through a naval friend, of an officer in the Navy department, unofficially, whether any report had been published. This gentleman was kind enough to make inquiries, and finally replied that he could not find out that any thing had been printed, but that the log-books were at the department. On this account I made no further search for printed data; but later, on Commander Bartlett's installation at the Hydrographic office, I mentioned it to him, and he had the goodness to search the log-books, and to send me copies of *all* references to the work with wire, contained in them, from which my note was compiled. Doubtless other note-books might have been used also. In regard to the breaking of the wire, it is specifically stated in the log-book that it parted 'owing to some of the links catching at times on others,' as the line was *paid out* in one or two cases, and in others as it was being hauled in. In another instance it parted 'owing to one of the joints catching upon another joint on the reel.' It is nowhere in the *original log* referred to the heaving of the vessel; and the last entry repeats, 'entirely owing to the short nip of the catch upon the reel.' Having had some experience in sounding in great depths of water with a small sailing-vessel, I have come to the opinion, in which I think most practised hydrographers would concur, that it is impossible that a plumb sound should be obtained from such a vessel under any circumstances likely to occur in actual work. The words quoted by Professor Verrill from Walsh's report show that the latter officer deceived himself; for it is evident, that, if the wire 'served as an anchor to keep the vessel steady,' it could not have been plumb; and, even if it appeared to be so at the surface, what it was below the surface no man could state with confidence, except that it was *not* plumb. A steamer may be kept over the wire, and, with wire properly spliced and heavily weighted, a plumb sound can be had, but not otherwise; and it may be confidently said that *accurate* sounding in deep water dates from the combination of these two factors. I may say, also, that in my note I did not, nor do I now, consider that successful trial of a sounding apparatus has been arrived at, until bottom has been reached, and the signs of it brought up. WM. H. DALL.

Washington, June 23, 1883.

False claims.

It is to be regretted that the pages of a popular magazine of high standing should be made the vehicle of such an advertisement as appears in the *Century* for July, entitled 'Cheap food for the million,' reprinted in the publisher's department of SCIENCE for June 22. Of the merits or demerits of a new food-preservative, of which so many have been brought forward within the last few years, I have nothing to say: the testimony of Prof. S. W. Johnson, cited in its favor, is certainly entitled to respectful consideration. But I wish to call attention to the claim of the inventor of the new nostrum to public confidence on the ground that he is "a fellow of the Chemical society of London, and also of the Geological society, being elected after unusually severe examinations. President Huxley, of the latter society, said that 'no American should boast of an election without a severe struggle.' In evidence of this prejudice towards Americans, the fact that Professor Humiston was given two hundred and fifty questions (five times the usual number) may be cited. He is now superintendent of the company's works," etc.

It is not clear what meaning is to be attached to the words put into Huxley's mouth; but it is a well-known fact that neither in the societies named, nor any others with which I am acquainted, is there any examination whatever required, or are any questions asked. A nomination by three members, one of whom must have personal knowledge of the candidate, and the payment of fees, are the only conditions necessary to membership of the Geological society of London, which has several hundred members upon its lists, including many Americans. In the complete catalogue of all scientific papers published in Europe and America up to 1877 (*Roy. soc. cat.*) we search in vain for the name of the 'superintendent of the company's works.' It is not creditable to the advertisers that the names of illustrious men of science and of learned societies, coupled with erroneous statements and absurd appeals to national prejudices, should be invoked, even indirectly, to recommend their wares. T. STERRY HUNT.

Montreal, June 25, 1883.

MACLOSKIE'S ELEMENTARY BOTANY.

Elementary botany, with students' guide to the examination and description of plants. By GEORGE MACLOSKIE, D Sc , LL D., professor of natural history in the J. G. Green school of science, Princeton, N J., etc. New York, *Holt*, 1883. 370 p. 12°.

SCIENCE is ready to welcome a new text-book, asking only for some particular line of excellence as a warrant of its reason to be. Considering that "this volume aims to supply a readable sketch of botany," and so to treat the subject "as to meet the wants of a large class of readers who wish to know something of the fundamental principles and philosophical bearings of the science without being distracted by technicalities," we think that its readable character and the comparatively sparing use of unnecessary technical terms are among its commendable features. The style is easy, sometimes a little odd in its concatenations, as where "it is said that a monkey first introduced tea to the notice of the Chinese; the English government started its cultivation in Assam, whence the best teas now come;" and in the following paragraph it becomes even sensational.

"Their power of increasing in thickness imparts to roots their capacity for mischief. Their vigor is somewhat surprising. They make their way through dense soil, loosening it so that it becomes soft and spongy. They can split rocks, overturn walls and buildings, stop up sewers, and root up our street-pavements. They effect more injury to man's handiwork than tempest, fire, and war combined. . . . We possess a root hugging an old bottle in irredeemable captivity."

In a well-known passage at the close of one of his books, Darwin likened the tip of a root to the brain of one of the lower animals; and brains, we know, are capable of mischief, and

therefore of demoralization. Whether the root which the author is so fortunate as to possess is in dipsomaniac captivity to the bottle it hugs, or whether the bottle is captivated by the caressing root, is not quite clear from the context. And how such dire mischief to man wrought by roots — more injurious 'than tempest, fire, and war combined' — is to be reconciled with creative benevolence, we must leave for the Princeton theologians to settle, and pass on to another topic, that of judicious abstinence from technicalities.

Writers of text-books are prone to employ all the technical terms they can find, especially new-fangled ones which have not yet proved their right or reason to exist by continued usage, or which, though convenient in an original treatise or memoir, and harmless or even useful in a glossary, may be advantageously dispensed with in ordinary scientific teaching. We all know of the painter commemorated by *Punch*, who 'rubbed out a good deal,' and who claimed to 'get his best effects that way.' Many scientific books for students' use might be bettered by the same process. Professor Macloskie has so well resisted the ordinary temptation, or restrained in parenthesis needless terms which he did not like to leave out, — such as *xylem*, Greek for wood, most barbarously Germanized (as if, where a Greek said *xylon* and a Roman said *lignum*, we might not say *wood* when we meant it), — that it may be a little ungracious to complain of his making one or two himself, and making them badly. Where he says, "to avoid confusion, we shall call [the seed-coats] *exotest* and *endotest*," the inference is, that these terms are original. Nor, not to insist that confusion is rather made than avoided by the substitution of new names for well-recognized old ones, we might suggest that the coinage is in a small way pedantic, except that a pedant would not violate what our author in another place terms 'the jus connubii' by hybridizing Greek with Latin. Nor, if we must have such Greek-Latin crosses, would he have truncated them into *quasi* English, which is as bad as a third cross, but have written *exotesta* and *endotesta* in full, vile as the terms are. *Gametic* is certainly new coinage; and the author does not clearly say what he means it to pass for. But it may be gathered that 'gametic affinity' means relationship near enough to allow of interbreeding. We are to say, then, that species belonging to different genera have gametic affinity in the rare cases when they can be made to hybridize; and that certain species strictly of the same genus, which we have failed to hybridize, are devoid of gametic affinity: so the term has no explanatory value whatever.

Some of the borrowed woodcuts are very good; most of the original ones are quite the reverse; and the one which is said to represent a 'tip shoot of pea' is a complete puzzle, after all the enlightenment which the letterpress affords.

Turning over the pages, we now and then come upon statements which dampen any enthusiasm of commendation which a reviewer might wish to express. On p. 16 we read that "cymose flowers are always actinomorphic, being equally exposed to light in all directions." The implication that 'actinomorphic,' i.e., regular, flowers are so because equally exposed to light from all directions is a bit of deductive botany of the Grant Allen school. And the assertion that cymose inflorescence and actinomorphic flowers always go together is by no means true, as witness all Labiatae and a large share of other didynamous flowers. The seed "in Lepidium, on being moistened, darts out mucilaginous threads." Is Dr. Macloskie sure of this, or does he infer that there must be such threads because they exist in various other seeds and seed-like fruits which develop mucilage when wetted? The hypocotyledonary stem "in the pea is short because the seed remains underground." Were it not better to say that the seed remains underground because this initial stem does not lengthen? On p. 82 it is asserted, or at least implied, that root-hairs last all summer long, and may be renewed on a surface that has lost them. To Grant Allen, in the year 1882, is attributed the idea that neutral ray-flowers of Compositae are sterilized members set apart and enlarged for purposes of display. Has Dr. Macloskie met with no earlier exposition of that doctrine?

Not to prolong questioning, let us say, that, for those who are most likely to use this book, it was a good idea to devote a few pages at the close to the derivation of common terms, Latin and Greek root-words, and prefixes, and to help those who do not know the Greek alphabet by writing out the words, as nearly as may be, in Roman letters.

THE GEOLOGY OF BELGIUM.

Géologie de la Belgique. Par Michel Mourlon. 2 vols. Bruxelles, *Hayez*, 1880-81. 317; 16+392 p., illustr. 8°.

This book, a model in its way, will be read with equal profit by the geologist and by the general reader. The geologist will find in it, critically exposed, and in a short and impartial manner, the immense amount of labor