

perseed cotton, but it will render it no longer indispensable by providing a substitute equally cheap, equally servicable, and which may be grown almost everywhere. This cannot be realized too soon.

G.

HINTS ON LAYING DOWN LAND TO PERMANENT PASTURE.—It is highly important that the land should be cleared from weeds, and well pulverised by repeated ploughing and harrowing before the seed is sown; and in cases where the soil is particularly loose and sandy, it is desirable that it should be also rolled before sowing; if this is not effected, the seeds (many of which are very minute) will some of them be too deeply imbedded in the soil, while others may not be covered at all. It is also desirable that the seeds should be sown when there is not much wind, and that they should be delivered from the machine or the hand placed rather near to the soil; otherwise, the smallest and most valuable of the seeds may be carried by the wind into the adjoining field or hedge-row. The harrows, which should be very light, must be again drawn over after sowing, and if the soil is very light and dry, the roller also; and if the soil is poor, a dressing of Peruvian guano, or superphosphate may be harrowed in with the seeds, at the rate of two hundred weight per acre. The sorts of seed should, of course, be selected in accordance with the nature of the soil, and the purposes for which the pasture is intended; this and much other useful information may be obtained from Low's "Elements of Agriculture," Stephen's "Book of the Farm," Sinclair's "Florus Grammiensis," and other works; or from seedsmen and agriculturists, who have paid especial attention to this part of botany and agriculture. If corn is sown with the grass seeds, it should not be more than 1 bushel or $\frac{1}{2}$ bushel to the acre of corn, and for this purpose oats are preferable to barley. *On improving old pasture.*—Having as far as possible eradicated the strong growing weeds, and coarse grasses, and improved the condition of the land according to its requirements, if any, heavy harrows should be drawn over the old turf early in the spring, to loosen the soil for the admission of seeds of the finest and most nutritive kinds of perennial natural grasses and clovers, which if sown freely, will occupy the numerous small interstices between the plants of grass already growing, and thereby prevent the luxuriant growth of coarse grasses and noxious weeds. It is a good practice to sow these seeds at the same time as the top dressing is applied; but this is by no means necessary.—(*From Sutton's Catalogue of Natural and Artificial Grasses.*)

"ITALIAN RYEGRASS is not well adapted for growing alone as a crop for soiling, and should always be grown as a mixture. It is seldom or never obtained pure, even from Italy; and when grown for a number of years in this country, the plant degenerates, losing a part of that vigorous growth, which is one of its own characteristics. If intended for soiling, it should be sown without a cereal crop, giving two bushels of seed per acre, with or without a mixture of clovers, adding either two or three pecks of rye, barley, or oats, with one peck of tares per acre, preferring rye. We would consider September too late to sow it in Scotland, except under the most favourable circumstances. We have seen it sown with advantage in August after a plain fallow, but where the land is thoroughly prepared, we would prefer the end of March or beginning of April. Where intended

for irrigation, it should cut before the cereal plants shoot out. The obtaining one or more cuttings the first season, is entirely dependent on situation, condition, irrigation, and period of sowing. Under favourable circumstances, we would consider that two cuttings would not be too much to expect the first season if properly managed. As this grass has been largely and successfully grown by several farmers of the west of Scotland, and also in some districts of England, we would be glad to have their experience as to the best modes of growing for soiling.—*The North British Agriculturist.*"

A GOOD WAY OF PAINTING FARM BUILDINGS.—Having some years ago, to superintend the erection of a great number of farm-buildings, and it being the particular wish of the nobleman on whose estate they were built, that they should be rendered as durable as the material employed would admit, viz., timber in all parts, with the exception of the roof and foundation, I had all the body of the buildings done over with a mixture of gas-tar, two parts; pitch, one; the other part half quick-lime and common rosin, put on quite hot; it requires two coats at least; three is better, the first to be perfectly dry and hard before the second application; while the last coat was still soft I had dashed on it, with a trowel, well washed sharp sand, or more properly minute flint stones, which remained after several washings; this we managed by the assistance of a fine wire sieve and a stream of water with a good fall; this forms a perfect stone face to the timber; and from the appearance of them when I last saw them, they were likely to last many years longer. The sand contain no stone more than 3 lines in diameter, in fact, if all the earth is washed out the smaller the better. The window frames and doors were done over with the commonest paint I could get in London, a stone-colour, three coats, besides the priming; the paint mixed thick, and dashed over in the same manner as the rest of the building with a still finer sand; this also appeared to stand well; the sand must be made perfectly dry before it is used. The expense I cannot exactly state, as I cannot my hand on the book just now, but I know it was not much, and has given satisfaction. It is right to state that the wood-work must be perfectly dry and well seasoned before this mixture should be applied; it is better to wait a year to effect this end than put it on a green wood.—*Farmer's Herald.*"

MANAGEMENT OF MANURE.—I make it a practice, during the spring and summer months, to get the parings of ditches, and any other spare earth or mould to be had on the farm carted into a heap, as near as possible to the cow-sheds, and make up so as to turn off the rain; and when the cows are bedding down I have a quantity of the same strewn immediately behind the cows, which effectually soaks up every drop of urine that comes from them. In the cleaning out of the sheds this becomes mixed up with the solid manure, and occasionally there is a layer of about 6 inches of the dry earth spread over all; and I have found by this means my manure heaps to accumulate amazingly, and to be greatly improved in texture; and there is seldom any of that coloured matter, which is well known to be the farmer's best friend, to be seen oozing from the sides of a heap made up after the above manner, although I have had them 8 feet high; but then we have gutters to our sheds, and they are not allowed to run into our dung-pits.—*Gardiner's Chronicle.*"