

clear red color, almost transparent, but soon begin to change color and form, getting more opaque and dark in appearance, until, in the course of transformation, they become a black bug, with legs and wings, when they attack the head or grain of the oats.

Under the microscope, the dust which remains on the leaf, closely resembles that on the wings of butterflies.

How this innumerable army of infinitesimal worms originated is yet a mystery. It is a singular fact, however, that wherever the greatest quantity of grain has fallen, there the oat crop has fared the worst. In our recent trip through West Tennessee, we saw but a single field of oats between the Mississippi and Tennessee rivers which was not a total failure, or in which it would not be folly to put a scythe blade. That field was near Denmark, Madison county, and was sown very early. It is well known that more rain has fallen in West Tennessee, this season, than in any other part of the State; hence the extreme wet weather must have had some agency in the production of this animal-culæ.—It is also well known that moisture and heat will produce and multiply animal life, millions per hour, and therein we judge is the secret of this destruction of the oat crop. It is one of those cases of natural phenomena which occur only at a certain stage in the growth of plants, and under peculiar states of temperature and weather. It may happen next season, or it may not occur again for many years.

BOTS, AND THEIR INFLUENCE ON THE HEALTH AND CONDITION OF HORSES.

Several circumstances combine to make a much greater demand for the services of veterinary practitioners in Great Britain than in this country; and, of course, veterinary schools are more abundant and more patronized, and veterinary science and art cultivated to a much greater extent and more thoroughly. As an instance of the extent of the demand for knowledge and instruction in this department, we may name the fact that there has recently been published the first number of a Quarterly Review, devoted to veterinary science and art, and to comparative pathology, entitled the "Edinburgh Veterinary Review and Annals of Comparative Pathology." In style and general appearance it is said to equal any of the British Quarterly Reviews, and this initiatory number is said to contain several articles of merit. One of the articles—that on Bots—is certainly a masterly production, giving evidence of extensive observation and investigation, and of great sagacity and soundness of judgment. Of the more valuable of the statements and suggestions contained in this article, we present our readers with the following synopsis:

The opinion has long prevailed that bots were injurious to the health of horses, and frequently the cause of death. A collection of bots in the stomach has been, and is yet, very commonly believed amply to account for death when met with in horses not otherwise apparently diseased. This opinion naturally led to various attempts for their destruction and removal, for which purpose many harsh and injurious drugs and absurd measures have been resorted to.

When veterinary science became an object of study, and the habits of parasitic animals became better known, it was quite natural that opinions so unfounded or at least exaggerated, and practices so unscientific and absurd as well as injurious, should lead to a reaction; and accordingly some of the earliest writers on veterinary medicine, such as Braey Clark, Professor Coleman, &c., went to the opposite extreme, and maintained that bots in the stomach (gastric æstri,) probably tend to preserve health and counteract disease, by their gentle stimulus to the stomach; that the irritation caused by them might probably act somewhat after the manner of leeches and cantharides, so as to prevent or subdue attacks of inflammation in the eyes or lungs, or other organs, or the existence of spasms, splints, &c. Mr. B. Clark was so confident that bots were rather beneficial than otherwise to the health and good condition of horses, that in the case of a horse of his own which had not been to grass for some years, and, of course, very much out of the reach of the bot-fly or the bee, he cut off hairs from another horse charged with bot's eggs, and gave him about three dozen of them. He states that the horse "afterwards grew fatter and in better condition than I had ever known him; whether from their effect or not I do not undertake to determine, but think it not im-