

WHAT IS MEANT BY UNIVERSITY EXTENSION.



IT can scarcely be denied that in nearly all our large towns the apparatus for directing and organising what intellectual wealth they may contain is by no means proportional to the apparatus for money-making. This is really under-stating the case; for the disproportion is painfully glaring. There is much danger in this, for such a disproportion will inevitably result in the development of low and sordid aims, while the nobler part of man's nature becomes stifled or cramped. There are but few centres of culture in our land, and the influence of these has not yet extended itself to the centres of industry; which themselves, meanwhile, contain but few institutions for imparting what is called the "higher education."

According to the Census of 1871, there were in England and Wales (exclusive of London) seven towns containing each more than 150,000 inhabitants—viz., Liverpool, Manchester, Bristol, Leeds, Birmingham, Sheffield, and Wolverhampton. The aggregate population of these places amounted to 2,055,254, and is increasing every hour. Now in all these places there is but one institution which can lay claim to be a means of imparting on a large scale the higher education to the people generally—viz., Owens' College, Manchester. The miles of streets, the innumerable buildings devoted to money-making and to mere existence in these centres of industry, surely this is not a bright and pleasant prospect.

Of these two millions of people, probably some (though but few compared with the whole population) are persons of culture, who have received a good education, and who prolong that education into mature life. The vast majority may be divided into two sections. With one of these the School Boards are dealing, securing to those composing it the rudiments of knowledge. But in the case of the other section, comprising those who have received something more than the rudiments of education, there has hitherto been no means of forming that largeness and comprehensiveness of mind which would lift them out of the narrow circle of their own petty cares and personal interests into the higher regions of thought.

If in the towns we have named, and in numberless other smaller towns, there were some such institutions which would do for these persons what the Universities do for the *élite* of the youth of the nation, our general standard of knowledge would be raised, and our national life thereby improved.

Our object in this paper is to show that a scheme has been set on foot which has this very end in view, the providing of the higher education in our large industrial and commercial cities. We refer to what is known as the University Extension Scheme.

Mere knowledge is already provided for the people in most large towns by means of our public libraries; but these valuable institutions are too frequently of but little use to those who have not the vigorous

courage to plod wearily through a book on political economy or history without the help of a sympathetic mind to inspire, guide, and direct their studies. The University Lecturer comes in to aid the work of the library, which is thus rendered tenfold more useful.

The honour of initiating this important movement lies with the University of Cambridge; and its practical success is greatly due to the energy and sagacity of Mr. James Stuart, now Professor of Mechanism in the University of Cambridge. Not content with training for future life the young men within its walls, and directing the teaching of so many of our public and private schools through its system of Local Examinations, the University seeks to do something for the great mass of toiling people who throng the great cities of the land, and whose readiness to adopt the scheme is the best proof that it is a wise method of diffusing the blessings of knowledge and culture. It should be borne in mind that there is no wish on the part of the promoters to hinder or clash with the good work done by any local College or educational institution now existing. It is just because there are so few of these that the University seeks to supply a want.

The persons sent out by the University to teach are, for the most part, young graduates who have obtained honours in a Cambridge tripos, and who are therefore competent to speak on their special subjects. These subjects are various, including political economy, logic, constitutional history, light and spectrum analysis, physical geography, geology, the history of the French Revolution, and English literature. The towns in which the lectures have been delivered are situated in various parts of England, but mostly in the manufacturing districts. Among these towns are Liverpool, Sheffield, York, Leeds, Halifax, Birkenhead, Derby, Nottingham, Chester, Lincoln, Bedford, Devonport, Swansea, and others. It is proposed to extend the scheme to London; and if this is done, it will be peculiarly incumbent on the University authorities to avoid any collision with such institutions as University and King's Colleges, which are already doing a great work in the metropolis.

Should any town desire to reap the advantages of the system, it will probably form an "Association for the Promotion of Higher Education," which will put itself in communication with the authorities at Cambridge, who will select and send down the lecturer or lecturers required. Should two or more towns lie in close proximity, they will probably unite for this purpose, and the same lecturer will visit each of them in turn. This is actually being done in several cases.

The method of teaching adopted is as follows:—At the commencement of a course of lectures on any subject, the lecturer draws up and publishes a programme of the lectures for that course, which can be obtained by any person desiring to attend. In many places the same programme contains a list of all the lectures to be delivered by the various lecturers in that district, with the subjects of lectures, the time and

place, and the fee charged. A syllabus of the lectures in any given course is also drawn up. We give two specimens of these latter for the purpose of showing the method and scope of the lectures:—

Syllabus of Lectures on Inductive Logic and the Methods of Science.

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| 1. Induction and Deduction. | 7. The Four Methods. |
| 2. The Uniformity of Nature, its meaning and proof. | 8. Verification. |
| 3. Observation and Experiment. | 9. Fallacies of Induction. |
| 4. Means of accurate Observation. | 10. Arguments from Analogy. |
| 5. Classification. | 11. Lord Bacon and the Inductive Method. |
| 6. Hypothesis. | 12. Classification of the Sciences. |

Syllabus of Lectures on Light and Spectrum Analysis.

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| 1. Sources of Light. | 8. Colour. |
| 2. Propagation of Light. | 9. Spectroscope. |
| 3. Reflection of Light. | 10. Radiation Spectrum. |
| 4. Refraction of Light. | 11. Celestial Spectrum. Absorption. |
| 5. Vision and Optical Instruments. | 12. Radiation and Absorption. |
| 6. Theories of Light. | |
| 7. Dispersion of Light. | |

One lecture of an hour's duration is given every week, and at the close of the lecture the lecturer stays for a time, to explain more fully any difficult point, to recommend the books to be read, and the course of reading to be pursued. Besides this, the lecturer meets once a week those who attend the lectures, in a class, in which the instruction given is of a conversational character, questions being put and answered, and a general discussion raised. At the close of the course an examination is held on the subject of instruction, and certificates are granted to those who pass the examination satisfactorily.

Such is the University Extension Scheme. It is not unreasonable to hope that it is the germ of a great educational system which shall permeate the land.

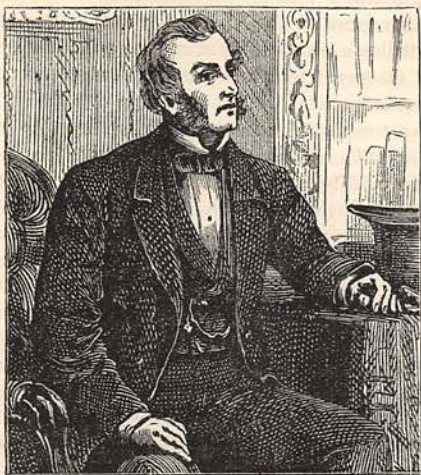
We have now a few seats of learning, a few homes of culture, a few centres of thought; but why should

not every large town be such in a certain measure? The great mass of our population will probably never be able to give three years of life to a Collegiate course at the Universities; but why should they not have Colleges with similar functions to those of the Universities at their own doors? The institution of mere science Colleges like those at Leeds and Newcastle—very valuable so far as they go—are not sufficient. They do not go far enough. An education based simply on physical science is a one-sided education, devoid of culture. The institutions required are those which will teach many things, which will provide an education developing the mind in many ways and by many means. The city of Manchester has such an institution in Owens' College; is it chimerical to hope that the time may come when every large city shall have its Owens' College? Such a College might be maintained by the city itself out of its rates, while Oxford, Cambridge, and London would supply the needful teachers. "Oh!" say some, "people would never stand this; they are burdened already with heavy rates and taxes; they do not wish that any more should be added." We would ask such people how their burdens are caused;—by crime and pauperism. This crime and pauperism is the legitimate offspring of the ignorance and folly of the past; and money spent to dissipate these clouds of ignorance is one of the surest methods of reducing the rates caused by crime and pauperism.

Were this system of local Colleges carried out, our large towns would not be simply immense, ugly tracts of dreary buildings, devoted to the getting and spending of money, but centres of intellectual influence, giving forth on all sides rays of light, and diffusing culture and refinement in the midst of crowded populations.

HOW TO QUALIFY FOR THE MEDICAL PROFESSION.

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SO varied and numerous are the channels through which the medical profession may be entered, that it becomes a matter of some difficulty to afford any precise information as to the

Medical Council, a Council which may be said to preside over the profession, every student must be registered, and before being registered he must produce a certificate of having passed some preliminary examination in arts recognised by the Council. Hence, the whole course of study which it is required that every student shall pass through, before receiving any diploma qualifying him to practise as a medical man, divides itself naturally into two distinct portions—the preliminary and the professional education, as they are generally termed. The preliminary education consists, as we have before intimated, in passing, and obtaining a certificate of having so passed, some examination in arts, recognised by the General Medical Council for the purpose.

Now there are several examining bodies whose certificates are accepted by the Medical Council as satisfying their requirements under the head of preliminary education. The list is a long one, and it would be beyond our present purpose to furnish a complete summary of them all. It will, however, be useful to

course to be adopted by any intending student of medicine. By the rules and regulations of the General