

feet, the culminating point of the whole province being apparently the Gu-Koh peak (6,400 feet) in the Parment district.

A survey of the Ab-washur water-parting, between Bashkurd and Hormuz Strait, considerably reduced the supposed eastward extension of the Mináb basin, and showed conclusively that it was in no way connected with the Bampur River, which many geographers have hitherto made to discharge through the Mináb into the Persian Gulf. Mr. Floyer now argues with much force that the true outlet of the Bampur is the Sadích (Sadaich), which reaches the coast in  $58^{\circ} 40'$  E., in the Gulf of Omán, and which seems to flow from the Shahrí country, through the Shimsani Pass, in the Band-i-Marz range. He found that where he crossed the Halíri in  $28^{\circ}$  N.,  $57^{\circ} 40'$  E., it was already a considerable stream, 90 feet broad, and  $4\frac{1}{2}$  feet deep. The furthest head-waters of this important river, of which next to nothing was previously known, are in the Jemal Bariz range, whence it flows in a south-easterly direction to the Rudbar and Shahrí districts. Here it would be almost necessarily joined by the Bampur River, coming from the north-east, and the united stream, whose further course has hitherto remained an unsolved problem, would appear to flow thence through the Shimsani Pass southwards to the Sadích. Hence the Sadích would seem to be the lower course of the Halíri-Bampur, thus draining nearly the whole of the region in south-east Persia, between  $57^{\circ}$ – $61^{\circ}$  E., and  $25^{\circ} 30'$ – $29^{\circ}$  N. But this interesting point cannot, of course, be finally determined without a more thorough exploration of the Rudbar and Shahrí districts between Bampur and the Ab-washur water-parting.

The work, whose chief fault is its misleading title, is written in a pleasant, vivacious style, and contains much useful information touching the ethnical, social, and linguistic relations of the Balúchi tribes on the Perso-Mekrán frontier. A. H. KEANE

*A Synopsis of Elementary Results in Pure and Applied Mathematics: containing Propositions, Formulæ, and Methods of Analysis, with Abridged Demonstrations.* By G. S. Carr, B.A. Vol. i., Section ix. (London: C. F. Hodgson and Son, 1882.)

In our notices of the previous sections we have sufficiently indicated the scope of this work. The present section is devoted to the integral calculus, and takes up its numbered articles at 1900, and closes at 2997: the pagination being pp. 313–440 of part ii. of vol. i. The same honest work, for which we have already commended the author, is conspicuous here, and the utility of having such a handy manual on the calculus is evident. It would be impossible to furnish here the results of a thorough examination of the text; the preparation for such a task would take up a very long time; but we would recommend a testing of the several parts to which a reader may have occasion frequently to refer, so that the book might be consulted with full confidence. We are glad to find that the likelihood of the occurrence of such errors as we mentioned in our notice of the first part, is reduced to a minimum by the very careful method of revision now adopted by Mr. Carr. We have much pleasure in commending this new section to the notice of our mathematical readers.

*A Collection of Examples and Problems on Conics and some of the Higher Plane Curves.* By Ralph A. Roberts, M.A. (Dublin: Hodges, Figgis, and Co., 1882.)

THESE Examples will serve as an excellent compendium of results to a student who is working through Dr. Salmon's Treatises on Conic Sections and on the Higher Plane Curves. In fact it was whilst the author was reading the above-named works that he conceived these useful illustrative exercises. Mr. Roberts shows himself to be

an apt mathematician, and to have a very extensive acquaintance with the classes of curves considered. These are mostly curves of the second, third, and fourth orders. The Problems have been, in general, suggested by Dr. Salmon's treatises and by Dr. Casey's Memoir on Bicircular Quartics: Mr. Roberts also acknowledges his indebtedness to Darboux's *Sur une classe remarquable de courbes et de surfaces algébriques*. Occasional explanatory matter is thrown in here and there, and concise proofs are given in several cases. As the text-books contain a limited number of examples, this work will be a useful supplement to them. We like almost everything about the book except the paper, and that appears to us to be of a very inferior character.

#### LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

#### The Recent Unseasonable Weather

IN view of the recent unusually cold weather in England and Scotland, which has been so well described and proximately explained in last week's NATURE, the following paragraph, extracted from the *Standard* of June 15, appears to me highly suggestive, especially as regards one of the probable causes for the "unwonted high pressures" on the northern side of the depression which is accused of being the immediate source of these unseasonable conditions:—

"News from Iceland states that the Spitzbergen floe-ice surrounds the north and east coast, entirely preventing navigation. A Norwegian steamer endeavouring to reach Bernford, on the south-east coast, last week, was caught in the ice and had to put back. Owing to the presence of these immense ice-fields vegetation has made no progress, causing a great loss of horses and sheep through starvation. Epidemics of measles and small-pox have been introduced into the island from Europe, and are making extensive ravages among the population; the former is especially prevalent in Rejkkjavik."

Now it has been ascertained with some considerable degree of certainty by Messrs. Blanford and Eliot, the Government meteorologists in India, that a heavy winter snowfall over the North-west Himalaya exercises a marked and prolonged influence in lowering the temperature and elevating the atmospheric pressure and thereby directly affecting the winds and weather, over the whole of Northern India, and parts of Central India; and indirectly to a much greater distance. Turning to Europe, we find the distance from Rejkkjavik, on the west coast of Iceland to London is about 1140 miles, or about the same as from Lahore to Calcutta (1080 miles), while from Cape Horn on the east coast of Iceland to Edinburgh the distance is only 750 miles, or about the same as from Calcutta to Agra. To any one familiar with Indian weather charts or the meteorology of that country, it would appear absurd not to attempt to correlate the meteorological conditions at places so comparatively near as the above-mentioned towns; and in fact experience has shown that the meteorology of the Punjab is not only intimately connected with that of Lower Bengal, but also with that of Southern India. If therefore it has been found that an abnormally heavy snowfall in the North-West Himalaya, such as that which characterised the winters of 1876-77 and 1877-78, exercised a marked effect on the meteorology of Northern India, which was felt at places situated 1000 miles or more from the seat of action, may it not be reasonably inferred that the presence of a large mass of ice or snow in the Icelandic area would be likely to give rise to similar atmospheric conditions over these islands? It seems therefore not at all improbable, that the abnormal weather during the past few weeks may be directly due in some considerable measure to the coincident appearance of large masses of ice off the eastern coasts of Iceland, like those which, from the account in the *Standard*, appear to be at present prevailing to an unusual extent.

In the case of India an abnormally heavy fall of snow in the