

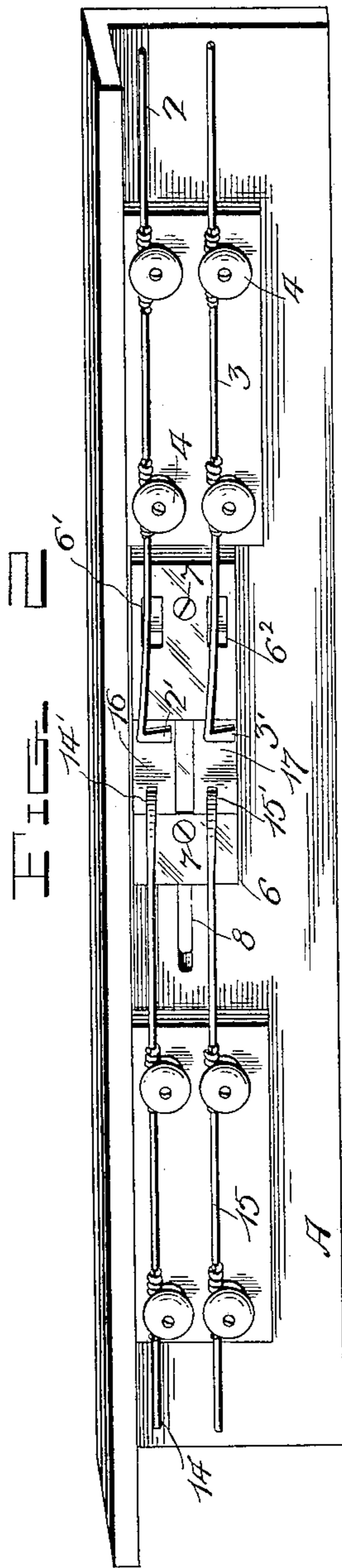
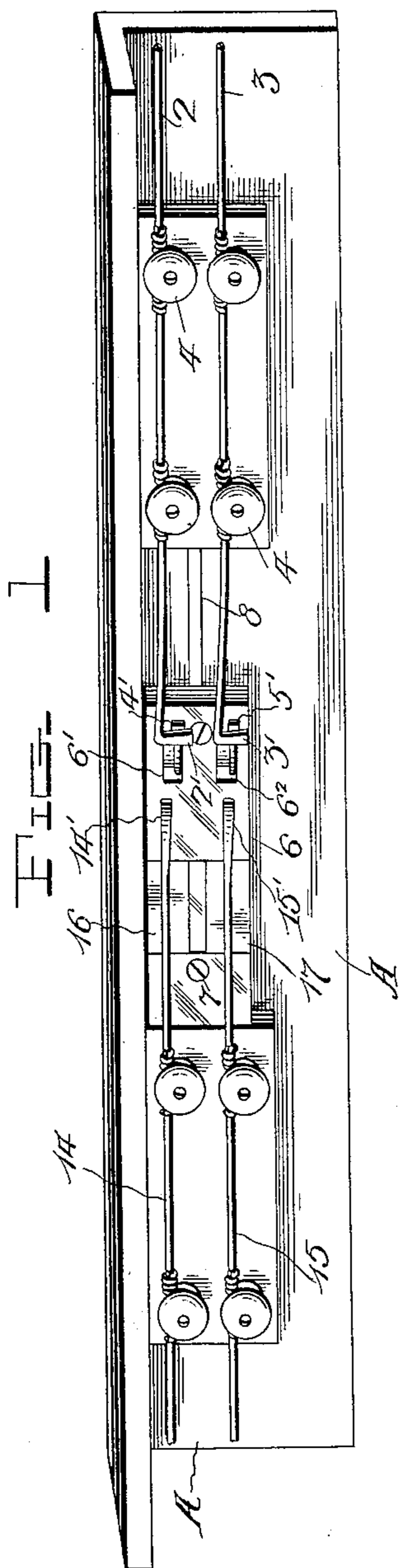
No. 636,441.

Patented Nov. 7, 1899.

D. MESSICK.
LIGHTNING ARRESTER.
(Application filed Aug. 8, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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David Messick,
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Attorneys

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2 Sheets—Sheet 2.

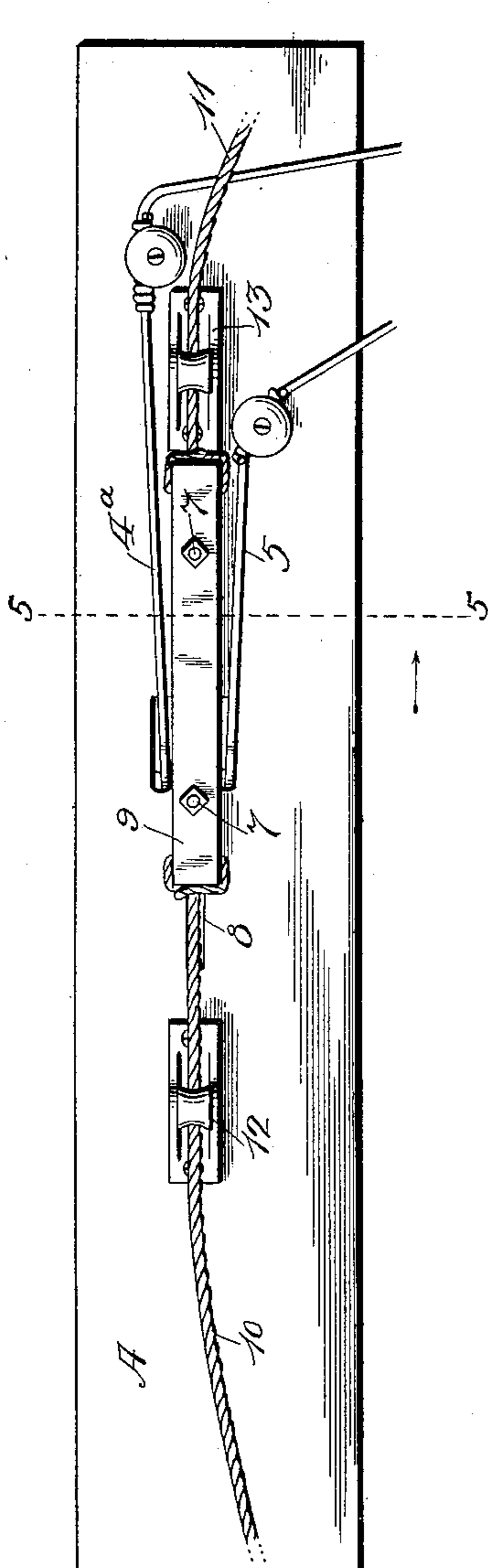


FIG. 3

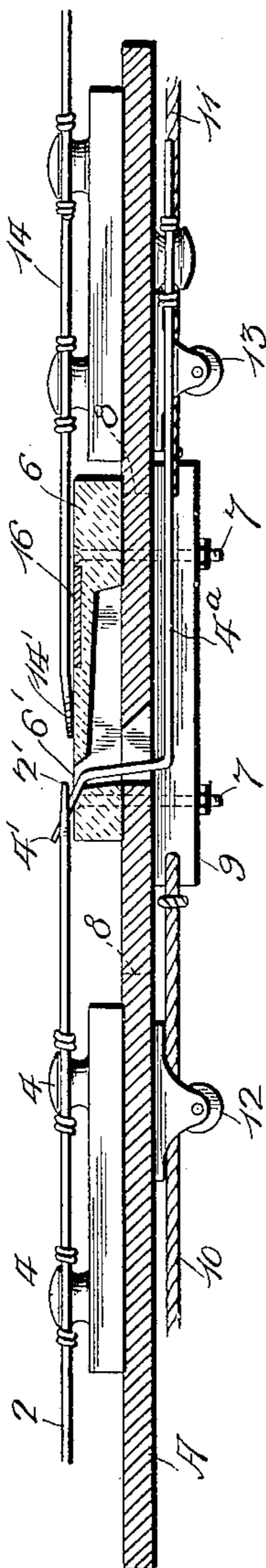


FIG. 4

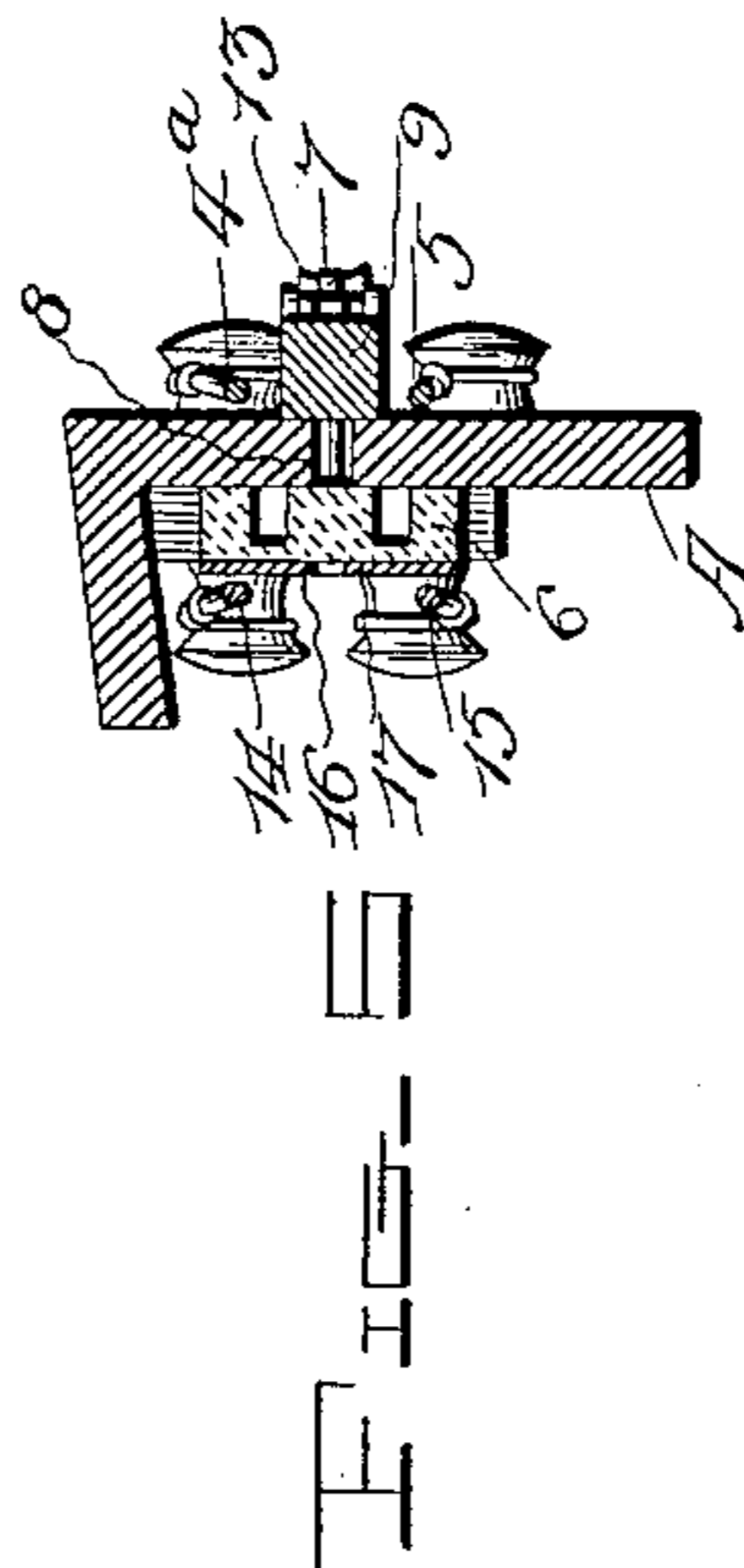


FIG. 5

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UNITED STATES PATENT OFFICE.

DAVID MESSICK, OF TIMBERVILLE, VIRGINIA.

LIGHTNING-ARRESTER.

SPECIFICATION forming part of Letters Patent No. 636,441, dated November 7, 1899.

Application filed August 8, 1899. Serial No. 726,555. (No model.)

To all whom it may concern:

Be it known that I, DAVID MESSICK, a citizen of the United States, residing at Timber-
ville, in the county of Rockingham and State
5 of Virginia, have invented certain new and
useful Improvements in Lightning-Arresters;
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
10 which it appertains to make and use the same.

The invention relates to lightning-arresters
or cut-outs for telegraph and telephone lines;
and the object is to provide a simple, inex-
pensive, efficient, and durable device of this
15 character.

To this end the invention consists in cer-
tain features of construction and combination
of parts, which will be hereinafter fully de-
scribed and claimed.

20 In the accompanying drawings, Figure 1 is
a perspective view of my improved lightning-
arrester or cut-out switch as it appears when
the main line is connected to the telephone
or other instrument located in the building.
25 Fig. 2 is a similar view showing the position
of the sliding switch when the telephone is
cut out from the line. Fig. 3 is a reverse view
of the arrester. Fig. 4 is a horizontal section
on the line of the contact points or fingers.
30 Fig. 5 is a transverse section on the line 5 5
of Fig. 3.

In the drawings the same reference charac-
ters indicate the same parts of the invention.

35 A denotes the base-board provided with a
protecting-ledge.

2 3 denote the main-line conductors, which
are secured to the insulators 4 4 in the usual
manner, and their free ends are turned down-
wardly to form the spring contact-fingers 2'
40 3', which, as shown in Fig. 1, have a sliding
contact with the beveled fingers 4' 5', formed
integral with the office-wires 4 and 5 and
which of course correspond to the outside
conductors 2 3.

45 6 represents the switch-block, and it may
be made of porcelain, glass, or any other suit-
able refractory non-conducting material, so
as to form an insulator for the current.

50 7 7 denote bolts which extend through the
block 6, through a longitudinal slot 8 in the
base-board, and are fixed in a slide-bar 9, from
which cords or flexible wire ropes 10 11 ex-

tend over suitable guide-pulleys 12 13 to any
suitable point, so that the switch-block may
be moved to the right or left, as desired. It 55
will be noted that said switch-block is also
provided with guide-orifices 6' and 6², through
which the angular arms 4' and 5' of the con-
ductors 4^a 5 pass, and the action of the block
is such that it causes a sliding contact to be 60
made between the contact-fingers 2' 4' and 3'
5' each time the contact is made and broken.
This removes all dust, dirt, and oxidation
from the contact-fingers, and thus insures a
perfect connection each time the fingers come 65
in contact.

14 and 15 denote the ground-wires, and
their free ends are flattened to form the con-
tact-fingers 14' 15', which have a bearing on
the face of the switch-block and in the path 70
of the metal plates 16 17, fixed to the block,
and, as shown in Fig. 2, the office-wires are
cut out and the line-current passes from the
conductor-fingers 2' 3' across the plates 16 17
to the contact-fingers 14' 15', and thence to 75
the earth through the ground-wires 14 15,
thus forming a safe path for the lightning to
the earth without passing through the office-
wires.

It will be noted that when the line is con- 80
nected with the ground the free ends of the
phone-wires are protected by the block slid-
ing over and forming a protecting-hood for
them, so that when thus hidden or concealed
there is no liability of the lightning leaving 85
the main line or jumping to the instrument-
wires.

It will of course be understood that various
changes in the form, proportion, and the mi-
nor details of construction may be resorted 90
to without departing from the principle or
sacrificing any of the advantages of this in-
vention.

Having thus described the invention, what
is claimed, and desired to be secured by Let- 95
ters Patent, is—

A lightning-arrester switch comprising the
non-conducting switch-block 6 formed with
the transverse guide-orifices 6' 6², and the
conductor-plates 16 17 carried by said switch- 100
block, the main-line conductors having their
contact-fingers 2' 3' resting on said block and
in the path of said plates, the ground-wires
having their contact-fingers 14' 15' also rest-

ing on said switch-block in the path of said
plates, and the office-wires 4^a 5 terminating
in the contact-fingers 4' 5' extending through
said guide-orifices in the switch-block, and
5 means for reciprocating said switch-block,
substantially as and for the purposes set forth.

In testimony whereof I have hereunto set

my hand in presence of two subscribing wit-
nesses.

DAVID MESSICK.

Witnesses:

C. N. WINE,

M. A. PRICE.