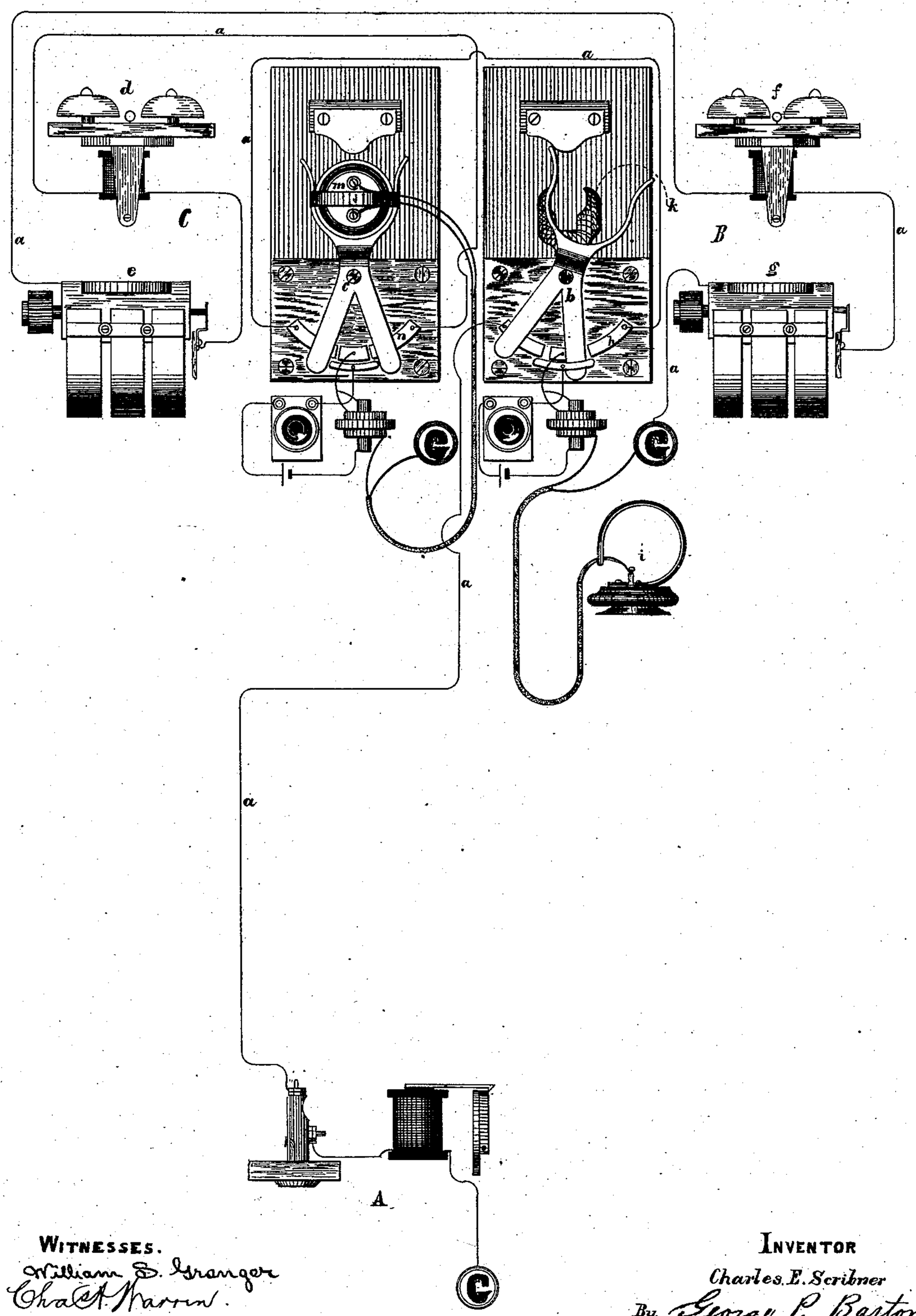
(No Model.)

C. E. SCRIBNER.

TELEPHONE CIRCUIT.

No. 294,336. Patented Feb. 26, 1884.



WITNESSES.

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CHARLES E. SCRIBNER, OF CHICAGO, ILLINOIS.

TELEPHONE-CIRCUIT.

SPECIFICATION forming part of Letters Patent No. 294,336, dated February 26, 1884.

Application filed October 11, 1881. Renewed December 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SCRIBNER, of Chicago, Illinois, have discovered certain new and useful Improvements in Subscribers' Telephone-Circuits, of which the following is a full, clear, concise, and exact description.

My improvement relates to the circuits between two or more subscribers' stations when connected with the central office by the same telephone-line.

The secrecy-switch and bell herein shown form the subject-matter of two applications heretofore filed by me.

The generator is of the well-known Siemens type.

Heretofore signal-bells have been used at the different stations of a given line, so constructed that any one may be rung from the central office without ringing any other; but no suitable means have been devised, so far as I am informed, whereby all the generators of a given line may be cut off at either of the stations of a given line, so as to prevent all of the other subscribers on a given line from interrupting the one who is using the line. As now constructed, it is found most convenient to run a separate telephone-line from the central office to each subscriber's station. By the use of my invention several subscribers may be so placed upon a single line that one who is using the line cannot be annoyed by the others sending signals to line.

In the drawing, which is diagrammatic, A is the central office. B and C are respectively two subscribers' outfits placed upon a single line, *a*, which ordinarily is connected through the switch-levers *b c*, one after the other, and then back, through the bell *d* and generator *e*, and bell *f*, and generator *g*, to ground. When the switch-lever is moved at either station, the generator of said station and also the generators of all other stations will be cut off from the individual line.

In the drawing the lever *b* of station B is shown turned from its ordinary upright position to the right. The circuit of the individual line is thus cut off from contact-plate *h* and directed through the telephone *i* to ground.

It will be seen that the generator *g* of station B and also the generator *e* of station C are both cut off from the receiving-telephone. Suppose that the telephone *i* were replaced upon its support *k*, so as to bring the lever *b* back to its upright position, and that the telephone *m* of station C had been taken down and the contact of lever *c* with plate *n* broken. It will be seen, as in the former case, both the generators would be cut off from the receiver that is in use. And in like manner, whether the stations on a single line are few or many, all the generators will be cut off from a receiver that is in use. When the several stations on a single line are thus connected, the bell and generator coils will be beyond all the telephone-switches upon that line. The resistance of these coils, or any one of them, therefore, cannot come in the line between any two subscribers, whether on the same line or on different lines, when connected for conversation.

I have shown a transmitter at each station in the circuit of a local battery connected in the well-known way through the primary of the induction-coil. The local circuit is shown closed at station B, while the local circuit at station C is shown open.

I claim—

1. The combination, at the sub-stations of a telephone-line, of switches, bell-magnets, and generators, (one switch, one bell-magnet, and one generator being at each sub-station,) said switches being connected in line in the telephone-line, so as to be in circuit nearer the central office than any of said bell-magnets or generators, whereby any subscriber, by moving the switch of his station, may cut off all generators and bell-magnets upon the line, substantially as and for the purpose specified.

2. A telephone-line extending from the central office through two, three, or more subscribers' stations, and back through signaling apparatus at said stations, in combination with switches placed in line in said telephone-line, one at each subscriber's station, whereby the signaling apparatus of all subscribers' stations on the line may be cut off at any one of said subscribers' stations.

3. A telephone-line extending through signaling apparatus at each of two or more stations, in combination with telephones, one in the ground-line of each station, and switches, one at each station, whereby all the signal-instruments may be cut off from the portion of the line which is being used for conversation.

CHARLES E. SCRIBNER.

Witnesses:
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