

this organism with its green chloroplasts and intermingled red fluorescent vacuoles vies with a jewel set with emeralds and rubies for beauty.

Some of the *Pleurococcaceae* undoubtedly also are visibly fluorescent. I cite *Scenedesmus* and *Raphidium* (or it may be *Selenastrum*) as examples.

The best results are obtained with a cardioid dark field condenser, and when one is especially studying colors, an arc light. A 400-Watt condensed filament lamp serves well enough otherwise. Water instead of oil does between the slide and condenser, obviating messiness. I venture to believe that, when the above results are experienced, the use of the dark field condenser will be widely extended. Some of my own observations, accompanied by discussion thereupon, will appear in the forthcoming proceedings of the Royal Society of Canada.

The method of making use of the reflected hollow light cone derived from the dark field condenser has, I think, not consciously been taken advantage of. It very greatly enhances the value of this optical apparatus, as I have already found. The first sight of these fluorescent organisms invariably calls forth expressions of delight, and the experience recalls one's childhood days when the wonders of the microscope were real wonders.

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## QUOTATIONS

### RESEARCH AS A PROFESSION

TOWARDS the end of last February Sir Alfred Yarrow gave £100,000 to the Royal Society to mark his sense of the value of research to the community. He gave it to be used as capital or income, as the council of the society might think fit, because he recognized "that conditions alter so materially from time to time that, in order to secure the greatest possible benefit from such a fund, it must be administered with unfettered discretion." To emphasize this point Sir Alfred Yarrow suggested that any rules made for the administration of the fund should be reconsidered by the council every tenth year, so as to meet modern needs. While leaving the council this valuable discretion, he expressed his hope that the money would be used to aid scientific workers by adequate payment, and by the supply of apparatus or other facilities, rather than upon erecting costly buildings on which large sums of money are sometimes spent without adequate endowment, so that "the investigators are embarrassed by financial anxieties."

The council of the Royal Society has given attention to the best way of using Sir Alfred Yarrow's gift, and has this week published the result of its

deliberations. The official announcement states that on reviewing the situation it appeared to the council "that there was a marked deficiency of positions in which a man who had already proved his capacity could continue to regard research as the main occupation of his life. Consequently at the council meeting of the fifth inst. it was finally decided to use the larger part of the income in the direct endowment of research by men who have already proved that they possess ability of the highest type for independent research. To this end a number of professorships will be founded, of type similar to the Foulerton professorships, which were founded by the society in 1922 for research in medicine. The professors will be expected to devote their whole time to scientific research, except that they may give a limited course of instruction in the subjects of their research to advanced students. There is at present a tendency to regard scientific research as a secondary occupation for men whose primary occupation is the teaching of students. The intention of the Royal Society in founding these professorships is to recognize research as a definite profession."

We make no doubt that the council of the Royal Society has rightly interpreted Sir Alfred Yarrow's wishes, and it will be observed that the two gifts which have recently been received by it—the Foulerton and Yarrow funds—have enabled it to establish a precedent new in this country at least, and not very common in any other. This new precedent is that research shall be the primary object of the incumbent of one of these professorships, and not, as has usually of necessity been the practice, an occupation secondary to the teaching of students. Sometimes, it is true, the occupant of a university chair has put research first and teaching second, but as it is his duty to teach, the university authorities may be disposed to grumble—not without some reason. No doubt the stimulus provided by a class of students is useful to some men, but, as Sir George Newman has more than once reminded us, the art of teaching requires special training and, perhaps even more, a special aptitude. A man may be an excellent teacher—many examples will come to mind—and not good at research work. The converse also is true. The two aptitudes do not always exist together, and there have been great scientific investigators who had no aptitude for teaching, except by example to a chosen few who assisted in the laboratory. The result of the great experiment the Royal Society is now able to conduct will not be known perhaps for a generation, but in its hands, and administered, as the donor desires, "by the best people from time to time available," there can be no doubt that the scheme must have a favorable influence on the progress of science in this country.—*The British Medical Journal*.