to American thinkers. Professor Ward's address, like every thing that he writes, was very compact, and showed an intimate acquaintance with the history of the struggle of the doctrine of evolution for recognition in this country, and of the honorable part Dr. Gray took in it. Dr. C. V. Riley, who was the last speaker, dealt with Dr. Gray as a man. His address was an eloquent tribute to the memory of one of the most delightful men he had ever known, and its interest was heightened by the relation of circumstances connected with Dr. Gray's visit to Europe last summer. Especially touching was his description of Dr. Gray's reception in the meeting of the British Association for the Advancement of Science. Dr. Gray, who was one of the regents of the Smithsonian Institution, had many very close friends among the scientific men of Washington, who mourn him more as a father or a brother than as a fel-low-worker in the field of science.

- Captain van Gèle has at last succeeded in solving the probdem of the Welle. A telegram sent by Mr. Janssen, governor of the Kongo Free State, on March 15, and published in the Mouvement géographique, announces that the Obangi above the rapids of Zongo flows from east to west between 4° and 5° north latitude. Captain van Gèle ascended the river as far as 22° east of Greenwich, and ascertained its identity with the Welle-Makua of Schweinfurth and Junker. Captain van Gèle, after thus having solved the much-discussed problem of the Welle, returned, and reached Leopoldville in safety. It will be remembered that Captain van Gèle, after Junker's discoveries had become known, was put in charge of the exploration of the Welle. On his first expedition, which was made at the high-water season, he was unable to pass the rapids of Zongo. Later on, he made an attempt to reach Junker's Ali-Kobbo from the Itimbiri; but, on account of scarcity of supplies and the density of the woods, he was unable to carry out his plan. On Oct. 2, 1887, he started on his last expedition on the En Avant.' After a brief stay at Kwa-mouth, he began his ascent of the Obangi, accompanied by Lieutenants Liénart and Dhanis and a small detachment of soldiers. Junker's farthest point west on the Welle was 22° 55' east from Greenwich. It would seem, therefore, that Captain van Gèle approached this point to within a distance of about sixty miles. The Mouvement géographique announces, besides the death of Captain vande Velde, chief of the military expedition to Stanley Falls, — not the explorer of the Obangi, as was erroneously stated in Science of March 30, — that of Lieutenant Warlomont, second in command at Boma. This is a serious loss for the Kongo Free State, which had of late been very fortunate, so far as the health of its employees was concerned

— In a review of Chamberlain's 'Catalogue of Canadian Birds,' it was said that the addition of a systematic table would have greatdy enhanced the value of the work. This table has been published by the author under the title 'A Systematic Table of Canadian Birds' (St. John, N.B., published for the author). The table, which contains 551 species belonging to 236 genera, 55 families, and 15 orders, is very clear, presenting at once a table of the higher groups, and a check-list of the birds that are found within the boundaries of the Dominion. Students of American ornithology will be glad to read the author's announcement in the preface, that his promised 'Bibliography of Canadian Ornithology 'is well under way, and will probably be published during the coming summer.

LETTERS TO THE EDITOR.

Volapuk: Is it Difficult?

HERE is a subject pronounced difficult to learn; yet the learners are unaware of the difficulty. Is not this an anomaly? It is like the considerate Irish father who proposed to surprise his son with a birthday gift by having him taught the violin 'unbeknownst.' Professor March and Mr. Melville Bell, to whom the learning of strange tongues is a mere pastime, pronounce Volapük too highly inflected, not for themselves, but for the English-speaking masses. But the American business-man, snatching an hour or two in the evenings, somehow or other manages to surmount the obstacle which the professors declare insurmountable, and after a week writes grammatical Volapük. Possibly, had he known that such high authority had declared the feat impossible, he would, with his

well-known modesty, have refrained from a practical contradiction of their dicta.

But do not these philologists (both of whom I greatly admire and respect) unconsciously exaggerate the difficulty of inflected language? Is it not simply that the inflected languages which they learned as boys, and which they have seen other boys toiling over ever since, had got into a state of anomaly and chaotic irregularity? It seems to me, from what I have learned by reading the works of these and other eminent philologists, that the crushing-off of terminations which finally happens, is a protest against their lawlessness. I say this with deference and in quotation-marks. Is it not a fact that terminations, when regular, are retained, not destroyed? There is no indication that we or the Spaniards are likely to drop the convenient and nearly regular plural-sign s, and denote plurality by a separate word or not at all. We have, it is true, lost a great many terminations -en, and the Germans are doing the same in speech; but that is of a converse kind of irregularity. Instead of many forms for one thing, -en had too many functions: it died of overwork.

Mr. Bell thinks we "may safely assume that the universal language to be some time adopted will express all verbal relations by separate words, and not by root-inflections." Then Chinese is the type of the coming language. Are its methods easy even in the colloquial tongue? Missionaries say not: I do not know.

Mr. Bell's transformation would result in this, for example, retaining the Volapük syllables: to express 'of the man,' 'of the time,' 'of the form,' 'of the staff,' 'of the stone,' where we now say mana, tima, foma, stafa, stona, the new reading would be a man, a tim, a fom, a staf, a ston. Tima, in one word, comes under the head of 'Case-Endings and Other Grammatical Subtleties:' a tim, in two words, is simple, and devoid of subtlety. What a wonderful change is wrought by the printer's space!

I could sincerely wish, with Mr. Bell, that there were an alphabet in use, not only for Volapük, but for all languages, which should be "easily and uniformly intelligible to all readers." Mr. Bell's marvellously perfect alphabet, 'Visible Speech,' would answer the description; but it would have been folly to use it for Volapük until adopted for national languages. The Roman alphabet is the international alphabet at present, and Schleyer acted wisely in keeping it. In so far as he deviated from it by his use of the un-Roman $\vec{\alpha}$, \vec{o} , \vec{n} , and his un-Roman sounds of some consonants, in so far he is at fault. His principle was right. It is the associations of our barbarous English spelling which make us mispronounce new words like Volapük. If the English o had not double duty to perform, we should unerringly begin the word like 'vocal,' not like 'volume.' Some of us spelling-reformers hope some day to restrict o to its proper function.

Bishop Wilkins's 'Real Character' (by which he does *not* mean 'phonetic representation'), and scores of other attempts at philosophical language based on classification of ideas, have failed (in spite of the genius of at least the first named) to come into practical use. Volapük has been learned by more persons, I believe, and more used in printing and writing, than all the others put together. There must be a reason for this, which I call upon the theoretical objectors to explain. An imperfect mechanism which actually works is better than a most scientific motor which 'motes' not.

In counting up the words which are like their English prototypes, Mr. Bell has omitted such as these: tim (time), fom (form), spid (speed), sid (seed), skil (skill [the Philological Society of London spells it 'skil']), slet (slate), slip (sleep), smok (smoke), snek (snake), silab (syllable). I have picked up most of these within a page.

Well, I suppose the unlearned man wll go on acquiring this difficult language easily: the masses will do things wrong. Half a dozen will write me letters this coming week (just half a dozen did last week) to show me what they have accomplished in a few days.

On the other hand, I have some choice specimens of educated foreigners' English which are conclusive evidence, I think, that our "simple," "grammarless," "uninflected," "analytic" language contains some fearful pitfalls for the unwary.

I read a good deal about English being or becoming the "universal language," but what I read to that purport is never written by Frenchmen or Germans or Italians, somehow or other. This is strange, isn't it?

CHARLES E. SPRAGUE.

New York, March 31.