

these or similar acids are found in rotten wood, in ochre, and in numberless putrefying vegetable productions, it is easy to account for the presence of organic matters in this water, without reference to such out of the way substances as resins and vegetable albumen.

Of the ten substances found, therefore, five may fairly be presumed to exist only in Mr. De R.'s imagination.

At page 10, five lines from the bottom, we read, "The earth is filled with sulphur crystallized in fine grains." I have some of the earth, which, as might naturally be supposed, exhibits nothing of the kind. It contains iron and sulphuric acid; but of this more on a future occasion.

At page 11, we have a very interesting statistical account of the diseases prevalent at Brantford, and of the cures effected by the water. This portion of the pamphlet I will leave to the critical acumen of your medical readers; but I may remark that the cures are not to be ascribed to the presence of Mr. De R.'s "antimoni ferruginous," but simply to that of free sulphuric acid, for every one, who is even as little acquainted with medicine as I am, must be aware that sulphuric acid is, or has been, employed in inflammation of the eyes, in cutaneous diseases, and in the treatment of sores.

At page 12, we have the following passage, which I am sure you will excuse my quoting at length, inasmuch as I am quite certain you wish to amuse as well as instruct your readers:—

"It may be useful to remark, that if water containing zinc and potash (!), as well as alum combined with potash (!), is very scarce (perfectly true), water containing antimony is still more important on account of its still greater scarcity and medicinal power. The salts of antimony are of the greatest value, on account of the great difficulty of preparing them properly; for the chloride of antimony becomes decomposed in water, while here it is produced by the presence of the acid, and of organic matter. The discovery of antimony in a mineral spring is undoubtedly an immense advantage for the science of medicine; for the same substance prepared artificially is never so efficacious as when found in water, &c. &c. &c. I will take the liberty of explaining the theory of the formation of this *antimoni ferruginous* spring, and of explaining the cause why the antimony is in solution without being decomposed or precipitated by the water. According to geological researches, it is known that this place contains a great many marshes, iron pyrites, lead ore, zinc, and antimony, as well as beds of gypsum. Water running through iron pyrites or gypsum, by some chemical or other phenomenon, becomes decomposed, and charged with a quantity of sulphuric acid; (the waters of this spring prove its presence in a very decided manner;\*) the water so acidulated, passing through turf or a marsh covered with vegetation, must contain vegetable albumen which I have found, organic acids, resinous substances, &c. If the water thus charged passes afterwards

through beds of ore of antimony, it is natural that it will dissolve the substance without precipitating it."

In the first place, the statement of any preparation of antimony prepared artificially not being as efficacious as when found in water, is, *in abstracto*, a decided fallacy. I believe (speaking under correction) that the idea of springs possessing peculiar virtues, not to be imitated by artificial means, is now entirely exploded. But let us look at Mr. De Rottermund's theory, and we will suppose that all the substances he requires do really exist in the neighbourhood. Did any one ever hear of water being decomposed when in contact with sulphate of lime, and becoming charged with sulphuric acid? In that case half the springs known in the world should contain it. Mr. De R. very properly adds, "by some chemical or other phenomenon." But by means of iron pyrites sulphuric acid might be formed; this, says our author, passes through turf or marsh covered with vegetation, and becomes charged with vegetable albumen (?), organic acids (here mentioned for the first time), resinous substances (?), &c. &c. &c. Now, this solution, "passing through beds of ore of antimony, will naturally dissolve the substance without precipitating it;" that is to say, water containing sulphuric acid, resins, albumen, and crenic acid, will dissolve an ore of antimony (probably the sulphuret). I am afraid Mr. De Rottermund is like the facetious old gentleman, who, hearing a friend cry out, "*lapsus linguæ*," when his servant let fall a boiled tongue, caused his own attendant to be equally awkward with a round of beef, and expected to gain great applause by a repetition of the witticism.

Mr. De R. has heard that when the oxide or sulphate of antimony is boiled with bitartrate of potash the oxide is dissolved; and that the precipitancy of the oxide, or basic salt of antimony, by means of water is prevented by the addition of some organic acid, and he wishes us to believe that something similar takes place in the present instance. Let him believe it who can. Besides, he need not have given himself the trouble of accounting for the antimony, because there is none there; which puts me in mind of the twenty-fourth reason for not ringing the bells, viz., because there were no bells to ring.

In the preceding remarks I have shown the utter fallacy of Mr. De Rottermund's statements with regard to the Brantford Springs; and in my next communication I shall take the liberty of endeavouring to prove similar inaccuracy in the remaining portions of the pamphlet. I may, however, remark, that it is scarcely necessary to attempt a refutation, for Mr. De R.'s statements are unsupported by experiments, or the descrip-

\* Here mentioned for the first time.—H. C.