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Patented Dec. 24, 1901.

R. EINBIGLER.
ELECTRIC VISUAL SIGNAL APPARATUS.

(Application filed Mar. 1, 1901.)

(No Model.)

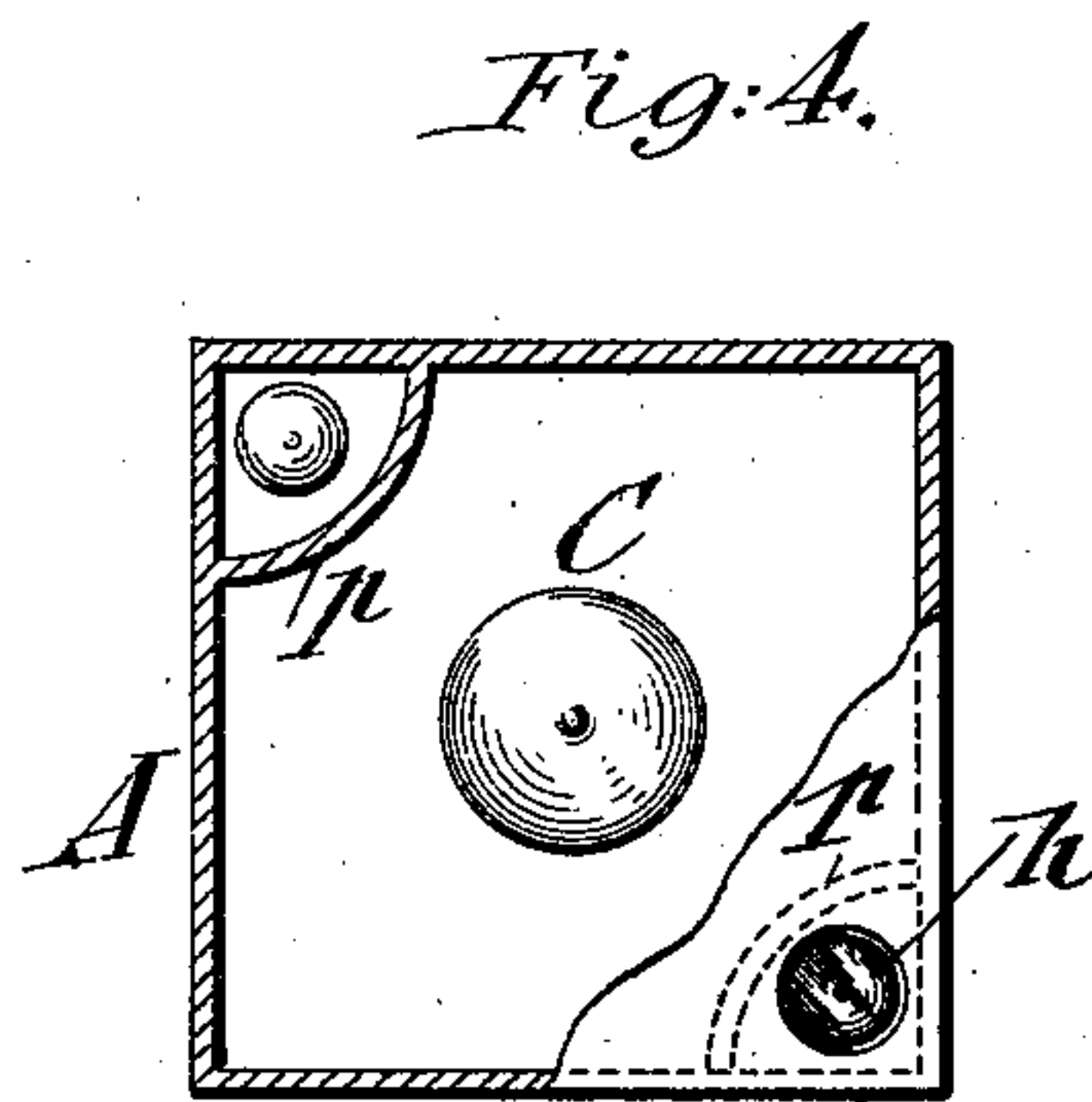
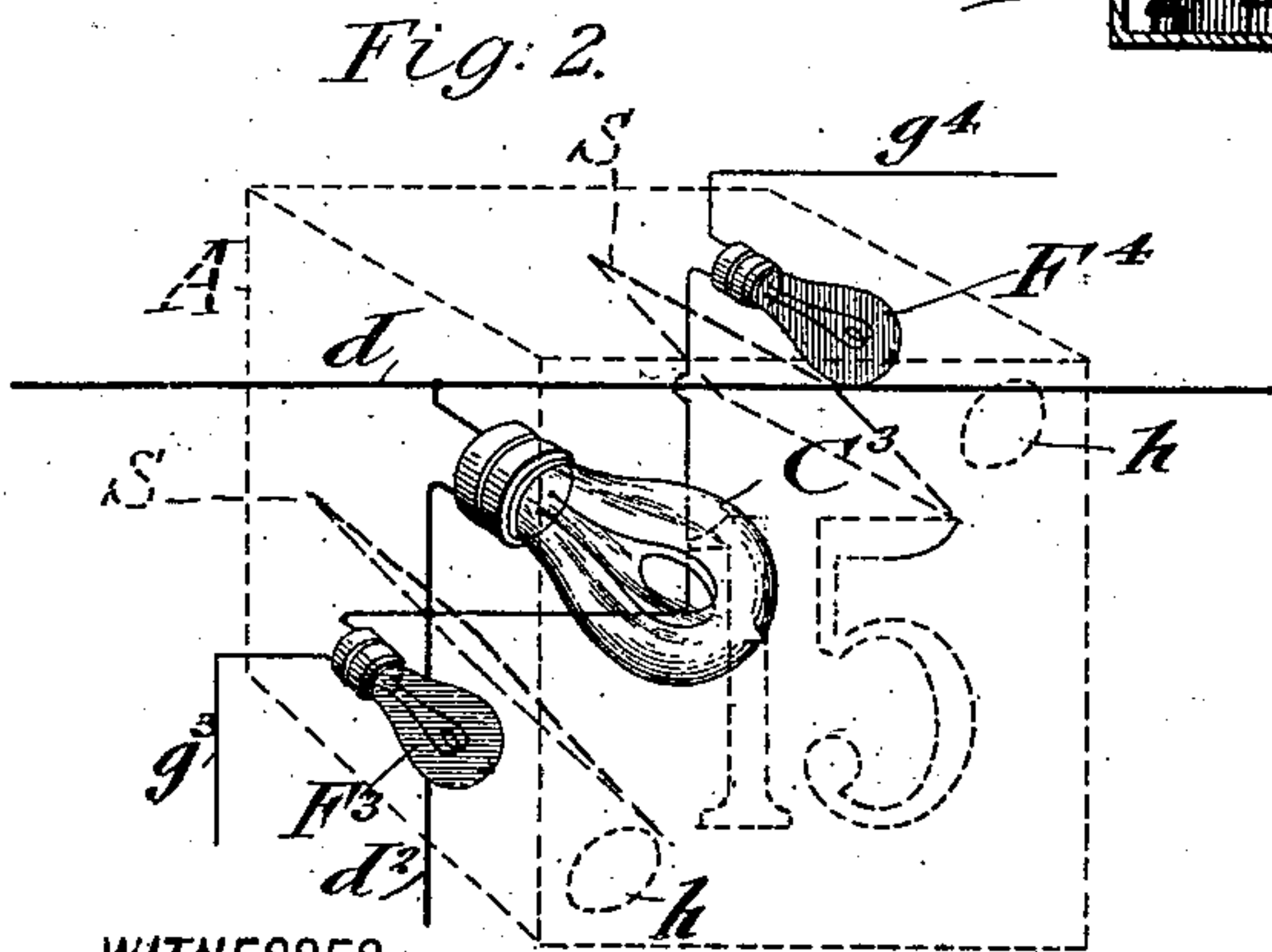
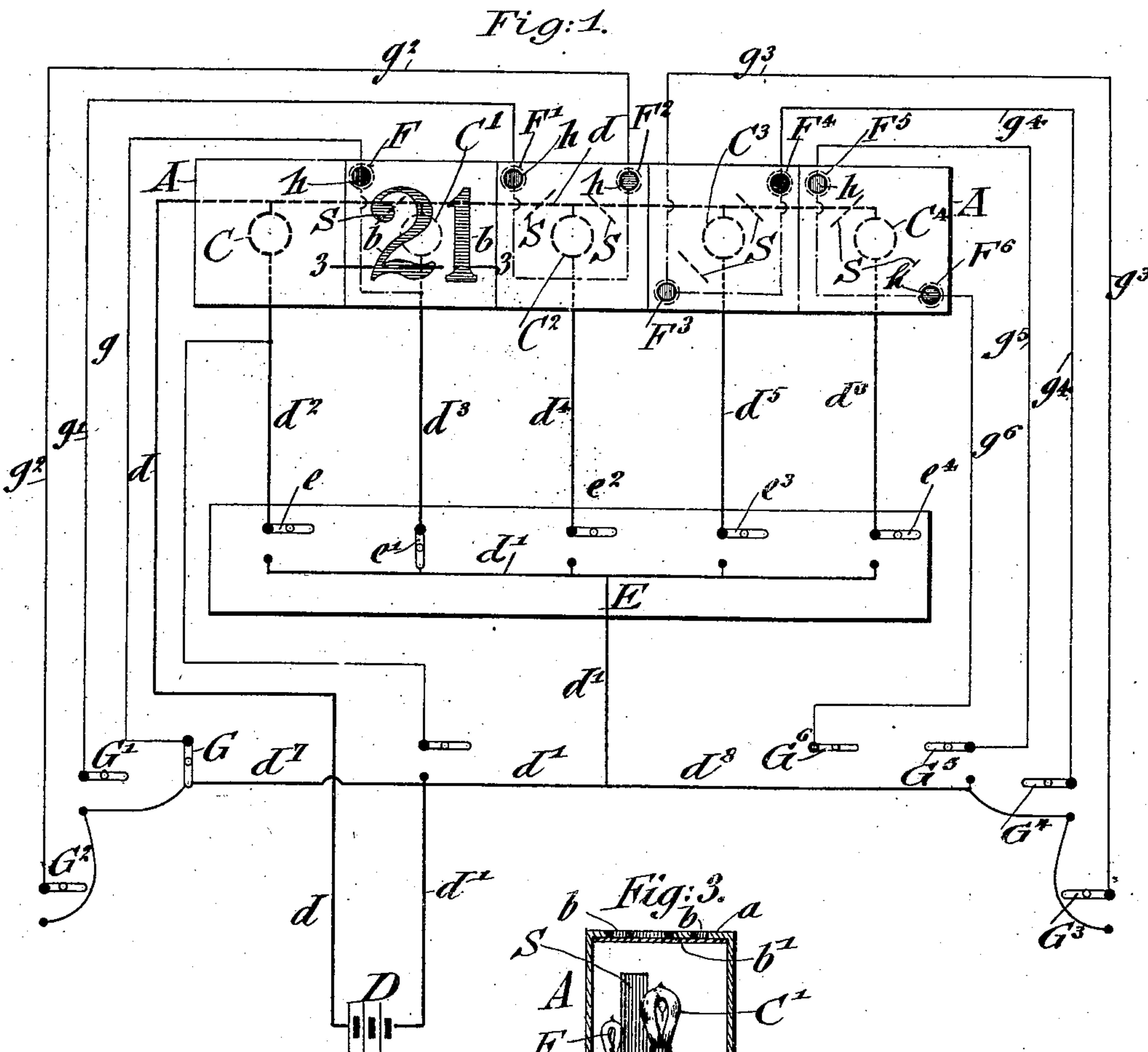
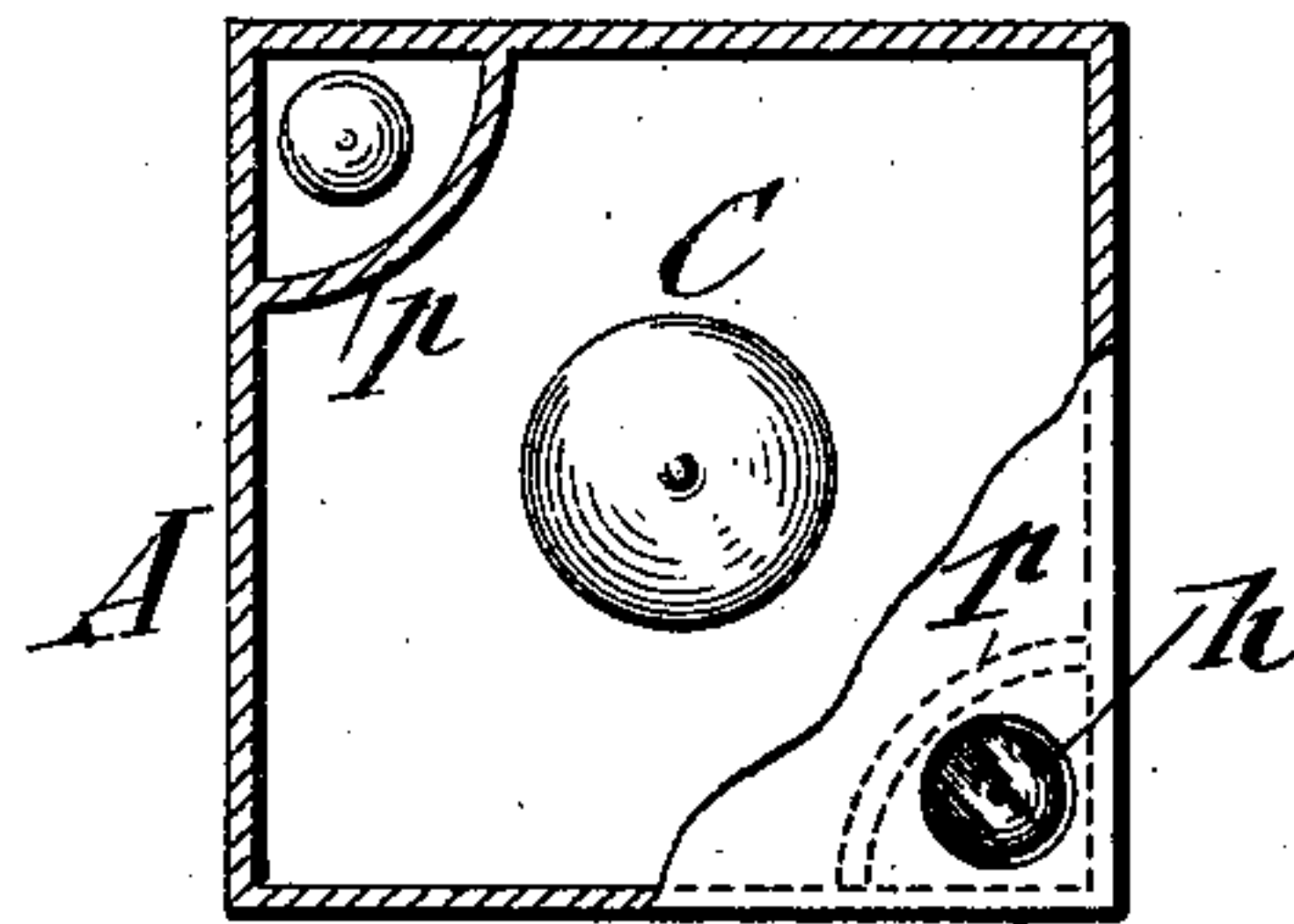


Fig. 4.



WITNESSES:

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ELECTRIC VISUAL-SIGNAL APPARATUS.

SPECIFICATION forming part of Letters Patent No. 689,711, dated December 24, 1901.

Application filed March 1, 1901. Serial No. 49,396. (No model.)

To all whom it may concern:

Be it known that I, RUDOLF EINBIGLER, a citizen of the United States, residing at New York, borough of Manhattan, and State of New York, have invented certain new and useful Improvements in Electric Visual-Signal Apparatus, of which the following is a specification.

My invention relates to electric visual-signal apparatus which is more especially intended for use in large assembly-rooms, halls, stock-exchanges, and the like; and the objects of the same are to provide means for calling a person to a main station and to provide controlling means for calling the same person to a substation without requiring going to the main station by, in the first instance, providing a main switchboard controlling a series of electric lamps displaying the number or character designating the person to be called and, in the second instance, providing a series of switches for substations, which not only control the said electric lamps for displaying the numbers or characters, but also control one or more special electric lamps auxiliary to the mains lamps and which show one or more colors designating the certain local point to which the person called has to attend.

My invention consists of certain features of construction and combinations of parts to be hereinafter described and then claimed.

In the accompanying drawings, Figure 1 is a diagram showing the various circuits, signals, and switches. Fig. 2 is a perspective view of the lamps for one signal-box, the box being in dotted lines. Fig. 3 is a section on line 3 3, Fig. 1; and Fig. 4 is a sectional view, partly in elevation, showing a slight modification.

Referring to the drawings, A indicates a series of signal-boxes of suitable construction and provided with face-plates *a*, (see Fig. 3,) having openings *b*, cut in the forms of figures or other designating characters and covered, preferably, with translucent glass plates *b'*; but it is evident that the construction of the face-plates *a* in this respect is immaterial, as the only requirement is that a light placed behind the same may be permitted to illuminate the figures or other characters. Arranged suitably in each box, be-

hind the figures or characters *b*, is an incandescent electric lamp *C C' C² C³ C⁴*, as the case may be, connected in multiple from battery D by main wires *d* and *d'* and by the branches *d² d³ d⁴ d⁵ d⁶*. The wire *d'* is at the switchboard E of the main station provided with contacts, which may be electrically connected with suitable switches *e e' e² e³ e⁴*, pivoted on board E and connected, respectively, with the branch wires *d² d³ d⁴ d⁵ d⁶*. On closing the switch *e'*, for instance, the current flows over wire *d*, lamp *C'*, wire *d³*, switch *e'*, and wire *d'* to the battery, and the lamp *C'* is thereby lighted, so as to disclose, for instance, the number "21" or some other suitable character on the box inclosing said lamp and designating a certain person to be called to the main station. The main circuits controlled by the other switches *e e² e³ e⁴* may be readily traced; but when they flow it is evident that other characters or numbers become visible from their proper boxes. Each signal-box may contain one, two, or more additional incandescent lamps, as desired. These additional lamps are arranged in any suitable position relatively to the main lamps in the corners of the signal-boxes. *F F' F² F³ F⁴ F⁵ F⁶* indicate the additional or auxiliary lamps, lamp *F* being electrically connected with wire *g*, which is connected with a switch *G* at one end and branch wire *d³* at the other end, lamp *F'* being electrically connected with wire *g'*, which is connected with a switch *G'* and with the branch wire *d⁴*, lamp *F²* being electrically connected with wire *g²*, which is connected with a switch *G²* and the branch wire *d⁴*, lamp *F³* being electrically connected with wire *g³*, which is connected with switch *G³* and the branch wire *d⁵*, lamp *F⁴* being electrically connected with wire *g⁴*, which connects a switch *G⁴* and branch wire *d⁵*, lamp *F⁵* being electrically connected with wire *g⁵*, which connects a switch *G⁵* and the branch wire *d⁶*, and lamp *F⁶* being electrically connected with wire *g⁶*, which connects a switch *G⁶* and branch wire *d⁶*. Switches *G G' G²* may be arranged at one side of and at the end of the room and switches *G³ G⁴ G⁵ G⁶* at the opposite side and at the same end of the room, the former switches being adapted to close the circuit through a wire *d⁷*, leading from the main-line wire *d'*, and the last-named switches closing

the circuit through a wire d^8 , leading from main-line wire d' .

Where two or more auxiliary lamps are arranged in a signal-box A, they are preferably 5 differently colored, so that when lighted the color will show through a hole h in front of the same in the face-plate B, or instead of the bulbs of the lamps being made of colored glass the holes h may be covered with colored 10 glass in the same way as the openings b are covered with ground or translucent glass. In either case, however, a screen or shield, such as S, Figs. 1, 2, and 3, is arranged between the main and auxiliary lamps, so as to 15 intercept the rays of light from the main lamp, or the auxiliary lamps may be arranged in corner-pockets p , as shown in Fig. 4. Whenever there is more than one auxiliary lamp in each box, they stand for a certain switch 20 which controls the same, so that when the said certain switch is closed its appropriate lamp, as well as the main lamp which shows up the character, will be lighted and the person called knows he has to go to the particular point at which said switch is located so 25 as to find out the reason of the call. In Fig. 1 the auxiliary lamps are omitted from the box A at the left, as in some instances the same may not be required, the lamp C in the 30 box in question being controlled by a switch e .

The apparatus is worked as follows: Supposing for some reason the person having charge of the main switchboard wants to call No. 21, the switch e' will be closed and the 35 said number is visually announced. Supposing, however, No. 21 is wanted at the substation, which may be a telephone-booth, in which the switch G is located, the switch G

will be closed and lamp F and lamp C' lighted, the circuit flowing from the battery through 40 wires d' d^7 , wire g , lamp F, branch d^3 , lamp C', and wire d back to the battery. Hence the lamp C' will cause the number "21" to be lighted up, while the colored lamp F will show through the hole h , and the person numbered "21" 45 knows he is called to point G. Where two colored auxiliary lamps are in one signal-box, the closing of the appropriate switch will show up a red or other light for one lamp and a blue or other but differently-colored light for the 50 other lamp. When the lamps C to C' only are lighted, the colors will not show through the holes h ; but when one of the colored lamps is lighted one of the lamps C to C' is also lighted, so as to show both the number or 55 other character and also a color.

Having thus described my invention, what I claim as new is—

In an electric visual-signal apparatus, a plurality of signal-boxes, signal characters and 60 openings provided in the front thereof, incandescent lamps in said boxes for lighting the characters, auxiliary colored lamps for lighting said openings arranged in pockets in said boxes, a main switchboard for operating said 65 incandescent lamps, and substation-switches to light said auxiliary lamps, while the incandescent lamps are lighted, substantially as set forth.

In testimony that I claim the foregoing as 70 my invention I have signed my name in presence of two subscribing witnesses.

RUDOLF EINBIGLER.

Witnesses:

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