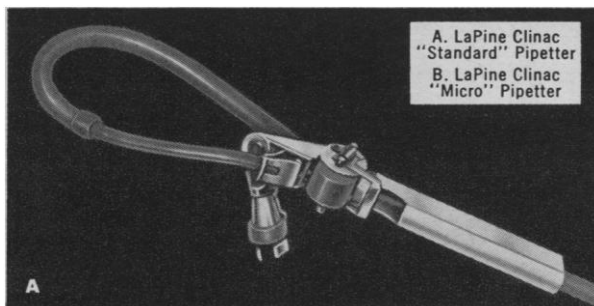


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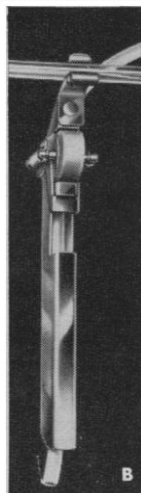
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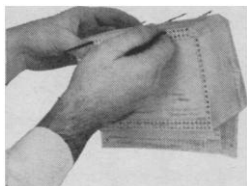


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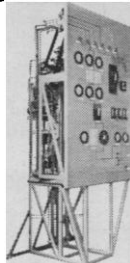
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of all the Oak Ridge National Laboratory. There already are federal laboratories in this country, notably the Lawrence Radiation Laboratory, that follow a variant of the pattern suggested in my article. In Europe, especially in the Soviet Union, the pattern seems to be a good deal more prevalent than here. The experience of these institutions leads me to believe that such university-laboratory arrangements are fundamentally sound.

ALVIN M. WEINBERG

Oak Ridge National Laboratory,
Oak Ridge, Tennessee

Civil Service Salaries

I agree in principle with the view expressed in the editorial "Federal pay reform" in a recent issue of *Science* [136, 461 (11 May 1962)] but do not feel that it would be appropriate for me, as a federal employee, to comment upon the recommendations in detail. However, I would like to point out a factual error, which tends to give a somewhat poorer picture of the present situation than is actually justified.

The current salary range of a GS-7 position is \$5355 to \$6345 (not counting longevity increases) rather than an average of \$5280, as stated in the editorial. In addition, since July 1960, most physical scientists and engineers and many biologists and scientists of other types at the GS-7 level have been paid the maximum salary—namely, \$6345. Therefore, at the lower levels (recent college graduates), Civil Service salaries for scientists are reasonably comparable with salaries in private industry.

BENJAMIN LEPSON

Numerical Analysis Branch,
U.S. Naval Research Laboratory,
Washington, D.C.

NASA's Fellowship Program

The piece in a recent issue by Daniel S. Greenberg on NASA's new fellowship program [*Science* 136, 305 (27 Apr. 1962)] contains two excellent points—namely, that the Executive branch of the federal government should bring more information, coherence, and rationality to its multitudinous fellowship programs and that the Congress should consider more positively the need for support below the graduate

level in order to assure an adequate flow of scientific talent upward.

The piece does seem to imply that NASA has been impetuous and excessively aggressive in launching its new fellowship program. It fails to take account of the fact that NASA has a very specific mission and timetable and can hardly afford to await the ordering of the federal fellowship situation. It must seek now to stimulate the training of scientists; otherwise an even more severe manpower shortage in the late 1960's could lead to the failure of its program. Likewise, it cannot single-handedly persuade the Congress to modify its long-standing reluctance to support education below the graduate level.

It should also be noted that these and many associated problems were thoroughly explored with NASA prior to the inauguration of its fellowship program. This was no spur-of-the-moment venture. True, the program was developed expeditiously, but only after widespread consultation in the government and among the universities.

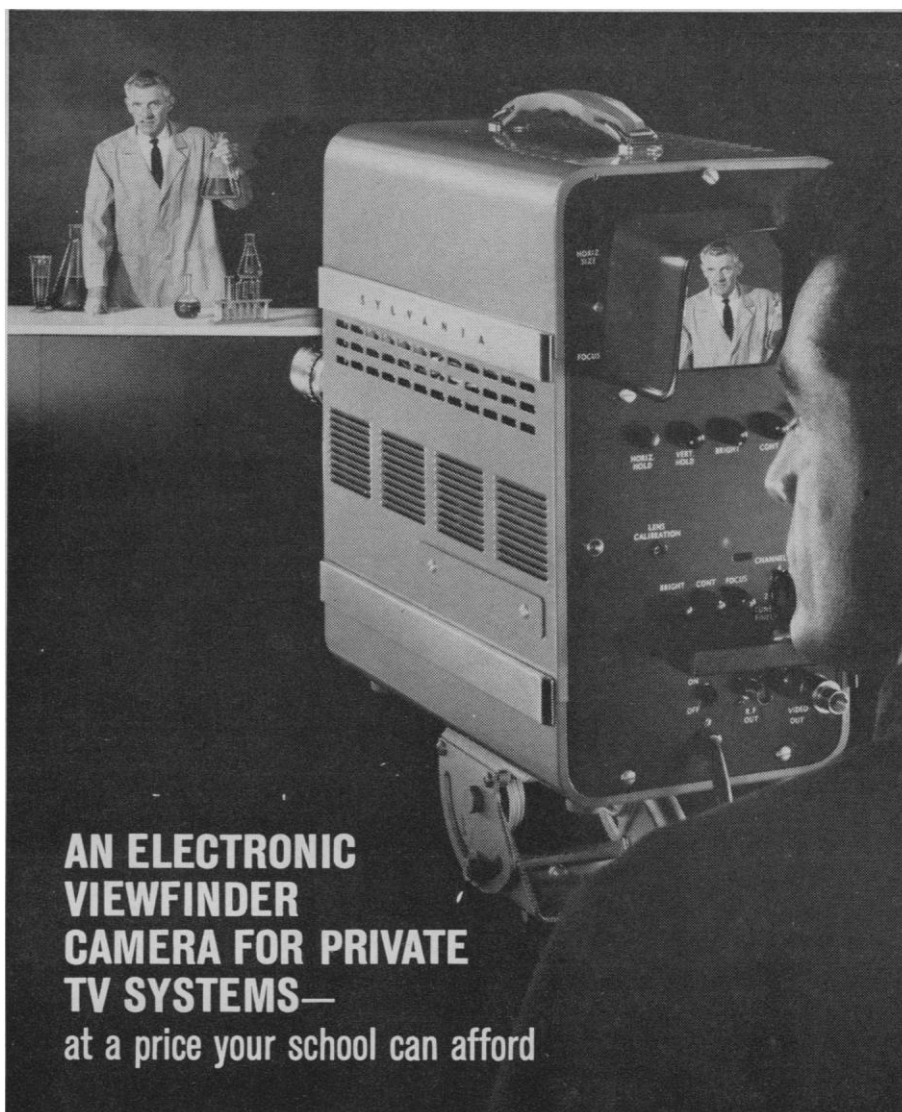
JOHN C. HONEY

*Institute of Public Administration,
New York*

Retirement

At this time, when our country needs to expand vastly its scientific and engineering manpower and when, indeed, strenuous efforts are being made to induce able young people to enter scientific and engineering professions, able, active-minded, experienced scientists are being forced to retire just because arbitrary age limits for employment have been firmly set by universities, governmental agencies, and industrial establishments. The criterion for such forced retirement is chronological, not physiological, age. Thus, there is both a shameful neglect of very useful, much-needed brainpower and a complete disregard for the vital and social needs of those compelled to retire.

Recently, a nonscientific friend of mine, a retired librarian, Elizabeth Woodruff, of Mineral Wells, Texas, who is greatly concerned with the social problem of older citizens, wrote me suggesting ways in which such scientists and engineers could continue to serve our nation and continue to lead fruitful lives. She wrote: "I feel that the professor (and his kind) should



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