

**THE LIMITATIONS OF SCHOOL.**

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During the past two years two papers on Educational topics have been read to this Society, one by Mr. Williamson entitled "Post-War Functions of Commercial Education," and the other by Mr. Ryan on "The Preparation of National School Pupils for Technical Training and Industrial Life." My excuse for bringing the subject again under the notice of the Society is, first that both these papers dealt with special aspects of Education, whereas I propose to treat the subject more as a whole, and, second, that at the present moment the subject of education is one of especial interest.

The great conflict in which we are engaged has revealed itself to all as a struggle for existence between two rival forms of civilization, the issue between which has at last been definitely joined. The military events which are now happening represent merely the first chapters in the history of the struggle which will be continued in the economic as well as in the military arena during the next quarter of a century. The final result will be the survival of the fittest, using the word in the biological sense, and now that we are face to face with this twentieth century fact we have realised somewhat tardily the necessity for an effective national system of education in order to make ourselves the fittest.

The greatest obstacle in the past to the establishment of such a system has not been indifference to, or even ignorance of, the necessity. We have long been quite conscious of the need for a system, but we have suffered badly from diversity of counsel. On no other subject of vital importance has there been such a confusion of tongues. The confusion has manifested itself in every aspect of the question—more particularly in the fundamental aspect, namely, what should be the aims of a national system of education? On this fundamental point we have been deafened with a babel of voices. At the one extreme are those who, taking what they call a practical view, which as in many other spheres of thought is in reality the merely narrow view, maintain that the school should chiefly concern itself with teaching those things which the boy will require in order to earn his living. This

contention although it sounds plausible has never been of any real service to the educational reformer, for the simple reason that in the case of the great majority of boys, more particularly in the industrial districts of Great Britain there can be no intelligent anticipation of the calling which the individual will take up and of the tasks which as a worker he will have to perform. This is not even decided by personal choice, but by circumstances over which he has no control—or, to be more precise, by the industrial conditions which happen to prevail in his particular locality at the particular time when he happens to be launched into the stream of life. These conditions which determine the individual's place in the economic scheme are subject to such rapid changes owing to new mechanical inventions, new discoveries of raw material, the imposition of new hostile tariffs, and various other causes, that they cannot be anticipated by even the most intelligent educator. Thus the seemingly practical proposition of the advocate of vocational education proves to be quite futile, inasmuch as it means next to nothing.

At the other extreme in laying down the essential aims of education is the cloistered recluse who is in the world but not of it, and who takes the philosophical attitude that the chief function of school is to train the mind, and that what really matters is not what is taught but how it is taught. Such a contention could only be seriously maintained by those who are constitutionally blind to the signs of the times, and if carried to its logical conclusion would make a national scheme of education unnecessary. Nevertheless owing to the unfortunate predominance of the mere student and scholar in our educational counsels it has exercised a very real benumbing influence upon our policy in the past. We may congratulate ourselves that in the light of present events this conception of education is now quite discredited. It has had its day and done its worst.

Between the extreme practical view of education which on close examination proves to be unpractical, and the extreme philosophical view which is really the negation of a system of education, there are countless compromises which assail the ears of the educational reformer and confuse his purpose.

Nevertheless the question—what are the chief aims of education?, or to put it better—what are the chief functions of school? admits of a ready and simple answer if we divest our minds of the catch phrases of scholarly tradition and view the problem broadly as part of the greater problem of human development.

Every human being is born into the world with certain faculties which he has inherited in varying degrees from a long line of mostly unknown ancestors. In the case of the great majority these faculties are of a modest character but nevertheless such as if developed will enable the individual to play a useful, and under just social conditions, a satisfying part in life. Even the lowest quality of human faculty is far above the highest endowment of even the highest animals. A minority inherit special gifts which in the case of a favoured few may amount to genius. All inherited faculty implies mental possibilities—small or great. It is the function of the school to enable the pupil to realise his mental possibilities so far as they can be realised in the limited period during which he remains a schoolboy. That is to say it is the teacher's task to help the pupil to acquire such knowledge as he is capable of acquiring and to master such mental operations as he is capable of mastering. The knowledge acquired or the operations mastered may be of the kind commonly classed as useful, that is such as will help him to fill a place in the economic scheme of the community to which he belongs, or they may be of the kind commonly classed as accomplishments, and which merely enable him to exercise the special aptitudes and gratify the special tastes with which he is endowed. The distinction is not so important as it may appear at a first glance. Each class is an essential part of education. The "useful" knowledge will enable the man to make a living, the "accomplishments" will make life worth living. "Man does not live by bread alone." The seeming "unessentials" in education represent the difference between a narrow, unsatisfying, purely animal existence and a full life. In this respect human beings differ enormously, and on this account they differ in the nature and magnitude of their claims on the teacher. An amount of education which would enable one man to live a useful and therefore contented life inasmuch as an equilibrium has been established between his capacities and his environment would leave another with mental cravings unsatisfied, tastes ungratified, and possibilities unfulfilled—in other words, would leave him discontented. Such a man with his powers undeveloped is an unrealised asset to the community—and an unhappy man.

There is really no limit to what a boy should learn at school except the limits which are set by time and his powers. In making this statement I trust, however, that I shall not be interpreted as meaning that it is a matter of indifference what is taught or in what order. At a later

stage of the paper I shall deal with the curriculum and hope to show that in the choice of subjects and the order of instruction we have clear guidance from nature and from common sense. Nature has determined the order in which human faculty unfolds itself, and when once some agreement has been arrived at as to the aims of education it is a matter of common sense to adapt means to end.

I have remarked that one of the chief obstacles to the establishment of an efficient system of national education has been diversity of counsel. The number of educational reformers is embarrassing. Every person who can get a hearing feels himself qualified to pronounce an opinion on the causes of our failure in the past and to propose remedies for the future. Some of the proposals are merely schemes for the reorganisation of schools—undoubtedly an important phase of the subject, and one in respect of which the practical man can make useful suggestions, but nevertheless secondary to the question of teaching. Many educational schemes are simply revised curricula—based upon what the authors claim to be more enlightened or more practical judgments of the relative importance of the various subjects of instruction. Those who draw up these schemes generally consider it quite sufficient to show that the acquisition of certain knowledge or certain powers is desirable. Few recognise the impracticability of teaching all such desirable subjects to all. The underlying assumption is that anybody can learn anything, with which is often associated the equal fallacy that anybody who understands a thing can teach it. The real problem, however, is not so much what is desirable but what is feasible. Unless the limitations of teaching are fully recognised and allowed for, it is impossible to organise education on efficient lines, i.e., so as to produce the maximum result, which simply means making the most of every boy and girl. Now although the opinion of the scholar or even of the politician as to the relative values of different branches of learning is entitled to consideration, there is only one person who can speak with authority on the possibilities and limitations of teaching, and that is the teacher himself. In the past, unfortunately, he has always been the last person to be consulted in the matter, which is quite sufficient to account for our failure so far to produce a sound working scheme.

In this connection the term teacher requires some definition. There are teachers and teachers.

There is a small aristocracy of intellect—headmasters of public schools and university professors who are always sure of a hearing on educational topics. These are gener-

ally men who gained high distinction at the university, which marked them out from the beginning for the prizes of the profession. Their teaching experience has been mostly with an exceptional type of student—what might be called the honours student, an intellectual elite whose special aptitudes and enthusiasm make the work of the teacher easy. Such men have never encountered the resistance which the brain of the average boy offers to the reception of ideas. The normal boy is an unknown quantity to them, and their opinions are of very little practical value as to his limitations or possibilities.

Beyond or beneath the notice of the educational authorities are the rank and file of the profession—the form master and the primary school teacher—the men whose daily work is with the boy of no outstanding ability. These men know what they can reasonably ask of their pupils and what is beyond their powers. Out of their experience they could give valuable guidance to the State if they were encouraged to do so. After all, national education has to do chiefly with the undistinguished many. These will form the mass of the nation. On their efficiency (using the word in the widest sense) will mainly depend its fitness as a whole to survive. Captains of industry, pioneers of enterprise and leaders of thought will not accomplish much if the quality of the multitude is low. The community has no use for more than a small number of such supermen—but requires an unlimited number of intelligent, efficient and contented workers, and the educational system which ignores their needs cannot claim to be a national system. As a matter of fact the supermen are not made at school. It is not for them that we require a national system of education. To them Bernard Shaw's remark that his education was interrupted by his schooling will always apply with more or less truth.

The inability of the man of brilliant attainments but of limited teaching experience (and by "limited" I mean limited to the handling of selected material) to gauge the capacities of the average boy is revealed in the various attempts made from time to time by such educational authorities to lay down the minimum of education which should be accomplished by the school. Mr. A. C. Benson, for example, in an article in the "English Review" for October, 1912, includes in this irreducible minimum for every public school boy:

“ the power to express himself clearly in English, to read French easily, and write simple French correctly,

and to acquire a general outline knowledge of European history, modern geography and popular science."

He adds:

"I am not saying that the duty of public schools ends there, but it certainly begins there. Even for an average boy this curriculum would leave a considerable margin of time in which his special tastes could be developed."

To the mere theorist this would probably appear to be a modest and reasonable proposition, but as a practical teacher I have doubts about the English Composition and the general outline knowledge of European history, and something more than doubt about the foreign language. So far as English Composition is concerned I will content myself here with remarking that no instruction will enable the person who does not think clearly to express himself clearly, and on most of the material which is put before him the school boy does not really think at all. It simply does not engage his thoughts, and therefore composition with such material becomes merely an exercise in words. With respect to the foreign language which is also taken for granted I would go further. A boy learns his own language by the exercise of the faculty of imitation which is practically universal in the human species, and he could learn a second language, i.e., so as to understand it and speak it, by the exercise of the same faculty, if placed in the right environment. But to learn to read and write correctly a second language under the only conditions in which it can be put before him at school, namely, through the medium of grammar, is only possible to those in whom are well developed the analytical powers on which the understanding of grammar depends. The majority of boys possess this analytical faculty to such a limited degree and form so slowly the verbal associations that are necessary to build up a vocabulary that they fail to acquire a working knowledge of a second language within the limited period covered by their schooling. Let Mr. Benson make a calculation of the number of French books which should be carefully and conscientiously read through in order to furnish the vocabulary necessary for reading French "with ease," and the number of hundreds of hours which this reading would represent, and he will realise why so few public school boys accomplish his minimum.

In putting forward this low estimate of the ordinary boy's capacity for learning much of what is now inflicted upon him at school, nothing is further from my intention than

to hold him up to contempt. Such a boy may nevertheless, and as a matter of fact generally does, grow up into a useful, contented, and therefore happy man. The greater portion of the work to be done in this world makes little call on the special intellectual faculties which count for so much at school, i.e., school as the theorists have made it, and will make less, as the century advances. With the greater organisation of industry, and the multiplication and improvement of machinery the great mass of workers are being steadily reduced to the mere minding of machines or the performance of simple tasks, in short they become individual parts of a vast human machine, for the performance of which functions the chief qualifications needed are singleness of purpose and the ability to follow instructions, both of which are as likely to be found in what the school calls a "dull" boy as in the "bright" boy.

Incidentally it may be remarked here that in proportion as the worker's part in industry becomes more stereotyped, and his working day more monotonous owing to the small scope which it gives for the play of his individuality, it becomes a greater burden upon him, and the greater the intelligence the heavier is the burden. This is at the bottom of most of the social unrest of the present day, voicing itself in an insistent and increasingly successful demand for shorter hours. As the working day is reduced, and there are clear signs that it will be further reduced, the worker's leisure tends to become in his case also what it has already long been in the case of the well-to-do, namely, the chief part of his life. Whether he is contented or discontented will be a fact of economic as well as social importance and will depend very largely on whether he is able or not to get what might be called spiritual satisfaction out of that leisure, and his ability to get this satisfaction will depend on what might also be called his spiritual equipment. This is provided for by that side of his education which I have referred to under the head of "accomplishments," and which is concerned with the so-called unessential mental aptitudes and interests which are really essential inasmuch as their exercise in after life forms a large part of what makes life worth living.

Furthermore, even the exceptional powers which qualify certain men for individual work, and so raise them above their fellows as directors of industry, inventors, or specialists of some kind, are also by no means identical with the faculties which make success at school. Such powers generally manifest themselves at a later period of life than that with which school is concerned. This is the

reason why the failures at school sometimes turn out to be the successes in real life. It must be borne in mind that some so-called dull boys are merely instances of slower development—slower for the simple reason that there is more to develop in their case. This is in harmony with the biological law that the lower types of animal life reach maturity earlier than the higher types. It has come under my notice that many boys who while at school were markedly deficient in the power of expression and were therefore branded by the teacher as stupid, have no great difficulty with composition later in life. When wider experience has furnished them with something to say they are able to say it. This applies in an especial degree to another important faculty which was assumed as a matter of course by Mr. Benson in the article from which I have quoted, viz., that of generalisation, on which depends the power of grasping collective facts in the forms of rules or laws. This faculty enters enormously into much of the work now done or attempted at school, whereas I am convinced that in the case of a large proportion of human beings the faculty is only slightly developed at that age. To the average school boy what Mr. Benson describes as a general outline of modern history is the driest of subjects. Individual incidents may interest him, but generalisations leave him cold. To him they are mere words and if they are forced upon him he either takes refuge in Nature's defence against uncongenial instruction, namely, inattention, or merely learns them by heart as a matter of duty.

So far most of what I have said has been of the nature of destructive criticism, and on this account it is possible that I may have been listened to with some impatience by those who have no high opinion of this method of dealing with a serious subject. But education has been so mishandled in the past that a certain amount of destructive criticism is unavoidable. In all reconstruction a good deal of rubbish has to be cleared away before the foundations of the new fabric can be laid.

The foundations of a sound system of national education must be laid in the primary school.

As a preliminary condition to reform, the distinction between primary and secondary education must be rightly applied. Not that there has been any real uncertainty as to the nature of the distinction itself. The terms primary and secondary explain themselves. The distinction between them is purely an intellectual one and in the allocation of the two grades of education denoted by them nothing else should be considered but mental fitness. In

actual practice, however, the distinction has been made to rest upon a social basis—with disastrous results. Primary education has been regarded as the education for the masses, and secondary education as the education for the classes. This gross perversion has created two evils. By confining the children of the wage-earning section of the community to instruction of an elementary character we have mentally starved such exceptional ability, as is to be found in that section. By forcing secondary education indiscriminately on the children of the middle classes we have deprived that considerable portion of them which are not fitted for such instruction, of any real education at all. In recent years we have become alive to the existence of the first of these two great evils, and some attempts have been made to grapple with it. In this country the Christian Brothers, the Incorporated Society and other educational bodies have done much to bridge the gulf between the two grades of education. Of the second evil, however, the general public seems to be scarcely even conscious. But the evil is a very real one. The boy who has for a term of years been subjected to a course of teaching for which nature never designed him has suffered not merely a negative injury. It is not simply a question of having wasted over subjects which he cannot learn, time which might have been spent on subjects which he could have learned. Positive injury has also been inflicted, which may leave its marks to the end of life. The boy who has been dragged through an impossible course (i.e. impossible to him) of Algebra, Geometry, French and Latin is very much the worse both mentally and morally for the process. From the sheer inability to keep his mind on instruction which only confuses him he will have lost the faculty of attention on which all learning depends and the equally precious faculty of concentration which is the essential condition of accuracy and of all successful accomplishment. An unbroken series of failures to perform the tasks set him will have destroyed his pride in work, and with it his self-respect. That natural thirst for knowledge which is so strongly marked in the period of childhood and which is part of the birthright which raises man above the animals will also largely have gone, or at least have been blunted. This school-produced deterioration proves to be a serious matter to the boy when he enters upon the real business of life. Every employer has had painful experience of the ineffective type of youth who never hears instructions correctly and therefore constantly does the wrong thing, who has no desire for excellence in his work but merely seeks to

get through it by following the path of least resistance, who has no sense of accuracy—anything is “near enough,” who never seeks knowledge, but has to have the information necessary for the proper performance of his duties forced upon him. Such a boy is often the victim of misdirected teaching. The attempt to teach him higher things has not merely been unsuccessful but it has involved the ruin of his mental character.

Primary education should be for all, both the mediocre and the clever, but supplemented in the case of the latter by secondary education, the discrimination between the two classes being made without reference to social status. The proposition may appear to be a revolutionary one, but it merely amounts to the statement that the instruction must be adapted to the pupil's capacity—of which only the teacher is a competent judge. It must, moreover, be qualified by the proviso that by primary instruction I mean something broader and more perfectly adapted to human needs than what passes for such at present. This I will endeavour to show a little further on.

In order to ensure that every boy or girl who is by nature fitted for secondary education shall get it, and that no boy or girl who is unfitted for it shall be subjected to such teaching, a re-organisation of the schools will be necessary. It is not possible within the limits of this paper to go into details, but such an organisation should present no insuperable difficulty. It is easy to conceive of an arrangement by which a pupil, without regard to age or social status would be automatically transferred to the secondary school as soon as he has shown himself ready for the change. The State, of course, would have to put its hand in its pocket, as the boy of humble birth would have to get some financial help during the period of his extended schooling, but the gain to the nation which would accrue from the cultivation of exceptional faculty would more than repay the cost. When once we have become convinced of the need for a great reform we shall not easily be deterred by considerations of its cost. This is one of the results of a war which has taught us to think in millions.

I have already stated that primary education should be for all. In the case of many it would occupy the entire school period, but a portion would pass rapidly through it as a preliminary to more advanced instruction. At this stage of the discussion some attempt to define the limits of primary education may with reason be demanded.

In the first place it includes the three R's. Of late it has become the fashion with educational theorists to be-

little the three R's or to take them for granted. From the attitude of these writers one would imagine that a child learns to read, write and cipher as a matter of course just as he learns to walk and talk, that they entail no great effort on his part and make no great call on the teacher. Only those who evolve their theories of education from their inner consciousness could possibly hold this view. The teacher knows better, and could tell them that by a large proportion of children these seemingly simple arts are only acquired with considerable mental effort continued over a considerable period, and that to teach them thoroughly makes no small demand on the teacher's skill. As for the dictum which has appeared in many recent effusions on education that the three R's are not really education, but simply a means to education, and that their value therefore is purely dependent upon the precise educational use to which they are subsequently put, I can only describe this as an affectation. When man, in the course of his progress from a state of savagery learned to read and write (which is really one art, not two) he made an enormous advance, both in respect of the greater mental power which the step implied and the greater mental effectiveness derived therefrom. What is true of the race is equally true of the individual. There is a great gulf between the literate and the illiterate. If primary education meant only the three R's it would nevertheless mean a good deal. Under no circumstances should they be sacrificed to secondary subjects. No condemnation can be too strong for the practice which is almost universal in middle class schools of ruthlessly cutting down or even indiscriminately discontinuing the teaching of the three R's at the age of thirteen or fourteen, in order to set free time for more ambitious subjects. To this practice is due the discreditable but common phenomenon of the boy of fair intelligence who leaves school at sixteen, unable to spell decently, to tot accurately, or to perform the common operations of arithmetic with reasonable celerity and correctness.

It would be difficult to exaggerate the importance of arithmetic. Correct spelling has been called a prejudice and may be viewed as merely a desirable accomplishment excepting to a minority who will earn a living with the pen. But arithmetic is a daily need quite apart from the demands which may arise from the individual's vocation. It is even necessary for intelligent citizenship. Most of the information on which as citizens we have to form a reasoned judgment is of a quantitative nature, put before us in the form of statistics, for the right understanding of

which a knowledge of decimals, percentages, averages, etc., is necessary. The scant attention which statistics receive at the hands of the general public is mainly due to inability to grasp them, which is a consequence of the neglect of arithmetic at school. From long experience in teaching I have come to the conclusion that there are very few boys who may not hope to acquire a useful degree of proficiency in arithmetic—granted sufficient time and practice. During the earlier and more receptive years of schoolhood the practice should be largely in the form of mental arithmetic, a department of teaching which is now grossly neglected. By its means the mental associations between numbers on which the more complex operations depend are indissolubly formed. Some children, of course, are slow in forming these associations and therefore require more time and practice than others, but even these make good in time. And the subject is worth the time.

Primary education should include manual instruction, which ministers to human powers of an even more fundamental character than those with which the three R's are connected. By manual instruction I mean instruction in the use of simple tools, and in the properties of common materials. Man has been described as a tool-using animal, which, if the word "tool" is taken in its widest sense, is true both of his hours of work and his hours of play. Education has to reckon with the fact. Such instruction will involve a training of the sense of sight for the correct judgment of distance, direction, form, and magnitude, of the sense of touch, and of the muscular sense on which accurate manipulation depends. It should be supplemented or rather supported by some teaching of elementary geometry, which, as the normal boy does not take kindly to general concepts, would have to be mainly practical. It may be remarked here that quite apart from the general and unassailable grounds on which the need for manual instruction may be urged, such teaching is necessary in order to give reality to that large portion of the subject of arithmetic which deals with measurements, and which without it would be merely a kind of mental gymnastics. However, the claims of manual instruction are now happily receiving wide recognition. We learned from Mr. Ryan's paper last year something of what is being done in this country. The chief difficulty so far has been connected with the supply of teachers for the purpose. The old fashioned teacher is naturally slow and unwilling to learn what he would perhaps call new tricks, but this is a difficulty which will disappear with time. There is still some difference of opinion

as to whether such instruction should be universal, although those whose judgment is not hampered by prejudice can have little hesitation on this point, seeing that the faculties with which manual teaching is concerned are common to all. Every boy should get some manual instruction and those with special aptitude should get a good deal. It is nothing to the point that many of us are not called upon to earn a living by manual labour. Times occur to every man when he has to use his hands and his constructive faculties. And now that the war has made it difficult to get both the services and the appliances which were formerly so easily obtainable, the occasions when one must make a thing or do a thing for himself are increasing in frequency. During the last couple of years many a worthy householder after long and vainly struggling with some simple domestic job has been led to the conclusion that something has been left out of his education.

The work of the school upon the pupil bears fruit in the form of, first, increased mental power, second, increased knowledge. The distinction between the two products of teaching is not a rigid one, for Bacon lays it down that "knowledge is power." Nevertheless it is a real and useful distinction. The three R's and manual instruction aim especially at the former of these two objects. The latter purpose should be served in the primary school largely by elementary science or as it is often called nowadays, nature study. It should be superfluous in the twentieth century to advocate the universal teaching of science. The civilisation of to-day is mainly built upon science. Most of the advantages which we enjoy over earlier civilisations are directly or indirectly the result of an increased knowledge of the world in which we live—and of the natural laws by which it is governed. Man cannot begin too early to get acquainted with the facts on which a comprehension of those laws is based. Most of what is included in elementary science falls naturally within the sphere of primary education, being well within the compass of the average boy. Inasmuch as it deals with actual material things, not with words or subjective processes, it possesses an interest for him which languages and mathematics never possess. It is not possible within the limits of this paper to give even the outline of a scheme of nature-study for the primary school, although many admirable schemes have been drawn up and even put into operation, particularly in American schools. It is sufficient here to say that under a well-devised scheme a boy would be introduced to the leading facts of animal and plant life, of the earth, the

water, and the atmosphere, subject to the proviso that the facts must be mainly such as are capable of observation and verification by the boy himself within the limits of his environment, and that the teacher must be sparing of generalisations. The time for generalisations will come later. They will form a part of that larger education which is subsequent to school, and for which school lays the foundation. Incidentally it may be remarked that nature-study will include that portion of geography which is not mere names, or generalisations about industry and commerce which although interesting to a man mean next to nothing to a boy.

In addition to the essential subjects which I have just dealt with, namely the three R's, manual instruction, and nature study, there should be room in the time table of a primary school for a good deal of instruction of a lighter character which, especially in the case of younger children, would partake more or less of the nature of play, or at least of relaxation and entertainment, but always with a distinct educational object—such as history, singing, recitation, and even gardening (so far as local conditions permit). Most writers on education take history as a subject for boys much more seriously than I am disposed to do. I have taught this, to me, fascinating subject daily for many years but am not at all proud of the results. My experience is that only the personal, i.e., the biographical, element in history really appeals to the majority of young people, and that the interest which this rouses is rarely capable of yielding abiding results. Here and there a boy or girl will grasp the whole thing as a coherent story, but the majority are reduced in course of time to a state of mental confusion, with reigns, characters and events hopelessly mixed up in happy disregard of sequence in time, or of cause and effect. Only by imposing artificial memory tasks can anything like accuracy in history be secured from the average boy, and it is then merely a matter of successful verbal memorizing. In the light of this experience, therefore, I do not view history as forming a vital part of primary education, although it would have some value as a relaxation, or as sowing the seeds of an interest which may bear fruit later in life. It is much the same with literature. Those who draw up schemes of education on purely abstract grounds, without regard to realities, attach great importance to the teaching of this subject at school, quite ignoring the fact that literature was not produced for the school boy, and may not therefore be suitable for school. As a matter of fact much of it is unsuitable, inasmuch as it

deals mostly with problems of life which have not yet unfolded themselves before the boy, and with emotions which have not yet even begun to stir within him. The themes of the masterpieces of literature—the loves and hates, the hopes and fears of grown men and women awoken but little response in the boy—simply because he is a boy and not a man. What wonder then that these masterpieces when inflicted upon him at school beget a weariness only relieved in the case of poetry by the harmonies of rhyme and rhythm which he may not be too young to appreciate. On the other hand, reading from matter of a less ambitious but more congenial kind should be a source of both pleasure and profit at school and would lay the foundation of the habit of reading which is so essential to later self-education. Such matter, if the demand for it existed, could be produced in ample quantities by men who while possessing high literary qualifications have nevertheless retained the boy's outlook on life and the world.

This rough sketch of what I consider practicable in the case of the average boy during the period which is covered by school will undoubtedly present itself to the minds of many of my audience as an alarmingly narrow programme, based on a very low estimate of human faculty. I can only reply that the estimate is the result of a long experience of teaching. My contention that a large proportion, probably a majority of the boys who are being put through a course of secondary education are not fit subjects for such teaching will, I am confident, be supported by teachers generally. The statement admits of simple verification in this country, from Intermediate results. Practically all the boys above 14 years of age in Irish middle class schools are being taught with a view to passing the Intermediate examinations—the chief subjects of which, apart from a doubtful substratum of English are Mathematics, Science, French (or Irish) and Latin. Although I am not prepared by any means to accept a bare pass at these examinations as evidence of the successful accomplishment of the task set before the school this may be conceded for the purpose of our enquiry. What are the facts? From the latest returns which are available to the public I find that about 60 per cent. of the actual candidates secure a bare pass. Allowing for the considerable number of boys who after working through the course are not submitted to the ordeal of examination for the simple reason that there would be no hope of their passing, and which taking the country as a whole would be quite equivalent to 30 per cent. of those who actually sit for the examination, this would mean that

less than 50 per cent. of those who are taught Intermediate subjects accomplish the modest result represented by a pass. The teachers who are engaged in this work are practically unanimous as to the appalling waste of teaching labour which these figures reveal. I merely propose to accomplish more by attempting less. Surely a boy who leaves school with a sound and thorough training of the kind outlined above is better equipped for both the business and the pleasure of life than the average product of the present day middle-class school with his glaring deficiencies in essential things supplemented by a ridiculous smattering of unessential things.

The success of every scheme or system depends ultimately upon those who are entrusted with its execution. The most perfect plans that human ingenuity can devise are doomed to failure if those who have to carry them out are inefficient or indifferent. Hence the last word in education is with the teacher.

In order to teach, a man must possess two obvious qualifications—first, a thorough knowledge of the subject, and second, the ability to impart that knowledge to the pupil. The two qualifications have no real connection with each other and are not necessarily combined in the same person. A senior wrangler may be utterly unable to teach mathematics and a fellow of the Royal Society may prove to be a very poor instructor in elementary science. Unless a man has that gift of introspection or self-analysis which enables him to examine and retrace the steps by which his own brain has travelled he will be unable to guide the brain of another. As a student the man of genius is not normal. His brain reaches conclusions almost intuitively, by a process which is so rapid as to defy analysis. He is generally unconscious of the successive stages in reasoning through which the less-gifted have to be carefully piloted. Such a man is often incapable of explaining difficulties simply because he does not recognise their existence. The true teacher, however, possesses a mental sympathy which is so perfect that he can even anticipate the mistakes which his pupils will make. In the exercise of his art he follows instinct rather than precept although he is perpetually benefiting from experience.

School teaching is and always will be class-teaching. It may be conceded that at present classes are often too large for efficient handling, but there is an obvious limit of size below which it is impossible to reduce them. This necessitates a third qualification in the teacher—namely, moral force, which gives him ascendancy in the class-room, and

enables him to compel the attention of his pupils. Without this qualification he is absolutely ineffective. In the healthy boy there is a perpetual conflict between the animal impulses to movement which are antagonistic to mental concentration and the intellectual faculties which it is the business of the teacher to engage. In what is called a troublesome boy the animal impulses predominate. Two or three troublesome boys will demoralize a class and reduce the most skilful teacher to helplessness, unless he has the force of character which enables him to suppress them. If he fails to suppress them all his teaching skill will be in vain. Every teacher knows this, although, many lecturers and writers on education are sublimely unconscious of the fact.

The art of teaching, like the art of persuasion, with which it is closely allied, depends in the main upon personal qualities and cannot be reduced to a code of rules. The real training of a teacher takes place in the school of experience. Training colleges will never make teachers. Their chief function, which is undeniably a valuable one, is to provide candidates for the profession with higher education. Some of the best teachers that I have known have been technically "untrained" and some of the worst have been "trained." The teacher is born not made.

The present generation is suffering from a gross exaggeration of the functions and possibilities of teaching. The popular mind recognises no limitations. It is assumed that anything can be taught, even personal qualities and the special powers that arise from personal quality. Only by whittling down the meaning of the verb "to teach" until it signifies no more than the provision of opportunities for getting experience, can any meaning be given to some of the present day educational propositions. In America, where these notions run riot, there are courses of instruction in such things as journalism, authorship, public speaking, and salesmanship. Most of this instruction consists of exhortations and injunctions which are superfluous to the man that has the gift and useless to the man that has not. An appearance of reality is given to such courses by means of "practical" demonstrations which being under purely artificial conditions have no real utility. Such of the pupils as afterwards "make good" are naturally quoted as proofs of the effectiveness of the teaching, regardless of the possibility that they might have succeeded equally well without it. In all this we are reminded of the elaborate steering apparatus with which the early aeronaut used to load up his balloon and which he was wont to ply fran-

tically under the delusion that he was actually steering. It was a long time before it was realised that the rudder made no difference in the course of the balloon, and that it might be scrapped as useless lumber. Much of the so-called training of teachers would fall into this category.

An adequate supply of the right kind of men for teaching would be readily forthcoming if a living wage and an honourable status were ensured. The born teacher would rather teach than follow any other calling. On the other hand unfit men would be rapidly eliminated in the natural course of things as there is no work more irksome than teaching to the man who is not by nature designed for it. Some necessary weeding out would also follow from the periodical inspection of schools which would involve no injustice provided that the inspectors themselves were experienced teachers.

In bringing this paper to a conclusion I am conscious of certain defects of arrangement and of many glaring omissions. To some extent these are due to having commenced the paper with a larger plan than space permitted me to carry out. On that account it is desirable that I should restate the proposition which I have particularly endeavoured to establish, namely that a national system of education must provide for the needs of the majority as well as those of the minority, and that the need of the majority is a sound primary education. This need has not been adequately met owing to many causes, some of which, such as irregular attendance at the primary schools I have not felt called upon to deal with here. But in the case of middle class schools the failure has been chiefly due to an exaggerated estimate of the powers of the normal boy and to the pursuit of false ideals—or at least ideals which are incapable of realisation. In drawing up the school programme the wish has always been father to the thought. Not what is possible but what is desirable, has always been the first consideration. The evil results of this blindness to realities are plainly to be seen in the rising generation, and have been stated here without exaggeration.

It is possible that some of my hearers may deny or resent the importance which I have given to the educational interests of the undistinguished many and may contend that those who are incapable of more than the modest programme which I have outlined in the paper are outside of the scope of a scheme of education. It is quite open, of course, to anybody to hold this view, but it is not open to him to call a system of education which is established on such lines, a national system.