

May 23, 1933.

C. A. MARTEL

1,910,347

FIRE ALARM FOR STOVE PIPES

Filed March 28, 1931

FIG. 1.

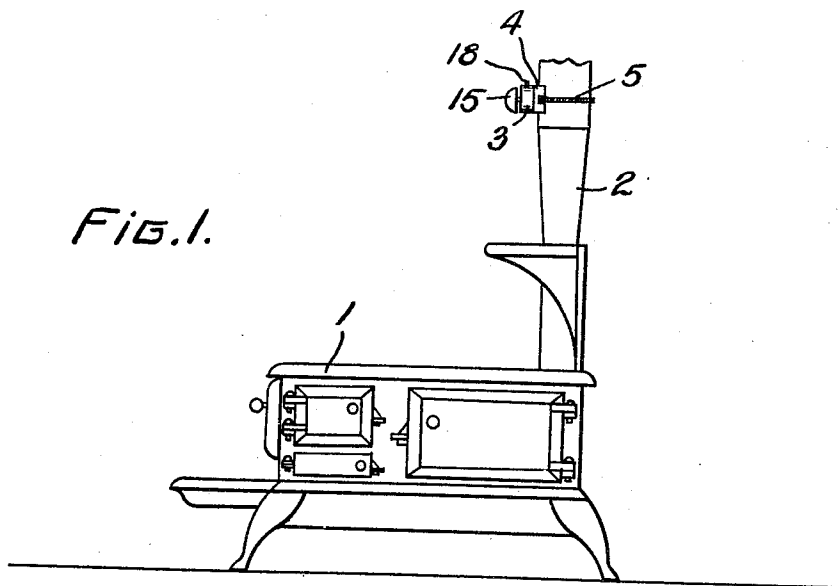
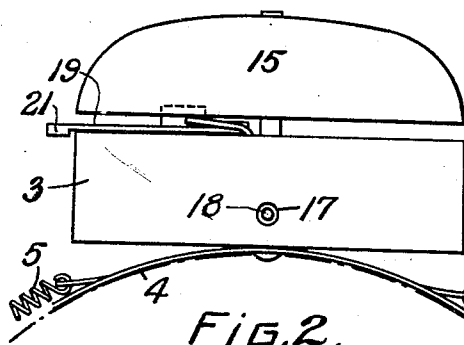


FIG. 2.

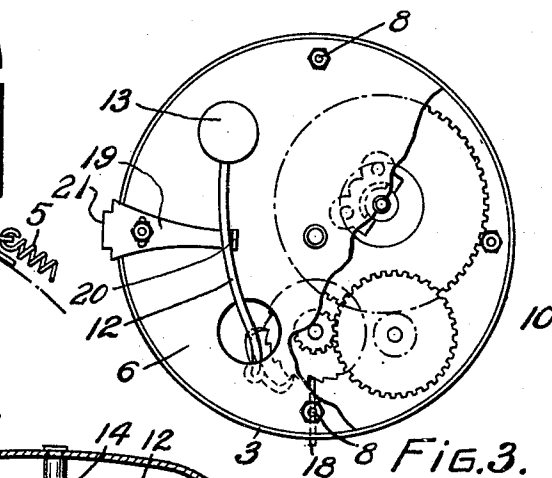


FIG. 3.

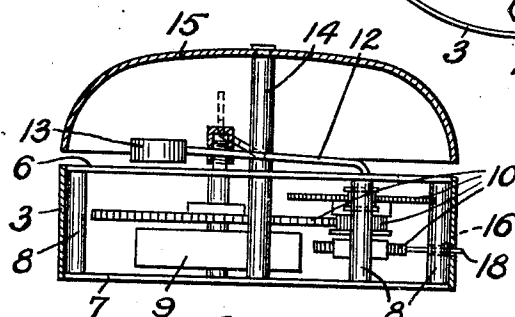


FIG. 4.

Inventor
C. A. Martel

By
Charles E. Martel
Attorney.

UNITED STATES PATENT OFFICE

CLAUDE ADELARD MARTEL, OF FARNHAM, QUEBEC, CANADA

FIRE ALARM FOR STOVE PIPES

Application filed March 28, 1931. Serial No. 525,997.

The present invention relates to improvements in "fire alarm for stove pipes", and particularly consists in providing a bell ringing signal device adaptable to stove pipes, whereby when said stove becomes overheated, an alarm is sounded. It mainly consists in providing a resistance element which passes through a suitable hole in one of the posts forming part of the casing engages one of the gears of a train of gears. When a predetermined temperature is reached in the stove pipe, the resistance element which may be of fusible substance, releases the gear, which puts into action the bell hammer that sounds the alarm. It is obvious that the object of this invention is to prevent fires, which mostly originate in overheated stove pipes, and also provide a simple and effective mechanical alarm ringing device.

In the drawing:—

Figure 1 is a side elevation view of a stove and stove pipe to which is adapted the invention;

Figure 2 is an enlarged top view of the alarm as adapted to a stove pipe;

Figure 3 is a plan view of the alarm, the bell having been removed; and

Figure 4 is a side elevation view of the alarm, the casing and bell being shown in section, to disclose the inner mechanism.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawing, 1 indicates a stove and 2 the usual stove pipe. Upon the stove pipe is provided the alarm casing 3, which is mounted upon a semi-circular base plate 4 adapted to fit the stove pipe and 5 is a spiral spring which encircles the stove pipe, the ends of which engage in suitable holes in the base 4, thus securing the casing upon the said stove pipe.

The casing 3 consists of a top plate 6 and bottom plate 7, and 8 are spacing posts. Within said casing is provided the spiral spring 9 and a train of gears 10 leading from said spring 9 to the ratchet attachment 11, controlling the bell hammer stem 12, and bell hammer 13. On the top 6 is provided exteriorly a post 14 upon which the bell 15 is mounted.

One of the spacing posts 8 is provided with a transverse hole 16, and 17 is a hole in the casing 3 corresponding therewith. Through said holes 17 and 16 is inserted a resistance element 18 which may consist of a pin shape member of preferably fusible substance said pin passing through said holes and engaging in between the teeth of one of the adjacent gears 10, thus locking said gears and spring against movement.

When the temperature in the stove pipe has reached the fusing point of the resistance element, the pin releases the gear, causing the spring 9 which has been previously wound, to actuate the gears, which, in turn, actuate the bell hammer 13.

To stop the alarm after it is released from contact with the fuse element 18, a lever 19 is pivotally mounted upon the top plate 6, said lever being bent upwards at the end 20, which extends under the hammer stem 12, the other end 21 extending beyond the edge of the casing. By simply pushing the end 21 of the lever 19, the stem 12 is engaged by the end 20, and the hammer is locked and the alarm stopped.

It is obvious that a device of this character will be very cheap of manufacture and should be particularly effective and on account of its simple mechanical structure, it is not liable to get out of order. It should also be readily understood that the construction of said device may be altered without departing from the scope of the following claim of novelty.

What I claim as my invention is:—

A signal of the character described, comprising a casing having top and bottom plates and a hole in one side thereof, spacing posts located between said plates, one of said posts having a transverse hole in alinement with the hole in said casing, a bell mounted exteriorly of said casing, a spring adapted to operate said bell, a bell hammer, a train of gears connecting said spring to said bell-hammer which co-acts with said bell, a resistance element adapted to pass through said hole in said casing and said transverse hole in said post and engage one of said gears, whereby, said train of gears, spring and

hammer are held inoperative until such time
as the resistance element, at a predetermined
temperature, releases said gear to actuate
said hammer and ring the bell, means to se-
5 cure said hammer in inoperative position, a
semi-circular base plate mounted upon the
bottom plate of said casing, and means to
secure said base plate upon the circumfer-
ence of a stove pipe.
10 In testimony whereof I affix my signature.
CLAUDE ADELARD MARTEL.

15

20

25

30

35

40

45

50

55

60

65