(No Model.) 2 Sheets—Sheet 1.

E. L. MOREY.

REGISTER FOR TELEPHONES.

No. 561,601. Patented June 9, 1896.

Fig. 1.

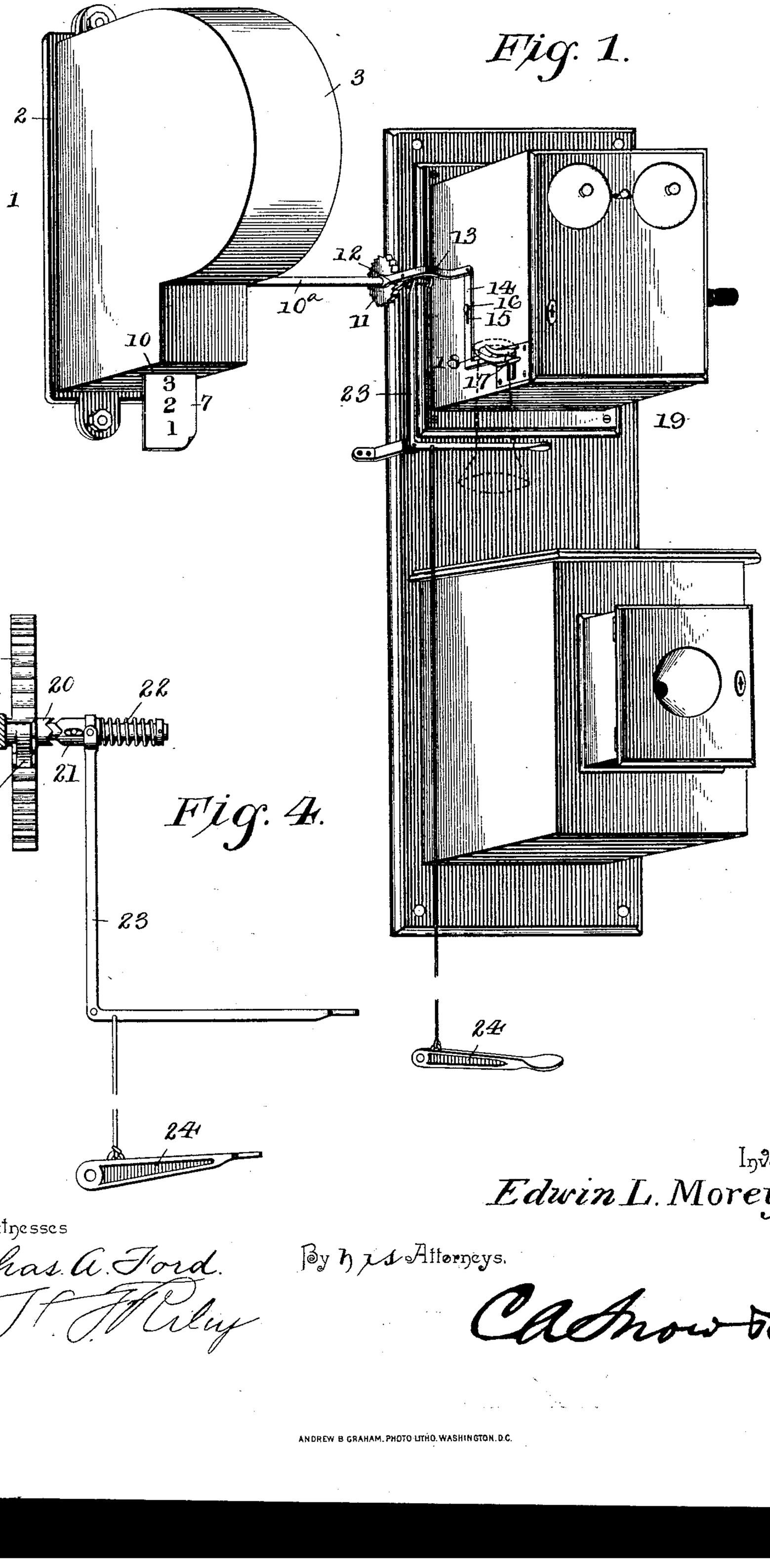

Fig. 4.

Witnesses
Chas. A. Ford.
T. C. Tilley

Inventor
Edwin L. Morey,

By his Attorneys.
C. A. Snow & Co.

(No Model.) 2 Sheets—Sheet 2.

E. L. MOREY.

REGISTER FOR TELEPHONES.

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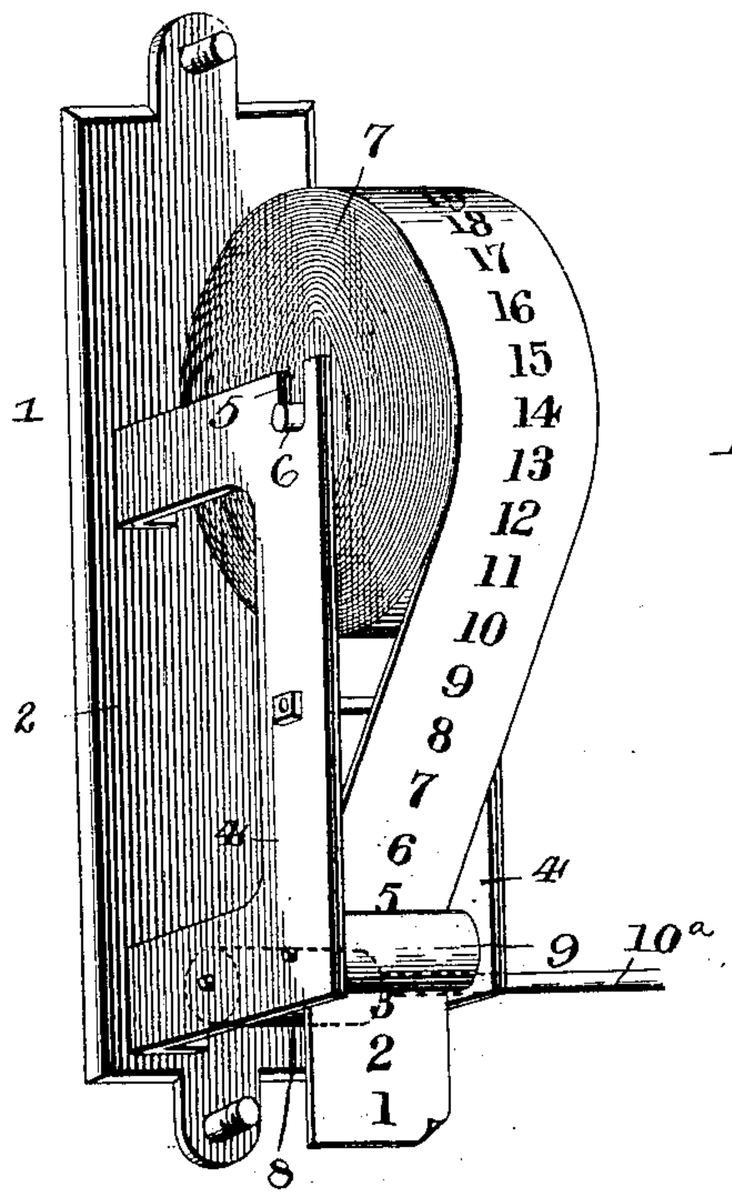

Fig. 3.

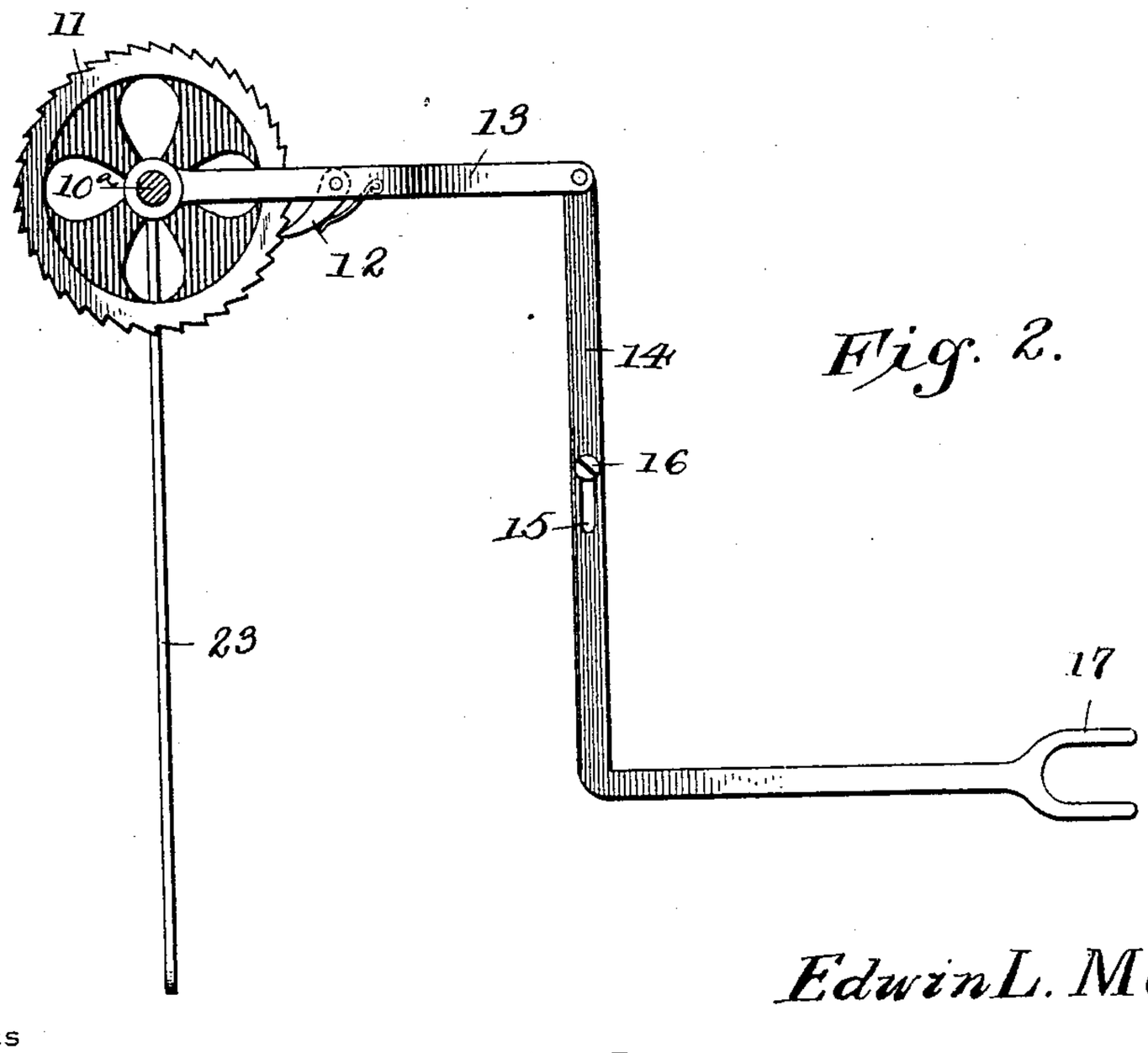

Fig. 2.

Witnesses
Chas. A. Ford.
T. J. Riley

Inventor
Edwin L. Morey,
By his Attorneys,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

EDWIN LONGFELLOW MOREY, OF PORTLAND, OREGON.

REGISTER FOR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 561,601, dated June 9, 1896.

Application filed August 13, 1895. Serial No. 559,166. (No model.)

To all whom it may concern:

Be it known that I, EDWIN LONGFELLOW MOREY, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Register for Telephones, of which the following is a specification.

The invention relates to improvements in registers for telephones.

The object of the present invention is to provide a simple and inexpensive device adapted to be readily applied to a telephone without altering in any manner the construction thereof, and capable of automatically registering and readily indicating the number of messages, or the number of times a telephone is used.

A further object of the invention is to provide such a device which will be positive and reliable in operation, and which may be readily thrown out of operation when a person is called to the telephone and it is not desired to register such use of the same.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a register constructed in accordance with this invention and shown applied to a telephone. Fig. 2 is a vertical sectional view. Fig. 3 is a detail perspective view of the register, the removable portion of the casing being detached. Fig. 4 is a detail view of the clutch mechanism, illustrating the manner of operating the same.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a casing comprising a back plate 2 and a removable cap portion 3, forming the top, bottom, front, and sides and detachably secured to the back plate. Within the casing is mounted a supporting-frame 4, provided at its top with open bearings 5, receiving journals 6, by means of a roll 7 of narrow ribbon or paper, provided at intervals throughout its length with numerals, preferably from one to one thousand; but a ribbon or strip of paper of any length may be employed, if desired or found necessary. The ribbon or strip passes between rolls 8 and 9, and is advanced by the same through an opening 10 at the bottom of the casing.

The rolls 8 and 9 are preferably constructed of rubber, in order that they may obtain the necessary hold on the strip or ribbon for unreeling the same, and the inner roll 8 is mounted on a horizontal shaft 10, the other roll being journaled between the sides of the supporting-frame 4.

The horizontal shaft has mounted on it a ratchet-wheel 11, which is engaged by an actuating pawl 12 of an oscillating lever 13, fulcrumed at its inner end on the shaft 10. The outer end of the oscillating lever 13 is pivoted to the upper end of an L-shaped bar 14, which is capable of a limited vertical reciprocating movement, and which has its vertical portion provided with a longitudinal slot 15, and receiving a stud or fastening device 16, to limit the movement of the L-shaped bar. The outer end of the horizontal arm of the L-shaped bar is provided with a forked portion 17, which is adapted to straddle the fork 18 of a telephone 19.

The fork 18 of the telephone 19 is adapted to hold the receiver of the telephone in the usual manner, and when the receiver is removed the fork 18 is raised, carrying with it the L-shaped bar 14 and swinging the oscillating lever 13 upward and bringing the pawl 12, which depends from the oscillating lever at the periphery of the ratchet-wheel, in position for advancing the ratchet-wheel when the receiver is replaced in the fork 18. The weight of the receiver moves the fork downward and swings the oscillating lever 13 downward, thereby rotating the ratchet-wheel and unreeling the strip of ribbon a sufficient distance to expose the next number through the opening 10 of the casing. The length of the slot 15 is sufficient to permit the necessary movement of the fork 18, and the distance between the numerals is such that the downward movement of the fork 18 causes the next higher numeral to be exposed at each operation of the register. As the numbers run upward from one, the last number registered is the only one necessary to be seen, as this will indicate the number of times the telephone has been used.

In order to enable the register to be thrown

out of operation when a person is called to the telephone, the ratchet-wheel 11 is loosely mounted on the horizontal shaft 10 and is connected with the same by a clutch composed of sections 20 and 21. The section 20 is formed integral with or fixed to the hub of the ratchet-wheel and is provided at its outer edge with serrations or teeth, and the other section 21 is keyed or otherwise fixed to the shaft and is provided with a series of corrugations or teeth, and is capable of a limited longitudinal movement to cause its teeth to interlock with those of the sections 20 to connect the ratchet-wheel with the shaft. The section 21 is normally held in engagement with the other section 20 of the clutch by a coiled spring 22, disposed on the shaft and engaging the outer end of the section 21. The clutch is thrown out of operation by a bell-crank lever 23, fulcrumed at its angle on a suitable support and having one arm disposed vertically and connected with the section 21 of the clutch, and the other arm of the lever 23 is shaped into a handle in order that the lever may be operated by hand. A treadle 24 may be connected by a rod with the horizontal arm of the bell-crank lever in order that the section 21 of the clutch may be thrown out of engagement with the other section by the foot of the operator. When the horizontal arm of the bell-crank lever is depressed or the treadle is swung downward, the sleeve or section 21 of the clutch is swung outward against the action of the coiled spring and is disengaged from the section 20, thereby leaving the ratchet-wheel loose on the horizontal shaft 10. When the ratchet-wheel is loose on the shaft and is actuated, it does not produce a corresponding movement of the horizontal shaft, and the ribbon or strip remains stationary.

It will be seen that the register is exceedingly simple and inexpensive in construction; that it is positive, reliable, and automatic in operation, and that it is adapted to be applied to a telephone without altering the construction thereof. It will also be seen that the roll of paper ribbon may be readily removed and a fresh roll may be quickly replaced when necessary.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. A register for telephones, comprising a casing provided with an opening, a ribbon or strip concealed within the casing, arranged in the form of a roll and having one end free and extending through the opening of the casing, a pair of feed-rolls arranged within the casing, engaging the strip or ribbon and adapted to advance the same through the opening of the casing to enable the exposed portion of the strip or ribbon to be torn off to provide a record, a shaft connected with one of the feeding-rolls, a ratchet-wheel mounted on the shaft, an oscillating lever fulcrumed on the shaft and carrying an actuating-pawl engaging the ratchet-wheel, and a bar having one end pivoted to the lever and provided at its other end with a fork for engaging the receiver-holding fork of a telephone, substantially as described.

2. A register for telephones, comprising a casing, an indicating strip or ribbon arranged therein, feeding devices for advancing the strip or ribbon through an opening of the casing, a shaft connected with the feeding devices, a ratchet-wheel mounted on the shaft, an oscillating lever fulcrumed on the shaft and carrying an actuating-pawl for engaging the ratchet-wheel, and a bar having one end pivoted to the lever and provided at the other end with a fork for engaging the receiver-holding fork of a telephone, substantially as described.

3. In a register for telephones, the combination of a casing, an indicating strip or ribbon arranged within the casing, feeding mechanism for advancing the indicating strip or ribbon through an opening of the casing, a shaft connected with the feeding mechanism and operating the same, a ratchet-wheel mounted on the shaft, means for communicating motion from the fork of a telephone to the ratchet-wheel, a clutch for detachably keying the ratchet-wheel to the shaft, and operating mechanism for throwing the clutch out of engagement with the ratchet-wheel, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWIN LONGFELLOW MOREY.

Witnesses:
H. G. HAZELTON,
BURT TILLMAN.