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Express Mail Label No.

INVENTOR(S)

Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
JAMES ANDREW	SENKIW	MINNEAPOLIS MINNESOTA

☐ *Additional inventors are being named on the _____ separately numbered sheets attached hereto*

TITLE OF THE INVENTION (500 characters max)

AQUATIC OXYGEN GENERATOR

Direct all correspondence to: **CORRESPONDENCE ADDRESS**

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ENCLOSED APPLICATION PARTS *(check all that apply)*

☒ Specification *Number of Pages* 1
☒ Drawing(s) *Number of Sheets* 2
☐ Application Data Sheet. See 37 CFR 1.76
☐ CD(s), Number
☐ Other (specify)

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☒ Applicant claims small entity status. See 37 CFR 1.27.
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☒ No.
☐ Yes, the name of the U.S. Government agency and the Government contract number are: _____

Respectfully submitted,

SIGNATURE _____

TYPED or PRINTED NAME JAMES SENKIW

TELEPHONE 612-588-0579

Date 2-5-2002

REGISTRATION NO. *(if appropriate)*

Docket Number:

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

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BOX PROVISIONAL PATENT APPLICATION
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JAMES ANDREW SENKIW

SPECIFICATION

AQUATIC OXYGEN GENERATOR

An oxygen generating device used to extend the life of fish in bait buckets and live wells.

The device is placed in a water filled bait bucket or live well, and cyclically turns on an oxygen evolving anode.

The product consists of the following components:

1. Power Source; (external 12 volt dc or internal rechargeable 6 or 9 volt dc)
2. Anode; Iridium Oxide Coated Titanium or Stainless Steel 1.5" x 1.5" x .0156".
3. Cathode: Stainless Steel mesh 1/32 spacing
4. Control/Timing circuit;
5. Power management system, in which the Oxygen Button power is separated from the control/timing system. This allows for a predictable operating time. which can be as long as 96 contiguous hours.

An enclosure which houses the Oxygen Button and the control circuitry.

The main component of the device is the Oxygen Button. It consists of:

> The Oxygen Evolving Anode consists of a 1.5 x 1.5 x .0156 inch thick titanium sheet coated on one side with iridium oxide
>
> The cathode is made of 1/32 inch stainless steel screen mesh
>
> The anode and cathode are separated by a 1/64 inch fiberglass spacer which electrically isolates the anode and cathode
>
> Electrical connections are made mechanically to the anode and the cathode the above assembly is installed in an enclosure and sealed with epoxy or similar potting material to insure the interior of the enclosure does not get contaminated with water.
>
> The oxygen button is connected to a power source via a control relay. The coil of the relay is connected to a timer control circuit.

The timer device is regulated via a temperature sensing device to determine the on/off ratio to regulate the amount of oxygen generated by the device.

Power sources for the timer control circuit and the oxygen button are batteries which are connected to a charging circuit which allow for recharging batteries from a commercially available power source. Recharge time for the generator is approximately one hour. The run time for the device on a full charge is approximately 96 hours.

AQUATIC OXYGEN GENERATOR

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Fig 1

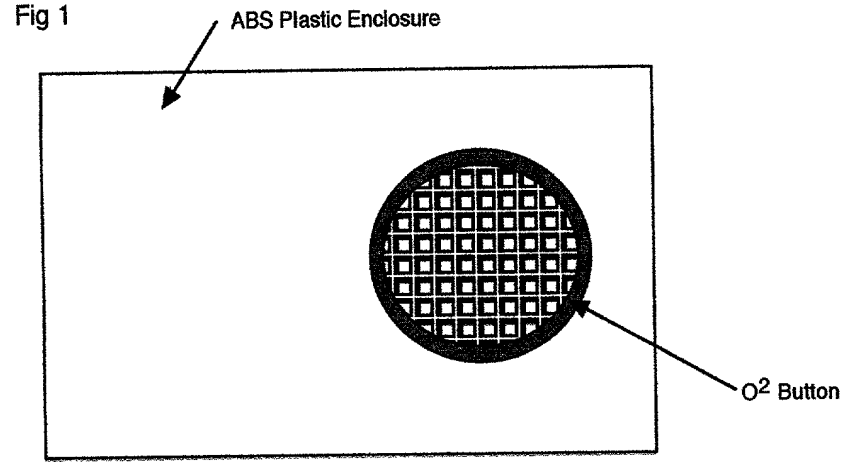
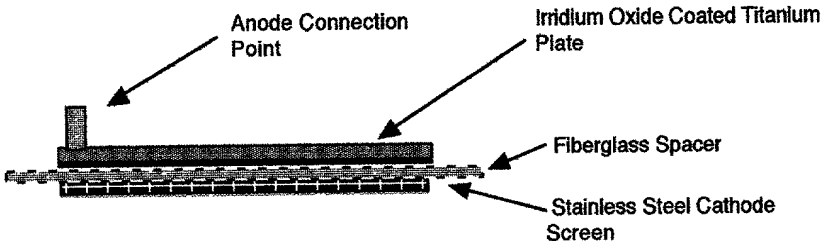
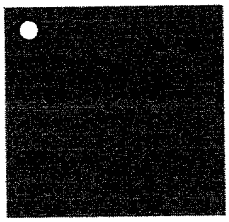
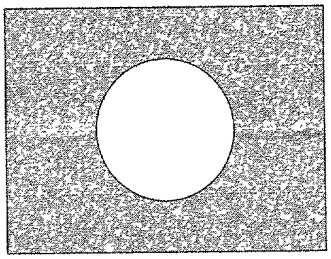


Fig. 2 O^2 Button

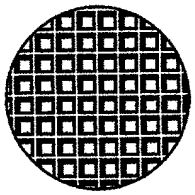




Iridium Oxide Coated Titanium Plate



Fiberglass Spacer



Stainless Steel Cathode Screen