

(No Model.)

M. M. WOOD.
LIGHTNING ARRESTER.

No. 500,178.

Patented June 27, 1893.

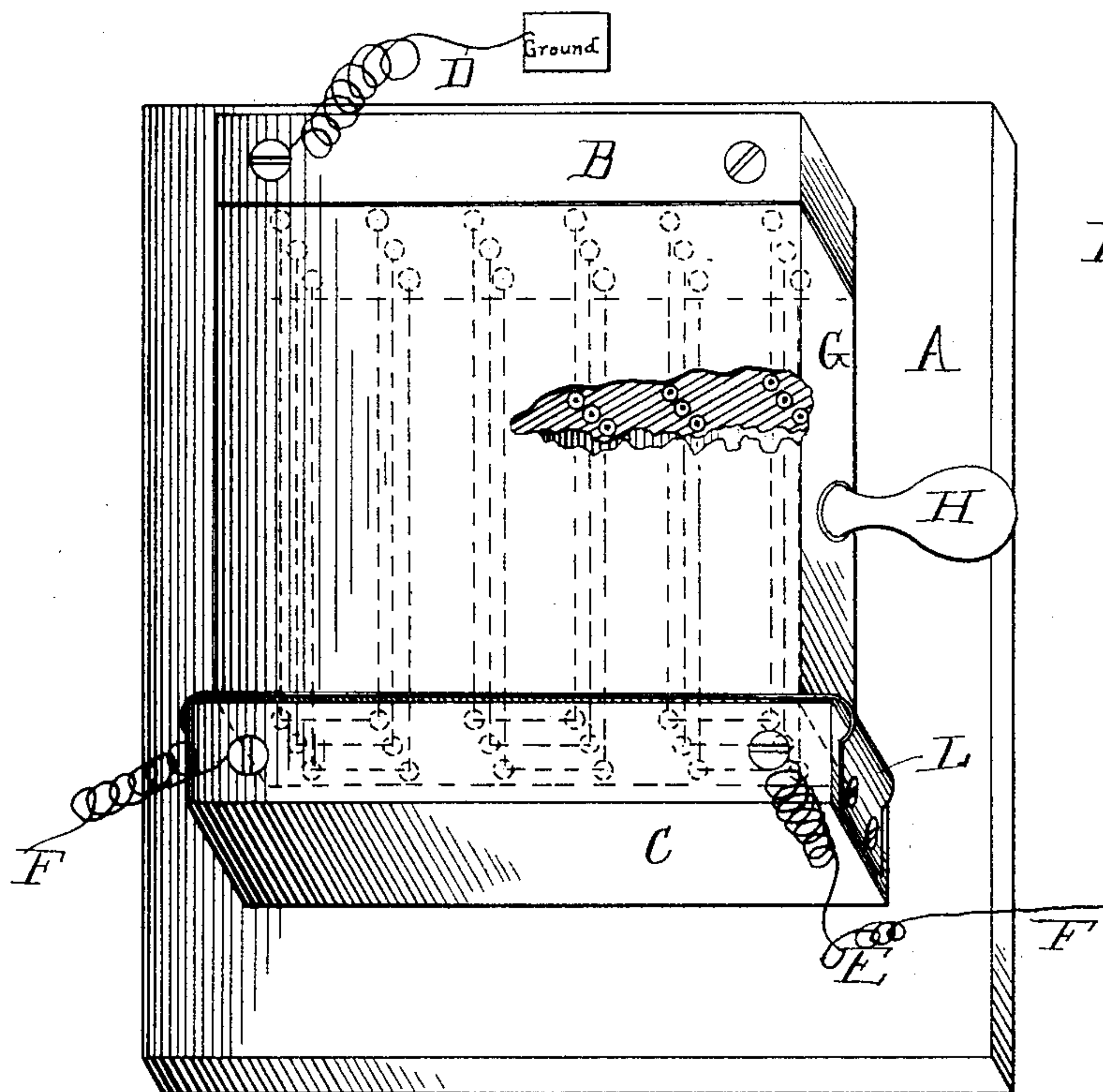


Fig. 1.

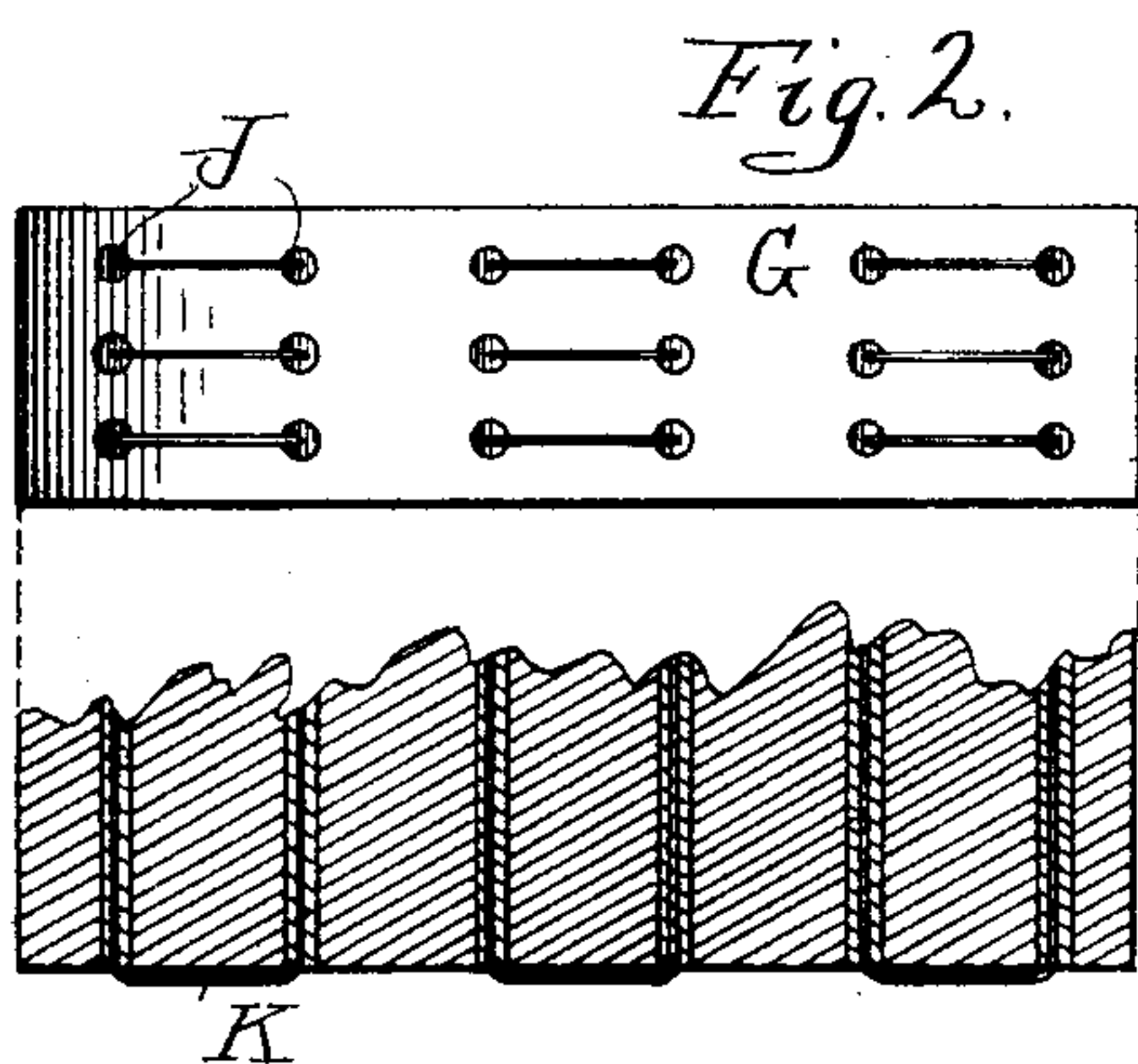


Fig. 2.

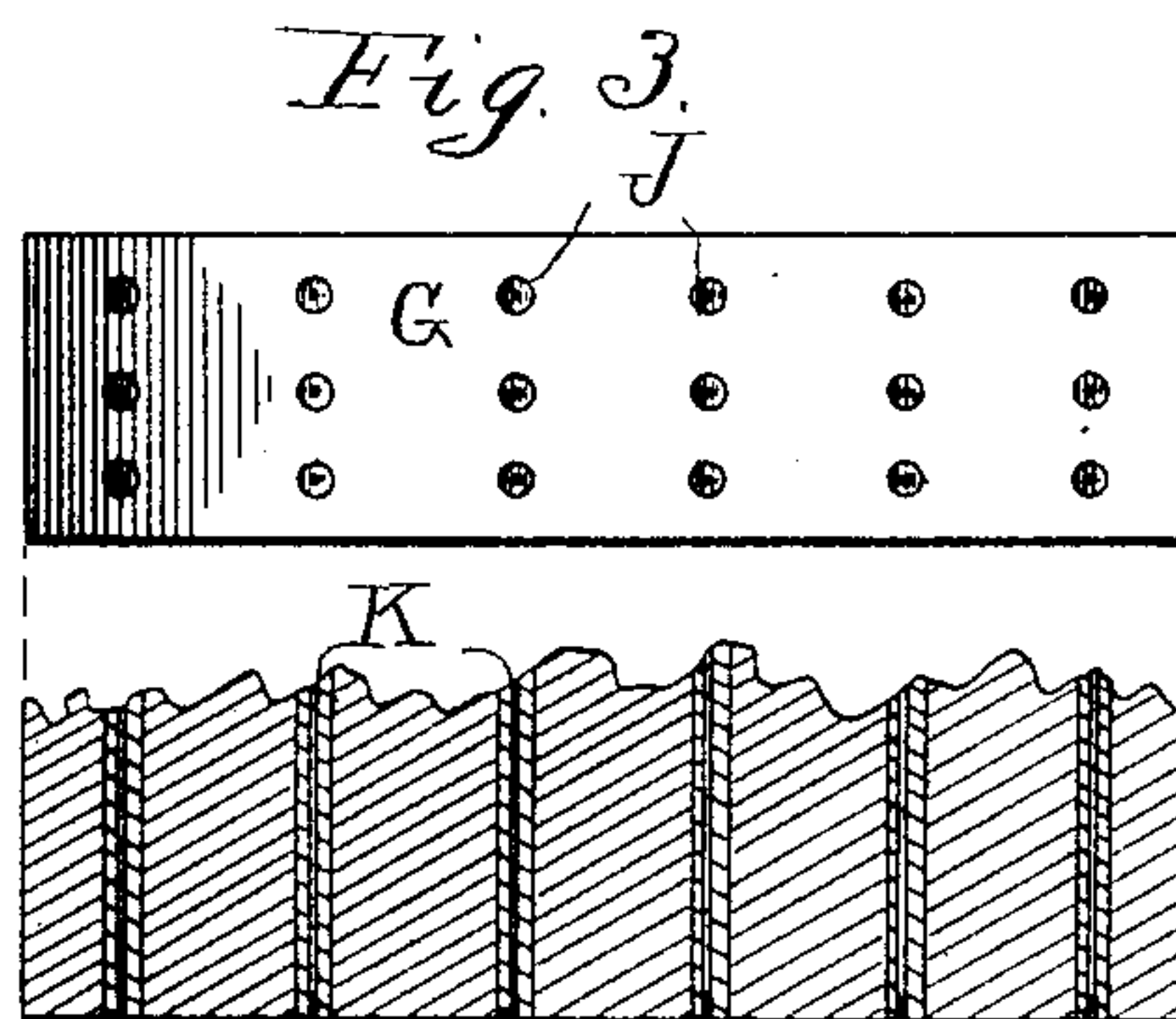


Fig. 3.

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LIGHTNING-ARRESTER.

SPECIFICATION forming part of Letters Patent No. 500,178, dated June 27, 1893.

Application filed September 22, 1892. Serial No. 446,638. (No model.)

To all whom it may concern:

Be it known that I, MONTRAVILLE M. WOOD, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented a new and useful Improvement in Lightning-Arresters, of which the following is a specification.

My invention relates to lightning arresters, and has for its object to provide a simple, convenient and cheap lightning arrester. It is illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of the device. Fig. 2, is a view of one end of the removable portion. Fig. 3, is a view of the other end of the same portion.

Like parts are indicated by the same letter in all the figures.

A is a base preferably of wood or other insulating material upon which are secured the metallic blocks B C. From B leads the wire D to the ground and from C lead the wires E E to the line F.

G is a block of insulating material, having the handle H and adapted to slide and rest between the two metallic blocks B C. It has a series of longitudinal perforations J J arranged together in pairs, in which lie the U-shaped fuse pieces K K. These U-shaped pieces project beyond the surface of the block G at the end which lies toward the metallic piece C. But the ends of the U-shaped piece where they approach the block B do not quite emerge from the apertures or perforations J J.

L is a spring secured upon the block C and lying across the inner side thereof and adapted to receive and bear against the rounded projecting portion of the U-shaped fuse wires K K. This spring, by means of friction, serves to hold the block G in position, though other means of attaching it might be devised.

The use and operation of my invention are as follows: An insulation block, provided with the longitudinal perforations, as shown, will be provided with a considerable number of U-shaped fuse wires. These fuse wires project at one end of the insulation block and the legs or free ends of such U-shaped pieces rest each in one of the longitudinal perfora-

tions. The ends of the U-shaped portions do not quite reach when in this position to the other end of the block. The block is now forced into position between two fixed terminal blocks on the base, where it is held securely in place by the action of the spring on one of such terminal blocks. This spring also engages or is in contact with all of the U-shaped fuse wires, so that all of the U-shaped fuse wires are in electrical connection with one of the terminal blocks, say that one connected with the line wire, while all the free ends of such U-shaped wires are in close proximity to, but not in electrical connection with the other terminal or ground wire. When the line has received a dangerous charge of electricity, it begins to leap the spaces between the free ends of the fuse wires and the ground line terminal, and the main line is relieved of its charge by this action. When the main line charges has become sufficiently excessive, it will establish an arc between one of such fuse wire ends and the opposed ground line terminal, which arc will subsist until broken by the burning away of the fuse wire. This action can be repeated until all the fuse wires are exhausted. The fuse wire block may then be removed and refilled and restored to its position.

I claim—

1. In a lightning arrester, the combination of separated ground and line terminal blocks with an intermediate fixed fuse carrying block, with a series of fixed wires associated therewith,—all of said wires simultaneously and constantly in contact with one terminal and in close proximity to the other.

2. In a lightning arrester the combination of ground and line terminal blocks with an intermediate fuse carrying block with fuse wires in contact with one terminal and in close proximity to the other, said fuse block having a series of longitudinal perforations and the fuse wires being U-shaped and lying in such perforations.

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Witnesses:

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