

(No Model.)

C. E. BRENNAN.
AUTOMATIC FIRE EXTINGUISHER.

No. 270,731.

Patented Jan. 16, 1883.

fig 1,

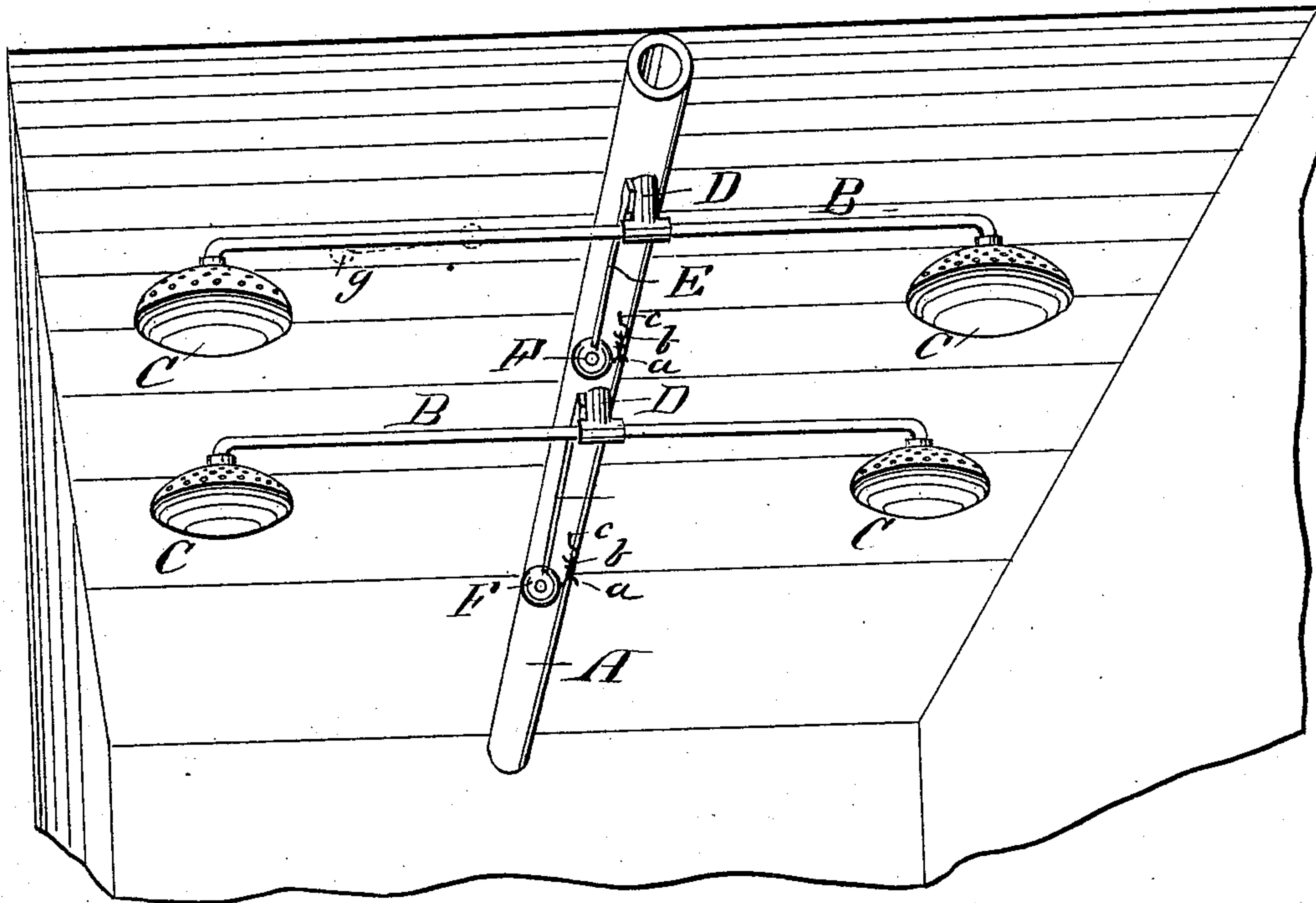
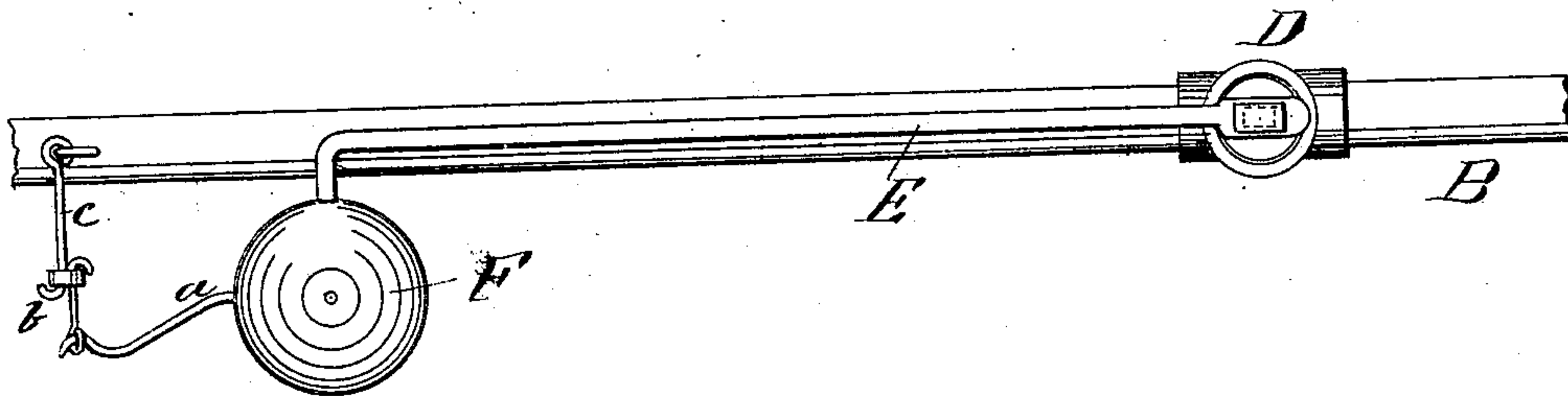


fig 2,



WITNESSES:

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CHARLES E. BRENNAN, OF CHARLOTTESVILLE, VIRGINIA.

AUTOMATIC FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 270,731, dated January 16, 1883.

Application filed November 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. BRENNAN, of Charlottesville, in the county of Albemarle and State of Virginia, have invented a new and Improved Automatic Fire-Extinguisher, of which the following is a full, clear, and exact description.

The object of my invention is to provide a fire-extinguishing apparatus that shall be brought into operation automatically when a fire occurs in a building or other place contiguous to the apparatus.

The invention consists in combining certain elements in a fire-extinguisher, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a perspective view of the apparatus; and Fig. 2 is a side view, showing a modified arrangement.

A is a pipe, which is to be supported in any suitable manner along the ceiling or walls of the room or any other suitable or convenient place, and it is to be connected with a suitable water-reservoir on the roof of the building, or to any other source of water-supply.

At intervals on the pipe A are attached cross-pipes B B, that are provided at their outer ends with sprinklers C of any suitable character. These pipes B are to be placed at suitable distances apart, and are of a size for carrying an ample supply of water to the sprinklers.

In each of the joint-pipes connecting pipes B and A is fitted a valve, D, the stem of which is provided with a lever, E, having a weight, F, on its outer end.

On the end of the lever is a hook, *a*, which is connected by a wire, *b*, to a hook, *c*, on the pipe A, (shown most clearly in Fig. 2,) so that the lever is retained in its raised position, and the valve D thereby closed to prevent water passing to the sprinklers. The wire *b* may be made of two pieces soldered together with some easily-fusible metal; or a link of the same metal may be used in place of the wire; or, in place of the metal, fibrous material may be used.

A valve with a weighted lever or other de-

vice, as described, may be fitted in connection with each cross-pipe B, as shown in Fig. 1, or one valve may be fitted in connection with each sprinkler, as shown at *g* in dotted lines and in larger size in Fig. 2.

In operation, in case a fire occurs in a room containing the apparatus, as soon as the temperature reaches a high enough point the metal will be fused, the weight and lever will thereby be released, and falling, the valve will be opened, and the water, being thus allowed to enter the cross-pipes and sprinklers, will be forced in all directions.

In place of using the sprinklers as shown, the cross or branch pipes may be perforated.

It will be understood that the lever E may be bent in any desired form to clear obstructions. The lever may be made of considerable length without materially increasing the expense, and the weight may be made of any suitable size. If desired, the arrangement may be such that the weight will fall a short distance before operating the valve, thereby giving to the latter a blow or wrench that will loosen it in case it be rusted in place.

The fusible metal is fully exposed to the heat, and not connected with any large body of metal that might keep it cool.

The apparatus can be examined and tested as often as desired without disconnecting the soldered joints of fusible metal. In this manner the valve can be kept loose and the pipes cleaned of any sediment, &c., and there being no springs, the parts remain in condition for operation for any length of time.

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

The combination of the pipe A, having the pivoted hook *c*, and connected with a water-supply, the intervalled cross-pipes B, having end nozzles, C, the connecting-pipes having valves D, the end-weighted and hook-ended lever E, attached to the stems of said valves, and the wire *b*, connecting hook *c* with the hook end of lever E, as and for the purpose specified.

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Witnesses:

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