Science was a Sacred Cow

SIR FREDERICK DAINTON, playing Caesar's wife as always, gave no tangible sign in his Fawley lecture last week of what his report on the administration of civil science will have to recommend when it is published (as the Government now promises) before the end of the year (see page 118). That is perhaps as well, for there is every prospect that the forbidden fruit, when eventually it is tasted, will be a disappointment—not so much a programme for change as a recipe for preserving the present state of affairs.

The strongest part of Sir Frederick's declaration was that in which he pleaded for a better appreciation of the place of science in the enterprise of modern civilization. In the long run, it may be more important that people should understand what value there is in science than that there should be a radical programme for the reconstruction of organizations such as the Science Research Council, the Council for Scientific Policy and even the University Grants Committee. What is the value of it all? And how does it come about that throughout the industrialized world, scientific enterprise is in the doldrums?

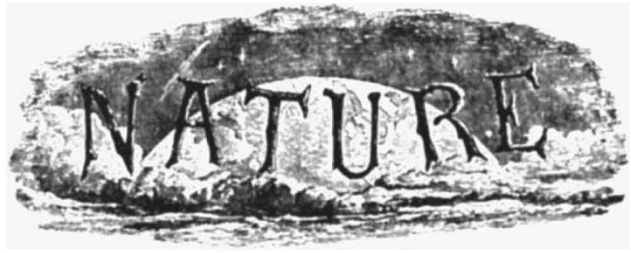
Much of what has happened is intrinsically a part of the scientific enterprise itself. Sir Frederick was right to say as much. The temper of science has changed enormously in half a century. The change consists simply in the organization of working scientists into teams and their congregation around important and expensive items of equipment. But it also follows that those who pay for the expensive apparatus, usually taxpayers, should increasingly ask difficult and obscure questions about the extent to which the community which pays the piper is able or even competent to call the tune. The endless preoccupation with the machinery for the administration of civil science, red herring though it may be, is one symptom of the public determination to extract what benefits there may be in an item of public expenditure which falls not far short of three per cent of the gross national product in countries such as Britain and the United States. It would of course be better for the community as well as for professional science if these questions could be directed more accurately to the problem of making the best use of civil science.

Sir Frederick Dainton has a large part of the answer, for in his address last week he quite properly took the universities to task for failing to take a proper view of their chief function, the training of young people in science and related crafts. Two manifestations of this failure have been especially prominent in the past few years. First, university teachers and their students have fallen into the habit of bewailing the difficulty of finding jobs in professional science, which amounts simply to a complaint about the difficulty of finding jobs for science graduates in research, development or higher education. Second, there is a growing torrent of complaint from employers and potential employers that the instruction offered to undergraduates in science is not such as to equip them for a wider life. Universities are still trying to provide students of science with training of the kind best suited for the winning of a Nobel prize. Yet what the students need is a blend of competence and knowledge that will allow them to function well not merely as academics but in more practical jobs as well.

How is this to be achieved? Attempts at more flexible curricula have merely scratched the surface. What has become of the brave declarations by the Science Research Council that it would encourage radical innovations of the curriculum? A number of universities have broken a little new ground, but there is not much of it. Yet is it not in the immediate interests of the scientific enterprise that the quality of higher education in science should be rapidly changed? And how can this be done if the research councils still spend all their money on research as such and not on pedagogy in the widest sense?

Externally, there are still more serious problems to contend with. For lack of argument to the contrary, the impression has grown up that science is not so much a good thing as a bad thing. It tends to be forgotten that the "science" which has provoked the world population growth consists of the avoidance of avoidable disease, that the prosperity held responsible for air pollution and other evils has powerfully narrowed the gap between the rich and poor in advanced societies and that those societies now have a far greater capacity to help developing nations. To be sure, it remains to be seen whether in the few decades the full promise of what now appears possible will be realized, but there is at least a case for asking that professional scientists should play some part in advocating such a course. Sir Frederick Dainton was right, last week, to remind them of where their duty lies.

100 Years Ago



It remains to be seen whether the Council will consent, at the bidding of the Senate, to rescind the regulations which they themselves freely passed in 1869, with the sanction of the Senate, viz. :—

"Women shall be admitted to the study of medicine in the University. The instruction of women for the profession of medicine shall be conducted in separate classes, confined entirely to women. The professors of the Faculty of Medicine shall, for this purpose, be permitted to have separate classes for women. All women attending such classes shall be subject to all the regulations now or at any future time in force in the University as to the matriculation of students, their attendance on classes, examination, or otherwise."

Any proposal for mixed classes of both sexes in purely medical subjects excites so great a repugnance both among the teachers and students of medicine that it would be extremely unwise to press it ; but it will be observed that no such question has been raised here, and no such request has ever been made by the lady medical students

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