

No. 612,038.

Patented Oct. 11, 1898.

G. W. HART.
ELECTRIC SWITCH.

(Application filed Oct. 23, 1896.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

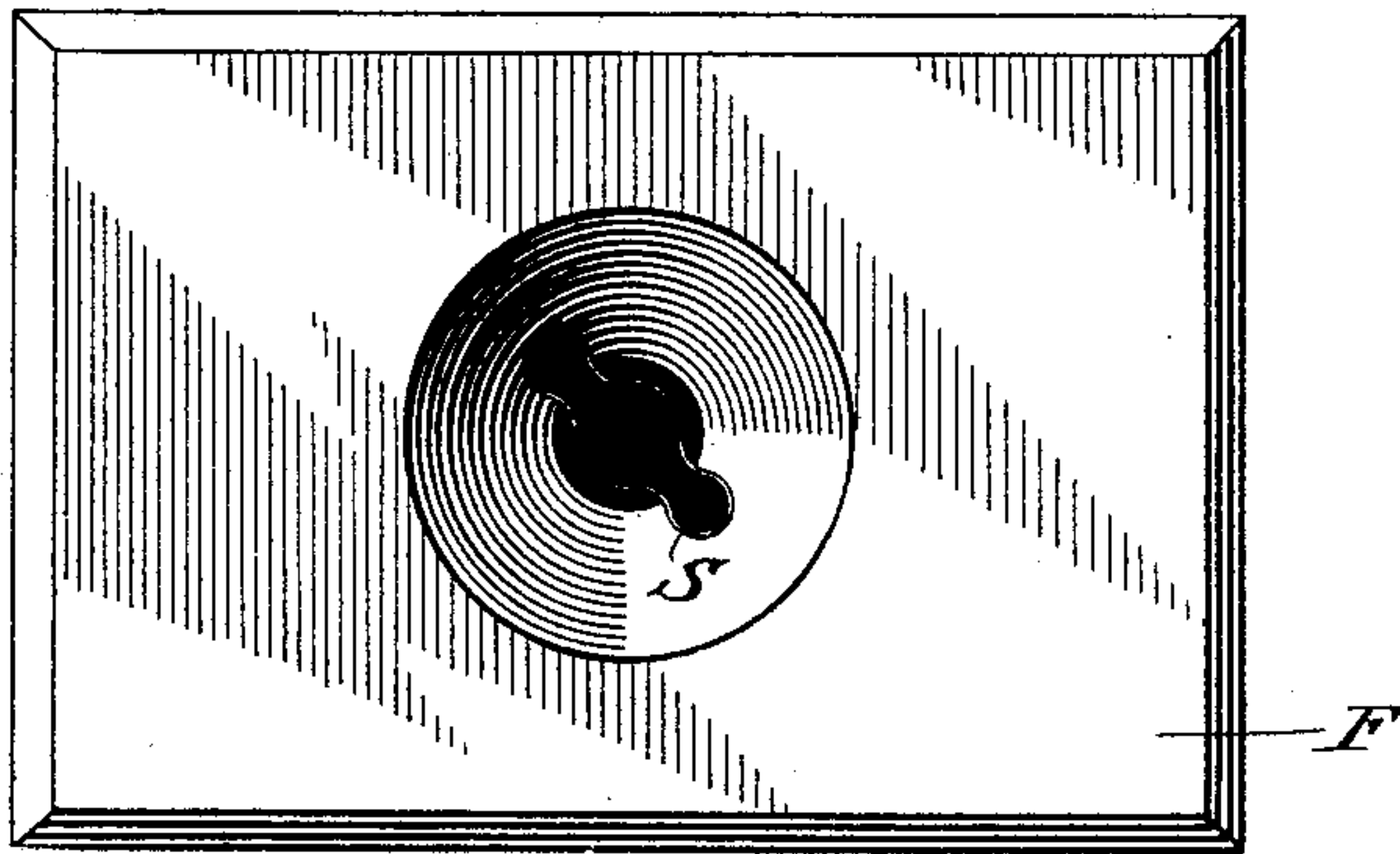


Fig. 2.

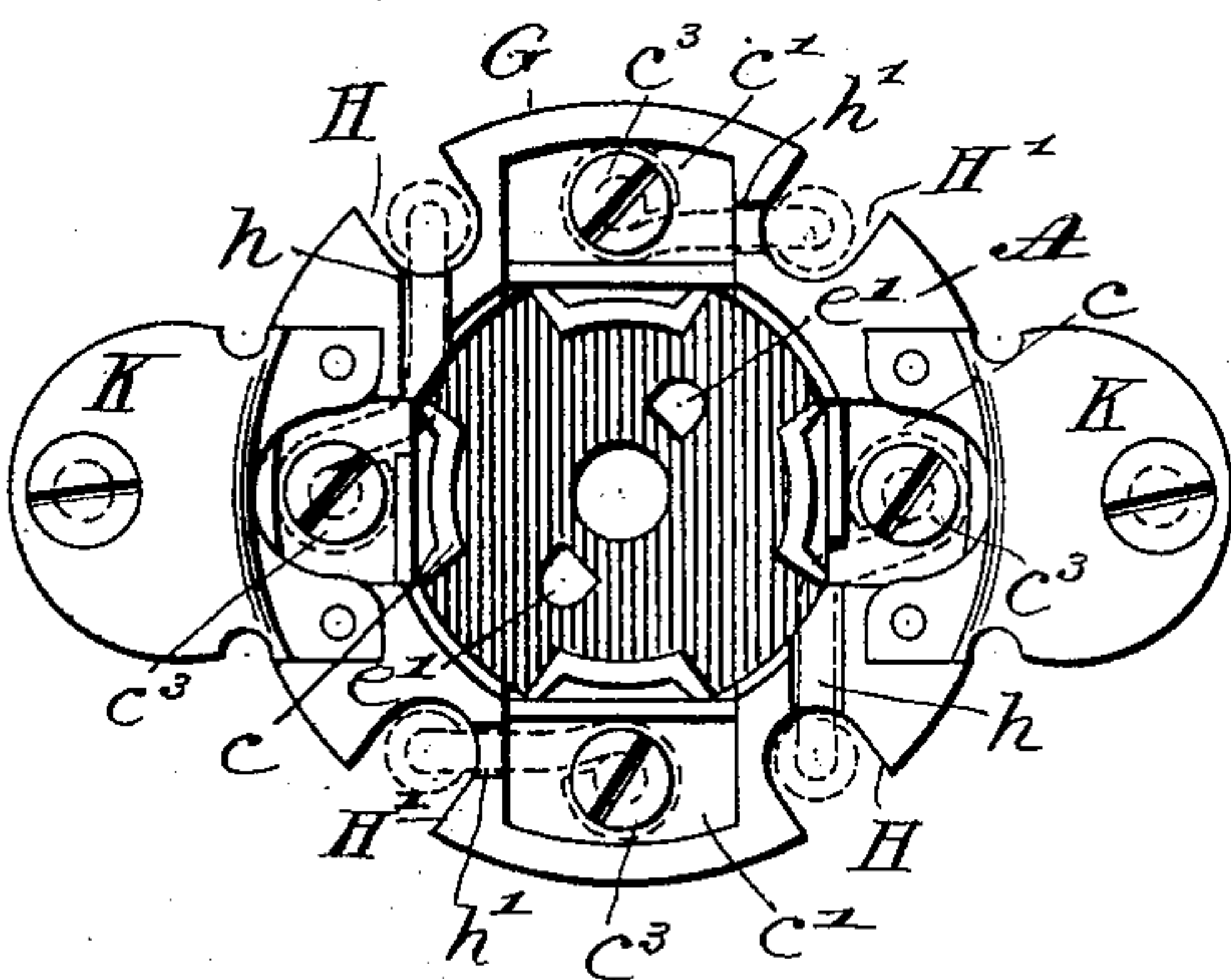


Fig. 3.

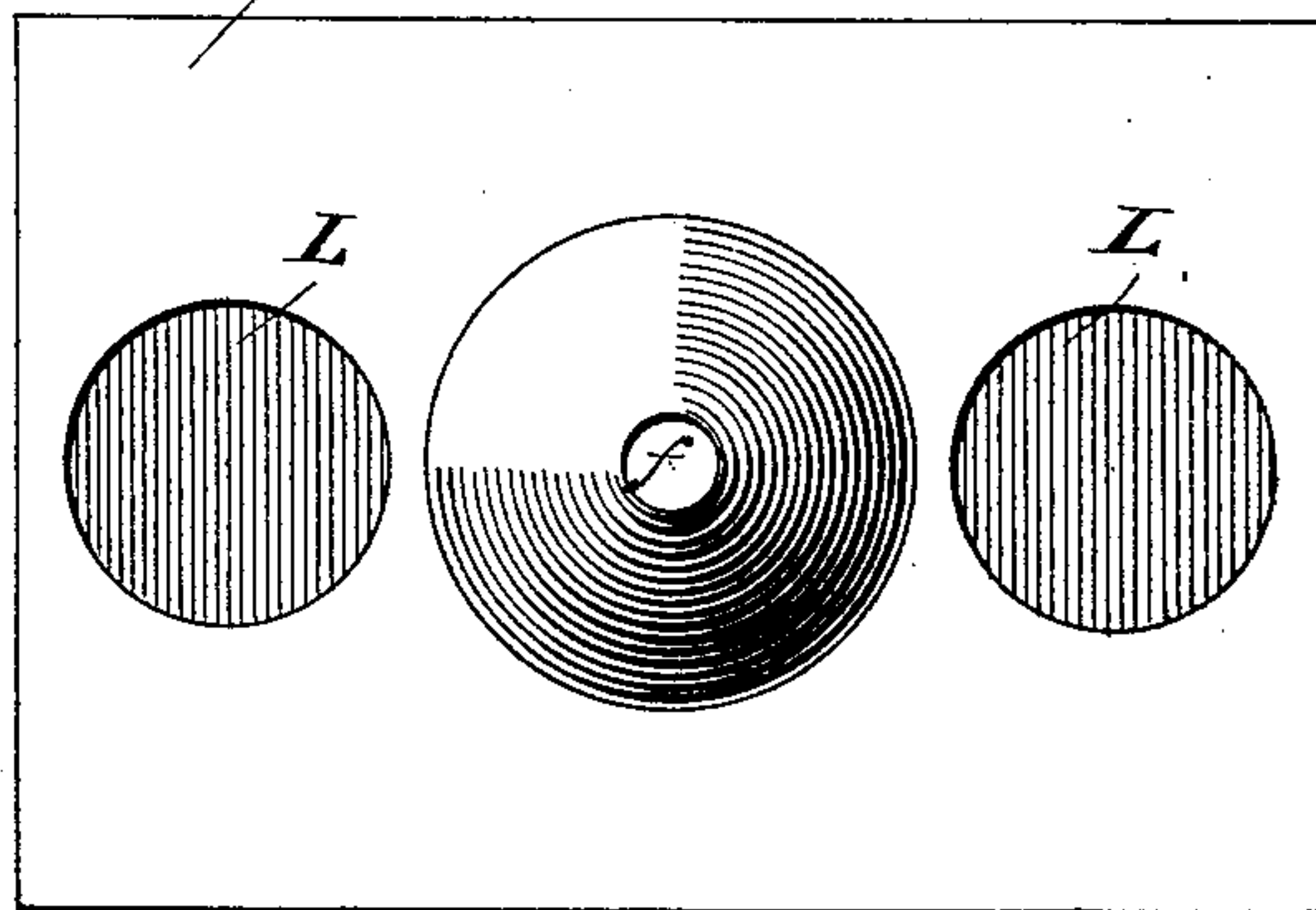
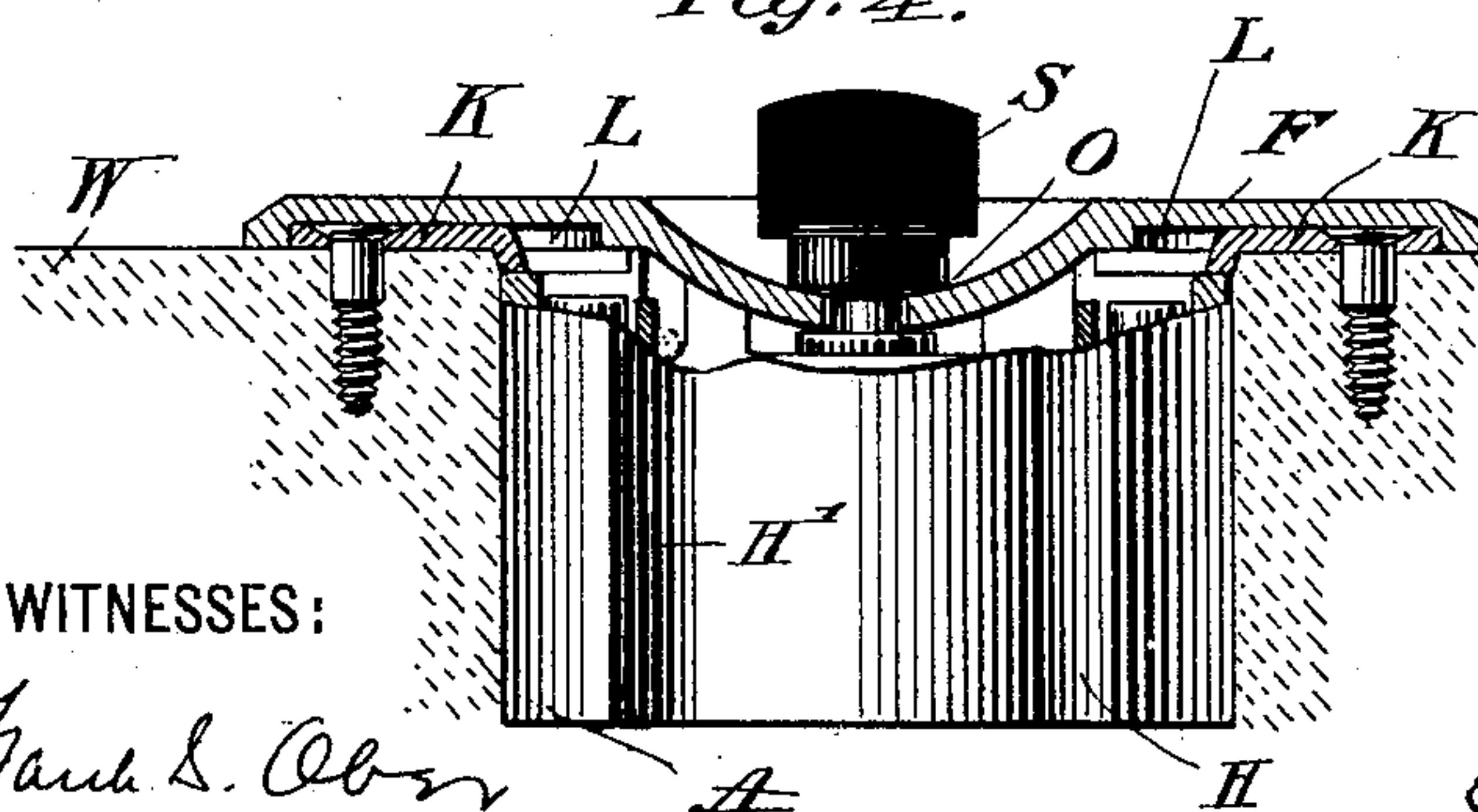


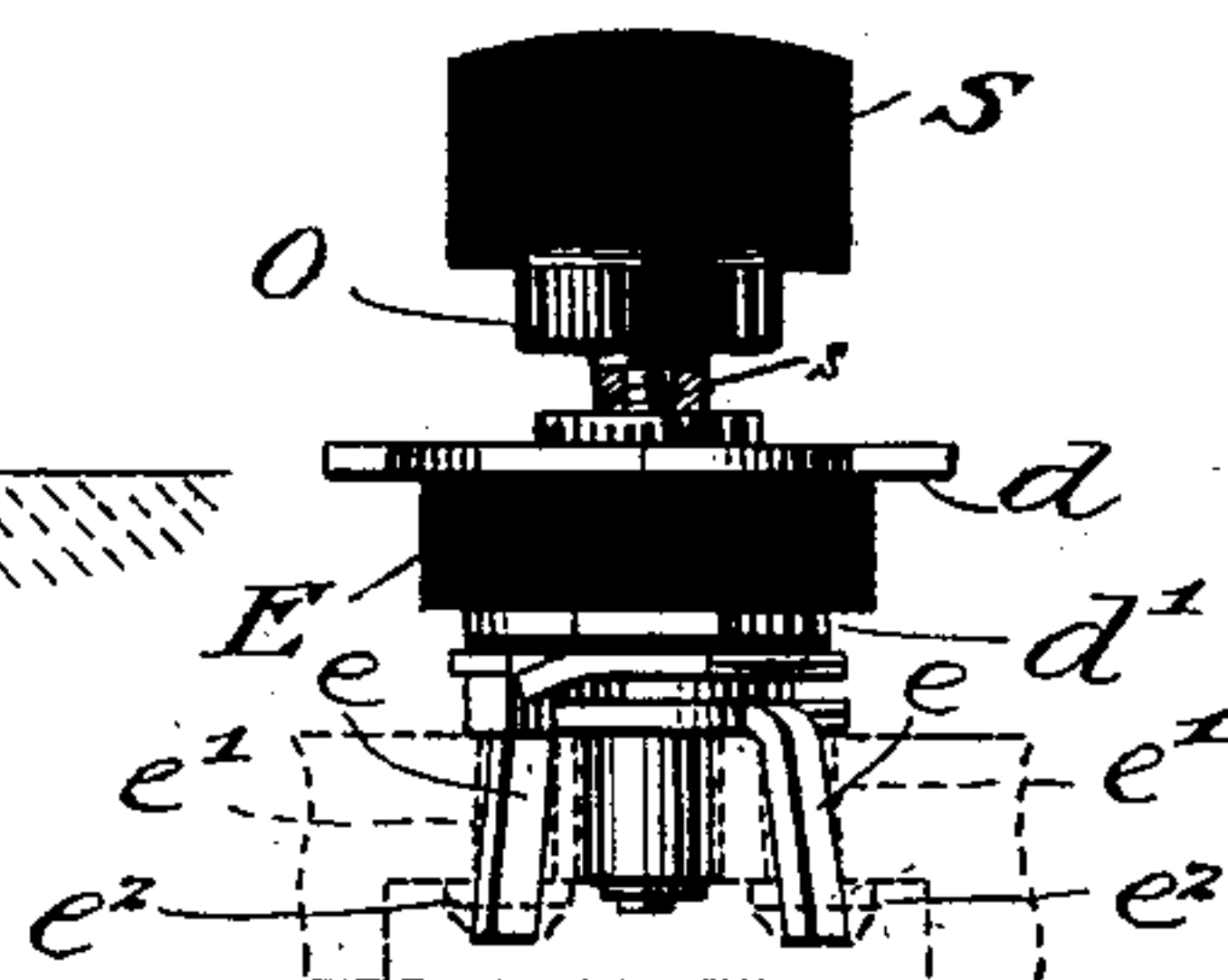
Fig. 4.



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Fig. 5.



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Fig. 6.

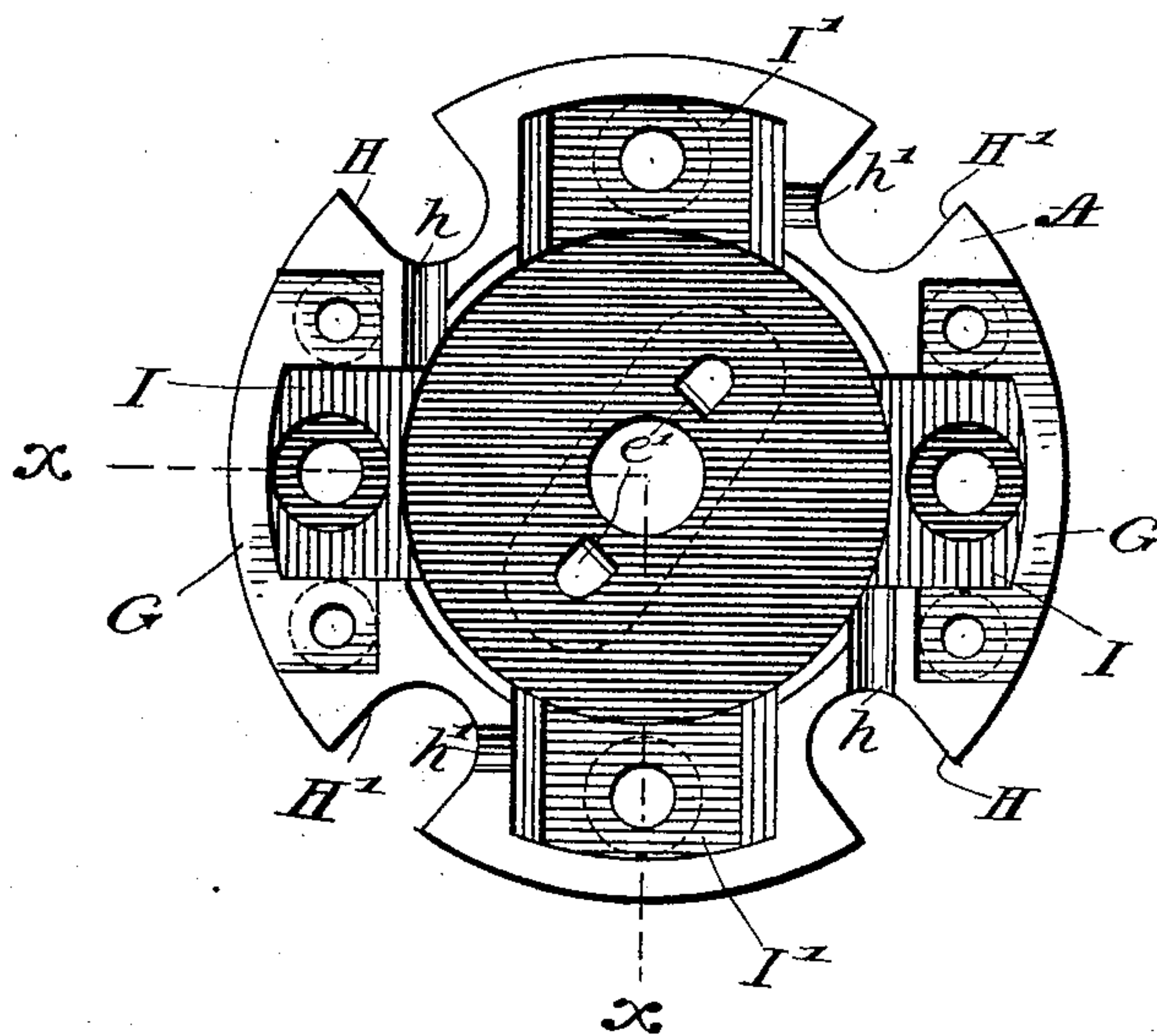
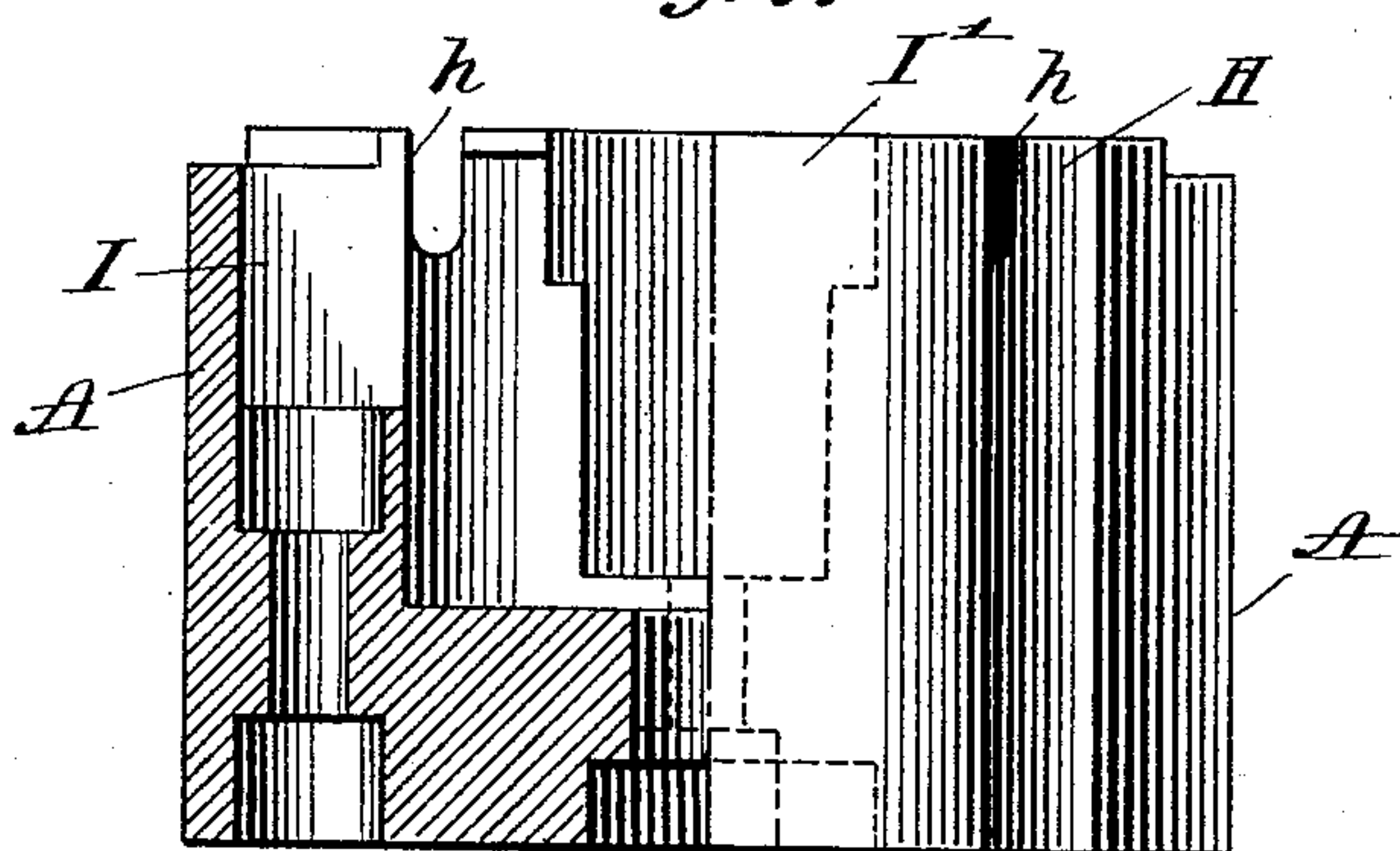


Fig. 7.



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UNITED STATES PATENT OFFICE.

GERALD W. HART, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE HART & HEGEMAN MANUFACTURING COMPANY, OF CONNECTICUT.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 612,038, dated October 11, 1898.

Application filed October 23, 1896. Serial No. 609,793. (No model.)

To all whom it may concern:

Be it known that I, GERALD W. HART, a citizen of the United States, residing in Hartford, county of Hartford, and State of Connecticut, have invented certain new and useful Improvements in Electric Switches, of which the following is a full, clear, and exact specification.

My invention relates to that class of apparatus known as "electric switches." Switches of the class to which my invention is shown as applied are known as "flush" switches. In such switches the base and operating mechanism are sunk into the wall where the switch is located and are covered with a face-plate held in position and substantially flush with the wall. There are features of my invention which are not, however, confined to flush switches.

My invention has for its object to provide a new and improved flush switch having an improved base affording greater protection to the switch mechanism and to whatever the switch may be attached, and also a base so constructed that the conductors carrying the current can more easily be placed in position and fastened to their respective contacts.

The following is a description of a switch embodying my invention, reference being had to the accompanying drawings, in which—

Figure 1 represents the flush face-plate with the handle attached to the switch mechanism protruding. Fig. 2 represents the base of the switch with the face-plate and actuating parts removed. Fig. 3 represents the under side of the face-plate. Fig. 4 represents the complete switch with parts cut or broken away to show the construction and rotation. Fig. 5 represents the cross-bars with their actuating mechanism and handle attached thereto. Fig. 6 represents a plan of the base on an enlarged scale. Fig. 7 is a vertical view of the same, partly in section, on the line $x x$, Fig. 6.

Referring more particularly to the drawings, A is the base of the switch, made of porcelain or other insulating material. Mounted on this base are the switch-contacts $c c$ and $c' c'$, which, with their binding-screws c^3 , may be of any desired suitable form. The revol-

ing switch-plates $d d'$, with their operating mechanism E, which may be of any desired construction, are also mounted on the base A. The operating mechanism E is firmly fastened to the base A by inserting the prongs $e e$ through the holes $e' e'$ in the base and securing them in position by washers $e^2 e^2$. The handle S is fastened onto the actuating-shaft by a screw s , as has been done heretofore, so that when turned to operate the switch the handle is screwed on and when turned in the opposite direction it will be unscrewed and can be removed.

F is the face-plate, substantially flush with the wall W. The base A (shown by itself on Sheet 2, Figs. 6 and 7) is cup-shaped in form and substantially circular. Its outer wall G has vertical grooves H H and H' H', corresponding to the number of contacts. In the present case there are four contacts, and consequently four grooves. These grooves are open throughout their length and at top and bottom and connect by small open channels $h h$ and $h' h'$ with the recesses I I and I' I', in which are the contacts $c c$ and $c' c'$. The object of these grooves is to permit the base A, with the other parts of the switch, to be secured in the hole or recess in the wall before the conductors are attached to the switch-contacts or inserted through or into any parts of the switch or its base. After the base is secured in position by the ears K K, fastened thereto, or other equivalent means the proper conductors can be laid in the grooves H H and H' H' and led to the contacts $c c$ and $c' c'$ and fastened thereto by the binding-screws c^3 . A flush switch of this construction can thus be easily placed in position and connected up, at the same time providing recesses to hold the conductors and necessitating a hole or recess in the wall of no greater diameter than the diameter of the switch-base. The base also forms a casing for the operating parts of the switch.

Another feature of my invention is the means for securing the face-plate F in position. In order to secure this plate F, I make use of the removable handle S and the two ears K K, which when the switch is in operative position are fastened to the wall W

by screws or rivets and either directly or indirectly to whatever form or kind of casing A may be suitable, which, so far as this feature of my invention is concerned, need not
5 be entirely of insulating material. In doing so I provide the rear side of the plate F with two recesses L L, corresponding in part in outline with the ears K K, at least sufficiently to prevent any substantial rotation of the
10 plate F when it is in position, as in Fig. 4. When the plate F is placed in position, the hole *f* coincides with the shaft of the switch, and it is held in position by screwing on the
15 handle S, which, with its shoulder O, bearing against the plate, holds it in place, while the

ears K K, acting with the recesses L L, keep it from rotating.

What I claim is—

An electric switch consisting of a base of insulating material, contacts mounted there- 20 on, and operating mechanism having a switch-plate in operative relation to said contacts, said base being cup-shaped and having in its outer walls open grooves leading from the bottom of said base to said contacts, substan- 25 tially as described.

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Witnesses:

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