

accumulations of coal, oil, gas, phosphates, sodium nitrate, clay, iron, manganese, etc.

The essential requirements of the research are sufficient information on (1) modern sediments and deposits and (2) changes in sediments after deposition and the causes of such changes.

In the study of sediments now in process of formation it is important to learn the mechanical state and shapes of particles of different sizes, their mineralogical and chemical composition, the arrangement of the material composing the deposit, the source of the material, the transporting agencies, and the cause of precipitation. Modern deposits must be studied in the scores of forms in which they are laid down; in deserts and arid regions and in humid climates, in the beds of great lakes, in the track of glaciers, and in marine beds off the coast, in deltas and bays, or on submarine plateaus, in lagoons, and on reefs in subtropical and tropical waters.

In much of this work chemical investigations are essential, especially on the composition of the waters flowing into the ocean, yielding data on the chemical degradation of the continent and the amount of soluble material discharged into the sea.

In undertaking this extensive investigation, which would include the studies just cited and others on ancient deposits, the following procedure is proposed: (1) To make a more complete survey than has yet been made of the investigations that are at present under way in the United States and in Canada. (2) To prepare, in the light of present geological knowledge, a program for the investigations needed to supply an adequate basis for interpreting sediments. As knowledge advances, the program will have to be modified. (3) To canvass the field for existing agencies that are suitable in prosecuting such investigations. (4) To secure the co-operation of those institutions or individuals prepared properly to prosecute researches of the kind needed. (5) To provide additional agencies for the study of problems of sedimentation and thereby make possible investigations for which there are either no provisions or only inadequate provisions at present.

It is easy to see how an investigator, choosing to deal with some aspect of this large general problem would be assisted by information regarding related work planned or in progress, and how readily, as a member of the group, he could render his own researches more widely useful and significant.

Another interesting piece of co-operative research, which involves the joint activities of geographers, physicists, zoologists, and practical fishermen, is centered largely at the Marine Biological Laboratory at