ness, the vines grow strong, fast and vigorous, standing up firm as a tree. One lb., 25c.; 5 lbs., \$1.00, post paid, peek, carriage extra, 75c.; bushel, \$2.50; bbl., \$5.50.

The opinion of the Mentmore gardener may be trusted.

The following letter, from Mr. Gilbert Murray, of Elverston, Derbyshire, Eng., one of the best practical authorities on dairy-husbandry, I print, although every sentiment in it I have laid before the readers of this periodical over and over again. As to mowing pastures "being injurious to them," so strong is this idea held in England that our own tenants in Glo'stershire are subject to a fine of \$50 an aore if they commit such a break of covenant.

Pastures -I am much indebted to and interested in the instructive article in the "Agricultural Gazette Almanac," by Sir J. B. Lawes, on the subject of pastures. There is an ancient though suggestive adage, to the effect, "Better breast plough a good feeding pasture than mow it." The craze of The craze of a few years ago for indiscriminately laying down to pasture has considerably abated. Few dispute the utility of resting the land by allowing it to remain two or three years in grass. We have frequently read glowing accounts of inferior tillage land being successfully converted into fine feeding pastures, but in all my wanderings I have failed to meet with such coses. By the judicious application of well-selected manures, a large quantity of grass may be produced. By no management with which I am acquainted can such be converted into bullock pastures. (1) Traverse the length and breadth of England and you will find the best feeding pastures on the Lias and Oxford clays Closely grazed and well-managed, they have gone on for generations without any artificial dressings. Note how careful the best managers are in having the droppings spread or collected daily to provent the growth of rank unpalatable bunches which the cattle refuse. To the close observer this affords a useful lesson as to the inutility of dressing futtening pastures with farmyard manure. The effect of farmyard manure on such pasture is to induce the growth of a rank fleshy habit in the grasses of a more watery and less nutritive character. Some experience of the use of Thomas' powder or finely ground basic slag show that they may be profitably employed on the best feeding pastures by strengthening the root development, and encouraging the growth of clovers and the finer varieties of permanent grasses. The finest feeding pastures on the best soil can soon be injured by bad management All pastures should be kept closely grazed down, at any rate until after mid-summer; any surplus growth after that date can easily be cleared off. If the grasses are allowed to form seed-culms during the early part of the season, the pasture is permanently injured for years. The skilful manager watches his pastures, and constantly shifts his cattle, in order to keep them evenly grazed down, and in a growing time frequently purchases more stock than the land will fatten during the summer, and calculates the loss to be less than if he allowed the pasture grasses to run to seed. There is no department of farm management on which the word dilapidation can be more justly applied than in the case of bad grazing on feeding pastures. The effect of the character of the soil on the fattening is clearly exemplified by the productive though weak feeding pastures on the alluvial deposits of the river valleys and apparently soanty pastures on the Lias and Oxford clays. The former though well adapted for the production of milk, will fail in producing the quantity of meat many would expect.

If the Government were to supply to each school models or diagrams of the principal breeds of cattle, horses, and sheep, models and diagrams of agricultural machinery, geological

(1) i. e. pastures that will fatten a bullock.

cabinets containing the principal minerals and soils, chemical cabinets containing specimens of the chief chemical constituents of manures, entomological cabinets, with specimens of injurious insects, and, last, but not least, botanical cabinets containing dried plants and seeds of the principal agricultural grasses, cereals, forage, and root crops, with the most common weeds found in those crops, together with coloured diagrams showing the appearance of those plants in growth, then we may hope for a generation of agricultural labourers more fit than the present race to meet the altered conditions under which British agriculture will in future be carried on.

Such instruction might not be theoretically perfect, or meet the approval of doctrinaires or educational purists, but would, I believe, suffice, if obtainable throughout the country distriots, and if at least one such school were within the reach of every town, so that urban children intended for rural life might attend and qualify at it.

The name of Sir Thomas Dyke Acland is a very familiar one in the West of England. From an early age he devoted much time and study to the management of his late fathers estate, and some forty-five years ago, he won the R. A. Society's prize for the best essay on the farming of Somersetshire. In those days, that county was one of the most backward in England, and one sentence in the essay I have never forgotten it is one that many a farmer in this province would do welt to lay to heart : "And I am atraid I often annoy my neighbours in the autumn by asking them : ' How much will this bullock *lose* before May?'"

Please observe that Sir Thomas proposes that the experiment stations should be managed by a committee of practical farmers with competent scientific guidance. I am also glad to see my own views confirmed by such an authority : "The art of farming can only be taught, as in other industries, by appronticeship to one who is engaged in it as a business."

The letter mentioned in the first paragraph, or rather an extract from it, will be found at p. —.

Kidmore Grange (Roschall), Caversham Oxon December 30th.

I venture to ask for space for one or two remarks suggested by the letter upon agricultural education in your issue of Wednesday last, 24th Dec., by Sir Richard Paget, M. P.

If I differ from him on one or two points I would not be understood to disparage in any way the assiduous efforts that he has made to promote the education of those who are engaged in agriculture.

It may be admitted that we shand in need of well-trained men of science who are thoroughly conversant with the detail of agricultural practice.

Such men, if, and when, we can get them, will be of great use, and will have a large field to work in.

But their function will not be to teach farming, but to teach thoroughly the sciences bearing upon agriculture. And no men but those who are most thoroughly trained in science, and still more in the art of teaching will be able to achieve success in imparting a real comprehension of scientific principles to practical farmers.

There is no doubt that experimental stations conducted for scientific investigation of practical points in agriculture may be of great use if they are carried on by committees of practical farmers with competent scientific guidance.

There is reason to believe that some of the science-masters of secondary schools and grammar schools in country towns may be found willing to give their services in the surrounding villages.

As the demand grows (and assuredly it will rapidly), the universities may probably be counted upon to supply men to

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