

ness, on which so much of its beauty depends, is mainly due to all the inequalities having been slowly levelled by worms. It is a marvellous reflection that the whole of the superficial mould over any such expanse has passed, and will again pass, every few years through the bodies of worms. The plough is one of the most ancient and most valuable of man's inventions; but long before he existed the land was in fact regularly ploughed by earthworms. It may be doubted whether there are many other animals which have played so important a part in the history of the world as have these lowly organized creatures." The truth of this must be patent to all thoughtful observers, and when the work of these animals is considered together with that of those industrious little insects, the ants, (which it is perhaps just possible Dr. Darwin did not quite consider enough in the estimation of the work of the transversion of the surface soil,) the results are simply startling.

Just as I am finishing this off I have had my attention called to a short note in Cassell's Magazine for December, 1883, p. 63, in which earthworms appear in a new and unexpected role. It reads as follows: "It has been found by M. Pasteur that the bodies of cows and sheep which died of contagious diseases, when buried in the ground may yield germs of the disorder which are brought to the surface by worms." This is worthy of careful consideration. It is easy to understand how this might be, for these minute germs would also easily rise themselves to the surface through the tunnels of worms, even if the worms did not actually bring them there.

The paragraph gives the following advice which it would be well for us all to make a note of: "A more efficacious and economical mode of dealing with such carcasses has been proposed by a French chemist. It is to dissolve the entire carcase in sulphuric acid, and then treat the resulting solution by chemical means for the recovery of salts, which can be used in manure. The plan has been tried with great success at a 'usine' in France, and the profit realized on every dead sheep treated was four francs."

#### BOOK NOTICES.

CATALOGUE OF BRITISH COLEOPTERA, by Rev. W. W. Fowler, M.A., and Rev. A. Matthews, M.A. London: West, Newman & Co.

This Catalogue differs in some respects from all preceding lists of British Coleoptera. It is, namely, a partial adaptation of the American views by completely separating the Rhynchophora and Heteromera from the remaining series of the order, and the placing of them after the other series. The changes suggested in the relations of the families of normal Coleoptera, in the system of Drs. Horn and LeConte, are not yet in full favour with the conservative students of Great Britain, but may in future win approval as they become better known.

The American system, as it may be briefly termed, is fully set forth in the revised "Classification of the Coleoptera of North America," just published by the Smithsonian Institution. A notice of this work appears below.

The innovations of the system consist in a rearrangement of the bulk of the families into four sets; Adephaga, with the most perfected exo-skeleton and powers of locomotion; Lamellicornia, with the greatest visceral and nervous concentration, and highest development of sense organs; pseudo-tetramera; the remainder constitutes a vast complex of Clavicorn and Serricorn families, which may be divided into several ill-defined sub-series.

CLASSIFICATION OF THE COLEOPTERA OF NORTH AMERICA; by John L. LeConte and George H. Horn. Prepared for the Smithsonian Institution, Washington, 1883. Crown 8vo., 605 pages.

The Entomologists of America are placed under renewed and deep obligations to Drs. LeConte and Horn for this new edition of the classification of the Coleoptera.

More than  
time no  
departme  
creased,  
and critic  
added to  
than 11,0

In the  
aided by  
whole of  
advanced  
evidence  
where wil  
collection

THE PINE  
8vo.,  
for the

We take  
history of  
native spe  
lithograph  
the tips of

REPORT O  
1882;

We have  
have also  
J. H. Com  
trated with  
able for Tex  
Cholera, an  
results of a  
results of t  
growth, par  
section of t  
matter in r  
Superintend  
with refuse  
glass, and s  
might proba

That p  
much that i  
chief subjec  
Pyrethrum,  
including th  
Insects affec  
that part co  
Maggot; al  
on Lac Ins  
valuable inf  
solutions.