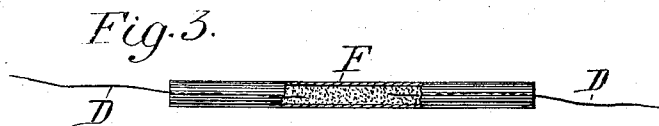
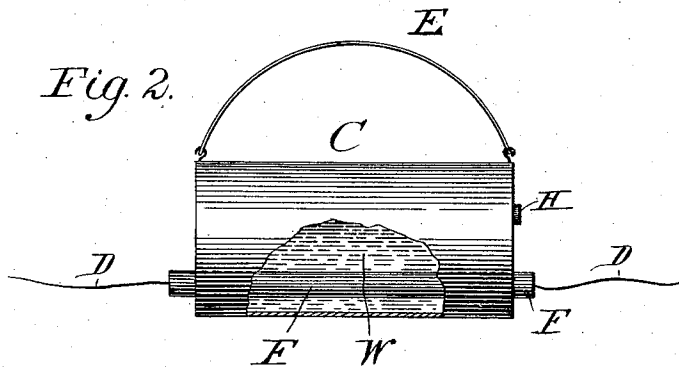
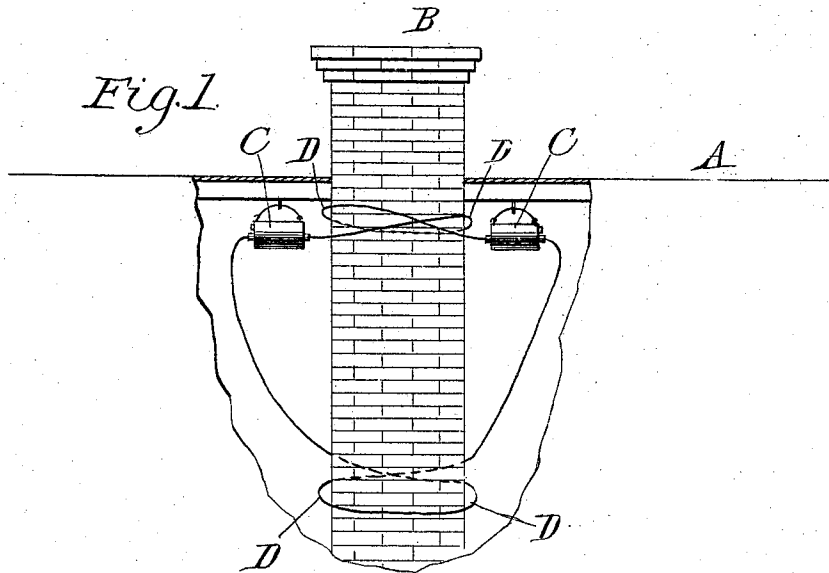


(No Model.)

I. S. BUNKER & A. W. KENNEY.
FIRE ALARM AND EXTINGUISHER.

No. 576,026.

Patented Jan. 26, 1897.



Witnesses:
Jno. Martin
Jno. Harper Jr.

Inventors.
Ira S. Bunker
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UNITED STATES PATENT OFFICE.

IRA S. BUNKER AND ABRAHAM W. KENNEY, OF NEVADA, MISSOURI.

FIRE ALARM AND EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 576,026, dated January 26, 1897.

Application filed July 17, 1896. Serial No. 599,587. (No model.)

To all whom it may concern:

Be it known that we, IRA S. BUNKER and ABRAHAM W. KENNEY, citizens of the United States, residing at Nevada, in the county of Vernon and State of Missouri, have invented a new and useful Improvement in Fire Alarms and Extinguishers, of which the following is a specification.

Our invention relates to a fire alarm and extinguisher in which an air and water tight case of liquid has a separate water-tight apartment containing an explosive and a fuse connected to fire and explode it and scatter the liquid.

The object of our invention is to provide a cheap, simple, and inexpensive device to place near chimneys, flues, and places exposed to fire to extinguish the fire by exploding a liquid into it at the same instant the alarm is given. We attain these objects by means of a device illustrated in the accompanying drawings, in which—

Figure 1 is a view of a house roof or attic with the sheathing and part of the rafters removed, exposing to view a chimney with the alarm-cases connected. Fig. 2 is a view, enlarged, of the liquid-case with its front cut away, exposing to view the inner tube or cartridge, with fuse connected at its ends. Fig. 3 is a view of the inner tube with the front cut away, exposing the powder and ends of fuse.

Similar letters refer to similar parts throughout the several views.

C, Fig. 2, is a can or case of any desired size and shape, which is made of any suitable material desired, (but is preferably made of tin.) Said case has a bail E for convenience in hanging it up. It also has a cork or stopper H for convenience in filling it. Extending through and out of each end of the case there is a chamber or tube F. Said tube is soldered to the ends of case C, which renders the space W air-tight when filled with liquid and the cork H sealed. The cartridge or tube F is left open its entire length until it is loaded, which can be done at any time after the case C and tube F are combined together. Gun-

powder, guncotton, or any explosive that fire will ignite is placed in tube F, a fuse inserted, and the ends of the tube sealed up with sealing-wax, plaster-of-paris, or any desired substance having a resisting force sufficient to explode the tube and outside case.

In making the cases of tin it is best to place the tube F near one side of case C and opposite the seam in the case, so that an explosion (which always opens the case at the seam) will throw the bulk of the liquid upward and thus better saturate a roof above where the device is hung.

The device operates as follows: The cases are hung up near furnaces, flues, or places exposed to fire and the fuse connected by fastening it with staples or tacks to the work at points where flues intersect ceilings and the roof of a building, as shown in Fig. 1, (a quick fuse can be used,) and when fire catches at a place where these connections are made the fuse is ignited and communicates at once with the powder and explodes it, which blows the liquid in the case with great force in all directions, blowing out the fire and saturating the brands.

The advantages we claim for the device are that it is simple, durable, cheap, and reliable. It will not give a false alarm, as nothing but fire will set it off. The explosion is harmless, as only liquid or vapor is thrown by it, and as most fires originate at flues it will be a faithful sentinel at such places. The explosion can be heard at a distance by a farmer at work in the field or the attention of neighbors would be called to the fire by the explosion. It would be a valuable protection if only the cartridge F was exploded without the outer case C and the liquid it contains, but it is far more valuable combined with the liquid, for in most cases where fire occurs at flues it will put it out, which would be desirable if occupants were away from home. In all cases it will deaden the fire and render control of it easy.

We are aware that fire-extinguishing devices which are made up of chemical combinations are in use, all of which we disclaim,

as we only use gunpowder and water in our device.

What we do claim, and desire to secure by Letters Patent, is—

5 In a fire alarm and extinguisher the combination with a closed water-tight tank C, of a tube F adapted to contain an explosive extending through opposite walls of said tank,

and fuses connected one to each end of said tube, as and for the purpose described.

IRA S. BUNKER.

ABRAHAM W. KENNEY.

Witnesses:

JOHN S. HARPER,

JNO. W. MARTIN, Jr.