the Government Departments. [The nature of a number of the experiments was detailed.] Although doing excellent work at present, the utility of the laboratories could be extended in this way: We have at present an enormous amount of information, but have neither the leisure nor the funds to classify it and publish it. The teaching duties occupy so much of our time that without further assistance we have not the leisure to carry out original investigations, or even to make use of the information we have put away in pigeonholes. Then, I have some ideas on the training of those who are to be employed in the industries of the country. Let me say in the first place that I do not claim originality for the scheme. It must be realized, with regard to the training of those to be engaged in industries, that a large proportion of the number must be employed as operatives, and I have held that our system of education is wrong. It is based on an erroneous idea of what a democratic country should do. We give a similar education to every person whether he is intended to be an operative or a captain of industry. The only possible way of successfully training the people to be engaged in our industries is to classify them at an early age. I think that the system may be purely democratic, because all will have an equal chance. Those boys who at an early age show a leaning towards the theoretical, mathematical, or scientific side of the work should be selected and trained to occupy the higher positions. Those who show great physical capacity and comparatively sluggish brains and are clever at manipulation should be trained as operatives. It should be remembered that 70 per cent. of the people have to be operatives in any industry or you cannot carry on. [Witness detailed his scheme for the education of workers in manufacturing districts, of which the following is an outline.]

## Scheme for Education of Workers in Manufacturing Industries. PRIMARY SCHOOL, Age, 13 Age. Continuation School. Principal subjects: Elementary science, mathematics, drawing, general knowledge. Minor subject: Technical. Classes I and II. SELECTION. (Exam., &c.) Classes III and IV. Compul sory up to 16 Apprenticed Technical School. 16 Half-time in works. Manual and technical. Half-time in techical college. Age. 17 (Exam., &c.) Selection. Selection. (Exam., &c.) Apprenticed Apprenticed University. Full-time works. as mechanics. as operatives. 21 Works vacation. Full-time works. Full-time works. 21 Excr. and designing. Skilled mechanics. Operatives. 22 Foremen. Class IV (75 per cent.). Class II (3 per cent.). Class III (20 per cent.). Class 1 (2 per cent.).

Summary	of	Training	after	13	Years	of	Aqe.

	<del></del>			Class 1.	Class II.	Class III.	Class IV
			1	Years.	Years.	Years.	· Years.
Continuation school				3	3	3	3
Technical school				• .		1	1 .
Technical college				1	1		
University	• •		• •	3			• •
Total educational				7	4	4	4
Works		• •		<b>2</b>	4	4.	4
Total term	••	••		. 9	. 8	8	8
Period of apprenticeship			• •	5 + 1	5	4	4

[Witness continued:] If a system such as this were adopted we should have every one engaged in the manufacturing industry trained for that portion of the work for which he is best fitted, and we would not be giving technical education and higher education to those who are not fitted for it. I think that, to carry out the scheme in its entirety, it would have to be made more or less compulsory.

To Mr. Sidey. In reply to the question as to what I want to enable me to be in a position to give the scheme to the public, I may say that as my department is constituted at present we have on our lecture list sixty-six classes, and the total staff of the School of Engineering comprises myself, three lecturers, and three demonstrators, which is practically only sufficient to deal with the tutorial work. If we are to publish the scheme a special assistant will be required to devote his time to it, and I must be relieved from some tutorial work. Such an assistant should receive a salary of £500 a year.