

Mr. Elliot has touched on a subject of much importance, and which has engaged a good deal of my attention, in referring to the possibility of profitably employing the grain produced upon the farm in feeding. He has given an illustration from his own practice, of a case in which, after allowing a proper price for the turnips and grass consumed, he obtained 3s. per bushel for his oats, and 4s. for his beans, at a time when the market prices were 2s. 3d. and 3s. 4d. respectively.

ON THE MANAGEMENT OF GRASS LAND.

THE extract from the *North British Agriculturist*, in your August number, describes a management of grass land, which I have practised for more than 40 years, whenever I had pastures which did not feed level—first grazing them down as bare as possible with lean cattle and sheep; but as I have no faith in the general belief, that the depasturage of grass land is sufficient to increase, or even to keep up its fertility, it has been my practice, after giving them two or three strokes with a set of heavy harrows and collecting the fog, to spread over them some kind of light manure that could be cast by hand from a seed trower, or with a shovel from a cart tail, such as salt, soot, hen or pigeon dung, quick lime, or recently guano, proving purposely that which I believed best adapted for the requirements of the land so to be acted upon.

I have been a working farmer for near 50 years, and have, during that time, carefully noted that many pastures which were originally rich and productive, are now become very much deteriorated; and I believe it accords with common sense that it could be so, when the flesh, bone, cheese, and butter which they have produced are taken into consideration, without any other renewal of the materials which yielded them, than what has been obtained from the atmosphere.

Further, acting on this principle, I carefully collect all the cow and horse droppings from my pastures every 14 or 20 days during the summer, cart them to hedge side, waste bank, or marl-pit, and there mix them with such earth as is at hand, leaving them to ferment till winter, when they are generally in a fine state for re-carting upon those grass lands most in want of melioration.—*Francis Cope, Bromley Hurst, Staffordshire, Aug. 22, 1852.*

THE ORIGINAL HAYMAKER.—The hare is only noticed for its extreme timidity and watchfulness, and the rabbit for the burrows which it excavates for its own habitation, and as a nest for its young; but there is an animal related to them, the rat-hare, which is gifted by its Creator with a very singular instinct, on account of which it ought rather to be called the haymaker, since man may or might have learned that part of the business of the agriculturist, which consists in providing a store of winter provender for his cattle from this industrious animal. Professor Pallas was the first who described the quadruped exercising this

remarkable function, and gave an account of it. The Tungusians, who inhabit the country beyond the lake of Baikal, call it Pika, which has been adopted as its trivial name. These animals make their abode between the rocks, and during the summer employ themselves in making hay for a winter store. Inhabiting the most northern districts of the old world, the chain of altaic mountains, extending from Siberia to the confines of Asia and Kamtschatka, they never appear in the plains, or in places exposed to observation; but always select the rudest and most elevated spots, and often the centre of the most gloomy, and at the same time humid forests, where the herbage is fresh and abundant. They generally hollow out their burrows between the stones and in the clefts of the rocks, and sometimes in the holes of trees. Sometimes they live in solitude, and sometimes in small Societies, according to the nature of the mountains they inhabit. About the middle of the month of August these little animals collect, with admirable precaution, their winter's provender—which is formed of select herbs—which they bring near their habitation, and spread out to dry like hay. In September they form heaps or stacks of the fodder they have collected under the rocks, or in other places sheltered from the rain or snow. Where many of them have laboured together, their stacks are sometimes as high as a man, and more than eight feet in diameter. A subterranean gallery leads from the burrow, below the mass of hay, so that neither frost nor snow can intercept their communication with it. Pallas had the patience to examine their provision of hay, piece by piece, and found it to consist chiefly of the choicest grasses, and the sweetest herbs, all cut when most vigorous, and dried so slowly as to form a green and succulent fodder; he found in it scarcely any ears, or blossoms, or hard and woody stems, but some mixture of bitter herbs, probably useful to render the rest more wholesome. These stacks of excellent forage are sought out by the sable hunters, to feed their harrassed horses, and the (Jakutes) natives of that part of Siberia pilfer them, if I may so call it, for the subsistence of their cattle. Instead of imitating the foresight and industry of the pika, they rob it of its means of support, and so devote the animals that set them so good an example to famine and death.—*Kirby's Bridgewater Treatise: Bohu's Scientific Library.*

NEW FLAX DRESSING MACHINE.

The Scientific American of the 17th contains a description and engraving of a newly patented machine for dressing flax, hemp, &c., which it is thought will prove superior to all former of L. S. Chichester, No. 57, Chambers-street, New York:—"The principle of the machine's action is a very simple one, and embraces a most excellent feature. It is well known that if we take a few threads of flax and hold them with the finger and thumb of both hands, at a small distance apart, and give them a rubbing doubling up and down motion, we can break a nd rub off the woody parts of the fibrous of the flax, in a more perfect manner, and with less injury to the textile parts, that is, making less tow than by any other method. This machine is constructed to carry out and operate upon this