

G. MORGE.  
 FIRE IGNITING DEVICE.  
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998,374.

Patented July 18, 1911.

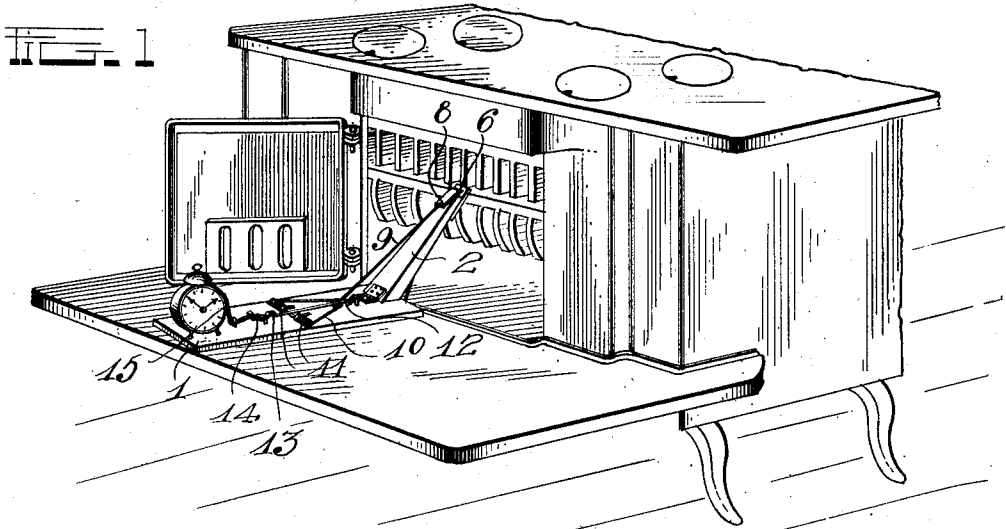


FIG. 2

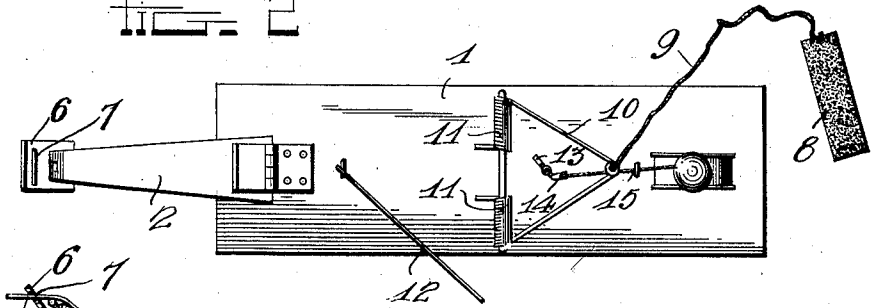
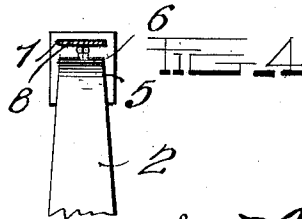
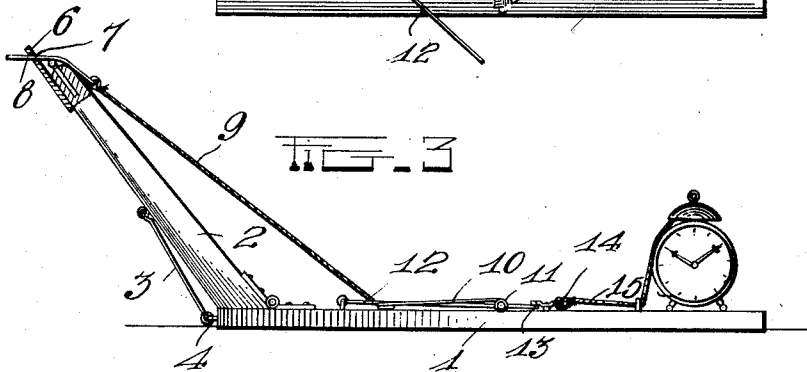


FIG. 3



Witnesses  
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# UNITED STATES PATENT OFFICE.

GROVER MORGE, OF NEW ALBANY, INDIANA.

## FIRE-IGNITING DEVICE.

998,374.

Specification of Letters Patent. Patented July 18, 1911.

Application filed January 26, 1911. Serial No. 604,888.

*To all whom it may concern:*

Be it known that I, GROVER MORGE, a citizen of the United States, residing at New Albany, in the county of Floyd and State of Indiana, have invented certain new and useful Improvements in Fire-Igniting Devices; 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.

This invention relates to improvements in fire igniting devices.

One object of the invention is to provide a fire igniter adapted to be automatically operated to light a fire at any predetermined time.

Another object is to provide a device of this character which will be simple, and inexpensive in construction, efficient and reliable in operation and well adapted to the purpose for which it is designed.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings: Figure 1 is a perspective view of the front of a stove showing the application of the device thereto, showing the device set or ready for use; Fig. 2 is a plan view of the device showing the position of the parts after being sprung; Fig. 3 is a side view of the same with the parts in set position; Fig. 4 is a rear view of a portion of the match supporting arm.

In the embodiment of the invention I provide a base 1 which is preferably in the form of a board or flat plate. To one end of the board or plate 1 is hingedly connected the lower end of a match supporting or holding arm or bar 2. The arm or bar 2 is supported and held in an inclined position by a brace 3 which is preferably in the form of a hook connected at its upper end to the lower side of the arm and adapted to be engaged with a staple 4 arranged in the front end of the base board.

In the arm or bar 2 near its upper end is formed a hole 5 which is preferably of a sufficient size to hold two matches. Secured to and projecting beyond the free end of the arm or bar 2 is a metal plate 6 in which is formed a transversely arranged slot or passage 7. Adapted to be drawn through

the passage 7 and into engagement with the heads of the matches projecting from the hole in the arm 2 is a strip of emery paper or similar abrasive medium 8, whereby the matches are ignited and the fire thus lighted. The emery paper or other abrasive medium is actuated by means of a string or other flexible element 9 one end of which is attached to the emery paper and the other end to an eye in a wire loop 10 on the ends of which are formed coiled springs 11. This loop 10 is preferably V-shaped with an eye formed at its apex and the free ends thereof are wound to form the springs 11 which are secured to the base board 1 in such manner as to cause the loop to spring back away from the arm or bar 2, and by this movement to draw the emery paper forcibly across the match heads. The loop 10 is held in a retracted or operative position against the tension of the springs 11 by a lever 12 one end of which is loosely connected to the base board 1 and the other end of which is adapted to be engaged with a catch 13 pivotally connected to the base board as shown. The catch 13 is provided with a trigger 14 which is connected by a string 15 or other flexible element to the clapper of an alarm clock bell whereby when the alarm starts to ring the clapper will pull on the string 15 and trigger 14 thus disengaging the catch from the end of the lever and releasing the latter whereupon the springs will forcibly swing the loop over in the opposite direction from the arm 2 thus causing the string to pull the emery paper across the match heads as hereinbefore described.

By setting the clock to alarm at the desired time it will be readily seen that the fire will be automatically lighted at this time when the device is placed in proper position to permit the flame from the ignited matches to reach the inflammable material through the grate of the stove, as clearly shown in the drawings.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as defined in the appended claim.

Having thus described my invention what I claim is:—

In a fire igniter, a supporting base, a match holding arm arranged on one end of  
5 said base and having means to support a plurality of matches in position to ignite the fire, a metal plate secured to said arm, said  
10 plate having a transverse slot therein, an abrasive strip arranged in said slot over the heads of the matches in said arm, a V-shaped spring actuated loop secured at its free ends to said base, a flexible element connected with the apex of said loop and with said abrasive strip, a lever pivoted to

said base in position to extend across said loop and hold it in operative position, a catch to hold said lever, a trigger arranged on said catch and means for connecting said trigger to the clapper of an alarm clock bell whereby the trigger is actuated at a pre-  
20 determined time to release said lever.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GROVER MORGE.

Witnesses:

CHARLES E. JAMES,  
JOHN B. MITCHELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."