(No Model.)

M. GARL.

TELEPHONING FROM CARS.

No. 582,913. Patented May 18, 1897.

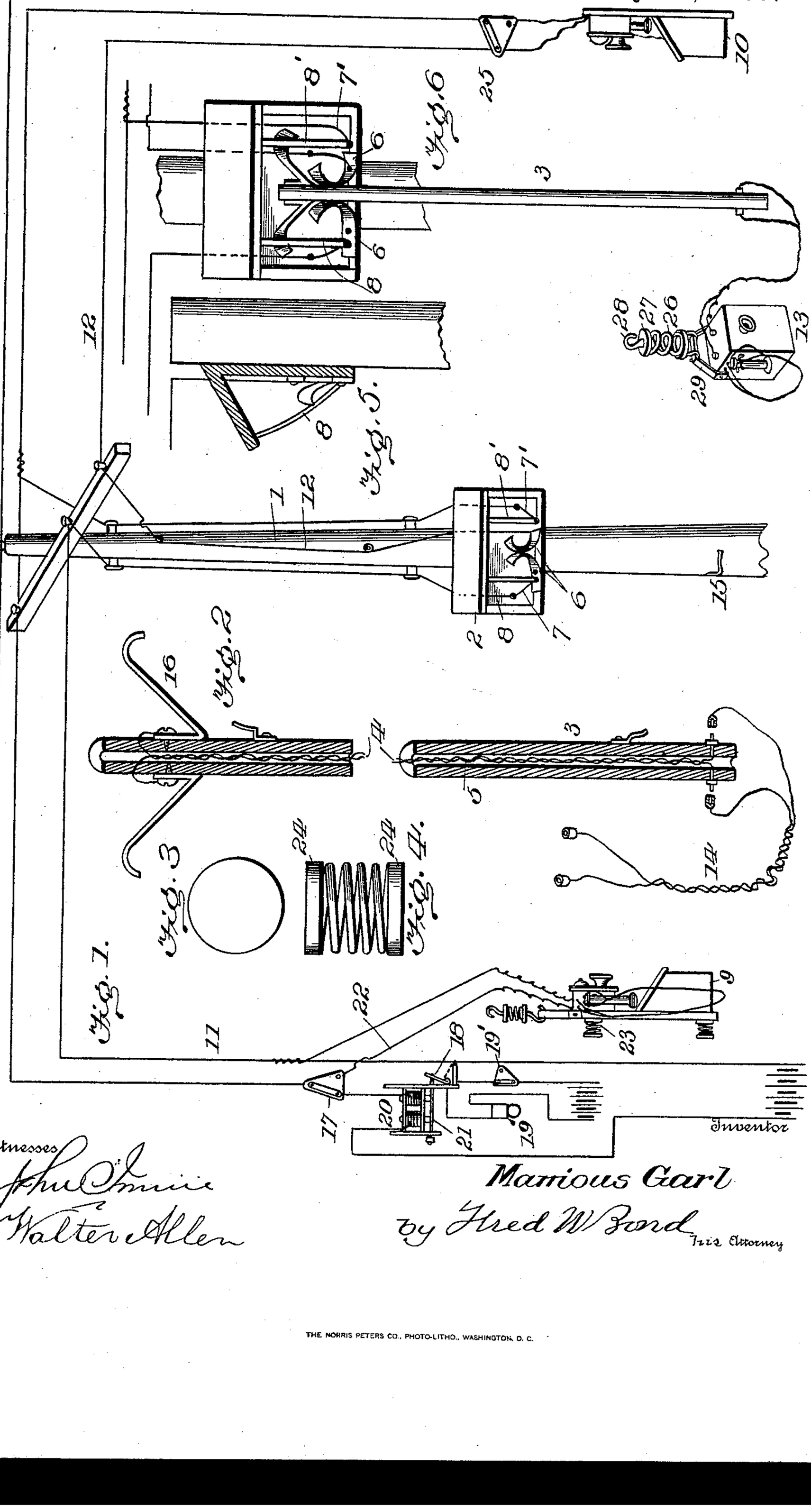

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Witnesses
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MANIOUS GARL, OF AKRON, OHIO.

TELEPHONING FROM CARS.

SPECIFICATION forming part of Letters Patent No. 582,913, dated May 18, 1897.

Application filed January 10, 1896. Serial No. 574,970. (No model.)

To all whom it may concern:

Be it known that I, MANIOUS GARL, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Telephoning from Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a view showing a line-pole, together with the stationary telephones properly connected, also showing the call-bell and its magnet. Fig. 2 is a longitudinal section of the telephone-pole and its different parts. Fig. 3 is a side elevation of one of the spring-insulating disks. Fig. 4 is a side view of one of the insulated springs and its disks. Fig. 5 is a view showing a portion of one of the line-poles and a sectional view of the disks or casings. Fig. 6 is a view showing a portion of one of the line-poles, showing the box or casing attached thereto and the pole properly connected to connect a field-telephone.

The present invention has relation to devices designed for use in telephoning from cars or at intermediate points between the termini of a street-car line or telephone-line; and it consists in the novel construction and arrangement hereinafter described.

Similar figures of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents an ordinary pole used in supporting the line-wire, and as usual a sufficient number of poles, such as 1, are employed to properly support and hold the line-wires. At intervals along the line are located upon the poles 1 the boxes or casings 2, which boxes or casings may be substantially of the form shown in Figs. 1, 5, and 6 and are located so as to be of easy access and in convenient position to attach the telephone-pole 3, which telephone-pole is provided with the wires 4, which wires are preferably located in the hollow center 5, substantially as illustrated in Fig. 2, and are connected as hereinafter described. The boxes or casings 2 are each provided with the metal springs 6, which springs are so adjusted and arranged that they will normally press or bear against each other and thereby close the circuit.

To the springs 6 are attached the wires 7 and 12, the wire 7 being also connected to the bar 8. It will be understood that when the springs 6 are held against each other that the telephones 9 and 10 will be in circuit, provided the switches 17 and 25 are in proper position, the current passing over wire 11, which wire is connected with the wire 7, thence over wire 12 to telephone 10, but when pole 3 is placed between the springs 6 the circuit between telephones 9 and 10 will be broken, at which time telephone 13 is brought into circuit by means of the wires 4 and 7 7′ 14 and bars 8 and 8′. Telephone 13 is held in proper position upon a post or pole, such as 1, by means of the hook 15. It will be understood that as the pole 3 is placed between the springs 6 telephone 9 will be called, which will bring telephone 13 into talking-circuit with said telephone 9, the springs 6 being insulated by reason of the pole 3 being placed between said springs. For the purpose of bringing telephone 13 into circuit with telephone 9 the top or upper end of the pole 3 is provided with arms 16, which arms are for the purpose of connecting with the bars 8 and 8′, and thereby complete the circuit between telephone 13 and telephone 9. It will be understood that no battery is required for telephone 13, inasmuch as a call will be made at the bell 19 and annunciator 20 by the separation of the springs 6 by means of the pole 3. For the purpose of switching out telephone 9 the switch 17 is provided, which switch may be located substantially as shown in Fig. 1, and when the switch is turned as indicated in said Fig. 1 a call will drop the plate 18, thereby indicating that a call has been made independent of the bell 19, said drop 18 being operated in the ordinary manner by the magnets 20 and the armature 21. It will be understood that when switch 17 is turned so as to carry the circuit over wire 22 the telephone will be called in the ordinary manner, the switch being generally in this position when the clerk or attendant is at his desk or post of duty, but if the said clerk or attendant at the office where telephone 9 is located should leave the room, where he would be out of hearing distance of the bell of said telephone,

he would, before leaving, shift the switch 17 to the position shown in Fig. 1, which would cut out telephone 9 and bring into circuit the annunciator 20 and auxiliary call-bell 19. It will now be apparent that should a call be made during the absence of the clerk the annunciator-drop 18 will fall, thereby indicating to the clerk when he returns that such call has been made. He will then shift the switch 17 to put telephone 9 into circuit and the message may then be received. When the drop 18 falls, it will complete an auxiliary circuit through the bell 19, and said bell will then ring continuously as long as the drop 18 remains in this position. If desired, the said bell 19 may be cut out of circuit, so that the same will not ring at all, this being accomplished by the switch 19′ in the auxiliary circuit.

For the purpose of supporting the fixed telephone and at the same time insulating the telephone proper from foreign currents, the springs 23 are provided, said springs being formed of sufficient strength to properly support the telephone, and for the purpose of insulating the springs the disks 24 are provided, which disks are formed of rubber or other like material, to which disks the ends of the springs 23 are attached in any convenient and well known manner.

For the purpose of preventing telephone 10 from being called at the time the pole 3 is placed between the springs 6, the switch 25 is provided, which switch may be located at any desired point, reference being had to properly operating said switch. For the purpose of insulating telephone 13 the spring 26 is provided, which spring is provided with the non-metallic disk 27, to which non-metallic disk is attached the hook 28. To the bottom or lower end of the spring 26 are attached the straps 29, which straps are attached in any convenient and well-known manner to telephone 13.

It will be understood that by my peculiar arrangement I am enabled to provide a light field-telephone, one that can be easily transported from place to place and at the same time easily brought into circuit with a telephone at the office or at any other fixed point or place.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a telephone system, the combination with the line-circuit, of one or more pairs of circuit-controlling springs, located at intermediate points along the line, said springs being normally in contact to complete the circuit, a portable pole provided with arms forming terminals of a circuit, and arranged to make contact with terminals located in close proximity with said contact-springs and to break the circuit formed by the springs when the pole is placed between the latter, and a field-telephone connected with wires located within the pole and in connection with the arms, substantially as described.

2. In a telephone system, the combination with the line-circuit, of one or more pairs of circuit-controlling springs located at intermediate points along the line, said springs being normally in contact to complete the circuit, a second pair of terminals arranged in close proximity to each set of contact-springs and adapted to be put in circuit with the line, a portable pole carrying terminals arranged to make contact with the said second pair of terminals and to break the circuit formed by the contact-springs when the pole is placed between the latter, and a field-telephone connected with conductors carried by the pole, said conductors being also connected to the terminals on the pole, substantially as described.

3. In a telephone system, the combination with the line-circuit, of one or more pairs of circuit-controlling springs located in suitable boxes or casings at intermediate points along the line, said springs being normally in contact to complete the circuit, bars secured in each box or casing and arranged in circuit with the line, a portable pole provided with outwardly-extending arms at its upper end and adapted when placed between the contact-springs to break the circuit formed by said springs, and form a new circuit through the said arms and bars, and a field-telephone connected with wires located within the portable pole and in connection with the outwardly-extending arms, substantially as described.

4. In a telephone system, the combination with the line-circuit and home-telephone, of one or more pairs of circuit-controlling springs located at points along the line, said springs being normally in contact to complete a circuit, a portable pole provided with arms forming terminals of a circuit and arranged to make contact with terminals located in close proximity to said contact-springs and to break the circuit formed by the springs when the pole is placed between the latter, a field-telephone connected with wires carried by the pole, said wires being also in connection with the arms on the pole, a switch located in the path of the main circuit between the home-telephone and field-telephone, and an annunciator in the circuit arranged adjacent to the home-telephone, said switch being arranged to cut out the home-telephone and cut in the annunciator, and vice versa, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

MANIOUS GARL.

Witnesses:
W. T. SAWYER,
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