

R. W. TULLY.
STAGE APPARATUS FOR PRODUCING VOLCANO EFFECT.
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1,030,035.

Patented June 18, 1912.

Fig. 1.

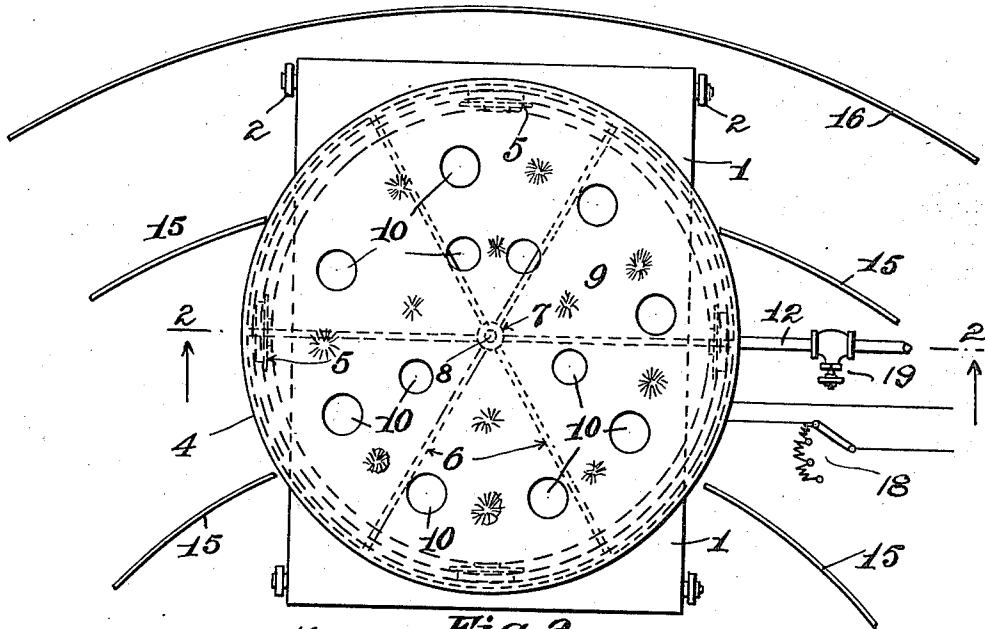


Fig. 2.

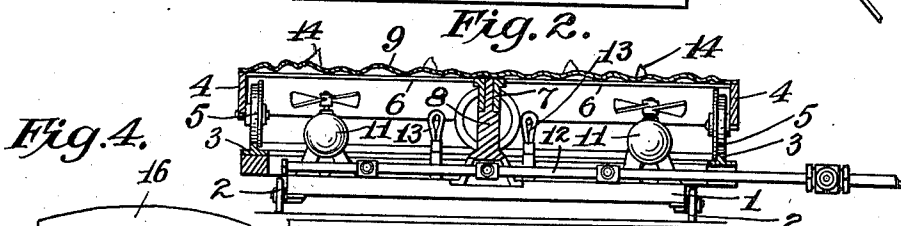


Fig. 4.

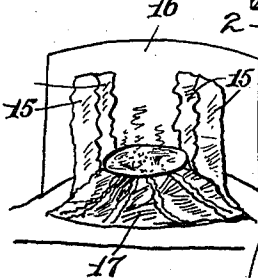
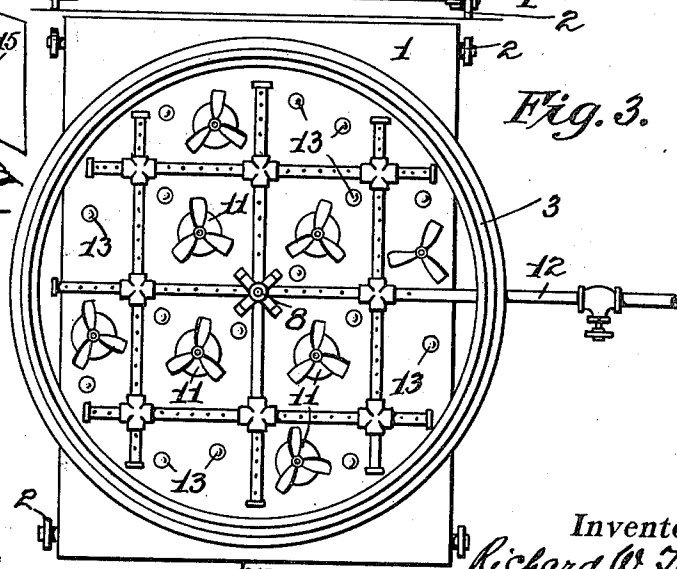


Fig. 5.



Fig. 3.



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UNITED STATES PATENT OFFICE.

RICHARD W. TULLY, OF ALMA, CALIFORNIA.

STAGE APPARATUS FOR PRODUCING VOLCANO EFFECT.

1,030,035.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RICHARD W. TULLY, a citizen of the United States, residing at Alma, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Stage Apparatus for Producing Volcano Effects, of which the following is a specification.

My invention is a stage apparatus for producing the spectacle of the crater of a volcano with its lake of lava in active eruption as well as all the lesser effects of the eddying, seething and boiling of the lava. More specifically the effects obtained are:

1. The swirl of the entire body of red hot lava. 2. Its undulating rise and fall. 3. Its masses of lava and particles suddenly erupted at intervals. 4. Jets of steam projected at intervals. 5. The coloring so arranged as to imitate the different stages of heat from white hot to black cooled rock. 6. The provision of projections and peaks suddenly rising and falling with parts of the lake of lava to intensify the effect of the more active explosions and eruptions, and 7, the mechanical features permitting the apparatus to be quickly handled on the stage and subsequently disposed of.

In the drawings showing an embodiment of my invention Figure 1 is a top plan view of the apparatus; Fig. 2 is a vertical section partly in elevation on the line 2—2 in Fig. 1 looking in the direction of the arrows; Fig. 3 is a top plan view of the base of the apparatus; Fig. 4 is a front elevation on a reduced scale of the stage setting and of the apparatus in place; and Fig. 5 is a vertical sectional view on an enlarged scale of a detail.

The apparatus shown in which my invention is embodied comprises broadly speaking two spaced apart members, which are horizontally disposed when the apparatus is in use. The lower member comprises a rectangular frame or platform 1 rolling on wheels 2, which platform supports the circular track 3. The upper member comprises a circular frame 4, having flanged wheels 5, which run on the circular track of the lower member, so that the frame of the upper member is thereby rotatably supported on the lower member.

The frame 4 of the upper member is stiffened by spokes 6 converging to a central hub 7, turning on the reduced upper end

of a vertical axle or standard 8 supported on the platform 1.

9 is a covering of canvas or similar flexible material stretched over the top of the circular frame 4, not tightly like a drum-head but loosely, for reasons which will hereinafter appear. 10—10 designate concentric series of holes through this loose flexible covering. 11—11 are air blast delivering means, and 12—12 are steam jets disposed on the platform 1 of the lower member so as to deliver against the underside of the covering, and also through the holes 10—10 in the covering as it rotates.

There may be banks of electric lights 13—13 supported on the platform 1 under the covering, in addition to the light effects directed from the outside on the rotating covering 9 by means of the regular stage light projecting apparatus.

For the air blast means I have shown electric fans which can be run fast or slow at the will of the operator to give variable strength of blasts.

The upper surface of the loose flexible covering is scenically decorated in an appropriate manner to imitate the coloring of the different stages of heat from white-hot to the black cooler rock, and is further decorated to imitate the suddenly thrown-up wave peaks and explosions of lava by being provided with appropriately shaped peaks and projections 14 located on the covering intermediate the openings 10, said peaks 14 being perforated to let the steam burst from their tops.

In the stage mounting of the apparatus, there are provided suitably painted wings 15, back drops 16, and at the front of the apparatus masking pieces 17 to conceal the front of the apparatus so that the whole realistically represents a volcanic scene and the crater, between whose side walls is contained the lake of lava realistically simulated by the covering 9 and its operation as follows: When the operator, concealed behind one of the wings, rotates the covered frame and gently turns on the air blasts and steam jets, controlled by the switch 18 and valve 19, the surface of the lava appears gently to undulate, eddy and seethe. Increasing the air blasts intensifies the wave motion which is caused by the play of the air blasts on the bottom of the loose covering as successively different portions there-

of are presented to any given blast, and in this effect the holes 10 play an important part because as they are reached in the rotation of the covering, the particular air blast plays through them and therefore lets that portion of the covering suddenly drop to produce a very realistic effect. Next, the operator manipulates the blast means to give the maximum blast effect from time to time against the covering, with the result that it and the nearest lava peaks 14 are thrown high in the air with accompanying bursts of steam, which, in the red glare of the lights, gives a most realistic effect of a violent eruption. Confetti or other light particles thrown in under the covering will be blown by the blast up through the openings in the covering and will appear in the illumination as sparks, thereby heightening the realistic effect of the whole.

It will be noted that the ends of the rectangular frame 1 project beyond the sides of the apparatus so that the whole apparatus can be turned upright to rest on one of said projecting ends against the wall thereby permitting the apparatus to be readily disposed of between performances.

What I claim is:

1. A stage apparatus for producing volcano effects comprising two horizontally disposed members arranged one over the other, one of which is rotatable; a scenically decorated horizontally disposed loose, flexible covering having a series of holes through it and being supported by the upper member; air blast delivering means

and steam jets on the lower member disposed so as to deliver against the under side of the aforesaid covering and at intervals to deliver up through the holes therein as one or the other of said lower and upper members is rotated.

2. A stage apparatus for producing volcano effects comprising a rotatable horizontally disposed frame; a scenically decorated flexible covering having a series of holes through it and being supported loosely across said frame, and air blast delivering means and steam jets disposed underneath the aforesaid covering to deliver against its underside and at intervals up through its holes as the covering rotates.

3. A stage apparatus for producing volcano effects comprising a rotatable horizontally disposed frame; a flexible covering having a series of holes through it and being supported loosely across said frame, said covering having its upper side scenically decorated and supporting upwardly extending peaks located between said holes; and air blast delivering means and steam jets disposed underneath the aforesaid covering to deliver against its underside and at intervals up through its holes as the covering rotates.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD W. TULLY.

Witnesses:

ARA FRANCES M. DAVIS,
JAHAM MESSUR.