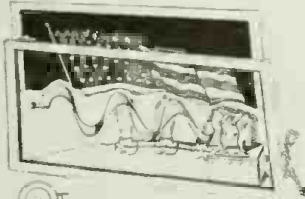


# LATEST PATENTS

### Illuminated Display Apparatus.

(No. 1,238,739; issued to Frederick C. Bowdidge and Preston C. McMullen.)

This patent describes a very simple and yet effective device for creating the effect of a waving flag or other moving object. A glass screen in

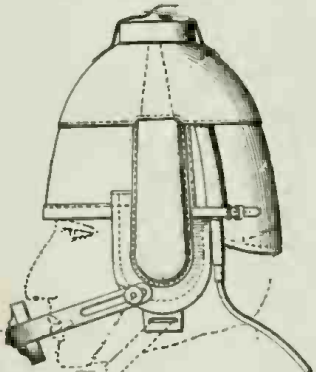


the front of cabinet shown, has for instance a waving flag painted on the face of it. Back of this screen there are placed several lamps for illumination and in front of this a slowly revolving metal spiral connected to a small electric motor. For best results the space around the flag should be made opaque. The spiral is cut out from a flat piece of metal and afterward expanded to the shape shown in the cabinet.

### Telephone Helmet for Aviators

(No. 1,235,851; issued to Jesse Lee Spence.)

The patentee here provides an improved form of telephone helmet for aviators, the helmet proper being composed of leather or other suitable material. Instead of the helmet

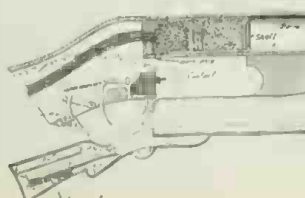


being fitted with two telephone receivers pressing against the ears, use is made of a single telephone receiver mounted at the top of the helmet. This communicates with two sound channels which extend downward on either side of the helmet to the ears. The microphone is adjustably supported on a removable bracket, pivoted on either side of the helmet in the manner shown.

### Electrical Gun

(No. 1,239,344; issued to Levi M. Bowman and William A. Smith.)

This represents an electrically fired gun which appears to possess several meritorious features. Acci-



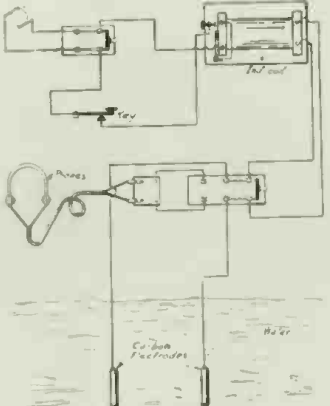
dental discharge is prevented, for one thing, and after having once been sighted, the pulling of the trigger to fire the gun will not pull the gun off from the object sighted at. Further,

this electrical gun structure includes a special primer or firing cap which carries a sparking point, so that the shell is discharged by the formation of a disruptive spark in the primer. The stock of the gun contains a battery which is connected to a spark coil in the usual manner. The spark coil primary circuit is controlled by the trigger contact.

### Underwater Radio Scheme

(No. 1,233,311; issued to Frank P. Fisher and Hugh Dehart.)

Under-water telegraphy can be carried on by this arrangement over considerable distances it is claimed. The apparatus involved is very simple, comprising for the transmitting set simply a small induction coil con-

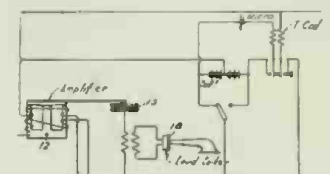


ected with a source of power and a signaling key. The secondary leads from the coil are connected to a double pole, double throw switch as shown, so that the receiving set (pair of phones) can be switched in when desired. The blades of the switch are connected to two carbon electrodes submerged in the water, a suitable distance apart. It has been found that about 20 feet apart is the proper distance to set the electrodes for an apparatus having a range of 500 to 1,000 feet. It is mentioned that communication can be established with submarines.

### Telephone Amplifier

(No. 1,232,514; issued to Henry C. Egerton.)

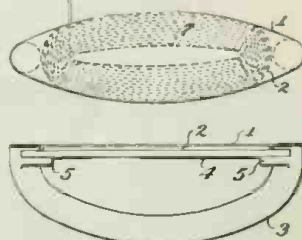
This invention relates to amplifier systems for increasing the intensity of telephone currents. It permits several stations similarly equipt and on a common circuit to be supplied with current from one and the same



service. The loud-talking receiver and horn are actuated thru a transmitter element 15, which is in turn controlled by the amplifier motor 12, which is of special construction. It is rendered particularly sensitive to telephonic currents by means of two distinct windings, connected in such relation one with the other, that opposite magnetic polarities are present within each core; therefore a given impulse of current thru the operating windings acts to increase the magnetic pull at one end of the armature, while decreasing the magnetic pull at the other end of the armature, all in a well-known manner. Suitable bearings at the middle pole-piece of the amplifier electro-magnet, permit the armature of this

magnet to move reciprocally in a rocking manner in unison with reversals or changes in amplitude of the telephone current, thereby varying the pressure on the active material of the transmitter element 15.

### Telephone for Transmitting and Reproducing Sounds

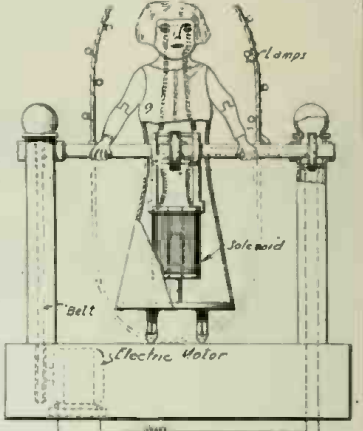


### Electric Dancing Doll

(No. 1,238,786; issued by Joseph Kershaw.)

This is a particularly ambitious electrical toy in the form of a miniature metal doll which is supported on a crosswise shaft in the manner

illustrated. A small motor mounted in the base of the toy connects with the revoluble shaft by means of a belt; the motor circuit being periodically made and broken at the proper instants, by the contact disc and brushes carried on one end of the shaft. When the skip rope reaches the downward position, the toy figure is pulled upwards by means of the solenoid concealed in the skirt.



### Rectifying Spark Gap for Radio

(No. 1,235,935; issued to Archibald Shaw.)

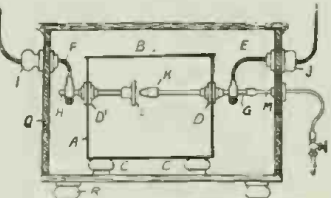
This design of high tension, high frequency spark gap is one of the best yet brought out. It employs a fine stream of gas, such as air, under high pressure which is forced out thru the center of the smaller or point electrode of the gap. This stream of air is forced against a relatively large flat disc, and when the primary and secondary circuits to which such a gap are in resonance, no arcing will occur, but the discharge will take the form of a bluish-white incandescent blaze of tapered form, extending across the gap; furthermore a pulsatory discharge having a very high frequency passes in one direction only. It has been found best to employ an air pressure of 110 lb. per sq. in.

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### Making Cartoon Movies

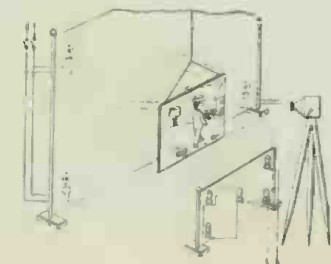
(No. 1,235,871; issued to Carroll M. Aument.)

This scheme provides for the taking of cartoon motion pictures in a



music strings are supported in the usual manner as indicated. At a point along each string is placed an electro-magnet which starts the string vibrating when its circuit is closed by the key contact shown. Included in this circuit is a special tuned interrupter or pulsator near the top of the string.

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