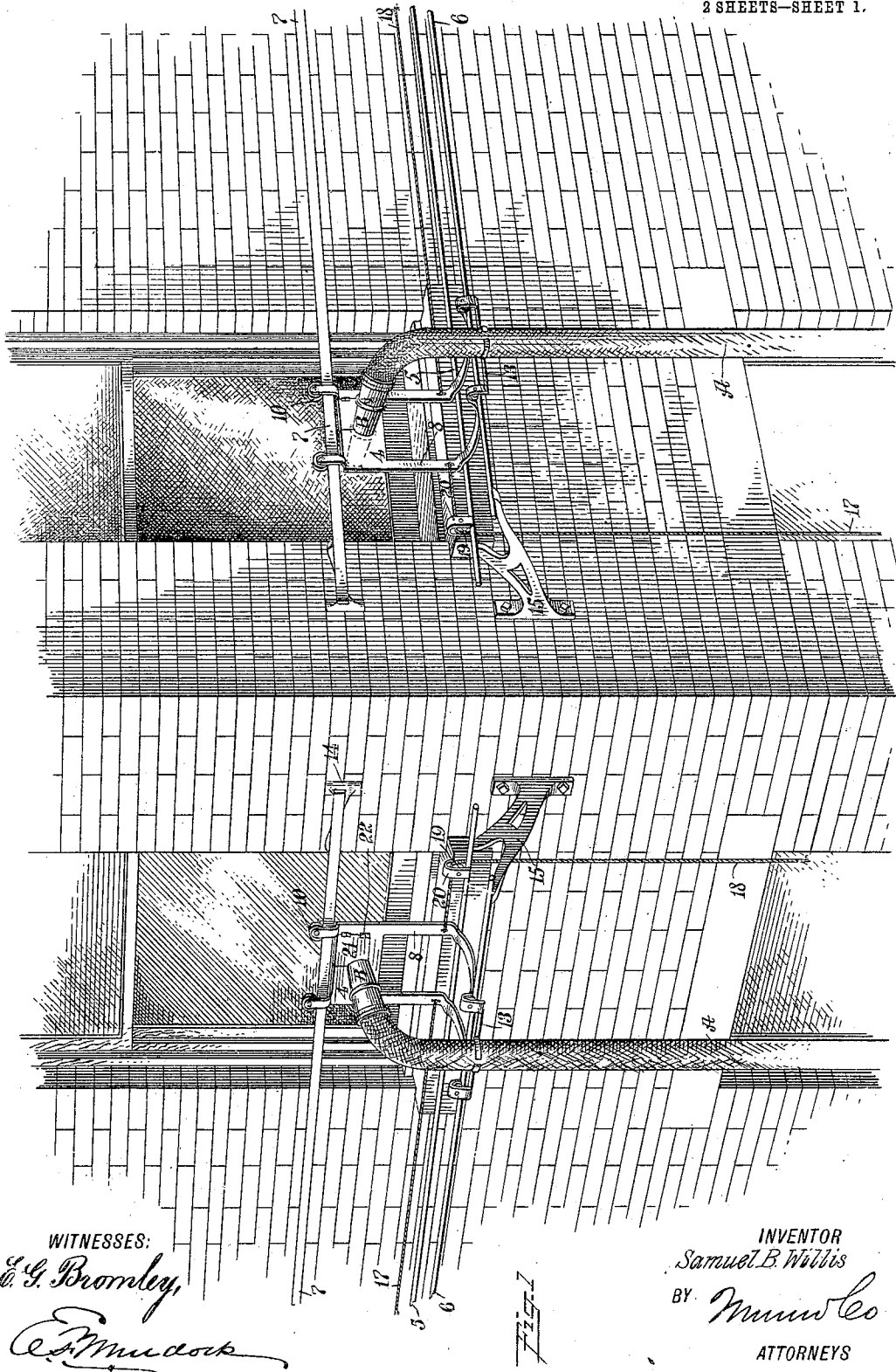


S. B. WILLIS.
GUIDE RACK FOR FIRE HOSE.
APPLICATION FILED MAR. 8, 1910.

961,054.

Patented June 7, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

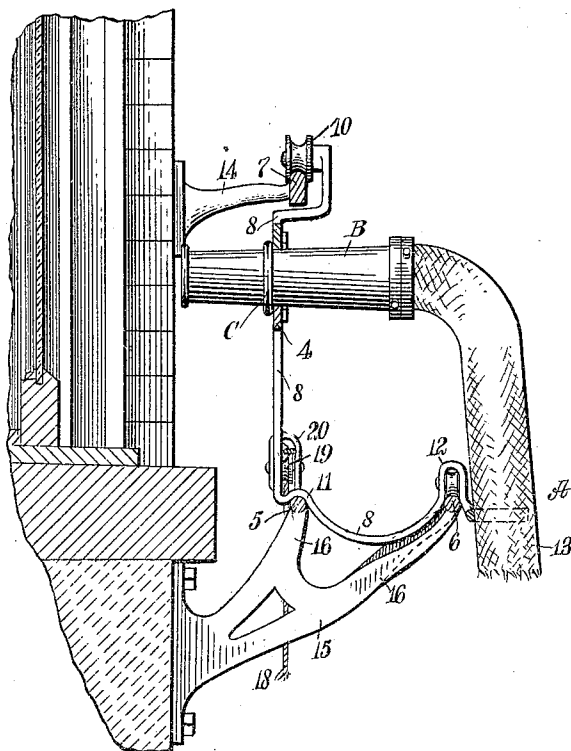


Fig. 2

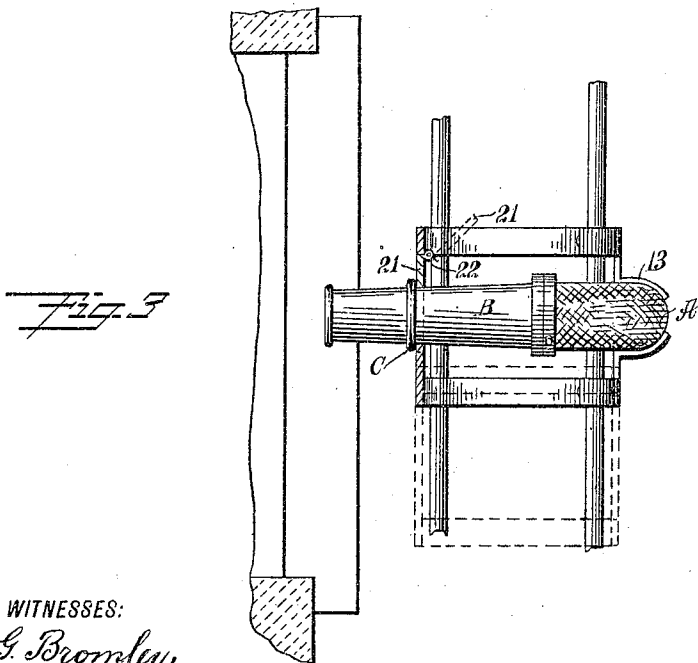


Fig. 3

WITNESSES:
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UNITED STATES PATENT OFFICE.

SAMUEL B. WILLIS, OF NEW YORK, N. Y.

GUIDE-RACK FOR FIRE-HOSE.

961,054.

Specification of Letters Patent.

Patented June 7, 1910.

Application filed March 8, 1910. Serial No. 547,987.

To all whom it may concern:

Be it known that I, SAMUEL B. WILLIS, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Guide-Rack for Fire-Hose, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide means for directing from the ground the stream from a fire hose; to provide supporting structures upon buildings to guide the nozzle end of a hose pipe when shifted along the side of a building; to provide a permanent hose supporting carriage and operating track therefor disposed in line with the tiers of windows in a building and means for shifting the same from window to window, said means being operable from the ground; and to provide a construction of the character specified, simplified and economical.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a perspective view of a corner of a building, illustrating the construction and arrangement of hose carriages and tracks constructed and disposed in accordance with the present invention; Fig. 2 is a cross section of the rack frame, showing a side view of the carriage partly in section and a fragment of hose held thereon; and Fig. 3 is a plan view in detail and fragmentary in form, showing the rack and carriage partly in section and the hose nozzle as held therein.

Primarily the application of the invention is designed for use on the upper stories of tall buildings where, according to the present method of fire fighting, the hose is directed from ladders, extension or scaling. In such positions, the lives and persons of the fire fighters are necessarily in danger, and often it becomes impossible for the fireman to endure the heat generated by the fire within the building. To avoid the necessity of the fireman directing the stream from the hose A, I have provided a holding plate 4, which engages in holding position the nozzle B of the hose. The holding position, as illustrated in the drawings, is such

that the stream is directed through the window, the object being to flood the floor of the building below the point of introduction of the stream. To permit the play of the stream at various points on the building I have provided track rods 5, 6 and 7. The said track rods are mounted in suitable brackets and support the holding plate 4 in operative position thereon. The holding plate 4, together with strap arms 8, 8, constitute the carriage for supporting the nozzle B. The upper ends of the arms 8 are connected by the plate 4, and upon the ends there are mounted carrying rollers 10, 10. It is intended that the major portion of the weight of the hose and nozzle shall rest on the rollers 10, 10 and the track rod 7. The lower extensions of the arms 8, 8 are provided with bended portions 11 and 12, which extend over the rods 5 and 6 to steady the operation of the carriage and guide the same in its travel. Between the outer ends of the lower extensions of the arms 8, 8 is extended a bar 13, upon which the hose A rests to prevent too sharp a bend at the nozzle junction of the hose and relieve the torsional strain of the weight of the hose on the plate 4.

The rod 7 is carried by brackets 14, which are disposed above the window sill, as shown in Fig. 1 of the drawings, and between the windows. The number of brackets 14 will depend upon the requirements both in height of the windows and structural variation of the building to which the apparatus is applied. The brackets 14 hold the rod 7 in such position that the tracking of the rollers 10, 10 is not interfered with. Brackets 15 are formed substantially as shown in Fig. 2 of the drawings, having bifurcated extensions 16, 16, upon the ends of which are secured the rods 5 and 6.

The rods 5, 6 and 7 are disposed in parallel disposition throughout, and in unbroken reaches or lengths adapted to the requirements of the building to which the apparatus is applied. The tracks may, where requirement dictates, be bended around a corner, but as a rule I prefer to avoid such construction, preferring to place in position two sets of rods and carriages therefor, as shown in Fig. 1 of the drawings. The arrangement providing for the substantially straight reaches, facilitates the operation of the cables 17 and 18. The cables 17 and 18 are secured to the arms 8, 8 on opposite

sides of the carriage, as seen in Fig. 1 of the drawings, and extended to the opposite ends of the tracks formed by the rods 5, 6 and 7, where the said cables are reeved over pulleys 19, 19 pivotally mounted in brackets 20, 20. The cables are each depended from the pulleys 19, 19 to within reach of the ground and there belayed or otherwise anchored. It is obvious that by pulling upon either of the cables 17 or 18, the carriage may be shifted from window to window of the tier in front of which the brackets formed by the rods 5, 6 and 7 are disposed.

In operation the fireman, either by extension or scaling ladders, may carry an empty hose to the story where the fire is located, and, if necessary, at the end of the building removed from the said fire. The carriage, if not located at that point, can be drawn to the fireman by manipulating the cables 17 or 18. When the carriage is in position, a gate 21 is swung backward on hinges 22 to open the passage to a port hole provided for holding the nozzle B. The nozzle B is generally provided with an annular flange C, whereby the said nozzle is held in the plate 4. When the nozzle is placed in position the gate 21 is closed and locked by any suitable means. In this position the hose A rests upon the bar 13 and drops clear from said bar to the ground. In this position of the hose the fireman is at liberty to descend to the ground and there manipulate the hose by means of the cables 17 and 18, moving the carriage carrying the said hose in front of any of the windows of the tier in front of which the track is formed. By operating the hose in this manner, it is obvious that the danger and inconvenience to which the firemen are at present subjected, are avoided.

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

1. A guide rack for fire hose, comprising a track embodying a plurality of rods disposed in extended relation from the sides

of a building and in front of the various tiers of window openings thereof; a carriage having a horizontal extension to be supported by said rods; a plate mounted on said carriage, having a holding port for the nozzle of said fire hose; means for closing said port in holding relation upon said nozzle; and cable sections attached to said carriage and extended lengthwise of said track and to an operating station below the same.

2. A guide rack for fire hose, comprising a track embodying a plurality of parallel rods; brackets fixedly secured to the side of a building and supportingly engaged with said rods to form uninterrupted track surfaces thereof; a carriage mounted on said rods having a vertical extension; means for holding in a horizontal position the nozzle of said hose mounted on said vertical extension; cables attached to said carriage and extended in opposite directions therefrom to an operating station from below; and rotary supporting devices mounted on said track structure at the opposite ends thereof to carry said cables.

3. A guide rack for fire hose comprising a track embodying a plurality of parallel rods; brackets fixedly secured to the side of the building and supportingly engaged with said rods to form uninterrupted track surfaces thereof; a carriage mounted on said track surfaces and movable lengthwise thereon; means for holding in operative position on said carriage the nozzle of said fire hose; and cables attached to said carriage and extended in opposite directions therefrom to an operating station below, said cable being guidingly supported on said rods.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

SAMUEL B. WILLIS.

Witnesses:

E. F. MURDOCK,
PHILIP D. ROLLHAUS.