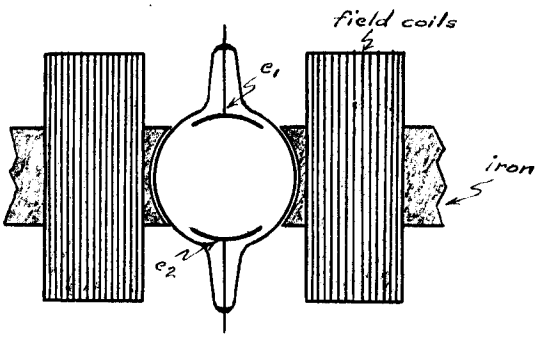


Horizontal section of magnetic chamber

Fig. 1.

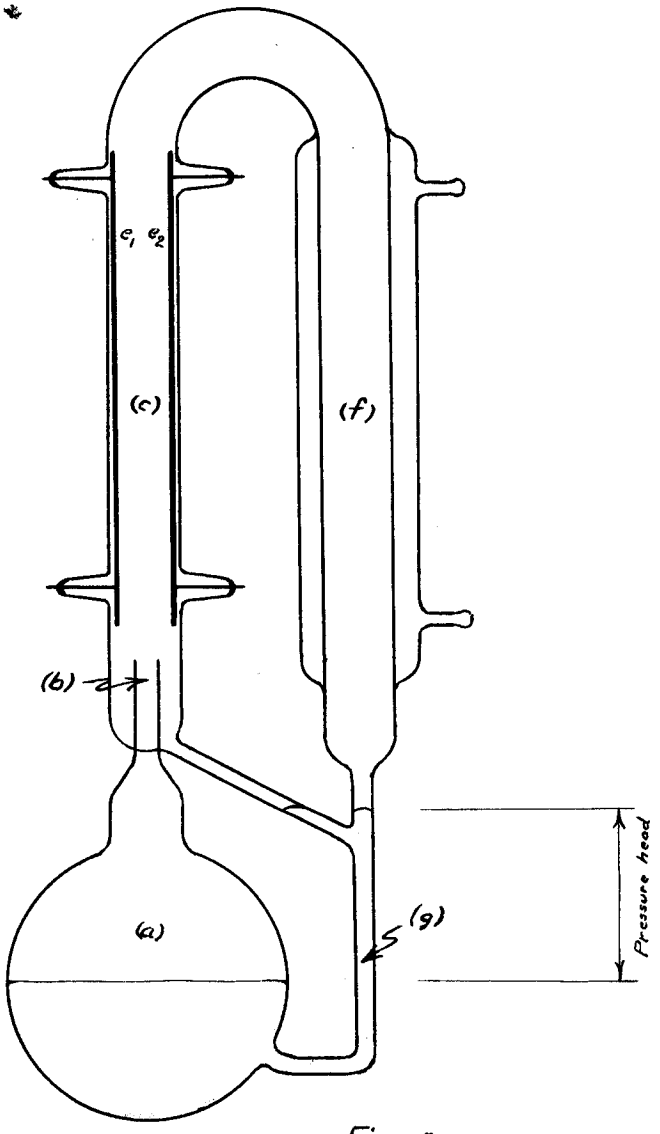
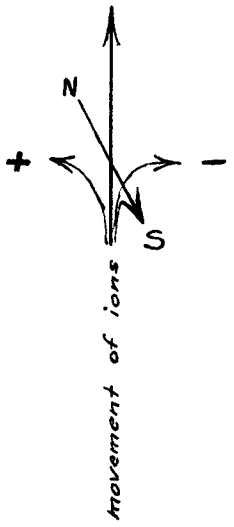


Fig. 2.



Illustrating the right angle relation of the magnetic field, movement of ions and resultant deflection.

Fig. 3.

Witnesses : Feb. 24, 1933.

E. R. Tenimare Johnston

Leon F. Douglass

Mercury Vapor Electric Generator.

T. Townsend Brown

Inventor

METHOD AND MEANS FOR THE GENERATION OF ELECTRICITY.

Thomas Townsend Brown.

(1) The subject relates to method and means for the generation of electricity directly from a mercury boiler by causing the stream of ionized vapor to cross a magnetic field whereby like charges (ions of the same sign) are deflected toward suitable collecting electrodes.

(2) Mercury vapor under pressure is forced through a restriction to increase its velocity and the stream of vapor, ionized by the high temperature, is caused to cross an intense magnetic field. Positive ions are thereby deflected in one direction at right angles to the magnetic field and the negative ions are deflected in the opposite direction. Electrodes are arranged so as to collect these charges and transmit the electric current created to an external circuit. The vapor that is not ionized is not affected by the magnetic field and passes through to a condenser, liquified and returned to the boiler. The process is continuous and requires no moving mechanical parts.

(3) Since the idea is novel and useful patent protection is respectfully anticipated.

(4) Referring specifically to the attached drawing, the boiler (a) is filled to the indicated level with mercury. Upon applying heat to the boiler the mercury is vaporized and the vapor is

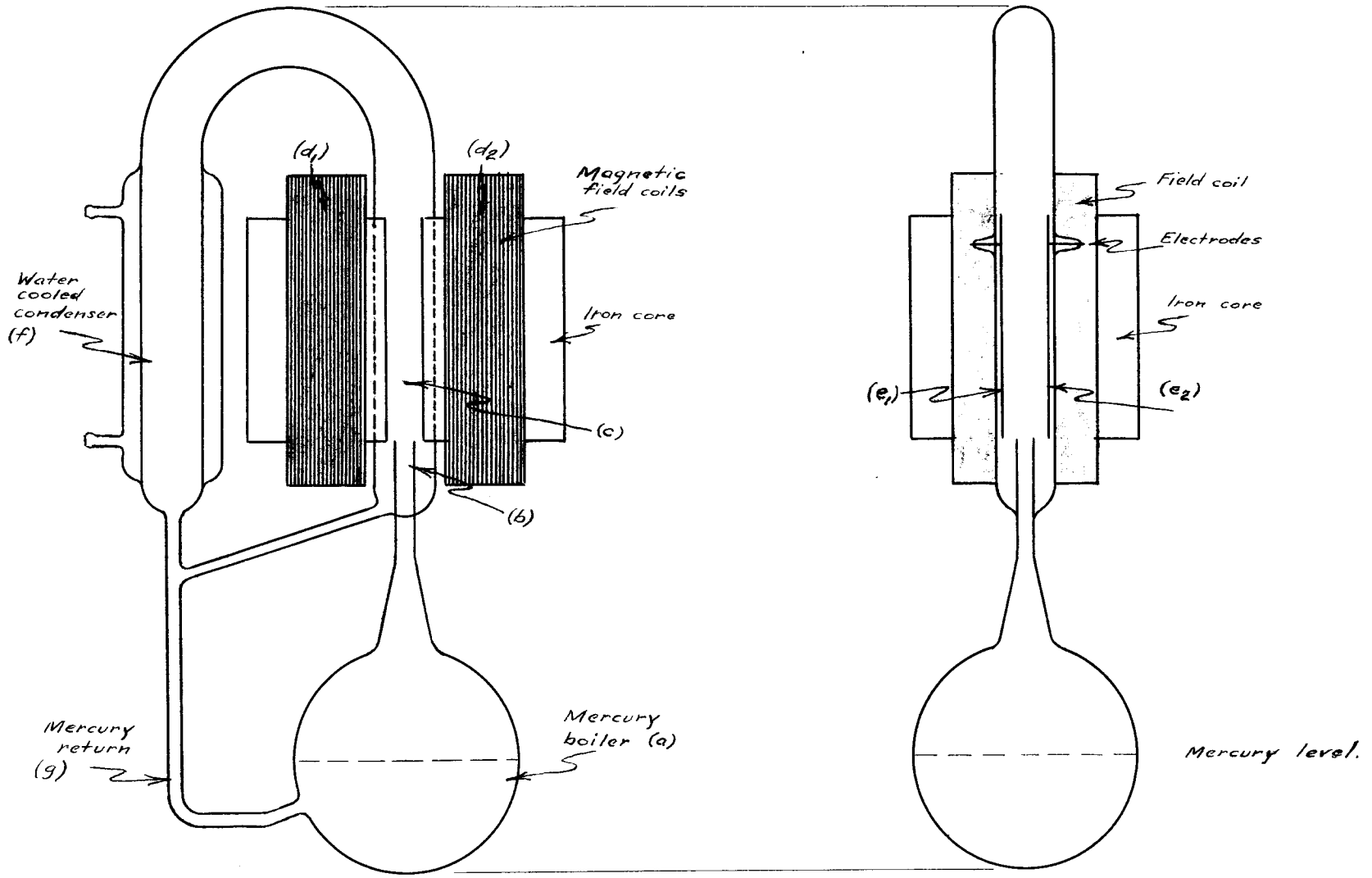
ionized by the high temperature. The ionized vapor under pressure passes through restriction (b) with great velocity into the magnetic chamber (c). External field coils (d_1 and d_2) cause a magnetic field to be present across chamber (c). In passing lengthwise through the chamber the ionized mercury vapor separates its constituent ions, the positive ions being deflected in one direction and the negative ions being deflected in the opposite direction, the plane of the deflection path in both cases being normal to the direction of the magnetic field. Suitably placed electrodes (e_1 and e_2) collect the charges of the impinging ions and transmit the electric current to an external circuit for the performance of useful work. The portion of the mercury vapor that is not initially ionized passes unaffected through the magnetic chamber and, together with the recombined atoms of vapor, condenses in the water or air cooled condenser (f), liquifies and returns to the boiler through the combination trap and return pipe (g).

H. Leonard Brown
Inventor

Witnessed by the undersigned this 24th day of February, 1933.
Witnesses to signature and date.

E R Fenimore Johnson

Leon F. Douglass



Witnesses: February 24, 1933.

C. R. Fenimore Johnson

Leon F. Douglas

Mercury Vapor Electric Generator.

L. Townsend Burns

Inventor

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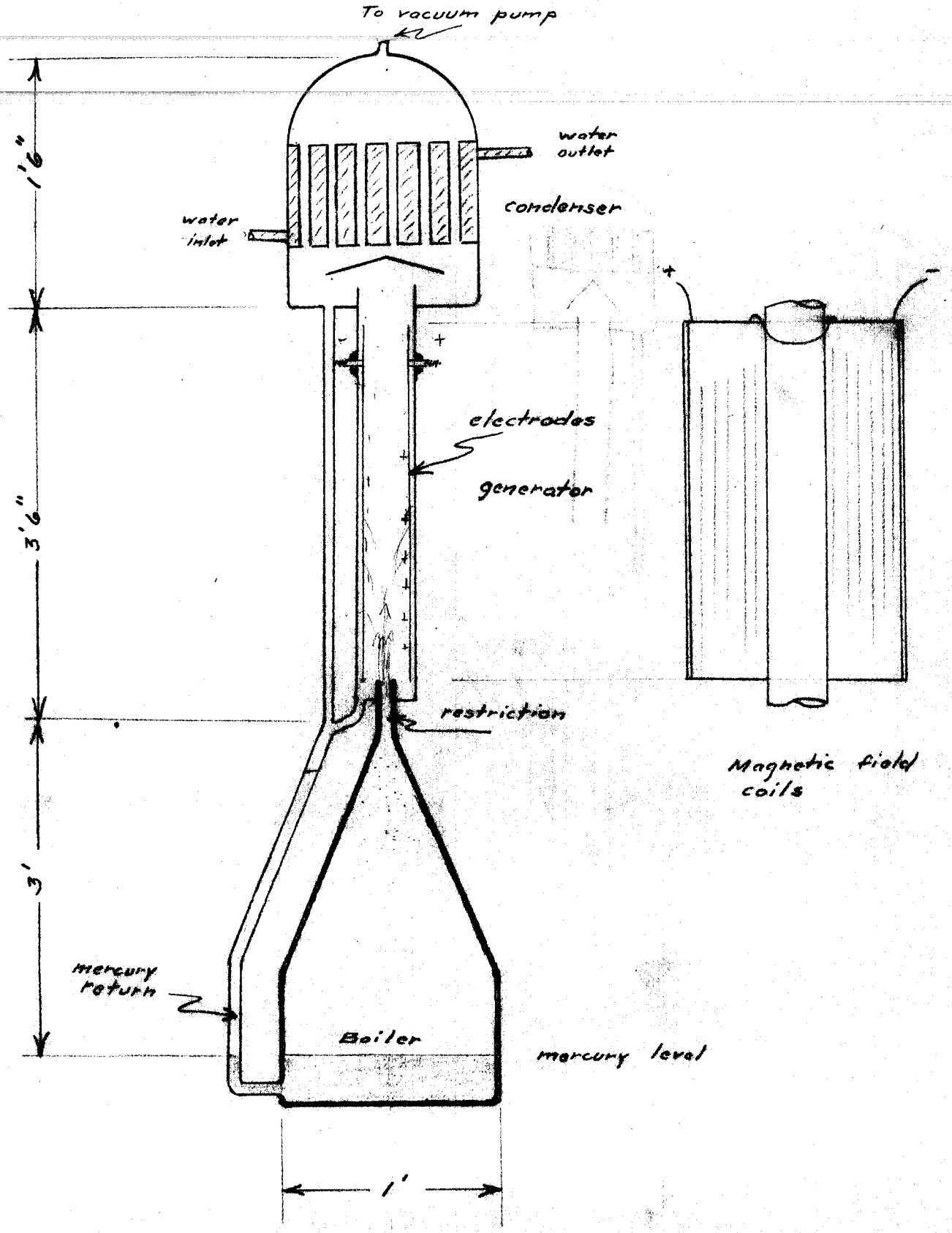
T. Townsend Brown
Inventor

Witnessed by the undersigned this 24th day of February, 1933.
Witnesses to signature and date.

E. P. Edmonds 2-24-33

Leon F. Douglass


To vacuum pump
1'6"
water outlet
condenser
water inlet
electrodes
generator
3'6"
restriction
Magnetic field coils
3'
mercury return
Boiler
mercury level
1'

lamp
#1
#2
#3