

(No Model.)

J. SCHNEIDER.
ELECTRIC DOOR OPENER.

No. 538,127.

Patented Apr. 23, 1895.

Fig: 1.

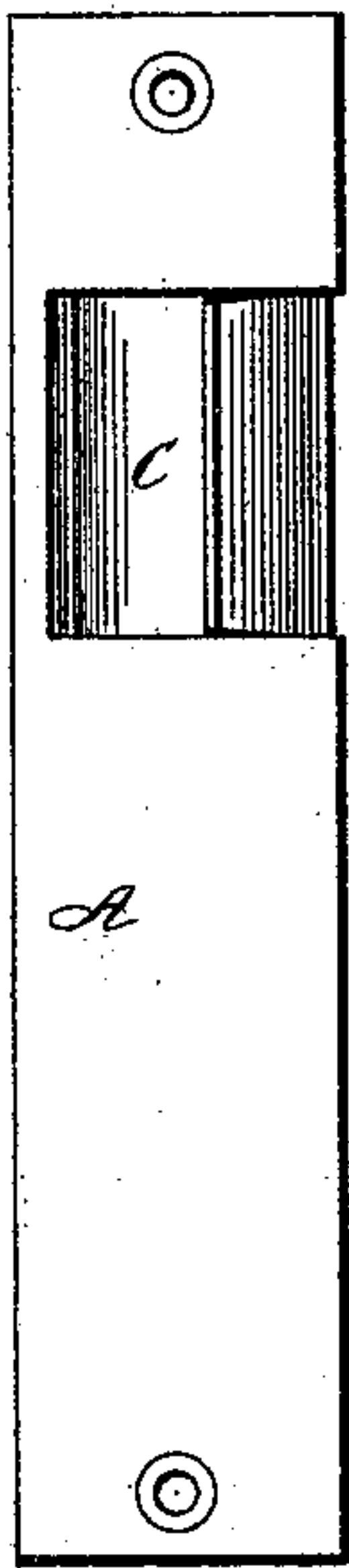


Fig: 2.

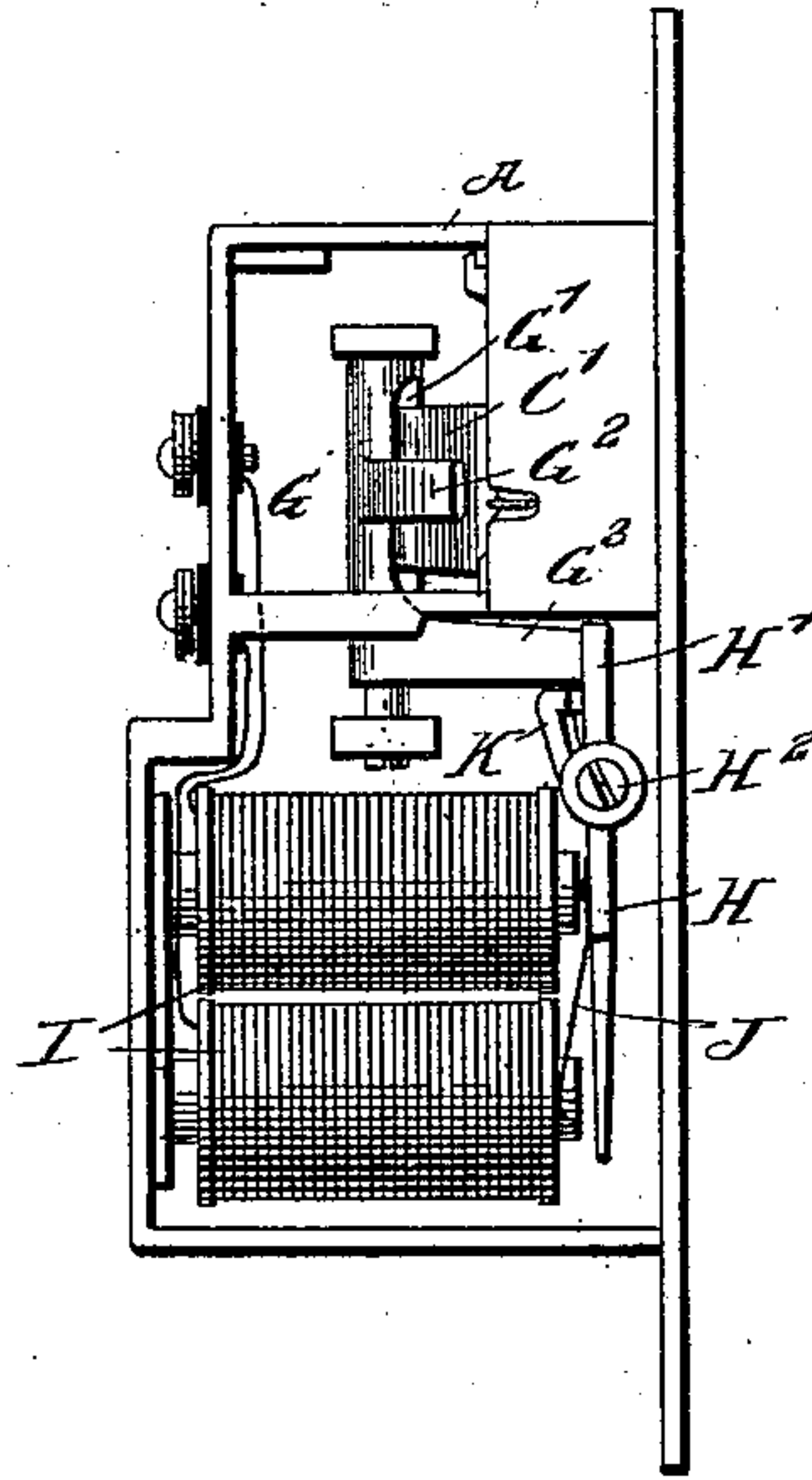


Fig: 3.

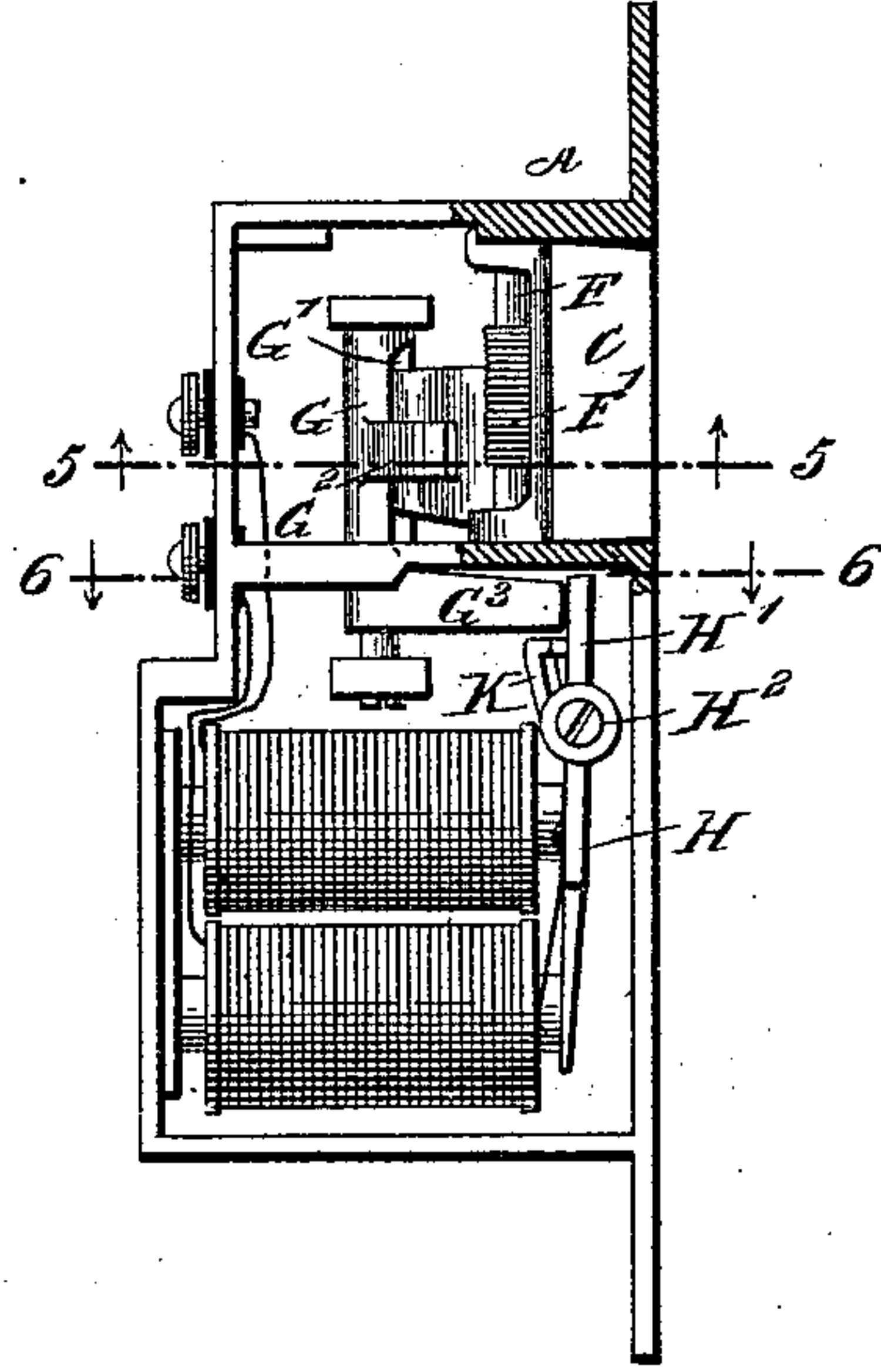


Fig: 4.

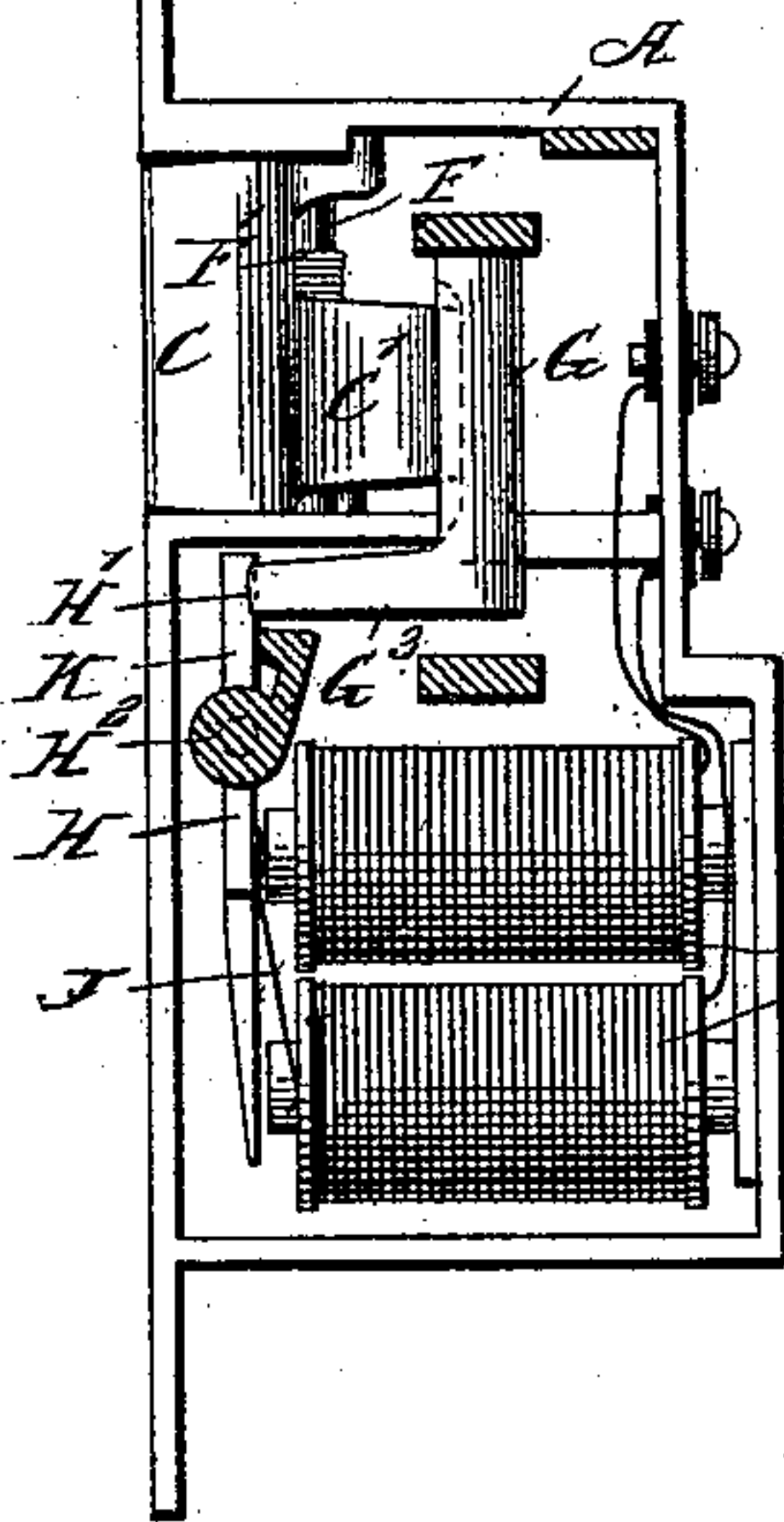


Fig: 5.

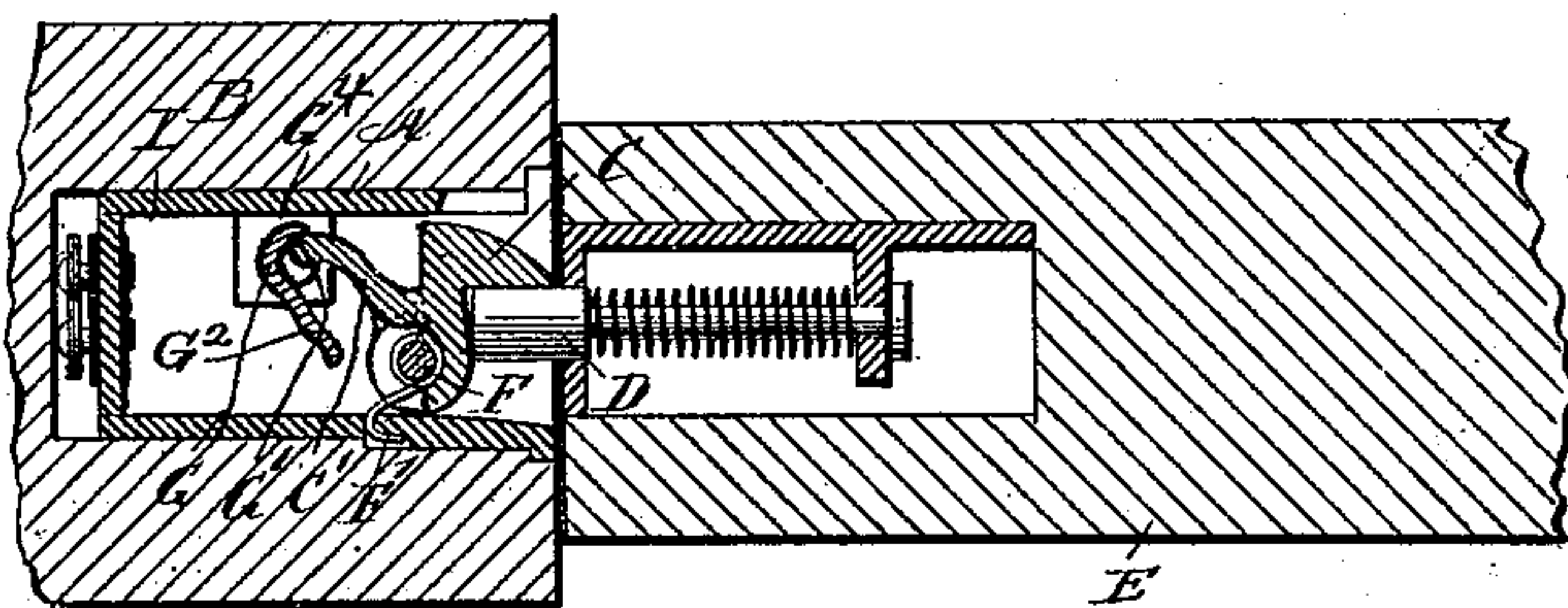
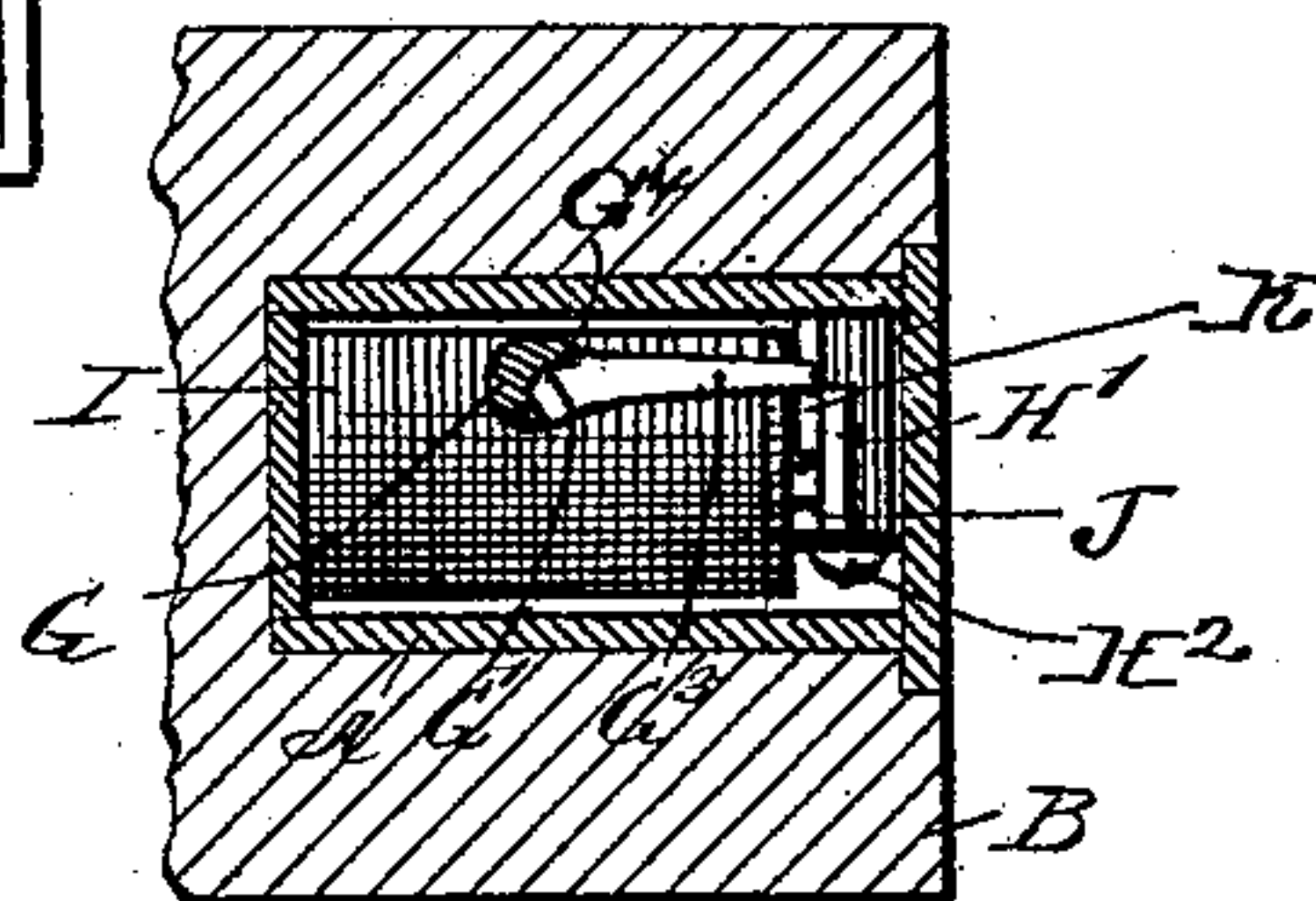


Fig: 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN SCHNEIDER, OF LONG ISLAND CITY, NEW YORK.

ELECTRIC DOOR-OPENER.

SPECIFICATION forming part of Letters Patent No. 538,127, dated April 23, 1895.

Application filed May 7, 1894. Serial No. 510,271. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCHNEIDER, a citizen of the United States, and a resident of Astoria, (Long Island City,) in the county of Queens and State of New York, have invented certain new and useful Improvements in Electric Door-Openers, (Case No. 3,) of which the following is a specification.

The invention relates to electric door openers, such as is shown and described in the Letters Patent of the United States, No. 381,725, granted to me on the 24th day of April, 1888.

The object of the invention is to provide a new and improved electric door opener, which is comparatively simple and durable in construction, not liable to get out of order, and arranged for unlocking a door from a distance by means of an electric current.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a face view of the improvement. Fig. 2 is a side elevation of the same, with the front cover of the casing removed. Fig. 3 is a like view of the same, with the parts in a different position and part of the casing in section. Fig. 4 is a rear side elevation of the improvement with the rear cover removed and parts in section. Fig. 5 is an inverted sectional plan view of the improvement as applied, the section being taken on the line 5—5 of Fig. 3; and Fig. 6 is a sectional plan view of the same on the line 6—6 of Fig. 3.

In the drawings, A represents the casing adapted to be set in the door frame B, as indicated in Figs. 5 and 6.

C represents a catch mounted to swing on a vertical pivot F at one side of the casing and actuated by a spring F' coiled on said pivot and connected to the casing as clearly seen in Figs. 2 and 5. This catch C is adapted to engage a bolt D, mounted in a lock on the door E in the usual manner, and on its rear face, the catch is provided with a tail C', projecting obliquely toward the side of the casing opposite that at which the catch C is arranged, as seen in Fig. 5.

A rock-lever G is pivoted vertically closely adjacent to the opposite side of casing A, and is provided with a vertical groove or notch G' adapted to receive the end of the tail C' when the door is locked, and on the side of said groove next to casing A with a stop or short projection G⁴ adapted to prevent said tail from falling out of said groove in case the parts should become worn. At the other side of said groove, the rock lever G is provided with a second stop in the nature of a finger G² which projects out toward the other side of the case, and is adapted to be engaged by the tail C' of catch C, so as to cause the rock lever G to turn or rock in unison with catch C when the magnetic devices are actuated as will be hereinafter described. At its lower end the rock lever G is provided with an arm G³, which projects forward below the catch C and is adapted to be engaged at its extremity by the side edge of the upper arm H' of an armature lever H, pivoted horizontally at H² in the casing in the field of the electro-magnet I. The armature lever H is normally held away from said magnet I by a spring J, and the magnet is arranged in a circuit including a suitably located button, (not shown) to be pressed where it is desired to close the circuit and unlock the door.

When the circuit is closed the magnet draws its armature lever H toward it in such a way as to disengage the side edge of the upper arm H' thereof from the end of arm G³ of rock lever G, so that said rock lever will be free to turn or rock by the engagement of tail C' with the finger G² on said lever. To insure the door opening where unlocked, it is usually provided with a spring-hinge of any preferred construction.

When the door has been opened and its bolt D disengaged from the catch C the spring F' will act to swing said catch to its locked position, and the tail C' thereon will by its engagement with the finger or projection G⁴ again turn or rock the lever G, so as to cause its arm G³ to wipe over the arm H' of the armature lever H, and be again locked behind the side edge thereof. A stop K is arranged in the casing to limit the movement of the armature lever H.

The door opener constructed as above set forth is exceedingly simple and inexpensive

having comparatively few parts and these being so arranged as to attain a maximum strength in the finished device. The construction is also very durable and not liable
5 to derangement.

Having thus described my invention, I claim—

In an electric door opener, in combination, a casing, a magnet, an armature-lever, a rock-
10 lever pivoted in the casing and adapted when moved in one direction to be engaged and held against movement by the armature lever, and when moved in the other direction to be out of position to be engaged by the
15 armature-lever, a catch mounted to swing in the casing and adapted to be engaged by a bolt on the door, a tail on the catch, and stops on the rock-lever projecting therefrom and

adapted to engage opposite faces of the tail, one stop being adapted to be engaged and
20 moved by the tail of the catch, when the armature-lever is disengaged from the rock-lever, to move the rock-lever out of position to be engaged by the armature-lever, and the other stop being adapted to be engaged and
25 moved by the tail of the catch to move the rock-lever into position to be engaged by the armature-lever, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 4th day of May,
1894.

JOHN SCHNEIDER. [L. S.]

Witnesses:

ROBERT S. CHAPPELL,
EDWARD P. THOMPSON.