

is immediately set up, passing from the wire in the central part of the flame, to that placed in contact with the outer envelope of this or with the atmospheric air. It is well known that gas or vapours heated to a certain temperature become conductors, and hence, there is an analogy between the conditions of this experiment and those of the one mentioned above, in which two strips of platinum are plunged into water, after having been in contact, the one with hydrogen, and the other with oxygen. This analogy appears to me to be sustained by the following experiment. After the platinum wires are removed from the flame, as described above, they are allowed to cool in the air, and are then, after the lapse of several minutes, plunged into distilled water. A current is manifested of much greater intensity than that which originates in the flame; but the direction is similar—*id est*, from the wire that was placed in the centre of the flame to that which was in contact with the flame's outer surface. This fact may be verified by changing the positions of the wires. Finally, the wires which have been thus in contact with the flame, produce no current if plunged into mercury, whilst a current is obtained immediately on plunging them into water. This experiment, I must repeat therefore, appears to me to prove the existence of a certain analogy between the electrical phenomena of flame and those of the oxy-hydrogen battery. E. J. C.

## SCIENTIFIC AND LITERARY NOTES.

CANADIAN CAVERNS.—BY GEORGE D. GIBB, M.D., ETC.

Dr. Gibb has dedicated to the *Canadian Institute* an interesting memoir on Canadian Caverns, read by him before the British Association for the Advancement of Science at Aberdeen, and subsequently published in the pages of the *Geologist*. In its present garb, this memoir forms an octavo pamphlet of some thirty pages, with eight lithographed plates. The caverns described—including a few beyond the confines of the Province—are arranged in two series, as in the following tabular view:—

A.—*Caverns, Arched Rocks, etc., washed by the waters of existing seas, lakes, or rivers.*

1. Caverns on the shores of the Magdalen Islands.
2. Caverns and arched rocks at Percé, Gaspé.
3. Gothic arched recesses, Gaspé Bay.
4. The "Old Woman" or flower-pot rock at Cape Gaspé.
5. Little River caverns, Bay of Chaleur.
6. Arched and flower-pot rocks of the Mingan Islands.