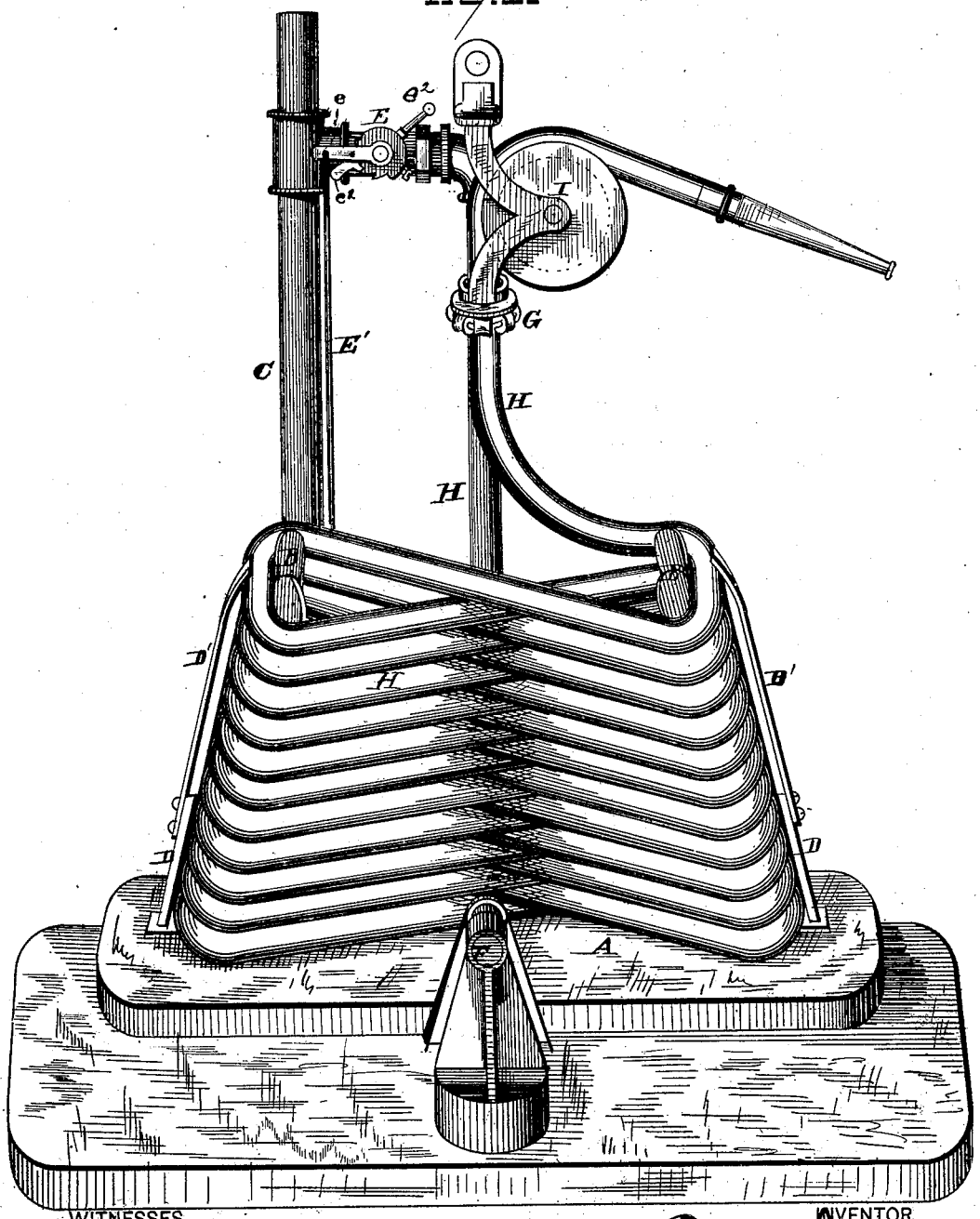
3 Sheets—Sheet 1.

T. J. CAIN.
Hose-Rack.

No. 210,402. Patented Dec. 3, 1878.

Fig. 1.



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3 Sheets—Sheet 2.

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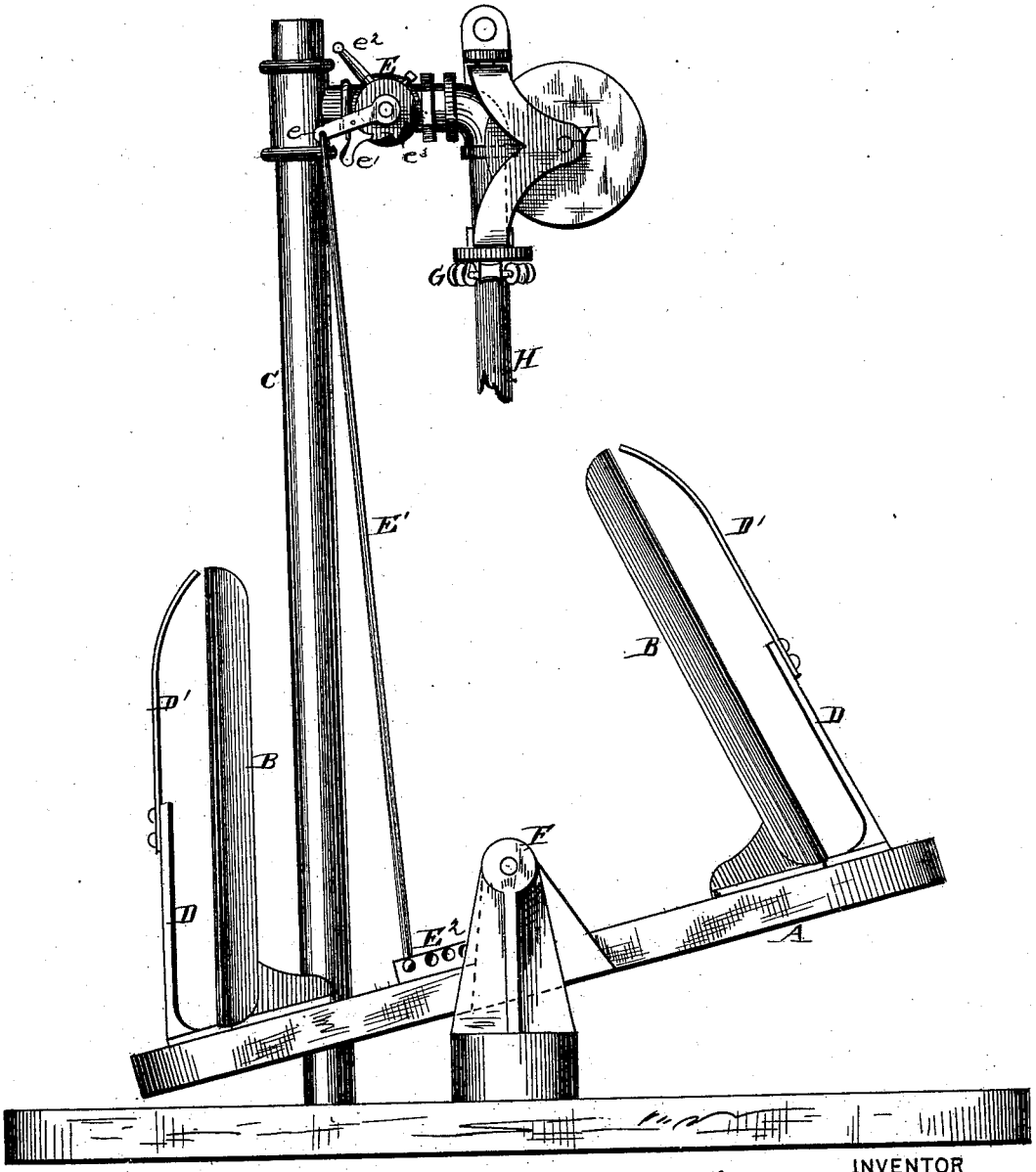
Fig. 2.



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3 Sheets—Sheet 3.

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Fig. 3.

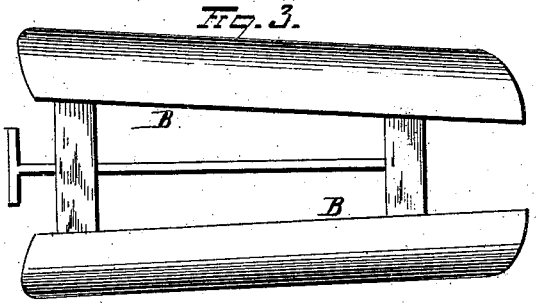


Fig. 5.

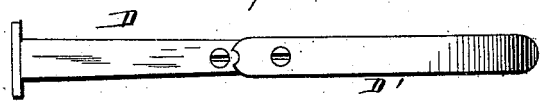


Fig. 4.

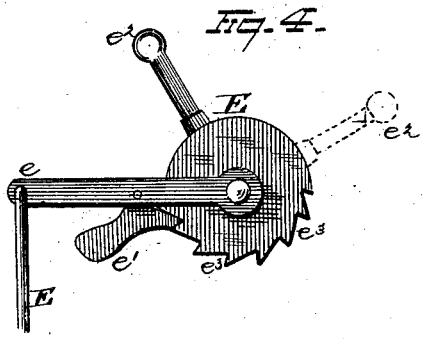
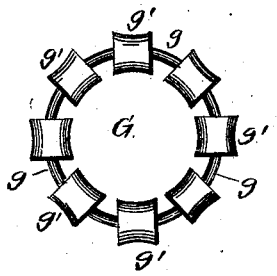


Fig. 6.



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UNITED STATES PATENT OFFICE.

THOMAS J. CAIN, OF CLEVELAND, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO ALFRED ADAMS, OF SAME PLACE.

IMPROVEMENT IN HOSE-RACKS.

Specification forming part of Letters Patent No. **210,402**, dated December 3, 1878; application filed May 27, 1878.

To all whom it may concern:

Be it known that I, THOMAS J. CAIN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Hose-Racks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in hose-racks, and more particularly to that class of racks or supports that are used in connection with a permanent stand-pipe.

My invention consists of an oscillating or rocking bed-piece, to which arms are attached, on which the hose is coiled. It further consists of a reversible finger, for holding the hose in position on the rack in the shape of the arms; also, a peculiarly-formed guide, through which the hose is drawn, the mechanism by which the water is automatically turned on, and in combinations that will more fully hereinafter appear.

In the drawings, Figure 1 is a perspective view of my device with the hose coiled. Fig. 2 is a view, in front elevation, of the same with the hose removed. Fig. 3 is a plan view of one of the arms. Fig. 4 is a detached plan view of the mechanism for opening the valve. Fig. 5 is a plan view of one of the reversible fingers, and Fig. 6 is a plan view of the guide.

A is a bed-piece, of any suitable material, length, and width. It is suspended between two uprights, F, and hinged to them, substantially as shown. To this bed-piece A are attached arms B, pyramidal in form, with their bases resting on the bed-piece A. This feature of constructing the arms broader at the base than at the top not only permits the hose to readily fill when the water is turned on, but also enables it to be readily withdrawn. To the bed-piece A or the arms B are also attached the fingers D D′. These fingers are made in two sections. The lower portions, D, are rigid, while the upper portions, D′, are preferably elastic. The office of these fingers is to present sufficient resistance to prevent the too rapid uncoiling of the hose from the arms B.

The reversible feature is useful when the hose is being coiled on the arms B. The upper portion, D′, of the finger may be turned down out of the way, and when the coiling is complete it can be turned back and perform its office of retaining the hose in position.

C represents the ordinary stand-pipe in use in buildings for fire-protection, and is supposed to have hydrant-pressure to the valve E. The valve E may be opened and the water let into the hose H by moving the lever e^2 from its position when closed, as shown by the dotted lines in Fig. 4, to its present position, as shown in the same figure; or it can be done automatically by means of the pawl and ratchet e^1 and e^3, operated by the oscillating or rocking motion of the bed-piece A as the hose H is withdrawn from the rack.

G is a guide or bearing for the hose as it is drawn from the arms B B over the sheave I. This guide is composed of a circular stationary axle, *g*, upon which are loosely suspended two or more wheels or rolls, g^1, and which are made readily to turn on the axle *g* by friction with the hose H as it is drawn through it and over the sheave I. The sheave I is so suspended in a swinging frame that in whatever direction it may be turned the periphery of the sheave will be directly over the guide G. The connecting-rod E′ connects the bed-piece A with the lever *e*, which carries the pawl e^1. By means of the rocking motion of the rack occasioned by drawing off the hose, the same motion is communicated, through the connecting-rod and pawl *e* and e^1, to the ratchet e^3, to which is permanently attached the valve, and by which motion, thus communicated, the valve is opened.

In operating this device, it is only necessary to take the hose at the nozzle end and draw it off the rack through the guide G and over the sheave I to the point desired.

The guide made as described prevents any wear upon the hose, and the sheave prevents kinking as it leaves the guide. As the hose is drawn off, first from one of the arms B and then from the other, they are raised alternately until one end or the other of the base A is low-

ered as far as desired. This operation gives a rocking motion to the whole rack, and it being connected with the valve, as already described, the valve is opened automatically.

The hose should be wound upon the arms B, commencing at their base, in the figure-of-eight style, which prevents kinking as it is drawn off. The pyramidal shape of the arms B permits the hose to be readily filled while on the rack. The rack might be made with the bed-piece A rigid.

Having thus described the construction and operation of my device, what I claim as new, and desire to secure by Letters Patent, is—

1. A hose-rack having a rocking bed-piece, A, to which are attached arms for supporting the hose, substantially as described and shown.

2. A hose-rack having a rocking bed-piece, A, connected with a valve, and the valve opened by means of the rocking motion of the bed-piece, substantially as described and shown.

3. In a hose-support, the elastic finger D, substantially as and for the purposes shown.

4. A guide consisting of a stationary axle and two or more rings, wheels, or rolls turning thereon, substantially as described and shown.

5. In a hose rack or reel, the guide G, substantially as described and shown.

6. In a hose rack or reel, the guide G and sheave I, substantially as described and shown.

7. In a hose-rack, the bed-piece A, arms B, and fingers D and D′, substantially as described and shown.

8. In a hose rack or reel, the combination of the bed-piece A, arms B, fingers D and D′, connecting-rod E′, valve E, and stand-pipe C, substantially as described and shown.

9. In a hose-reel, the combination, with a ratchet connected with a suitable hydrant-valve, of a pawl adapted to be operated by the unwinding of the hose and automatically returned to its former position, substantially as set forth.

10. In a hose-reel, the combination, with a ratchet connected to a hydrant-valve, of a pawl provided with a lever, which latter is adapted to be moved by suitable mechanism during the unwinding of the hose, and immediately upon release from said mechanism to return to its vertical position by means of a weight which is secured to its lower extremity, substantially as set forth.

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

THOMAS J. CAIN.

Witnesses:

JNO. CROWELL, Jr.

F. TOUMEY.