

Dec. 8, 1964

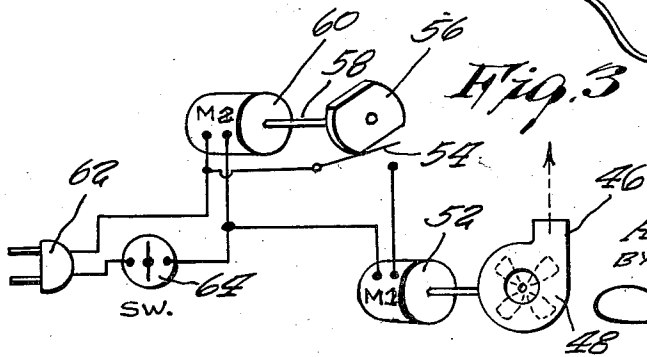
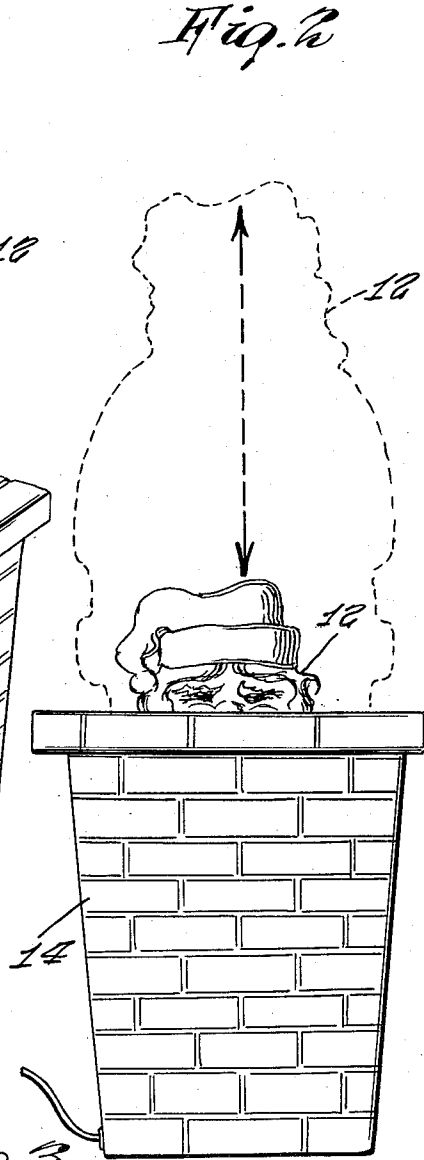
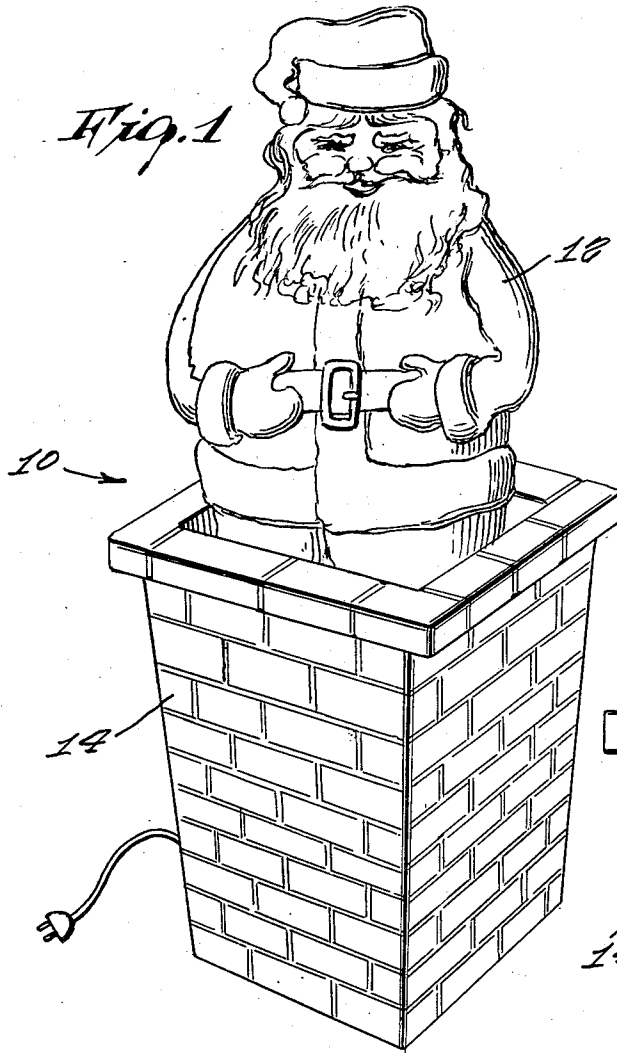
A. RUBENS

3,159,935

DISAPPEARING SANTA IN CHIMNEY

Filed Aug. 16, 1960

3 Sheets-Sheet 1



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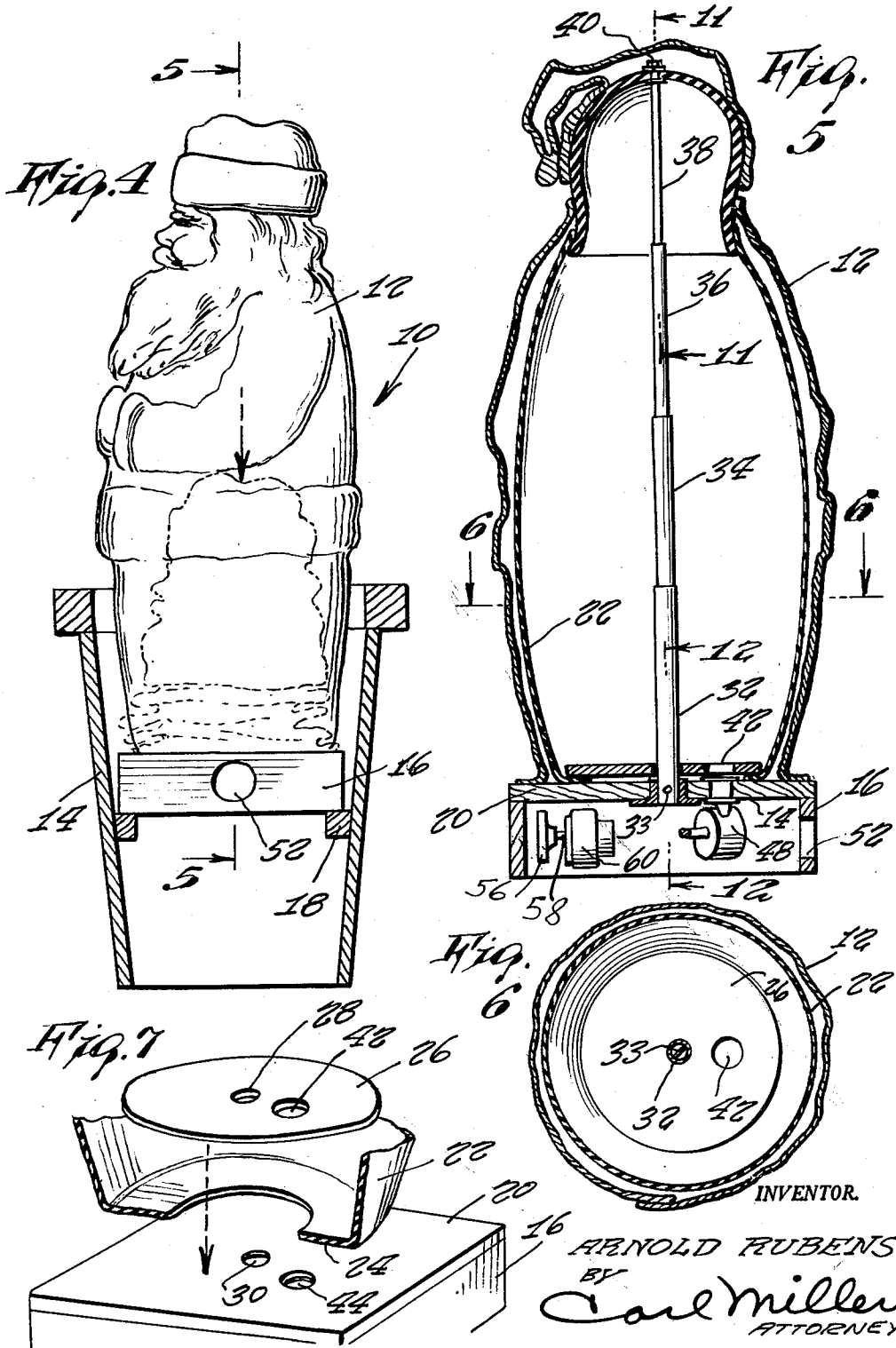
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3 Sheets-Sheet 2



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Fig. 8

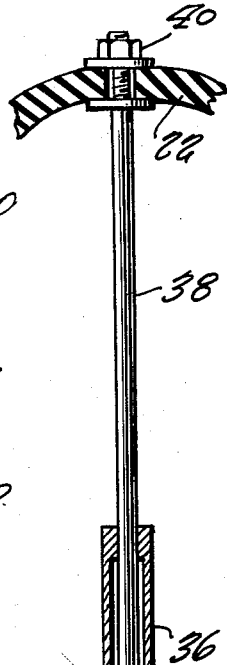
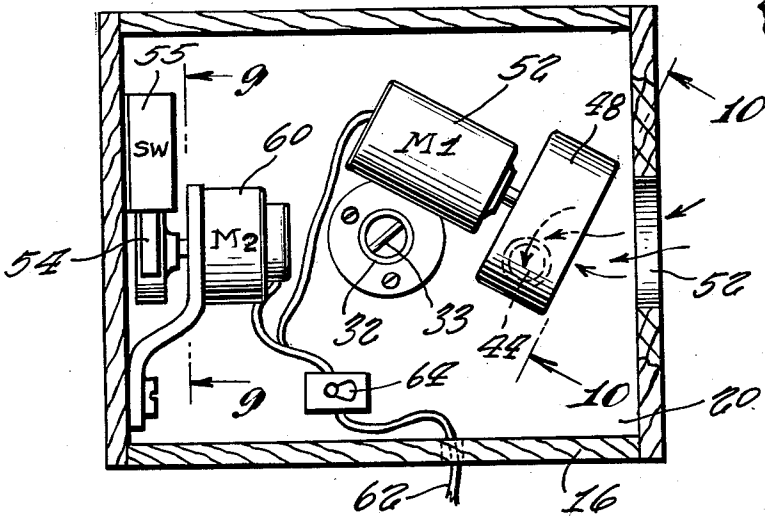


Fig. 9

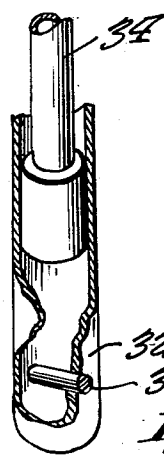
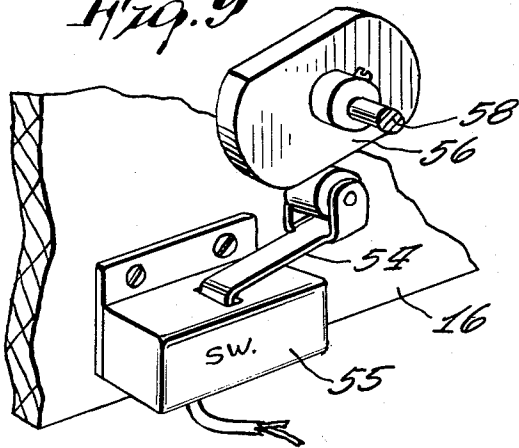


Fig. 10

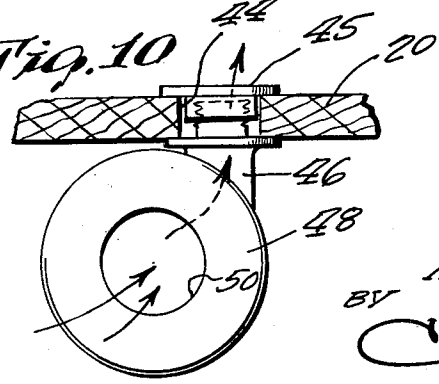


Fig. 11

Fig. 12

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1

3,159,935

DISAPPEARING SANTA IN CHIMNEY

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1 Claim. (Cl. 40-106.31)

This invention relates to display devices and, more particularly, to an animated display device.

It is an object of the present invention to provide an animated display device which can be attractively used for various display and entertainment purposes.

A further object of the present invention is to provide an animated display device in the form of a disappearing Santa Claus in a chimney which is extremely attractive in appearance, novel in operation, and which will attract the attention of young and old persons alike.

Still another object of the present invention is to provide a disappearing type animated display device in which pneumatic pressure is used to actuate the simulated doll element thereof for movement between an outwardly extended visible position and an inwardly retracted enclosed position.

Still an additional object of the present invention is to provide an animated display device of the type described which can be manufactured in large quantities at a relatively low cost, and which can be readily installed in any desired location.

All of the foregoing and still further objects and advantages of this invention will become apparent from a study of the following specification, taken in conjunction with the accompanying drawing, wherein:

FIGURE 1 is a perspective view of an animated display device made in accordance with the present invention, with the parts in an outwardly extended position;

FIGURE 2 is a front elevational view of the device shown in FIGURE 1, illustrating the manner in which the parts are moved toward a retracted position;

FIGURE 3 is a schematic wiring diagram of the mechanism made in accordance with the present invention;

FIGURE 4 is a side elevational view, with parts broken away, of the assembly shown in FIGURE 1;

FIGURE 5 is a longitudinal cross sectional view taken along line 5-5 of FIGURE 4;

FIGURE 6 is a transverse cross sectional view taken along line 6-6 of FIGURE 5;

FIGURE 7 is an enlarged fragmentary exploded perspective view of certain parts of the assembly shown in FIGURE 5;

FIGURE 8 is a bottom plan view of the assembly shown in FIGURE 5;

FIGURE 9 is an enlarged fragmentary perspective view taken along line 9-9 of FIGURE 8;

FIGURE 10 is an enlarged fragmentary cross sectional view taken along line 10-10 of FIGURE 8;

FIGURE 11 is an enlarged fragmentary cross sectional view taken along line 11-11 of FIGURE 5; and

FIGURE 12 is an enlarged fragmentary cross sectional perspective view taken along line 12-12 of FIGURE 5.

Referring now to the drawing, an animated display device 10 made in accordance with the present invention is shown to include an animated doll 12 in the form of a Santa Claus which includes a Santa Claus uniform, simulated head, and hat. This doll is supported within a simulated chimney 14 for reciprocating movement between a normally inwardly retracted position and an outwardly extended position in a manner hereinafter more fully described.

With reference now to FIGURE 5 of the drawing, a doll uniform 12 is shown to be secured by its bottom end to a rigid base 16 having a top wall 20. This base

2

16 is supported upon a frame 18 within the simulated chimney 14, as shown in FIGURE 4.

An inflatable bag 22, of any desired material, is enclosed within the doll uniform 12 and is provided with a bottom flange 24 that is secured to the top plate 20 of the base 16 by means of a mounting plate 26 having a central opening 28 in alignment with a central opening 30 in the top plate 20 of the base. A telescoping shaft assembly having a plurality of telescoping sections 32, 34, 36, 38, is secured at one lowermost end by means of a cross pin 33 within the central opening 30 of the base plate 20. The opposite end of the telescoping assembly is secured by means of a nut 40 to the uppermost end of the inflatable bag 22 adjacent to the simulated head of the doll uniform 12. Thus, the telescoping shaft assembly accommodates the extension and retraction of the simulated doll during use.

The mounting plate 26 is also provided with an eccentric opening 42 which is in alignment with the outlet 46 of a centrifugal type blower 48 mounted within an eccentric opening 44 of the base plate 20 by means of a clamp structure 45. This blower 48 is supplied with air from an opening 52 in the side of the base 16, which air enters the blower through an inlet 50. The blower is driven by the drive shaft of a motor 52 electrically connected to a source of electrical energy, such as an electrical supply line 62 through a safety switch 64. Operation of the motor 52 is controlled by a pressure sensitive switch 55 having an operating lever 54 that serves as a follower in contact with the periphery of a cam wheel 56 mounted upon the shaft 58 of a slow rotating motor 60. This motor 60 is also connected to the source of electrical energy 62 through the safety switch 64.

It will now be recognized that upon connecting the supply line 62 to a suitable source of electrical energy, and closing the safety switch 64, the timing motor 60 will be energized, thus rotating the cam wheel 56 and periodically closing the follower lever 54 of the pressure sensitive switch 55. This switch 55 controls energization of the motor 52, so that upon the closing of the switch 55, the motor 52 will actuate the blower 48 to inflate the bag 22, thus causing the simulated doll uniform 12 to extend outwardly through the upper end of the simulated chimney 14, in the manner shown in FIGURES 1, 2, and 4. As soon as the cam wheel 56 has rotated an additional amount, so that the follower 54 passes the crest thereof, the motor 52 is deenergized, thus allowing the bag 22 to deflate so that the doll under the influence of gravity will return to a collapsed position within the simulated chimney 14 until the next energization of the motor 52. It will be observed that the telescoping shaft sections serve as a guide means for directing the extending and retracting movements of the simulated doll between the respective positions.

It will now be appreciated that this device can be readily installed as a window display, as a building display, or the like, in an extremely novel and attractive manner.

While this invention has been described with particular reference to the construction shown in the drawing, it is to be understood that such is not to be construed as imparting limitations upon the invention, which is best defined by the claim appended hereto.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

- An animated display device comprising,
- (a) a housing open at its top,
 - (b) a hollow base horizontally supported in the housing,
 - (c) an inflatable bag secured in air-tight engagement to the upper surface of said base,

3

- (d) a flexible cover simulating a person surrounding said inflatable bag and secured to said base,
- (e) a multi-sectional telescoping tubular guide and support rod rigidly secured at the lower end of its lowermost section to the center of said base, and at the upper end of its uppermost section to the top of said inflatable bag, said telescoping guide and support rod positioned axially within said inflatable bag,
- (f) a blower within said base having its discharge outlet fitted within an opening in the upper surface of said base,
- (g) an electric motor within said base for driving said blower, including a control circuit,
- (h) a cam within said base driven by said electric motor coacting with a switch means providing a timed sequence in the operation of said control circuit to provide for the intermittent inflation of said inflatable bag and to permit deflation thereof,
- (i) an air inlet passage in a side wall of said hollow base for supplying air to said blower, and
- (j) a safety switch connected in said control circuit to render the same operative to energize or de-energize said electric motor, whereby, when said electric

4

motor is energized, the blower will inflate said inflatable bag to cause the same with its flexible cover, to rise upwardly through the open top of said housing, and when de-energized, said inflatable bag will deflate and collapse under the effect of gravity with its flexible cover within said housing, the rising and collapse of the inflatable bag being guided and supported by the telescoping action of the telescoping guide and support rod.

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