When it is remembered that the water-power in Norway alone is estimated to produce several million kilowatts, it is evidently better, for the present at any rate, for engineers to utilise the solar radiation by harnessing the waterfalls rather than by attempting to build radiation traps in the Sahara.

## UNIVERSITY STUDENTS IN STATE-AIDED INSTITUTIONS OF ENGLAND AND WALES.

AN article on the budgets of certain universities and university colleges, based on the reports for the year 1910-11 from universities and university colleges in Great Britain in receipt of grants from the Board of Education, was published in the issue of Nature for August is last. These reports also contain a great deal of information concerning the number of students in the various colleges, their ages, the subjects they are studying, and so on; and we have abstracted the subjoined facts from them and the introductory statement signed by the President of the Board of Education.

Before summarising the statistics under these headings, it is well to point out that the numbers which follow concern the following English universities:Birmingham, Bristol, Durham (Armstrong College), Leeds, Liverpool, Manchester, Sheffield, London (including University College, King's College, Bedford College, School of Economics, and East London Col lege), and also the University Colleges at Nottingham, Reading, and Southampton. The University of Wales includes the University Colleges of Aberystwyth, Bangor, and Cardiff.

Certain other constituent colleges of universities are in receipt of aid under "The Statement of Grants available from the Board of Education in Aid of Technological and Professional Work in Universities in England and Wales." These institutions are twelve in number, nine being medical schools attached to hospitals in London. They are all schools of the University of London. One, the Newcastle College of Medicine, is a constituent college of the University of Durham, while the two remaining, namely, Manchester Municipal School of Technology and the Bristol Merchant Venturers' College, make provision for the faculties of technology and engineering respectively in the universities to which they are attached.

| Number of Full-time Students, igio-if. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Degree students :- |  |  |  |  |  |
| Training college | $\ldots$ | $\ldots$ | 1459 | $\ldots$ | 451 |
| Others | $\ldots$ | ... | $35^{12}$ | $\ldots$ | 702 |
| Total | $\ldots$ | $\ldots$ | 4971 | $\ldots$ | ${ }^{1} 53$ |
| Non-graduate (diploma) students :- |  |  |  |  |  |
| Training college | ... | ... | 729 | $\ldots$ | - |
| Others | $\ldots$ | $\ldots$ | 1100 | ... | 105 |
| Total | $\ldots$ | $\ldots$ | 1829 | $\ldots$ | 105 |
| Post-graduate students | $\ldots$ | $\ldots$ | 477 |  | 75 |
| Others | ... | $\ldots$ | 628 |  | 58 |
| Total ... ... ... | $\ldots$ | $\ldots$ | 7905 | $\cdots$ | 1391 |

Number of Part-time Students, igio-if.


In addition, there were in England 277 evening students studying for matriculation and nine such students in Wales.
The number of full-time students in England during the year 1910-Ir was 7905, as compared with 8174 in the previous year. This apparent drop of 269 is, however, more than accounted for by the stricter classification adopted. A number of students taking postgraduate and special courses have this year been clsssified as part-time students. The number of fulltime degree and diploma students, on the other hand, increased by 150 , and the real increase was larger since the figures for the earlier year included 78 engineering students at the Bristol Merchant Venturers' College who were included in the returns for Bristol University, but have this year been shown separately. The establishment of a somewhat higher criterion and the consequent exclusion of a certain number of students who simply attend a certain number of lectures render it somewhat difficult to make any detailed comparison of the figures for part-time students with those for the previous year, but it seems safe to say that the apparent reduction in the total number of part-time students is more than accounted for by the reduction in the number of "Other" students, many of whom could scarcely be regarded as serious students, and have consequently been excluded altogether. On the other hand, the number of parttime students taking degree, diploma, or post-graduate courses showed marked increase. It follows that the reduction in the total number of all kinds of students is not to be taken as implying any diminution in the number of genuine students; on the contrary, there is good reason to think that the number of such students is on the increase. In support of this view it may be pointed out that the total number of postgraduate students has increased since the previous year by more than 200.

In Wales there has been a small increase in the total number of full-time students; on the other hand, there has been a drop in the number of part-time day students.

Age at Admission of Full-time Students.

|  |  |  | England |
| :--- | :--- | :--- | :--- |
| Number admitted during $190^{-1 I}$ |  |  | Wales |
|  | 3587 | $\ldots$ | 465 |


| Percentage under | 17 | $\ldots$ | $\ldots$ | 3.8 | $\ldots$ | 3.9 |
| :--- | :--- | :--- | :--- | ---: | :--- | ---: |
| Percentage $17-18$ | $\ldots$ | $\ldots$ | $\ldots$ | 12.0 | $\ldots$ | 14.4 |
| Percentage $18-19$ | $\ldots$ | $\ldots$ | $\ldots$ | $23^{\circ} 9$ | $\ldots$ | $31^{\circ} 2$ |
| Percentage above | 19 | $\ldots$ | $\ldots$ | $60^{\circ} 3$ | $\ldots$ | $50^{\circ} 5$ |

The number given above under England include 277 students at the nine medical schools of the University of London and 29 students at the Newcastle College of Medicine, which is a constituent college of the University of Durham.
Number of Full-time Students in the Various Faculties, igro-if.

|  |  | England |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: |
| Arts $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 3410 | $\ldots$ |
| Pure science | $\ldots$ | $\ldots$ | $\ldots$ | 1723 | $\ldots$ | 256 |
| Medicine $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 2586 | $\ldots$ | 62 |
| Engineering | $\ldots$ | $\ldots$ | $\ldots$ | ro15 | $\ldots$ | 43 |
| Technology $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 735 | $\ldots$ | 22 |
| Agriculture $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 162 | $\ldots$ | 63 |
| Other departments | $\ldots$ | $\ldots$ | 203 | $\ldots$ | II |  |

To make the above summary more explicit, it should be pointed out that under "Arts," fine art, music, law, commerce, teachers' diploma, and economics are included; "Engineering" covers naval architecture; "Technology "comprises also mining, metallurgy, and architecture; and "Agriculture' embraces horticulture and dairy-work

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