

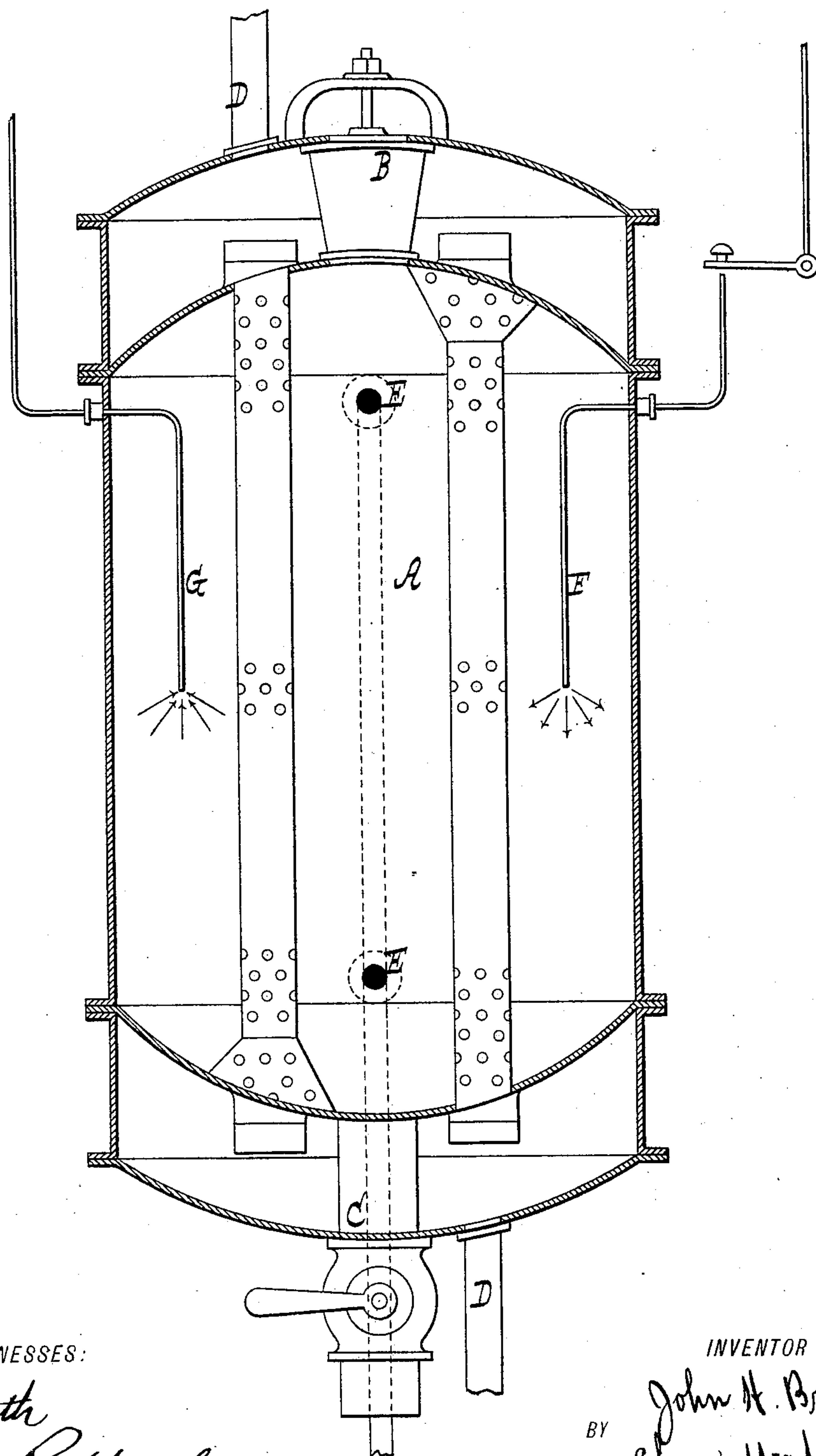
(No Model.)

J. H. BROWN.

DISINTEGRATING FIBROUS MATERIAL.

No. 366,557.

Patented July 12, 1887.



WITNESSES:

S. Smith
C. W. Rothacker

INVENTOR

BY *John H. Brown*
Chas. Wahlers.

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN H. BROWN, OF NEW YORK, N. Y.

DISINTEGRATING FIBROUS MATERIAL.

SPECIFICATION forming part of Letters Patent No. 366,557, dated July 12, 1887.

Application filed March 19, 1887. Serial No. 231,532. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BROWN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Disintegrating Fibrous Material, of which the following is a specification.

My invention relates to the process of disintegrating ramie, pita, yucca, and other fibrous plants or materials for textile or other uses by separating the glutinous and other foreign matter from the fiber; and it consists, essentially, in exposing the fibrous material to the action of an electrical current, as herein-
after more particularly described.

The accompanying drawing represents a vertical section of an apparatus adapted to be used in carrying out my invention.

The letter A indicates a "digester," so called, of cylindrical or other suitable shape, into which the leaves, stalks, and other parts of the plants or material to be treated are to be introduced, as through a man-hole, B, and discharged, as through a spout, C, provision being made also for the introduction and discharge of a suitable treating-liquid, as through feed-pipes D and waste-pipes E, as more fully described in a separate application for Letters Patent filed herewith.

F G indicate wires which are connected to the digester A and terminate within the chamber formed thereby, one being connected to the positive and the other to the negative pole of a galvanic battery or other source of electricity in such a manner that an electrical current may be established at will through and from one to the other of the electrodes formed by the terminals of said wires. The connection of the wires F G with the battery or other source of electricity and the making or breaking of the circuit may be effected in any known manner, and a detailed description thereof is therefore deemed unnecessary.

In carrying out my invention the fibrous

material is first treated with a suitable liquid or gas, and then washed with water to free it of any acid that may be present when the electrical current is brought into action—namely, at intervals—and in the passage of said current from one to the other of the electrodes it thoroughly permeates the mass of material, with the effect of loosening any glutinous or other foreign matter that may adhere to the fiber, thereby producing a rapid and very thorough disintegrating operation.

If desirable, the fibrous material may be removed from the digester A to another or plain vessel—as of wood—which may be opened or closed, and therein exposed to the action of the electrical current, the digester being usually made of boiler-plate or other metal. A successful operation may, however, be effected by properly insulating the joints of the pipes and other parts connected with the digester.

Instead of the two wires F G, a single wire may be used and the metallic body of the digester utilized as a conductor for the electrical current.

What I claim as new, and desire to secure by Letters Patent, is—

1. The within-described process of disintegrating fibrous material, which consists in exposing the material to the action of an electrical current, substantially as herein described.

2. The within-described process of disintegrating fibrous material, which consists in first treating the material with a suitable liquid, then washing the same, and finally exposing it to the action of an electrical current, substantially as herein described.

Signed at New York, in the county of New York and State of New York, this 15th day of March, A. D. 1887.

JOHN H. BROWN.

Witnesses:

CHAS. I. CORNELL,
CHAS. WAHLERS.