be so highly manured as those above Lachine, many of them are kept in first class order and are worthy of a visit.

Yours truly, Chas. D. Tylee.

The mixture has been used regularly by milkmen at Sorel for 3 years, and they swear by it. It will certainly help to make flesh, and if the milk is less in quantity it should be decidedly richer in quality. Theoretically, the mixture is perfect, but I do not build on that; as I have always found it good in practice. Why omit the rape? A. R. J. F.

Mr. Martin John Sutton has weighed the hay from his experimental plots at Dyson's Wood, upon which we reported in our issue of August. The details given related to the B set of experiments, as by far the most trustworthy, because the least affected by the unfavourable character of the season. In reality, there are two sets of experiments with eighteen plots, six of which were brought into the trial a year before the remaining twelve. Five of the plots were manured in 1886 and not in 1887. During these two years, as our report showed, the greatest aggregate yield was that obtained from the use of 3 cwt. superphosphate and 2 cwt. kainit, and this dressing gave also the best pecuniary result, costing only 15s. 9d. But this year, manures were again applied, as in 1886, and, as was to be expected, the nitrogenous manures have given the most hay. It was so in the first year, though not in the first and second together. The plot which has now given the heaviest yield of dry hay, 35 cwt. 2 qrs. 21 lb. per acre, is No. 3, which had 1¼ cwt. of nitrate of soda applied to it, while next with a yield of 34 cwt. 3 qrs. 7 lb. of dry hay, comes Plot 5 dressed with 1 cwt. sulphate of ammonia and 2 cwt. kainit. The plot which received 3 cwt. superphosphate, 1 cwt. nitrate of soda, and 2 cwt. kainit, was in the third place, while the one which stood first in the two years' comparison is fourth. It will always be so. In the year of manuring, nitrogenous manure will always carry off the palm as far as mere bulk of produce is concerned, and it is only by considering the after-effects that observers of the experiments see the disadvantage of using these stimulating manures on pastures intended to stand.

The case is different in the rest of the B experiments, plots 7 to 18 (except No. 11, unmanured) were dressed in 1887, but not this year. Here the greatest yield is given by the plot which received 10 tons of farmyard manure, while next comes the one dressed with 3 cwt. dissolved bones, and third that which got 1 cwt. nitrate of soda and ¾ cwt. muriate of potash. Thus, as was the case with the first six plots last year, lime and potash have told in the second season, though so far behind the nitrate of soda and sulphate of ammonia plots in the year of the application of manures. Adding the yield of dry hay for the two years in the case of the set of experiments just referred to, we find dissolved bones have given the best results, while the plot which had 1 cwt. nitrate of soda and ¾ cwt. muriate of ammonia stands second, and the farmyard manure plot comes down to the third place.

Ag. Gazette.

Strawson's Air-power Distributor.

The trial of Strawson's air-power distributor, announced last week, took place at the College of Agriculture, Downton, last Tuesday. Owing to the very wet weather, the trial did not take place till towards evening, and was concluded on the following morning. After personally inspecting the machine at work, we are able to report that Mr. Strawson has brought out an efficient instrument, capable of performing what its inventor has striven to realise—a perfect distribution of various substances used in agricultural operations. It was first tried upon oats, and the trial was conducted upon the turnpike road, in order that the spectators might thoroughly inspect the result. The oats are placed in a hopper, which is to be so enlarged so as to hold six to eight bushels. The oats are allowed to feed gradually downwards, and are delivered over a wide nozzle, over which they pass in a continuous stream. From the nozzle issues a blast of air, produced by a fan actuated from the travelling wheels of the instrument, and worked up to a velocity of 3,000 revolutions per minute. The direction of the blast and of the material (oats, or whatever else is being distributed) is further directed by a flanged plate, over which the oats are blown in a fan like form, extending over a width of about 23 feet. The grains were completely separated and the ground was covered with extraordinary regularity. The machine was next filled with water, and a suitable nozzle was fitted on in place of that used for dry matter. Here the distribution of the liquid was very perfect. The water was thrown out as an impalpable spray from which nothing could escape. The machine was next charged with paraffin oil, when the effect was still more marked, as the paraffin was rolled out in a cloud of vaporous-looking fine spray, which was calculated to envelop every blade of grass or leaf of turnip over which the machine passed. The effect when finely-slaked lime was used was, perhaps, the most striking, as the lime formed a dense white cloud, and was distributed with absolute uniformity. Every blade and culm of grass was coated as with hoar frost.

The significance of Mr. Strawson's invention is most evident in connection with insect attacks and blights. Broad-casters and manure-distributors we have already, although this instrument will, we think, prove a formidable rival to some of them; but an efficient means for completely coating or spraying growing vegetation we have not as yet had.

The instrument now for the first time brought forward (for it was not perfected in time for entry at Notthingham) is superior to Mr. Jephson Rowly's machine for dusting over young turnips affected with fly. The large breadth it takes alone places it in an unrivalled position, and the perfection of the distribution and the extreme state of division of the liquid applications, both give it a peculiar interest.

The machine, to be efficient, must travel at a brisk pace, and easily covers twenty-one feet or seven yards. During its action the fan emits a noise similar to that of a threshing machine when running empty, which can be heard at a great distance. From what we have seen of this machine, we believe that its possession would give its owner complete mastery over turnip flies and other pests attacking the leaves of young growing crops. (1)

Prof. R. C. Kedzie, of Michigan, gave a paper on "Tile Drainage in relation to Flood and Drought.

The general proposition that tile-draining increases flood and aggravates drought demands careful consideration. The common time of special danger from floods in the level States of the North, is where the accumulated snows of winter rapidly thaw with warm rains while the ground is still frozen, and thus impervious to the accumulation of water. The depth of the frozen soil varies widely in the same neighborhood. On Feb 18, 1888, when the ground was for the most part covered with snow, which was rapidly melting, the writer exposed the soil by boring with a long-shanked auger to determine how deeply the soil remained frozen. The passage from frozen to free soil was almost as marked as boring through a plank. In a porous, sandy soil, which had been covered with snow all winter, and was still covered with two inches of snow, the ground was frozen 19 inches; in a clay soil near by which

(1) A most important invention. A. R. J. F.