

(No Model.)

W. WILLIAMS.

AUTOMATIC ALARM FOR DRIP PANS.

No. 370,838.

Patented Oct. 4, 1887.

Fig: 1.

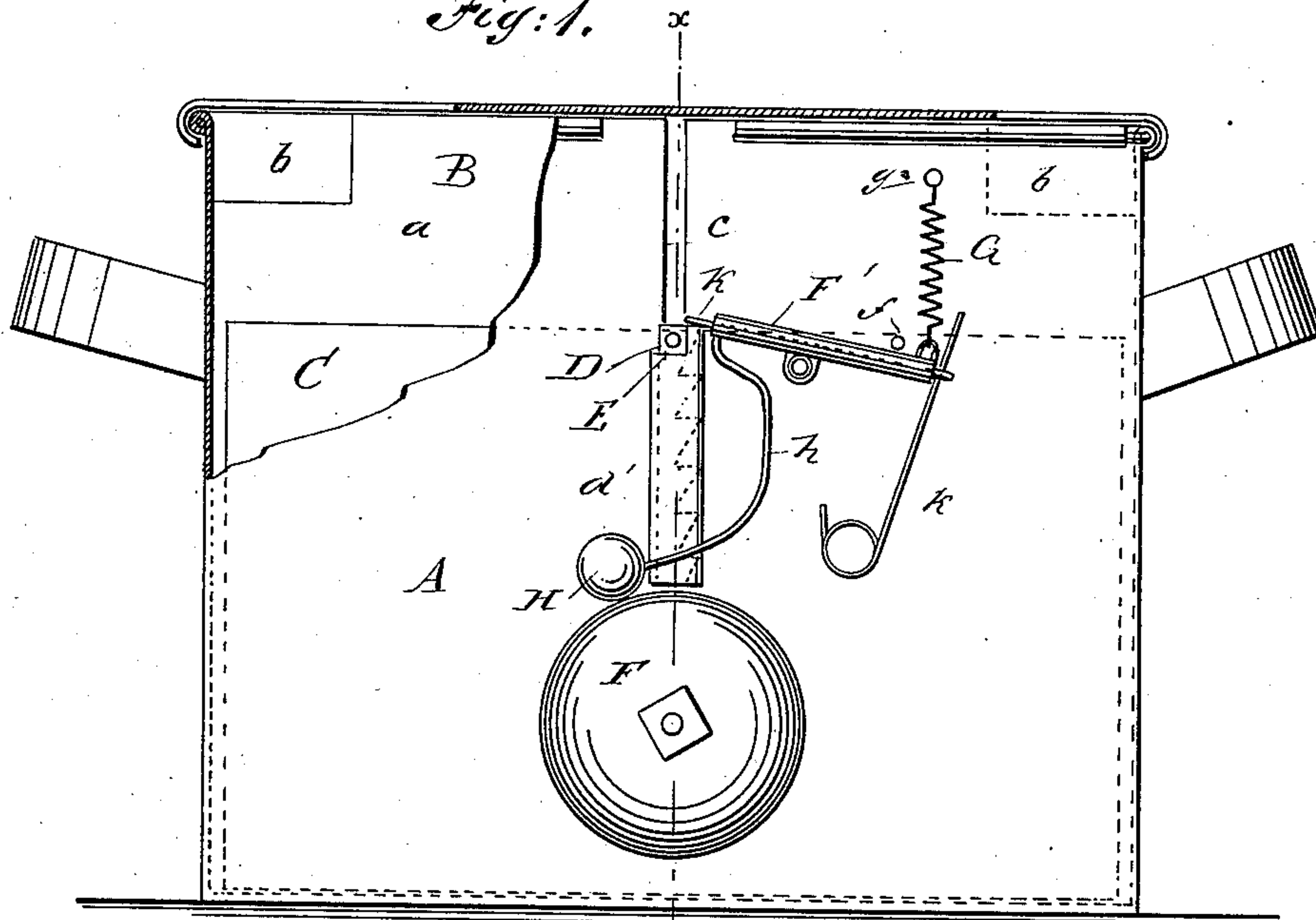


Fig: 2.

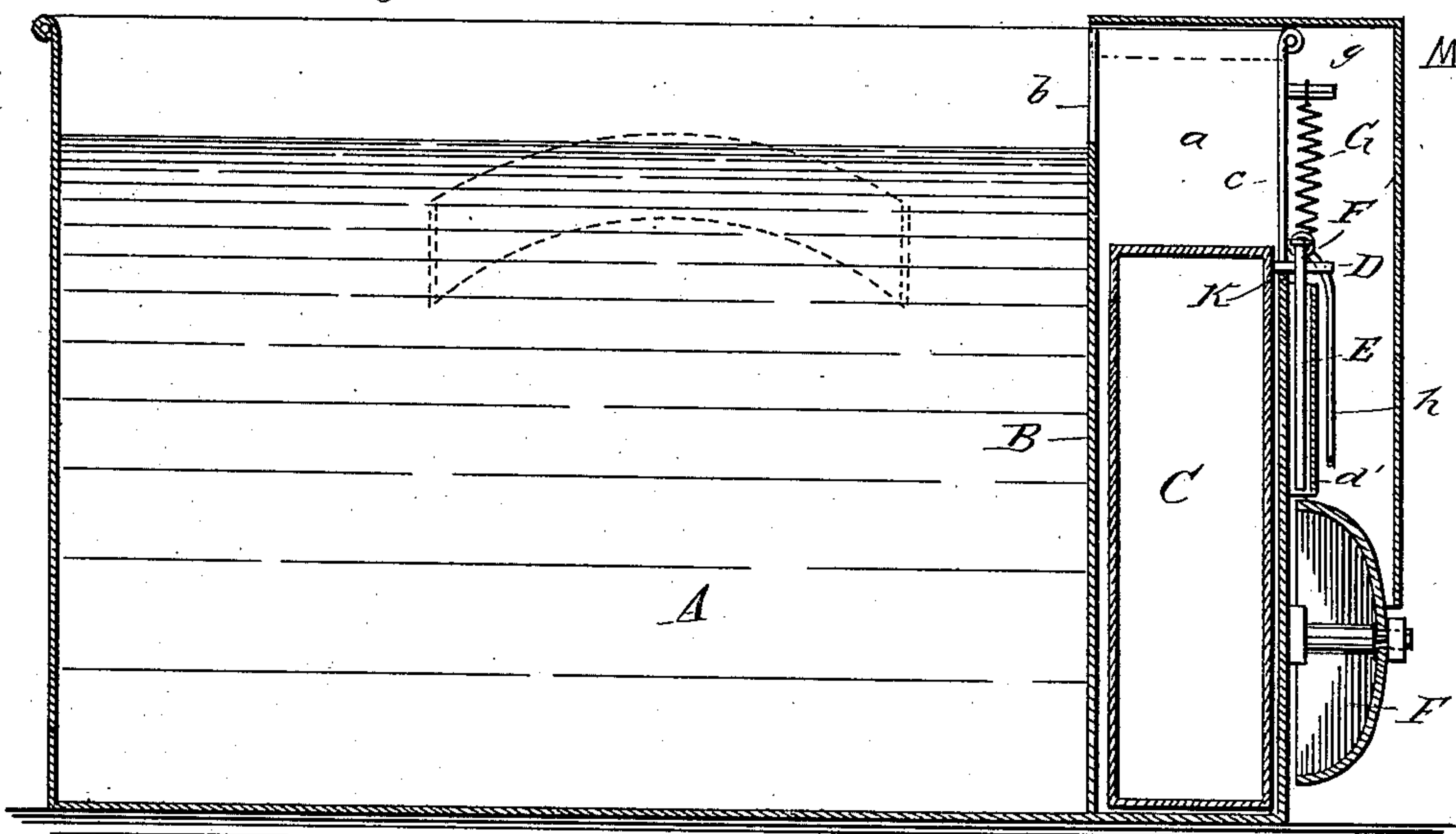
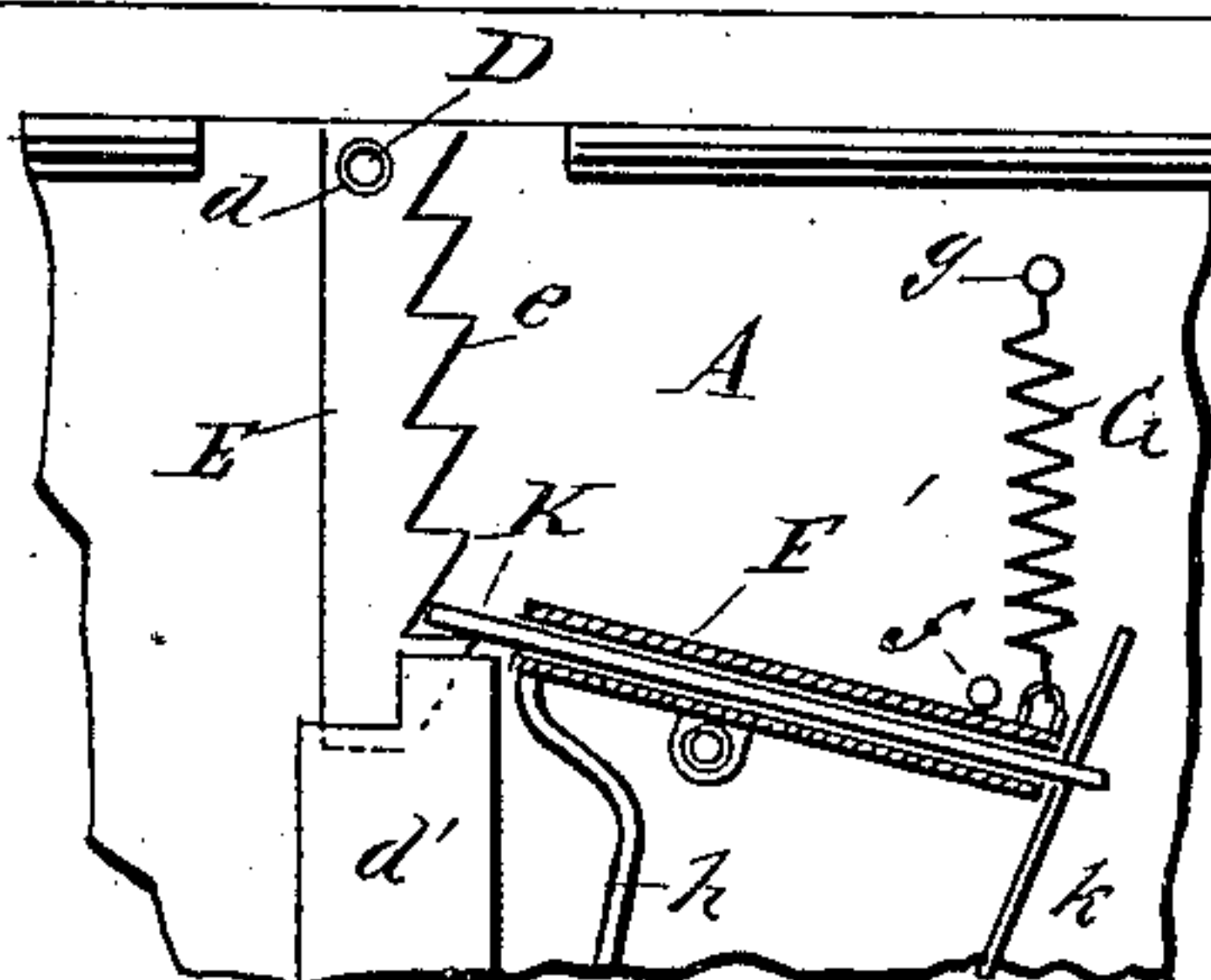


Fig: 3.



WITNESSES:

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WILLIAM WILLIAMS, OF BROOKLYN, NEW YORK.

AUTOMATIC ALARM FOR DRIP-PANS.

SPECIFICATION forming part of Letters Patent No. 370,838, dated October 4, 1887.

Application filed December 15, 1886. Serial No. 221,591. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WILLIAMS, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Automatic Alarm for Drip-Pans, of which the following is a full, clear, and exact description.

My invention relates to an improvement in drip-pans, and has for its object to provide a means whereby a series of alarms will be rung after the water or fluid contained therein has reached a predetermined height, thus obviating to a great extent danger of an overflow.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is an end view of my improved drip-pan, parts being broken away; Fig. 2, a central longitudinal vertical section thereof through line *xx* of Fig. 1. Fig. 3 is a detail view of a portion of the mechanism employed in connection with my pan.

When ordinary drip-pans are used in connection with refrigerators or kindred articles, the water, oil, or other fluid sought to be caught thereby often overflows, causing damage to surrounding property. I aim by my invention to remedy this defect, and to that end provide a chamber, *a*, within the vessel *A*, either transversely the same at one end, as shown, or longitudinally at one side, by a vertical partition, *B*, made to extend upward about the height of said vessel, the said partition being provided with apertures *b* near the top.

Within the chamber *a*, I place a float, *C*, preferably of a width and length nearly equal to the equivalent dimensions of said chamber, but of such a height as that when the float rests in its normal position upon the bottom of the vessel the upper portion thereof will be a distance below the top of said vessel. In the end or side of the vessel next which the float *C* is located I cut a central vertical slot, *c*, from the top of the vessel downward a slight distance below the upper surface of the float, the said slot being adapted to serve as a guide for a pin, *D*, attached to the central upper portion

of the float, which pin is projected outward through the slot *c*.

I now provide a rack, *E*, having five or more teeth, *e*, provided in one longitudinal edge, and suspend said rack vertically below the slot *c* by means of an aperture, *d*, cut in one end thereof from the float-pin *D*, providing as a guide for said rack a casing, *d'*, secured to the vessel, or fitting the said rack to slide in ways or otherwise, as the exigencies of the case may suggest. Below the rack I secure to the vessel *A* an ordinary gong, *F*.

A tubular lever, *F'*, is pivoted to extend from the upper toothed edge of the rack *E* at a slight inclination downward, the upward movement of said lever being controlled by a stop-pin, *f*, placed above the lever, near the outer end, and slightly below the line of the upper end of the float *C*, when said float is in its normal position, and a spiral spring, *G*, having one end attached to a pin, *g*, near the top of the vessel and its other end attached to the outer end of the tubular lever *F'*, is provided to return said lever to its normal position when tripped upward at its inner end, as shown in the drawings.

To the lower side of the inner end of the tubular lever *F'* a wire rod, *h*, is secured, which rod is bent so as to cause the clapper *H*, attached at its free end, to rest upon the gong *F*. A trip-rod, *K*, is made to extend through the tubular lever, having its outer end apertured to receive one end of a coiled spring, *k*, attached to the vessel beneath and at an angle inward from said rod *K*, whose other or inner end, preferably flattened, is projected beyond the tubular lever *F'* to a contact with the toothed edge of the rack *E*.

An outer casing, *M*, is provided the vessel *A*, adapted to cover the top of the chamber *a* and extend downward over the mechanism, leaving only a portion of the gong *F* exposed, the purpose being to prevent dust settling upon the operative parts, and also prevent said parts from danger of dislocation.

In operation, when the liquid in the vessel *A* reaches the elevation of the apertures *b* in the partition *B*, it will flow into the chamber *a* and raise the float *C*, which, as it is carried upward, will carry with it the rack *E*. The rack, being in engagement with the trip-rod *K*, will

through said connection elevate the tubular lever F. As the rack carries the rod K to its upward limit, the said rod slides from the top edge of the rack into the first notch. The spiral spring G, bringing the lever simultaneously back to its normal position, causes the clapper to ring an alarm upon the gong, while the coil-spring *k* has meanwhile restored the trip-rod K again to its normal position. When sufficient water has again been admitted in the chamber *a*, the operation is repeated, and as the next notch in the rack is engaged by the rod K another alarm is rung, and so on, as many alarms being rung before the fluid reaches the overflow-point as there are notches or teeth upon the rack.

When the water has been emptied from the vessel, the weight of the float will carry the rack downward, and all the parts will assume their normal positions.

My invention is applicable to any receptacle adapted to receive a flow of liquid and which is liable to overflow through non-attendance.

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

1. The combination, with the vessel A, provided with a chamber, *a*, near one side, a float, C, within said chamber, and a central vertical slot, *c*, of the rack E, spring-actuated tubular lever F', carrying a trip-rod, K, and bell-clapper H, and a gong, F, secured to said vessel, substantially as shown and described, whereby a series of alarms are rung as said chamber *a* fills, as set forth.

2. The combination, with the vessel A, provided with a vertical slot, *c*, chamber *a* near one side, and a float, C, within said chamber, having an attached pin, D, of the rack E, suspended from said pin, the spring-actuated tubular lever F, having attached thereto a bell-clapper, H, a spring-actuated trip-rod, K, held in said tubular lever, and a gong, F, secured to said vessel, substantially as shown and described, and for the purpose herein set forth.

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Witnesses:

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