

cysts and the merozoites were regularly found in the liver and kidney. Interesting forms from the jerboa flea which were at first regarded as developmental stages of this hæmogregarine were found on further investigation to be in reality parasites of the flea itself. Other forms from small mites (*Dermanyssus*) which infest the jerboa may prove to be the developmental stages sought. Another very interesting series of observations concerns a leucocytozoon of mammals, obtained from the blood of a Norway rat, although it could not be found in numerous examinations of the blood from many Egyptian rats.

Trypanosomiasis in the Anglo-Egyptian Sudan received careful attention. In the region south of the tenth parallel of latitude it certainly exists to a very considerable extent, affecting donkeys, horses, mules and possibly camels. This is not the species, *Trypanosoma nanum*, found in cattle. Of the latter disease the report discusses at length its symptoms and post mortem findings, as well as its morphology and inoculation experiments. Similar though more extended records are given for an undetermined species from mules which is probably identical with *T. dimorphum*.

One very interesting chapter embraces the report of the traveling pathologist and naturalist, Sheffield Neave, who spent four months in the field in southern Sudan. His chief effort was to locate the natural source of infection with the tropical blood parasites. In all he made 750 blood films, from 55 human subjects, 118 other mammals, 69 birds, 33 fish, 6 amphibia, and 18 sheep ticks. Trypanosomes were found in man, the mule, four fish, and two birds. Filariæ were found in five birds, *Halteridium* in eight, and a new *Hæmamæba* in one. All of these forms are described in detail. Many insects and a few plants were collected on the trip, and numerous data recorded regarding the tribes with which he came in contact.

The chemist of the Wellcome Research Laboratories gives a valuable chapter on a multitude of subjects from the chemical composition of Nile waters to the use of asbestos in ancient burial, and new forms of chemical apparatus. It would be impossible even to

cite all, but the extended study of gum arabic, its varieties, occurrence, uses, grading, determination of viscosity, etc., and the careful examinations of Nile waters are investigations of fundamental importance.

The work is well printed and splendidly illustrated. One hundred and six fine text figures and twenty-one full-page superb colored plates add greatly to the scientific value of the report.

Such rich results reflect great credit upon the director and his staff and furnish a most ample justification of the generosity and foresight of the founder. Institutions more favorably outfitted and conveniently located may well be jealous of their laurels when such reports as this appear.

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A 1671 ENGLISH VERSION OF NICOLAUS STENO'S DE
SOLIDO INTRA SOLIDUM NATURALITER
CONTENTO, BY H. O.

THE recent reprinting of Steno's classic 'Prodromus' in Germany has revived the interest in this seventeenth century anatomist and geologist and in the few scarce editions of his remarkable treatise. His famous tract which appeared in Latin at Florence in 1669 was, according to Professor von Zittel, reprinted in Leyden in 1679 and a French translation was brought out by Elié de Beaumont in 1832, but neither von Zittel nor the book-lists to which I have had access make mention of an English translation of the book. Just recently there fell into my hands an evidently little known English version printed in London in 1671, with the following title-page:

The | Prodromus | to a | Dissertation | Con-
cerning | Solids Naturally Con- | tained within
Solids. | Laying a Foundation for the Ren- | dering
a Rational Account both of | the *Frame* and
the Several *Changes* of | the Masse of the EARTH,
as also | of the various *Productions* in the
same. | By Nicolaus Steno. | English'd by H.
O. | London, | Printed by F. Winter, and are
[sic] to be Sold | by Moses Pitt at the White-
Hart in | Little Brittain, 1671.

There are sixteen pages of preface with the title-page, and 112 pages of text and one plate; the size of the printed part of the page measures 2.75 inches wide by 5.5 inches high.

Why has this translation been overlooked and who was H. O.?

I am not aware that any writer on the history of geology specifically refers to having seen or read this translation. The copy in the writer's possession is bound up as a separately paged tract at the end of a small volume of the celebrated Robert Boyle's 'Essays of Effluvium,' etc., containing also his 'Essay about the Origine and Virtue of Gems' of 1672. A general title-page gives reference to Steno's work. This title-page is dated 1673. All of the contained tracts appear to have been separately printed at different dates between 1671 and 1673, at which last date they were brought out in the form above described.

The translation appears to have passed out of sight in the same century for John Ray, elected to the Royal Society, 1667, who rewrote his now curious 'Three Physico-Theological Discourses' in 1693, twenty-two years after the H. O. translation appeared, does not mention either the original Prodrumus or this translation of it. Had he known either work probably Ray would not have quoted in his second edition (pages 156-157) Steno's earlier 'Description of a Shark's Head' to the neglect of the most important scientific contribution to the discussion of the origin of fossil shells and geological structures which was extant in his time. It is difficult to account for Ray's reticence unless by reason of his living outside of London. But the publication of the H. O. translation of Steno's 'Prodrumus' as an appendix to Boyle's prolix essays was from the start likely then as now to bury the work out of the sight of any writer on geological subjects.

As for H. O., the translator, he reveals himself in a preface of six pages entitled 'The Interpreter to the Reader' as having recently received a copy of the original Latin work from Italy, as meeting and hearing a declaration from 'the excellent Robert Boyle,' as being familiar with his opinions and writings, and as well with 'Mr. Robert Hook,' his

occupation in the 'rebuilding of the city of London, and his attendance on the R. Society,' from which account it is to be inferred that H. O. also was much about the Royal Society, and his dealings with Boyle who was one of the founders of that institution strengthens this opinion. We know that during these years Henry Oldenburg¹ was secretary of the Royal Society. It is further known that Boyle was in the habit of employing persons to translate works from one language into another at his expense. Oldenburg's initials attached to this translation, his conversation with Boyle concerning the latter's Essay on Gems, of which interview he states that Boyle "before he would see or hear anything of that Prodrumus of Steno, did upon occasion declare to the author of that English version the sum and substance of what is deduced at large [regarding gems] in this tract," and the consociation of Boyle as founder and Oldenburg as first secretary of the Royal Society at this time and of H. O.'s translation with Boyle's 'Essays' make it highly probable that Henry Oldenburg (c. 1626-1678) englished Steno's 'Prodrumus.'

In the interests of a wider acquaintance of many English-speaking students with the path-breakers of modern geology and paleontology the H. O. version of Steno's 'Prodrumus' might deservedly be reprinted.

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SOCIETIES AND ACADEMIES

THE SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE

THE twentieth meeting of the Society for Experimental Biology and Medicine was held in the Rockefeller Institute for Medical Research, on Wednesday evening, February 20. The president, Simon Flexner, was in the chair.

Members present—Adler, Burton-Opitz, Calkins, Carrel, Conklin, Emerson, Ewing, Field, Flexner, Foster, Gibson, Gies, Lee, Levene, Levin, Mandel (J. A.), Meltzer,

¹ See Encyclopedia Britannica, 9th ed., Vol. 17, page 439, Vol. 22, page 401, and index volume.