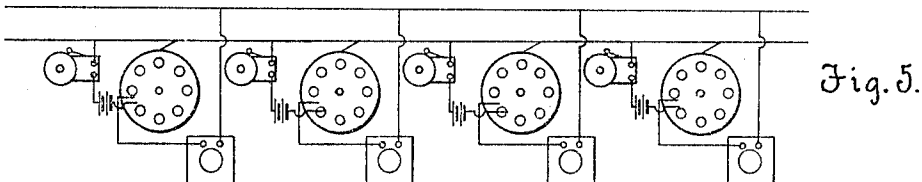
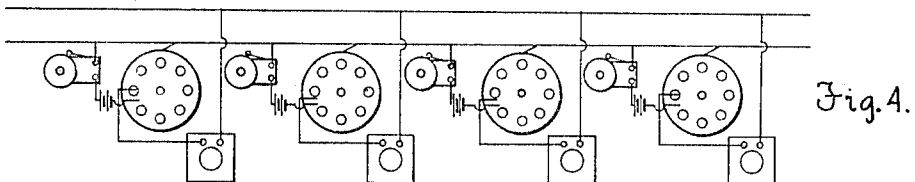
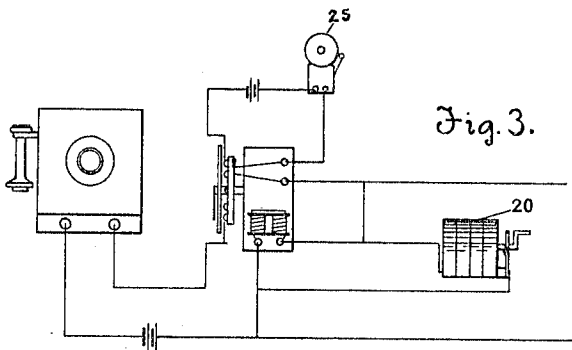
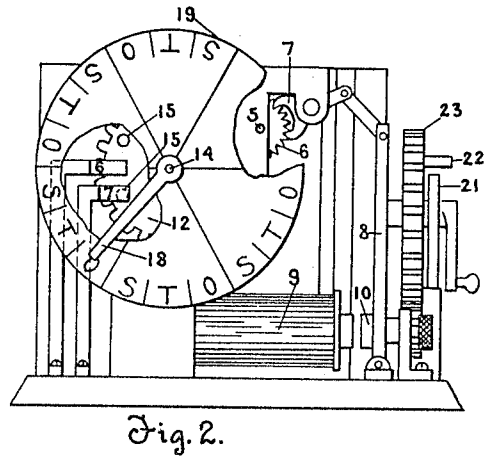
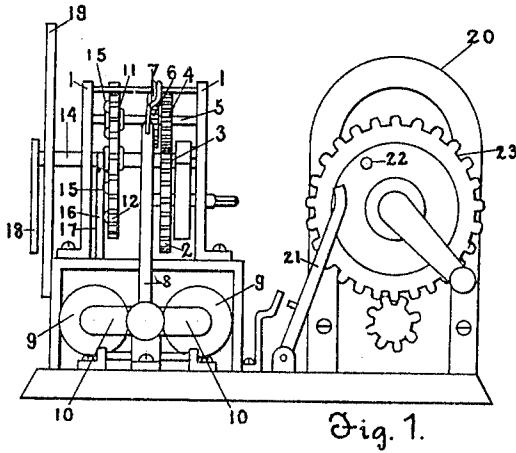


D. W. JONES.  
TELEPHONE SELECTING SYSTEM.  
APPLICATION FILED FEB. 1, 1909.

949,235.

Patented Feb. 15, 1910.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

DAVID W. JONES, OF DORA, TEXAS.

TELEPHONE SELECTING SYSTEM.

949,235.

Specification of Letters Patent. Patented Feb. 15, 1910.

Application filed February 1, 1909. Serial No. 475,339.

*To all whom it may concern:*

Be it known that I, DAVID W. JONES, citizen of the United States, residing at Dora, in the county of Nolan and State of Texas, have invented certain new and useful Improvements in Telephone Selecting Systems, of which the following is a specification.

My invention relates to new and useful improvements in telephone selecting systems.

The object of the invention is to arrange the telephones, where a number are connected on the same line, so that one of the telephones may be connected with one of the others in such a manner as to cut out the other telephones on the line and prevent the parties using the same and hearing the conversation which is being conducted by the two parties who are connected.

A further object resides in the provision of suitable means at each telephone which may be manually operated and will indicate the telephone with which connection is made, and when it is made.

Finally the object of the invention is to provide a system involving substantial, durable and comparatively simple and inexpensive parts, and ones which are not liable to get out of working order.

With the above and other objects in view, my invention has particular relation to certain novel features of construction and operation, an example of which is described in the following specifications, and illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of the circuit closing device, and the generator used to operate the same; Fig. 2 is a front elevation of the same; Fig. 3 is a diagrammatical view, illustrating the system and installation; Fig. 4 is a diagrammatical view, showing four telephones on a circuit, and connection established between the first and last; Fig. 5 is a diagrammatical view, showing four telephones on a circuit, the dials on the second and third being positioned so that their respective signals are in action.

In the drawings the numeral 1 designates a frame adapted to support a spring operated circuit closing mechanism comprised of a spring driven gear 2 meshing with a pinion 3, which in turn meshes with a shaft 5 and transmits power to a shaft 5. On the shaft 5 a ratchet wheel 6 is mounted. A dog 7 is arranged to retard the movement of the ratchet wheel, and is operated by a lever 8, which in turn is operated by the electro-

magnets 9 and armature 10. A pinion 11 mounted on the shaft 5 meshes with a large gear 12, mounted on a shaft 14. A plurality of contact points 15 are arranged on the gear 12, where brushes 16 and 17 are arranged to mesh with the contact points. A hand 18 is fixed on the shaft 14 and arranged to indicate the party called on a graduated dial 19, carried by the frame 1. This dial has a space for the name of every party on the line; each space is subdivided, making three divisions under each name marked S — T — O. The uses of these subdivisions will be described later. One of the poles of the magnets 9 connects with a generator 20, while the other pole has connection with a circuit breaker, which consists of a lever arm 21, pivotally mounted and fixed to open and close the circuit when operated by a projection 22, carried by a gear wheel 23 on the generator. When the hand lever on the generator is turned, the circuit breaker will be set in action, an intermitting current will enter the coil releasing the clock work intermittently and cause the hand to travel around the dial until it registers with the mark indicating the telephone with which connection is desired. When the disk revolves so that the contact point 15 reaches the brush 16 the hand will point to S, and the signal 25 will be in action, but by releasing the clock work by means of the generator the point 15 will come in contact with brush 17, and the hand will register with the T on dial. Then by operating the ordinary telephone apparatus in the usual manner a conversation may be carried on without interruption by other parties on the line and without a central station. After the conversation has been completed the line is opened to the other parties by turning the generator until the hand registers with the O on the dial and all the telephones will be ready for use.

It is to be understood that although all the disks are revolved simultaneously by the generator that all the parties will not have connection at the same time, for the contact points on the gear 12 are arranged in pairs, so that only two points come in contact at one time. As shown in Fig. 4, the first and last telephones have a point 15 to complete the circuit, while the two intermediate telephones have no points to join in the circuit, and are thus left open.

The brushes 16 are shown to have connec-

tion in the second and third telephones shown in Fig. 5, and therefore the ringing mechanism of the second telephone is in action while the first and last have no connection whatever.

By the arrangement of the contact points many combinations may be made, such as follows: One point on the disk may be in the same place in every telephone on the circuit, so that when the hand registers at that point one person can ring every one on the circuit simultaneously. This is very effective where one person has an announcement to make. Another combination that can be made is a circuit having twelve telephones that can be arranged by leaving out a contact point, so that one party cannot ring another, although he can ring any of the other ten people on the line, no matter if they reside on the opposite side of the party which has been cut out. At the same time any of the ten people can get connection with any of the twelve parties, or vice versa.

What I claim, is:

1. In a telephone selecting system the combination with a generator, of electro-magnets in circuit therewith, a circuit breaker in the generator circuit intermittently operated by the rotation of the generator, a clock escapement, intermittently operated by the electro-magnets, a train of gearing acted on by said escapement, a spring driving said train of gearing, a circle of contact points carried by a gear of said train, stationary brushes adapted to contact with said points, a pointer rotated by said train, and a dial traveled by the pointer.

2. In a telephone selecting system, the combination with an electrical circuit and a plurality of telephones connected by the circuit, of a manually operated generator positioned

at each telephone, electro-magnets in each generator circuit, a circuit breaker in each generator circuit adapted to be intermittently operated by the rotation of the generator, a ratchet escapement intermittently operated by the electro-magnets, a train of gearing acted on by each escapement, a spring driving each train of gearing, a means rotated by each train of gearing, carrying a circle of contact points, a brush acting on each circle of points adapted to close a bell circuit, a brush acting on each circle of points adapted to close the telephone circuit, a pointer rotated by each train of gearing, and an indicating dial traveled by each pointer.

3. In a telephone selecting system, the combination with a magneto generator, of an electromagnet included in the circuit thereof, a circuit breaker, adapted to be intermittently closed by the rotation of the generator, an armature adapted to be attracted to said magnet, a pivotally mounted ratchet escapement, mechanism operating the escapement to pass one tooth of its ratchet for each displacement of said armature, gearing acted on by said escapement, a plurality of contact points carried by a member of said gearing, brushes engaging with said contact points, a bell circuit adapted to be closed by one of the brushes, a telephone circuit adapted to be closed by the other of the brushes, a pointer rotated by said gearing and a dial traveled by the pointer.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID W. JONES.

Witnesses:

ED. C. MURRAY,  
OWEN T. HOUSTON.