

earlier, largely to be found amongst those taking academic courses. This means that in many cases our most mentally alert girls are being left out. The belief that the girl who is not good at other subjects must shine at practical subjects, and that the 'clever' girl is not good at practical subjects, is not found to be true in practice. The girl who is 'clever' at academic subjects is often found to be just as clever at practical subjects, and it does not seem to be in her interest to exclude her from cookery.

We must now ask ourselves where the fault lies and what are the remedies.

There are various reasons why domestic science is not included in all courses.

(1) The traditional Scottish education, of which we have had reason to be proud, is predominantly academic, and as a race we are slow to change.

(2) We have a legacy of old school buildings where no accommodation was provided for practical subjects such as cookery. Examples of this are found in several large senior secondary schools in Glasgow, and they make a considerable contribution to the numbers not receiving instruction in cookery.

(3) There is too strong a connexion between wage-earning and education.

(4) Curricula are overcrowded and headmasters, especially those who are academically minded, can very easily crowd out domestic subjects.

(5) The Scottish Education Department give sanction to courses which do not include cookery. This weakens the hand of anyone else trying to push it in the school.

(6) Education is too much divided into compartments or courses, and the child has got to fit into one or other of the courses. I suggest these remedies:

(1) The most effective remedy would be to have domestic science, including cookery, made a compulsory subject for all girls in the same way as physical training is a compulsory subject for all pupils. If it is important to train the body in physical fitness, it is equally important that pupils should have some knowledge of nourishing the body so that perfect fitness may be obtained.

(2) All interested bodies should consult together in order to frame school curricula in the best interests of the child.

(3) A Senior Leaving Certificate should be framed, acceptable to all establishments for further training, which would not exclude practical subjects from the course of study in school.

(4) Headmasters, who have a great deal of influence in directing the course of study for pupils in their respective schools, should give more consideration to the advantages of including domestic science.

(5) All new schools should be built with adequate provision for domestic science, and existing schools should have this provision made as quickly as possible.

The Teaching of Cookery and Nutrition in Schools

By J. KIRKLAND, *Shawlands Senior Secondary School, Glasgow*

In this paper I propose to discuss what I regard as the fundamentally important aspects of the teaching of cookery to schoolgirls as these strike the person responsible for the organization and efficiency of a large mixed establishment. The question whether all schoolgirls should receive such instruction permits of one answer only.

The larger question whether such instruction should be given to all pupils, boys and girls alike, does not in my view lead to a different answer.

In recent years Glasgow Education Committee have endeavoured, to the best of their ability and resources, to give such instruction to a large percentage of the girls in senior and junior secondary schools, in spite of many obstacles. The result is far from satisfying to anyone who cares to estimate the success of the attempt, and we are led to ask what are the main obstacles to success. They may be summarized as follows:

- (1) Lack of interest of pupils and parents.
- (2) The regulations for entrance to universities and to university classes.
- (3) The inertia of the Scottish Education Department.
- (4) The College of Domestic Science itself.
- (5) The headmasters and headmistresses of our schools, and the academic tradition of Scottish education.

Let me deal with each in turn.

(1) Like many of my colleagues, while trying to guide parent and pupil to a wise choice of course in the Secondary School, I have received the answer, 'I don't want my girl taught cookery. I can teach her at home.' This is to some extent a relic of the academic tradition of Scottish education, and also is to a great extent due to the fact that domestic science has been regarded as a suitable subject to take the place of a language for pupils of low capacity and intelligence.

In the last 7 years, through using the obvious arguments as to relative values, and by the co-operation of a most competent and sympathetic principal teacher and staff, we have succeeded in persuading parents and children that courses containing domestic science and no language are at least as desirable as the formerly more favoured language courses. By creating a happy atmosphere, by experimenting with schemes of work and with assignment methods of teaching, my staff have succeeded in creating such a demand for domestic science courses by pupils from my 'feeder' primary schools that the pressure on available accommodation has become a major problem.

All girls in the first year and all girls in the second year except those taking two languages receive instruction in cookery, and all girls in the third year except those taking two languages receive instruction in needlework. We may therefore conclude that with the correct approach, arguments and practice the first obstacle can be overcome.

In the last sentence lies the catch. It demands that the domestic science teacher shall not only be efficient in her work, but be aware that she is handling human material at its most difficult and critical age. Some years ago, I had an application for exemption from needlework on the grounds that the girl would neither waste material on Victorian garments nor wear them. While I am the last to be charged with advocating that the child should be taught what he or she wants, the illustration points its own moral, that the teacher must be up to date and in touch with the reality of the child's environment and life. The teacher's customers are numerous, but she must 'sell the goods' by seeing that they are of excellent quality, presented in an

attractive manner, with a smile, not a scowl, and by remembering that the customers are young, raw, and in many cases of low intelligence. There were in March last year 4000 C pupils, i.e. 2000 girls, in Glasgow junior secondary schools, apart from girl pupils of the same age in special schools; 22.5% of these pupils had intelligence quotients of 70 or less, while 77.5% were subnormal in intelligence, girls in the C category tending to be mentally of lower category than the boys. C pupils have a quality of mind different from that of normal children of comparable age; they have poorer powers of synthesis. Methods used with such children must thus incorporate much of 'You do this' and 'You do that', and the learning process must be by repetitive and mechanical methods, imprinting the ideas on the child mind and avoiding over-emphasis on 'why' and 'wherefore'.

I am convinced, as a result of experiment, that this type of child should be taught one branch of a subject at a time, and only that branch, till a section of the scheme is completed, and then each branch in turn. We find that the child's interest is developed by the logical conclusion of one period of instruction—a finished garment or a complete meal served and eaten. The training thus becomes part of the child's mental process without confusion from other matter.

I wish to state categorically that you will never teach cookery or any other subject to either a normal child or a C child with the pupils working in pairs. One works and the other looks on. The 'dullard' can learn only by doing and the bright pupil will learn better by the same process.

We find, as I found in teaching science, that the modified Dalton plan of assignment teaching is easily the best at the disposal of the cookery mistress. The girl learns from digesting instructions written down to her intelligence level; the training given will enable her to experiment with a recipe or cookery book later in life.

Now let me turn to the obstacles to the teaching of the subject which the school cannot deal with, but which affect it; these are not so much the concern of the headmaster or the teacher, but of the whole body of those interested in the subject under consideration.

(2) Let us consider, then, the effect of university regulations.

I interview the parent of every entrant to my school, who accepts my invitation, and in the average year that means well over 90% of the pupils entering. Where the child is of potential ability I have to ascertain whether the parent or child has any ambitions towards a university course. If she has, then from her first day in school the course she follows is dictated by the necessity of conforming to university regulations and by the nature of the degree course she will probably take. For those who may seek an arts course leading to the ordinary M.A. in modern languages, this means that the unfortunate girl must have passes in higher French and German and lower Latin in addition to higher English, lower history and lower mathematics at the close of her school career—three higher subjects plus three lower subjects. Remember that the Scottish Education Department insists that she shall be taught geography, art, science, music, physical training, and religious instruction to an extent of three-eighths of the whole time of her first 3 years, in addition to her six final presentation subjects, and you will see that the prospective university candidate has

little prospect of receiving instruction in domestic science in her normal curriculum. A professor of classics some time ago said to me that he could defend his colleagues of the *Senatus* if they demanded higher Latin as the qualification for admission to the classes in English, French, German, and so on, but he found it impossible to give a single worth while argument for lower Latin. If this bare statement of fact influences a single member of the university present to a new point of view my reference to the situation will be profitable. In my own school I regard one foreign language in the first year as sufficient to tax any brain, so that I can give all girls 2 hr. cookery instruction per week, in the first year only. Thereafter all domestic science instruction ceases, and I can state frankly that I see no possibility of such instruction being given to girls intending to enter the university until the intensive course at the end of their Leaving Certificate year. Even then the incidence of the Bursary examination, with possibly lower Latin still to be obtained, makes this not better than a fifty-fifty chance, and then I find that the girls have no inclination to take any great interest in the work.

(3) The third obstacle is the Scottish Education Department.

You may wonder at this, but it is easily justified. If I could remove every obstacle to giving every girl in Glasgow schools instruction in domestic science for 3 years, I could not find space to give them that instruction. The blame for this deficiency of accommodation lies primarily at the door of the Scottish Education Department. They have the last word on the plans of all schools built, and the Education Committees have to do what they say. Have they used their powers to see that there is adequate space for cookery teaching? I answer emphatically 'No'. My Glasgow service has been in five of the largest schools in the city, four of them built since 1922, and three of them not 15 years old. What domestic science rooms were built in them?

In the first, a large girls' secondary school, roll 600: none.

In the second, a large mixed secondary school, roll 1000: a small centre.

In the third, a very large mixed secondary school, roll 1600: none. A house was purchased to form an inadequate centre in the vicinity.

In the fourth, a high school, roll 800: none.

In my present school, the last built of the five: an excellent centre almost, but not quite, adequate.

The Department may answer that they had difficulty in persuading our Education Committee to do the little that has been done. I can only state that, in my official approaches to the former, I have found it almost, if not quite, impossible to shift them from preconceived notions. Consequently I cannot find it easy to lay much of the blame on the Education Committee.

The Department must also take some of the responsibility for the schemes of science instruction, allied to domestic science, approved in the past for imposition on the poor unfortunates who professed domestic science as a Leaving Certificate subject. Lest you think that my criticism has little basis in fact, I would suggest that you should read the one approved for my own school. It is to the credit of the Department's officials that they completely ignored the fantastic schemes in their visits to the schools, and chose to examine on a much saner basis. They have now laid down

a scheme of instruction which has much to commend it, but which contains much that could be excised without any loss.

(4) Some of you may have been astounded by my suggestion that the next obstacle to success was the College of Domestic Science itself. The criticism I have just made of the scheme of 'allied science'* in schools indicates my views of the pure science demands of the College. I can claim to have taught science at all stages in school and college, and with some success. It seems to be the weakness of all teaching departments to put everything possible into their schemes of instruction, whether they can cover the ground adequately or at all. The results are either the frightening-off of potential students or the exaction of a standard of pass which is sometimes ludicrously low. As I have said, I found this, in the past, a feature of my own school's instruction in allied science. We all have seen it in the manner in which our failures in the Leaving Certificate examination pass the University Preliminary examination with ease, and bring down thereafter the most drastic and unmerited criticism of the material sent up by the schools to the university. It is seen again where colleges and universities teach in six lectures such a subject as 'light' to their students, when 3 months of daily teaching are required to cover the subject thoroughly. Anyone who has coached students for degree or diploma examinations knows that the student who passes needs to prepare only a fraction of the work in order to satisfy the examiners. In the Leaving Certificate science schemes for physics and chemistry we are asked to deal seriously with work which should never be touched by the average pupil. The point I wish to drive home is that although a subject such as domestic science has a scientific basis, and needs in its learning some scientific knowledge, the utmost care is necessary to see that what pure science is taught is likely to be of value to the student and is necessary for the proper understanding of the subject to be studied. The danger to be avoided is that the huge majority of the rank and file will be forced to study material which they will never understand or use in any way, for the benefit of a small number who will ultimately proceed to work which demands greater and more precise scientific knowledge. That knowledge should be obtained in a post-diploma course, which would be the qualification for these specialized appointments.

The criticism which I have made is the expression of strong personal conviction, arising from direct personal contact. There is, I may add, evidence from the College itself that my criticism is just, in that a pioneer in domestic science education stated publicly in the presence of one of my colleagues that she would rather have pupils coming up to the College with a pass in higher science, i.e. chemistry and physics, than with a pass in higher domestic science. As pupils with a very good pass in science are little short of degree pass standard in both chemistry and physics, both as to quantity and quality of work done, such a statement condemns the standard of pure science sought as a basis for domestic science. There are other aspects of this same statement which I regard as alarming. The first is that the College of Domestic Science must concern itself with teaching the simple elements of its subject when it could be more profitably engaged with advanced work; the second that such a

* Allied science is the official name for the science with a domestic science bias which is taken by girls doing domestic science as a Leaving Certificate subject.

requirement will shut out much useful material from candidature for entrance, and so cut down the supply of qualified teachers necessary for the growth in school population arising from the raising of the school-leaving age; the third, the implication that the work done by its own graduates is either badly done or not worth doing, a conclusion which I would fight with the gloves off.

(5) I now come to my last obstacle: headmaster and headmistress, alike, unenthusiastic and uninformed in the past.

If the teaching of cookery or nutrition in school is to take its rightful place in the curriculum, the urge must come from within the teaching profession as well as from without. The report of the Advisory Council on Secondary Education will be published almost certainly next week. We who know its convener are of opinion that it will be realistic; for my part I hope that it will be revolutionary in its proposals. The primary need of Scottish education is that it should break from the bonds which have tied it so long to the tails of university education. Its aim should be 'better living' in the widest sense, and in the discussions of the new curricula it should be the policy of all interested to see that education committees, directors of education, headmasters and headmistresses are left in no uncertain doubt as to their obligations towards their girl pupils in the matter of domestic science teaching. I have assumed, you will notice, and I hope rightly, that the Scottish Education Department will not need pressure from lower levels, but will join actively in applying pressure from above. I have refrained from further reference to the university, as after hearing a professor of engineering state that he would as soon have Latin and Greek for a student's entrance qualification as French and physical science, I think it would take an atom bomb to move it from its complacency about the classical tradition.

My opinions have been stated frankly. They are my firm convictions, the result of my experience, and I am prepared to modify them as and when my further experience enables me to do so.

The Teaching of Cookery and Nutrition in Schools

By C. M. KENNEDY, *Scottish Education Department, St Andrew's House, Edinburgh* I

Nutrition is one of the youngest of the sciences, but it is a highly important one. One has only to give a thought to the food situation of the world to-day to realize that nutrition, if not the very life of an individual, and indeed of nations, depends on the adequate production and effective distribution, the wise choice and suitable preparation of food for human consumption. Apart from life itself, good nutrition means good health, and good health is one of the main factors in promoting personal well-being, efficiency in work and play, and, in the long run, a sense of social worthiness.

The Scottish Education Department are well aware of the importance of right ideas about nutrition. In a memorandum issued in 1945 to education authorities on the subject of food education in relation to the domestic front, the Department advocated a wider extension of the means for instruction in nutrition and cooking to meet the