

my turnip cellar, it was levelled and tramped, but the walls were rough stone and the partition wood—not in any way air-tight, and not understanding that our main business was to exclude the air we did not weight it or close it on top. I had 45 head of cattle in the stables—they had a run daily in the rough dry pastures, but could not get much more than exercise there. The produce of these two acres lasted these 45 cattle for two months, and a very large amount of the cut corn, nearly a foot all around, top, sides and ends, rotted and had to be hauled away. Here then was a proof that the quantity was produced, one acre furnishing feed for the 45 cattle for one month. These seven acres would carry this number of cattle through one ordinary winter at this rate, and my cattle looked well and thrived on the food, which they ate greedily, and which had a strong molasses-like smell. It therefore, to my mind, resolves into a question of preserving this forage through the winter in an economical manner, and this Messrs. Starr & Johnson claim to have accomplished satisfactorily.

"Some objections have, I believe, been raised to the quality of the cut food, when it is taken from the pits,—it is asserted that the saccharine matter had disappeared. In order to test this Messrs. Starr & Johnson have each kindly furnished samples from pits to Prof. Lawson, who has arranged to test the material and ascertain if it has undergone any chemical change, reducing its value as food, and I hope to be able to furnish you his report. Mr. Starr has also kindly, at my request, experimented in mixing the cut forage, when raised from the pit, with cut straw, and his experiment, which he will no doubt publish, goes to show that the two together make a very palatable mess, which the cattle eagerly eat.

"Mr. Starr was so much interested in this new system that he went on, I understand, last spring to the Eastern States, visiting a large number of farms where this plan of feeding was adopted, and all spoke in its favor. He obtained a number of publications on the subject which he gave me an opportunity to look over. Some reports go to show that ensilage by itself is a cold food, and that animals on it alone do not thrive well in very cold weather. Neither would they on turnips alone. To my mind this cut forage rather takes the place of turnips than of hay. I should be inclined to feed it mixed (being allowed to stand say for 48 hours) with equal bulk of cut straw, and, in case of fattening cattle, meal or oil cake. May I consider altogether too costly an article on which to make beef profitably. 60 lbs. of corn ensilage daily will, it is

stated, keep an animal as well as 30 lbs. of the best hay.

"United States writers mention 70 tons of corn as the yield of an acre. I am content to base my estimate on half that amount. Thus we find an acre of corn keeps six animals, whilst at an average crop of two tons (a liberal estimate all over) of hay, it takes $1\frac{1}{2}$ acres to keep one animal.

"Another enormous advantage that corn, if thus preservable, possesses over turnips, is that its harvest time will come between grain harvest and potato digging, generally a slack time with us, as the ground is then usually too dry to plough the stubble. Turnips must be left till November, with the risk of being caught by frost, and those who, like myself, have had 25 acres of turnips to handle in November, know the drag and anxiety that attends the "pulling" time, beside which, as turnips are a drill crop intended to prepare the ground for grain, it is most undesirable to tramp up the wet ground in the manner that hauling 600 or 700 bushels of turnips off an acre naturally necessitates. Any crop then, that can profitably take the place of turnips, will, especially to us clay-land farmers, be welcomed. Thus, we get our ensilage pits filled before the beginning of October, perhaps even earlier, will clear our cleaned and manured ground for fall wheat, which, if successful, will materially reduce our spring labors in putting in our crop; to my mind this system if it bears out all its advocates assert, will, in my own case and I presume in that of farmers generally, cause a more thorough change, and all in the direction of economising and facilitating work and largely increasing the returns. It will encourage men to drain and improve their land. It will unquestionably necessitate some outlay in remodelling root cellars or building "Silos" or air tight pits, and apparently increased stable room also, but it will well justify all this by its returns, and will, I believe, give a new impulse to farming, an impulse that is certainly required."—From the Maritime Farmer.

GREAT HENNERIES.

Poultry are kept in this and other countries for fancy and for profit. A noble duke, a well-known authority in agricultural affairs, returns from his home farm every morning with a couple of new-laid eggs for breakfast. His grace keeps fowls for fancy and also for the sake of fresh eggs. There are poultry-houses that cost £1000, stocked with hens that cost £10 each. Their owners are poultry fanciers, whose superb henneries may be well worth description, but at present I have in view poultry-keepers of another sort. Mrs. Isabel Thorne, of Southover

Grange, Lewes, founder of the Association for the Promotion of Minor Food Production, has stated in the *Times* that the number of poultry kept in France is 40,000,000. These are kept for profit, and their owners are generally small industrious farmers. There is no difficulty in keeping poultry at a profit on a small scale when they pick up their own living and steal a little from their neighbours. In this country, however, and in America, all departments of agriculture are managed on a larger scale than in France, and an itching for poultry keeping on the grand scale must from time to time be gratified. A large business frequently beats a small one, on account of the superior economy of its management; and large poultry farms are constantly started in the hope that the same principles may be applied as in other kinds of large farming, such as sheep farming, where a flock of 1000 can certainly be kept more advantageously than a flock of ten.

Among the successful pioneers in this branch of industry is Mr. A. C. Hawkins, who has founded a large business on his father's farm at Lancaster, Mass. The sons of large farmers have been blamed sometimes for doing too little and sometimes for doing too much in the sporting line; this young gentleman of Massachusetts seems to have thought that, in the absence of foxes, poultry might be profitable. He commenced what has proved a very pleasant and profitable pursuit in preference to the alternative of idleness, which is too often forced on young farmers whose sires, being all energy and activity, are unwilling to despute to Masters Jack on Tom any portion of the management.

When hens are kept in large numbers the strictest attention to one or two points is necessary, or they will assuredly come to grief. Their houses must be kept scrupulously clean. A *sine qua non* in keeping poultry healthy, especially when a large number is kept together, is cleanliness. It has been by means of his skill in providing for his feathered stock proper food, air, water, and shelter, and by their subdivision into small flocks that Mr. Hawkins has solved the problem which has puzzled and thwarted many who have attempted it. His system resembles in one respect that which has been often advocated in these columns—he keeps only young hens hatched in spring and sent to market after their first or second winter as boilers in July, or as autumn roasters. Thus he gets his best supply of eggs in winter. Examples have been already given of April chickens laying 100 eggs before they were a year old, beginning to lay at the most profitable period, early in October.

Mr. Hawkins is both an egg and fowl producer. His early chickens for market