and the liquid suitable for dissolving the active or medicinal ingredients of this particular drug is poured on top. If this percolator is made of glass you will see the liquid, slowly it may be, finding its way to the bottom where the outlet is, and then if you wait you will see it begin to drop, drop into a vessel below. The first drop that finds its way out will be rich looking, and so it is, more so probably than you will find in each succeeding drop until after a time the soluble part of that particular drug is all taken out, and the drops then will be nearly as clear as the liquid poured on. Now, the powder in the percolator has not decreased in quantity, any more than the manure pile that has had its successive rainfalls, but the strength of it has gone. What would be thought of the chemist who would allow that liquid from that percolator to go to waste and to use the powder that remains? It would be about as sensible as the way many farmers handle their manure. There would be this difference we admit. There would be some strength left in the manure which will have to rot or decay before available for plant life, whereas the soluble part, that could have been used for the first season's crop, has been wasted or soaked away. As I understand it, plant life can only take up that which is soluble. If so, how careful we should be that none of this is lost? I have seen loads of manure go to the field, great in size but little in value, just because the very "juice" of the meat had been allowed to wash or percolate away. Think of the folly of it! It takes the same time and strength to handle a load of what is left after percolating in the barnyard, as it would if all the juices were there, and now only worth, shall we say, one-fourth, or shall it be one-half as much? Anyway if we just realized how much it is and how foolish to waste time and money drawing to the fields loads of manure of which so much of its value is gone.

You make a good point, too, in your editorials when you refer to the wisdom of doing as much as we can in winter, and thereby save time when work will be plenty and help so scarce. I am not an advocate of slaving oneself year in and year out, but when the spring days come I do not appreciate doing work that I might and should have done in the winter. It is wisdom to leave as little work as we can undone, so that it will not come on us with a rush. Handling manure on a farm is a "man's job" and no small one at that, much better if we can do it sometime before the rush of work begins, so that we can be gathering strength for the early and late work that is sure to come, which, especially, we are told will be the case this year.

There is another point you touched upon that it might be well to emphasize. It is when applied in winter, to quote your own words, "the manure goes a great deal farther, and we believe this is a good thing, because the average man applies his farmyard manure to the soil in altogether too heavy coats. Smaller quantities at more frequent intervals would surely be a better practice than applying more manure at a time than the next two or three crops will require, thus making conditions more favorable for leaching and loss." It seems to me this is sound commonsense, and I have held this view for some time. Rather than apply a heavy coat every four years it would be more sensible to put on half as much every two years. I am of the opinion that if more manure were applied on the meadows it would be much better than plowing it under. I have practiced this plan for years. My neighbor adjoining did this the winter previous to the dry season, and the difference between his yield of hay and of others around us was very marked. The hay crop certainly is benefited, and when ploughed again the land is in the best condition to benefit the crops to follow.

Huron Co., Ont. G. A. DEADMAN.

## From Swale to Garden.

When Luther Burbank began his plant improvement work at Santa Rosa he had a four-acre plot of heavy adobe soil, wet, soggy and unproductive. His first move was to run a four-inch tile drain through the centre of the swamp hole, with two-inch laterals, 40 feet apart. People were skeptical about such a system carrying off all the water that accumulated in the basin, but it worked, and being well laid, the drain has never needed a change for over thirty years. Others thought that it would leave the plot as dry as a desert so that nothing would grow, but pending actual results, Burbank's answer to these critics was that drainage pipes would not take water from the soil except when there was an excess of it, and the dry soil like a sponge would, through capillarity, absorb and hold moisture needed to start vegetation. The next step, his narrator tells us, in the transformation of the lot was the application of 1,800 loads of manure which, thoroughly incorporated into the stiff earth, supplied it with fertility and changed its texture and moisture-retaining power. With such a start and the subsequent treatment given, little wonder that the Santa Rosa lot and his 18 acres at Sebastopol, not far away, became famous in the plant history of the world.

## Beats Them All.

I have been taking your paper, along with ten or twelve others, for fifteen years or more, and I must say "The Farmer's Advocate" has them all beat forty ways at the present price.

Lincoln Co., Ont. J. A. DYER.

## Favors Hill-Planted Corn.

EDITOR "THE FARMER'S ADVOCATE":

I live in Peel County, Ontario, among the Toronto milk shippers, where a silo is found on almost every farm, and having 20 year's experience in corn growing for silage purposes, I venture to give my opinion upon this, "thick versus thin," sowing of corn. I think you do well, in closing your last article, to qualify by saying that this is only one year's test, and that it has been a peculiar season, as other conditions will surely reveal something entirely different. Your experience is different to that of the oldest corn grower here. Thickly-grown corn shows up well at first, but later on, in a dry or ordinary season, stubs off short and usually gets about two-thirds of the way up, and if it should get to full height, is composed of fine stalks and abundance of leaves, which, in a dry season, results in a poor lot of feed. Smaller stalks, if left lying on ground for some days, as we are often forced to do in waiting for a blower become too dry, and dried leaves are better out of the silo than in it. Stalky corn, which is obtained by thinner seeding and good cultivation, can remain cut for days, and will still retain enough sap and weight to make splendid silage. This wet year everything grew tall and every stalk, big or little, thick or thin, leaf and all, kept green from excess of moisture, so in this particular, was an exception. As to yield from hills and drills, we find little difference in this locality. We usually plant in hills, using hand planters, 3 to 5 stalks to hill, 36 inches apart each way, for such varieties as are grown here, viz.: White Cap, Improved Leaming, and Wisconsin. It is waste of land to hill-plant such varieties 42 inches apart. Most farmers here sow in rows, 42 inches apart with the drill, thick enough and thin enough in rows to get the most big stalks, as big stalks, and these finely cut, are what we all want here.

There is advantage, in cleaning, in favor of hill planting, as the horse-hoe can be used both ways, which leaves less hand hoeing to do. This also gives thorough cultivation, and is important when help is scarce and when a large acreage is grown, as a hand hoe is a slow implement in a 10-acre field of corn. Hand planting is not so slow as some imagine. You can buy a planter for a dollar or two, and so you can have plenty of them, and as it does not require much skill or strength to work them most any boy can take a hand. We mark five rows at once. This is a quick process, and if the planting does take more time than the drill, this time is more than picked up again in the cleaning. Then, there is a gain in harvesting, as the binder can be used all around the field by having a boy to cut a few hills off at the corners. If your field is nearly square, the gain in this will be apparent.

Do not forget that one swallow does not make a summer. In closing I repeat the warning of the dry year, and my fear that you may have from thick sowing a lot of small stalks and abundance of leaves which, in the experience of our farmers here, result most years in a poor quality of silage, often coming out of the silo in a moulded condition on account of being dry and light when put in. Then again, there is the danger of frost. Stalky corn may be frosted some, and yet make good silage, but when fine stalks and leafy stuff gets frost it is like so much paper. This in itself, when the difference is once seen, will convince any man that he wants stalk in his corn crop, and as little leaf as possible. As to the value of cobs in the silo I have nothing to say, so will leave the chemist and the cow to figure out.

Peel Co., Ont. ROBT. MCCULLOCH.

[Note.—We are quite aware that one swallow does not make a summer. We have not advised the thick-planting of corn, but have simply given the results of last year's test on our own farm, "Weldwood," where the thick-sown gave such good results that we are going to plant five acres thick this year. If it is a failure we shall tell our readers so. From working with corn for many years we have concluded that heavier yields come from thick planting. We are trying to prove or disprove our contention by actual experiment. Our last year's work demonstrated that, provided maturity is obtained, it is not necessary to get cobs. Our corn without cobs gave an analysis almost as good as if not better than well-cobbed corn. That the feeding value is there has been proven. Experiments over several years will show whether or not increase in pounds per acre is possible. The yield was practically double that of our hill-planted corn last year. If it falls down in a dry year we shall get the figures to show how far down it goes. We are doing this not only for our own good but for the benefit of our readers. Many have guessed that cobs meant better silage and that hill-planted corn gave larger yields in pounds per acre, and we know that some guessed wrongly. We do not propose to plant so thick that the corn cannot produce a stalk of any size, and that the leaves, for want of light and moisture, dry up or drop off. We prefer a fairly fine stock and plenty of leaf, provided we can get it ensiled properly. When corn becomes a little dry we add water at time of ensiling. Every grower recognizes that there is a better opportunity to cultivate where hill-planted, but we might say that with the little cultivation our corn got last year owing to excessive moisture, the thick-sown was as clean as the hill-planted. It seemed to keep down weeds. There may be a little more frost danger but we doubt it. This explanation is made, not to attempt to induce farmers to sow corn thickly, but to let readers know how it turned out with us, and that we are taking nothing for granted because it gave favorable results one year, but are planning to carry the experiment on upon a larger scale this year and in years to come. One thing we started out to ascertain we have proved satisfactorily, viz.: It is possible to grow corn so thick it scarcely cobs at all, let it mature, and make silage of as high feeding value as from the same variety in hills on the same land with the same number of days to mature. This has surely been worth while.—Editor.]

## Studies in Political Economy—II.

EDITOR "THE FARMER'S ADVOCATE":

In my last letter I tried to define the terms *rich* and *poor* in such a way as would harmonize man's reason and his conscience, and afford us a basis for accurate classification. We arrived at the conclusion that the real line of division between rich and poor was that determined by the equilibrium between service commanded and service rendered. He is rich who can command more service than he need render; he is poor who can command less.

The question now arises: Is there any possible way of determining this line of division in the actual affairs of our exceedingly complicated social and industrial life? Is there any way of even approximating to it? Shall we give up as hopeless the task of specifying who are rich and who are poor—in the sense of the terms already defined? If the problem is one of such intricacy as to entirely baffle man's powers of thought, the outlook is, I believe, very dark. Personally, I do not admit the insoluble nature of the problem in actual practice. I believe that we can at least approximate to a solution.

But we cannot find a solution by first entering the jungle and then trying to find our way out. The jungle is deep and dark, and well nigh infinite in extent. We shall get lost in its intricate mazes if we enter there. We must betake ourselves to the mountain top. We must survey the situation from afar, so as to get a true perspective. Then, having determined the lay of the land in the eternal light we may subsequently explore the jungle with some safety.

The problem is essentially that of discovering the just distribution of wealth. By *distribution* is not meant transportation or exchange. These latter activities are essentially a part of *production*. To carry the wheat from the field to the barn and subsequently to the market or mill, is just as essentially a part of the production of wheat as is the sowing and the reaping. In fact, all those activities which are directed towards bringing commodities where they are most needed, all the complex processes of transportation and exchange, are parts of *production*. Let this be clearly seen. *Distribution* is used in the sense of *sharing*. What is produced socially must be redivided. The problem of distribution did not concern Robinson Crusoe, for all the wealth produced by his own unaided efforts justly belonged to him. But just as soon as he had a partner the problem of distribution faced him: how whereby to divide what they produced by their joint efforts? With a simple industrial organization the problem is comparatively an easy one; but when our industrial life becomes complicated the problem increases in difficulty, and yet we must solve it; we must try to find out some way of ensuring to all a just return for their labors, some method of securing a just equivalent for service rendered, of getting as much as we earn, but no more.

As has been already pointed out, we cannot first study the problem of distribution from within our complicated industrial life. We must first view it from afar. We must first study it in its simplest form, and then gradually trace it through conditions growing ever more complicated. For this reason I propose to start first with a modern Robinson Crusoe, a squatter on the frontier of civilization, say in our own Northwest, and from that point to trace the origin, growth and nature of the problem of distribution. But I must reserve this for another letter.

Brant Co., Ont. W. C. GOOD.

## His Fifty-First Subscription.

Few publications in Canada can number amongst their readers subscribers who have read them for fifty years. The other day we received the following short note, along with a renewal, from D. W. Ketcheson of Belleville, Ont: "This is our fifty-first renewal for your valuable paper." "The Farmer's Advocate" has been running fifty years, so that our subscriber was scarcely correct in stating that it was the fifty-first renewal. It would doubtless be the fiftieth renewal and the fifty first time he had subscribed. In the same mail we received a letter from a subscriber, B. F. Knight, of Beebe Plain, Quebec, who stated that he had been taking "The Farmer's Advocate" for over forty years, and wanted to know whether or not we could give him the exact date of his first subscription. There must be something of outstanding value in a publication which holds its subscribers for a half century, and we are justly proud because of the number of just such letters received at this office during the past few weeks.

J. H. Patrick, of Middlesex Co., Ont., writes that he got 127 letters of enquiry from a small advertisement for Shorthorn bulls inserted twice in the columns of "The Farmer's Advocate."