

and interrelated. His literary style is turgid, verbose, obscure, but this is a necessary and sufficient reason for a modern edition, with the proper *apparatus criticus* of interpretative notes.

Of the extraordinary fitness of the editor for his task, it is almost unnecessary to speak. A brilliant Goethe scholar and *Goetheforscher* in his youth, Sudhoff is known to physicians as the Paracelsus scholar *par excellence*. His whole life of investigation at the Institute of Medical History at Leipzig, his vast researches in medieval medicine, have been nothing else than preliminary to this work, which (at the age of 68) he regards as his swan-song.

Professor Sudhoff's plan is to issue the work in fifteen volumes, containing all the MS. material, and to be sold by subscription at a flat rate per volume. Librarians and scientific men may obtain further details by writing to Professor Karl Sudhoff, Institut für Geschichte der Medizin (38 Talstrasse), Leipzig, Germany.

F. H. GARRISON

#### THE VALUE OF TILTH IN AGRICULTURE

THE remarks of Mr. L. S. Frierson relative to the above question (*SCIENCE*, September 2, 1921, p. 193) have just come to my attention. Bechhold's work, which I quoted (*SCIENCE*, July 22, 1921, p. 74), indicates that evaporation draws salts toward the surface; but rain rather than light cultivation is the main factor returning them toward the roots, although of course cultivation helps.

An essential in cultivation is the breaking of the surface crust or skin, and Mr. Frierson says that, contrary to my hypothesis, this comminution of the upper surface of the soil "more or less perfectly stops evaporation, and thus conserves the store of soil water."

This claim of Mr. Frierson is quite contrary to all engineering and practical experience. The way to dry wet clothes is not to roll them up, but to spread them out and expose a large surface to the air. The breaking of a crust or skin, with increased exposure of fresh surfaces causes, or tends to cause, increased evaporation. Indeed Bechhold says that the cooling effect of talcum and similar dusting powders is consequent upon the fact that they

give the skin more free surface for evaporation.

Unless direct experimental evidence to the contrary is produced, I must maintain my view that cultivation, by increasing surface evaporation, tends to bring upward subsurface water and salts, and thus aid plants in dry weather.

JEROME ALEXANDER

NEW YORK, JANUARY 7, 1922

#### CASTS OF FOSSIL VERTEBRATES AT STUTTGART

TO THE EDITOR OF *SCIENCE*: The director of the Stuttgart Museum (Württembergische Naturalien Kabinett) in Germany has offered for sale a series of casts of fossil vertebrates from originals in that museum. Most of these are of great teaching and exhibition value, and owing to exchange and economic conditions in Germany, the prices are extremely low. The American Museum has purchased the series and received the shipment in excellent condition. The quality of the casts varies, some are excellent, others only fair, but I desire to call attention of those who are interested to the opportunity both to secure some very useful casts at small expense and to aid in continuing the work of one of the leading paleontological museums of Germany. For information write to Dr. Martin Schmidt, director of the Stuttgart museum.

W. D. MATTHEW

#### THE RAY SOCIETY

TO THE EDITOR OF *SCIENCE*: May I be permitted to express the thanks of the Council of the Ray Society to Professor G. H. Parker for his timely letter published in *SCIENCE* of November 25, 1921? I should like also to take this opportunity of apologizing to our American subscribers for the continued delay in the issue of our publications, a delay which is due entirely to the difficulty of executing the elaborate colored plates for Prof. W. C. McIntosh's "British Marine Annelids." The first part of the fourth (and final) volume of this work will form the issue to subscribers for 1920 and will, it is hoped, be ready within the next few months. The second part, completing the work, is already in hand and will form the issue for 1921. Subscriptions for each of these