

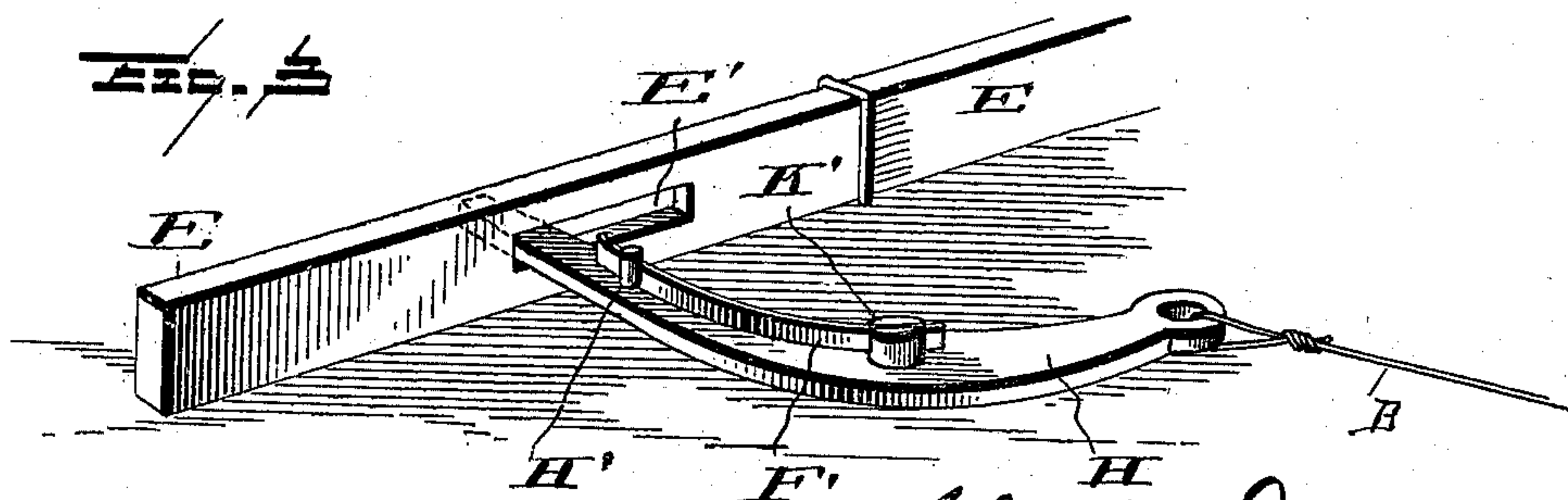
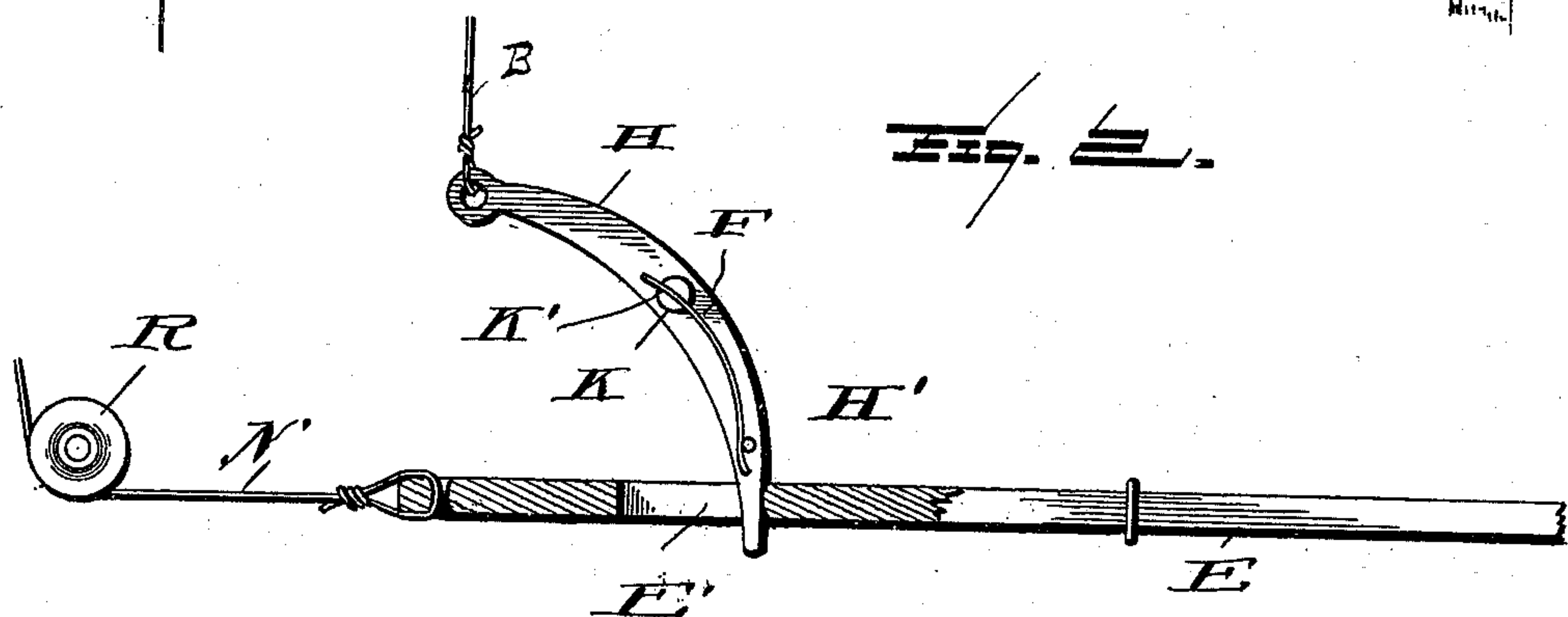
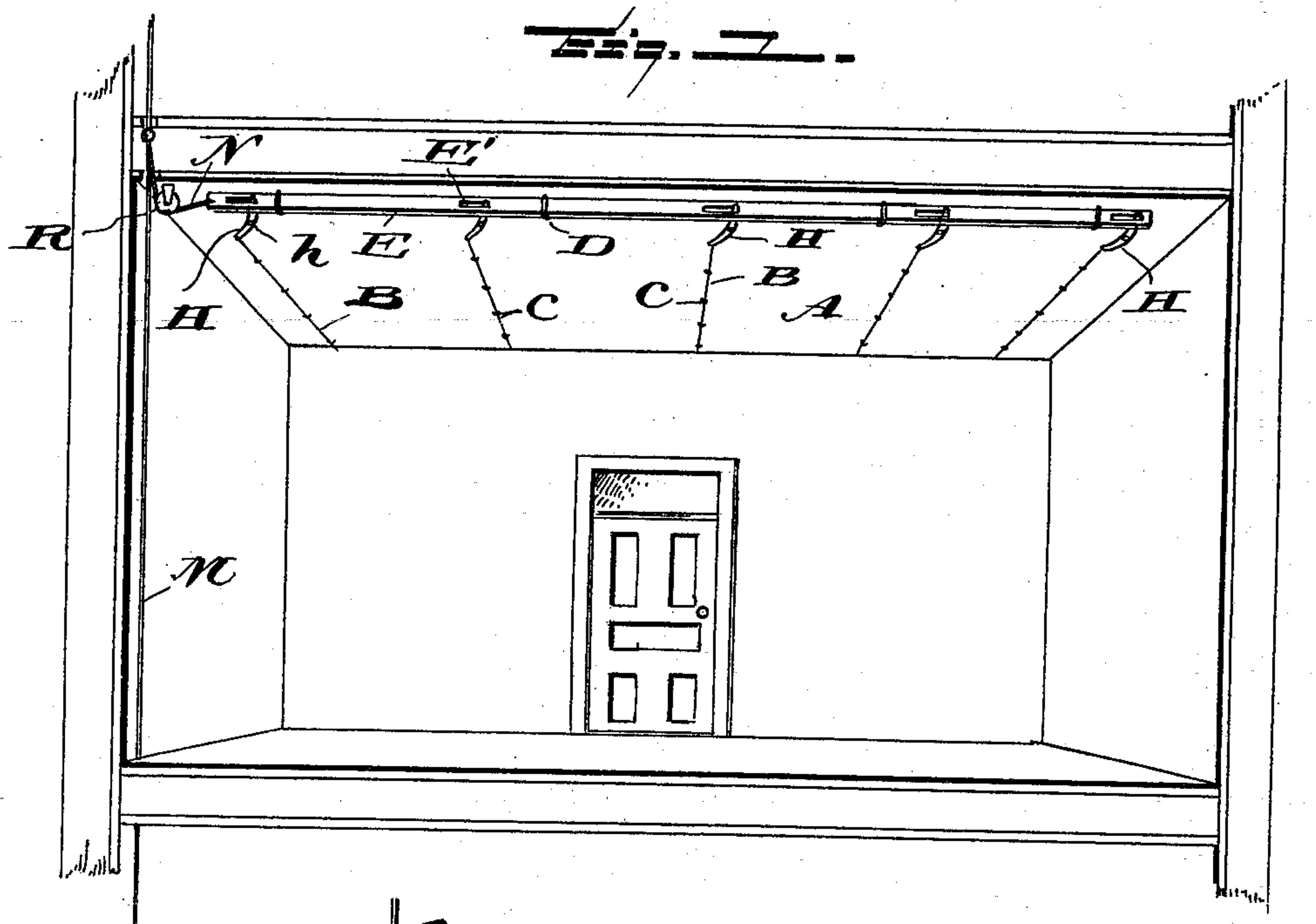
No. 623,024.

Patented Apr. 11, 1899.

C. E. LOMBARD.  
AUTOMATIC FIRE ALARM.

(Application filed Jan. 30, 1899.)

(No Model.)



Witnesses

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a. L. Hough

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# UNITED STATES PATENT OFFICE.

CHARLES E. LOMBARD, OF EAST WILTON, MAINE.

## AUTOMATIC FIRE-ALARM.

SPECIFICATION forming part of Letters Patent No. 623,024, dated April 11, 1899.

Application filed January 30, 1899. Serial No. 703,844. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES E. LOMBARD, a citizen of the United States, residing at East Wilton, in the county of Franklin and State of Maine, have invented certain new and useful Improvements in Automatic Fire-Alarms; 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in automatic fire-alarms, and especially to means which may be connected with a clock mechanism causing an alarm to be given when the temperature in the various rooms which are equipped with my mechanism rises to a certain degree sufficient to melt or sever connections, which will cause a longitudinal movement to be imparted to a wire or plate which may have connection with the clock alarm mechanism.

More specifically, the invention resides in the provision of a series of wires which are made, preferably, of a metal which will melt easily, said wires being located at various distances apart in the walls or ceiling of a room and connected to spring-actuated levers, which when the wires become melted will cause a longitudinal movement to be imparted to the wire or strip, which is connected to a cable or wire which may have connection with suitable alarm mechanism.

To these ends and to such others as the invention may pertain, the same consists, further, in the novel construction, combination, and adaptation of parts, as will be hereinafter more fully described, and then specifically defined in the appended claims.

My invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which—

Figure 1 is a perspective view of a portion of a room, showing the application of my apparatus to the ceiling thereof. Fig. 2 is a cross-sectional view through one of the longitudinally-movable plates or strips, showing

in elevation a lever engaging in an aperture thereof; and Fig. 3 is a perspective view showing one of the spring-actuated levers engaging with a longitudinal slot or aperture in a longitudinally-movable strip.

Reference now being had to the details of the drawings by letter, A designates the ceiling of a room, which has a series of wires B held thereto by means of staples C, and mounted so as to have a longitudinal movement and supported by means of staples D, secured to the ceiling of the room, is a metallic strip E, which has a series of elongated apertures E' at different locations, as shown in Fig. 1, and pivoted, as at h, to the ceiling is a series of levers H, which are made, preferably, slightly curved, and to an eye in one end of each of said levers is connected one end of a wire B, while the other free end of each lever engages in an elongated aperture E' in the strip E. There are a series of levers of similar construction mounted each with its free end engaging in an elongated aperture in said strip, and in order to throw the strip longitudinally when the wires are severed springs F are provided, which springs have corresponding ends held in the slot K' in the heads of the screws K, while their other ends are held against a lug H', carried near the free end of each of the levers H, thus having a tendency to actuate the said strip by reason of the free end of each of said levers bearing against the ends of the elongated apertures therein.

Running vertically through the various stories of a house which is equipped with my improved automatic alarm apparatus is a cable M, and at each story an end of said strip E is connected to the cable by means of a wire N, which passes over a pulley R. This cable is designed to be connected to suitable clock mechanism to sound an alarm whenever the wires connected to the levers H become severed, allowing said levers to impart a longitudinal movement to the strip E, which movement will cause a cable to be drawn down by means of its connection with the end of said strip, which is connected thereto by the wire N.

In the drawings I have shown but one room equipped with my automatic alarm apparatus.



tus; but it is my purpose to apply it to the ceiling and walls of the various stories of a house and connect the apparatus in each room with the vertically-running cable. If preferred, the connection with the ends of the levers may be made of any other material besides metal which may be found to be adapted for the purpose.

As the clock mechanism forms no part of the present invention, no description or illustration of the same forms a part of this application.

What I claim is—

1. An automatic fire-alarm, consisting of a longitudinally-movable strip held to the ceiling of a room, a series of pivoted levers having their free ends engaging in elongated apertures in said strip, wires secured to the ceiling and having connections with said levers, springs designed to throw said levers when said wires are severed, a cable, and connections between same and said strip,

whereby as the latter is moved longitudinally the cable may actuate an alarm, as set forth.

2. In an automatic alarm apparatus, a longitudinally-movable strip designed to be secured to the ceiling or wall of a room, a cable, a wire connecting said cable with the strip, a series of pivoted levers having their free ends engaging in elongated apertures in said strip, each lever provided with a lug, a spring bearing against each lug, wires secured to the ceiling and having connection with said levers, and normally holding the springs under tension, whereby as said wires are severed the levers will cause a longitudinal movement to be imparted to the strip and cable to actuate an alarm, as set forth.

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

CHARLES E. LOMBARD.

Witnesses:

ALBERT H. FARNUM,  
FRED FARNUM.