I. INTRODUCTION

"Soil Structure is the Key to Soil Fertility"

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The physical properties of soil-types under cultivation have long been noted by practical men and provide the basis for local traditional methods. Sir Humphrey Davey, a century ago, stressed the importance of soil physics in a lecture to the Board of Agriculture but the work was not followed up. This was probably due to the brilliant work on chemical fertility proceeding at Rothamsted and the comparative stability of the Soil-Agriculture System in Europe.

However, during the past thirty years, soil physics has been placed on a sound theoretical basis, the practical application of which has yet to be fully realized. The importance of soil structure was quickly realized in America, where the cultivation of vast tracts of arable land under a variety of conditions presented urgent problems. Land exploitation and the widespread application of cultivation methods used on temperate podsolic soil-types to the chernozem types resulted in chemical and physical depletion. This led to the erosion and total loss to cultivation of large areas on a national scale; hence, the recent concentration of research workers on all methods for the physical amelioration of the soil. The equally serious soil depletion in many colonies (99) calls for an application of such methods, with or without modification to tropical soils and tropical conditions.