

leading and affords" no idea either of the "ions" or the probable combinations.

Unanimity of expression and concordance with science can only be attained by strict adherence to the electrolytic theory of solutions, and giving the "ions" and the "anions" actually estimated.

As the result of making hundreds of analyses, I have come to the conclusion that more light may be thrown upon the probability of combinations depending upon the relative solvency of the various salts in various media, and since it is highly important to have as much knowledge as possible of these combinations, I have applied these principles to the obtention of the combinations as represented, and grouped the waters according to their more striking relationship and not from any single standard.

Somewhat similar principles are being followed by other water analysts, \*and it is to be hoped that the adoption will become general as it is in accord with more recent knowledge, and possibly it can be elaborated and extended as our knowledge is furthered by research and experience in using the waters. Doubtless practical experience and research will proceed "paripassu."

The facts that, at some of the springs visited, erroneous analyses have been circulated for years, and that out of some forty-three spring waters examined in the <sup>b</sup>United States none agreed, whilst some were totally different from the published analyses upon which the waters were sold and used internally and externally, has made me wonder how the medical profession prescribe accurately for their patients, or whether it resolves itself into repeated trials until the water and the patient agree.

Perhaps some of our medical members will be good enough to enlighten us on this point at the conclusion.

#### MEDICAL AND THERAPEUTICAL VALUE

I have compiled the following notes by reference to Crook "Mineral Waters of the U. S. A. and Their Therapeutic Uses," an excellent report on the <sup>b</sup>Hot Springs of Arkansas by Haywood, and I am also indebted to J. A. McArthur, M.D., of Ottawa, a specialist in thermal therapeutic treatment.

*Carbonates and Bicarbonates.*—Waters like Banff, Sinclair and Albert Canyon are high in Bicarbonate of Lime.

\* Mineral Waters of the U.S.A., by J. K. Haywood.

(b) Hot Springs of Arkansas, by Haywood and Weed, U.S.A. Dept. of Agriculture.

(c) The Examination of Water.—Dr. Thresh.