

Conservation and Engineering

VII. Conclusions

An attempt has been made in the last several issues of the JOURNAL to remind our readers that the resources of our earth on which our whole physical life depends are not unlimited. Our increasingly wasteful methods make more and more demands on our land, our food supply, our industrial raw materials, and our water supply. We have seen already the development of acute water shortages, and we will see breakdowns in other resources. Fortunately, engineering offers probably the best promise for a better utilization of land, the development of alternate sources of food, the substitution of abundant materials for scarce ones, and the alleviation of water shortages. Unfortunately, the very best that engineering can do will be only alleviation, only a deferral of the ultimate catastrophe if nothing is done to curtail the appalling population growth currently taking place.

Conservationists have been expressing many of these views for a considerable period; it would be correct and it would be responsible for engineers to join them. Engineers have two particular qualifications to offer in these matters. First, the tough, analytical, dispassionate approach of engineers to problems should permit a better statement or picture of just what has to be faced. In engineering we have never been content to dispose of a problem by refusing to face it. One of the best examples of this is safety, the proper practice of which has been advanced by engineers and by their hard-headed realization that what can go wrong will go wrong. Sec-

ond, the proper application of sound engineering principles offers the best hope of solving those problems which may arise, at least until that state of population growth is reached such that the problems are beyond solution. Some extremists among the conservationists have weakened their otherwise sound position by their ignorance of the powerful methods engineering has to offer. Some would stop water pollution by shutting down the factory; the engineer realizes that pollution can be prevented in other ways. It is this special knowledge which the engineer can bring to bear on such problems which can be so helpful.

Since, at present, the engineer is only rather rarely to be found at the decision making level of industry and government, it will be difficult to bring our special skills to bear on these problems at such a level. As individuals, however, and as private citizens we should make every attempt to play a more active part in our local communities. Some of the worst abuses of land and of water supply are made right in our own backyards by irresponsible local officials who want to see every square inch of land used for houses, stores, and factories. We should join in any conservation projects initiated by our professional societies and we should try to influence government policy favorable to conservation. As engineers with special talents and special skills we have a very great responsibility in this matter.

H. B.