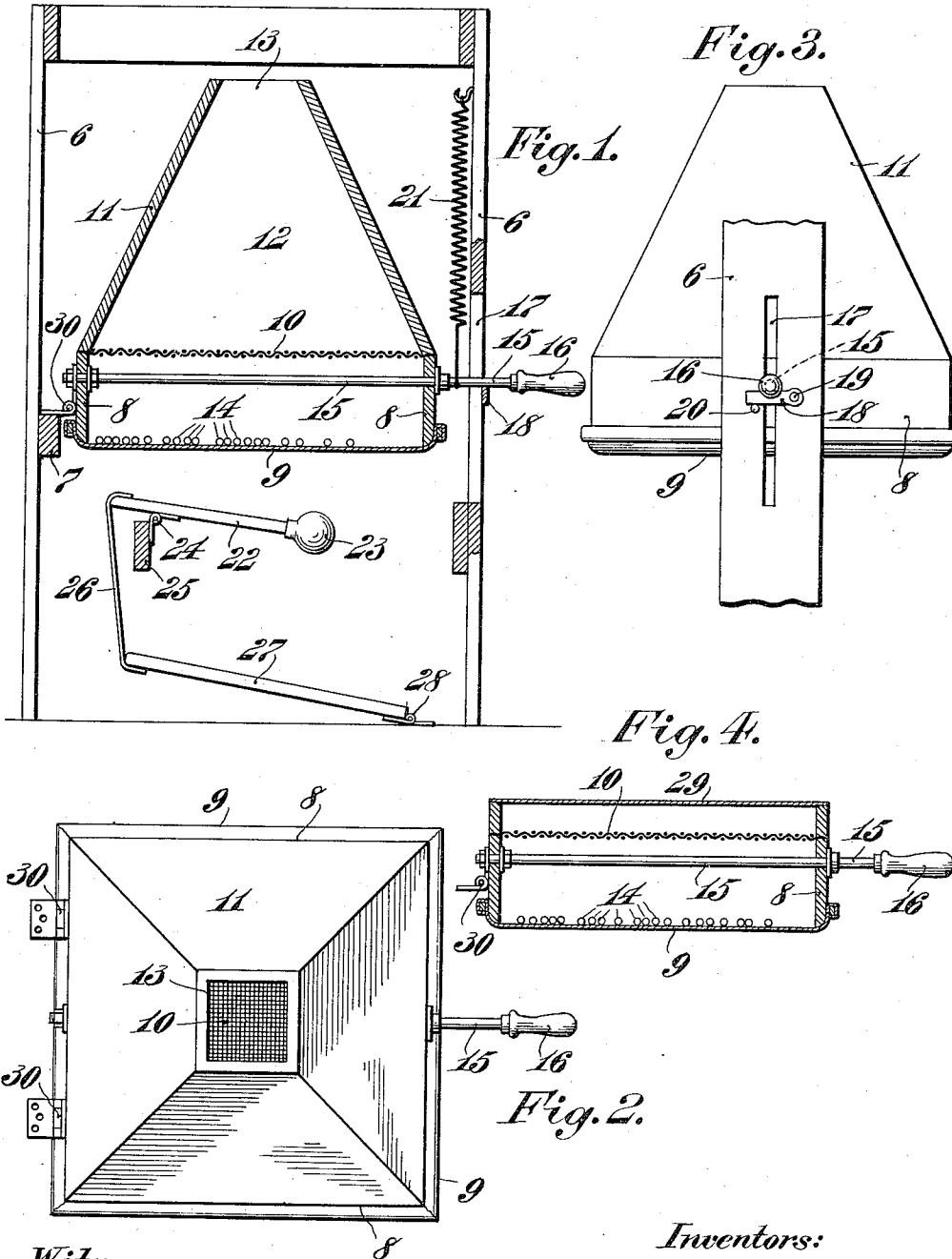


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STAGE NOISE APPARATUS.
APPLICATION FILED MAY 8, 1912.

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Patented May 6, 1913.



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UNITED STATES PATENT OFFICE.

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STAGE-NOISE APPARATUS.

1,060,717.

Specification of Letters Patent.

Patented May 6, 1913.

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To all whom it may concern:

Be it known that we, IRA L. STANGER, residing at Pensauken, in the county of Camden, State of New Jersey, and CHARLES B. FITHIAN, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, both citizens of the United States, have jointly invented certain new and useful Improvements in Stage-Noise Apparatus, of which the following is a specification.

Our invention relates to stage noise apparatus, that is to say, to apparatus for simulating noises for the purpose of rendering more realistic the scenic effects of dramatic productions and moving picture exhibitions.

Our invention relates more particularly to a device for producing a variety of noises for the aforesaid purpose.

The principal object of our invention is to provide a simple and efficient apparatus for producing a variety of noises for imitating the sound of waves, escaping steam, locomotives, musketry, storms and other noises.

The nature and characteristic features of our invention will be more readily understood from the following description taken in connection with the accompanying drawings forming part hereof, in which—

Figure 1 is a vertical section of an apparatus for producing stage noises embodying the main features of our invention; Fig. 2 is a top or plan view of the sound producing device constituting the principal portion of the apparatus; Fig. 3 is a front elevation of a portion of the structure shown in Fig. 1, illustrating certain details of construction; and Fig. 4 is a central section of a modified form of the sound producing device of the apparatus.

Referring to the drawings, in the particular embodiment of our invention therein shown, 6 is the frame work of the apparatus, upon one of the cross bars 7 of which is hinged, as at 30, a box or frame 8, preferably square in horizontal section and having stretched across the bottom thereof a membrane 9 of sheep skin or other suitable material, the construction being similar to that of a drum head. Across the top of the frame 8 is stretched a netting 10 for a purpose to be hereinafter set forth and above this netting is mounted a frusto-pyramidal box 11 forming a tapered chamber 12, the

small end of which is open to the exterior as at 13. Placed upon the upper surface of the membrane 9 is a quantity of loose particles such for example as relatively large sized shot 14 which are free to move about upon the membrane 9 to produce the desired noise effects as will be hereinafter more fully described.

Mounted in the frame 8 is a bar 15 which extends outwardly and is provided at its free end with a handle 16 for the purpose of manipulating the frame 8. The extending portion of the bar 15 passes through a slot 17 in a portion of the stationary frame work 6 of the machine. There is also provided a latch 18 pivoted as at 19, adjacent the slot 17 and the free end of this latch 18 is adapted to rest upon a stationary pin 20, and when in this position the latch 18 forms a support for the bar 15 to allow the frame 8 to rest in a fixed position as shown in Fig. 1. A spring 21 is secured at its upper end to a portion of the frame work 6 and at its lower end is connected to the handle bar 15 and serves to counterbalance the weight of the frame and the parts carried thereby so as to enable the same to be more easily controlled and manipulated by the operator.

Mounted beneath the drum head membrane 9 is a drum stick 22 having an enlarged head 23, the drum stick 22 being pivoted as at 24 to a transverse stationary bar 25. Secured to the end of the drum stick beyond the hinge 24 is a strap 26 the other end of which is connected to the free end of a foot treadle 27 which is hinged as at 28 to the floor or to any suitable part of the frame work of the apparatus.

In Fig. 4 there is shown a modified form of noise producing portion of the apparatus in which the tapered chamber 12 above the netting 10 is dispensed with and in lieu thereof the frame 8 is continued upwardly a slight distance above the netting and a sound diaphragm 29 of sheet metal or other desirable material is mounted thereon.

The operation of the apparatus is quite simple and the particular manner of manipulating the same depends upon the nature of the sound or noise to be produced. The sound is primarily caused by the rolling of the relatively large shot 14 across the membrane 9 and the effect is modified by the tapered chamber 12 above the frame 8 as

shown in Fig. 1 or by the diaphragm 29 as shown in Fig. 4. The operator may raise the handle and move the latch out of the path of the bar 15 and then may alternately raise and lower the handle causing the shot to travel back and forth across the membrane either slowly or rapidly or evenly or jerkily. When the apparatus is violently operated the netting 10 serves to prevent the shot from jumping up against the side walls of the tapered chamber 12 which would thus cause undesirable modifications of the sound and in the structure as shown in Fig. 4, the netting 10 will prevent the shot from contacting with the diaphragm 29. The latch 18 may be left in the position shown in Fig. 3 and by means of the foot treadle 27 the drum stick 22 may be operated to cause the under surface of the membrane 9 to be struck, whereupon the shot will be agitated upon the upper surface of the membrane 9 and produce noises of another character.

The apparatus has been found to be particularly useful in connection with moving picture displays, the sounds produced serving to make the pictures seem more life like and adding materially to the pleasure of the audience.

Having thus described the nature and characteristic features of our invention, what we claim as new and desire to secure by Letters Patent is:—

1. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, and a netting arranged above said membrane to confine said particles.

2. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, a sound modifying device arranged above said frame, and means for preventing the loose particles from contacting with said sound modifying device.

3. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, a sound modifying device arranged above said frame, and a netting interposed between said membrane and said sound modifying device.

4. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, a frusto-pyramidal box mounted above said frame having its small end open at the top.

5. In an apparatus of the character de-

scribed, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, a frusto-pyramidal box mounted above said frame having its small end open at the top, and a netting interposed between the membrane and said pyramidal box.

6. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, and a handle projecting from the side of the frame opposite the hinge.

7. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, a handle projecting from the side of the frame opposite the hinge, and means for counter-balancing the weight of said frame and the parts carried thereby.

8. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, a handle projecting from the side of the frame opposite the hinge, and means for counter-balancing the weight of said frame and the parts carried thereby comprising a spring secured at one end to the handle and at the other end to the stationary frame work.

9. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, and means for supporting said frame in a fixed position.

10. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, means for supporting said frame in a fixed position, and means for striking the under surface of said membrane.

11. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, means for supporting said frame in a fixed position, and means for striking the under surface of said membrane comprising a drum stick hinged to the stationary frame work, and means for arbitrarily operating said drum stick.

12. In an apparatus of the character described, a stationary frame work, a frame hinged thereto, a membrane stretched across said frame, a quantity of loose particles upon said membrane, means for supporting said frame in a fixed position, and means

for striking the under surface of said membrane comprising a drum stick hinged to the stationary frame work, a foot treadle for arbitrarily operating said drum stick, and a connection between said foot treadle and drum stick.

In testimony whereof, we have hereunto

signed our names in the presence of two witnesses.

IRA L. STANGER.
CHARLES B. FITHIAN.

Witnesses:

LILLIAN H. NEVEL,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."