

It is to the lasting shame of our State organisation and of our School Boards that so little has been done to provide competent teachers.

The future rests with the Universities; but to save the nation the Universities must be practical, and broader conceptions must prevail in them. A course of training which will give true culture must be insisted on. The Universities have recently shown a disposition—to use a vulgarism—to throw themselves at the heads of the military authorities and to make special provision for the training of military students. It is much more their office to train teachers. Why should not the example to hand in the engineering school at Cambridge be followed? Why should not a special Tripos be established for teachers in training? I believe this to be the true solution of the problem.

The desire now manifest in several of our large towns to establish new Universities comes most opportunely, and should receive every possible encouragement from all who have the interests of our country at heart. I believe the objections to be altogether fanciful and the outcome of academic views. It is said that the value of the degree will go down like that of Consols. But in what does the value of a degree consist? Simply and solely in the evidence it affords of training. We regard the Oxford and Cambridge degrees as of value because they are proof that their possessors have lived for some time under certain conditions which are recognised to be productive of good. The degrees of other Universities must soon come to be regarded as proof of sound and healthy training. It must become impossible to obtain degrees such as the University of London has been in the habit of awarding, which have been the result of mere garret-study; proof of training will be required of all candidates for degrees.

But I must now bring this Address to a conclusion. The only apology that I can offer for its length is that having had over thirty years' experience as a teacher, and being profoundly impressed by the serious character of the outlook, the opportunity being given me, I felt that, as the walrus said to the carpenter,

"The time has come, . . .  
To talk of many things:  
Of shoes, and ships, and sealing-wax,  
Of cabbages, and kings,  
And why the sea is boiling hot,  
And whether pigs have wings."  
("Alice through the Looking-glass.")

This list of subjects is no more varied and disconnected—the problems set no deeper—than those to which we must give our attention in dealing with education; and the sooner the fate of the oysters is that of our present educational "system" the better. Having shown by this quotation that I am not an absolute modern, but have some knowledge of the classics, let me finally say, in the words of another poet—of him who on various occasions gave utterance to much wisdom at the breakfast table, that "I don't want you to believe anything I say, I only want you to try to see what makes me believe it."

Something more than an apology for an Education Act such as the powers are now engaged in shaping for us must be framed at no distant date, and a determinate policy arrived at. That policy may perhaps be found in the words put into Hamlet's mouth:—

*Hamlet.* To what base uses we may return, Horatio! Why may not imagination trace the noble dust of Alexander, till he find it stopping a bung-hole?

*Horatio.* 'Twere to consider too curiously, to consider so.

*Hamlet.* No, faith, not a jot; but to follow him thither with modesty enough, and likelihood to lead it, as thus; Alexander died, Alexander was buried, Alexander returneth into dust; the dust is earth; of earth we make loam; and why of that loam, whereto he was converted, might they not stop a beer barrel?

Imperious Cæsar, dead and turned to clay,  
Might stop a hole to keep the wind away;  
O, that that earth, which kept the world in awe,  
Should patch a wall to expel the winter's flaw!

Shakespeare thus taught the use of the imagination before Tyndall! The fact that we can now carry our imagination far further afield and contemplate the survival of atoms once embodied in imperious Cæsar in the flowers and fruit which deck the fair face of Nature—a higher end than that Hamlet paints—may serve to justify the adoption of a method he advocated. Modern progress is based on research—the application of imagination. Surely then there is every reason to make the spirit of research the dominant force in education!

NO. 1719, VOL. 66]

## UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

PROF. C. F. MYERS WARD, of the University College, Sheffield, has been appointed lecturer in physiology at the Charing Cross Hospital Medical School, vice Mr. Benjamin Moore, who was recently elected to the newly established chair of Biological Chemistry at the University College, Liverpool.

THE jubilee of Sydney University was celebrated on October 1, when addresses of congratulation were presented from British, colonial and foreign universities. The Australian universities were represented in an address by Prof. Tucker, and Prof. Baldwin Spencer, F.R.S., as spoke for the English universities.

REFERRING to the Education Bill, in a letter in Monday's *Times*, Sir Henry Roscoe favours the view first stated in *NATURE*, namely, that the part of the Bill dealing with secondary education should be dealt with separately and passed before taking that concerned with primary instruction. Since this suggestion was made in these columns, excitement over the religious difficulty involved in the representation clause of the Bill has greatly increased, and there seems little hope that a compromise will be effected between the contending clerics. It is now clear that the Government would have been well advised to have divided the Bill into two and settled secondary education apart from primary education. As Sir Henry Roscoe remarks, "To the mind of the nation at large, the question as to whether children are to be taught the Catechism or not looms small in comparison with that as to whether the next generation can be better prepared than our own to sustain and improve the industrial and commercial position of the Empire." Whatever may be thought about religious instruction in primary schools, it is unreasonable to delay the coordination of secondary education until the various parties have settled their differences, more particularly as public opinion is in favour of placing secondary education on a sound basis as soon as possible.

## CONTENTS.

|   | PAGE |
|---|------|
| Mendel's Theory of Heredity. By F. A. D. . . . .  | 573  |
| Lightning Arrestors in Electrical Engineering. By C. C. G. . . . .  | 573  |
| Our Book Shelf:—  |      |
| "Catalogue of Scientific Papers (1880-1883), Supplementary Volume" . . . . .  | 574  |
| Westell: "The Early Life of the Young Cuckoo."—R. L. . . . .  | 574  |
| Slate: "Physics: a Text-book for Secondary Schools." S. S. . . . .  | 575  |
| Carvalho: "L'Électricité (déduite de l'Expérience et ramenée au Principe des Travaux virtuels)"; Mendelssohn: "Les Phénomènes électriques chez les Êtres vivants" . . . . . | 575  |
| Carmody: "Elementary Chemical Analysis. Distinguishing Tables and Tests" . . . . .  | 575  |
| Letters to the Editor:—   |      |
| "The Primrose and Darwinism."—Author of "Primrose and Darwinism"; The Writer of the Review . . . . .  | 575  |
| A Method of Treating Parallels.—W. R. Jamieson  | 576  |
| Symbol for Partial Differentiation.—A. B. Basset, F. R. S. . . . .  | 577  |
| Bipedal Locomotion in Lizards.—N. Annandale . . . . .   | 577  |
| A Possible Meteor Shower on October 4.—G. Percy Bailey . . . . .  | 577  |
| Fall of a Meteoric Stone near Crumlin (Co. Antrim) on September 13. ( <i>Illustrated.</i> ) By W. H. Milligan; Dr. L. Fletcher, F.R.S. . . . .                              | 577  |
| Opening Addresses at the Medical Schools. By F. W. T. . . . .   | 579  |
| Notes . . . . .   | 579  |
| The Scientific and Technical Exhibits at the Royal Photographic Society's Exhibition . . . . .  | 582  |
| The British Association at Belfast:—  |      |
| Section K.—Botany.—Opening Address by Prof. J. Reynolds Green, M.A., Sc.D., F.R.S., President of the Section . . . . .  | 582  |
| Section L.—Educational Science.—Opening Address by Prof. Henry E. Armstrong, LL.D., Ph.D., V.P.R.S., President of the Section . . . . .                                     | 589  |
| University and Educational Intelligence . . . . .   | 600  |