It may turn out, then, that Europe seems to have good solutions to problems because she hasn't really had the problems. Certainly there are many others in which Europe has lived with the situation longer than we have, and really has the answers. But I suspect we will find fewer of these, and more of the former, than either we or the Europeans expect at the present time.

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Lead Poison in Putty

Oberle's article "Lead poisoning: A preventable childhood disease of the slums" (5 Sept., p. 991) contains some errors of omission. Not only has titanium dioxide been used as an opacifier since the 1940's, but previously zinc sulfide pigments (such as lithopone) were used for a number of years. Kalsomine has also been used for many years for very cheap paint jobs.

However, the most serious omission is the failure to mention the most important lead hazard to all children: old sticks of glazing putty. Anyone who has repainted housing, where windows have been installed in wooden frames, has had to replace defective putty, which is brittle and comes loose from the window, often in sticks 1 to 4 or 5 inches long. This putty contains a high percentage of lead; the dry sticks resemble lollipops or candy bars and children will suck on them or chew them. I think that a thorough study of this problem will show that glazing putty is far more of a hazard than paint as a cause of lead poisoning in children.

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Sequoias' Dependence on Fire

We were greatly pleased to read Oberle's commentary on the ecological drawbacks of forest suppression (8 Aug., p. 568), and we appreciate your assistance in changing the long-standing American philosophy that all fire in the forest is bad. The concept of fire as a natural environmental factor before the advent of man has been a most difficult one to establish. Perhaps this has been due to man's role in starting forest fires and perhaps to the fact that man has too long been inclined to see trees as individuals rather than as dynamic communities in which fire has always played a significant role.

Inasmuch as we are engaged in a 10-year study of the relationship of fire to sequoia regeneration, some of our findings may be of interest. It became evident that long-time fire prevention and suppression had created two conditions in many of the national park sequoia groves, both of which were contrary to established park policy:

1) Fuels, once consumed by regular fires, had accumulated to unprecedented amounts, presenting uncommonly great fire hazards.

2) Plant succession, which was previously reversed by fire, had progressed in most groves to the point that the giant sequoia was almost completely unsuccessful in reseeding itself. Where protection is complete, there is a tendency for the sequoia to disappear.

We recommended to the National Park Service that fire be used on an experimental basis, primarily to determine just what the optimum conditions for sequoia regeneration were. In March 1964, four study areas were approved by NPS for our use in the Redwood Mountain Grove of Kings Canyon National Park. Few young sequoias were growing on any of the areas. It became abundantly evident that accumulations of fuel on three of the four areas were so great as to preclude broadcast burning. At these areas, it was necessary to pile logs and limbs by machine. In addition to increasing the costs, the machinery greatly disturbed the natural soil conditions we wished to study. We discovered, however, that where light and soil moisture conditions were adequate, seedling establishment tended to be proportional to the intensity of the fire. In short, seedling survival was better in burn pile soils where incineration temperatures penetrated several inches into the soil. Such temperatures probably aided in sterilization against pathogenic fungi, reduced competition with established plants, improved the soil wetability and structure, and may have removed ectocrines. But this created a problem of controlling fires of sufficient intensity to provide conditions for sequoia regeneration while still protecting the primary resources—the parent giant sequoias and other valuable species making up the community.

Recently, the administration of Sequoia and Kings Canyon National Park began a fuel reduction program in one of the critical areas of the Redwood Mountain Grove. Under carefully prescribed