

A. W. Herr,

Fire-Proof Safe.

N^o 77,816.

Patented May 12, 1868.

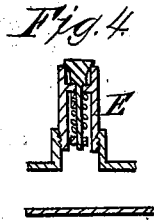
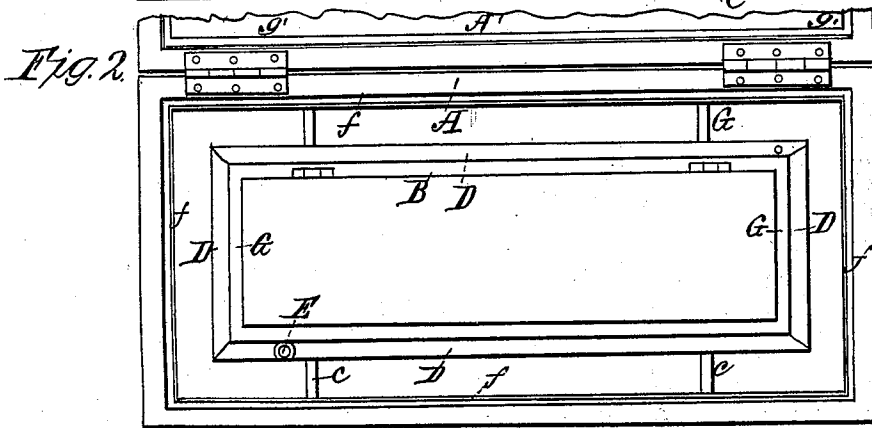
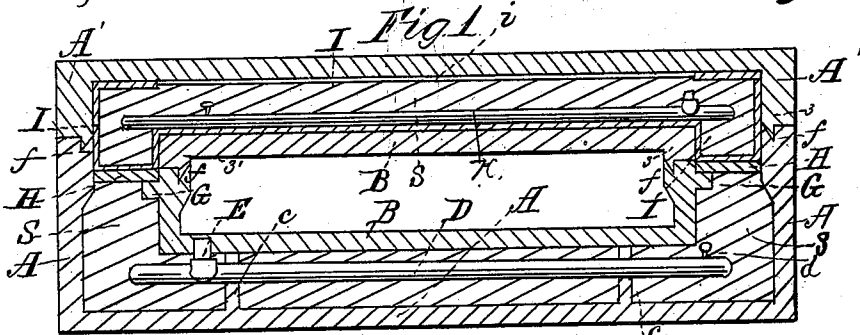
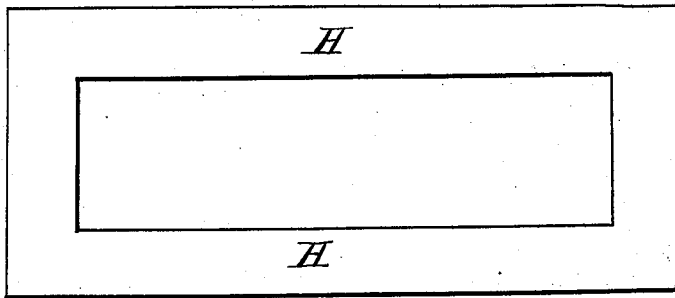


Fig. 3.



Witnesses:

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United States Patent Office.

AUGUST W. HERR, OF CHICAGO, ILLINOIS.

Letters Patent No. 77,816, dated May 12, 1868

IMPROVEMENT IN FIRE-PROOF SAFE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, AUGUST W. HERR, of the city of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful "Fire-Proof Box;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents longitudinal sections of the case and box.

Figure 2, the plan of the box when open and the face-plate removed.

Figure 3 is the plan of the face-plate, and

Figure 4 is a section of the valve of the evaporator.

Similar letters of reference denote the similar parts of the box in several figures.

The object of my invention is to provide inexpensive and efficient fire-proof boxes of any size for family use, offices, &c.; and the nature of the invention consists in putting the box containing valuables, or other articles or material, into another more spacious case, leaving enough of space between the two, and placing into the said space a tubular water-evaporator, and filling the balance of the space with common salt or other non-conducting heat substance. The boxes and all are made of metal.

To enable others skilled in the art to which my invention appertains to make use of said invention, I will proceed to describe its construction and operation.

A is the outer case or box. B is the interior box, into which the objects to be preserved from fire are placed. C C are low partitions, on which rest box B and the water-evaporator D, made of straight or coiled pipes, or arranged in some other suitable manner. It is provided with a vent or air-hole, *d*, stopped with a screw, pin, faucet, or any other suitable device, and a valve, E, consisting of a tube, pin, and coiled spring, and screwed into the evaporator's tube, or arranged in some other suitable manner answering the same purpose. S is salt, with which the rest of the space between the box B and case A is filled.

The upper edges of the box and case are provided with grooves, *f f*, and the edges of their lids are provided with sharp projecting rims, *g g*, to fit the grooves *f f*, when the boxes are shut; this, for the purpose of preventing steam, water, or even a blaze of fire from penetrating into the interior of the boxes. There is a collar, G, around box B, to support the plate H, which fits the space between box B of case A, and supports the case I, placed in the lid of the case A.

The case I, made of sheet metal, is so shaped as to fit into the space above the plate H and into the lid A' and is provided with a lid, *i*, hinged to the same, or it may be arranged in some other convenient way. A water-evaporator, K, arranged similarly to that of the case A, is placed into the case I, and the rest of the space in the case filled with salt.

Proper locks and hinges are provided for securing the case A and the box B, as also handles *b b*.

The operation consists in this: That evaporator D is filled with distilled water and placed in the case, and all the space around box B is filled with salt; then the plate H is put on; then the case I is taken out of the lid A', and an evaporator, K, is put in and the case filled with salt, also, and fitted over the box B, when lid A' is adjusted and case A locked.

When the box is subjected to the fire, the salt commences to warm, and becoming hot, warms the evaporator, and the vapors escaping through its valve, E, mix with salt, dissolve it, and absorb heat for considerable time, preserving box B and its valuables uninjured.

Other bad conductors of heat may be used, substantially for the same purpose, in combination with the evaporators, but common salt is preferred by me for its cheapness, and being in general use.

What I claim as my invention, and desire to secure by Letters Patent, is—

The fire-proof box, consisting of case A and box B, each constructed and arranged, and both combined as described, the spaces between the same being provided with water-evaporators, arranged in the manner herein described, or in any other suitable manner, and filled with fine salt or other bad conductor of heat, substantially answering the purpose herein specified, all combined and operating substantially as herein shown and described, and for the purposes set forth.

AUGUST W. HERR.

Witnesses:

J. B. TURCHIN,

L. H. LANE.