tance—the production of a greater quantity of food at a less cost to the community than at present."

This is one means whereby the farmer may, in some degree, lessen his expenses and increase his returns If I am paying for that extra produce which I might by judicious economy obtain at no cost and am in fact farming badly; if I neglect the waste manures on my own farm and buy no other tillage, I am not producing as much as possible; and if I buy manure, I am not producing as cheaply as possible. There is another item to to which I m g'it call your attention, that is the drainage of cattle sheds, which, says Davy—"Contains the essential elements of vegetables in a state of solution. The analysis of urine will explain this; according to Sprengel, of 1000 parts of cow's urine, 926 are water, while of the remaining 74 parts, 40 parts are organic substance, containing a large portion of nitrogen, which it affords the plants in the shape of ammonia."

"The value of liquid," says Liebig," is when a manure is wanted which shall supply nitrogen to the soil" And when we consider that, by every pound of ammonia which evaporates, a loss of 60 lbs of wheat is sustained, and that with every pound of urine a pound of wheat might be produced, that each cow kept in the house would supply many hhds annually, the indifference with which these liquid excrements are regarded is incomprehensible. The drainage from the manure heaps is scarcely less potent than that from the sheds; it is, however, certainly not less valuable, as it consists of urine and a solution of the richest matter of the dung and compost. Will it be believed that the manure heap loses no less than *half of the fertilising properties*, which, but for mismanagement, it would otherwise contain. The amount of loss which farmers sustain in this way is lamentable. Add to this the whole of the liquid, which is of more value, if properly applied, than the solid, as it contains twice the quantity of nitrogen and all the alkaline salts. The city of Strasburg, which is situated in a corn country receives 12,000*l* per annum, which is equal to 10s. per head upon the population. This ratio in Great Britain would amount to 13,500,000*l*., and on England alone to 7,500,000*l*. This is independent of the loss which is sustained in *our farm-yards, which would amount to even a* still greater sum. The amount and the quality of manure which might be obtained by the farmer from our gas works, would be something very considerable. There is no less than 7000 gallons of ammonial liquid annually thrown away at our gas-works.

The author of "Outlines of Flemish Husbandry" says that, "We surpass the Flemish farmers greatly in capital, in varied implements of tillage, in the choice and breeding of cattle and sheep, and the British farmer is, in general, a man of superior education to the Flemish peasant, but *in the minute attention to the qualities of the* soil, in the management and application of manures of different kinds, in the judicious succession of crops, and especially in the economy of land, so that every part of it shall be in a constant state of production, we have still something to learn from the Flemings; but the auxiliary of the Flemish farmer is the tank wherein are collected not only the liquid from the cows and horses, but also the drainings of the dung-hill," which to the disgrace of ourselves as a people, are allowed to run down the ditches, fertilising as they pass along, the ground which is appropriated *to no purpose. These tanks, which are about* eight feet square, are frequently covered over with loose boards. The Flemish farmer would as soon think of dispensing with his plough as with his tank. The system of Flemish husbandry is well worthy of our attention: "The number of beasts fed on a farm of which the whole is arable land, is surprising to those who are not acquainted with the mode in which the food is prepared for the cattle. A beast for every three acres of land is a common proportion, and in very small occupations, where much spade husbandry is used, the proportion is still greater. In every farm a fifth at least of the land is sown with Turnips immediately after the harvest. Carrots, which have been sown in spring, either alone or amongst the Barley, Flax, or Colza, complete the winter's provision."

Here we have a brief summary of the merits of Flemish husbandry. The cows are in the house all the year round, except perhaps on fine days for exercise. Two cows are kept for every six acres of land, that is, thirty-three cows for each farm of one-hundred acres, and yet the land is all under the plough, and producing yearly heavy crops, maintained in this high condition by the liquid manure tank and cart alone; for they pay but little attention to solid manure such as we make, or rather it goes into the liquid as it is made, because they will not waste straw as bedding. This is an immense increase on the stock supported upon farms of the same extent in this country, and at the same time growing more corn; but there is also another feature in their husbandry almost as important, which is, that they endeavour to obtain an extra crop from one portion of their land every year. As their cattle are supported through winter on roots and straw (considering hay too expensive,) they sow late Turnips, and Rape or Vetches, "immediately after harvest" They also sow Carrots betwixt the rows of their Wheat and Flax—both drilled—and these crops pushed on with their "liquid," yield a produce that would surprise any farmer who has never used this manure. Their summer feed is almost universally Clover. As I passed through the country from Brussels to Bruges in the month of October, 1843, I saw Carrots and Cabbages growing whence crops had been taken, which very clearly shows that by growing more hay under a five-course rotation, our cattle would always be in good condition, our manure rich, *and a large farm could be almost as easily man*aged as a small one. The small farmers might adopt the four-course rotation after his land was in good heart, and thereby increase his profit.