

professors have to combine both University and Survey duties. The Survey Departments have always preserved a strictly scientific character, and while fulfilling to the utmost the practical and commercial purposes for which they were in the first instance called into existence, their systematic treatment of vast land areas has furnished the pure science of geology with a wealth of observations of inestimable value for its more abstruse problems.

The progress of geological cartography brought the results of one State Survey into touch with those of its neighbours. So far as geology is concerned, the present boundaries between adjacent countries are merely of accidental character, even the present configuration of a land surface is merely an episode in the historical cycle of events; in the previous epoch lands now separated may have been the common floor of a bygone sea. The nature of geological and palæontological studies necessitates a constant interchange of knowledge between the different countries of the globe. The geologists of the Paris basin, for example, must know the results of the geologists of the London basin, maps ought to agree, faunas ought to be compared; and these considerations led to the institution of International Geological Congresses, where geologists from all countries might discuss the problems of common interest to the science. Some of the greatest men of our time, in attending these Congresses, have expressed their conviction that the intellectual fellowship of interest renders them a humble means towards a very great end, whereby nations, by better acquaintance with each other, may become more firmly welded in political friendship.

Geology and palæontology give great promise for the twentieth century. In another hundred years the whole surface of the earth will perhaps be so well known, that works on comparative topographical geology will be fully accomplished along the lines which Eduard Suess has so ably initiated in his *Antlitz der Erde*. If at the same time the structural and physical problems of the solid earth-crust continue to be accurately investigated in all parts of the earth, it may be possible to determine the actual physical sequence of events in the origin and development of our planet.

Again, the palæontologist notes with interest how the study of past forms of life is brought every year into closer relation with biological researches, and how, as faunas and floras from