

is continued forward around the blood vessels and nerves that enter posteriorly; moreover, that the ophthalmic is in communication with the cerebral veins through the cavernous and other sinuses. Inflammation may readily extend by any of these routes from the orbital cavity to the brain and its membranes; nor is this occurrence by any means rare. Mackenzie, Wardrop, and other ophthalmic surgeons, give cases. When I read of encysted tumours frequently operated upon, both in London and Dublin, before a radical cure could be effected, I may be permitted to congratulate myself at being more fortunate with my cases.

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ART. VIII.—*Some of the Watering Places and other Health-resorts of Switzerland.* By H. R. DE RICCI, M.D.

(Continued from vol. xxxii., p. 330.)

I WAS not strictly correct when I asserted just now that the water of Loèche evolves no gaseous products; it does give off about 10 cubic centimetres of nitrogen, and two cubic centimetres of oxygen and carbonic acid gas, in all about 12 cubic centimetres of gases from every 1000 grammes of water, but no sulphuretted hydrogen is evolved until the water has been bathed in, when its presence can unmistakably be detected by the olfactory organs, without the aid of lead test paper; this is supposed to be due to the decomposing action of the sebaceous exudations of the skin on the sulphates contained in the water.

Although Loèche does not offer much in the way of amusements, still its environs are full of beauty and interest. One of the curiosities of the place is the ascent called the ladders, which leads from the valley to the village of Albinen, situated on a high alp on the top of the Wandfluch, on the right of the valley when looking towards the Ghemmi. There is a constant intercourse going on between the inhabitants of Loèche and those of Albinen, but, owing to the precipitous cliffs which hem in the valley on all sides, there is no path by which the natives can communicate except by going a round of nearly six miles, whilst Albinen and the baths are not more than one mile apart; one at the bottom of the valley, the other perched on the top of about 150 feet of perpendicular rock. In order to save themselves this long circuit, the inhabitants have for

centuries been in the habit of scaling this perpendicular buttress by means of ladders placed straight against the cliff, one above the other, fixed to the rock in the most primitive and unsatisfactory manner; the ladders themselves are of the rudest construction, about 12 feet long and three feet wide, the rungs being very far apart, and joggling in their sockets; often rotten—always rickety—they convey to a stranger who attempts to mount them the most unmistakable feeling of insecurity; yet the inhabitants go fearlessly up and down at all times and seasons—day and night—men, women, and children, and accidents rarely happen. It is surprising to see the heavy loads which these people carry up and down those dizzy ladders, and fearful sometimes to watch two parties meeting, one ascending, the other descending, when, in order to pass each other, the least heavily laden leans out over the precipice from the edge of the ladder to make room for the other to pass.

In this neighbourhood the larch grows wild, it is its native habitat, and some of the noblest specimens of that tree are still to be seen there; I measured one 22 feet in circumference, at about five feet from the ground. About the middle of the latter half of the last century, the Duke of Athole imported the larch into Scotland, and it was from the neighbourhood of Loèche (I have been told), that he brought the two original trees which have since covered with their progeny half the mountain sides of Scotland. Travelling was a very different matter in those days from what it is in ours, and the Duke, who was travelling on horseback, is said to have carefully packed the two young sapling larches one in each of his *full jack boots*, so to keep them upright and preserve them from injury. I believe that the original pair of larches which were so brought over from Switzerland, are still to be seen flourishing at Blair Athole.

In what cases, in conclusion, should we recommend the waters of Loèche to our patients? If we were to give heed to all that local bath doctors tell us of the respective waters of their several springs, there is not an ailment which flesh is heir to, that would not be cured by either drinking, plunging, or soaking in either one or all of them. I have been at some trouble to make out, by the aid of Dr. Mengis and Dr. Marc d'Espine, President of the Medical Society of Geneva, a list of those diseases in which the waters of Loèche are truly serviceable, and the following appear to be those in which we may expect the most encouraging results:—

First on the list we may place rheumatism, articular and muscular, and we may probably class with it most forms of myalgia and neuralgia. Many forms of skin diseases, especially eczema, herpes, impetigo, and ecthyma, which are invariably cured; unfortunately the same cannot be said in cases of acne, psoriasis, and pityriasis, although they decidedly improve under the influence of the baths of Loèche.

In amenorrhœa and dysmenorrhœa, these waters may with safety be recommended, as also in cases of vaginal discharges and bearing down, caused by general relaxation of the uterine apparatus and its appendages—we may add goitre, but I fear that unless taken at a very early stage, one would not be justified in expecting any great results. The waters of Saxon, would, I think, be much more powerful in dispersing those disfiguring tumours, were it not for the unhealthiness of the locality where they arise, which, combined with the mosquitoes and the suffocating heat, render them totally unavailable, at least to our British population.

Saxon is situated in the valley of the Rhone, on the left of the traveller coming down from Loèche, towards the Lake of Geneva, about half way between Sion and Martigny. The mineral water which supplies the bathing establishment gushes out more like a little torrent than a spring, and it is an unfortunate circumstance that the unhealthiness of the locality will always prevent us from making use of it, for it belongs to that class of iodo-brominated springs which are so powerful in the treatment of those diseases for which they are indicated. I have not been able to obtain an accurate analysis of these waters, but that they contain both iodine and bromine is easily detected, even without an analysis, by the peculiar saffron-like smell which they evolve on being exposed to the air for a short time. Ossian Henry, in a paper laid before the Imperial Academy of Medicine at Paris, states, that 0.110 grammes of iodide of calcium and 0.041 grammes of corresponding bromide are contained in every 1,000 grammes of the water, thus greatly exceeding in strength the somewhat similar waters of Kreuznach, Wildeg, and Heilbrunn. I once met an interesting young patient, a lady from the north of Italy, who was rushing away from the baths of Saxon, unable to support the heat, the stuffiness, and the mosquitoes of the valley of the Rhone. She had been ordered by her medical attendant to those baths, solely from the account he had read of their chemical composition, and probably without the most remote idea of the topography of the place. She was suffering from struma in a very aggravated form, labouring under caries of

the left elbow, and of some of the metatarsal bones of the left foot. During her short stay at Saxon she had experienced the greatest improvement from the use of the waters, and felt very disconsolate at having to give them up. I endeavoured, however, to comfort her with the assurance that the water she valued so much could be transported in bottles, and employed in the same way, and for the same purposes, at a distance from the spring, and in any healthy locality she might select; for the water of Saxon is *nearly cold*, and it is notorious that cold mineral waters bear exportation better than those which rise at a high temperature. This lady, at my suggestion, selected Champéry, not far from the baths of Saxon, where I also was going to spend a short time, for her summer quarters, and I thus had the opportunity of watching her, and studying the effect of those waters at a distance from the spring, but with the adjuvants of bright clear bracing air, and no mosquitoes. This patient improved wonderfully while under my care at Champéry, and though much of the general improvement was unquestionably due to the invigorating effects of the pure air of the place, and the use of a mild chalybeate spring, which rises near the village, and of which I made her take some every day, yet the amendment of the ulcers and the contraction and improved look of the several suppurating surfaces was undoubtedly due to the waters of Saxon, with which I kept them constantly wet by means of linen compresses. I think I can safely assert this, for whenever the Saxon water happened to be run out, and that I dressed with plain spring water, the granulation became flabby, the discharge unhealthy, and the smell intolerable.

Between Saxon and Villeneuve, and precisely at the point where the Rhone has to force a narrow passage for itself between the mountains of the Dent du Midi and the Dent de Morcles, lie the baths of Lavey; they are much frequented by the Swiss themselves, and by French and Germans, but I do not think that they will ever attract many from these countries, as they labour under the same disadvantages as the baths of Saxon, though in a minor degree. The water of Lavey is sulphurous, but not to a very high degree; it contains lime, potassa, soda, and strontian, and 100 cubic centimetres give of

Nitrogen, . . . . .	27·80
Carbonic acid, . . . . .	4·34
Sulph. hydrogen, . . . . .	3·51

It does not spring forth, but has to be pumped up from under the

bed of the Rhone, and thence conveyed in pipes to the baths, losing in its course a considerable portion of its gaseous components and much of its heat, so that while at the source itself it is pumped up at a temperature of 43° centigrade, it has to be warmed over again at the establishment, and by that means loses still more of its constituent gases.

In the vicinity of Lavey are the salt mines of Bex, which are well worth a visit. The principal gallery runs straight into the mountain for about  $1\frac{1}{4}$  mile, with an average height of eight feet and five feet in width. At 400 feet from the entrance is a round chamber, excavated in the solid rock, and used as a tank for dissolving the rock salt. It is eighty feet in diameter and ten feet in height, the immense vault of rock being totally unsupported in its entire extent. The extraction of the pure table salt from the solutions of rock salt is carried on exactly in the same way as at Kreuznach, in Germany, and the mother-water, *mutter-lauge*, which remains after the salt is crystallized, is employed at the baths of Lavey to strengthen the mineral water, the same as at Kreuznach, by a certain quantity of it being added to each bath, according to the requirements of the case, and the directions of the resident physician. The most important ingredients of the mother-water from the salt factories of Bex are, bromide of sodium and bromide of magnesium, about 8 grammes of the former and  $2\frac{1}{2}$  of the latter to each kilogramme of *mother-water*. The quantity of this *mother-water* added to each bath of Lavey mineral water is about 2 litres at the commencement, and gradually increases to 30 and 35 litres for each bath. This quantity is seldom exceeded, nor long continued, and is gradually diminished until reduced to the original 2 litres with which the patient had commenced.

The waters of Lavey enjoy a great reputation in Switzerland for their efficacy in the treatment of scrofulous and rachitic diseases; they are also said to cure goître and some cutaneous affections. I have little doubt that they principally derive their curative powers from the bromides of the mother-water, which is added to them, though no doubt the combination of them with the sulphuretted water will render it more efficacious in the treatment of those skin diseases which it is said to cure.\*

\* It appears to me that we might take a practical hint, from the *plan* followed in other places, of strengthening feeble mineral waters by the addition of the residual waters of salt refiners, and employ some of the *mutter-lauge* of our own salt factories, either diluted with plain water, or with water containing, like that of Lavey, a small proportion of sulphurates, and apply it in the form of baths in the treatment of cutaneous disorders and rheumatic affections.

I mentioned above, that a young lady, suffering much from scrofula in an aggravated form, had derived much benefit from her sojourn at Champéry. I think this place deserves more notice than has hitherto been bestowed on it, not as a bathing place, but as a *health-resort* for the summer months. I do not recommend it to those who seek for *pleasure* in the excitement of the gaming table, for, alas, there is no Casino, no Kur-saal, at Champéry! But for those who can see beauty in the ever-varied works of the Great Architect—the pine-clad slopes, the towering rugged rocks, the foaming torrent, or the still solemn wilderness of the glacier—Champéry will offer much enjoyment. It is situated nearly at the top of the Val d'Iliers, a valley stretching up towards the mountains of Savoy, from the left bank of the Rhone, about midway between the baths of Lavey and Villeneuve. Champéry is about 4,500 feet above the level of the sea, and beyond the region of *mosquitoes*;—this invaluable quality can only be fully appreciated by those who have felt what *insects are*;—to those who do not know them, I recommend one night at Martigny in the month of July or August. Champéry is situated on the western slope of the valley facing the fantastic profile of the Dent du Midi. It has good accommodation at a reasonable cost. It is admirably situated for mountain excursions, from the easy ride to the Croix de Cullet to the more arduous ascent of the Dent itself, whose principal peak rises to about 11,000 feet. Another great advantage it possesses, is in not being yet hackneyed; the people about the place are unsophisticated; and it is refreshing to find oneself in Switzerland, at last out of the universally beaten track, and for a time relieved from that human flood which, by degrees, is converting that glorious country into an overwhelming Cockney watering-place.

Not far from Champéry, in the midst of a wilderness of pine trees, is Morgins; it is reached by a track—I can scarcely call it a path—which leaves the road from Monthey to Champéry, on the right of the traveller going up the valley. It possesses an hotel of the most primitive kind; but many Swiss resort to it yearly for the purpose of inhaling the forest air, which, passing over the stems of the fir trees, all encrusted and dripping with resinous exudations, becomes charged with their odours and exhalations, and in the curative powers of which, especially for bronchitic affections, the Swiss place great reliance. I met there a most intelligent lady, who during many years had suffered from a chronic form of bronchitis, with excessive secretion; she passed her winters at Montreux,

on the Lake of Geneva, and the summer in the mountains, now in one place and now in another; but for the last three summers she had come to Morgins, in consequence of the great benefit she had derived, as she expressed herself, from breathing the air charged with turpentine. At the time, this account did not make much impression on me; but having read, since my return, that interesting and excellent monograph of Dr. Corrigan's on Arcachon and its pine forests, I was forcibly struck with the similarity, and I now place faith in the accounts which I received of the curative effects of the air of Morgins. But not only those who suffer from bronchitis and other pulmonary affections, are said to derive benefit from a summer residence among those pine forests; chronic ophthalmia is often cured, and always relieved; and also many other forms of disease resulting from abnormal conditions of the mucous membrane.

The Swiss, not satisfied with inhaling the balsamic air of these forests, and leading at the same time the most regular and healthful life, endeavour to add still further to their manifold advantages by taking what they call the whey cure; this consists in deluging their insides with enormous quantities of the whey which remains after the manufacture of goat cheese. This whey, of which they take from 6 to 12 tumblers with the greatest gusto before breakfast, was to me the most nauseous dose I ever encountered; they drink it tepid, allowing a quarter of an hour between each dose! but one taste was sufficient for me. As for any advantages to be derived from it, excepting in so far as it acts daily as a purgative, I can see none, and as whey is nothing more than milk minus its nutrient properties, I am inclined to think that a bowl of the pure milk, warm from the goat, with perhaps the addition of a lump of sugar, and a table spoonful of rum or kirchwasser would, in all probability, have been of far greater service to invalids. The great place for the whey cure is Gais, in the Canton of Appenzell; but wherever the Swiss, French, or Germans resort for the summer, if there is a goat to be had at all, its lucky possessor is sure to convert its milk into whey.

Another favourite cure in Switzerland is the grape cure; and of this I beg to speak with far more respect. In the first place it is, unlike the last-mentioned remedy, very pleasant to take, and in the second instance it is of real service. Grapes will not cure consumption as some have asserted; but I have seen it do a wonderful deal of good in cases of marasmus, brought on by habitual intemperance and indulgence in all sorts of excesses. I have seen persons

who looked as if *consumptive*, gain flesh and strength under the use of large quantities of grapes, and a friend of mine—a highly intelligent individual, who on several occasions had to take cod liver oil in this country, not for any pulmonary complaint, but for general debility and wasting away—assured me that after eating for several days from two to three pounds daily of grapes she felt invigorated exactly in the same way as if she had taken cod liver oil for the same lapse of time. I would always recommend any patient that I would send to Loèche, to adjourn to Vevey in the commencement of September, after having undergone the ordeal of those baths; and at Vevey to finish the treatment by going through the process of the grape cure, than which no cure can be more simple. The grapes are delicious, especially if you take care to purchase only such as come from Aigle, and the cure consists in eating as many of them as you can manage! the first thing in the morning—the last thing at night—at breakfast, luncheon, and dinner; and I never knew a patient to tire of them, nor resist their fattening properties.