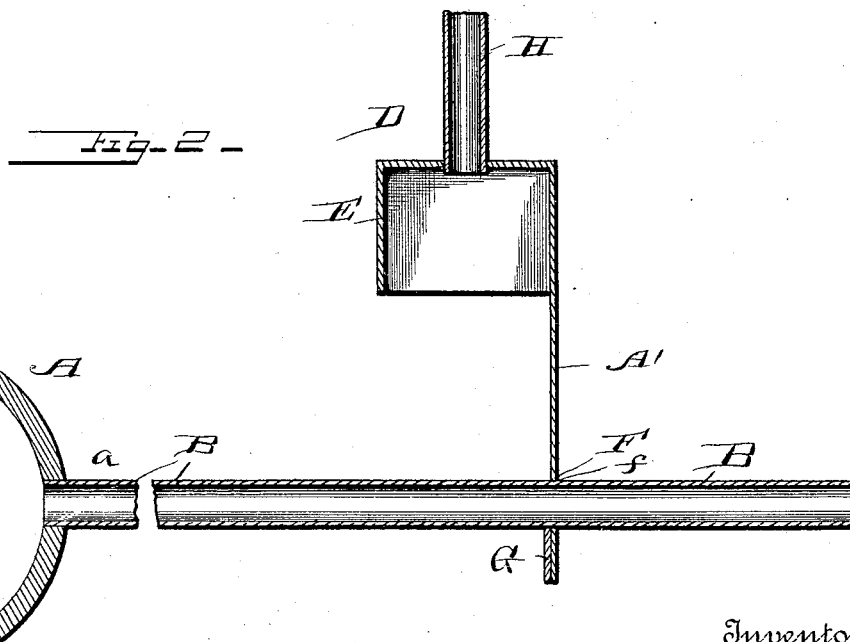
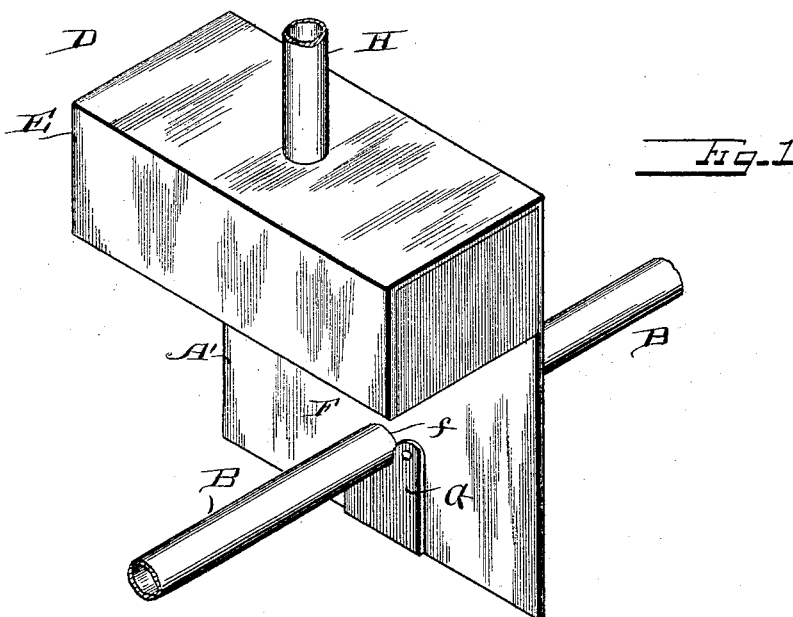


(No Model.)

F. M. REED.  
GAS PROTECTOR.

No. 489,392.

Patented Jan. 3, 1893.



Witnesses  
Jesse Heller.  
Philip C. Mass.

Inventor  
Franklin M. Reed.  
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his Attorney

# UNITED STATES PATENT OFFICE.

FRANKLIN M. REED, OF ANDERSON, INDIANA, ASSIGNOR OF ONE-HALF TO  
DE WITT C. CHIPMAN, OF SAME PLACE.

## GAS-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 489,392, dated January 3, 1893.

Application filed April 14, 1892. Serial No. 429,225. (No model.)

*To all whom it may concern:*

Be it known that I, FRANKLIN M. REED, a citizen of the United States, and a resident of Anderson, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Gas-Protectors or Devices for Preventing Explosion of Gas in Dwellings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a perspective view, showing the invention applied to a service pipe, and Fig. 2 is a longitudinal vertical section.

This invention has relation to certain new and useful devices for preventing explosions of natural gas in houses and other buildings, and it consists in the novel construction and combination of parts, all as hereinafter specified.

It is well known that a frequent cause of explosions of natural gas in dwelling houses arises from leaks in the main with which the service pipe is connected. The gas escaping from such leaks, being unable to pass through the soil into the open air, either by reason of an asphaltum or other impervious covering above the line of the main, or owing to the fact that the ground is frozen or covered with sleet, flows along the main until a service pipe is reached, which directs it from the main and causes it to follow along the pipe into the house or building. As a consequence, the room or building soon becomes filled with the gas, which explodes upon the lighting of a match.

With this fact in view, the invention has for its object the provision of suitable means for connection with service pipes, for the purpose of checking the flow of the escaped gas along its surface, and directing it into an escape communicating with the open air. In the accompanying drawings, I have illustrated a device of this character, which will now be described.

The letter A indicates a section of a gas main, tapped at *a* by the service pipe B, for supplying gas to a house or other building. At any suitable point on this service pipe, previous to the point where it enters the dwelling is placed the gas deflector D, which is shown as consisting of a box E open at its bottom portion, and having its rear wall extended downwardly a considerable distance below the box, as shown at A'. In the lower central portion F, is formed an opening or slot *f*, through which passes the service pipe B, with the box facing the main. The space between the surface of the pipe and the edge of the slot or opening is closed by means of a pivoted slide G, arranged to fit closely around the pipe, or it may be, by means of solder, mortar, cement, or other substance impervious to the passage of gas.

Communicating with the interior of the box E is an escape pipe H, which is led to any suitable point where it may discharge into the open air.

The gas which has left the main and is following along the surface of the pipe E, is checked by the portion F, beyond which it cannot pass, and is deflected up into the box E, from which it enters the escape pipe and passes to the open air.

Having described this invention, what I claim and desire to secure by Letters Patent is:

The herein described device for deflecting escaped gas from a service pipe, said device comprising a box or chamber open at one side, a deflector plate extending below the open side of said box, an opening in said deflector plate through which the service pipe is designed to pass, and an escape pipe leading outwardly from said box or chamber, substantially as specified.

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

FRANKLIN M. REED.

Witnesses:

SAMUEL P. MOORE,  
WILLIAM J. DOVE.