

It occurred to the author that the true cause of the reaction was to be found in the presence of organic matter in the water, derived from the decomposition of vegetable matter in the strata or soil through which it had passed. To ascertain whether this view was correct, the precipitate by acetate of lead from several quarts of the town water of St Andrews was decomposed by sulphuretted hydrogen. After filtration, a liquid was obtained, which, besides sulphuric acid derived from precipitated sulphate of lead, was found to contain some organic matter apparently of an azotised nature; but its amount was too small to characterise its properties with accuracy. The salt obtained by saturating the liquid with potash, yielded by distillation empyreumatic vapour, and left a black coaly mass behind. The liquid itself, when neutralized and sufficiently diluted, had still a marked action on lead salts; and it or its potash salt produced more or less precipitate after the interval of a day or two, in acetate of copper and neutralized persulphate of iron.

The author has found this matter in the town waters of Edinburgh and Glasgow, but to a less extent than in that of St Andrews. The Glasgow water shewed the least of the three. He has also found it more or less in every instance he has hitherto tried of transparent and colourless well, spring, or river water. In rain water it does not exist, and probably could not be found in springs above the limits of vegetation, or in snow or glacier water. It would seem that it ought to perform functions of some importance in the economy of nature, as contributing in a certain degree to the nourishment of plants and even of animals.

2. Biographical Sketch of the late Sir Charles Bell. By Sir John MacNeill.

This paper is, from its nature, incapable of being here given in an abridged form.

3. Notice regarding the Bebeeru Tree of British Guiana. By Dr A. Douglas MacLagan.

The plant bearing the above Indian name, and also called Sipéeri by the Dutch colonists, furnishes the hard and heavy timber known by the name of Greenheart. The object of the present paper was to state the result of experiments made by the author on the bark and seeds of the tree, which had been found by Mr Rodic, R. N., to contain a vegetable alkali possessed of the power of checking intermit-