

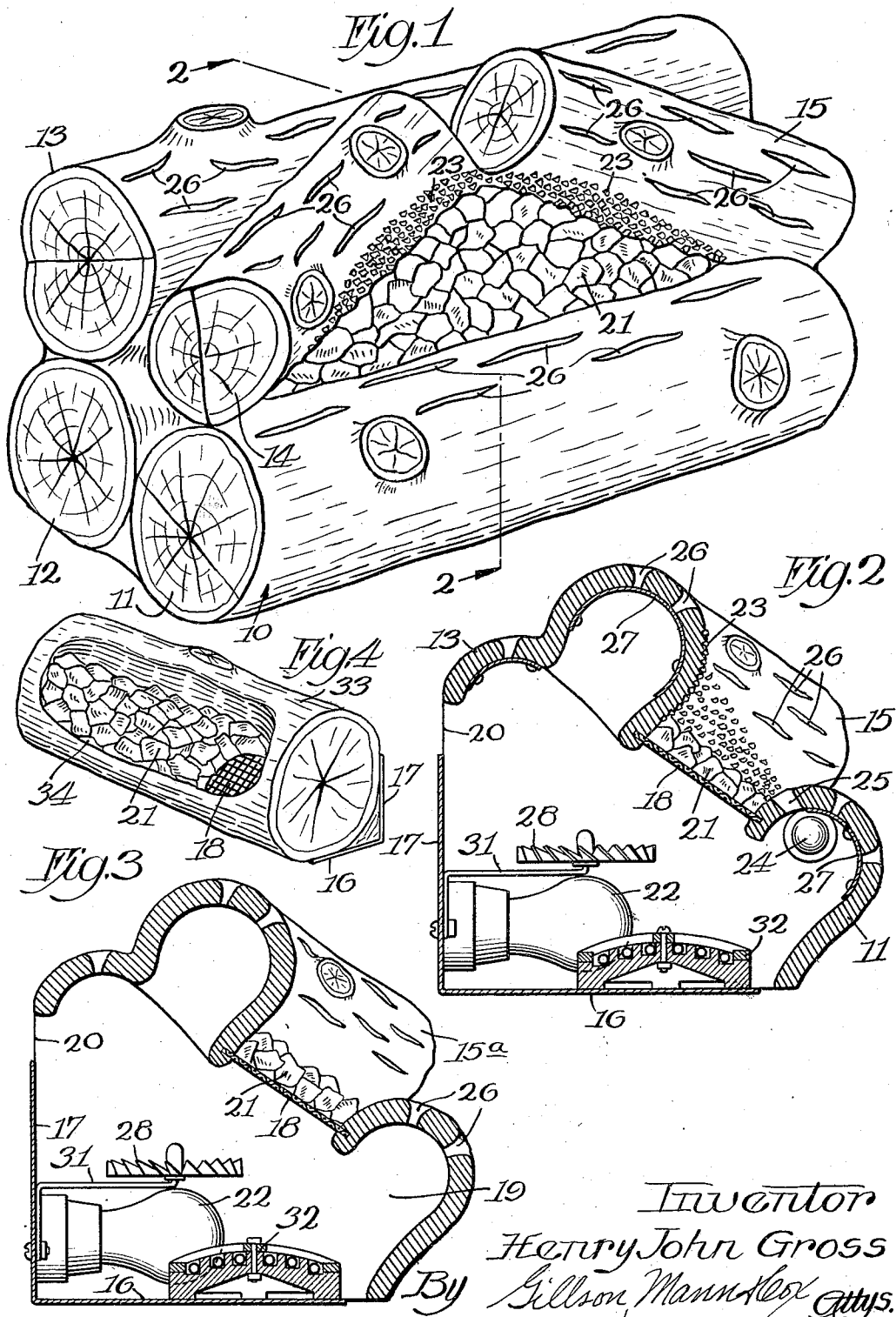
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ELECTRIC LOG

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UNITED STATES PATENT OFFICE

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ELECTRIC LOG

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This invention relates to devices adapted to be inserted in fireplaces for simulating wood fires.

The principal object of the invention is the provision of one or more imitation logs with means for supporting particles of some diaphanous object as broken glass or the like, on or among the logs, and so illuminating the same as to resemble a wood fire.

Another object of the invention is the provision of a group of imitation wood logs with means for illuminating the logs to simulate fire and a heating element concealed by said logs and adapted to radiate heat in such a manner as to appear to come from said logs.

A further object of the invention is the provision of a group of logs with new and improved means for illuminating the logs to resemble fire, together with means for simulating the flickering of flames.

Another object of the invention is the provision of a group of logs with new and improved means for illuminating the logs, that is cheap to manufacture, easily installed in any fireplace, that is realistic and ornamental in appearance, and that is not likely to become broken or get out of order.

Other and further objects and advantages of the invention will appear from the following description taken in connection with the accompanying drawings, in which

Fig. 1 is a perspective view of the device;

Fig. 2 is a section on line 2—2 of Fig. 1;

Fig. 3 is a section similar to Fig. 2, but showing a slightly modified form of construction; and

Fig. 4 is a perspective of a further modified form of construction, on a smaller scale, with parts broken away.

Referring now to the drawings, the reference character 10 designates a group of logs which are preferably of composition material. The group may comprise any suitable number of logs. In the form of the device selected to illustrate one embodiment of the invention the group comprises a front log 11, a pair of back logs 12 and 13, and a pair of intermediate logs 14 and 15 arranged at an angle to each other. The group of logs 10 are merely shells representing portions of

logs, but for convenience of description they will be termed logs. These logs form with the bottom wall 16 and the rear wall 17 an inclosure 19 within which the light bulbs, heating elements, light interceptors and the like, may be positioned.

The logs 14 and 15 converge upwardly and rearwardly to form a space between them and the front log 11, which is adapted to be bridged by a support which may be of any suitable material for permitting light to pass through, such as the wire mesh 18 or the like. The wire mesh 18 is adapted to support particles 21 of a diaphanous material such as small pieces of glass or other transparent or translucent material.

Suitable means are provided for illuminating the particles 21 to cause them to glow like coals of fire. As shown, one or more electric light bulbs 22 are employed for this purpose, only one being shown. The bulb is preferably of red glass, or the source of light is such as to emit red rays, in order to make the parts illuminated look more nearly like fire. The bulb is placed in such a position as to illuminate the glass particles 21. Some of the particles 21 may be of material of a darker color than the remainder to simulate coals of fire which vary in brightness.

In order to enhance the realistic appearance, other particles 23 of diaphanous material may be secured to the surfaces of the logs 14 and 15 adjacent to the particles 21 and so arranged that they are visible by an observer in front of the device. These particles may be illuminated by an electric light bulb 24 arranged in front of an elongated slot 25 in the rear upper portion of the front log 11. The bulb 24 may be elongated and preferably emits red rays of light for causing the particles 23 to glow as though the logs 14 and 15 were afire.

If desired, the logs may be provided with apertures or slits 26 through which the red light from bulbs 22 and 24 shines, giving the logs the appearance of burning. These slits are arranged to represent depressions in the bark.

In order to prevent the observer from seeing the interior 19 of the device, strips 27

of translucent material such as celluloid or mica are secured across the slots on the interior of the logs. These strips permit sufficient amount of the red light to pass there-
 5 through to cause the logs to have the appearance of burning.

One or more light reflectors and interceptor devices 28 may be and preferably are provided for intercepting and reflecting the light
 10 from the light bulbs to simulate the flickering of a wood fire. The light intercepting devices 28 are rotatably mounted on arms 31 secured to the back panel 17 as clearly shown in Figs. 2 and 3 of the drawings. The light
 15 interceptors are placed above the light bulbs whereby the heated air rising from the bulbs will cause the interceptors to rotate, thereby intermittently intercepting the light rays, thus causing the light passing therethrough
 20 to simulate the flickering of flames. The rear wall 17 preferably though not necessarily terminates short of the log 13 so that light from the bulb 22 shining through the interceptor 28 and the slot 20 will illuminate
 25 the back wall of the fireplace within which the device may be placed, and simulate the light from a flickering flame on said wall.

If desired, an electric heating element 32 may be placed in the space 19 in position be-
 30 neath the wire screen for radiating heat through the same and into the room. The screens 27 may be dispensed with as shown in Fig. 3, in which event the heat from the heating element 32 will be radiated through
 35 the slots 26 directly into the room.

The heating element may be large enough for heating purposes or it may be a heating element of small capacity and used merely to add an element of realism to the imitation
 40 fire.

In Fig. 4 is shown a modified form of construction in which the electric log is composed of a single log 33 having a recess 34 therein in which the particles of broken glass or other
 45 diaphanous material 21 may be supported as in the constructions described above. The log is hollow as in the previous construction for receiving the lighting, heating and light intercepting elements. Since the back 17 and
 50 bottom 16 are the same as the back and bottom of the form shown in Figs. 1 to 3 and are arranged in the same manner, it is not thought necessary to further describe or illustrate the same.

It has been proposed to use diaphanous material in a metallic coal grate and illuminate the same from beneath, but such an arrangement is costly and does not properly simulate a fire. The imitation logs with the light in-
 60 terceptor renders the illusion of a wood fire with flickering flames complete.

If desired, either the translucent members 27 or the diaphanous particles, or both, may be omitted.

65 While the logs are shown in Figs. 1 to 3 as

being arranged in a certain manner and are provided with orifices, it is understood that the apertures may be eliminated and the logs arranged in other relations, it being only
 70 necessary that provision be made for supporting the particles 21 in an exposed position.

In use, the device is placed on andirons which also adds to the realistic appearance of the logs and fire.

If desired, the heating element may be located in the upper portion of the log or logs, slits or apertures being provided through
 75 which the heat may be radiated forwardly into the room.

It is thought from the foregoing taken in connection with the accompanying drawings that the construction and operation of my device will be apparent to those skilled in the art, and that various changes in size, shape, proportion and details of construction may
 80 be made without departing from the spirit and scope of the appended claims.

I claim as my invention:

1. In combination, a group of logs comprising front, back and intermediate logs, the
 85 intermediate logs being arranged at an angle to each other and forming with said front log a triangular space, said front log having a slit opening upwardly and rearwardly, reticulated material extending upwardly and
 90 rearwardly across said space, a plurality of particles of diaphanous material covering said reticulated material and supported thereby, a source of light for illuminating said
 95 particles from beneath the same, and a source of light for illuminating the uppermost portions of said particles and portions of said intermediate logs through said slit.

2. In combination, a hollow body comprising a group of imitation logs simulating a
 100 wood fire, said logs having a space among the same, each log having slits therein, certain of said logs having glass particles partially embedded therein, a diaphanous support in
 105 said space, a plurality of diaphanous objects on said support, a source of light within said hollow body, a rotating member operated by air currents for intermittently intercepting
 110 a portion of the rays projected on said diaphanous objects from said source of light, and means for illuminating said glass particles through certain of said slits.

In witness whereof I affix my signature.
 HENRY JOHN GROSS.

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