

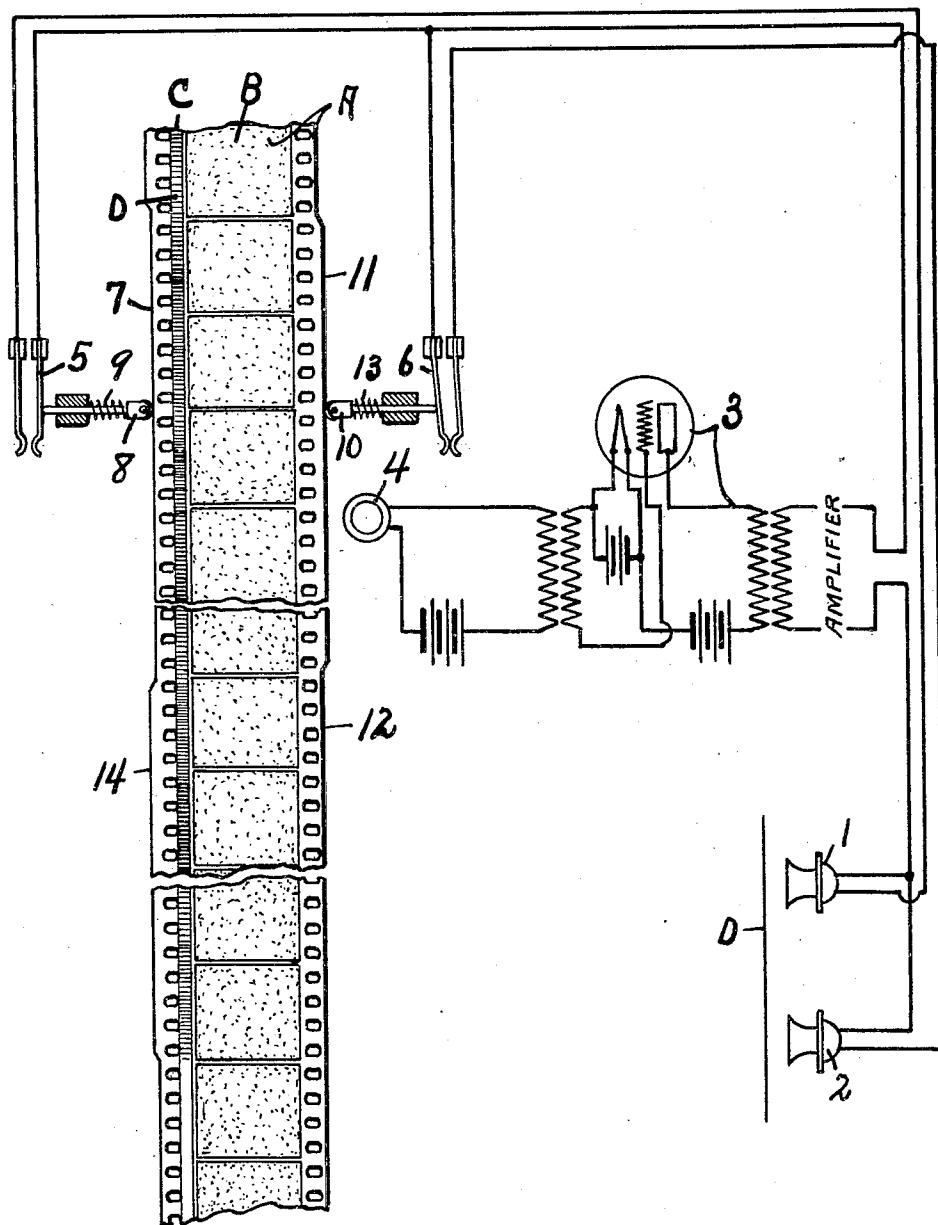
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MOVING TALKING PICTURE APPARATUS

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WITNESS

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MOVING TALKING PICTURE APPARATUS

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This invention relates to certain new and useful improvements in moving sound picture apparatus.

In the reproduction of combined moving and sound or so-called "talking" pictures, particularly where the pictures are projected upon a screen of considerable width and the reproduced sounds should come from persons or instrumentalities disposed at different points upon the screen, even when the loud speakers are disposed at the rear of the screen it often happens that the sounds seem to issue from the screen at a point or points displaced from the person or instrument from which the sound should come, and the main object of this invention is to provide a means which may be actuated by the film to select the proper one of a plurality of loud speakers from which the sound should issue directly at the rear of the proper person or instrumentality.

Other objects and advantages relate to the details of the structure and the form and relation of the parts thereof, all as will more fully appear from the following description taken in connection with the accompanying drawing in which the figure illustrates diagrammatically an embodiment of the invention.

The film A shown in the figure includes a moving picture portion B and a sound record portion C having a sound record D thereon which may conform with the screen or picture displayed upon the moving picture portion of the film. In this embodiment a moving picture screen E is provided, at the rear of which there is positioned a plurality of, in this instance two loud speakers —1— and —2— respectively.

These loud speakers may be connected in the usual manner with a suitable audion amplifier illustrated generally at —3— with a photo-electric cell —4— connected in circuit with the amplifier. The light rays projected through the sound record C may fall upon the photo-electric cell —4— in the usual manner to thereby modulate the amplifier circuit in accordance with the sound waves to which the sound record conforms.

In order to automatically select the partic-

ular loud speaker from which the sound should issue in order to conform with the position on the screen from which the sound should emanate, the film A may be formed or otherwise treated so that the desired loud speaker will be selected automatically in accordance with the condition or form of the film A.

As an illustration, a pair of switches —5— and —6— are shown adapted to close the amplifier circuit to the respective loud speakers independently of each other, and the film A may be provided with a recessed portion —7— at one edge of the film into which plunger —8— will move as actuated by spring —9— to open the switch —5— and the circuit to the loud speaker —1—.

Under such condition as long as the recess —7— continues along the edge of film A, loud speaker —1— will not be actuated to reproduce the sound record. During this period when loud speaker —1— is not actuated, the plunger —10— may be moved outwardly by contact with the edge —11— of film A to close switch —6—, whereby loud speaker —2— will be actuated in accordance with the modulated amplified current. This condition should, of course, exist at the time that the sound should emanate from that portion of the screen directly in front of loud speaker —2—.

When it is desired to have loud speaker —1— actuated and loud speaker —2— quiet, film A may be provided as illustrated at —12— with a recessed edge portion into which plunger —10— will move as actuated by spring 13 to permit opening of switch —6— and at the same time the opposite unrecessed edge —14— of film A will move plunger —8— outwardly against the action of spring —9— to close switch —5— and the circuit to loud speaker —1—. This condition is arranged to exist during the time that the sound should emanate from that portion of the screen in front of loud speaker —1—.

It will be apparent that at points along the film where no recessed portion is provided at either edge of the film that both switch —5— and switch —6— will be in closed posi-

tion and the modulated circuit leading to both loud speakers will be closed.

In this particular illustration two loud speakers have been illustrated, but it will be apparent that any number may be utilized and actuated by and in accordance with the film itself as treated or formed in a predetermined manner, and altho I have shown and described a specific embodiment of the invention merely as illustrative thereof, it will be apparent that various changes and modifications may be made and that various applications of the invention are possible, all within the scope of the claims hereto appended.

I claim:

1. In the reproduction of sound moving pictures from a film provided with a plurality of recesses along its opposed edges, a plurality of loud speakers, a common amplifier circuit therefor, switching means disposed along opposed edges of said film in circuit with said speakers and said amplifier and comprising an actuating member adapted to ride in and out of said recesses whereby said speakers are selectively connected and disconnected from said amplifier circuit.

2. In the reproduction of sound moving pictures from a film provided with a plurality of recesses along its opposed edges, a plurality of loud speakers, a common amplifier circuit therefor, switching means disposed along opposed edges of said film in circuit with said speakers and said amplifier and comprising a spring-pressed actuating member adapted to ride in and out of said recesses whereby said speakers are selectively connected and disconnected from said amplifier circuit.

In witness whereof I have hereunto set my hand this 9th day of January, 1929.

EARL I. SPONABLE.