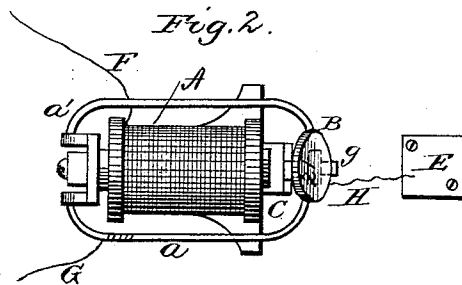
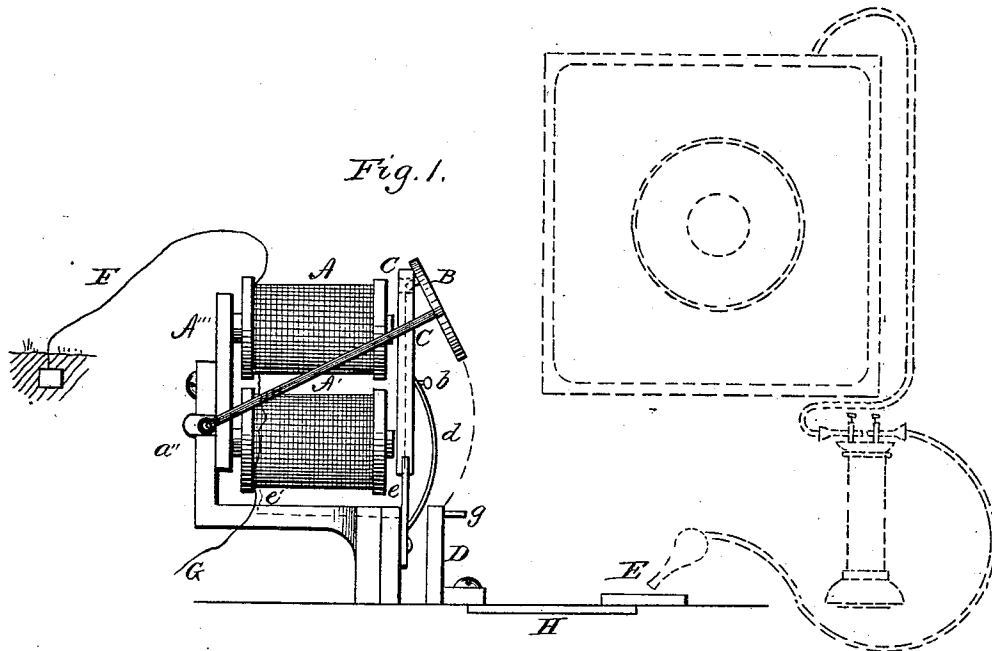


(No Model.)

C. H. HASKINS.
Annunciator for Telephone Exchanges.

No. 240,412.

Patented April 19, 1881.



Witnesses.
P. L. Curraud
J. J. McCarthy

Inventor.
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UNITED STATES PATENT OFFICE.

CHARLES H. HASKINS, OF MILWAUKEE, WISCONSIN.

ANNUNCIATOR FOR TELEPHONE-EXCHANGES.

SPECIFICATION forming part of Letters Patent No. 240,412, dated April 19, 1881.

Application filed January 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. HASKINS, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented
5 new and useful Improvements in Annunciators for Telephone Offices and Exchanges; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to annunciators for
10 telephone-offices, and will be fully described hereinafter.

In the drawings, Figure 1 is a side view of my device, and Fig. 2 a top view.

A A' are the coils, of ordinary construction, and connected to the frame A'' by a plate, A''', in which are pivoted the bails a a' of the target B. About bail a, I wrap the line end G of the wire, and from the upper coil extend the earth or ground wire F. The frunnions
20 of the bails are of course insulated.

To the front of the frame A'', I attach, by a spring-connection, e d, the armature C, which, at its upper end, is perforated to receive a lug that projects from the rear of the target B.

Just in front of the frame A'', I arrange a post, D, having pin g projecting beneath the target, and I connect post D with the plate E by a wire, H.

This annunciator I place upon a table with
30 a telephone having a ground-line and wire carrying a metallic plug. When a call is made the act of closing the circuit to earth through the annunciator operates to drop the target B, which closes, by contact with pin g, a new path for the current—i. e., through bail a—
35 and the target to post D, wire H, and plate E,

and from this latter the local telephonic connection can be made by an assistant, as shown in dotted lines. Of course the local telephone is grounded, and the assistant may listen for
40 the "good-bye." When this is heard he again elevates the target. The plate E may be wired to any number of targets on the same table, and thus the assistant may be enabled to attend several circuits. The passage of the current through the coils causing the target to
45 drop onto the projecting pin g, the plate E will now be joined to line G, and the person stationed at the local telephone may, by touching the plate with his connecting-plug, complete the circuit to earth through his telephone
50 and listen for the cessation of conversation, so as to give the signal for disconnecting.

What I claim as my invention is—

1. In annunciators for telephone offices or
55 exchanges, the combination, with grounded coils, of a target one bail of which is joined with the line-wire, an armature for supporting the target when up and a support for it when
60 down, which connects it with the plate E, as and for the purpose set forth.

2. In an annunciator for telephone - exchanges, the combination of bail having line-connection G, coils A A', armature-post D, and plate E, as set forth.
65

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of January, 1881.

CH. H. HASKINS.

Witnesses:

GEO. B. SHAW,
H. C. HASKINS.