150 lbs. of sulph. am.....	$5.60
200 lbs. of old char.....	1.60
	$7.20

The old char having its phosphoric acid in an insoluble state, I shou d sow on the autumn furrow, and the sulphate of ammonia might be harrowed in with the wheat in spring. Where land is in good heart, 100 lbs. of the sulphate will produce a great increase of crop without any other manure.

Lachine farms.—The 27th April saw the first sowing of the year in this place: barley after potatoes, on the autumn furrow. Seed me nt to be 3 bushels to the imperial acre, but fortunately the seeder (combined broadcast and drill) would not sow so much: the seed being small four-rowed barley, 2½ bushels on ground in such good condition would have been ample, and that was about the quantity deposited. The machine was out of order, consequently the seed fell behind the grubber-teeth and no amount of harrowing would cover the whole in. This was altered the next day, and a great difference was visible in the number of grains left above ground. Why on well farmed land people who have a drill won't use it I cannot understand. It must surely be an advantage that the seed is all buried and at the same depth! A much better chance for it all—especially barley for the maltster—to ripen at the same time. Hops just starting under the mulch. On the 28th, Messrs. Dawes' sale came off: a most disappointing affair. With the exception of a car-load of Herefords and Angus-polls sent to Prince Edward's Island, as nice a lot of young thoroughbred cattle of the above breeds as one would wish to see went for butchers' prices. Dr. McEachran told me, by the by, that the Angus are of no use on the ranches. They are too fond of home, hang a out the buildings, and will not forage for themselves. The Cochrane ranch has been very fortunate this spring: no losses to speak of, and the calves have done well.

May 8th, the land having been manured and ploughed last autumn, the drilling up for potatoes was begun on Cross's farm. Too much haste, I fear, as the land after grubbing and harrowing cut up what we call in my part of England "livery"—same root as *sliver*, I suppose—and will be hard and harsh—steely—when it dries. The next day, potatoes were planted with the machine, which deposited them fairly, but required great attention. On the 11th, long red mangels were sown, but as the land, ploughed three times in the fall and dunged plentifully, was only stirred and harrowed before being drilled up, it was by no means in a fit condition for sowing. Men were poling hops; and the barley and oats all sown. Milch-cows out at grass—good for them, but bad for the future productiveness of the pasture.

May 14th, my mixture for green-meat sown: 1½ bushel of pease, 1½ bushel of tares, 1 bushel of oats and two pounds of rape per acre. Rather a misfortune! Mr. Tuck, the manager, tells me the pease were bad—in fact they never came up at all! (1) On this day, 150 lbs. of sulphate of ammonia was sown on an acre of the red-mangels—as the mangel-seed never came up, except here and there, and what did germinate was unable to get away owing to drought, this dressing had no effect, the drills being split and resown June 3rd. This was, of course, much too late, and swedes ought to have taken their place. May 16th, appeared the first cockchafer of the season.

May 18th, land being drilled up for swedes on Cross's farm. Soil too clung, but sown the next day, with 3 lbs. of seed to the *arpent*. The drill for turnips and mangels is all right in the North of England and Scotland, where the land is heavy, the sun comparatively weak, and the climate moist; but to sow these crops, in a hot, dry climate like this, on drills, *unless they are well flattened down before sowing*, is, in my opinion, a fatal error. Dung is not scarce on these farms; the land is very porous; the exposure to the mid day sun extreme, and to sum up what I have to say in one sentence: if in the South-East of England our root-crops do better on the flat than on the raised drill, so, I think it is a fair conclusion, they would here, where the climate is much drier and hotter. I have no objection to drills for the economising of manure, but I infinitely prefer flat-work, unless, as I said before, the drills are flattened down level, or nearly level, with the roller. Three-fourths of these swedes never came up. Those that lay under the shadow of a hedge-grown fence, and in some of the moister parts of the field, showed themselves a little, and yesterday, 20 days from the date of sowing, here and there one was showing its head in the other parts. But to plough in the manure in the autumn, and to drill up grubbed land in the spring without a cross-furrow, when the land is in too moist a condition to work kindly, is not the way to get good root-crops. A piece of permanent pasture looks well, barring the clover, which is all gone—frost-bitten—Hops look blue, and are very backward.

A Canadian sowing a large piece of sweet-corn, a yard apart each way, three kernels in a hill! Showed him his error, and he corrected it at once. Some of these people encourage one very much, particularly those who have had a little education.

What is the great fault of the Lachine farmers? They are in too great a hurry! May 31st, early potatoes, on Cross' farm, harrowed, with saddle back harrows. I prefer the chain-harrows. They make neater work, pulverise more, and cover more land at once. Grain looks well, but no wonder, for the land is chokefull of dung: there are about ten thousand loads of it in mixens now; some of it 18 months old, which is not economical.

ARTHUR R. JENNER FUST.

(1) Neither did the rape! A. R. J. F.

CORN MANURES.—Sir John Lawes, in the new number of the Royal Agricultural Society's Journal, reviews the results of ten years' experiments in the continuous growth of wheat and barley in one of the Society's trial fields at Woburn. He remarks first upon the wonderful influence of climate upon crops treated in every respect in the same way year after year. For example, from the two unmanured plots the yield of wheat was three times as much in one year as in another, and again, on the plot manured with nitrate of soda alone, the yield one year was 10½ bushels, and in another 41 bushels per acre. As to the manures applied to the wheat crop, speaking generally, Sir John Lawes says mineral manures alone added nothing to the yield, while nitrogenous alone increased it on the average by seven bushels per acre. When minerals were added to the same amount of nitrogen as that which gave the increase just mentioned, there was a further increase of seven bushels; and when twice the quantity of nitrogen was applied with the minerals a third increase of nearly seven bushels took place. The average increase when 200 lbs. of sulphate of ammonia had been applied was at the rate of 7½ bushels per cwt. of the manure, and it was at the rate of six bushels per cwt. when nitrate of soda, 275 lb. per acre, was put on. If such results could be insured in ordinary farm practice, the profit would be considerable; but they are not obtained as a rule, because land is very rarely kept so free from weeds as it is—of course, at great expense—in the Woburn field. In the case of barley the variations of yield due to climate are not as striking as in that of wheat, because the latter crop is not subject to the vicissitudes of winter; yet the difference between the highest and the lowest yield on one of