

report from Memel, is always present. Hence we have all the symptoms of Rinderpest shown, except diarrhœa and dysentery, in those cases of Mr. McCall's. The bowels, however, were in a loose state; and although diarrhœa did not occur, it was apparently only in consequence of the animals having been cut off by the greater violence and rapidity of the disease. But diarrhœa and dysentery are nothing uncommon in this country, and are well known to arise from matters taken into the stomach. Hence these diseases, one of which is generally a consequence of the other, must have been produced by the food on which the animals are fed, perhaps combined with other causes, such as fatigue and want of water, or water of bad quality. These affections of the stomach and bowels at once explain all the other symptoms and conditions. The kind of discharge from the eyes and nostrils, the state of the blood, the flakes of lymph found in the air-passages and elsewhere, and the ulcerations, extending through the digestive organs, are only the natural consequences of the depletion and consequent weakness invariably produced by diarrhœa and dysentery.

From what I have advanced, as well as from the facts of the disease related by Mr. McCall, and which occur every dry season in this country, I think must appear that the Rinderpest and the disease I have noticed correspond; and as nothing like contagion has produced it in this country, neither can we be satisfied that it is so produced on the Continent, and I believe that it will ultimately be found to arise from causes similar to those prevailing here, and that we have a much safer guarantee against its being brought to this country than either the wholesale slaughter of the cattle, or the cordons drawn round the localities where the disease may have appeared. Instead of merely looking to the means of preventing contagion, we should endeavor to prevent the spread of those general diseases (which I contend are all epizootic) by investigating their causes, and adopting proper means for their prevention or cure. In many of these cases the simple allowance of a portion of common salt in the food, and sufficient water to assist digestion, will be all that is required, and ought to be generally adopted at the season of the year when disease is most apt to occur. Such a plan I recommended in the case of the cattle in Dumfriesshire, already mentioned, and I am informed, with perfect success.

It is a convenient and comparatively easy mode of accounting for almost any general disease by imputing it to contagion; but the measures taken, in consequence, may be very serious. In this country we have not, as yet, gone the length of destroying animals even suspected of taint, but very inconvenient restrictions were placed on various articles of produce, and, at one time, the farmer was threatened with an advance on the price of his bonedust in return for an imaginary protection against disease. About a

year ago there prevailed in Ohio a most destructive disease among swine, exhibiting many of the symptoms of Rinderpest; and because a corresponding disease broke out in some places in Scotland, as well might I, on contagion principles, attribute its introduction to the importation of hams made in Ohio, as suppose that the Rinderpest could be propagated by importing the hides, horns, and bones of cattle that died of it in Germany. Let it not be supposed that this address is dictated by any desire to criticize Professor Simonds' Report. Though differing on the subject of contagion, I entertain high respect for that gentleman; but I deem my duty not only to direct attention to what, in my opinion, are the real causes of disease, but to allay, so far as in my power, an alarm, founded in itself, and inconvenient, commercially and otherwise, in its results.

Experiments on the Growth of Different Kinds of Flax, &c.

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Everything connected with the natural history of the Flax-plant is so generally interesting, both in an agricultural and economic point of view, and more especially in the commercial relations of this plant to the sister isle, that I take this opportunity of laying before our readers a detail of some experiments upon the growth of Flax, now in progress in our experimental garden at the Royal Agricultural College. We have this season four plots of each of two and a half yards square, which be described as follows:—

Plot A. *Linum usitatissimum*, clean seed

“ B. *Linum usitatissimum*, dirty seed purposely sown with *Dodder cucula epilinum*,)

“ C. *Linum perenne*, sown in 1855.

“ D. *Linum perenne*, sown 1858.

A. At the time of our writing, this is in full perfection, and nearly, if not ripe; it is thirty-four inches in height, the rows, and apparently of very fine quality. It is remarkably free from weeds, which be accounted for from the circumstance of the cleanest possible seed having been used taken altogether, it is the best possible indication of the value of clean seed.

B. This plot is at some distance from the order to avoid any possibility of admixture was sown with the like quantity of seed, in a foul state, and besides there was mixed with, purposely, a small quantity of the *Cuscuta epilinum*, the Dodder previously sown in our columns. In this case, but about a quarter of a crop, and that is so borne down by the Dodder as