

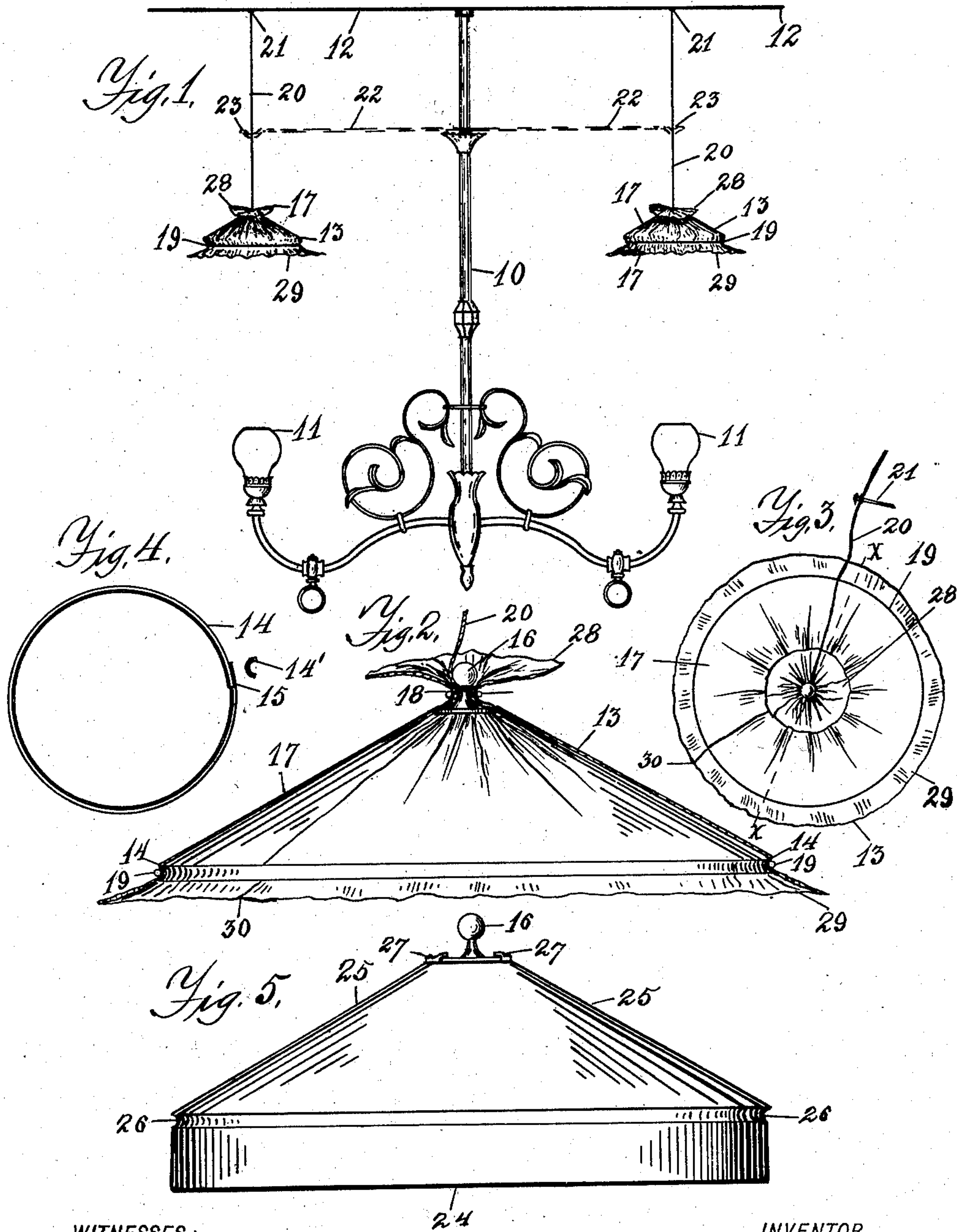
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H. E. BUTLER.
SMOKE BELL.

APPLICATION FILED AUG. 9, 1902.

NO MODEL.



WITNESSES:

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HIRAM E. BUTLER, OF JAMESTOWN, NEW YORK.

SMOKE-BELL.

SPECIFICATION forming part of Letters Patent No. 741,883, dated October 20, 1903.

Application filed August 9, 1902. Serial No. 118,978. (No model.)

To all whom it may concern:

Be it known that I, HIRAM E. BUTLER, a citizen of the United States, and a resident of Jamestown, in the county of Chautauqua and State of New York, have invented a new and useful Smoke-Bell, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to protectors for ceilings as against the soot and heated injurious gases which constantly arise from burning oil or gas lights; and the objects of my invention are to provide a simple smoke-bell covered with material that is cheap and pleasing to the eye and to use material which is rendered practically fireproof by a bath of saline or other chemical solution which will attain such end.

It is apparent that if salt or some other chemical which will render the material practically non-inflammable is placed in the dye with which the material is colored the end is quickly and easily attained. I find, however, that some cloths and papers are not as easily ignited as others and that smoke-bells made of these least inflammable materials serve a good purpose, since a smoke-bell is usually hung from fifteen to twenty-four inches above the flame and at that distance will not easily ignite.

In the drawings, Figure 1 is a side elevation of a chandelier hung from a ceiling and two smoke-bells in position to protect the ceiling. Fig. 2 is a diametral sectional view of the smoke-bell at line X X in Fig. 3. Fig. 3 is plan view of smoke-bell. Fig. 4 is a detail of ring of semicircular metal, which is also shown in section. Fig. 5 is a side elevation of block for forming my smoke-bell.

Similar numerals refer to corresponding parts.

Numeral 10 is a chandelier or gas fixture, which has the lights covered by globes 11 11 in the usual manner.

Numeral 12 is the ceiling which is to be protected.

Numeral 13 is my smoke-bell, which is composed of a ring 14, made of a strip of flat metal, which is first bent in semicircular form, as shown in section at 14' in Fig. 4, and then given the circular form with the open side

outward and the two ends lapped together, as at 15. A button 16, similar to a common collar-button, is placed in the throat of the bell. 55

Numeral 17 is the covering or material of which the bell is formed and which is held on ring 14 and button 16 by stays or wires 18 and 19. A wire or cord 20 suspends the bell from a tack 21 in ceiling 12. Where the ceiling is high, a light wire hanger 22, as shown in dotted outline in Fig. 1, having a bend 23 for the suspending-cord 20, may be attached to fixture 10 for upholding the smoke-bells in the proper position over the lights 11. 65

In making my smoke-bells a form is found to be necessary to give uniformity in shape and that they may be made with celerity. Block 24 is used, therefore, having the desired shape. It is apparent that a square, octagonal, or any desired shape may be given to ring 14 and the bell if a similar-shaped block 24 is provided to form the ring and bell upon. Block 24 for a round bell has the cone-shaped upper surface 25 and at the outer edge a groove 26, in which ring 14 is placed. The base of button 16 is slipped under the clamping projection 27 on the top, which holds it in place. Suspending cord or wire 20 is secured to button 16. The cover 17 is then cut in strips long enough to go round ring 14 and lap, as at 30, and sufficiently wide to gather in about the neck of button 16 and leave projecting edges 28 and 29 at the top and bottom. Cover 17 is first secured in ring 14 by wire or stay 19. It is then plaited toward the apex of cone 25 and secured around the neck of button 16 by wire or stay 18, the upper edge 28 being spread out in a rosette. 75

It is apparent that decorative patterns and colors may be used to suit the eye or to match the wall-paper or furnishing of the apartment in which the bell is used. A material having a pattern with a bordered edge may be advantageously used by placing the border at the lower edge 29, which will give the effect of a continuous border-pattern around the lower edge of the bell. Button 16 might be replaced with other suitable means and not depart from my invention. 85

I prefer to make cover 17 of flexible material having a rough or uneven surface, for it is apparent that the plaits above mentioned and a rough or uneven surface, as of cloth or 95 100

crape-paper, will retain the soot and smoke far better than a smooth or glassy surface.

I claim as new—

5 1. A smoke-bell comprising a flexible cover, means at the neck and flare of the bell whereby said cover is given a suitable form, and stays for securing said cover on said forming means.

10 2. A smoke-bell comprising a ring of desired shape for the flare of the bell, a button for the throat of the bell, a flexible cover, and suitable stays for securing said cover on said ring and button.

15 3. A smoke-bell comprising a metal strip formed with a groove on its outer side and given a desired shape for the flare of the bell,

a flexible non-combustible cover, a stay to secure said cover in said metal strip, and a suitable stay for the throat of the bell.

4. A smoke-bell comprising a grooved metal 20 ring 14, a button 16 having a long shank and a wide base, a cover 17 of flexible material, stays 18 and 19 for securing said cover on said button and ring, and means for suspending said bell.

25 In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HIRAM E. BUTLER.

Witnesses:

S. A. BALDWIN,

A. W. KETTLE.