he gave the name of the Princeton Geology Building (Guyot) (*1*). After the war, when he returned to his teaching post at Princeton, his seagoing days ended. He did, however, retain his reserve commission in the Navy, eventually rising to the rank of rear admiral. His annual reserve duty was often served at the U.S. Naval Hydrographic (later Oceanographic) Office, where he contoured deep-sea soundings that had been compiled. At Princeton Hess developed a vigorous research program on the geology of the lands surrounding the Caribbean, which provided stimulating thesis problems for a talented group of graduate students (*2*). He continued his active personal research in petrology. He also served in a variety of advisory capacities for national and international scientific endeavors.

It does not detract from his impressive record to point out that, contrary to popular belief, Hess played no active part in oceanographic research after World War II, preferring to play the role of critic. To be accurate, the contribution to post–World War II marine geology of Admiral Hess was made at a considerable distance from the sea by a "then landlubber."

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Research Chemicals: Supply and Demand

Certain practices are occurring in the production and distribution of fine chemicals and biochemicals that should be of interest to a large number of scientific researchers dependent upon federal research grants. These practices are not limited to the United States; they are in fact a worldwide problem, occurring in Europe, Japan, and many other countries. Some supply houses, having determined that there is a market for a certain compound or enzyme but that they lack the necessary expertise to produce it themselves, are contacting and hiring as "consultants" scientists who supply them with the compound. Sometimes these compounds are produced in a university or research institute laboratory that is funded by federal research grants. One example involved a university professor of chemistry who was also vice president of a chemical supply house. His federally funded research laboratory was literally a factory for his supply house, until he was caught and his wrist lightly slapped. These practices occur infrequently; research scientists as a group are relatively free of corruption, and in the United States, federal research funds are used with a high degree of cost-effectiveness.

What is the answer? The existing system, in which Professor X produces compound Y for supply house Z, is efficient and should be retained. Payment of Professor X "under the table" by supply house Z, however, is unethical and should be eliminated. As a practical solution, I propose that Professor X receive a fair payment (perhaps in the form of an honorarium) and that the balance be returned to Professor X's grantor, or Professor X's research fund. There may be better ways of handling the problem; it is basically a question of changing an unethical practice into an "aboveboard" practice.

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Telling Time

Recent discoveries indicate that birds and insects navigate by using polarized light, even in cloudy weather when the sun is obscured. I quote from a letter James Clerk Maxwell wrote to his father about a device he made in 1848 (*1*).

> I have got a lucifer match box fitted up for polarising, thus. The rays suffer two reflections at the polarising angle from glasses A and B. . . . In the lid there is set a plate of mica, and so one observes the blue sky, and turns the box around till a particular colour appears, and then a line on the lid of the box points to the sun wherever he is. Thus one can find out the time of the day without the sun.

A diagram of the device is included. One is bound to ask whether the eyes of birds and (some) insects have the counterpart of Maxwell's invention in some biological structure.

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