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(12) **United States Design Patent**
Kravtsov

(10) **Patent No.: US D445,046 S**
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(54) **BUBBLE GENERATOR**

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(**) Term: **14 Years**

(21) Appl. No.: **29/131,432**

(22) Filed: **Oct. 23, 2000**

(51) **LOC (7) Cl.** **10-04**
(52) **U.S. Cl.** **D10/81**
(58) **Field of Search** D10/81; 422/186, 422/239–242

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,139,810 * 10/2000 Gottzmann et al. 422/239

* cited by examiner

Primary Examiner—Antoine Duval Davis

(57) **CLAIM**

The ornamental design for a bubble generator, as shown and described.

DESCRIPTION

The claimed bubble generator is used to activate the physical processes and main chemical reactions inside stream of any liquid processed by Bubble Implosion Reactor. The bubble generator is used to generate of the bubbles inside stream of processed liquids such as crude oil and its derivatives, wastewater, water emulsion, etc. The collapsing bubbles are used to activate the process of main chemical reactions with local concentration of energy. The main physical effect of the activation process is the Sono-Luminescence phenomenon with spherical implosion inside the collapsed bubble. The bubble collapsing with spherical implosion generates an imploding shock wave that compresses and heats the gas at the center of the bubble to extremely high temperature.

Collapsed bubbles can activate main chemical reactions in oil and its derivatives.

FIG. **1** is a left side elevational view thereof;

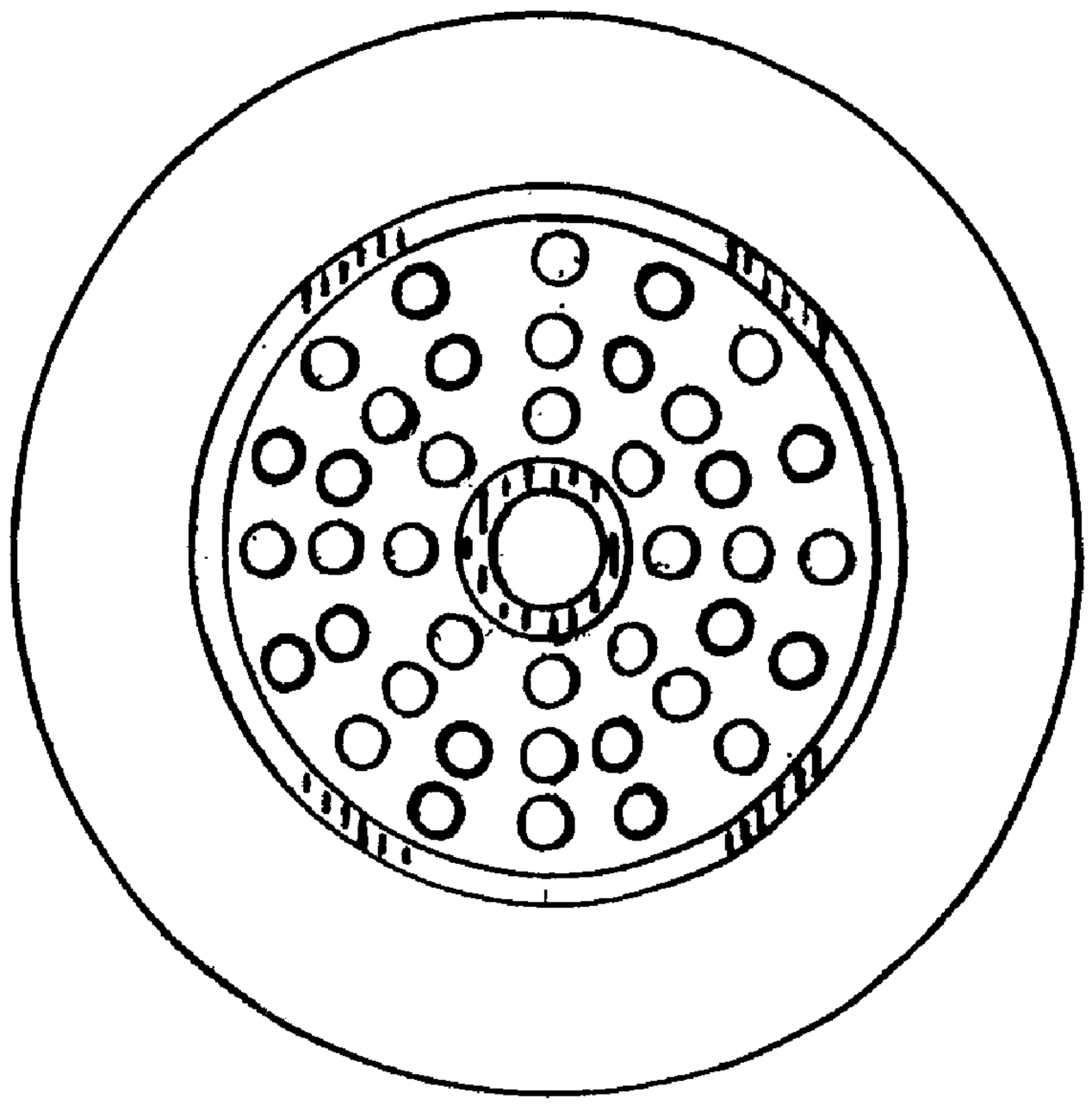
FIG. **2** is a right side elevational view thereof; and,

FIG. **3** is a top elevational view thereof.

The bottom side elevational view is a symmetrical mirror/image of the top plan.

The broken lines in the drawing illustrate the environmental structure and are not part of the design sought to be patented.

1 Claim, 1 Drawing Sheet



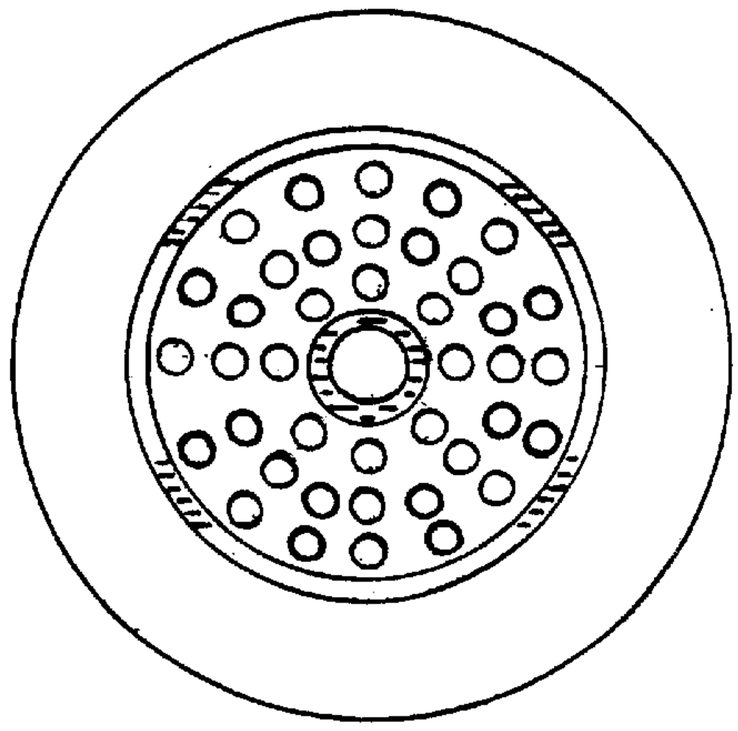


Fig.1

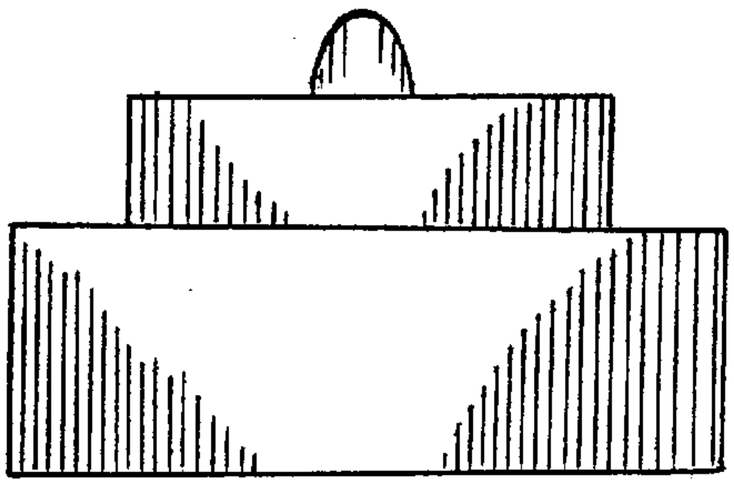


Fig.3

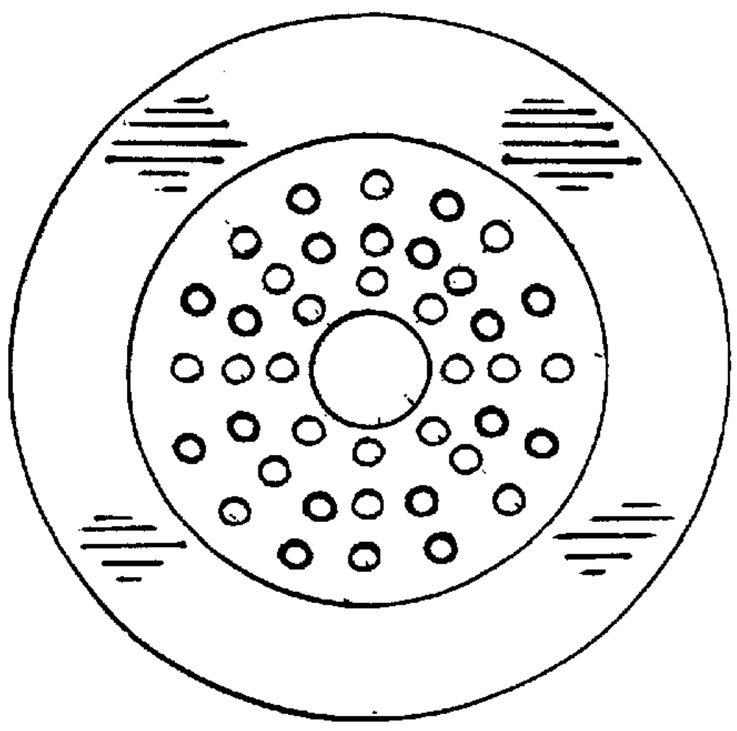


Fig.2