

Nov. 29, 1932.

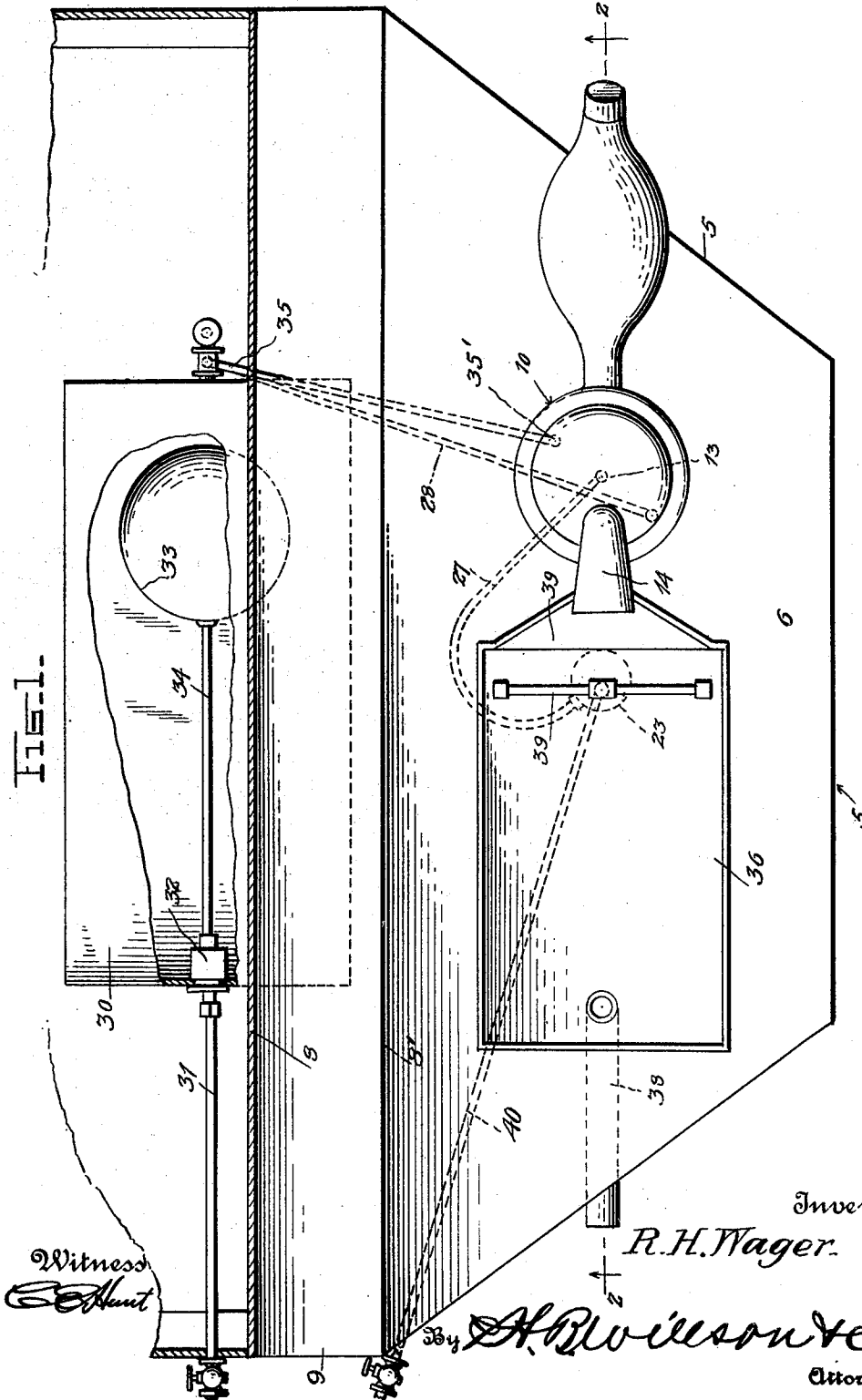
R. H. WAGER

1,889,164

LATHER FORMING MEANS

Filed Aug. 21, 1931

3 Sheets-Sheet 1



Nov. 29, 1932.

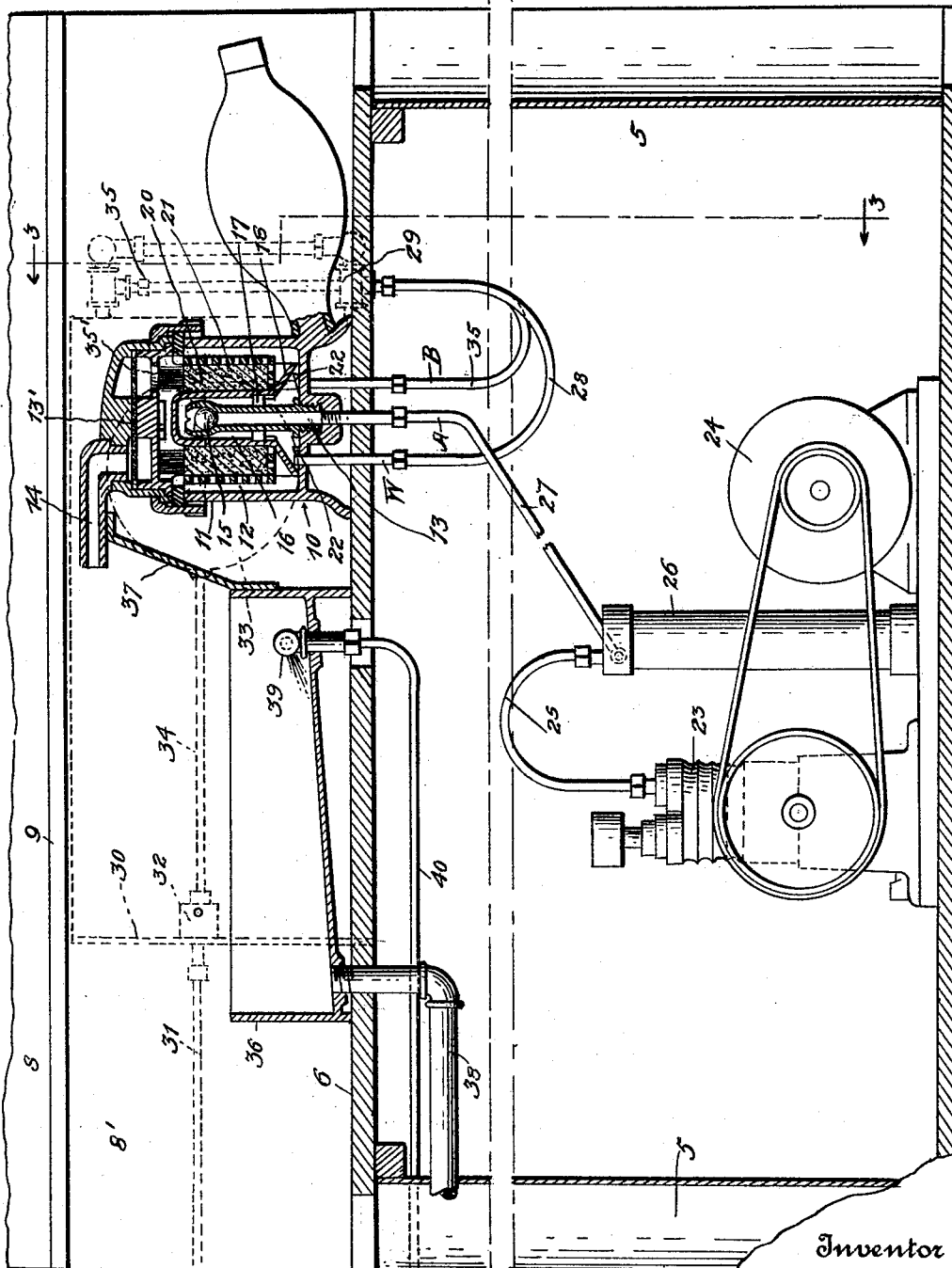
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FIG. 2.

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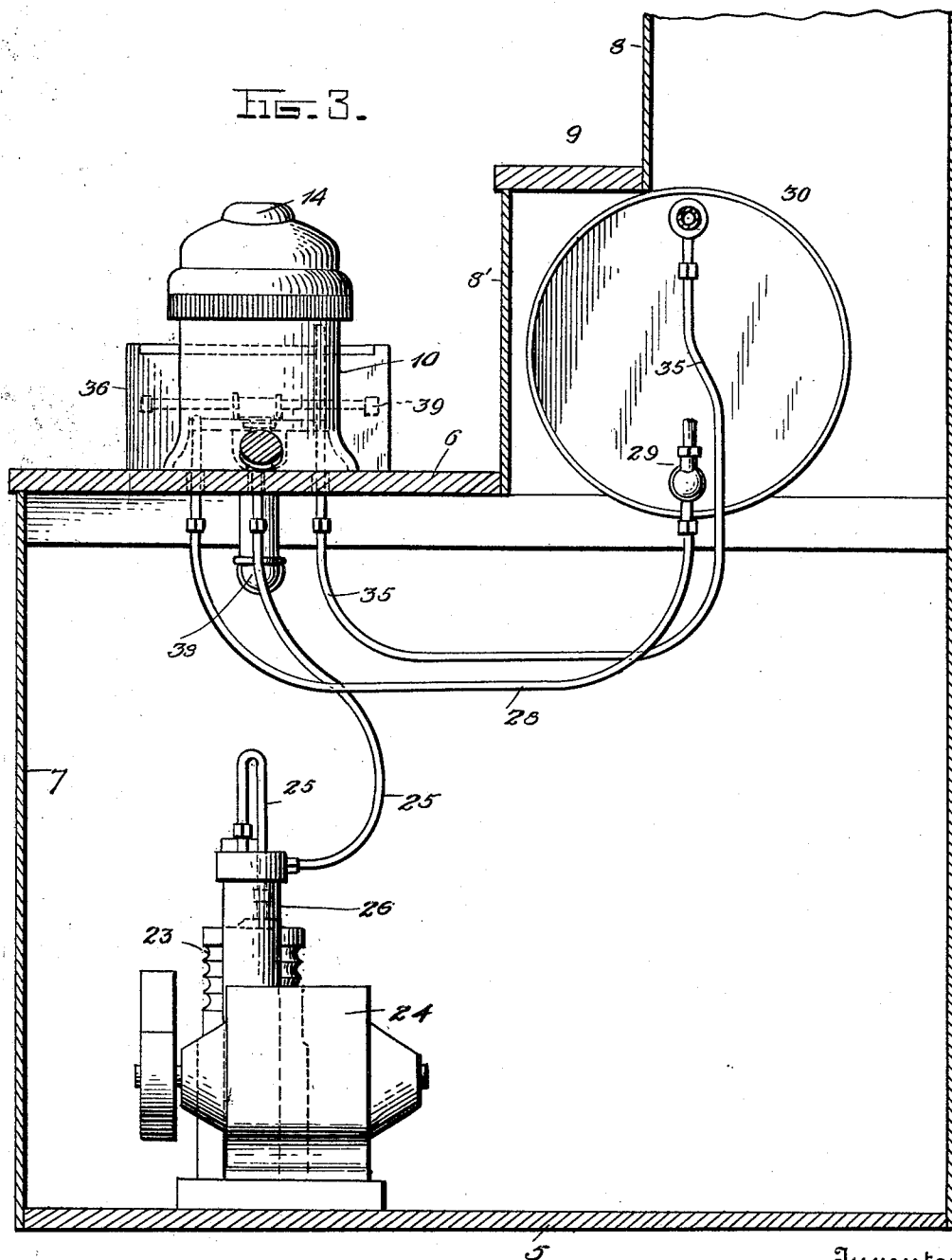
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UNITED STATES PATENT OFFICE

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LATHER-FORMING MEANS

Application filed August 21, 1931. Serial No. 558,572.

The invention relates to apparatus for forming lather, and it is one of my objects to provide an effective show apparatus for demonstrating the operation of a lather-forming device of the general type shown in my U. S. Patents 1,554,146 of September 15, 1925, 1,780,573 of November 4, 1930, 1,798,345 of March 31, 1931 and 1,798,346 of March 31, 1931.

A further object is to provide an apparatus which is well adapted for use in barber shops, beauty parlors and the like to furnish lather in sufficient quantity for shampoo purposes, shaving, etc.

The lather-forming device embodies a chamber in which a saponaceous liquid is agitated by gas under pressure (preferably air) and a liquid reservoir is provided to supply said chamber with liquid, and another object of the invention is to make novel provision whereby a constant level valve in a liquid supply line for the reservoir, will maintain the same level of liquid in said reservoir and said chamber, unaffected by the gas pressure in the latter, which pressure is utilized for forcing the soap bubbles through screening means to convert them into lather.

A still further object is to provide a unique construction and relation of parts in which the lather-forming device and a lather receiver are conspicuously positioned while the liquid reservoir, the gas pressure supply means, etc., are hidden from view.

Yet another aim is to provide an apparatus which may be conveniently connected with a customary water system and an electric light socket to receive therefrom the necessary water and operating current respectively.

With the foregoing in view, the invention resides in the novel subject matter herein-after described and claimed, description being accomplished by reference to the accompanying drawings.

Fig. 1 is a top plan view partly broken away and in horizontal section.

Fig. 2 is a vertical longitudinal sectional view substantially on line 2—2 of Fig. 1.

Fig. 3 is a vertical transverse sectional view substantially on line 3—3 of Fig. 2.

One form of construction has been shown for illustrative purposes, but it is to be understood that within the scope of the invention as claimed, numerous variations may be made.

The numeral 5 on the drawings denotes an appropriate cabinet embodying a horizontal deck 6, a front wall 7 extending downwardly from said deck, and a rear wall extending upwardly from the deck, said rear wall preferably consisting of upper and lower sections 8 and 8' and a shelf 9, said shelf serving to support a number of the articles whose use is demonstrated by the present invention, or to support creams, lotions, etc.

Mounted upon the deck 6, is a lather-forming device 10 constructed in substantial conformity with the devices shown by the patents above enumerated, but much larger for display and demonstrating purposes. The device 10 embodies a chamber 11 for a saponaceous liquid 12, an inlet passage 13 for gas (preferably air) under slight pressure, screening means 13' which serves to condense bubbles formed in the chamber 11 to a thick creamy lather, and an outlet spout 14 from said screening means. For details of the screening means 13', reference may be had to Patent 1,798,346, above mentioned. The inlet 13 is in the form of a tubular post having a check valve 15 at its upper end, said post being surrounded by a sleeve 16 suitably connected therewith at 17. The lower end of this sleeve is provided with a flared skirt or the like 18 having radiating flanges 19 to support a cake of soap 20, and if desired this soap cake may be confined within an openwork basket 21. The lower edge of the skirt 18 is provided with openings 22 for discharging and whirling the incoming gas into the saponaceous liquid 12, thereby generating soap bubbles in the chamber 11; and these bubbles are forced by the gas pressure, through the screening means 13' and the spout 14. The gas entering through the passage 13, lifts the check valve 15, flows downwardly within the sleeve 16, and discharges through the notches or the like 22, into the liquid.

Any appropriate means may be provided

for furnishing gas under pressure. For this purpose, however, I have shown a compressor 23 within the cabinet 5, driven by an electric motor 24. The compressor is connected by a tube 25 with a small tank 26 which smooths out pulsations, said tank being connected with the inlet 13 by a tube 27.

Liquid, preferably water, which may be heated if desired, is conducted to the chamber 11 by a U-tube 28 which connects at 29 with a liquid reservoir 30 which is mounted behind the wall section 8'. A liquid supply pipe 31 leads to the reservoir 30 and is adapted for connection with a conventional city or other water system. A valve 32 controls the admission of water from the pipe 31 into the reservoir 30, and said valve is controlled by a float 33 on a stem 34, so that the liquid is always maintained at a constant level in the reservoir or tank 30. The upper end of this tank is connected by a U-tube 35 with the chamber 11, the chamber contained end 35' of said U-tube being immediately below the screening means 13. Tube 35 equalizes the pressures in the upper end of the chamber 11 and in the reservoir 30 so that the liquid 12 in said chamber 11, will always remain at the same level with the liquid in said reservoir 30, the latter level being maintained by the float-controlled valve 32.

A tray or container 36 is mounted upon the deck 6 in front of the wall section 8' and in position to receive the lather discharged from the spout 14. Preferably, a suitable spillway plate 37 extends from this spout to the container 36. The thick creamy lather discharged from the spout 14, descends in abundance into the container 36, hence well demonstrating the use of the relatively small lather-forming device which is represented by the device 10. The lather discharged may either run to waste or may be utilized, for instance, for shampoo purposes, shaving, etc.

A waste pipe 38 is shown leading from the container 36, and a water spray pipe 39 is shown within this container for continually liquefying the lather and flushing it into the aforesaid waste pipe. 40 denotes a suitable pipe for conducting water under pressure to the spray pipe 39.

It will be seen from the foregoing that a rather simple and inexpensive, yet a very efficient and attractive apparatus has been provided, either for demonstrating and advertising purposes, or for use in producing lather for shampoo or other purposes.

While the general structure disclosed may be followed if desired, attention is again invited to the fact that within the scope of the invention as claimed, numerous variations may be made.

I claim:—

1. In a lather-forming apparatus, a compartment closed at its top by a horizontal deck, a vertical wall rising from said deck, a

gas-actuated lather-forming device mounted on said deck in front of said wall, a lather receiver mounted on said deck in front of said wall and positioned to receive the lather discharged from said lather-forming device, a constant level liquid reservoir mounted behind said wall, liquid-conducting and pressure-equalizing means connecting the reservoir with the lather-forming device to maintain a constant liquid level in the latter, gas supply means mounted in said compartment, and communicating means between said gas supply means and said lather-forming device.

2. In a lather-forming apparatus, a compartment closed at its top by a horizontal deck, a vertical wall rising from said deck, a gas-actuated leather-forming device mounted on said deck in front of said wall, a lather receiver mounted on said deck in front of said wall and positioned to receive the lather discharged from said lather-forming device, a waste pipe from said receiver extending through said compartment, flushing means for said receiver embodying a water pipe extending through said compartment, a constant-level liquid reservoir mounted behind the aforesaid wall, liquid-conducting and pressure-equalizing tubes extending downwardly from said reservoir into said compartment and upwardly from said compartment through said deck into said lather-forming device, gas supply means mounted in said compartment, and a gas tube from said supply means extending upwardly through said deck into said lather-forming device.

In testimony whereof I affix my signature.

ROBERT HUDSON WAGER.