

rent involves the solution during a difficult manufacture of two simultaneous equations, and the percentage of lamps correctly solving them is small. It is the unavoidable outfalls which play such havoc with his balance-sheet, so that it is small wonder if the lamp-maker is tempted to be a trifle lax in his rating. If cooperation existed and station engineers would see the sweet reasonableness of adjusting their supply voltages in different districts or different towns, so as to afford a market for all the lamps a manufacturer produces, it would be possible for him to turn out a better article at a lower price with undeniable advantage to the industry generally.

The information concerning the new lamps is much more meagre and conjectural. It would seem that the osmium lamp is already moribund or dead, and that we have only to reckon with the tantalum and tungsten filament lamps, the former taking 2 to 2.5 watts and the latter 1 to 1.2 watts per candle. The tungsten lamp appears to have a brilliant future before it. A lamp working at a little more than 1 watt per candle brings electric lighting almost to the level of gas for cheapness. The light units, though at present large (30 candles and upwards), are no larger than the gas mantle units, and so it may reasonably be supposed that the public will not object to them, though they undoubtedly do away with one of the benefits of electric light. The chief drawback in England is the low voltage, the lamps being at present only suitable for voltages of about 100. It is conceivable, should lamp-makers fail in producing a high-voltage tungsten filament lamp, that engineers will change back to low voltage, in spite of the eagerness with which they struggled to enforce the change to high voltage a few years ago. The competition of gas is excessively severe, and in some way must be met; at present the tungsten lamp offers the only means of meeting it in interior lighting.

The next few years promise to be of exceptional interest so far as the development of electric lighting is concerned; a radical improvement has long been wanting, and there seems every reason to believe that it has at last been made. The present condition of affairs is full of possibilities, and no one can say what the position will be a few years hence. Perhaps to his interesting account of the birth of the carbon filament lamp M. Rodet may be able to add in his next edition the melancholy tale of its death.

MAURICE SOLOMON.

DR. MAXWELL T. MASTERS, F.R.S.

THE botanical and horticultural world has sustained a severe loss by the death on May 30 of Dr. Maxwell T. Masters, the well-known editor of the *Gardener's Chronicle*, and the author of many botanical works.

Dr. Masters was born in 1833, and was educated at King's College, subsequently removing to Oxford, where he became sub-curator of the Fielding Herbarium under Dr. Daubeny. He was botanical lecturer at St. George's Hospital from 1855 to 1868, and was elected to the fellowship of the Royal Society in 1870. He was a corresponding member of the Institute of France, and was also an officer of the Order of Leopold. He achieved distinction in his earlier days by the publication of his "Vegetable Teratology," a most valuable work, which has been translated into several European languages. But his most definite contributions to botany in later years were those dealing with the Coniferæ, a difficult group which had long interested him, and in which he displayed a remarkable and detailed knowledge. He contributed many papers on the structure and taxonomy of the

species to the publications of the Linnean and Horticultural Societies.

But it is especially in matters appertaining to horticulture that he will be best known to most people. His position as editor of the *Gardener's Chronicle* gave him considerable influence, and he always used his best efforts with single-hearted devotion to promote the welfare of horticulture and to look after the interests of those who were engaged in gardening as the practical business of their lives.

He always took the keenest interest in the Royal Horticultural Society, and for many years presided over the Scientific Committee.

He will be sorely missed by a large circle of friends, as well as by many others in the gardening world, to whom his name has become almost a household word.

NOTES.

At the meeting of the council of the British Association on Friday last, June 7, Mr. Francis Darwin, F.R.S., was unanimously nominated to the office of president for the year 1908-9.

We have to deplore the deaths at Cambridge, on Friday last, June 7, of Prof. Alfred Newton, F.R.S., professor of zoology and comparative anatomy in the University, and Dr. E. J. Routh, F.R.S.

The ladies' dinner of the Royal Society will be held at Burlington House on Wednesday next, June 19.

SIR WILLIAM PERKIN, F.R.S., has been elected president of the Faraday Society for the session 1907-8.

TWELVE tables were unveiled in the Hall of Fame of New York University on Memorial Day, May 30, among them being one in memory of Maria Mitchell, the astronomer, and another in memory of Louis Agassiz.

DR. NANSEN, president of the Social and Political Education League, will deliver his presidential address, on "Science and Ethical Ideas," at University College, Gower Street, on June 26. Sir Oliver Lodge will preside.

REUTER reports that a typhoon occurred in the Caroline Islands in the latter part of March and devastated the Olcai group of those islands. A great wave swept the land and buried it under a layer of sand.

We learn from *Science* that Dr. C. R. Wieland, of the Peabody Museum, Yale University, has left America for a stay of five months in Europe, where he will visit the plant collections of northern and southern Europe for a special study of cycads. The results of his investigations will be published in his second volume on cycads.

A MEETING of the International Council for the Exploration of the Sea is being held in London during the present week. In the absence through illness of the president of the council, Dr. W. Hering, his place is being taken by the vice-president, Dr. Otto Pettersson, of Stockholm. Among the members of the council and experts now present in London are Dr. P. P. C. Hoek, general secretary, and his assistant, Dr. H. M. Kyle; Dr. Lewald, Prof. Krümmel, Prof. Brandt, Prof. Heincke, Dr. Hening, and Dr. Ehrenbaum, from Germany; Mr. A. Hamman and Prof. Gilson (Belgium); Captain Drechsel, Mr. Martin Knudsen, and Dr. C. G. J. Petersen (Denmark); Dr. Homen and Mr. J. A. Sandman (Finland); Prof. Nansen, Dr. Hjort, and Dr. Helland Hansen (Norway); Prof. Max Weber, Dr. Redek, and Dr. Wind (Holland); Prof. Otto Pettersson, Dr. F. Trybom, and Mr. G. Ekman (Sweden); Mr. Waiter Archer, Prof. D'Arcy Thompson, Dr. Mill, Dr. Garstang, Dr. Masterman, Dr. H. Reid, Mr. E. W. L. Holt, Dr. Wemyss Fulton, Dr. E. J. Allen,