

dustrial management cannot always recruit—even with the weapons of more generous salary and bonus arrangements—the supervision over research that is meaningful. This is implied by the famous, humbling statement that many of us involved in research administration keep framed at our desks—a statement by the late C. E. K. Mees, long-time director of research of Eastman Kodak Company.

Research is a gamble. It cannot be conducted according to the rules of efficiency engineering. Research must be lavish of ideas, money and time.

The best advice is, don't quit easily, don't trust anyone's judgment but your own, especially don't take any advice from any commercial person or financial expert and finally, if you really don't know what to do, match for it. The best person to decide what research work shall be done is the man who is doing research. The next best is the head of the department. After that you leave the field of best persons and meet increasingly worse groups.

The first of these is the research director, who is probably wrong more than half the time. Then comes a committee, which is wrong most of the time. Finally, there is the committee of company vice presidents, which is wrong all the time.

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Sex Conversion in the Copepod

Vacquier [*Science* **135**, 724 (1962)] reports that application of high hydrostatic pressures to larval stages of the copepod *Tigriopus* resulted in a shift in the sex ratio toward females, and says "At this stage of the work it is impossible to distinguish between selective effects . . . and sex conversion." In this he is mistaken, his data being quite adequate to demonstrate conversion.

At pressure of 1 atmosphere there were 142 surviving males out of a sample of 175 individuals of both sexes. Thus, no more than 33, or 19 percent, could have been females. This is clearly discordant with a finding of 96 surviving females out of a sample of 225 exposed to pressure of 600 atmospheres, the random sampling probability being less than 0.001. It is also discordant with a finding of 75 surviving females out of a sample of 253 exposed to pressure of 550 atmospheres, the random sampling probability being less than 0.02. In view of the fact that these comparisons involve not the ac-

tual number but the maximum number of females the 1-atmosphere sample could have had, there is no reason to doubt "conversion." Whether the conversion is morphological or functional is another matter. Also, it can be doubted whether sampling was random with respect to sex in making up the lots for the experiment. If sampling was not random, any conclusion regarding the sex ratio would be affected equally.

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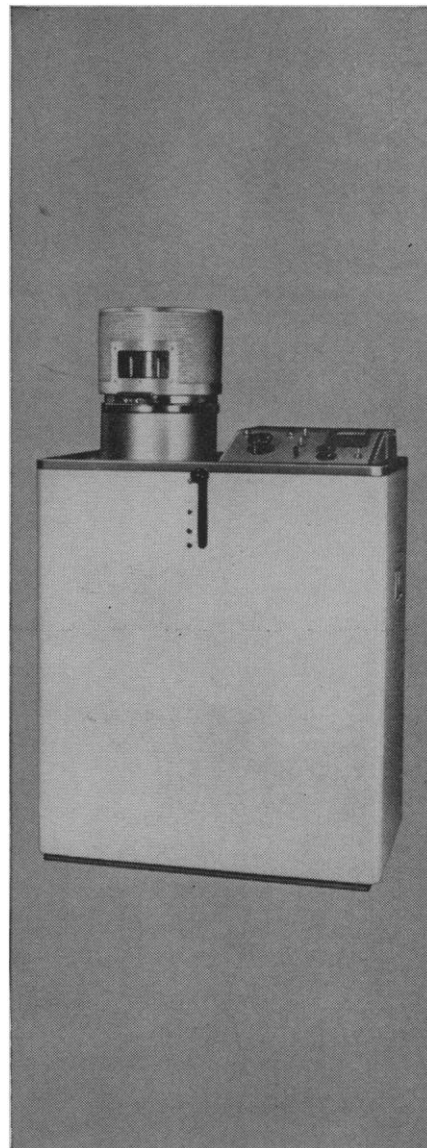
Government Regulations

The editorial on needless obstacles to government service [*Science* **137**, 89 (1962)] requires clarification of the statement that government employees must not receive compensation from any outside source. The point intended must have been that government employees must not accept outside compensation for activities performed as part of their government service, or some such qualification.

The main point of the editorial—that the government sometimes hampers its recruitment programs, and that certain types of restriction on employment subsequent to government service are undesirable—is strengthened considerably through full examination of the conflict-of-interest practices and regulations.

One part of the regulation forbids any government employee from aiding in the filing of a claim against the government if he stands to gain by the claim or if the claimant is his child or wife. If taken literally, this forbids a government employee from helping his wife fill out her income tax refund claim. Although the regulations are supposed to be interpreted strictly, it seems hard to imagine that this restriction is intended. But the damage done by unforeseen and unprovided-for restrictions may be more serious than the evils which the regulations are meant to correct. Even worse is the lessening of regard for good regulations which is caused by the tendency to ignore masses of poorly planned instructions which cannot be either understood or applied and which say much more than they mean, and therefore usually mean little to the persons concerned.

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