

March 4, 1930.

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1,749,187

METHOD OF AND APPARATUS FOR PRESENTING THEATRICAL IMPRESSIONS

Filed Aug. 31, 1927

Fig. 1.

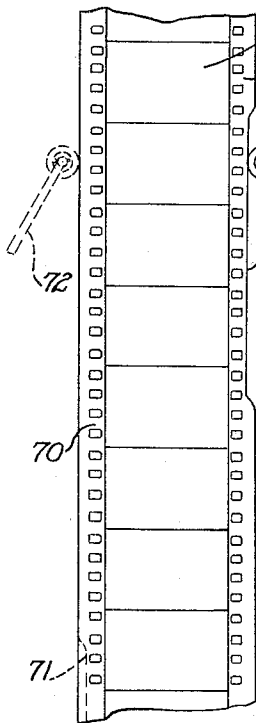
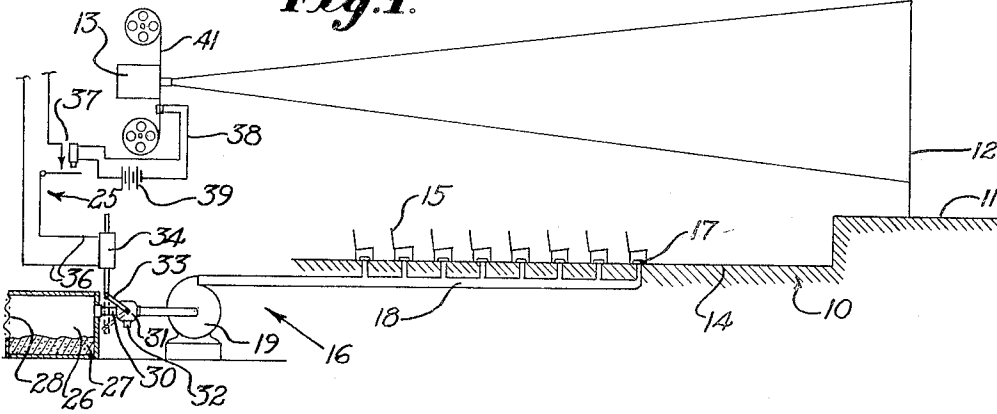
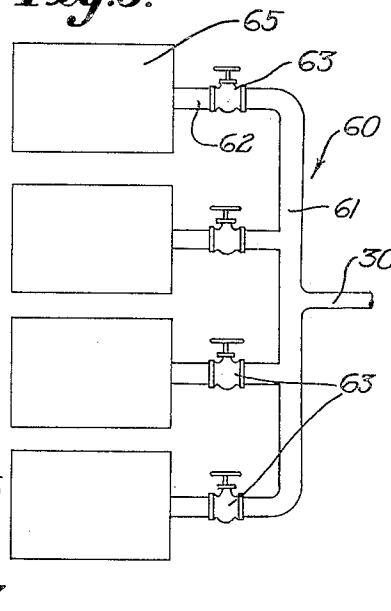


Fig. 2.

Fig. 3.



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METHOD OF AND APPARATUS FOR PRESENTING THEATRICAL IMPRESSIONS

Application filed August 31, 1927. Serial No. 216,564.

My invention relates to the theatrical art. It is an object of my invention to intensify the illusion of reality awakened in a theater patron by a theatrical presentation.

5 The theater has rightly been termed the apotheosis of all arts, for in it all other arts have found opportunity for expression. However, all of the arts hitherto employed in the theater have availed themselves of but
10 two sensory channels for communicating with their patrons; to-wit, the senses of sight and hearing.

It is an object of my invention to provide a novel method of presenting a theatrical
15 production by which the olfactory sense, or the sense of smell, may be utilized in connection with other senses to communicate a complex theatrical impression to the patrons of a theater.

20 It is a further object to provide a method of and apparatus for presenting a moving picture in which an odor will be presented to the sense of smell of those viewing the picture which will awaken olfactory images closely
25 associated with the visual images of the picture, thus strengthening the impression of reality made by the picture.

Further objects and advantages will be made manifest in the following description
30 and in the accompanying drawings, in which—

Fig. 1 is a diagrammatic view illustrating the apparatus of my invention.

35 Fig. 2 is an enlarged detailed view illustrating a detail of the apparatus shown in Fig. 1.

Fig. 3 is a diagrammatic view illustrating a plurality of odor tanks.

Referring specifically to the drawings, the
40 numeral 10 indicates a theater which in the present instance is a moving picture theater. The theater 10 has a stage 11 upon which theatrical presentations may be given and a screen 12 which may be let down upon the
45 stage 11 so that moving pictures may be projected on the screen by a moving picture projector 13 provided in a suitable room in the rear of the theater 10. Mounted upon the floor 14 of the theater 10 are seats 15 upon
50 which the patrons may sit when viewing a

theatrical presentation on the stage 11 or a moving picture projected on the screen 12. The theater 10 is adapted to be ventilated by a ventilating system 16 which includes ventilating outlet holes 17 formed beneath the
55 seats 15 which connect with a ventilating manifold 18 which leads to the exhaust end of a blower 19 which is driven by any suitable means, not shown. The ventilating mechanism 16 conforms to the system in general use in all up-to-date theaters.
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An olfactory-impression mechanism 25 is associated with the projecting machine 13 and the ventilating system 16 for a purpose to be described later. The olfactory mechanism 25 includes an odor-producing tank 26 having suitable chemicals 27 disposed therein and having a foraminous opening 28 in one end of the tank 26. In the opposite
70 end of the tank 26 from the opening 28, a pipe 30 connects with one inlet opening of a two-way valve 31, the outlet opening of which connects with the intake of the blower 19, and a second inlet opening 32 of the two-way valve 31 opens to the atmosphere. The valve
75 31 is operated by a lever 33 which in turn is adapted to be actuated by a solenoid 34. When the lever 33 is in full line position, shown in Fig. 1, the valve 31 is disposed so that the intake of the blower 19 is connected
80 with the interior of the odor tank 26 through the pipe 30. When the arm 33 is in its dotted line position shown in Fig. 1, the intake of the blower 19 is connected through the valve opening 32 with the atmosphere.
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The solenoid 34 is adapted to be operated by electricity flowing through the conductor wires 36, in one of which is connected a relay 37 which is operated by current flowing through an electric circuit 38 which includes
90 a battery 39. The circuit 38 is adapted to be closed or opened by a switch 40 which is clearly shown in Fig. 2. The switch 40 is disposed adjacent to the projecting machine 13 adjacent to the film 41 utilized in the projecting machine 13 for projecting a picture upon the screen 12. Along a side of the film 41 opposite certain portions thereof which will be identified in the description of the operation are formed relatively long notches
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42. The switch 40 has a body 45 which is rigidly mounted upon the projecting machine 13 which has a switch lever 46 pivotally mounted thereon. Attached to the body 45 and one arm 47 of the lever 46 is a tension spring 48 which urges the lever 46 in such position that a roller 49 rotatably mounted on the extremity of an opposite lever arm 50 rolls upon the edge 52 of the film 41 in which the notch 42 is formed. Provided upon the end of the lever arm 47 is a switch knife 53 which is held out of engagement with a switch clip 54 provided on the body 45. As the film 41 moves through the projecting machine 13, the notch 42 comes opposite the roller 49, and the spring 48 is permitted to rotate the lever 46 so as to close the switch 40 by inserting the knife 53 in the clip. Opposite terminals 56 and 57 of the circuit 38 are connected to the clip 54 and the frame 45 respectively, so that when the roller 49 engages the edge 52 of the film 41, the switch 40 is open and the circuit 38 is broken so that the relay 37 operates to break the circuit of the solenoid 34 and cause the lever 33 of the valve 31 to drop into the dotted line position in which it is shown in Fig. 1. As previously mentioned, this causes the valve to connect the intake of the blower 19 with the opening 32 which communicates with the atmosphere.

When the notch 42 comes opposite the roller 49 so that the switch 40 closes the circuit 38, the relay 37 is energized so as to close the circuit of the solenoid 34 and cause this to lift the lever 33 which operates the valve 31 in the full line position in which it is shown in Fig. 1. This causes the valve 31 to connect the intake of the blower 19 with the odor tank 26, as previously described.

The operation of my invention is as follows:

The film 41, in the simple form illustrated herein, is provided with a moving picture, in certain portions of which are recorded scenes such as of the ocean, of timberlands, and of flowery meadows in which the original scene is accompanied by a distinctive odor such as the odor of salt air, the odor of resinous needles or the odor of wild flowers. Assuming, for example, that the picture on the film 41 is a sea picture wherein numerous sea scenes appear, the chemicals 27 which are placed in the odor tank 26 are adapted to produce a salty odor as nearly as possible identical with the odor of salt air blowing from the ocean. The notches 42 are placed in the film 41 opposite those portions of the film which portray scenes of the ocean. Thus, whenever during the projection of the picture from the film 41 an ocean scene is flashed upon the screen 12, the lever 33 will be lifted by the solenoid 34 so as to cause the valve 31 to connect the intake of the blower 19 with the odor tank 26. The blower 19 is continu-

ously operated so as to normally draw fresh air from the atmosphere through the valve opening 32 and expel this air upward beneath the seats 15 through the ventilating opening 17. Thus, when the ocean scene is flashed upon the screen 12 and the intake of the blower 19 is connected with the odor tank 26, air is drawn through the opening 28 from the tank 26 and expelled upward through the ventilating openings 17. This air has an ocean odor owing to the activity of the chemicals in the tank 26 and almost instantaneously after the ocean scene has appeared upon the screen 12 the audience is conscious of the ocean odor in the air surrounding them. The illusion of realism experienced by the audience is thus greatly heightened by the consonance between the picture thrown on the screen and the odor of the atmosphere surrounding it.

In case it is desired to have several different scenes portrayed by a single film, each of which scenes has a different characteristic odor, a compound odor tank 60, as diagrammatically shown in Fig. 3, might be employed in connection with the olfactory mechanism 25.

The compound odor tank 60 has a manifold pipe 61 which connects centrally with the valve inlet 30 of the valve 31. Laterals 62 having valves 63 connect the manifold 61 with a plurality of odor tanks 65. In using the compound odor tank 60, the olfactory apparatus 25 operates in the same manner as above described, excepting that during the progress of the projecting of the picture on the film 41, the operator will manipulate the valve 63 so as to choose which of the odor tanks 65 is connected with the pipe 30 so that where each of the notches 42 operates the switch 40 so as to cause an odor to be expelled to the ventilating outlet 17 that odor will come from the proper tank 65 so as to correspond with the scene being projected at that time upon the screen 12.

It is also desired to point out that where two odors only are desired to be used in connection with the showing of a single motion picture, the opposite edge 70 from the edge 52 of the film 41 can be provided with notches 71 similar to the notch 42 which would cooperate with a roller 72 of a duplicate olfactory apparatus identical with the mechanism 25 which would supply a different characteristic odor from that supplied by the mechanism 25.

I claim as my invention:

1. An apparatus for supplying an olfactory impression in conjunction with a motion picture impression which comprises: means for transmitting said motion picture impression to an audience; means for producing an odor normally associated with said motion picture impression; and means operated by

said first means for expelling said odor into the atmosphere breathed by the audience.

2. An apparatus for supplying an olfactory impression in conjunction with a motion picture impression which comprises: a film for transmitting said motion picture impression to an audience; means for producing an odor normally associated with said motion picture impression; and means operated by said film for expelling said odor into the atmosphere breathed by the audience.

3. An apparatus for supplying an olfactory impression in conjunction with a motion picture impression which comprises: a motion picture film for transmitting a visual impression to an audience; means for producing an odor normally associated with said visual impression; and means operated by said film for expelling said odor into the atmosphere breathed by the audience.

4. An apparatus for supplying an olfactory impression in conjunction with a motion picture impression which comprises: means for transmitting a series of visual impressions to an audience; means for producing a plurality of odors, each of which is normally associated with one of said visual impressions; and means operated by said first means for selectively expelling said odors into the atmosphere breathed by the audience so that said audience is aware of each odor concurrently with the visual impression with which it is normally associated.

5. An apparatus for supplying an olfactory impression in conjunction with a motion picture impression which comprises: a film for transmitting a series of visual impressions to an audience; means for producing a plurality of odors, each of which is normally associated with one of said visual impressions; and means operated by said film for selectively expelling said odors into the atmosphere breathed by the audience so that said audience is aware of each odor concurrently with the visual impression with which it is normally associated.

6. An apparatus for supplying an olfactory impression in conjunction with a motion picture impression which comprises: a motion picture film for transmitting a series of visual impressions to an audience; means for producing a plurality of odors, each of which is normally associated with one of said visual impressions; and means operated by said film for selectively expelling said odors into the atmosphere breathed by the audience so that said audience is aware of each odor concurrently with the visual impression with which it is normally associated.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 26th day of August, 1927.

JOHN H. LEAVELL