

(No Model.)

P. ORIOLLE.  
AUTOMATIC FIRE EXTINGUISHER.

No. 252,501.

Patented Jan. 17, 1882.

Fig: 3

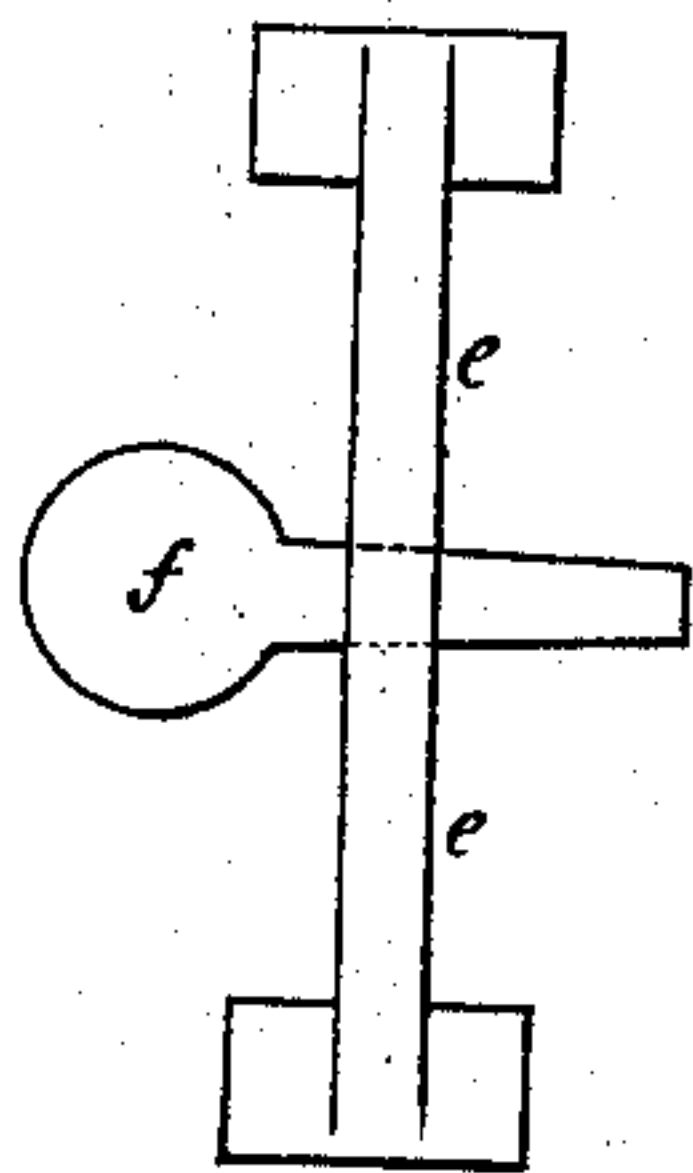


Fig: 1

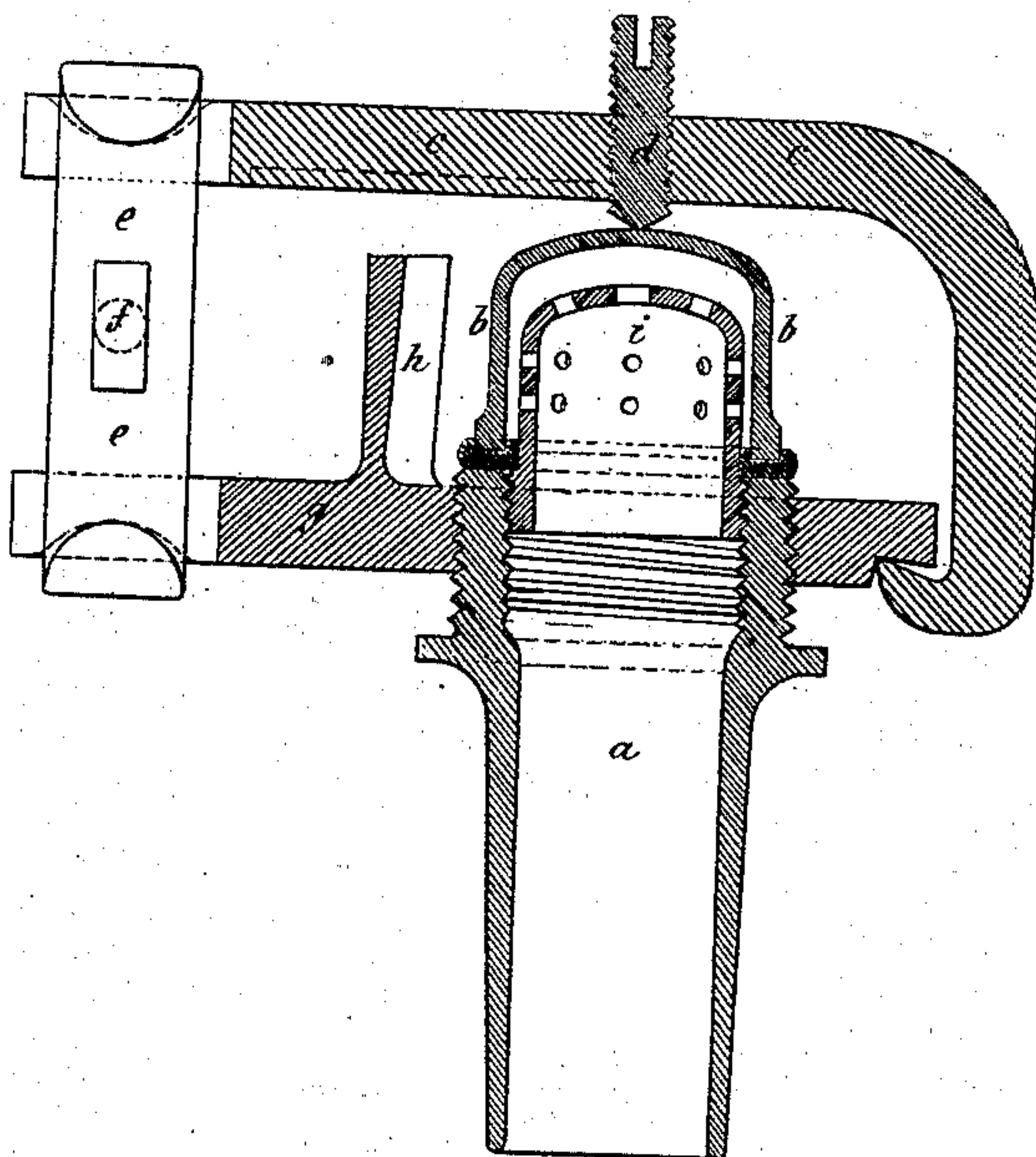
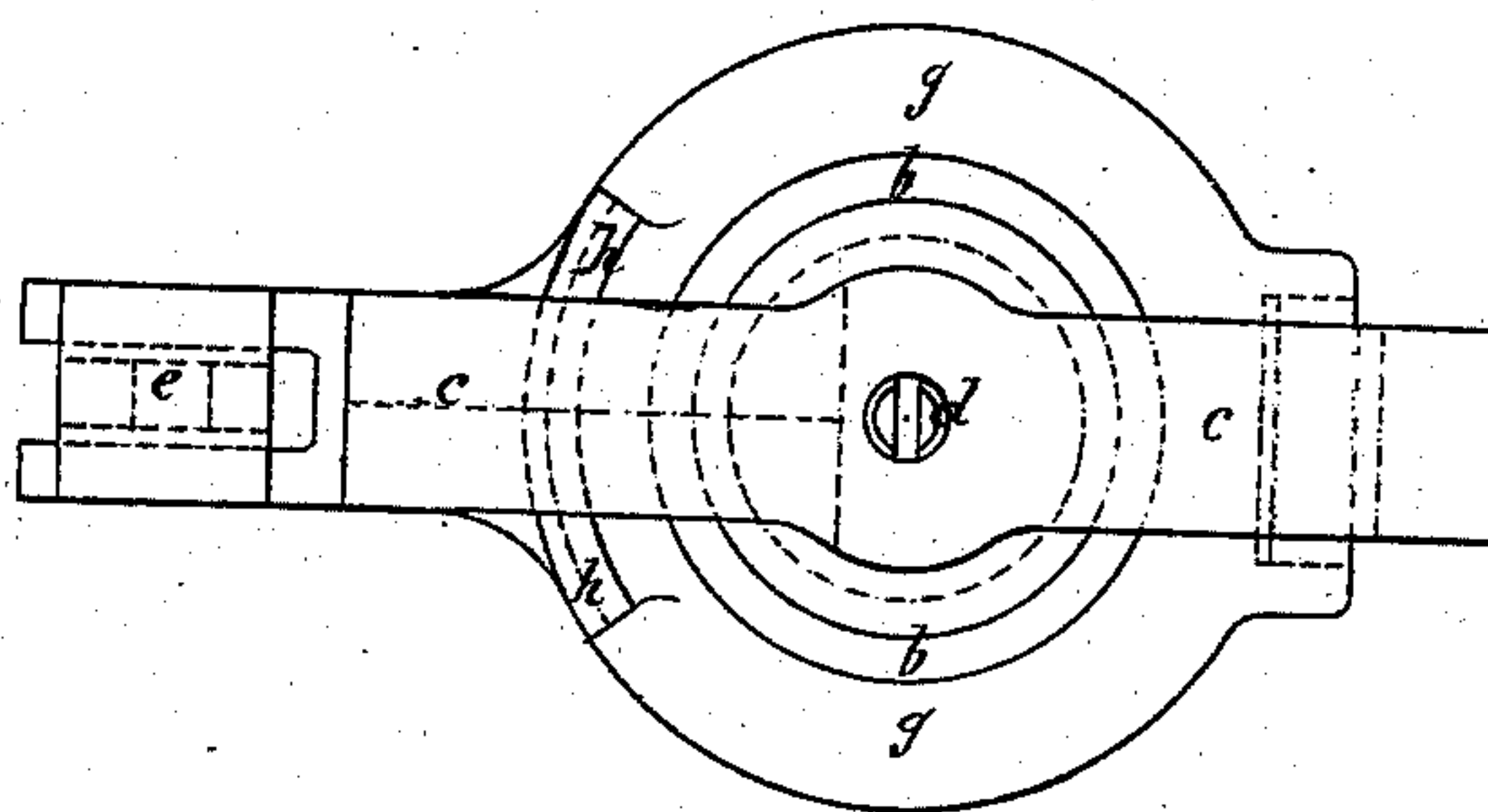


Fig: 2



Witnesses:

1: *Robert M. Cooper*

2: *Jean. Baptiste Rolland.*

Inventor:

*Paul Oriolle*

# UNITED STATES PATENT OFFICE.

PAUL ORIOLLE, OF NANTES, FRANCE.

## AUTOMATIC FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 252,501, dated January 17, 1882.

Application filed October 5, 1881. (No model.) Patented in France March 15, 1881.

*To all whom it may concern:*

Be it known that I, PAUL ORIOLLE, of Nantes, France, engineer, have invented a System of Automatic Fire-Extinguisher, known as "Oriolle's Automatic Extinguisher;" and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed sheets of drawings, making a part of the same.

The present invention has for its object an apparatus which automatically attacks a fire immediately on the breaking out of same. This apparatus is caused to act by the slightest abnormal rise of temperature, and consequently operates so as to extinguish the fire at the very beginning. The principle of the apparatus is based on the use of fusible substances at low temperatures for closing the orifices of pressure water-pipes, so that the fusion of such substances causes the opening of the pipe, and thus creates a continual projection of liquid.

The accompanying drawings serve to illustrate the arrangement I have invented for putting into practice the said principle.

Figure 1 is a vertical section of the extinguisher. Fig. 2 is a plan of same. Fig. 3 is an end view of the fusible connection-rod.

In the different drawings the same letters of reference indicate the same parts.

*a* is the pipe, connected with the pressure-main. On its end is screwed a piece, *g*, which supports the connection-rod *c*. Inside said pipe is screwed a cap, which divides the jet of water under pressure. This cap is covered by a lid, *b*, which rests on an elastic washer, and is kept pressed against the piece *g* by the screw *d*, to which the rod *c* acts as a fixed nut. The rod

*c* is held in place by a rod, *e*, composed of fusible metal or other fusible matter, so as to insure the closing of the main. This rod is traversed at the middle by a small pin, *f*, made of metal highly capable of conducting heat. The weakness caused by the hole which receives the pin *f* and the great conducting power of the latter produce the destruction of the rod *e* always at the same point, when the latter is brought to the temperature which produces the fusion of the material of which it is composed. The piece *g* is provided with a shield, *h*, which protects from the heat the lid *b* and the elastic washer which insures the tightness of the joint with the piece *g* at the side opposite the fusible rod *e*.

These apparatus should be situated at the points where the temperature is likely to become the soonest raised, and as soon as the temperature becomes sufficiently high to cause the fusion of the rod *e* the screw *d* ceases to press on the lid *b*, which will be thrown back, as well as the rod *c*, by the water under pressure, which will be forced in all directions through the perforations in the cap *i*, and thus, by attacking immediately the fire, will generally succeed in extinguishing it.

I claim—

The combination, with the lid *b* and pipe *a*, of the piece *g*, screwed on the end of pipe, the nut-rod *c*, carrying the screw *d*, and the fusible rod *e*, carrying therein a heat-conductor, *f*, as and for the purpose specified.

PAUL ORIOLLE.

Witnesses:

ROBT. M. HOOPER,

JEAN BAPTISTE ROLLAND.