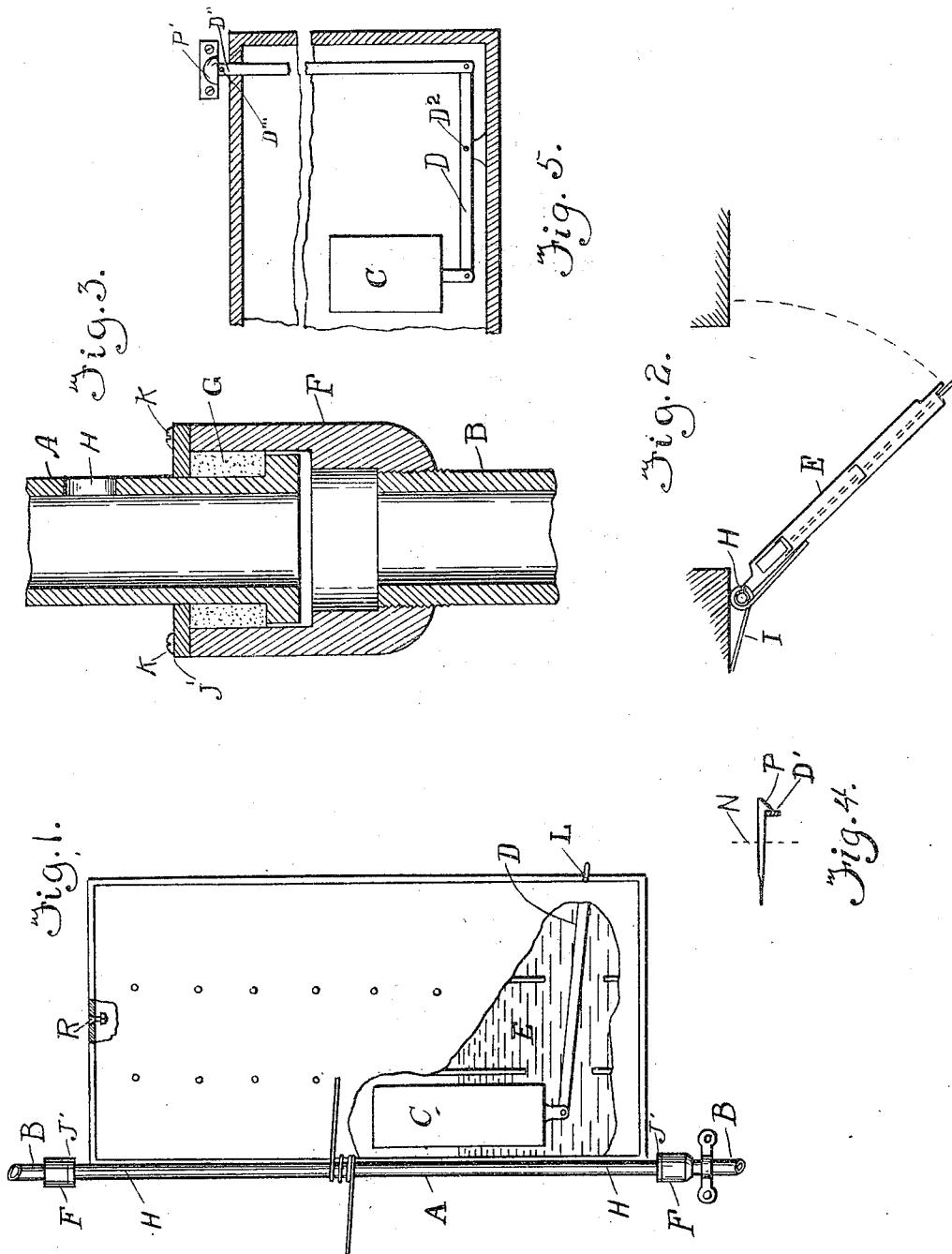


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BLIND FOR FIREPROOF BUILDINGS.
APPLICATION FILED JAN. 26, 1910.

962,011.

Patented June 21, 1910.



WITNESSES

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BLIND FOR FIREPROOF BUILDINGS.

962,011.

Specification of Letters Patent. Patented June 21, 1910.

Application filed January 26, 1910. Serial No. 540,255.

To all whom it may concern:

Be it known that I, ALEXANDER T. ELLIS, a citizen of the United States of America, residing at Boise, in the county of Ada and State of Idaho, have invented certain new and useful Improvements in Blinds for Fireproof Buildings, of which the following is a specification.

This invention relates to fire proof buildings and particularly to blinds or shutters therefor.

An object of this invention is to provide novel means for holding a shutter open, means being provided for releasing the device for holding the shutter open, in order that the said shutter may be swung on its pivot or hinge for the purpose of closing an opening in a building to be protected.

A further object of this invention is to provide a hollow shutter with means for supplying liquid, preferably water, thereto, in order that the insulating character of the shutter may be augmented.

A further object of this invention is to provide novel means for hinging the shutter and for supplying the liquid thereto, means being also provided whereby the liquid supplied to the interior of the shutter is utilized to actuate the shutter releasing mechanism.

A still further object is to provide means of escapement for air and steam, assuring complete filling of the shutter with liquid.

Finally an object of this invention is to produce a device of the character noted, which will possess advantages in points of simplicity, efficiency and durability, proving at the same time comparatively inexpensive to manufacture.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, in which—

Figure 1, illustrates a view in elevation of a shutter and its hinge embodying the invention; Fig. 2, illustrates a top plan view thereof; Fig. 3, illustrates a detail view of a coupling for the combined water supply and hinge; Fig. 4, is a detail of the catch and

keeper; and Fig. 5 is a detail of a modification of the float and catch mechanism.

In these drawings, A denotes a combined hinge and pipe to which the supply or surface pipe B is connected, through the medium of a coupling F.

The shutter J, comprises a shell-like structure provided with apertures H, through which liquid is delivered from the pipe A, in order that the interior of the shutter may be filled therewith. A lever D, is pivotally mounted in the shutter and its inner end is provided with a float C, which is acted on by the liquid contents of the shutter so that when the said shutter is filled with liquid or partially filled, the buoyancy of the float will operate the lever D, and the lever D, will cause the catch D', on the outer end of the shutter to be released from the keeper applied to the wall of the building.

A spring I, has its central portion wound around the pipe A and has its ends bearing against the wall of the building and the shutter respectively, in order that it will exert pressure on the shutter to close the same when the catch is released.

From an inspection of the drawing and from the foregoing description, it will be apparent that when the supply of liquid is turned on, the liquid is delivered through the pipe B, to the pipe A, and into the interior of the shutter and that the said liquid will act on the float to elevate it and thus actuate the lever D, for the purpose of releasing the catch, which may be a downwardly turned keeper attached to the wall of the building as shown in Fig. 4 in which D' is shown in cross section; P designating the keeper and N the wall. When released, the spring I will exert pressure to close the shutter by swinging the pipe A, in the couplings F.

As shown in Fig. 3, the pipe B is threaded on the couplings F and the said couplings have the ends of the pipe A extending therein, the ends of the said pipe A, being flanged to engage the packing G, which packing is held in place by the plate J', secured to the coupling by means of the screws K.

A check valve R may be applied at the top to allow the escape of air or steam from the shutter and insure a full supply of liquid.

In the modification, Fig. 5, D'' is the catch, D''' a bolt or rivet to prevent disen-

agement of the latch from the aperture in the shutter; C is the float; P' the keeper, and D² the fulcrum pivot for the lever D.

By reason of the construction shown in Fig. 3, the pipe A is adapted to rotate in the couplings, yet a water-tight joint is produced which will prevent leakage.

The construction, operation and advantages will, it is thought, be fully understood 10 from the foregoing description, it being apparent that various changes in the proportions and details of construction may be made without departing from the scope of the invention.

15 I claim:

1. In a blind or shutter for buildings, the combination with a liquid supply pipe, of a hinge member swivelly connected to the pipe with water tight joints, a hollow shutter

20 secured to the hinge member and having communication with the liquid supply.

2. In a blind or shutter for buildings, the combination with a liquid supply pipe, of a hollow hinge member, swivelly connected to 25 the pipe with packed joints, a hollow shutter secured to the hinge member, and adapted to receive liquid from the supply pipe.

3. In a blind or shutter for buildings, the combination with a liquid supply pipe, of a 30 hollow hinge member, swivelly connected to the pipe with packed joints, a hollow shutter secured to the hinge member, and adapted to receive liquid from the supply pipe, means for latching the shutter in open position, 35 means for releasing the catch, and spring means for closing the shutter.

4. In a blind or shutter for buildings, the

combination with a liquid supply pipe, of a hollow hinge member, swivelly connected to the pipe with packed joints, a hollow shutter 40 secured to the hinge member, and adapted to receive liquid from the supply pipe, means for normally retaining the shutter in open position, means utilizing the liquid for releasing the catch and means for closing the 45 shutter.

5. In a blind or shutter for buildings, the combination with a liquid supply pipe, of a hollow hinge member, swivelly connected to the pipe with packed joints, a hollow shutter 50 secured to the hinge member, and adapted to receive liquid from the supply pipe through apertures in the hinge member, a catch and keeper for retaining the shutter in open position, a float for releasing the 55 catch, and mechanical means for closing the shutter.

6. In a blind or shutter for buildings, the combination with a liquid supply pipe, of a hollow hinge member, swivelly connected to 60 the pipe with packed joints, a hollow shutter secured to the hinge member, and adapted to receive liquid from the supply pipe through apertures in the hinge member, a catch and keeper for retaining the shutter in open 65 position, a float for releasing the catch, mechanical means for closing the shutter, and a suitable vent for air and steam.

In testimony whereof, I affix my signature in the presence of two witnesses.

ALEXANDER T. ELLIS.

Witnesses:

FRANK G. ENSIGN,
JOHN W. SMITH.