the number of officers gives the results as shown in the last vertical column of the table appended. The figures in the second and third columns are transcribed from the article referred to above.

| . Institution. | No. of Students. | No. of Officers. | No. of Students to One Officer. |
|--------------------|---------------------|---------------------|--|
| California | 3,130 | 330 | 9.48 |
| Chicago | 2,218 | 184 | 12.54 |
| Columbia | 4,056 | 551 | 7.36 |
| Cornell | 3,364 | 451 | 7.45 |
| Harvard | 4,516 | 534 | 8.45 |
| Illinois | 3,233 | 365 | 8.85 |
| Indiana | 882 | 72 | 12.25 |
| Johns Hopkins | 740 | 156 | 4.74 |
| Leland Stanford Jr | 1,420 | 130 | 10.92 |
| Michigan | 3,667 | 270 | 13.58 |
| Minnesota | 3.671 | 197 | 18.63 |
| Missouri | 1,536 | 88 | 17.45 |
| Nebraska | 2,414 | 173 | 13.95 |
| Northwestern | 2,806 | 346 | 8.10 |
| Ohio State | 1,723 | 143 | 12.04 |
| Pennsylvania | 2,940 | 330 | 8.90 |
| Princeton | 1,385 | 114 | 12.14 |
| Syracuse | 2,419 | 201 | 12.03 |
| Virginia | 691 | 45 | 15.35 |
| Wisconsin | 2,668 | 243 | 10.97 |
| Yale | | 330 | 9.07 |

WILLIAM B. SCHOBER.

LEHIGH UNIVERSITY, January 5, 1905.

SCHOOLS OF TECHNOLOGY AND THE UNIVERSITY.

To the Editor of Science: In connection with the proposed combination of the Massachusetts Institute of Technology with Harvard University, the following authoritative statement of foreign opinion (translated from Zeitschrift des Vereines deutscher Ingenieure of September 24, 1904) is of interest:

At a meeting of the Union of German Engineers, held at Munich September 12, with the participation of thirty eminent representatives of technological schools and universities, as well as of other schools and of industries, the following resolutions were adopted:

1. It is not advisable, so far as can be foreseen, to attempt to meet the need of new technological schools by the addition of technological faculties to universities, but rather by the establishment of independent institutions; for the technological schools would be hindered in their independent development by attaching them to universities. This separation should not, however, impede the

welcome development of intellectual good will between the two institutions. The attachment to universities would also in no way involve economies of consequence.

2. The Union of German Engineers stands now, * as before, by its expression of 1886, as follows: "We declare that the German engineers have the same needs and will be subjected to the same judgment as to their general culture as the representatives of other professions based on higher scientific education." In this view we rejoice as the conviction more and more gains ground that a considerably greater significance is to be attributed than before to mathematical and natural science as a means of culture. Knowledge of these branches is becoming more and more an indispensable constituent of general education. The predominantly linguistic education now received by the majority of our gymnasium graduates does not satisfy the demands which must be made on the leading classes of our people, in particular, in respect to the increasing significance of economic questions.

TECH GRADUATE.

SPECIAL ARTICLES.

PROPOSED INTERNATIONAL PHONETIC CONFERENCE
TO ADOPT A UNIVERSAL ALPHABET.*

I WISH to call your attention to a circular recently issued by Boston University, inviting opinions on the proposal to hold an international conference for the purpose of adopting a universal alphabet. In the Roman alphabet we already have a practically universal alphabet. A comparatively slight effort will suffice to make it perfect and quite universal. Whoever has looked into the subject knows that it is perfectly practicable to introduce such modifications in the Roman alphabet as to make it perfectly phonetic and yet leave the spelling in such condition that it shall be readily legible to people who know only the Roman alphabet in its present form.

I need not dilate on the advantages to be expected from the use of an alphabet which would enable every child to read as soon as it knew the letters, and which would, furthermore, enable any one to pronounce foreign languages correctly at a glance, because their spelling,

* Read before the Comparative Philology Section of the Language Group of the Congress of Arts and Science at St. Louis, September 21, 1904.