PATENT ASSIGNMENT

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NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Ronald Oger	12/30/2011
Daniel Oger	12/30/2011
Christopher Davie	12/30/2011

RECEIVING PARTY DATA

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Street Address:	500 Sargent Avenue
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PROPERTY NUMBERS Total: 1

Property Type	Number
Patent Number:	7959790

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NAME OF SUBMITTER:	Adrian D. Battison

Total Attachments: 4
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CH $40.00 7959790

BILL OF SALE

For ONE DOLLAR ($1.00) and other good and valuable consideration the receipt of which is hereby acknowledged each the undersigned RONALD OGER, DANIEL OGER, and CHRISTOPHER DAVIE, all of Winnipeg, Manitoba hereby transfers and assigns all of his right, title and interest in the intellectual property described in Schedule A hereto to CLEAN ENVIRONMENTAL SOLUTIONS LTD.

Signed and Effective this 30 day of December, 2011.

Witness

Witness

Witness

RONALD OGER

DANIEL OGER

CHRISTOPHER DAVIE

US007959790B2

Schedule "A" PAGE 1

(12) **United States Patent**
Woytowich et al.

(10) **Patent No.: US 7,959,790 B2**
(45) **Date of Patent: Jun. 14, 2011**

(54) **METHOD AND ELECTRODE CONSTRUCTION FOR ELECTRO-COAGULATION TREATMENT OF WATER AND WASTE WATER**

(76) Inventors: **David Lorne Woytowich**, Sanford (CA); **Daniel Robert Oger**, Winnipeg (CA); **Ronald Bruce Oger**, Dugald (CA); **Christopher Paul Marino Davie**, Warren (CA)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1470 days.

(21) Appl. No.: **10/412,759**

(22) Filed: **Apr. 11, 2003**

(65) **Prior Publication Data**

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Related U.S. Application Data

(60) Provisional application No. 60/372,435, filed on Apr. 16, 2002, provisional application No. 60/420,332, filed on Oct. 23, 2002.

(51) **Int. Cl.**
C02F 1/463 (2006.01)

(52) **U.S. Cl.** **205/757**; 205/628; 205/637; 204/237; 204/269

(58) **Field of Classification Search** 205/757, 205/637, 628; 204/237, 269
See application file for complete search history.

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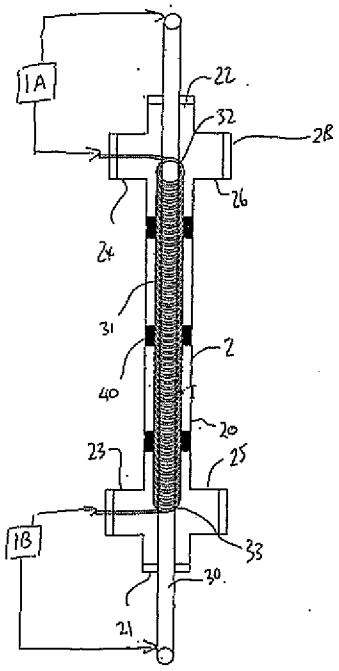
(57) **ABSTRACT**

An improved method for the electro-coagulation c treatment of water and waste water includes an electrolytic cell having an anode and a helical cathode mounted longitudinally within a duct for receiving the contaminated water or waste water at one end and for discharging the treated water and electro-coagulated precipitates at the other end. The electro-coagulated precipitates can be subsequently separated by conventional flocculation, settlement and filtration systems. The anode forms a central longitudinal sacrificial rod defining a cylindrical outer surface and the helical cathode comprises an elongate wire coiled helically around and along the anode so as form a plurality of turns of the wire which turns are wrapped around the anode surface in the form of a constant helix of constant diameter with the turns spaced each from the next and spaced from the anode surface.

34 Claims, 3 Drawing Sheets



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CANADIAN PATENT

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Schedule "A" PAGE 2

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2002/10/23 (60/420,332) US

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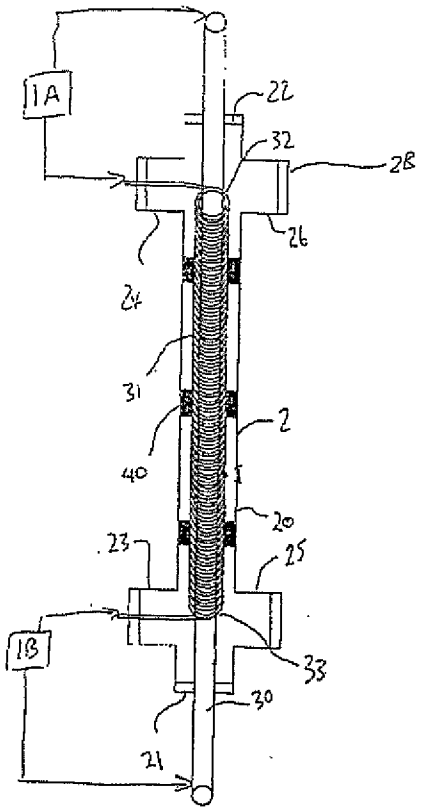
(54) Titre : METHODE ET CONSTRUCTION D'ELECTRODE POUR L'EPURATION PAR ELECTROCOAGULATION D'EAU POTABLE ET D'EAUX USEES

(54) Title: METHOD AND ELECTRODE CONSTRUCTION FOR ELECTRO-COAGULATION TREATMENT OF WATER AND WASTE WATER



(57) Abrégé/Abstract:
An improved method for the electro-coagulation treatment of water and waste water includes an electrolytic cell having an anode and a helical cathode mounted longitudinally within a duct for receiving the contaminated water or waste water at one end and for discharging the treated water and electro-coagulated precipitates at the other end. The electro-coagulated precipitates can be

Schedule "A" page 3

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(57) Abrégé(suite)/Abstract(continued):
subsequently separated by conventional flocculation, settlement and filtration systems. The anode forms a central longitudinal sacrificial rod defining a cylindrical outer surface and the helical cathode comprises an elongate wire coiled helically around and along the anode so as form a plurality of turns of the wire which turns are wrapped around the anode surface in the form of a constant helix of constant diameter with the turns spaced each from the next and spaced from the anode surface.