

vious old-rock ridges, the local accumulation of ground water is known as a 'soak.' Much of the sandy surface is occupied by *Triodia irritans*, known as spinifex, or needle grass; a gray-green, hard spiny bush, growing so dense in places as to impede travelling. Elsewhere there are patches and belts of herbage fit for pasture, and of dense scrub forests. Trains of camels with Afghan drivers are often seen on the way to the gold fields.

NOTES.

THE voyage of the Norwegian whaling steamer Antarctic in the South Polar seas, 1894-95, already familiar from the narrative of Borchgrevinck, one of the seamen, is described by the captain, L. Kristensen, in the transactions referred to in the preceding paragraph.

THE *Geological Magazine* (London) for March contains an account by Preller of the Merjelen lake, enclosed by the Aletsch glacier, in Switzerland, with an excellent photographic plate.

La topographie aux Etats Unis is the title of an appreciative article by Gen. de la Noë, director of the geographical service of the French army (Ann. de Géogr., v., 1896, 143-155). He gives particular attention to Gannett's Manual of Topographic Methods, with especial praise to the advice on 'sketching,' for which, curiously enough, even the French army engineers have no equivalent expression.

W. M. DAVIS.

HARVARD UNIVERSITY.

CURRENT NOTES ON ANTHROPOLOGY.

QUESTIONNAIRES FOR ETHNOGRAPHICAL RESEARCH.

VARIOUS anthropological societies and governments have from time to time published series of queries to guide travellers who desire to study the people in the countries they visit. One was issued in 1889 by the French Société d'Anthropologie,

prepared by the able hands of a committee consisting of MM. Hamy, Hovelacque, Vinson and Letourneau. It is needless to add that it is thorough and well digested. Moreover, it is brief, covering only sixteen pages, and yet the committee claim with general justice that no really important points are omitted.

The latest publication of the kind is the 'Instruktion für ethnographische Beobachtungen und Sammlungen in Deutsch Ost-Afrika.' It is published in the 'Mittheilungen aus den Deutschen Schutzgebieten' (Band IX., 1896, Heft 2); and was prepared by Dr. Von Luschan. The instructions are arranged in a series of questions, 88 in number, and are accompanied by a separate sheet or sheets, to be filled out with somatologic observations. The separate, which are intended for distribution, are interleaved, and contain a number of blank pages at the end for notes and are firmly sewed in linen covers. These minor precautions aid materially in the practical utility of such a publication.

THE TEACHING OF ETHNOLOGY.

IN the 'Bastian Festschrift,' Dr. Ernst Grosse has a timely article on the teaching of ethnology in high schools and universities. It is to be regretted that he contrasts ethnology with anthropology, instead of making it a branch of that general science, which it properly is. However, he appreciates what ethnology is in itself, defining it as 'The science of the culture of peoples.' He also assigns it its just position, speaking of it as a 'science destined to open a new era in the whole history of civilization.'

Entertaining these views, he cannot understand why it is so neglected in institutions of education, but inclines to attribute this to its somewhat revolutionary character, and to the limited opportunities it at present offers for pecuniarily profitable

employment. He suggests that in the higher schools one hour a week be given to ethnographic lectures, and that in university courses a double line of instruction be followed, one adapted to all students, setting forth the general principles and aims of the science, another suited to those who would take it as a major or make it a specialty. This plan would, he believes, soon result in that general appreciation of its value which the true ethnologist now claims for it.

D. G. BRINTON.

UNIVERSITY OF PENNSYLVANIA.

SCIENTIFIC NOTES AND NEWS.

THE SCIENTIFIC EXPERT.

UNDER the title 'The Imperiled Dignity of Science and the Law,' Prof. John Trowbridge contributes to the October number of *The Atlantic Monthly* an account of the difficulties of the expert witness before legislative committees and courts of justice. Scientific questions are usually too complex to be answered by 'yes' or 'no,' and the man of science is apt to become a partisan in the hands of the counsel who employs him, and then in turn to be discredited by the opposing counsel. There is often room for difference of opinion in regard to scientific questions that must be settled by legislatures and courts, but it is unfortunate for science and justice when experts can be found who will testify for money on the side for which they are paid. As Prof. Trowbridge writes:

"The Judge, after hearing the arguments of the learned counsel, is left alone with the voluminous affidavits in which the scientific statements have been pared thin by the lawyers to enable one with no scientific training to see through them. One expert is balanced against another, and the Court is plunged into a state of great perplexity. What wonder that, in a recent case, a Judge remarked that one side having brought forward four experts and the other side five, and the learned professors on one side having testified in direct opposition to those on the opposing side, he would give a verdict to the side which brought the greater number of experts; and he therefore ordered an injunction to be issued in favor of the latter."

If the man of science is to be paid at all for expert opinion, it seems evident that he should

be employed as a judge and not as an advocate. Prof. Trowbridge concludes:

"The most practical remedy, it seems to me, for the existing evils of expert testimony, would consist in making it customary for a Judge to call to his assistance any professor of science of high attainment who is not engaged by either of the parties in dispute. If the Judge appealed to the State to provide him with scientific advice, and if men eminent in science were selected by the State to aid the Judge in his endeavor to arrive at the truth on scientific points, both the bench and the professional chairs would gain in dignity, and the pursuit of truth would again be considered one of the chief characteristics of a scientific life."

THE U. S. S. 'BROOKLYN.'

THE performance of the U. S. S. 'Brooklyn,' on her recent trial trip, August 27th, admirably illustrates the high state of efficiency attained by our new navy, and, perhaps, even more satisfactorily, that reached by our naval constructors and engineers. The trial was made in deep water, outside Boston harbor, on a course eighty-three miles long, and well out at sea. It is only in water fifteen or twenty fathoms deep that the full sea speed of these heavy and fast vessels can be brought out.

The 'Brooklyn' is a ship of about 9,200 tons displacement—8,250 tons without armament or stores, as on the trial—and was designed, as to hull, by the Bureau of Construction of the Navy Department at Washington, and, as to machinery, by the Bureau of Steam Engineering, of which Commodore Melville, the famous Arctic explorer and no less distinguished naval engineer, is chief. On the trial so perfectly were the engines and boilers proportioned to each other that all the steam that could be made by the latter was worked off by the former, and enough was made at a pressure of 160 pounds per square-inch to drive the engine up to 135 revolutions per minute and to give the ship the unexampled mean speed of 21.92 knots—equivalent to over 25 miles an hour. This is claimed to be the highest speed ever attained by any iron-clad, of any type. It is only exceeded by some unarmored ships of our own navy, as the 'Columbia' and the 'Minneapolis,' and by no other war vessels of any navy in the world.