

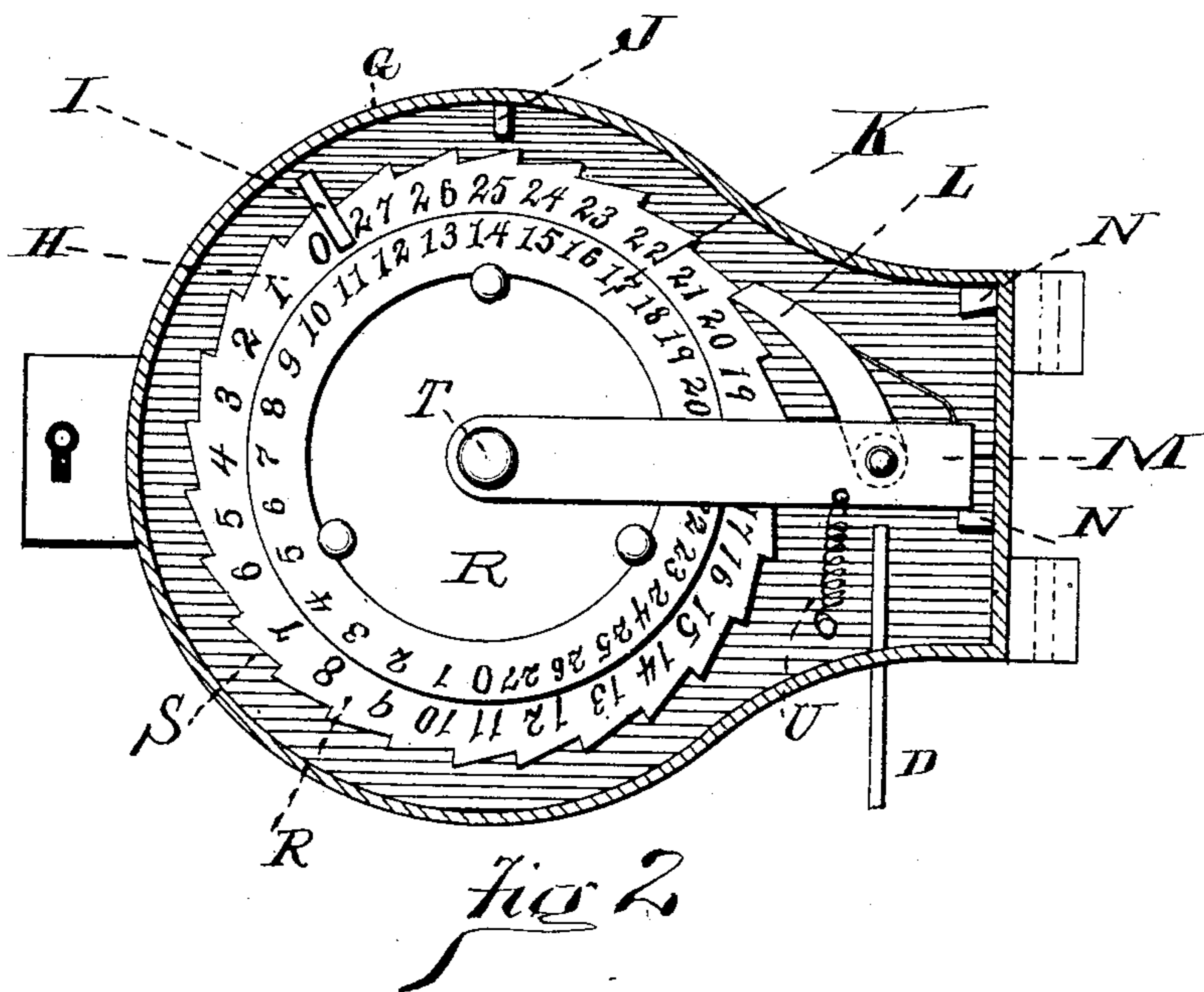
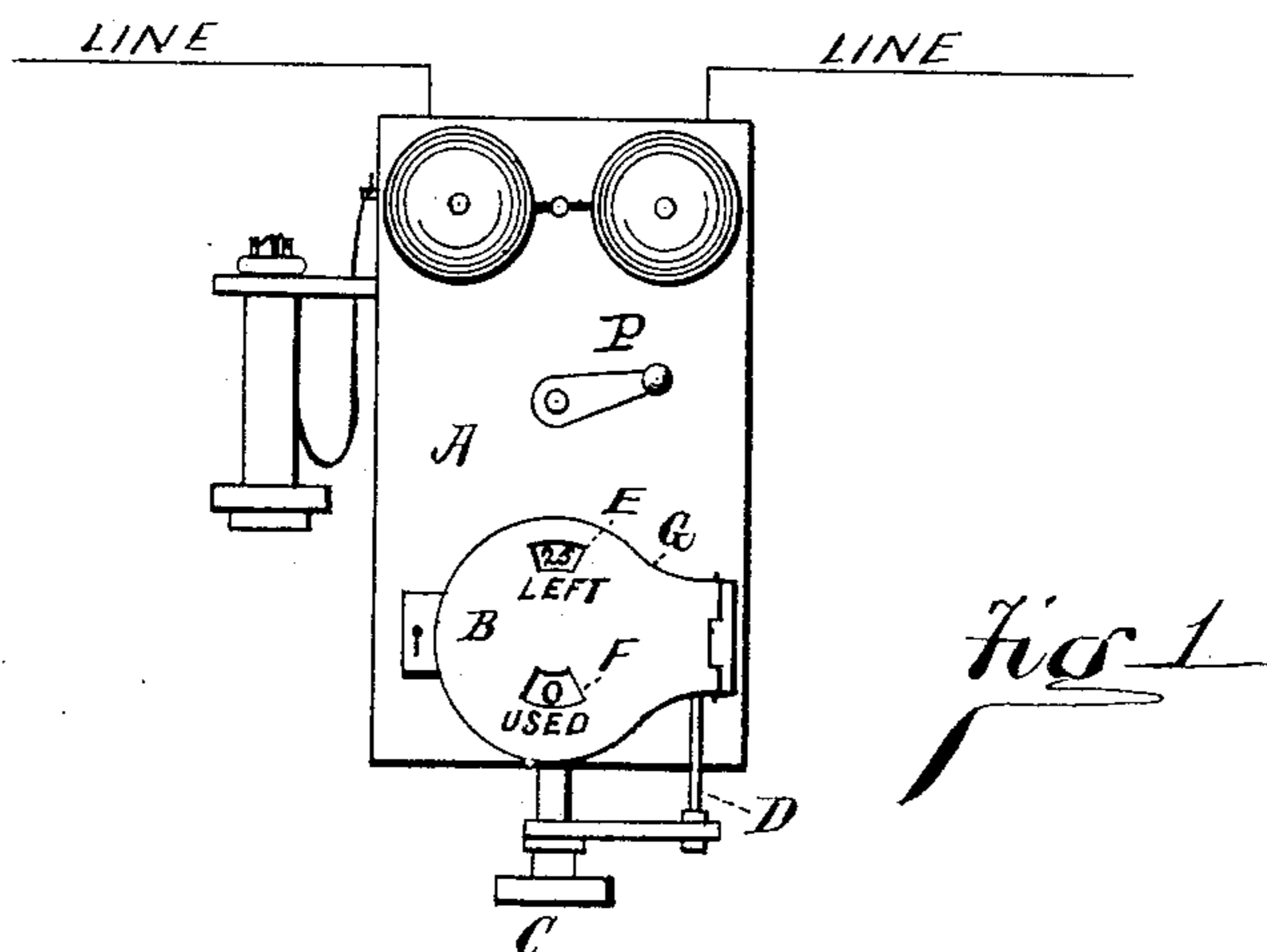
(No Model.)

J. W. SEE.

TELEPHONE TOLL APPARATUS.

No. 268,045.

Patented Nov. 28, 1882.



WITNESSES:

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TELEPHONE TOLL APPARATUS.

SPECIFICATION forming part of Letters Patent No. 268,045, dated November 28, 1882.

Application filed October 22, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. SEE, of Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Telephone Toll Systems and Apparatus, of which the following is a specification.

For identification among other specifications I designate this one as "Case No. 4."

The object of this invention is to provide a system and apparatus to aid in the collection or calculation of tolls due from a telephone user. Under this system the number of calls which can be sent over the line is limited by previous adjustment of the apparatus. Thus a certain number of calls, paid for in advance, may be sent; but the number may not be exceeded, as the calling device then becomes inoperative. The apparatus being set, indexes show at all times the number of calls sent since the setting, and also the number which may yet be sent.

In the accompanying drawings, Figure 1 exhibits a call apparatus arranged to be operated on the improved system, and Fig. 2 is an interior view of the toll apparatus forming a part of the apparatus shown in Fig. 1.

In Fig. 1, A is an ordinary calling device or station-instrument, C being a finger-piece, which is to be pressed each time a call is sent over the line. The finger-piece C may be arranged in connection with independent answering-buttons and with telephone-switches, as set forth in a specification filed in the Patent Office February 26, 1881, by myself and J. J. McMaken.

B is the case of a toll apparatus, whose interior devices are actuated through the medium of the rod D when the finger-piece C is manipulated.

Fig. 2 shows the interior of the toll apparatus, G being the case-rim, which may be hinged and locked over the interior devices.

R is a disk arranged to revolve on a central pivot, T. The periphery of the disk is provided with teeth S.

M L is a pawl mechanism, arranged to operate on the disk R in an obvious manner, and rotate the disk one tooth at each actuation. The pawl-lever M is limited in its oscillation by the stops N, and is held in a normal position against one stop by the spring U.

D is the rod by which the motion of the finger-piece C (shown in Fig. 1) is imparted to the pawl-lever M.

I is a stop attached to the disk R in such manner that as the disk rotates the stop will strike the lug J in the case, and thereby prevent further rotation of the disk.

Suppose it is desirable to so set the apparatus that the user may use the finger-piece C twenty-five times, and no more. The pawl L is to be disengaged from the disk, and the disk is to be so set that the stop I and the lug J are twenty-five notches apart in the direction of approach. The device is shown in Fig. 2 as thus set for twenty-five uses, and it is obvious that the number cannot be increased without a resetting of the device. If preferred, the stop I may be adjustable on the disk, and the setting would then be effected by simply shifting the position of the stop, so that it stood the proper number of notches from the lug J. The case B contains two view-wickets, E and F, as shown in Fig. 1. The disk R bears index-numbers H, one for each notch, which, as the disk is rotated, appear at the wicket E. These numbers serve to indicate the number of notches in setting the device, and the one apparent at the wicket E indicates to the user the number of unused calls at his disposal.

K is a second index, adjustable upon the disk R. It is a simple figured circle, which may be revolved and set at any proper point on the disk R. It contains the same number of figures as the index H; but they read in the opposite direction, and present themselves one at a time before the wicket F. After the apparatus has been set to permit a certain number of calls the index K is set with its zero in wicket position, and the case closed. The two indexes, one being additive and the other subtractive, thus serve to show the user the number of calls used and the number unused. This gives opportunity for a resupply of calling privileges before present privileges are totally exhausted.

The indexes H and K may be transposed without affecting anything except the relative functions of the two wickets, which will accordingly be transposed. As many teeth as desired may be put in the disk R, and for a large capacity many disks may be combined

together, as is common in registers or counting-machines, it being simply necessary to have a stop adapted to prevent a limited number of actuations being exceeded.

5 The stop system is applicable to most any form of mechanical movement used in connection with counting-machines, and it is obvious that figured indexes, while a great convenience, &c., are not absolutely essential.

10 Instead of having the two indexes adjustable with reference to each other, the apparatus may be constructed with a view to allowing its full capacity at each setting. In such case advance payment may be collected for the full

15 capacity. The indexes are unadjustable with reference to each other, and the setting of the machine would consist simply in setting the additive index with its zero at the wicket-point, the maximum figure of the other index
20 coming naturally to its wicket.

I claim as my invention—

1. In telephone toll systems, the combination, in connection with a counting-machine arranged to be actuated by the call apparatus,
25 of an additive and a subtractive index, arranged to operate substantially as and for the purpose specified.

2. In telephone toll systems, the combination, in connection with a counting-machine arranged to be actuated by the call apparatus, 30 of an additive index and a subtractive index adjustable with reference to each other, and arranged to operate substantially as and for the purpose specified.

3. In telephone toll systems, the combination, in connection with a counting-machine 35 arranged to be actuated by the call apparatus, of a progressive adjustable stop-piece and a fixed stop-lug adapted to make contact with each other and prevent improper progression 40 of the counting machinery.

4. In telephone toll systems, the combination, with a movable piece of the calling apparatus, of a fixed stop-lug, a progressive stop-
45 piece adapted to make contact with and be arrested by said stop-lug, and a suitable mechanism for converting and transmitting motion from said movable piece of the calling apparatus to said progressive stop-piece, substantially as and for the purpose specified.

JAMES W. SEE.

Witnesses:

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JOHN LORENZ.