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stream of new technologies to an exponentially expanding economic enormity.

Nor can one pass off such critics as a collection of chronic malcontents since they include the likes of Louis B. Sohn, of Harvard, whose report *The United Nations and Human Rights* was recently submitted to the U.N. by a committee of distinguished Americans. The report, dealing with the threat to individual freedom by applied science, says, "There is cumulative danger in the merry march of technology and science without adequate considerations of the social effects" (New York Times, 5 Sept.).

Norbert Weiner once remarked that, as science becomes more and more able to achieve human purposes, it must become more and more accustomed to the task of formulating human purposes. Scientists have given a large amount of lip service to its social responsibilities, but the public view is that science is becoming more and more captive to an "establishment" that is committed to purposes that are something other than human. In fact, I wonder whether the 200-Bev accelerator, the supersonic transport, the space program, chemical and biological warfare, and genetic tinkering are really steps toward the better life.

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## Decline of the Lobster

Emery and Iselin say that considerable controversy exists about whether the ocean can support much more efficient and intensive hunting ("Human food from ocean and land," 15 Sept., p. 1279). There are a number of areas where marine agriculture could effectively be practiced because of special geographic and physiographic peculiarities. One such location is the Northumberland Strait, which lies between Prince Edward Island and Nova Scotia, Canada. To date this ocean area is relatively unpolluted, and has in the past been very productive of certain kinds of marine animals, particularly lobsters and scallops. Current fishing practices are hopelessly inefficient (small lobster boats, lobster traps, and individual shellfish raking operations). However, perhaps because of the large number of "hunters," the catches have declined in recent years in a spectacular way. I have privately interviewed

# QUESTION

starch  
or  
polyacrylamide  
gel  
electrophoresis

# ?

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a number of fishermen in the area, and the average catch per lobster boat per season has declined from 16,000 pounds (7000 kilograms) in 1964, through 12,000 in 1965 and 6000 in 1966, to 1500 to 2000 pounds in 1967. Economically this is a marginal venture, and biologically the system is out of control.

To take advantage of the natural resources of this piece of ocean, it is obvious that individual free enterprise must immediately be replaced by an effective system which could be sponsored by either government or a large industrial concern. The basic conditions would have to be: (i) that this concern have the sole rights for hunting or fishing in the area; (ii) that it conduct biological surveys to determine the best agricultural practices consistent with optimum catches; and (iii) the clear recognition by all concerned (including the out-of-work lobster men!) that this is the only effective way in which the maritime resources of the country can be developed.

The same approach could be applied to such areas as the Grand Banks and the North Sea fisheries, but it would first be necessary to settle questions of sovereignty or international agreement. Areas lying wholly within territorial waters, like the Northumberland Strait, could well serve for experimental or pilot projects.

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### Openings for Negro Engineers

Father Fichter's report on opinions of Negroes (News and Comment, 6 Oct., p. 99) states that many of them believed that no opportunity existed for them in engineering. To me this view is clearly inaccurate. As an engineering professor, I had a conversation with a company interviewer who was actively looking for a Negro. He had not long before turned one down who was not very good, but government pressure had become so intense that he was looking for any warm body. Their opportunity will probably continue to be superior at least until there is one in every engineering department. . . .

EARL D. OLIVER

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1 DECEMBER 1967



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