

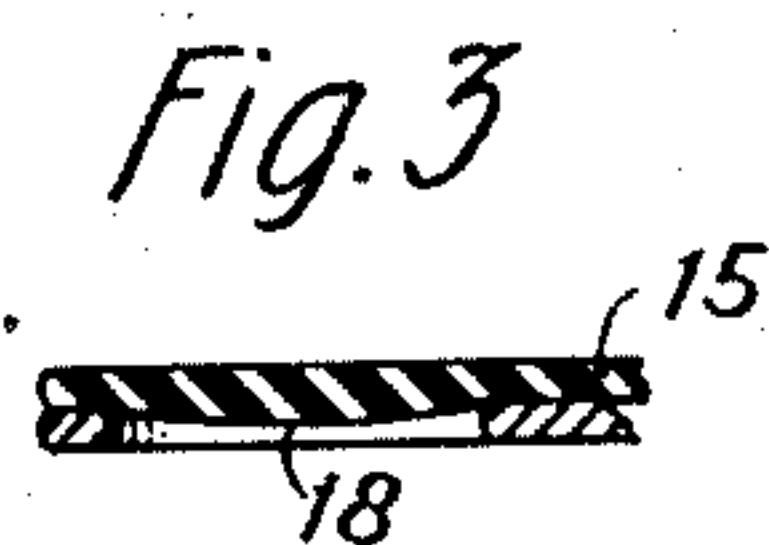
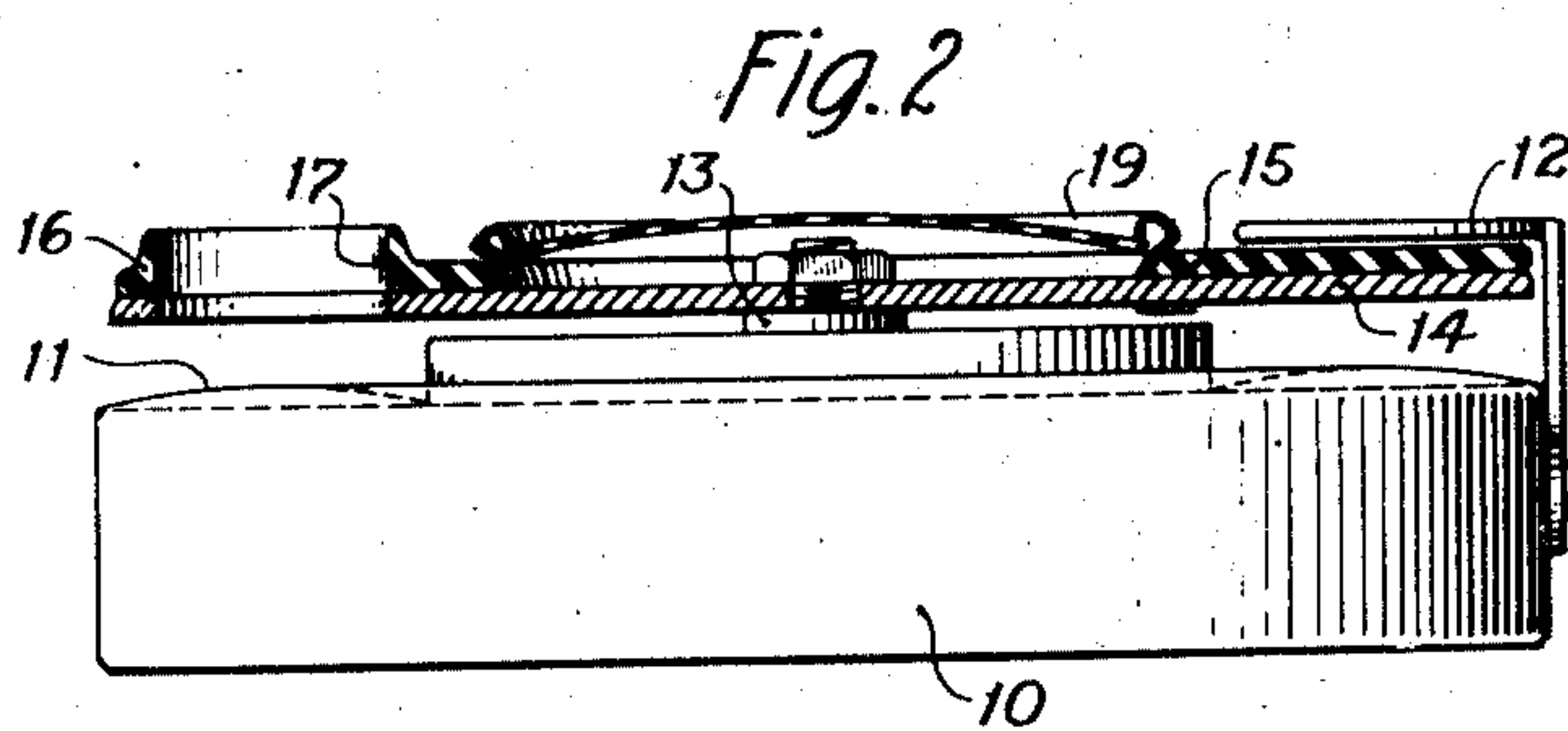
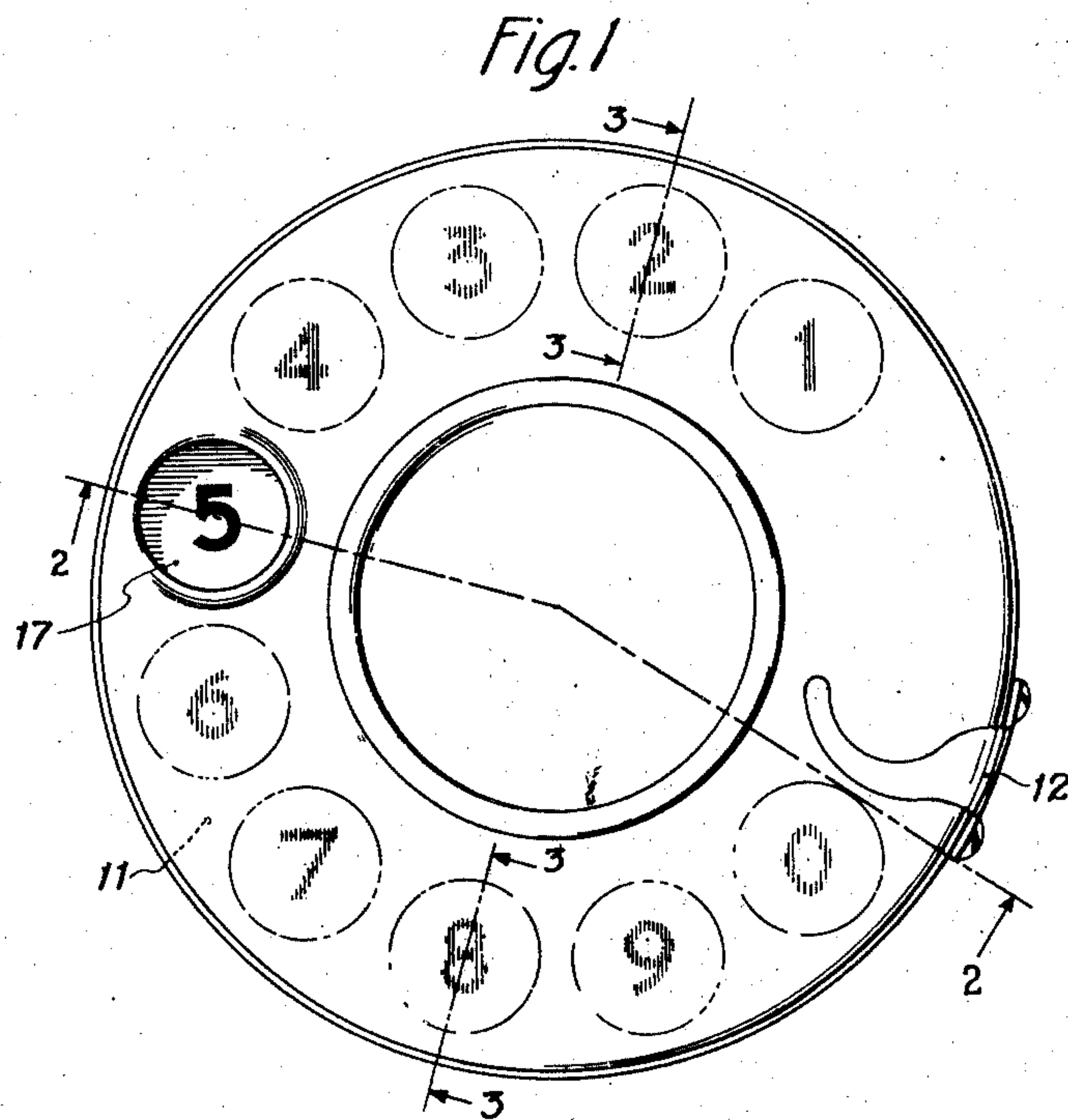
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1,569,874

N. D. NEWBY

INDICATING MEANS FOR CALLING DIALS

Filed Dec. 14, 1923



Inventor:
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by *gerton* Atty

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UNITED STATES PATENT OFFICE.

NEAL D. NEWBY, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY, A CORPORATION OF NEW YORK.

INDICATING MEANS FOR CALLING DIALS.

Application filed December 14, 1923. Serial No. 680,732.

To all whom it may concern:

Be it known that I, NEAL D. NEWBY, residing at New York, in the county of New York and State of New York, have invented certain Improvements in Indicating Means for Calling Dials, of which the following is a specification.

This invention relates to impulse senders and more specifically it refers to an improved finger wheel adapted to be used for operating calling dials of the type generally employed for controlling the movement of automatic switches for connecting subscribers to wires, broadcasting stations, small automatic telephone exchanges and the like.

Heretofore in the calling dials used for controlling the movement of automatic switches, no provisions have been made to indicate the number dialed after the subscriber has obtained a connection.

The object of this invention is to provide a cheap, accurate and simple attachment for impulse senders whereby the number of the station signaled may be readily identified after each operation of the dial.

In accordance with the foregoing object, the principal feature of the invention resides in the provision of an auxiliary transparent wheel which has a single finger hole provided for selecting the number to be signaled.

Another feature is the provision of means whereby the auxiliary finger wheel is held in adjusted position on the operating finger wheel of the dial for indicating the last digit dialed when this actuating finger wheel has been returned to normal.

Other features and advantages will appear from the following description, reference being had to the accompanying drawings in which Figure 1 is a top assembly view of the dial; Fig. 2 is a side view thereof showing the operating and auxiliary finger wheels in cross section taken approximately on line 2—2 of Fig. 1; and Fig. 3 is a partial sectional view of the finger wheels taken approximately on line 3—3 of Fig. 1.

Similar reference characters refer to similar parts throughout the several views.

The calling device, in which this invention is particularly well adapted for use, generally consists of a casing 10 better shown in Fig. 2, in which is enclosed an

impulse mechanism of the sort employed in any well known type of calling devices. On casing 10 is secured a ten digit numbered disc 11, a finger stop 12 provided for a purpose which will be hereinafter described, and a centrally disposed rotatable shaft 13 on which the operating finger wheel 14 is secured and rotatable therewith for transmitting movements to the impulse mechanism, but it is to be noted that the numbered disc 11 and the operating finger wheel 14 may have any quantity of numbers and finger holes, depending solely upon the number of exchanges or broadcasting stations provided to serve the subscribers.

On the finger wheel 14 there is loosely mounted a wheel 15 which is preferably made of transparent material and on which is provided a circular embossment 16 in which the finger hole 17 is drilled in position to register with the finger holes of the wheel 14. The wheel 15 is held in position on the finger wheel 14 by means of a card holder 19 which may be secured to the disc 14 in any suitable manner. A plurality of protuberances, such as shown at 18 in Fig. 3, are generally formed integrally with the wheel 15 and positioned thereon to register with the holes of the operating finger wheel 14. Such protuberances are provided for holding the transparent wheel 15 in adjustment on the operating finger wheel 14 when this wheel is returned to normal position.

The selection of a number by means of the auxiliary finger wheel and the operation of this impulse sender are as follows: Suppose it is desired to signal the digit 7, or in other words, to send seven impulses through a telephone or similar circuit. The operator rotates the transparent wheel 15 for positioning the finger hole 17 over the number wanted (in this example the digit 7) to permit the engagement of the operating finger wheel 14. The two wheels are then rotated as a unit until the raised edge 16 of the transparent disc 15 strikes the finger stop 12 and the operator lets go to permit the finger wheels 14 and 15 to return to normal position through the tension of a motor spring (not shown). The transparent disc 15 remains in adjusted position with reference to the actuating finger wheel 14 through the engagement of the protuberances 18 in registry with the holes of the operating finger wheel,

thereby indicating the last digit dialed which is the number assigned to the exchange or broadcasting station desired.

What is claimed is:

5 1. In a calling device the combination of a numbered member, of a finger wheel having a number of finger holes corresponding to the numbers on said member, another wheel mounted on the finger wheel and inde-
10 pendently operable for selecting one of said numbers and means carried by the selecting wheel for indicating the number selected after each operation of said finger wheel.

2. In a calling device, a stationary number-
15 ed member, a pair of rotatable finger wheels associated with said member, one of said wheels being movable for selecting one of said numbers, means in said device for returning said wheels to normal, and means
20 for holding the selecting finger wheel in position on the other wheel for indicating the number dialed when said finger wheels have been rotated to initial position.

3. In a calling device, a numbered disc, a
25 pair of cooperating movable members for selecting and dialing said numbers, a mechanism in said device for returning said members to normal and means carried by one of said members to indicate the number dialed
30 when said members have been returned to normal.

4. In a calling device, a numbered plate,

an operating member associated with said plate, said member having a number of finger holes corresponding to the number of
35 figures on said plate, a transparent member movably arranged on the first mentioned member, and means on said transparent member for obstructing all but one of said
40 finger holes for designating said numbers selectively.

5. In a calling device, the combination of a casing, a numbered disc secured thereon, a rotatable shaft laterally extending from the central portion of said casing, a finger
45 wheel arranged on said shaft, another wheel rotatably arranged on said finger wheel for obstructing a plurality of finger holes in said finger wheel for dialing said numbers
50 selectively, a finger stop secured on said casing, means carried by the other wheel and cooperating with said finger stop for arresting the movement of each of said finger
55 wheels in registered position with reference to said selected number, and means for holding said other wheel in selected position on said finger wheel for indicating the number
selected when said finger wheels are returned to normal.

In testimony whereof, I have signed my
60 name to this specification this 13th day of December 1923.

NEAL D. NEWBY.