

INDUSTRIAL DEVELOPMENT
IN IRELAND.

WÜRTTEMBERG AN EXAMPLE.

By ALFRED HARRIS.

[*Reprinted from the CONTEMPORARY REVIEW, October, 1886.*]



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1887.

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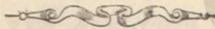
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THE Report of the Royal Commission on Technical Education has been in the hands of Members of Parliament and the public for more than two years. It contains a vast amount of valuable information upon a highly important subject, and many suggestions for the improvement of our system of education as regards trades and manufactures, which should have commanded immediate and earnest attention; but it has failed to exercise much influence upon the British public, and has received little notice either from statesmen or municipal authorities.

In the hope of reviving an interest in the subject, especially with reference to its important bearing upon the question of Industrial Education, and the development of resources, both human and material, in Ireland, I venture to add a chapter to the Report, founded upon personal investigation in a part of Europe which was scarcely, if at all, visited by the members of the Commission. I allude to the kingdom of Würtemberg. This small State—the population of which does not exceed 2,000,000—enjoys a system of State-aided education in industry, which is, I believe, more complete and far-reaching than any other in Europe. It has grown up in a fragmentary manner during the present century, but was inaugurated on its present basis in 1856, and brought to a state of successful development under the guidance of the well-known Dr. Von Steinbeis. It has had the liberal support of the State, and the active co-operation of an intelligent and well-educated people.

The system is now complete and successful; it embraces every department of industrial and technical instruction, from the highest forms of scientific and art education to the development of the household duties

of the domestic servant-girl, and the training of the agricultural labourer in the skilful performance of his daily work, It exerts a powerful influence, not only through the great educational institutions of Stuttgart, the capital, but by means of a well-organized arrangement of "Progressive Schools" in every town and village of importance throughout the country. Württemberg has long had a thoroughly efficient system of elementary education—no child in the country is overlooked or neglected. In the national schools the foundation is laid upon which is raised the structure of progressive schools for trade and agriculture, whilst the edifice is crowned by the polytechnic school, the technical schools, the high art school, and the industrial art school in Stuttgart. This capital has become a great centre for education in all its branches. It swarms with students, not only of German birth, but natives of all parts of Europe and America.

In my recent visit to the country I have had the advantage of the guidance of a gentleman in the Central Department of Industry, and by his introductions, have had access to the schools and factories in many provincial towns seldom visited by English tourists. I had paid a previous visit in 1869, when Dr. Von Steinbeis was implanting the system, and under his guidance I saw some of the places which I have now revisited, and am able to judge of the progress which has been made.

The government of the industrial system is of a paternal character. The central department in Stuttgart is composed of a president, with administrative and technical officers who conduct the general business. They are assisted, when occasion requires, by a larger body, composed of the teachers in various institutions, and by representative counsellors—merchants, manufacturers, &c.,—chosen every four years by the Chambers of Commerce in the provincial centres.

The influence of this central authority is exercised among the various trades of the country by encouragement to those which are prosperous, and by help and advice to those which are flagging or unsuccessful. Industries, whether great or small, useful or ornamental, have in one form or another been benefited by the judicious assistance of the Department, either by the introduction of new machinery in poor districts, information as to methods practised in other countries, or in various other ways; but especially by leading the course of instruction in the schools, into channels of usefulness to the various trades.

The management of the Fortbildung Schools is now carried on by a Royal Commission of eight members. The direction as regards technical instruction is regulated by the president, and four councillors from the Central Department of Industry, and the remaining four are representatives chosen from the High School for Industrial Art in Stuttgart, the Studien Rath, the Protestant Consistory, and the Roman Catholic Ecclesiastical Council.

The municipalities and local boards do their part by means of committees of management, and by devoting funds from their resources to an extent at least equal to the Government grants. Private enterprise assists the public benefactions. The master traders insist upon the attendance of their workmen and apprentices at the schools, and youths of every trade and industry flock to them for instruction. Local exhibitions are frequently held in which comparisons of manufactures can be studied; and museums, both agricultural and industrial, are encouraged and eagerly made use of by workmen desirous for improvement. The department acts upon the principle that more is to be gained by practical assistance in the management of an industry than by theoretical instruction. It superintends the collection and construction of models, the final training of teachers, and sending them out either as travelling instructors or to special schools. It grants subsidies to clever students, who are sent to foreign schools for improvement. The system of apprenticeship and the operations of the trade guilds also come under its supervision.

Among the most useful expedients which have been adopted I may mention travelling teachers. These were obtained by sending skilled workmen abroad, at the expense of the Department, to acquire a knowledge of new methods in trade and agriculture; or by securing the services of foreign workmen. They were sent about among the towns and villages to give instruction in new industries, or to improve old ones. Thus by the introduction of new processes and of machinery from Belfast, the linen trade was rescued from decay; and watchmaking was introduced or improved by workmen from Switzerland and Franche-Comté. These are but samples of many industries which were benefited by the introduction of new ideas from foreigners.

Collections of tools and implements were provided in local museums, and libraries stored with works bearing on trades and agriculture were formed. Another institution is the *Müster Lager*, or Museum of Samples. These were encouraged by the Central Office, but the principal one in Stuttgart is now conducted by a joint-stock company. The productions of the country can there be seen in a short visit by commercial travellers and tourists. I was much impressed with the novelty and variety of the goods exhibited.

Under the fostering influence of the Central department, schools, chiefly open in the evening, for various manufactures were started. In most places local enterprise did all that was necessary, but where this was wanting the Department stepped in and supplied the need. In the early days of the movement new machinery was introduced by the Department, and even workshops for special trades were started where private efforts failed or were wanting. These were soon handed over on

easy terms to skilled workmen, and the intervention of the Department in this form is no longer needed.

To enumerate the various trades and industries which have been encouraged or assisted by the action of the Department would occupy too much space—suffice it to say, that they cover nearly the whole range of manufacture and hand labour. Whilst some of these efforts have not proved entirely successful, they have for the most part, been productive of excellent results, and throughout the country flourishing manufactures have been implanted where formerly agriculture was the only industry. It is, however, principally in the application of art to industry that the results of the system have proved most profitable and improving. These results may be witnessed by any tourist who inspects the goods exhibited in the shop windows of the König Strasse in Stuttgart. The prevalence of skilled labour and artistic development are too apparent to pass unnoticed. It is especially to be observed that the influence of the system of teaching industrial (as distinct from pictorial) art has pervaded the manufactures of the country, from the most expensive work of goldsmiths and jewellers to the commonest articles of adornment and utility.

A few words must be devoted to female education, for this has not been neglected. There are two large institutions for teaching needlework, dressmaking, and embroidery,—one in Stuttgart, the other in Reutlingen. Each of these “Frauen Arbeit” schools has about 200 students, many of whom are foreigners. The complete course of teaching extends over two years. The results produced upon the ladies of Württemberg in the proficiency which they attain in these useful arts are evident to anyone who mixes with the people. There are numerous smaller schools throughout the country, in which girls of sixteen to eighteen years of age go through a course of instruction which includes plain needlework, domestic usefulness and economy, farm service in all its details, the rules of health and the requirements of sickness, and general knowledge useful to females in the lower stations of life. So marked is the influence of these schools upon the population that you never see a ragged person, male or female. There are plenty of patches ingeniously inserted, but no rags.

There are now in Württemberg 187 Fortbildung and Frauen Arbeit schools with 14,640 students, of whom 4,488 are females. A college for agriculture at Hohenheim. A veterinary college in Stuttgart. Three agricultural (ackerbau) schools for young farmers—open all the year, and five open during the winter months. Also 31 agricultural (Landwirthschaft) evening schools for adults, with an attendance of 864 men; 96 Sunday schools, and 697 evening classes, in which agricultural instruction is given to more than 16,000 boys.

There are also 82 agricultural reading rooms with 3,263 members, and 1,093 agricultural libraries with nearly 200,000 volumes.

I will select two schools which I have visited as examples, one of which is in an important manufacturing centre, the other in a small rural community with a special industry.

The first of these is the town of Gmünd. It has 15,000 inhabitants. The trade is entirely in metal work and jewellery. Here the system of trade teaching may be seen in its highest development. From first to last the aim is to impart a correct feeling for art along with technical dexterity in working the various metals which are used in the trade. As in all the other towns of Württemberg, drawing is taught in the elementary schools, at which the children remain until they are fourteen years of age. There are several large factories in Gmünd; and, besides the work done in these, a great deal of hand-work—chasing, engraving, and polishing—is done in the houses of the artisans. On leaving the elementary school the boys go to the factories or begin plain work at home. At once they are entered for the Fortbildung School, where for about a year they are taught drawing, with a distinct bearing upon the requirements of the trade. But it is not only drawing which is taught in the Fortbildung School. There are three advanced classes, into one or more of which the boy enters as soon as he shows proficiency in free-hand and outline. Each of these classes is taught by an experienced instructor, and in this school the teachers of each class carry the title of Professor, and, I may say, deserve it. They are men of extraordinary power and ability. It is really gratifying to witness the high talent which is employed in imparting correct principles of art, in its application to trade, in this and many other of the provincial schools in Württemberg.

These men are not only artists, but handicraftsmen; they know thoroughly what is required by the trade and all the difficulties which have to be encountered in working metals and jewels. They therefore teach the youths just what is useful and applicable and nothing else. No value is attached to laborious studies in light and shade. The masters are paid for their knowledge, and on their merits, and not, as with us, by the useless multiplication of studies “for results,” to be judged by a central tribunal of men who know little of practical work. There is, therefore, a steady aim in all that is done, and no time is wasted by master or pupil.

1st.—Knowledge of geometrical and freehand drawing in its more advanced stages.

2nd. Careful and correct modelling in wax or clay from well-selected models.

3rd.—Sketching from natural objects and casts, figure drawing from models, ornament, still life, and original design.

4th.—Engraving, chasing, and repoussé work, all in actual materials—copper, brass and nickel.

These are the four classes through which the students have to pass. The practice in the school thus becomes a constant assistance to the student in his daily work in the factory.

In the school itself is a small museum of well-selected specimens, a few books upon ornament, &c., and a reading-room. It is well-nigh impossible to suggest a more thorough or useful system for imparting trade knowledge in art. Professor Bätier, who teaches the fourth division, is the designer in one of the largest and best factories in the town. He started this class about eighteen years ago. I saw it in its infancy in 1869, and I have seen it again this year. The progress which has been made is extraordinary, and the effect upon the trade of the town has been most satisfactory.

The school is well looked after by a local committee. It is conducted on the same principles as all the other Fortbildung Schools as regards its finance. The town provides the school-house—a large old building with no pretensions. The expenses are paid, first, by school fees, which are very moderate: second, by the town; third, by the central department; the two latter in equal proportions.

Judicious inspection by the central office is preserved, but it is scarcely needed, the local interest and attention being all that can be desired. In 1885, there were 265 students in attendance. The total expenses were £695; the fees paid by students £116; and the balance, £579, was defrayed by the Municipality and by the Central Department in equal proportions. There is a small endowment by means of which twelve of the best students, under the guidance of a teacher, make annual tours for instruction. A few students are also enabled by the aid of the Central Department to obtain higher teaching in Stuttgart, Munich, Vienna, or Italy. These important facilities are the only prizes awarded.

The second school is at Laichingen, a village situated on an elevated plateau, or Alp, not far from Ulm. This plateau has an unproductive soil, and is subject to severe droughts in summer. It is dotted over with villages, large and small, of which Laichingen is one of the most important, having 2,600 inhabitants. The plodding industry of the people is evidenced in the means which they have adopted for ameliorating the disadvantages from which they suffer. To alleviate the evils of drought, they have bought a disused water mill in the valley far below, and by its means they pump up water to a reservoir at the highest point of the commune, and serve it out with pipes to the farms and houses. They have also established a joint-stock dairy, with 200 members and 600 cows.

But it is to the linen industry that they look for the employment of their spare time in summer, and the short days of winter when little work can be done outside. I had seen samples in Stuttgart of the

beautiful tablecloths and other articles in linen which are woven here, and I was greatly interested in seeing the place, and the people who produce them. The work is all done in hand looms. There are two or three small factories, with some thirty or forty looms in each, but the greater part of the weaving is done in the houses, where the looms are so closely packed that you wonder how the workmen can get in and out of the benches. I visited the school which is a mixture of a school for art and a weaving factory.

In this school, design, as applied to the special manufacture, is the end aimed at, and it is successfully attained. There are no attempts to produce pretty landscapes, or groups of figures, or elaborate studies in light and shade; but the course of teaching is thorough and consistent. The art master comes two days a week from Blaubeuren, a town nine miles away. He is a clever, practical man. I have no doubt he began life as a weaver, and has added art knowledge to his technical attainments. At all events he knows how to teach the whole mystery of the elaborate and intricate designs used in the weaving of tablecloths and other articles of linen manufacture. It is to this class of knowledge, and this alone, that the commercial success of this industry is due.

It is almost impossible to imagine a place under greater natural disadvantages than Laichingen. Far from a railway station, on an elevated plateau, reached by a stiff pull uphill of nine miles. obtaining its yarns from Belgium and Belfast, with an import duty upon them of fifteen per cent.; yet this industrious people, by means of their technical knowledge and skill, are producing the most beautiful articles in their trade, not only for the use of their own country, but for export to America and other foreign lands. It is a clear instance of the triumph of artistic teaching over natural disadvantages, which to the ordinary mind, would appear insurmountable. I saw youths of fifteen to nineteen years of age designing elaborate patterns, and each of them could not only design, but carry them out through every process to completion, except the final bleaching, for which they have to be sent to Blaubeuren, where there is water suitable for the process. Not only are the youths taught all the technical and artistic requirements of the trade, but each one has to work out in the school elaborate calculations of the exact cost of his productions. In addition to the designs made in the school, others (in the form of sketches) are supplied by eminent professors in art at Stuttgart, and are worked out and adapted by the student-weavers. The trade is not limited to the plain white linen to which we are accustomed, but is varied by magnificent designs for coloured borders; and many of the smaller articles are rendered attractive and saleable by tasteful combinations of various tints.

The linen industry has existed here and in neighbouring villages for

fully a century. Up to the year 1855 only plain and coarse goods were produced. The competition of power-loom in other countries had caused great depression in the trade, which—as in many other places—would no doubt have fallen to decay had no steps from outside been taken to revive it. At this juncture the Central Department came to the rescue. The first step taken was to improve the bleaching works at Blaubeuren. Workmen from the North of Ireland were induced to come over and settle here; men from Laichingen were sent to Belfast to study machinery and methods. Until then only hand-spun yarns had been used. These were superseded by machine-made yarns from Ireland and Belgium. The few designs used had been very poor—generally copies from French goods. The Central Department provided a teacher of design and a weaving instructor, and paid the salaries; and a small allowance was made to clever young men as an inducement to remain a longer time than usual under instruction. A joiner was sent from Laichingen to Vienna to learn the manufacture of Jacquard looms. The central authorities sent representatives to foreign Exhibitions, where they purchased samples of the best materials and designs, and lent them to the manufacturers. So rapid was the improvement in the trade, that at the Exhibition in London in 1862 the produce was considered equal to the Irish. In 1865—6 the weaving school was established on its present basis. The village authorities provided the building; the Central Department paid the teacher's salary. Merchants in Stuttgart were induced to co-operate. They provided looms and materials, paid the weavers' wages, and took all the produce. By this combined operation great improvements in the trade were effected, and better wages were paid for the higher class of goods produced. In addition to the technical instruction given in direct connection with the trade of the place, there is an evening school for writing, arithmetic, and drawing. The cost of this school is £20 a year, one-half of which is paid by the state.

I shall not soon forget my visit to this remote but interesting village. It certainly presents one of the most striking instances of the powerful influence of technical and art education upon a rural community.

In concluding this notice of education in Württemberg, I may say that there is a general air of moderate prosperity about the people in the provincial towns. There is a marked evenness about the towns and villages, and extremes of wealth and poverty are rare. Very few mansions with extensive domains, and very few signs of poverty or squalor. I was told that the people do not save more than is necessary for giving their families a good education, nor do they overwork themselves for the sake of high earnings. They work heartily, earn moderate wages, and spend freely in good living and harmless enjoyments. There is no doubt that the Germans are making rapid strides in all trades and industries,

and we in England, as well as other countries, have not yet felt the full effects of German competition. The remedy against it becoming more serious is in our own hands; but our position, as regards the lack of art and technical education, has become so far in arrear that strong and earnest measures are necessary to improve it. We must realize the fact that, if the matter is left to private enterprize, we shall make but slow progress; and it is unfair that the burden should fall upon a few willing shoulders. Both imperial and municipal funds must be employed, and wise direction must frame the methods by which we are to regain the ground which is being cut from under our feet.

The especial object which I have in view in bringing the Württemberg system under public notice, is to enforce views which I have previously expressed, that a similar system should be adopted in Ireland.

In any measures to be applied to the revival of trade and industries, which to my mind, is the only real remedy for the poverty of that country, and for the grievances and discontent which it causes—it is absolutely necessary to include a large and comprehensive system of industrial teaching. The means adopted in Württemberg suggest those which should be tried in Ireland; but in that country the destitute condition of many of the poorer people and the lack of elementary instruction among them, render it necessary to extend the work to the lowest stratum of society.*

To effect this, Ireland should have a thorough and complete system of elementary education, reaching the poorest of her people. In the term education I include teaching the hand as well as the brain. I would suggest that elementary education on the lines adopted by the National Board (with a larger admixture of hand work than exists at present in the schools) should be made compulsory, accompanied by an extension of grants from the Treasury, but not to relieve the parents and the localities from a proper contribution, except in districts where the poverty is overwhelming. In these places free schools would be required for a time. The system of school pence is well worked in Ireland, and the priests and other managers of schools may be trusted to assess the families with discretion according to their means. In new schools a large proportion of time should be devoted to hand-work, and if found necessary, the present number of scholastic subjects in such schools might be reduced.

We now come to a more important step in my programme—viz., progressive industrial education. Any one who has seen the great industrial school at Artane, Dublin, managed by the Christian Brothers, must confess that there exist in Ireland both skilful teachers and apt scholars for industrial

* "It is now generally admitted that no scheme to introduce technical education into Ireland can succeed unless it embraces the teaching of skilled industries among the children of the poor. They are now brought up in indolence and inaction of mind and body in many districts of the country. If they were technically educated it might be expected that such children will become useful members of society."—*Report of the Inspector of Reformatory and Industrial Schools, Ireland, 1885.*

training. The boys who pass through this institution (which has now 800 inmates) are drawn from the lowest class of the Irish poor. They enter at from eight to twelve years of age, and are sent out at sixteen skilled artisans or labourers in all departments of trade and agriculture, whilst some of the more intelligent are taught to be clerks, decorators, and musicians. The same may be said with regard to the whole of the children under the care of the Industrial School Department. Under the judicious guidance and the untiring zeal of the chief inspector (Sir John Lentaigne) and the never-wearying care of a devoted band of teachers—Catholic and Protestant, male and female—this department stands out as a bright constellation amid the squalor and poverty of Irish life. With a system entirely denominational, and a management beyond all praise, these schools, sixty-four in number, and containing 6300 destitute children (none of whom are criminals,) are conferring untold good upon Ireland. The cost to the State is exactly 5s. per head per week for each inmate, all the buildings and the remainder of the cost being provided by the managers, by local grants, and by the sale of work done by the inmates.*

The managers of these schools, always desirous for more work, are ready to extend their borders, and it would be desirable to augment the Government grant (for a time at least,) so that the number of destitutes relieved could be increased by 50 per cent., say to 10,000. This would involve an increase of the grant from £80,000 at present up to £120,000 or thereabouts. This arrangement would relieve the unions of a large number of children now in the workhouses.

Having secured by the above means an efficient system for imparting knowledge of a wage-earning character to the poorest classes, it would further be necessary to inaugurate a system of progressive education for young persons of both sexes, desirous to improve their qualifications for industrial pursuits. To do this we should have to imitate the methods employed in Würtemberg and other German States. I allude to the Fortbildung (further progress) schools or classes, to be held in the evenings at the school-houses, or other suitable premises in towns and villages, adapting the teaching in these schools to the wants and industries of the several localities. For instance, fishing and seafaring schools on the coast; manufacturing schools where wool and flax abound; agricultural schools, and schools for domestic industry for young women, almost everywhere, and so on through the range of industrial occupations.

* For further particulars of these schools, see *National Review*, September, 1886: letter on "Irish Industrial Schools."

Since the above was written, Sir John Lentaigne has retired from the post of Chief Inspector, which he has held for thirty-two years. In the concluding sentence of his last Report (1886) he says, "My great aim has been the instruction of the inmates in high-class skilled industries, by which they may be able to earn a living in after-life. . . . It was my earnest wish that some of these schools might eventually develop into technical training colleges for instruction in the higher branches of arts and handicrafts."

I would suggest that in many small places these schools should take the form of model workshops, and that, when once established on a successful basis, they should be handed over, on easy terms, to skilled workmen, where such could be found. I have alluded to this course as having been adopted in Württemberg. It may also be found expedient, in order to encourage workmen willing to start such establishments, to pay apprentice fees for indigent boys, who would otherwise be a burden on the rates. Of course all these would be under inspection.

The larger towns should be encouraged to organize a higher class of schools for technical education, and for the practical application of art and design to industry, and they should receive guidance and assistance for this purpose.

To effect these measures, which are beyond the scope of existing agencies, a new "Department of Industry" should be established (similar to that which exists in Württemberg) for promoting industrial, technical, and art education as applied to industry. As it is of little use to teach people to be industrious, and not at the same time to lead them into fields of labour, this Department would also have to undertake the much more difficult task of guidance and help, in the industrial development of the natural resources of the country.

It would extend this article to too great a length were I to go thoroughly into this question; but the functions of such a department must be elastic and capable of adaptation to the present and to the increasing requirements of the country. They would embrace some or all of the following subjects: *

The improvement of means of communication. The reclamation and drainage of waste lands. The utilization of peat and other natural resources. The development of mines, quarries of marble, &c. Improved methods of agriculture. Dairy farms. Forests and plantations, with a school for forestry. New crops suitable for the soil and climate, and the application of products to trades. The formation of collections of tools and implements both for trades and agriculture, and of warerooms for samples of finished goods, similar to the "Müster Lager" of Germany.

My readers will perhaps be alarmed at this list of work for a Government department to perform; but it is not so formidable as it looks, and it might be considerably extended and still be within mortal reach. The mission of the Department would not be to *do* all these things itself, but to show the people how to do them, and to render assistance to voluntary workers. To obtain information from other countries and to teach its application in Ireland. The great aim should be to develop local and individual energy. To extend counsel and advice when and where required, and to afford assistance towards or to conduct experimental efforts.

* Some of these would more properly be undertaken by the Board of Works.

The work and the results of such a system as I propose I have already described as in full operation in the kingdom of Würtemberg, a country at least as badly off as Ireland in natural resources, and far worse off as regards its total want of seaboard, and inland water communications.

I have shown in the account of what has been done in Würtemberg, that they obtained a great deal of knowledge from Ireland. Why should not Ireland take payment for the debt by importing some of the clever handicraftsmen of that country (who are now far too numerous to find full remunerative employment at home) for the purpose of restoring her defunct or expiring industries?

I am informed that these are to be had if asked for—young men who can teach modelling, design, carving in wood, &c., embossers and chasers of metal, leather workers, and other trades—and that there are many who have added a knowledge of the English language to their other acquirements.

Our principle of action as regards Irish Industries has been to leave the country to its own unaided resources, and when famine and poverty have asserted their sway, we have pointed to America as the proper home for a pauperized and disaffected people. The result is that an indignant but now prosperous crowd of emigrants conducts the campaign against us and supplies the sinews of war for our discomfiture.

What Ireland needs is not separation from, but a closer union with Great Britain—a union to be cemented by wise legislation and consistent rule, under which her industries can be made to flourish, and commerce and the arts of peace to be conducted with security.

Many small agencies exist in Ireland for the promotion of local industries. They are however weak, and depend upon the precarious exertions of self-denying individuals. They seldom if ever fail from the want of aptitude in the people for industrial pursuits, but they expire for lack of funds, or of a backbone of support which can always be relied on.

If the threads of this voluntaryism could be gathered and united in a common centre, from which direction and help could be obtained, an immediate commencement of industrial instruction could be made. It is almost hopeless to expect that this concentration of effort will be made in Ireland, either by local co-operation or voluntary subscriptions. The materials for such a combination do not at present exist in Irish society. The motive power, the funds, and the direction must in the first instance proceed from Government; but the chief effort of such a "Department of Industry" as I have suggested, should be directed to the development of local influences, and the encouragement of voluntary zeal.

I believe that no measure would more surely promote the growth of material prosperity, and the consequent pacification of Ireland, than one

which had for its object the removal of poverty and ignorance from the people, by an intelligent and kindly effort to assist them in the development of the natural resources of the country, to teach habits of industry and perseverance to the young, and thus to draw away from entire dependence upon agriculture the already overcrowded ranks of pauperized labour.

In conclusion I would emphasize the following considerations:—

That, in order to revive profitable industries in Ireland, it is necessary to combine with the development of the natural resources of the country, a complete and practical system of industrial teaching.

That municipal and local co-operation, for both purposes, must be everywhere sought and made use of. Voluntary zeal must be impressed into the service and encouraged by the Central Department. The work to be accomplished is great and difficult. The aid of all classes is necessary, and no narrow prejudice should exclude the help of any skilled persons who are willing to assist. The capitalist, the merchant, and the workman are all required. Scientific experts, architects, and engineers must be asked to lend their aid. Ladies and skilled female workers of all classes of society will also have their part to perform in this great movement.

Finally, whilst the useful arts and handicrafts must at first claim a large share of attention as wage earning occupations for the masses, this should not prevent the adoption of a high standard of artistic and scientific attainment for those who may be qualified by industry or ability. The aim should be to develop to their full extent the faculties of invention and originality which have existed, but now lie almost dormant in the Celtic race; and to restore that culture and skill which formerly existed in Ireland, and which in a long forgotten past drew this graceful tribute from a Florentine visitor to the country: *

“Insula dives opum, gemmarum, vestis et auri,
Commoda corporibus aere, sole, solo;
Melle fluit, pulchris et lacteis Scotia campis;
Vestibus atque armis, frugibus, arte, viris;
In qua Scotorum gentes habitare merentur,
Incluta gens hominum milite, pæce, fide.” †

ALFRED HARRIS.

* Donatus, Bishop of Fiesole; died anno 873.
† Gems, raiment, work of gold, the Island's wealth,
Air, sun, and soil bless human life with health:
With milk and honey flow the Scotian fields,
Arms, fruits, and arts to men the country yields.
There (a deserving race) her people dwell,
In Faith, in War, in Peace, alike excel.