

the present atomic furore, that the great majority are men of good will, striving earnestly that their labors shall end, not in the acceleration of a disastrous social entropy but in the construction of a decent world for all of us.

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### The Prevention of Atomic Warfare

With reference to recent communications from William N. Woodward (*Science*, 1945, 102, 608) and Gordon F. Hull (*Science*, 1945, 102, 672), it is evident that there is a considerable desire for the formulation of plans to prevent the development of atomic weapons. No sane person would question the advisability of doing everything possible to bring this about. However, the methods suggested by these men are open to criticism, and their success is very doubtful. Although it was not mentioned by Mr. Woodward, the apparent *raison d'être* of the Association of Los Alamos Scientists is essentially that of attempting to limit the applications of atomic energy by collective action of the scientists, engineers, and technicians comprising it. They propose also to attempt the forcing of legislation on an international or "supernational" scale containing pledges against such military applications. Prof. Hull's plan for a World Association of Physicists is similar, but of his six points, only one is pertinent to the discussion, viz., "a pledge not to give advice concerning, nor assist in making, atomic bombs." Even if 99 per cent of the physicists of the world did so pledge, one could hardly presume that they could thus prevent misapplications of this science. The essential discovery of nuclear fission lies in the borderline field between chemistry and physics, but the deprivation of the project of physicists would not necessarily have prevented the development of a weapon, and in the future this will be much more true. Hence, this solution is as presumptuous as the one which supposes that the men who have had some connection with the manufacture of these weapons in the past have a corner on all the information needed for their production.

What we need, then, is not a Federation of Atomic Scientists, or of Bomb Builders, or even a World Federation of Physicists, but simply a World Federation. Most of the principles suggested as bases for the proposed associations are too obvious to bear elaboration, and the one which the ALAS has used as a smoke screen is virtually one of the purposes of the AAAS, *i.e.* ". . . to promote attainment and use of scientific and technological advances in the best interests of humanity."

It is strikingly clear to most of us that this is no time for forcing the hand of the State Department by demanding action on an international scale. This will require mutual respect, trust, and understanding of a high order—virtues which are not displayed by all of the present powers but which must precede any intimate discussion of the most potent force available to man.

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### Veterans' Retraining Program in Geology

During the past five years it is estimated that the armed forces absorbed some fifteen hundred young American geologists of graduate, near-graduate, or postgraduate status, only a small number of whom had gained any experience in professional application of their learning.

During their terms in the armed services few of these young men have had the opportunity of using their geological training or of acquiring additional geologic knowledge. It may therefore be assumed that they have suffered considerable loss of geologic skill and knowledge and are thus not prepared to resume their studies or professional activities in competition with those geologists whose careers have not been interrupted by the war.

Because of this situation and the current demand for trained geologists, the U. S. Geological Survey proposes to undertake a program of training in the form of supervised field, laboratory, and office work that will enable discharged veterans to adjust themselves more quickly and with more confidence in resuming their careers. The Survey proposes to undertake only this applied phase of the retraining. It recognizes that many of the expected trainees will require preliminary academic courses in college or university geology departments that are equipped to give concentrated courses of graduate calibre.

The proposed dual program has been discussed with heads of the geology departments of the Universities of Chicago, Columbia, Harvard, Johns Hopkins, Princeton, and Yale; and they have indicated their approval of the plan in principle. Heads of geology departments in other schools interested in participating in this phase of the program may obtain pertinent information from the heads of the geology departments of those universities. Further information concerning the Geological Survey's phase of the program may be obtained by writing to W. H. Bradley, Chief Geologist, Geological Survey, Washington 25, D. C.

The instruction of qualified veterans in participating schools will, insofar as is feasible, be adjusted to the specific needs and interests of the individual to better equip him to undertake and benefit by Survey or other professional experience in field, laboratory, and office work during the 1946 field season.

Candidates for these temporary appointments to the Geological Survey will be selected on a competitive basis through the channels of the Civil Service Commission, and in accord with veterans' preference policies. It is hoped, however, that veterans who apply will have had the benefit of the preparatory college or university retraining before they seek appointment.

The number of veterans which the Survey will be able to absorb will depend upon the amount of funds appropriated to the Survey for geologic investigations. An estimate of the size of the field program should be available by spring after the House reports out the appropriation bill. As many as possible of the most competent temporary appointees will be given the opportunity of accepting more permanent appointments on the Geological Survey staff, or will be given aid in obtaining