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The Technical Expert in the Civil Service.

IN every government department, much of the work dealt with to-day involves the consideration of problems which are of a technical character, and presents, in consequence, the need for close collaboration on the part of officers belonging to the administrative, financial, and technical branches of the department. In view of the importance and, in many instances, the complexity of the technical aspects of these problems, not only is it essential that the careers offered in the technical branches of the Civil Service shall be such as to attract men of the highest standard of qualifications, but it is also necessary that the status accorded to the technical officers shall in every way be equivalent to that of the administrative officers with whom they are required to co-operate, in order that their position in the official hierarchy may correspond with the magnitude of their responsibilities, and thus effectively ensure that due weight may be given to their proposals.

When the system of recruitment by competitive examinations was extended, now nearly sixty years ago, to the superior grades of the Civil Service, the work of government departments was almost entirely administrative in character, and the State had then only very recently entered upon its responsibility as the undertaker of an important technical enterprise, the telegraphs. The number, therefore, of men with a scientific training and technical experience required in superior positions in the Civil Service was strictly limited, and, in consequence, the competitive examination system did not apply to the technical staffs. But even then it was recognised that men of a superior standard of qualifications were required for the more important positions on the non-technical side of the Civil Service, and steps were accordingly taken to provide a career in the higher division (now the administrative class) which should prove attractive to graduates of British universities; and at one time a career on the administrative side was practically the exclusive privilege of those who had entered the Civil Service by the higher division competitive examinations.

Since the termination of the War, the administrative and clerical branches of the Civil Service have been completely reorganised on the lines of the Report of the Joint Committee of the Civil Service National Whitley Council issued in February 1920, and in connexion with this reorganisation an assimilation of the various grades of the administrative and clerical classes of the Civil Service has

been effected ; an improvement in the salary scales has, in some cases, taken place ; and provision has been made for recruiting the administrative class partly by selection from inside the service. However, a proportion of the vacancies in the administrative class will, in the future, still be filled by men selected for appointment to the public service by means of an open competitive examination in the subjects embraced by the various honours courses of university institutions. Again, on the recommendation of the Asquith Committee, the salaries of the permanent heads of the principal departments of the State were, in 1920, raised to £3000 per annum, being in the majority of cases an increase of 50 per cent. on the pre-War scales.

The developments which have been taking place in the activities of government departments during the past fifty years having had the effect of making administration dependent to an increasing extent on factors of a technical nature, their problems must, in many cases, be subjected even at the initiation stage to investigation at the hands of 'experts.' Further, where specialised knowledge is required, it is these 'experts' who have to work out the details ; and, in the subsequent stages, the duty necessarily falls upon them to supervise the execution of schemes, and they then become responsible for much of the administrative work involved.

The altered conditions affecting the work of government departments have naturally resulted, in recent years, in a considerable increase in the numbers of the established officers of the 'expert' class. The increase between the years 1914 and 1923 was approximately 36 per cent. At the same time, a higher standard of professional knowledge has been called for and obtained. In spite of this transformation, no attempt has, however, so far been made to bring about a classification of the professional group, nor has any general scheme been introduced to provide a career on the 'expert' side equivalent to that offered to the non-technical civil servant. Certain improvements in the salary scales of the various grades of the professional group have, it is true, taken place ; the salaries of the heads of the professional and technical departments have been raised, but the increases fall far short of the proportionate improvements in the salaries of the permanent heads of the principal departments of the State mentioned earlier, and the salaries of the professional and technical chiefs are to-day approximately two-thirds and one-half only of those of the administrative chiefs. This disparity between the salary scales of the technical and non-technical staffs is carried down into the lower grades ; it is

not confined to the officers employed at the headquarters of government departments, but exists, although to a less marked degree, also in the cases of officers employed in the provinces.

It has further to be borne in mind that the differences in the salary scales are accentuated by the fact that promotion is normally quicker on the non-technical than on the technical side, and, therefore, the superior positions on the former side are, as a rule, reached at an earlier age, on an average, than positions on the latter side carrying equivalent responsibilities. The methods of entry into the various groups of the Civil Service differ so widely that a general comparison of the periods of time taken to reach the several salary scales of the administrative, clerical, and professional groups in the ordinary course of departmental promotion would be misleading. However, in order to provide a concrete illustration, the careers have been traced of six university graduates who entered the administrative class (old higher division) during the period 1905-1908, and an equal number of university graduates who entered the technical side of the same department, during the same period, under an open competition scheme, the average ages of the entrants into the two classes being about the same.

On the administrative side, the average time taken by these six officers to attain the salary scale £700-£900 (the maximum of which is reached after eight years in the grade) was  $12\frac{5}{12}$  years ; one of these officers was promoted to an appointment on a salary scale £1000-£1200 (the maximum of which is reached after four years in the grade)  $18\frac{1}{2}$  years from the date of entry into the service. On the other hand, on the technical side the average time taken by the six officers to obtain their first step of promotion to the grade carrying (in London) a salary scale £450-£550 (the maximum of which is reached after four years in the grade) was  $15\frac{1}{2}$  years ; two of these officers were promoted to the next higher grade carrying (in London) the salary scale £600-£700 (the maximum of which is reached after four years in the grade) after serving, on an average,  $18\frac{5}{12}$  years. It is perhaps not surprising, then, that of twenty-six university graduates recruited during the period 1907-10 on the technical side of the department in question, 68 per cent. should have resigned their appointments ; the high percentage of these resignations seems to indicate that, in this instance, the career provided on the technical side of the Civil Service is not sufficiently attractive to university graduates.

Further, the foregoing analysis shows clearly that to undertake specialist duties of a technical char-

acter in the Civil Service results financially in the penalising of the 'expert' officers. An attempt is sometimes made to justify the inequality of the salary scales of the technical and non-technical groups in the Civil Service on the supposition that the responsibilities of the officers in these two groups are in no way comparable, the implication being that the duties of the technical group are of an order inferior to those of the non-technical group, but no reasoned or satisfactory arguments have been advanced to support such a contention.

The more favourable treatment of the administrative group as compared with that of the professional group has occasionally been defended on the assumption that as it is the former group that sanctions the expenditure voted by the legislature, a wrong decision on its part would involve waste and a loss of public money. This argument, however, assumes that the decisions of the administrative group are always sound and correct, and it entirely overlooks the fact that when decisions affect the sanctioning of expenditure on technical projects, the question as to whether such expenditure will be prudent and profitable, or extravagant and wasteful, will depend wholly on the skill with which the technical details have been worked out; the ability of the technical officers who supervise its execution; and on the care in relation to administrative details exercised by them. Therefore, even in the event of a consistent absence of mistakes on the part of the administrative group, the actual avoidance of wasteful expenditure and of the unprofitable use of public money must, in the very nature of things, rest, so far as the preparation and execution of technical projects are concerned, directly on the skill, scientific knowledge, and technical experience of the professional group, that is to say, on factors which lie wholly and exclusively in the sphere of responsibility of this group.

The contention has also been advanced in the past that owing to the great diversity of the duties which fall on the professional group of the Civil Service, and the fact that it is made up of not less than a hundred grades, it is not possible to devise a suitable classification scheme for this group. This plea has, however, lost much of its force now that an Act has been passed in the United States providing for the classification of civilian positions within the district of Columbia and in the field services (American Classification Act of 1923—Public—No. 516-67th Congress: H.R. 8928). Under this statute the 'compensation schedules,' that is, salary scales, are grouped under five 'services,' namely, (1) the professional and scientific service; (2) the sub-pro-

fessional service; (3) the clerical, administrative, and fiscal service; (4) the custodial service; and (5) the clerical-mechanical service. The numbers of grades in the several 'services' naturally vary, but a distinctive feature of the Act is that in the case of the two most important groups, namely, the professional and scientific service and the clerical, administrative, and fiscal service, the salaries of the topmost grades in each of them are identical, and in each of these 'services' certain grades, it is recognised, represent positions of equivalent responsibility, which is in each case clearly set out, and they accordingly carry salary scales with identical minima and maxima. It should further be noted that in this Act the professional and scientific service occupies the position of paramount importance.

The present-day methods of conducting the work in government departments are also, in some cases, open to grave criticism; they are productive of unnecessary duplication of effort, and consequently uneconomical. In practice, the reports of the heads of the professional and technical groups are addressed to the permanent head of the department, who, however, has frequently so heavy a burden to carry that he cannot personally deal with them, and the reports therefore pass into the hands of officers of various grades in his branch. The result is, as often as not, that attempts are made by clerical and administrative officers to criticise technical details, and a lengthy and wholly unnecessary correspondence, in consequence, ensues. In those departments in which the technical work is highly complex, and the magnitude of the operations carried on in relation thereto considerable, the whole of the duplication of effort referred to would be obviated if the burden of responsibility for the details of the technical work were definitely and unequivocally placed on the shoulders of the department's chief technical adviser. In certain cases the situation could, with advantage to the public service, be met by giving the administrative chief and the chief technical adviser a co-equal status, so that, whilst carrying out their respective duties in the closest collaboration, they should at the same time be held directly responsible to the Minister each for the work within his own sphere, instead of the latter being called upon, as is at present the somewhat illogical practice, to tender his advice to the Minister through the former.

If the unequal treatment of the administrative and professional groups in the Civil Service were merely a question of a certain class of officers being dissatisfied with its status, prospects, and remunera-

tion, the subject could be dismissed without further comment. However, the matter is one which is far more serious. Under the present organisation in the Civil Service, and the system of conducting business in government departments, it is at times impossible, much to the detriment of the public service, for the professional men to exercise effective control over professional work, no matter how expert they may be in the technique of their profession; further, a considerable waste of energy on their part is also often involved: hence the urgent need for a thorough reform in matters affecting the status of the technical expert in the Civil Service.

### The Secrets of the Beauty Parlour.

*Handbuch der gesamten Parfümerie und Kosmetik: eine wissenschaftlich-praktische Darstellung der modernen Parfümerie einschließlich der Herstellung der Toiletteifein nebst einem Abriss der angewandten Kosmetik.* Von Dr. Fred Winter. Pp. x + 947. (Wien: Julius Springer, 1927.) 69 gold marks.

WHEN Hotspur quarrelled with Henry IV. he excused himself on the ground that the King's Messenger "was perfumed like a milliner, and 'twixt his finger and his thumb he held a pouncet box, which ever and anon he gave his nose and took't away again." On the other hand, readers of "Romola" will remember that whenever Tito Melema did an unusually scurvy trick, his inventor left him in the hands of his learned friend Nello the barber, to be shaved, bathed, and perfumed, presumably in the hope that these processes might do something towards his moral regeneration.

It would be unreasonable to suggest that Hotspur and George Eliot respectively represent the attitude of men and women towards the use of cosmetics and perfumes, but it is a curious fact that while men have been known to carry their antipathy to odoriferous fluids so far as to postpone a necessary visit to the barber merely to avoid them, the majority of women like these things, buy them, and sometimes use them so lavishly as to be a source of discomfort to their neighbours.

The present-day demand for these glittering wares is enormous; their illustrated slogans occupy but do not always decorate, or should we say in the modern art slang add *décor* to, the hoardings everywhere, the flapper and her too evident toilet accessories are the unfailing standby of the journalist hard up for 'copy,' and the advent of a new artist in perfumery secures much free publicity in the

press, especially in those quaint corners which editors still dedicate to 'ladies,' but which few intelligent women will admit reading. All this gives the trade in cosmetics and perfumes what Sir Lawrence Weaver might call a "smell of Babbitt," but it should be remembered that such modern necessities as soap, dentifrice, and medicinal preparations are none the worse, when their natural odour or flavour is covered, and that in this and other equally unobjectionable but less easily defined directions there is a large legitimate field for the exercise of the perfumer's art. It is primarily with such ends in view that Dr. Winter has approached his subject and compiled this book.

Nearly 300 pages are devoted to discussion of the great variety of raw materials used in the industry, and thanks mainly to copious use of constitutional formulæ for the components of essential oils, an enormous amount of information has been compressed into this space. Perusal of this section leaves the reader with the kind of feeling, which must be experienced by an intelligent artisan who has just completed a conducted tour of a continental picture gallery—a little bewildered, but satisfied that he has had all the starred pieces pointed out to him. So breathless is the pace that towards the end the guide has only time to ejaculate such things as—benzyl propionate, smells of jasmin with a suggestion of fruit—and to sketch the formula. It would be remarkable if the guide did not stumble occasionally, and on p. 63 he appears to confuse myristic with myristicinic acid, though it is clear elsewhere that he knows the difference between the two. Scattered through this section are practical hints, which have an academic interest for the chemist, such as the statement that mixtures of vanillin and anthranilic esters are liable to stain the skin yellow, an involuntary testimonial to the reactivity of aldehydes, and the note on p. 212 that alloxan when applied to the skin produces a pink tint, due to the traces of ammonia present in perspiration, whence it appears that the blush of the modern maiden may originate in at least two ways, physiological or chemical, the latter being due to this ingenious application of the murexide reaction. A short summary of the fermentation theory occupies less than a page, and is an excellent sample of Dr. Winter's skill in compression and his conscientious desire to leave no part of his subject untouched.

In the next section the author 'gets down' to practical perfumery and discourses on the form of cosmetic materials—distillates, creams, balsams, jellies, pastes, powders, emulsions, etc.—with