seventy new roots were thus approved last year. Others will be added as needed.

In Washington city, during the past week, we have had the opportunity of hearing Esperanto spoken by Professor Arnold Christen, an adept in the language. I have yet to find any one who has heard him speak in Esperanto who does not say with enthusiasm that it is the most beautiful spoken language he has ever heard. Next summer the international scientific association will meet in Washington, and all its deliberations will be conducted in Esperanto. Any one who doubts the sufficiency of the language would do well to attend the meetings of this association.

## W. J. SPILLMAN

THE ADVANCE OF INTERNATIONAL LANGUAGE

I HAVE read with interest Professor Jespersen's article on "International Language" in SCIENCE for November 13. Professor Jespersen's name and his rank as exchange professor at Columbia University, together with his report on the decision of the International Scientific Committee, may, among many who have not investigated the subject, win credence to the possibility of the advance of the cause of international speech resulting from adopting Ido in place of the more familiar Esperanto.

Inasmuch as I am one of those who helped to elect the International Scientific Committee, which, as Professor Jespersen mentions, announced that Esperanto "might serve as a basis for the international language provided it were thoroughly modified and improved on certain specifically indicated points," I feel that I must decline any responsibility for the actions of that body. I especially deprecate the committee's arrogating to itself the authority to construct and advance a new language system. Aside, however, from the question of the origin of Ido, as scientists should generally be sufficiently broad-minded to accept a thoroughly good thing, no matter what its origin, I wish to call attention to some facts of which we should take note in considering the question of an international language.

Esperanto is not a hypothetical system for

international communication, but is a language in actual use, possessing not merely grammars, readers and dictionaries, but a wealth of literature both general and technical in character. It has propaganda journals published in almost every civilized country on the globe, and also a large number of magazines devoted to special subjects, such as medicine, literature, photography, etc.-over ninety periodicals in all. At the present time the most important journal to the scientist is the Internacia Scienca Revuo published at Geneva, Switzerland, under the patronage of Dr. Zamenhof, the French Astronomical Society, the French Physical Society and the International Society of Electricity, and the fifth volume, completed in 1908, bears the names of such men as Adelskold. Appell. D'Arsonval, Baudoin De Courtenay, Becquerel, Berthelot, Prince Roland Bonaparte, Bouchard, Deslandres, Flournot, Förster, Haller, William James, Mourlon, Henri Poincaré, General Sebert and J. J. Thompson. It is worthy of note also that technical Esperanto vocabularies for each science are being compiled by specialists from many nations.

In Europe there are Esperanto hotels and Esperanto consulates, and in both Europe and America and even in far-away Japan there are Esperantists in every city of large size and in innumerable small towns. Many business firms in London and Paris as well as in this country are known to the writer as using Esperanto for correspondence and advertising, and it is to be presumed that these represent a very small proportion of the commercial firms having found it advantageous to use this language. It might be added that linotype machines can be equipped with the additional characters for writing Esperanto at a cost of \$1.50, and a typewriter can be equipped with the extra characters for less than \$1.00; in fact, some of the standard typewriters are made with Esperanto characters without extra charge. Surely it should be as easy also to telegraph in Esperanto with its six supersigned letters as it is to telegraph in French with its acute and

grave and circumflex accents, or in German with its umlauts; but to deal in facts and not in theories, during the past month I have had personal knowledge of important telegrams and cablegrams that had been transmitted in this international language.

International congresses on various subjects are using Esperanto, for statistics on which highly important point I need only refer to page 478 of SCIENCE for October 8; and the Esperantists themselves have tested this language in five successive international Esperanto congresses and have given overwhelming proof of its practicability. The Fifth Esperanto Congress, held last September in Barcelona, Spain, was attended by 1,300 delegates in spite of the unrest prevalent in that city. The sixth congress will occur in the United States next August and will bring proof to our very door, if it be that we still need proof, that the language is musical, remarkably easy, and a success, and after all the main point for an international language is that it should be a success.

Ido, Ildo, Purified Esperanto, Esperantido and Esperido, as it has been variously called, on the other hand, as far as statistics have been obtainable, has less than thirty adherents in the United States, in which list for the present I include Professor Jespersen. The following of Ido in European countries I understand to be proportionately small. It has a few readers and grammars and textbooks and much diatribe against Esperanto, but no literature whatever. It has ten periodicals, including both propaganda and other magazines, a number of which, while attacking Esperanto, have been printed partly in Esperanto in order to reach the public. In this list of ten I am including one little sheet published in the United States and designated a quarterly, though its first and latest issue appeared in April of this year. Ido has had no congresses or similar assemblies before which this proposed system for international communication could be tested. But in addition to returning the Scotch verdict of not proven to the Idists' claims for recognition, I wish to advance certain reasons why I believe Esperanto to be superior in construction to Ido, Ildo, Esperido, etc.

1. Esperanto is more musical, for in cutting out the six supersigned letters Ido and its related systems have been forced to reduce the sounds also; thus a so-called "purification" has resulted in monotony.

2. Esperanto has definite rules and no exceptions, it is in short a logical language, while there are many exceptions recognized as proper to the rules of Ido or Purified or Simplified Esperanto.

3. Esperanto is the most truly international language in several important details, and therefore may be most easily learned by all civilized races, while Ido, or Simplified Esperanto, with its harsh Anglo-Saxon pronunciation of the letter *j*, and its fixed Franco-English word order would prove troublesome to most Europeans. KARL F. KELLERMAN

BUREAU OF PLANT INDUSTRY,

WASHINGTON, D. C.

## COLLEGE SOLIDARITY

WHEN ideas that have been in the air are. as it were, precipitated by the utterance of an eminent man in an authoritative position, they suddenly become fructifying and productive of both wheat and tares. If, therefore, solutions both profitable and unprofitable to the college problem were numerous before President Lowell's installation address, they may be expected in increasing numbers to follow his clear and impressive presentation of the needs of American colleges. And indeed, the greatest direct benefit to be expected from this conspicuous discourse must be the incitement it will prove to all intimately interested in our colleges to formulate and publish their convictions as to the best means of meeting needs widely recognized and admitted.

There can be little question that President Lowell is right in his opinion that the passing of the common habitation made necessary by the increased number of students, and the passing of the common curriculum attending the introduction of the elective system, have resulted in social and intellectual disintegration. Further, it will be granted that the old