

## The Farm.

### NOTES BY THE WAY.

"Complaints about clover".--We have lately met with a great many complaints, in the agricultural papers of the United States, about the failure of the clover-crop. It would seem that, for the last few years, it has been difficult to get what is called there "a stand of clover." Various reasons are assigned for these failures, such as early frosts; too dry summers, etc., and various remedies we proposed; among others, farmers are advised to sow the clover-seed alone, without any "nurse-crop". All this has been going on now for several years; but no cure seems to have been discovered for this lamentable failure of one of the most valuable plants cultivated by the United States' farmers.

Now, as we have often mentioned in this periodical, nothing is more simple than an explanation of the cause of this failure of the plant in question; and when its cause is discovered, the remedy follows as a matter of course.

The modern rotation, followed in the South of England during the earlier part of the nineteenth century, was the "Norfolk" or "four-course," consisting of,

- 1st, a root-crop;
- 2nd, barley, sown-down with clover;
- 3rd, clover mown twice for hay;
- 4th, Wheat.

This rotation was followed--we may say slavishly, for many years, and it was not until about the year 1835, or there about that farmers in the Southern half of England began to find that there was something queer happening to the third limb of the rotation.

Instead of the clover taking well, when first sown, and continuing to thrive without intermission throughout its short life, it certainly took well at first but gradually became weaker and weaker in appearance; here a plant and there another lost root-hold; patches, more or less

in extent, gave out altogether, and in many cases the crop vanished entirely before the winter began.

And now let us listen to the opinion of the late Sir John Lawes, the well-known proprietor in his day of the experiment-farm at Rothamsted in England.

#### *Clover sickness.*

BY SIR J. B. LAWES, LL. D., F. R. S.

EDS. COUNTRY GENTLEMAN--The valuable article on clover sickness by F. P. Root which was published in your paper of Feb. 3d (p. 84) establishes the fact that in the soils of the United States, as in the soils of Europe, clover sickness prevails wherever clover has been grown too long, or been too frequently repeated. The author describes the results just as they occur elsewhere. First, the benefit which the wheat derives from the growth of the clover; then the benefit which the clover derives from plaster, and finally the inability to grow clover, which is followed by bad crops of wheat.

Considering the immense difference in the amount of fertility which is found in different soils, it is not surprising that those who farm in the most favored localities are sceptical in regard to the failure of the clover plant. Having farmed all their lives without having experienced any failure, they see no reason why disease should ever occur. The cause of clover sickness has attracted almost as much attention as the source of the nitrogen in plants, and, as far as I can see, both are likely to form subjects of inquiry for a long time before the final solution of the problem will be arrived at. Although clover sickness has occupied our attention almost from the commencement of our experiments, for a long time we hardly advanced beyond the fact that no combination of manures, natural or artificial, would cause clover to grow upon land which was clover sick. Of late years, we have gathered two or three scraps of knowledge which have enabled us to mount a step or two up the long ladder on the