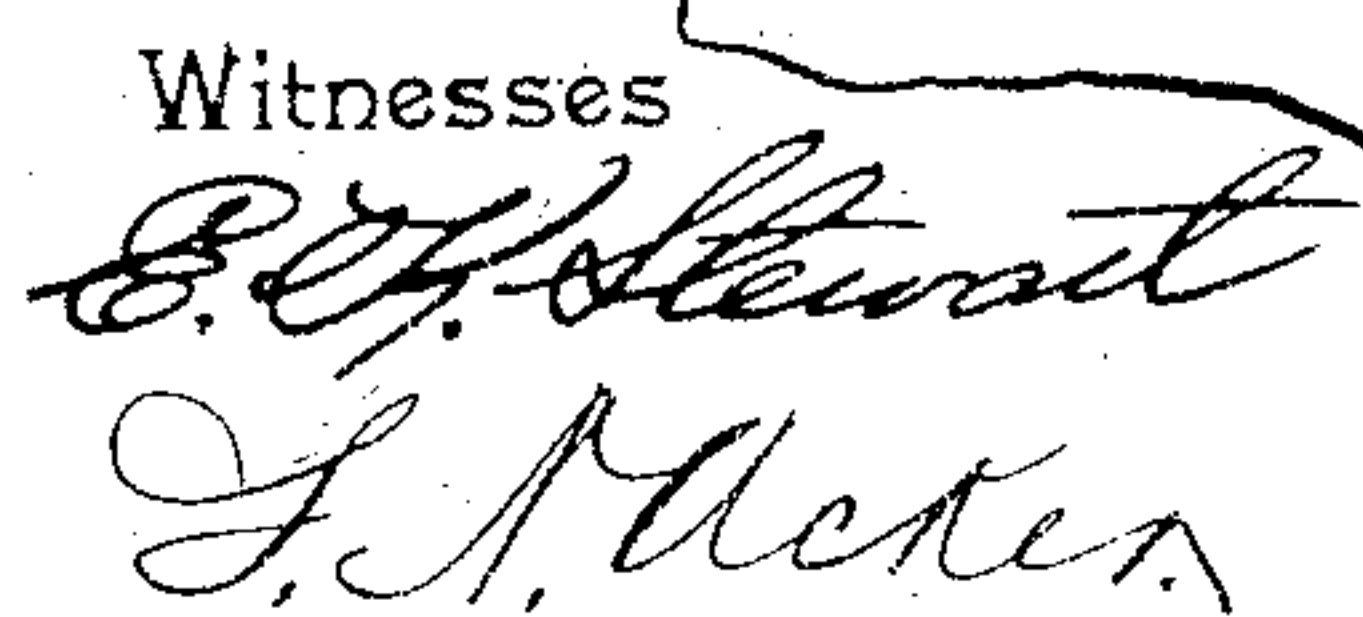
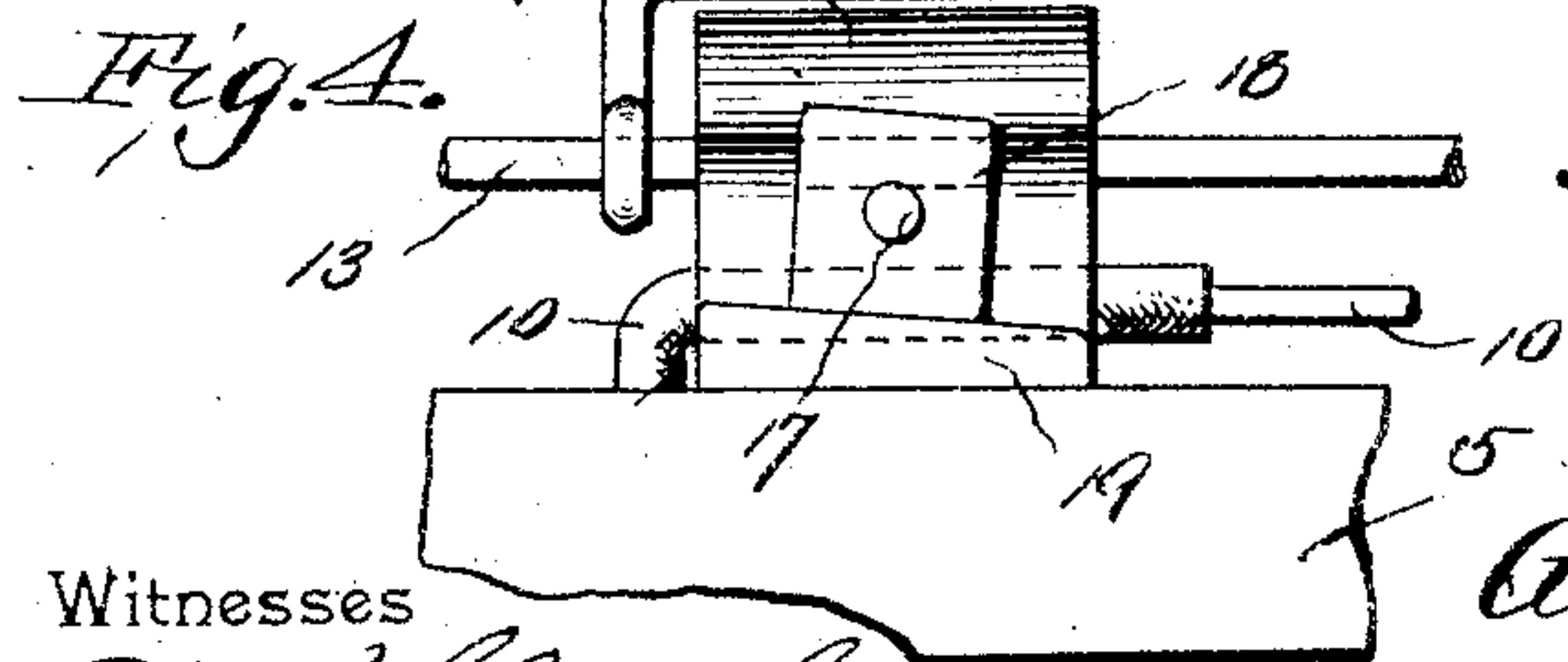
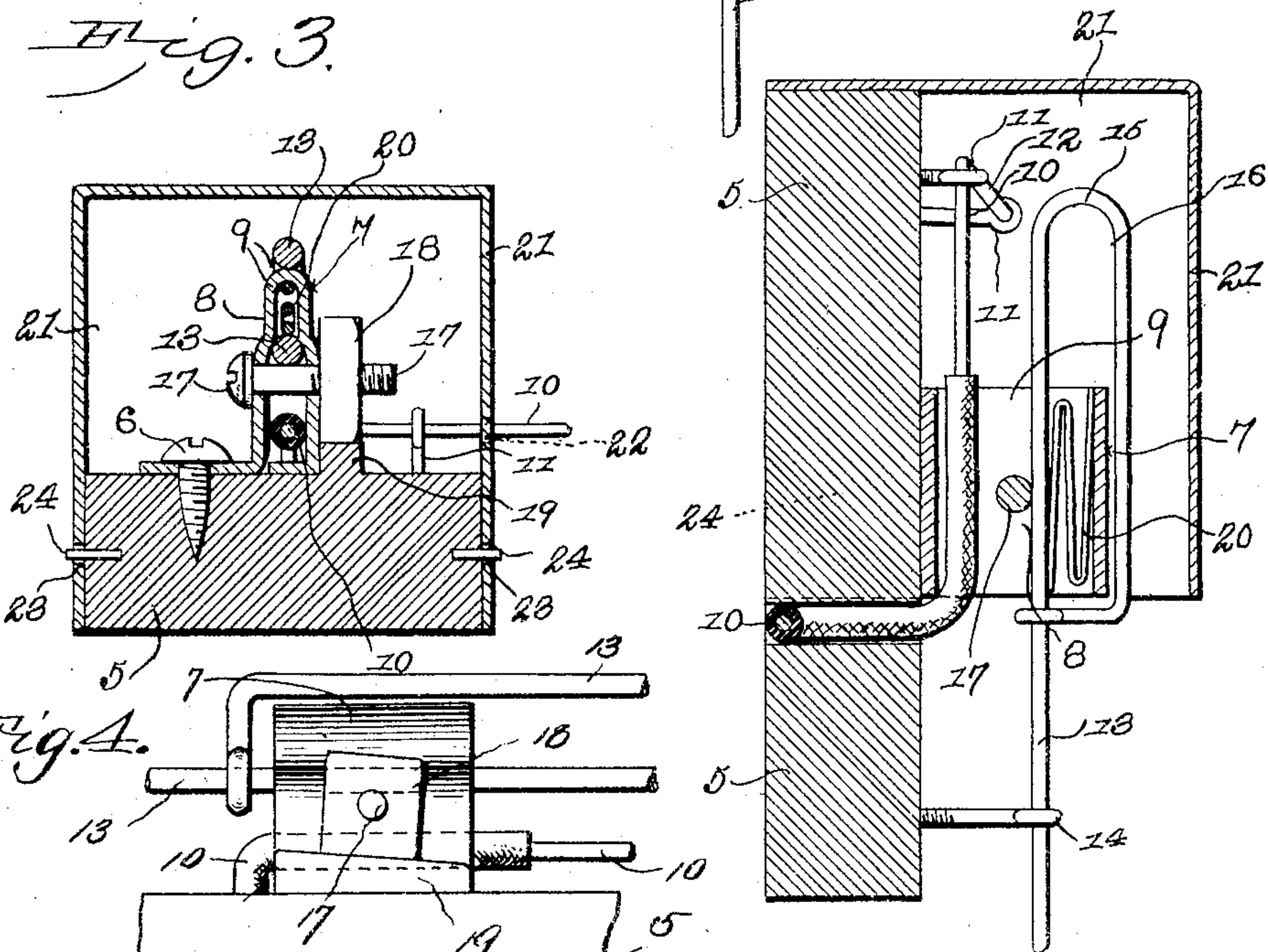
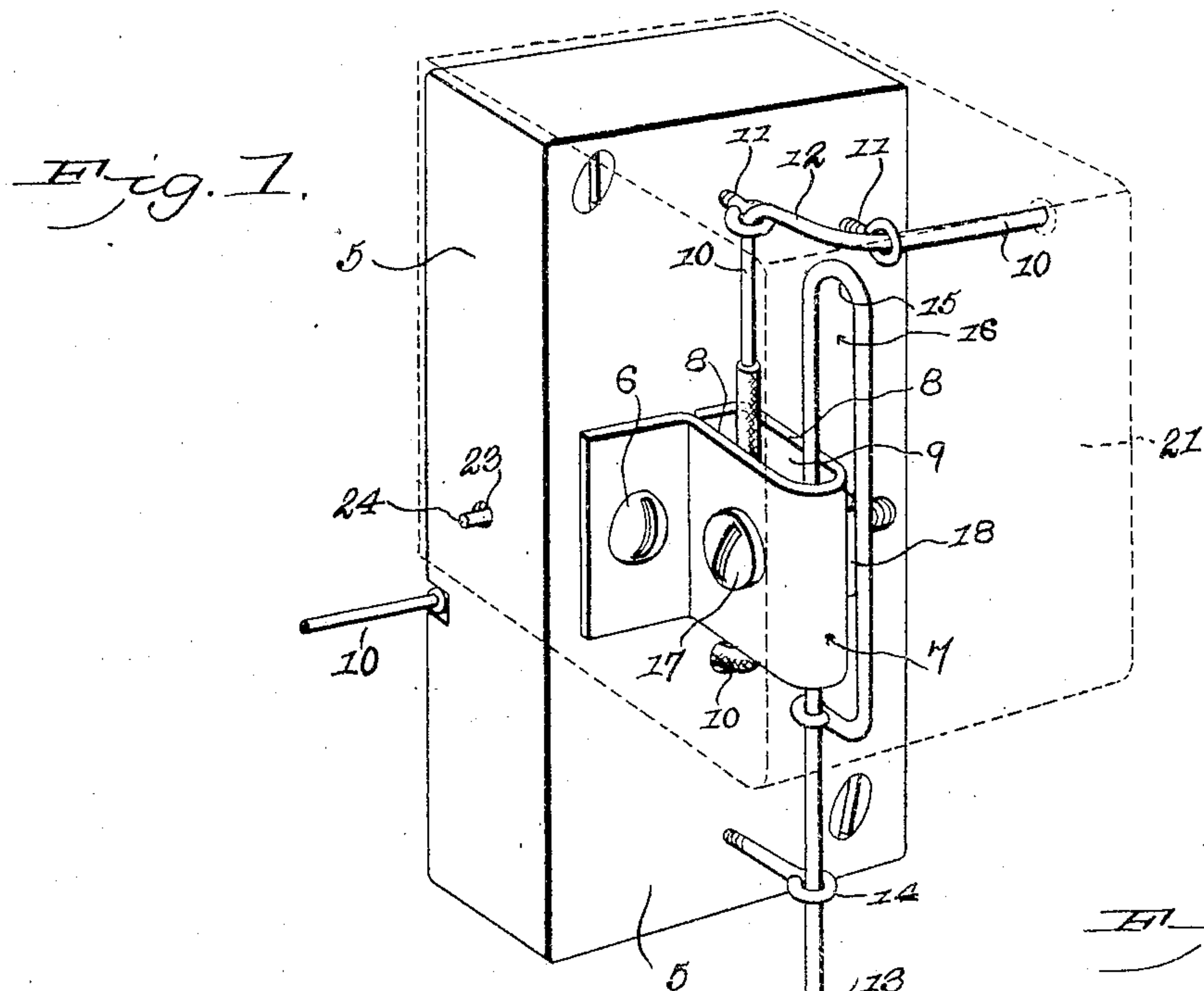


No. 789,886.

PATENTED MAY 16, 1905.

G. H. SHORT.
LIGHTNING ARRESTER.
APPLICATION FILED AUG. 1, 1904.



Witnesses

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UNITED STATES PATENT OFFICE.

GUY H. SHORT, OF STILLWELL, ILLINOIS.

LIGHTNING-ARRESTER.

SPECIFICATION forming part of Letters Patent No. 789,886, dated May 16, 1905.

Application filed August 1, 1904. Serial No. 219,110.

To all whom it may concern:

Be it known that I, GUY H. SHORT, a citizen of the United States, residing at Stillwell, in the county of Hancock and State of Illinois, have invented a new and useful Lightning-Arrester, of which the following is a specification.

This invention relates to an improved lightning-arrester, and has for its object to provide a simple, inexpensive, and efficient device of this character for protecting electrical circuits and instruments from the destructive effect of lightning and other abnormally high tension currents.

A further object is to generally improve this class of devices so as to add to their utility and durability, as well as to reduce the cost of manufacture.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a lightning-arrester constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a side elevation of the supporting-clip and a portion of the base, showing the wedge-shaped block secured thereto.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The device forming the subject-matter of the present invention consists of a base 5, preferably rectangular in shape, as shown, and formed of wood or other suitable insulating material. Secured to the base 5, as by screws or similar fastening devices 6, is a supporting-clip 7, the parallel arms 8 of which are spaced apart to form a pocket 9 for the reception of the local line-wire 10, which passes through an opening in the base and is connected to a

telephone or other electrical instrument. (Not shown.) The local line-wire 10 where it passes through the supporting-clip is covered with rubber or other insulating material to prevent grounding, the end of said wire being supported above the base by one or more eyes 11, arranged one in advance of the other, so as to give the wire a twist or bend 12, after which said wire extends laterally from the base and is connected to the main line.

The ground-wire 13 passes through a supporting-eye 14 at the bottom of the base 5 and thence through the pocket of the clip 7 to a point adjacent the bend 12 in the local line-wire, at which point it is bent on itself, as indicated at 15, and extends upwardly outside the clip to form a loop 16, the end of the wire being twisted or coiled on the main portion of the wire slightly in advance of said clip, as shown. The ground-wire extends parallel with the uninsulated portion of the local line-wire from the clip 7 to the twist or bend 12, so that should a discharge of lightning or an abnormally high tension current pass from the main line to the local line it will leap the intervening space between the bend 12 and the loop 16 and pass over the wire 13 to the ground in preference to passing over to the local line to the telephone or other electrical instruments connected therewith.

The local line-wire 10 and the ground-wire 13 are securely clamped within the pocket of the supporting-clip 7 by means of a screw 17, which passes through aligned openings formed in the parallel arms of said clip and engages a nut 18, as shown. Secured to or formed integral with the base 5 is a wedge-shaped block or lug 19, the inclined face of which engages the nut 18 and prevents said nut from turning or working loose and releasing the wires. The loop 16 of the ground-wire is held in spaced relation to the bend 12 of the local line-wire by means of a spring key or pin 20, which is inserted between the clamping-screw 17 and said loop, thereby effectively preventing accidental displacement of the ground-wire.

The arrester is preferably provided with a cover or housing 21 for protecting the same

from the elements, said cover being provided with an opening 22 to admit the local line-wire and oppositely-disposed perforations 23, which engage laterally-projecting pins or lugs 5 24, secured to the base 5, and by means of which said cover or housing is secured in position on the base.

From the foregoing description the construction and operation of the device will be readily understood by those skilled in the art, and further description thereof is deemed unnecessary.

Having thus described the invention, what is claimed is—

15 1. A lightning-arrester comprising a base, a clip secured to the base, a local line-wire supported by the clip, and a ground-wire also supported by said clip and provided with a terminal loop arranged in parallel relation to 20 the local wire.

2. A lightning-arrester comprising a base, a clip secured to the base, a local line-wire supported by the clip, a ground-wire also supported by said clip and provided with a terminal loop arranged in parallel relation to the 25 local wire, and a clamping-screw engaging said clip for securing the wires within the same.

3. A lightning-arrester comprising a base, 30 a clip secured to the base, a local line-wire supported by said clip and provided with an intermediate bend or twist, and a ground-wire also supported by the clip and provided with a terminal loop the end of which is disposed 35 adjacent the bend in the local wire.

4. A lightning-arrester comprising a base, a clip secured to the base, a local line-wire supported by said clip and having that portion arranged within the clip insulated, and a 40 ground-wire also supported by the clip and provided with a terminal loop arranged adjacent to and in parallel relation with the un-insulated portion of the local wire.

5. A lightning-arrester comprising a base

provided with oppositely-disposed laterally- 45 extending lugs, a clip secured to the base, a local line-wire supported by said clip, a ground-wire also supported by the clip and arranged adjacent to and in parallel relation with the local wire, and a cover fitting over the base 50 and having its side walls provided with perforations adapted to engage the lugs on the base.

6. A lightning-arrester comprising a base, a clip secured to the base, a local wire supported by the clip and provided with a bend or twist, pins provided with terminal eyes secured to the base and adapted to support the wire at said bend or twist, and a ground-wire also supported by the clip and provided with 60 a terminal loop the end of which is disposed adjacent the bend or twist in the local wire.

7. A lightning-arrester comprising a base, a clip secured to the base, a local line-wire supported by the clip, a ground-wire also supported by said clip and arranged in parallel 65 relation to the local wire, a clamping-screw engaging the clip, and a key interposed between the clamping-screw and the ground-wire for retaining the latter in position. 70

8. A lightning-arrester comprising a base provided with a wedge-shaped lug or projection, a clip secured to the base, a local line-wire supported by the clip, a ground-wire also supported by said clip and provided with a 75 terminal loop arranged adjacent to and in parallel relation with the local wire, a clamping-screw engaging the clip, and a nut carried by the screw and adapted to engage the lug or projection on the base for locking said nut 80 from rotation.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GUY H. SHORT.

Witnesses:

JESSE B. HENDRICKS,
CHARLES E. KELLEY.