tribute of respect that the Academy could pay to Wilde's memory would be to complete this work. Few know the hours that were stolen from professional work, from the enjoyment of social life, and from much-needed rest, during the years that were engaged in this work. Despite the criticisms of some who knew little of what they criticised, this catalogue will always remain as a testimony to the author's energy and ability; already has it proclaimed far and wide what a storehouse of treasure exists under the Academy's roof. Sir William Wilde's many good qualities will keep his memory alive in the hearts of those who knew him, and when these are dead and gone it will still and for ever hover around the collection of the antiquities of the Royal Irish Academy.

## MIDDLE-CLASS EDUCATION IN HOLLAND

THE following article on this subject, "from a Correspondent," appeared in the *Times* of Tuesday:—

It is not unfrequently the case that great nations search laboriously for the solution of problems which smaller peoples have completely solved, as one may say, without effort. We old-fashioned English are at present devoting much pains to discover a good system of education for our middle classes, and yet we have only to cross the Channel in order to see in actual work one altogether satisfactory in a country whose manners, traditions, and laws are almost those of our own.

According to the constitution of Holland there are three degrees of education—Primary, Middle, and Superior. As the Primary Education comprehends all schools intended for children from six to twelve years of age, and as the Universities, the Gymnasia, and other establishments where the study of the ancient languages occupies the first place, are considered as belonging to the Superior class, it follows that all educational establishments not included in one or other of these categories are regarded as establishments for middle-class education.

It appears that until the year 1862 the Dutch were no further advanced in respect of this kind of education than we are now. Wishing to put an end to this state of things, the Minister of the Interior (the Home Secretary) of the time, M. Thorbecke, formerly Professor in Leyden University, presented to Parliament a bill, which was passed into law at the beginning of the following year. From the discussions which preceded the adoption of this law, we learn that its object is to insure a suitable education to young people who are not obliged to learn a business before the age of from fourteen to seventeen years, and for whom, although they are not intended to take up University studies, a deeper and wider instruction is necessary than that which can be obtained at the primary school.

Setting out from the principle that youths who quit the primary schools may be divided into two classes—those who are able to devote only two years, and those who can afford to give five years to further study, it was decided that there should be two kinds of middle-class schools, the one to have a two years' course, and the other a course of five years.

The programme of study in the establishments in which the course is one of two years, and which are called Lower Middle-Class Schools, includes, in the first place, the elements of Mathematics, Mechanics, Physics, Chemistry, Natural History, Geography, History, and the Dutch Language, and in addition, Drawing, Gymnastics, and some idea of Political Economy and of Technology for towns, and of Agriculture for the country. The teachers in these establishments are moreover required to devote the evenings to courses for young artisans or agriculturalists who are prevented from taking the courses which are given during the day.

As to the number of these schools, the law requires that each commune whose population exceeds 10,000 shall establish at its own expense at least one Lower Middle-Class School.

The programme for those schools in which the course is one of five years, and which we may designate Upper Middle Class Schools is of course more extensive. It embraces first the branches included in the Lower Schools, but, as might be expected, this education in the Upper Schools goes much deeper. Then come three foreign languages—French, English, and German. The law requires, moreover, that the pupils should receive some notion of the political institutions of the country and of its statistics, including those of the Colonies. Needless to add, that in a country like Holland the tenure of land must form an integral part of education.

The Higher Schools are naturally those from which the most important results are to be expected, and which, from the English point of view, are best worth careful study. It is simply the truth to say that I have been amazed at what I have seen. It is a very remarkable thing that although no commune is obliged to establish a Higher School—only the State is obliged to maintain five—yet at the present time there is no town having a population of above 15,000 which has not its Higher School in full work. A still more remarkable thing is, that nowhere do the school fees exceed 5*l.* a year. As an Englishman, I was very curious to learn how they were able to give at the rate of 5*l.* a year an education which, in our happier England, can scarcely be obtained at all. This is what I learned. The expenses of a Higher School (not including the maintenance of the building) amount to about 1,750*l.* per annum. Supposing the school to be attended by 100 pupils (a medium estimate), the receipts, under the head of school fees, do not exceed 500*l.* There thus remains a deficit of 1,250*l.*; but the State generally provides a subsidy of 7,000 florins (about 583*l.*), and the town has therefore only to make up the difference by contributing 667*l.* We have supposed the school to be attended by 100 pupils, it is evident that when this number is exceeded, the receipts rise in proportion. This, however, is not always to the advantage of the Communal budget, for it should be known that in Holland a class is not allowed to contain more than thirty pupils, the result being that a greater number necessitates the creation of a double class, and this may require an increase in the number of teachers. Let us note, also, in passing, that the communes which are not able to bear the expense of a complete Higher School are authorised to establish schools of three classes corresponding to the three lower classes of a complete school.

The Communal Councils (town councils) may appoint such teachers as appear to them efficient. It is only necessary that these present certificates of competency and character, and that they have consequently passed the examinations required by the law. There are exempted from these examinations the bearers of certain academic degrees; thus for the mathematical and physical sciences the greater part of the candidates are former students of the Universities. These are generally young doctors of science who have taken a high place. Holland is not slow in showing her gratitude to them.

I have said that in the Higher Schools the school fees, although the law has not fixed a maximum, do not exceed 5*l.* For the Lower Schools the maximum is 1*l.* per annum, but this figure is rarely reached.

It is evident from the above that when a boy of twelve years of age leaves the Primary School and is not immediately obliged to earn money, his father, called in to decide whether or not he shall be sent to a Middle School, has no obstacle to face in the matter of school fees. A foreman or superior workman in a position to keep his son till he is fourteen years of age, can easily pay a shilling a month for school fees; 5*l.* would be an almost insuper-

able obstacle, though it is none to a father who is able to provide for the other wants of his son until the latter reaches the age of seventeen or eighteen years.

A Dutchman who boasted greatly of the system which his country has adopted, and to whom I remarked that it might be objected that in virtue of the system it was not himself but the taxpayers who paid for the education of his children, replied eagerly: "But am I not myself a taxpayer? Does not the system which we have adopted come simply to this, that instead of my being compelled to pay for the education of my children in a few years under the form of very heavy school-fees, the law allows me thirty or forty years in which to pay it under the form of a tax? As for myself personally, it matters very little, but look at my neighbour, whose three sons are being educated at the Higher School. Change the system; his taxes would perhaps be lessened by twenty florins, but, on the other hand, the school fees would reach so high a figure that he could not meet them. The case of my neighbour is not an exceptional one; it is the case of at least one-half of the parents who send their children to the Higher Schools. Of 100 pupils who are now attending these establishments there would remain scarcely one-half, and it would consequently be necessary to raise to 35*l.* the fees to be paid by each of them; this figure speaks more than all the arguments put together."

If in defence of a new order of things it is only necessary to urge the argument of success, it must be confessed that the advocates of the Higher Middle Schools of Holland do not require to urge any others. By universal consent the success has surpassed all expectation; it has been complete. Yet whoever knows human nature will not be astonished to find that these schools, simply because of their success, are still the object of much criticism particularly among the Clergymen and Scholars of the country. I should have wished to learn from M. Thorbecke, himself a very distinguished scholar, what he thought of these criticisms. That statesman, however, being dead, I applied to one of his former colleagues in Leyden University, whose advice M. Thorbecke to a large extent followed at the time when he was occupied in drawing up his scheme of superior education. I will give you a summary of our conversation. Having asked if it was not a mistake to found a system of education which had not Greek and Latin as its basis, he replied as follows:—

"Allow me to observe to you that our Middle Schools are not intended to produce scholars, orators, statesmen. For these there are the Gymnasium and the University. Has it moreover been thoroughly proved that the profound study of a modern foreign language cannot, as mental gymnastics, take the place of the study of a dead language? I could name to you members of our parliament who have never given any attention to Greek and Latin, and yet who, as orators, are on a par with the most eloquent of their colleagues. The Greeks are represented as having left to us in literature and in philosophy monuments of a perfection such as modern writers can never equal. Yet the Greeks studied no dead language that I know of. Besides what would it serve, in the matter of education, to make a theoretically perfect law, when the mass of the public would condemn it? If there is one idea strongly rooted in the mind of our middle classes, it is the conviction that Greek and Latin are perfectly useless to anyone who has not to pass through the University. It was daring enough to give so large a place in our new schools to the mathematical and physical sciences, to which our *bourgeoisie* had hitherto given so little attention. To go further and compel this class of people to study in addition Greek and Latin, would have been wantonly to court an inevitable defeat."

I next ventured to point out that the programme is overloaded.

"Overloaded?" replied he. "From whom have you got this accusation? From men who pass their time in their study? Speak a little with our manufacturers and our merchants, and they will give you quite another version of the matter."

"It is not said that useless subjects are taught," I went on to add; "it is urged only that too many things are taught at once, that the mind of the pupil cannot take them in, and that in the end his intellect will be enervated."

"I understand how this objection could have been urged in 1862 and 1863, during the discussion of the law, when experience had not yet pronounced; but now!—at the present time our merchants, who formerly maintained that a man of business has nothing to do with science, that it was rather an embarrassment than otherwise, now receive with open arms any young man having no other recommendation than that of having studied in one of our schools; they will tell you, moreover, that at the end of five or six weeks the new-comer is more useful to them than the majority of their old *employés*, grown gray in harness. There is more to come; it happens that some pupils of the Middle Schools, having acquired a taste for the mathematical and physical sciences, wish to complete their education at the University. Well, they almost always surpass those of their companions who come from the Gymnasia. Confess that all this is very difficult to explain if it be true that in the new schools the mind of the pupil is enervated and atrophied."

Our conversation then went on as follows:—

"You maintain then, that in your new schools, everything is for the best?"

"Pardon! I believe, on the contrary, that there is room for reform. It cannot be denied that the mediocre pupils have great difficulty in learning all that is taught them in the first three forms. Instead of three years, they would require four. The entire course ought to be six years."

"But why at the first did you not fix the course at six years?"

"Because we old-fashioned Dutch, like all the rest of the world, have our characteristic faults. We are a people essentially economical, but unfortunately we are too anxious that our children should begin early to earn money. It was a great point gained, even, to fix the course at five years. What an outcry would there have been had we taken a year more. Besides we had not then the experience that we have now."

"It will then be necessary to modify the law?"

"Yes, but gradually. There are some members of our Chambers who think it will suffice to cut out from the programme the subjects which are called superfluous. I believe it will be well not to oppose this opinion. Let us commence by setting these members to work. That which will be superfluous in the eyes of some will be quite indispensable in the estimation of others. Moreover, they cannot touch either the mathematical and physical sciences or language, and if they end by cutting out anything, a thing which appears to me very problematical, it will be of so little importance as to make scarcely any difference. It will only be when the insufficiency of all these palliatives has been well established that the time will have arrived to apply the remedy that I have indicated to you."

"You believe, then, that if we should decide in England to establish schools of a kind similar to your Higher Middle Schools, it would be necessary to have a course of six years?"

"I do not venture to assert this. You are under better conditions than we are. Our children must, beside their mother tongue, learn three foreign languages—English, French, and German; yours have only to learn French and German. This is a very important point."

"Allow me to ask you one more question. It is urged

that your Lower Middle Schools have not succeeded. To what is this ascribed?"

"It would be more correct to say that they have not succeeded throughout. Moreover, M. Thorbecke was never under any delusion on this point. He considered the Lower Middle Schools as placed for the future. The proof is that he got inserted in the law a clause which enacts that the Government may for a certain number of years exempt a communal council from the obligation of erecting a Lower Middle School if it is probable that a sufficient number of pupils could not be obtained to attend it. It is necessary first that the economical condition of the country should be improved. Remember that in Holland wages are in general lower than in all the surrounding countries. We cannot blame our poor artisans for requiring their children to earn some money at the age when these would enter the Middle School."

Such is a *résumé* of what I have seen and heard in Holland.

## NOTES

AT the meeting last week of the delegates of the French Learned Societies at the Sorbonne, the Science Section was divided into three committees—Mathematical, Physico-chemical, and Natural History. The general meetings of the three sections were presided over by M. Leverrier, who developed at full length the organisation of agricultural warnings which have been established in Puy de Dome, Vienne, and Haute Vienne, and will be in operation from May 1 to October 15, when agriculturists have practically nothing to lose in the fields. About thirty stations have been established in each of these departments and connected by telegraph with the chief towns of the district. Each local observatory will receive telegraphic warnings through the préfet of the department, to whom will be sent daily the telegrams of the International Service. All these warnings will be posted at the stations and special warnings for the vicinity deduced by local meteorologists. All the observations taken on these stations will be sent to the observatory and tabulated under the supervision of M. Leverrier. The system will very likely be extended to other departments. The distribution of prizes was held on the 22nd in the large hall of the Sorbonne. The Minister of Public Instruction, M. Waddington, gave an address, in which he promised to create new libraries, new faculties, and to group new faculties in order to establish Universites. It is inferred thence that M. Waddington, who, as is well known, is a Cambridge man belonging to Trinity College, will try to remodel the French high schools according to the English method. The old Université de France is, perhaps, to be divided into the Universities of Paris, Lyons, Lille, Marseilles, and Toulouse. M. Waddington's address has created quite a sensation amongst French University men. Five gold medals were awarded—to MM. Abria (Bordeaux), for physics; Clos (Toulouse), for botany; Dumartier (Lyons), palæontology; Filhol (Toulouse), geology; Lortet (Lyons), zoology and palæontology. Ten silver medals were also awarded in botany, zoology, and natural philosophy. In connection with this meeting, M. Lecoq de Boisbandran has been made a Chevalier de la Legion d'Honneur. Several other scientific men have been appointed *officiers* of the University and *officiers* of the Paris Academy, which are special honorary degrees in acknowledgment of some special services either in the prosecution of scientific researches, or in carrying out the results of the scientific investigations of other people.

A TREASURY COMMISSION has just been appointed by Government for the purpose of inquiring into and reporting on the Queen's Colleges in Ireland. The Commissioners are the Rev. Osborne Gordon, of Christchurch, Oxford; Prof. Allman, F.R.S., M.R.I.A.; and Mr. Herbert Murray, Treasury-Remembrancer in Ireland; with Mr. B. Leech as Secretary.

SIR ROBERT CHRISTISON has resigned the position of President-elect of the forthcoming Glasgow meeting of the British Association. Dr. Andrews, of Queen's College, Belfast, has been nominated by the Council in his stead.

THE French Geographical Society are to invite Lieut. Cameron to Paris to a special meeting of the society, to be held for the purpose of marking the appreciation of his merits felt in France.

THE freedom and livery of the Turner's Company were presented at the Guildhall, on Saturday, to Lieut. Cameron and Dr. Atherstone, to whose labours as a geologist the discovery of the value of the South African diamond fields is principally due.

ADMIRAL LA RONCIÈRE LE NOURRY has been reappointed by a large majority the President of the French Geographical Society.

THE French Minister of Public Instruction has given instructions for a series of observations to be made on all the streams of oceanic France, in order to determine the formation of the bar. Stations will also be established on the French coasts for observations of the tides. The previous French observations were made at Brest as far back as 1770, and on them the calculations in Laplace's "Mécanique Celeste" were based.

THE conversazione given last Friday evening at King's College by Mr. H. C. Sorby, F.R.S., to the Fellows of the Microscopical Society (of which Mr. Sorby is president) and their friends, was a brilliant and successful one. One of the greatest novelties exhibited was a new binocular spectroscope, illustrating Mr. Sorby's important discovery of a new method of measuring the position of the bands in spectra.

WE would remind our readers that the afternoon lectures at the Zoological Gardens commence to-day at 5 P.M., the first being by Mr. Sclater, F.R.S., "On the Society's Gardens and its Inhabitants." They will be continued on Thursdays for the next nine weeks.

THE first annual meeting of the Cumberland Association for the Advancement of Literature and Science, will be held at Whitehaven on May 1st and 2nd.

IN Guido Cora's *Cosmos* for April the valuable information on recent expeditions to New Guinea is continued. There is a paper by Major Wood on the Oxus in the time of Alexander, an account of Cameron's work, the continuation of G. Bove's narrative of his visit to Borneo, besides other matters of geographical interest.

PETERMANN'S *Mittheilungen* for April contains an account of the results obtained by Lieut. Cameron to accompany the excellent map of the country explored, which we have already referred to. There is an interesting account of the ascent of the two Norwegian summits, Galdhöpig and Sneehätta, by Hauptmann M. Riuth. Along with a map of New Zealand there is a long article by J. I. Kettler, showing the recent progress of that colony. Drs. Radde and Sievers furnish an interesting preliminary account of their recent travels in Caucasia and the Armenian highlands.

IN the *Bulletin* of the French Geographical Society for March, Dr. Nachtigal's account of his journey in Central Africa (1869-74) is concluded, as is also the account of Abbé David's travels in Western China in 1868-70, and M. J. Codine's paper on early Portuguese discoveries on the West African Coast. There is an itinerary from Tangier to Mogador, by M. Auguste Beaumier.