

barometric pressures at the upper and lower stations, subtract the one from the other, correct for temperature according to the rule, and apply the corrections for gravity and latitude as given in the tables.

Such is the method of determining heights according to the formula of Laplace. Another formula has been investigated by Bessel, who aimed at greater accuracy by introducing a separate factor for the effect of the aqueous vapour in the air. Professor Plantamour of Geneva has computed a series of tables based upon this formula, in which he has adopted the more accurate constants of Regnault, viz. 18,404·8 metres as the barometric coefficient, and ·003665 as the coefficient of dilatation of the air. These tables are included in Guyot's collection; but as the advantage of Bessel's method over that of Laplace is very doubtful, and the calculations are longer and more difficult, they are less to be recommended for ordinary use than those previously described.

The only part of the preceding investigation, which is of questionable validity, is that relating to the temperature, and it is therefore desirable to enquire how far the hypothesis assumed by Laplace is in accordance with fact, for which purpose the hypothesis itself must be explained a little more fully. But the discussion of this subject, together with the application to practice of the foregoing theory, must be reserved for our next number.

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#### VILLAGE LIFE IN SWITZERLAND.\*

ALTHOUGH the whole geography of Switzerland is probably better known in England than among the natives themselves, and English observers have gathered every variety of plant, and hammered at every species of rock existing in all the twenty-two cantons, yet comparatively few have enjoyed, or even sought, opportunities of observing the people themselves, and becoming acquainted with their habits and character. We all are familiar with the several classes of guides and porters, with the hotel-keeping race, and their rough substitutes in mountain chalets, and most of us have at least a general knowledge of Swiss history, and of the chief features of their present government; but of the details of domestic life we see and know nothing, and we form our estimate of the national character by most imperfect generalization, from the classes who are brought into constant contact with travellers. This is no fault of the ordinary traveller, who would probably be glad to extend his own experience could he command the time; and we

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\* *Village Life in Switzerland.* By Sophia Duberly Delmard. London: Longman & Co. 1865.

listen with interest to a witness like the authoress of the work before us, enjoying the advantage of having had long and continuous observation, though of only one locality. Mrs. Delmard, with her husband and children, has resided between two and three years at Bex, in the Rhone valley; and though she seems to possess absolutely no knowledge of any other part of the country, she has had ample means of forming a trustworthy estimate of the people of that immediate neighbourhood. Her style of writing is familiar, sometimes almost vulgarly so, and her grammar not always unexceptionable; but she relates vividly enough what she has seen and known, and her conclusions are not mere feminine substitutes for all argument, but reasonable inferences from recorded facts.

The people of Bex, according to Mrs. Delmard, are the idlest, dirtiest, ugliest, most drunken race imaginable: their morality and religion are alike defective, and their sole virtues politeness and good nature. And certainly the unsavoury details she relates sufficiently justify even these sweeping charges, while there is no appearance of exaggeration; and Mrs. Delmard's own previous ideas and prejudices were, as she frankly says, entirely altered by her experience. But her testimony, though important so far as it goes and comprising an entirely new set of facts, is obviously as imperfect as that of the habitual summer tourist. Her total ignorance of everything ten miles distant from Bex is apparent throughout: it is true she never pretends to know anything, but she has evidently no idea that the people she has seen are not typical Swiss. And yet it is manifestly as unjust to apply to the whole Swiss nation an estimate formed by a residence at Bex, as to judge of English habits and character in general from observing the manners and morals of some miserable village in the least prosperous part of this country. The Rhone valley is notoriously the most unhealthy region in Switzerland; the comparatively recent union of Vaud to the Confederation has given very little time for freedom to tell on the popular character; and the example of France shows how pernicious to religion and morality the overthrow of Catholicism in an irreligious age is likely to be. It would be equally fallacious to argue from a knowledge of Glarus and Zurich only, that the Swiss are the most industrious, decent, prosperous, and moral of peoples; or from observation of a couple of valleys off the St. Gothard, that they are the tallest and handsomest of mankind. Mrs. Delmard's description does not even apply to Canton Vaud as a whole; it would be absurd to describe the people of Lausanne in the language bestowed on Bex; and even if spoken of the valleys whose heads are within a few miles of Bex, and which run northwards from the range of the Diablerets, such language would appear grossly exaggerated. We are no champions of the Swiss in general, or of the Vaudois in particular; observation as close and continuous as Mrs. Delmard's would very probably discover equally black spots in other quarters, but we merely mean to show that this has not been done. To those who are interested in the Swiss, Mrs. Delmard has done a great service in telling what she has seen; and it is in no unfriendly spirit towards her, but rather in the hope that she may extend her observations elsewhere, that we point out what we should have called the patent defect in her book, but for the

singular fact that none of the many reviewers who have noticed this work seem to have observed it.

Mrs. Delmard went to live at Bex for the sake of economy, and gives many valuable items of information as to prices and supplies. She certainly was successful in attaining *the cheap*, but not without a considerable admixture of what most people would deem *the nasty*. Independently of actual dirt, bad drainage, &c., she and her family were content to live without servants, finding the native maid-of-all-work an expensive, useless, and troublesome article, and to live on very simple food. She declares that the whole party soon came to prefer the meagrest of soups and most miscellaneous of salads to more substantial fare; and this might very likely be the case, but it altogether disturbs any comparison between the cost of living in Bex and in an English village. As the authoress very justly observes, 'I don't deny that people (English I mean) spend less money abroad, not that things taken in the aggregate are cheaper, but simply because they learn to do without many things that they considered indispensable, indeed necessary to health and life when at home, and make use of many articles of food at which, in England, we turn up our noses in disgust. If we *will* do the same things there as here (in Bex) we *can*, and find great advantage and profit accruing to our health and purses.'

Mrs. Delmard appears not to be devoid of interest in mountain scenery and climbing, and her husband contributes a good account of a ramble up the little-visited Dent de Morcles; but her evident and more feminine predilection is for the valleys. She seems to have a lurking suspicion that most of the people who profess to climb mountains do not really do so, but merely disappear from inhabited regions for a time, long enough to make the statement that they have ascended some peak decently probable. If there are any such benighted mortals, we can only pity them, and wonder how on earth they manage to kill so many hours of time. True lovers of the Alps will almost always appreciate the attraction of low elevations as well as high ones, and endorse Mrs. Delmard's advice, that those who prefer the former should boldly say so, and abstain from encumbering the more able-bodied or more actively-inclined with their presence, without any fear that they will lose any credit in mountaineers' eyes by doing so. If there is a class of travellers whom the climber more especially dreads and dislikes, it is the people who are always seeking to join his expeditions, and betray throughout a total inaptitude for any real enjoyment of them.

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## NOTES AND QUERIES.

*To the Editor of the Alpine Journal.*—Dear Sir,—Having often during an alpine excursion felt the want of a portable and moderately accurate level, I hope that you will allow me to call your attention to a very simple and ingenious contrivance which I saw the other day in the possession of an American gentleman of this town.

As a diagram will best illustrate my meaning, I venture to insert one. Here A B represents a brass tube about 8 inches long and  $1\frac{1}{4}$  inch in