

of water pumped from the River Doon. The passages before and behind the cows are neatly paved, and the walls a few feet up covered with slates, so that they can be washed down, and the atmosphere of the building kept in a state of great purity.

The cows lie upon cocoan-fibre mats; and these along with a very little litter suffice to keep them clean and comfortable. The commodious milk-house is well lighted and ventilated from the north side, and has quite an air of elegance about it. The ceilings are neatly corniced, and the wall between the centre bench and the side shelving is covered with wax-cloth. A naturally slovenly person could not think of being otherwise than clean in such a place. The dairy altogether presents adaptation for the manufacture of the finest butter—to the manufacture of which, indeed, in the cleanest and most approved way, as the chief produce of the farm all these arrangements are directed. The steam-engine is called upon to assist in the work of the dairy. It drives the churn, and the escape steam, by a pipe, boils at any time in the course of five minutes, the water in a large trough for cleansing the dairy utensils.

The food for the cattle is cooked in large cylinders by steam from the engine. These cylinders are hung by the centre, and are easily inverted and emptied into a cooler which is wheeled in below them. Besides this the engine does a variety of work, such as driving chaff, and turnips, or mangle cutters, and working the force-pump, which impels the liquid manure through cast-iron pipes, and distributes it on the field by means of gutta percha hose, as at Myremill. The solid manure of the field is all prepared and kept under cover. Mr. Telfer has made various attempts to dissolve portions of it that it might afterwards be sent by steam power through the pipes; but hitherto he has not been very successful.

According to invitation, the numerous gathering on reaching Dundaff were hospitably entertained by Mr. Ralston to breakfast. They afterwards set out with renewed alacrity to inspect the young house-fed cattle &c. about the steading. About 14 years ago Mr. Ralston sowed a 5 acre field with a variety of meadow grasses, and laid down the land on the proper form for irrigation, with the liquid manure of the farm diluted with water, of which he has a sufficient supply. It has been done at a small cost, and has paid extremely well. In good years he has taken as much as 60 tons of grass from an acre of land; and during the present season, the field has kept 30 cattle and 16 horses since the 3rd of May. Mr. Ralston is satisfied that this is not the most economical method of using the manure. The irrigation takes place mostly in winter, and the manure is put upon the land in a fresh unfermented state, and when the ground has

been thoroughly saturated before summer sets in, there must be a loss by exhalation. But the experiment has been useful, not only as affording a rich return compared with previous wasteful methods, but also as giving a convincing proof of the value of the liquid manure of the farm as a fertilizing agent in the production of the succulent grasses. It is only at the commencement of a lease that a tenant unaided by his landlord can adventure a more expensive process. On the neighbouring farm of Lagg, which Mr. Ralston took the possession of in Martinmas, 1848, he has built tanks and intends laying cast-iron pipes for conveying manure by gravitation to from 40 to 50 acres. In this instance there is the unusual advantage of a fall of 80 feet from the bottom of the tanks to the fields, and it is believed that such a fall will prove sufficient to throw a good jet from the hose. Mr. Ralston has already all but completed two tanks, each capable of holding 20,000 gallons."

"They are circular in form, built with bricks made on purpose, and laid in Roman cement; each tank costs about £10 independent of cartage. One of the new byres of Lagg is constructed to hold 36 fattening cattle in a single row with a passage behind and another before the cattle. Rails are laid on the passage in front to facilitate the feeding, and it is found that one man can do the whole work connected with the byre.

The Club arrived at Myremill about 2 o'clock, and immediately proceeded to inspect the works of that famous farm which is now an object of interest to so many enterprising Agriculturalists in all parts of the United Kingdom. Additional byres have been built since April, on the best principle for the accommodation of 100 fattening cattle; tanks have been constructed with capacity for 300,000 gallons of liquid manure; cast-iron pipes have been laid for conveying it to 100 acres of land, and a 12 horse power steam-engine has been erected for moving the force-pump, and the thrashing, and winnowing machines,—working the chaff and turnip washer and cutter—the linseed and corn bruiser—cooking the cattle food—and doing, generally, every description of work to which it can be economically applied. It may be regarded as an experiment on a grand scale of the propriety of collecting the liquid manure of the farm, allowing it to ferment, and afterwards distributing it over the fields by steam power, for the purpose of growing succulent plants for house-feeding.

An unfailling supply of water is requisite for carrying out such a plan steadily, and this has been attained by bringing it in pipes a distance of nearly a mile. The mere falling of water in abundance on well-drained land during warm weather, of itself encourages very much the growth of grass. So far as the experiment of Mr. Kennedy at Myremill has yet been carried, he has every reason