POOR DOCUMENT

MC 2033



# THE FARM

## GROWING POTATOES

There is ample room for improvement in the growing of the potato, which is a native of this continent, and, next to cereals, is probably the most important of our plant foods. It grows best in a moist, cool climate. The average yield per acre is under 100 bushels, but yields of 250 to 300 bushels per acre are not uncommon. Two hundred bushels per acre may be considered a good yield. The average price ranges between thirty-five and forty-five cents a bushel. The heaviest yields, and the potatoes of best qualities, are grown on rich, well-drained sandy loams, but successful crops have been produced on all kinds of soils. On heavy clays the tubers tend to sogginess. All stiff soils should be lightened by thorough drainage and by the ploughing under of green crops and barnyard manures. Newly-cleared forest land is especially desirable for this crop. It is of prime importance that the soil be not only fertile, but in a good mechanical condition, loose, friable, deep and mellow. The crop does well on a heavy clover sod. Owing to the tendency to plant diseases, the crop cannot be grown successfully on the same ground year after year, but must rotate with other crops. In some districts where potato-growing is practised extensively a three years' rotation is followed; fall wheat, seeded to clover in the spring, clover the second season, ploughed under in the fall, and potatoes the third year. After a fertile soil, thorough preparation for planting is one of the most important factors in successful potato growing. It must be remembered that the potato roots feed deep into the soil, although the tubers are generally formed quite near the surface. Well-rooted barnyard manure is one of the best fertilizers for this crop, but there is always danger in applying it direct, as the tubers are likely to be scabby. It is usually applied to the preceding crop in such an abundance that there will be plenty for the potatoes. This crop does well after heavily manured corn, clover or grass, preferably the last two. The point is, the soil must be rich in humus. Green crops are frequently ploughed under. Many successful growers not only plough under clover on a soil which has been heavily manured the previous year, but apply a complete fertilizer containing nitrogen, phosphoric acid and potash as well. In the vicinity of New York city the fertilizer formula, applied at the rate of 1,000 pounds per acre, is made up as follows: Nitrate of soda, 127 pounds; high grade dried blood, 440 pounds; acid phosphate, 1,000 pounds; sulphate or muriate of potash, 400 pounds; land plaster, 33 pounds. This quantity is sufficient for two acres. Fertilizers should be applied when the ground is being prepared and thoroughly mixed into the soil. If nitrate of soda is used it should be withheld and applied among the rows after the potatoes are up. None of the fertilizers except the land plaster should be brought into contact with the seed pieces. The rows should be made three feet wide, and the furrows four inches deep, with the seed pieces placed sixteen to eighteen inches distant in the furrow. Only the very best seeds should be used, which should be cut immediately before planting and coated with land plaster. After the crop is planted and before the young plants have broken through the soil run over the field with a light harrow or weeder. This will break the crust and kill the weeds which are just starting. Harrow the field again in ten days, and still again when the plants are three or four inches high. If the harrow teeth are slanted backward no harm will be done to the young plants, but the greatest benefit will result in preserving moisture and checking weed growth. Cultivation should be frequent and shallow, and the ground should be kept level. Where the seed is put in four inches deep hilling is inadvisable, but a little soil should be thrown toward the plants about the time they begin to blossom. The vines should be sprayed with Bordeaux mixture and Paris green for blight and bettles. Through spraying frequently increases the yield by 100 bushels per acre.

## PRESERVATIVES IN BUTTER

(By Prof. H. H. Dean, O. A. C., Guelph).

The chemical analysis of different preservatives was undertaken by Prof. Harcourt, and the full information has been published in bulletin form.

There is a demand for improved keeping quality in our butter. One of the common complaints that is made about Canadian butter is that it does not keep well. We have been enabled to improve this to some extent by adopting pasteurization, and the use of a pure culture; but that is not sufficient where the butter is held three or four months in cold storage, and in many cases it would not be sufficient if we exported directly to the markets of Great Britain, and there is an increasing demand in that country for saltless butter. The most common preservative which has been used in the past is common salt or sodium chloride, which we can take in comparatively large quantities without having any serious effects. In the month of July, and in the month of September of the past summer we made four tests, and the method of making these tests was briefly as follows: We would take a churning of 300 or 500 pounds of butter, and from that we would take from six to eight different lots, sufficient in each lot to make twenty-eight pound boxes of butter. Into one of these boxes we would put salt at the rate of three-quarters of an ounce, into another lot of butter we would put one-quarter per cent of some commercial preservative, and we had five different kinds of commercial preservatives. Then we used borax from one-quarter to one-half per cent. In one experiment we used a mixture of salt and preservaline, using a quarter per cent of each. In addition to the more common preservatives that I have mentioned we used two that are rather uncommon, namely, sodium fluorides and salicylic acid, and we came to the conclusion that neither of these were suitable to put into butter. Sodium fluorides is indigestible, and even if taken in small quantities it will give you a severe pain the stomach. Salicylic acid gives an objectionable flavor to the butter. Mr. Woodard, of Montreal, said that the butter in which salicylic acid was used had no commercial value.

If I had space I would like to go over some of the comments that were made upon these samples by the experts in Montreal. However, these comments will be put in the bulletin, and by reading it you will get all the information. Some of the samples were said to have a preservative flavor. We find that a quarter per cent of any of these preservatives is sufficient to hold the flavor of the butter for any reasonable length of time, and if you use more than that it gives the butter a preservative flavor. Another thing that we ascertained was that the samples, almost without exception, moulded very badly. That was one point that was brought out very strongly, and very plainly, and it could not have been an accident because there were eight or nine boxes made from the same churning, and put into the same kind of boxes and the same kind of parchment paper used and the butter that was treated with preservatives, without exception, moulded very rapidly, and where salt was used the boxes had no mould on them.

In the month of December, 1902, we made a rather severe test of these preservatives. We made some nine prints of butter, using salt in one and preservatives in the other lots. We put these prints in a room where the temperature was from 60 to 70 degrees, on December 6, and we examined these samples on January 13, and the sample with salt was very badly off in flavor, being very rancid. Most of the samples in which the preservative had not been used were also quite objectionable in flavor, but the samples with the preservatives will hold the flavor of the butter under extremely adverse conditions, such as was carried out in that test.

One word as to the effect on the human system. During the past term at the college we have had one table of the students who volunteered to use butter containing preservatives. They used it for six or seven weeks. It was wholly voluntary. So far as we could see it had no effect upon them, and they say they are willing to continue the experiment during the present term.

About the first of October we went through all these samples of butter before sending them to Montreal. I went over them myself and three of the senior students of the college. We had to taste some fifty or sixty samples, and in tasting so many samples in an afternoon we were bound to swallow a considerable amount of butter. I tried to swallow no more than I could help, but that night I had the most violent headache I have ever had in my life, and I am not subject to headaches. I had to stay up most of the night, and I asked the boys if they had any peculiar sensation after tasting this butter. On two of them it had no effect, but one of them had experienced just the same sensation as myself, a violent headache. I had that same experience on two other occasions when scoring this butter, and so far as I am concerned I believe preservatives have an injurious effect upon my health, and I would not like to use them for any length of time, but there are persons who could use it without experiencing any evil effects.

A lady and gentleman from Newfoundland some time ago inspected our dairy department. The gentleman is interested in the manufacture of oleomargarine in Newfoundland, and he was thinking of starting a creamery down there, and we were discussing the question of preservatives, and his wife said that she never ate any butter in Newfoundland. I asked her why. She said: "When I eat butter I have a headache and indigestion," and she thought the reason was that because almost invariably butter sold in Newfoundland has preservatives; and I think that is an evidence that preservative is injurious to the health. What are we going to do about it?

Our experiment would lead us to come to the conclusion:

First, that the boron compounds certainly tend to preserve the quality of the butter.

Second, sodium fluoride, formalin and salicylic acid should not be used as food preservatives, and especially they should not be used in butter.

Third, it is not necessary to use preservatives in butter for the Canadian trade.

Fourth, if the British export trade will allow one-half per cent. of preservatives, and that seems to be a minimum amount that is considered safe, I think our butter makers are justified in using from one-fourth to one-half per cent.; but we are not prepared to recommend the use of preservatives in butter for the Canadian trade.

I think it is quite possible that we can get borax at a price which will give us just as good results as the different commercial preservatives, and as far as our experiments go they indicate that borax is just as good as any of the commercial preservatives.

Boracic acid gives us the poorest result. Common borax gave us nearly as good results as any of the commercial preservatives.

The effect on the health has not as yet been fully determined, but the indications are that if used in excessive quantities it would have quite an injurious effect upon the health.

Preservatives seem to bring about a condition which is very favorable for the growth of mould. If the question of preservatives is going to be a live one in our butter industry, then I think the time has come when this question of preservatives should be taken under government control, and the whole thing should be under government supervision, and only those preservatives which if used in small quantities are not injurious should be allowed, and the quantity should be regulated in some way.

## CHARCOAL FOR HOGS

A farmer asks why his hogs seem so hungry for coal, ashes, etc. He says that they will leave their other feed and eat the soft coal when he throws it in to them.

No satisfactory explanation of this peculiar craving has yet been made. Swine greedily devour almost anything that will supply mineral matter—ashes, coal, rotten wood, mortar, soft rock, etc. Prof. Henry says that hogs in a state of nature, rooting for food, get what they need, but when confined in small lots, in pens, on floors, conditions are unnatural, and mineral elements must be supplied. It is thought, also, that ashes, charcoal, etc., act as a vermifuge and preventive of disease. Intestinal worms may produce the craving for something that will destroy them. Soft coal is not the best. Ashes and charcoal, with salt, seem to produce the best results. Bone meal is also excellent. Ashes are particularly valuable when feeding corn. A mixture of charcoal and ashes, with a quart of salt to the bushel, is good. Keep it where the hogs have free access. They will not eat too much. This is said to prevent sows from eating their pigs. If bone meal is added it will still be better. Prof. Henry, in his work on feeds and feeding, gives a method of burning corncobs into charcoal. Dig a pit five feet deep, one foot in diameter at bottom and five feet at top. Have cobs dry. Start a fire in bottom of pit and add cobs until pit is full and all aflame. Then cover the pit with a sheet iron lid, larger in diameter than the top of pit, and seal up with earth all around the edge of lid. In twelve hours the charcoal can be taken out. Then compound it as follows: Six bushels cob charcoal, three bushels common charcoal, eight bushels salt, two quarts slacked lime, and one bushel wood ashes. Dissolve one and a quarter pounds copperas in hot water, and sprinkle it over the mass, and mix again. Put mixture in a box where hogs can eat at pleasure.

## WET FEED FOR HOGS

Among feeders of swine the question of wet versus dry feed is frequently debated. The data reported by the experiment stations on this subject are somewhat conflicting, but in general it is shown that soaking has about the same effect on grains as grinding, and is desirable for swine feeding puroses. At the Illinois station pigs ate more and gained more when fed on soaked corn than on dry corn. The Central Experimental Farm at Ottawa has recommended the soaking of all grains, whether ground or whole, for twenty-four to thirty hours before feeding. The tests in Wisconsin and Vermont gave practically the same results as those in Illinois, while in West Virginia 385 pounds of soaked corn equaled 410 pounds of dry cornmeal. The experiments at the Ontario Experimental Farm, Guelph, revealed no marked difference in the feeding value between dry and wet mixed meal, but more of the meal was wasted when fed dry than when fed wet. With bran, cornmeal and wheat, more rapid gains were made at the Utah station when these feeds were fed dry, but the gains were cheaper when they were fed wet. At North Carolina station sloppy feed gave the poorest results; moistened feed better results, while dry grain was better than either. In Indiana the best results were obtained by feeding dry grains, allowing twice their weight of water to drink. In some German experiments rye and barley meal were found more effective dry than wet. After taking this broad survey the weight of evidence seems to be that under ordinary circumstances it is desirable and advantageous to soak grains for hogs, but not to cook them. The advantage of soaking, on the whole, appears to be about seven or eight per cent.

## MANURING THE SOIL IN THE WEST

Without going into detail as to the various considerations that may affect the result of manuring, the chief points to be observed are:

1. To manure the soil. Use all of the manure produced, prevent losses by washing away, quit burning straw, haul manure onto the fields, somewhere, some time, somehow.

2. Manure the highest and poorest spots, give a good application at one time—from fifteen to twenty-two horse loads—and manure another place next time.

3. Manure with reference to the time of rainfall, to the next crop which is to be grown and to the other work which must be done. Late fall and winter, when other work is not pressing, is a good time. Light top-dressing may be applied to wheat in the fall.

4. Growing crops for green manuring alone is not the most profitable method. Pasture them and plough under the remainder when about to manure.

The tendency everywhere in cultivating new soil has been to pay but little or no attention to the conservatism and improvement of fertility. It is customary to refer to the fertility of new soils as "limitless, unbounded and inexhaustible." Enthusiasts speak of the vast natural fertility of the soils and many who till the soil come to believe what they hear and give no heed to facts and the teaching of experience.

### Soil Fertility.

By soil fertility is meant, in a general way, its productiveness—its ability to produce a paying crop. Variations in the degree of fertility produce variations in the crop produced. Soil fertility depends upon three things:

1. The supply of moisture. Soils may be either too wet or too dry to produce a crop. They may be too hard or too loose, too coarse or too fine, and thus unable to retain sufficient moisture for crop production.

2. The mechanical condition, Texture, ease of working, tilth, cold, warm, are general terms referring to mechanical conditions. The available supply of moisture is greatly affected by the mechanical condition of the soil.

3. The supply of plant food. By this is meant the chemical elements which are removed from the soil by plants, and which must be present in the soil for crops to be grown and matured. Nitrogen, potash and phosphoric acid are the principal substances constituting plant food. It is a fact that the application of manure to the soil is essential to continued successful crop production. The application of manure, on the other hand, is a matter that should be investigated by every farmer and results that seem peculiar are often produced and are difficult of explanation.

### Manuring.

Under this general head are two sub-divisions:

1. The use of manure produced by animals and of refuse material such as straw, cornstalks and the like.

2. Green manuring, or ploughing under of all or part of a crop grown either solely for this purpose or in part for pasture.

The effect of the application of manure of any sort to the soil is to modify the supply of plant food, the mechanical condition, and the capacity for holding moisture. In practically all cases, the supply of plant food is increased and a larger amount of it is placed at the disposal of succeeding crops. The mechanical condition, and consequently the capacity of the soil for water, is altered. For a time, until the soil settles and rains fill it with moisture after ploughing, the effect may be harmful. After this condition is met the results are usually beneficial. The time of application in reference to the periods of ample rainfall and to cultivate methods determines whether or not beneficial results will be secured the first season. And since in farm operations immediate results largely determine opinion of methods, it is thought by some that manuring is not profitable.

When variations in seasons and soils and the rainfall and temperature of the wheat-seeding season are considered, it is remarkable that the results of practical experience so strongly favor the application of manure to wheat lands. The report, "Top-dressing increased yields one-third, results of ploughing under depend on supply of moisture," states the case exactly. In seasons where there is an abundant summer rainfall, manure ploughed under will decay and settle down. On the other hand, in dry seasons, and especially if the soil is not well cultivated soon after ploughing, manure which is ploughed under will keep the soil open and made it dry out easily. The seed then goes into a dry soil, germinates poorly, giving a thin strand, and starts off the wheat in a weakened condition.

This makes the manuring of land sown continuously to wheat difficult, and in such cases it would appear that a top-dressing, well worked into the surface of the soil, would be the best and safest practice.

### Manuring and Crop Rotation.

When a succession of crops is grown the problem of manuring the soil is much simpler than when wheat is the sole crop. Greater opportunities are afforded for choice in the matter of time of application of manure, and there is less possibility of loss because of the drying of the soil. There is practically no danger of loss by leaching when manure is applied in the winter and the soil is usually sufficiently dry so that loads may be readily drawn through the fields. It is thus possible to put manure on land that is to be used for spring crops. If the land is ploughed early, the spring and early summer rains will settle the soil and lessen the danger which exists when manure is applied in a dry time of the year.

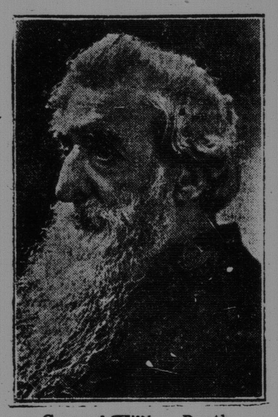
As the use of manure becomes more general discussion as to the best time to apply manure will arise. At present, however, the great need is that farmers generally should save and use the manure produced on the farms and put it on the soil. It now matters little when or how—the one great thing is to form the habit of using the manure that is produced.

# How I Founded the Salvation Army

***By General William Booth.***

(Copyright, 1907, by J. W. Muller).

THE Salvation Army, from whatever standpoint it is viewed, has, no doubt, become a matter of some moment. I cannot say that, at any rate for some years after I commenced the work out of which it has grown, either I, or, so far as I know, any of my helpers, had any expectation that it would ever reach its present influence and proportions. Contrary to a very generally accepted idea, I had no preconceived plan of campaign when I began. I knew very little of the problems I was to attack. I had very little experience of work among the really poor and working classes, and still less among the children of misfortune, whom I have since come to know and speak of as the "submerged." I was a Methodist minister, accustomed to work chiefly among the lower middle



General William Booth.

classes in provincial centres, with, no doubt, many of the limitations, both of thought and outlook, which are common to those conditions. True, my early association with the Church of England—the church of my father, so far as he could be said to have a church at all—prevented my entire acceptance of some of the Nonconformist views of denominationalism, and gave me, perhaps, a more liberal feeling towards the work of all good men.

### His Wife's Influence.

The influence of my dear wife—whose death in 1890 was, and must always remain, the greatest loss of my life—a woman of wide sympathy as well as of striking intellectual powers, tended also to a largeness of ambition and hope for the cause of Christ, which was and has since been of great service to me. But so far from having in mind the formation of a new religious society when I began my irregular warfare in Whitechapel in 1865, I was possessed of the idea that I could safely send my converts to join with the existing churches of the locality; and, in fact, I did so. It was only when I found that my proteges were not very warmly received—to put it kindly—and that they were therefore in danger of lapsing for sheer want of comradeship and oversight, that I resolved to draw them together and form them into small societies after the best model of which I then knew.

Later on experience showed me—perhaps I ought to say, convinced me—that in these converts or "members," as we gradually came to call them, I had a most attractive agency, and a most potent influence for reaching men and women in like conditions to those under which they themselves had been living. I found that ordinary working men in their corduroys and bowler hats could command attention from their own class which was refused point-blank to me with my theological terms and superior knowledge. I found that the slaves of intemperance were accessible to the influence and testimony of little bands of reformed drunkards, and that their message was of hope when mine was only too often one of condemnation. I found that the wild and unruly East Enders, whose highest idea of happiness was too often enshrined in a skittle-alley, or a boxing booth, or a "penny gaff," could be made to feel that there was, after all, "something in religion" when they found their old acquaintances living clean and yet happy and prosperous lives under its influence.

### The Germ of the Army.

I soon became convinced, therefore, that the best way to reach with the Gospel of Christ the large classes of the population lying entirely outside the influence of the churches was by means of those classes themselves. Therein lay what may be called the germ of The Salvation Army. From that point everything else, or nearly everything else, in our peculiar propaganda, has proceeded.

But I quickly found that such work as was possible could be best done by wise combination. Combination involved organization, and organization involved government, and government involved leadership. As to the kind of government that would prove most likely to attain the ends I had in view, I was at first very undecided. It was natural that this should be so. And yet this very indecision resulted in our learning by experience many lessons which subsequently proved of the highest value.

Influenced by circumstances, and guided, as I believe, by the good hand of God, I made several experiments. I began with a form of government which was purely paternal. Everything proceeded from myself or my immediate assistants. Great and small, principle and detail, all that concerned the inception, control, and management of the work, was referred to me. I soon found that to be an impossible arrangement for myself, and one unsuited to the people with whom I had to deal.

I then adopted a more commonplace plan. I called into co-operation with me certain selected—in point of fact, they were elected—persons representing the various stations or societies which had up to that time been established, and with the missionaries or evangelists who were already employed in the direction of the work, formed them into a conference with the committees and sub-committees usually found in association with that type of governing body.

But this plan also failed. After a few years, spent chiefly in debating abstract questions and passing resolutions which ceased to be of any practical interest the moment they appeared on the minute books, a few of my most trusted lieutenants came to me, and in effect said, "This method of work will never shake the kingdom of the devil. We are only growing daily more and more like the societies around us. We are losing much that is best, and all that is distinctive in our work. We do not wish to become another little sect."

My mind was already made up. "Government by talk" had been tried, and was found wanting. The leading spirits at once—there was not a single dissentient—placed themselves in my hands. We reorganized ourselves on—without at all intending it—semi-military lines, and shortly afterwards took the name of "The Salvation Army." The work at once made great strides, and came forthwith into touch with a wider public.

### Took on New Character.

I am very far from under-estimating the value of what had already been accomplished. In fact, all, or nearly all that seemed so powerful in striking the imagination of multitudes of the people, had its inception before this change took place; but from the moment of our adoption of our organization the simple methods of responsible and individual command and personal obedience, our whole campaign partook of a new character; and, in place of the hesitation and almost total want of progress which had marked the Conference period, every department of the work leaped forward.

And here I ought to mention one of the most powerful agencies for guiding and maintaining both the spirit and manner of our operations. The moment the work assumed anything like considerable proportions, it became difficult, and soon impossible, for me to express my wishes and give my instructions to my various helpers by word of mouth. For a time I had, therefore, to issue these instructions in the form of correspondence; but this, also, I soon found to be a task beyond my ability; and yet if unity and harmony were to be preserved among those who had gathered around me, and if they were to be helped in conserving the results which God had enabled them to achieve, it was evident that they must know my wishes. I was, therefore, compelled to print such special directions as I had formerly issued in other forms. This method has been continued up to the present, and, indeed, has been extended by reason of the advances of the work in a degree I could never have anticipated. It is now just twenty-one years since I issued a volume of "Orders and Regulations for Field Officers of the Salvation Army," and not only has that volume been revised half a dozen or more times since then, but other volumes, dealing with the work of other classes of officers engaged both in our Evangelistic and our Social operations, in this country and in other lands, have been issued.

These various "Regulations" form a remarkable compendium of Salvation Army plan and purpose, and they also constitute a kind of history of Salvation Army work. While I always have been conscious in some measure of the guidance of the Holy Spirit in preparing them, it is equally true that they are themselves the outcome of the labor and experience of our most active and capable workers in every part of the world.

But I have never placed too great reliance upon either these laws or the methods of their application. I have ever been deeply impressed by a vivid sense of the utter powerlessness of any mere system, however wisely it may have been framed, which has not in its application that Spirit of Life which alone can impart that vital force without which no extensive or lasting good can be accomplished. God forbid that any Regulations which I have issued, no matter how effective for their immediate purpose, should go to swell the number of the dead forms and powerless systems already in existence.

### Across the Seas.

The extension of the Salvation Army to lands beyond the seas has, in the main, been the result of events similar to those which have led up to its establishment in different parts of the old country. One of the most frequent means—or should I say occasions—for such extensions has been the removal from one place to another of persons who had received benefit through its influence in their former homes. Arriving in their new surroundings, they have desired to impart something of the same spirit which they had received, and to see bestowed upon their new associates something of the benefits which they have observed flow from its operations elsewhere. Accordingly, in some of the cases, they have set to work to hold meetings, which have proved immediately successful, and they have then asked from us the appointment of leaders.

In other cases, they have not ceased entreating us to send them competent pioneers, until we have been compelled—often reluctantly—to comply with their wishes.

It was in this way the work began in the United States in 1881, through the influence of a silk worker who had moved there from Coventry, and similarly in Canada a little later. In the same way our flag was unfurled in Australia in 1881, through a milk dealer who had emigrated from Stepney. In Sweden, a short visit of an officer from England who was seeking health resulted in the holding of meetings, and out of that casual effort the opening of the work there, and in other parts of Scandinavia, followed. Here again there was no concerted or deeply laid scheme of extension. Everything has been a process of natural development, which, although quite unsought, and largely unconsidered, has nevertheless been irresistible.

When first the work of the army was established in other than English-speaking countries, there arose the interesting question of language. It was quite natural that at any rate, in the earlier years of the work, leaders would be required for the various nations who had enjoyed the advantage of association with myself and being trained in England. But then a very large proportion of my officers were uneducated and comparatively illtrained. So far from having any acquaintance with other languages, it was the utmost they could do to speak their own correctly. But the passion of true sympathy is the parent of many valuable inventions; and it soon proved possible, through the use of interpreters who were themselves touched by the same Spirit, and inspired by the same motives, to enable English leaders to do all the work, both public and administrative, connected with their important positions.

These interpreters came forward in a surprising way. A little attention was shown to them, certain helps provided in the way of improving their fluency, until now we have developed a corps of specialists in this matter; and wherever an English-speaking officer appears in the Salvation Army world, whether in Tokio or in Berlin, at Ahmedabad or Madras, or at Milan, whether in Trondhjelm, or in Buenos Ayres, there he will find a duly appointed and capable translator, who is as well able to interpret his thoughts and words, and even his emotions, as if he were a delicate musical instrument at the disposal of the master musician.

### The Army Officers.

But my officers, as a whole, are one of the most remarkable and, I think, most important facts of the army. In the earlier days my chief difficulty—as also my chief necessity—was to obtain the help of men and women whose spirit would fit them for the work I wanted done. From the very first I saw that I must raise these co-workers from amongst the class to whom I wished them to minister. If they were to be for the people in the sense I required, it was a necessity that they should be of the people. I recognized this, and I set myself to do it. I resolved that no disadvantage as to birth, or education, or social condition should debar anyone from entering the list of combatants so long as they were one with me in love for God, in faith for the salvation of men, and in willingness to obey the orders they should receive from me and from those I authorized to direct them. I have, of course, had many disappointments—not a few of them very hard to bear at the time—but from the early days of 1868, when I engaged my first recognized helper, to 1878, when the number had increased by slow degress to about 120, and on to the present day, when their number is rapidly approaching 20,000, there has not been a single year without its increase, not only in quantity, but in quality.

I am sometimes asked, what about those who have left me? Well, I am thankful to say that we remain in sympathetic and friendly relations with the great bulk of them. It was to be expected that in work such as ours, demanding, as it does, not only arduous toil and constant self-denial and often real hardships of one kind or another, some should prove unworthy, some should grow weary, and others should faint by the way. It could not be otherwise, for we are engaged in real warfare, and whoever heard of war without wounds and losses? But even of those who do thus step aside from the position of officers, a large proportion—in this country nine out of ten—remain with us engaged in some voluntary effort in our ranks.

As a body, the men and women who make up the total sum of our leadership are a signal evidence of the presence of Christ in our midst, proving themselves to be no mean successors of the apostles. They are sent from God to proclaim the demands of His law and the provisions of His salvation to all who have not realized the one or experienced the other. They are pioneers of a religion that demands from them a high example of labor, of a faith that makes them gentle among the rebellious, the false, the ungrateful, and the cruel; of a love that sends them with the touch of divine compassion to the careless, the sensual, the revilers, the extortioners, and that brings them down into close and intimate touch with the outcast and forlorn and heart-broken.

Indeed, religion means to them not merely the purification of motive and the rectification of life for themselves, but it involves the whole disposal of life for the service of others. They are not only service of others. They are not only servants of God and servants of The Salvation Army, but the servants of all who suffer, of all whose burdens break down, of all whose unbelief or sorrow, or rebellion, or misery, is but the outward sign of that awful famine of love and hope which devastates the heart.

### Simplicity of Creed.

And the simplicity of our creed has been, as I believe it will remain, one of the principal helps to our unity. We stand for the old Truths. The faith which can be interpreted in terms of duty, of unselfishness, of purity, of love to God and man, is the only faith we really care about. Whatever may be the case with the select minority, the consciousness of sin, the force of evil habit, and the influence of passion, are all vivid realities with the great masses of the population. To them we bring the promise of deliverance by Jesus Christ.

We have no more need than we have desire to concern ourselves or to trouble our audiences with the problems of the doubters and the critics. That old-fashioned, if rather inelegant formula, covers a great deal of debatable ground—"The proof of the pudding is in the eating." "Here," we say to all sorts and conditions of men, "is a remedy for the power of evil in your nature, in your lives. Here, by repentance towards God and faith in His Son Jesus Christ, you may find the cure of sin and the strength to live lives of purity and unselfishness. Try Him." And they do try Him, and the results are ungainsayable. "Where was your Saviour born?" asked a derisive critic of a fellow workman who had been transformed from a life of sensualism and violence to one of sobriety and honest service. "I do not know," was the reply. "Where did He live?" "I do not know." "Where did He die?" "I do not know about those things," was the answer; "but I do know this: that He has forgiven my sins and changed all my life, and that He is my Saviour." That is the answer—perhaps the only effective answer to unbelief—the answer of experience. Anyway, it is this practical translation of the old doctrines, especially the greatest of them all, into the daily life and consciousness of the people, which is at once their great apology and their great defence.

# LETTERS TO THE EDITOR

[The opinions of correspondents are not necessarily those of The Telegraph. This newspaper does not undertake to publish all or any of the letters received. Unsigned communications will not be noticed. Write on one side of paper only. Communications must be plainly written; otherwise they will be rejected. Stamps should be enclosed if return of manuscript is desired in case it is not used. The name and address of the writer should be sent with every letter as evidence of good faith.—Ed. Telegraph.]

## A CORD OF WOOD

To the Editor of The Telegraph:

Sir,—There is a difference of opinion in regard to the buying and selling of wood, the buyers contending that 138 feet is a cord of wood, and the sellers of wood say 128 feet is a cord of wood. They say the school books give us 128 feet, and think that must be the lawful standard, or why is it published? Would you be good enough to publish in your valuable journal what is a legal and lawful cord of wood, to settle all differences and disputes, and oblige an old

SUBSCRIBER.

Centreville, Carleton county, Dec. 6, '07.

[A cord contains 128 feet—4x4x8—Telegraph.]

## COLLINS' CONFESSION

To the Editor of The Telegraph:

Sir,—I notice in today's Sun a letter from Geo. H. Steadman, of Hopewell Cape, dealing with the Collins' confession. Although clearly convinced that Collins did confess, Mr. Steadman demands such proof as would convince those who are unwilling to believe the satisfactory statements already made on this subject.

Well, sir, suppose Mr. Steadman were to go, or write, but preferably go, to Rev. B. H. Thomas and ask him to say in plain English what he meant when he said the prisoner complied with all that the Holy Bible required of him. Inquiry as to the meaning of those words was made some time ago, the question being put to a Protestant clergyman of recognized ability. "It means that the man confessed. It can mean nothing else." However, as Mr. Steadman knows, a man convinced against his will is of the same opinion still. And as for a woman—

Yours for justice,

OFFICIAL.

St. John, Dec. 6, '07.

## GOOD AND BAD ROADS

To the Editor of The Telegraph:

Sir,—At the meeting of the Good Roads Association held in St. John on Nov. 28, it appeared to be the unanimous opinion that the roads in New Brunswick were in a bad state. This opinion can be corroborated in other districts besides St. John city and county, notably by the counties of Kent and Northumberland. While we agree with the convention in their condemnation, I fail to see any suggestion leading up to a remedy of the evil. It may be all right and proper to suggest a competent engineer for cities and towns, but what of the country? How much would a competent engineer know about improving the miles and miles of almost impassable roads through the bogs and swamps of the two counties mentioned? Simply nothing. For the improvement of our highways we must look to some other source that will entail less cost than the employment of competent engineers. We want common sense, honest labor, politics excluded and a few other ingredients required to formulate and carry out a successful and comparatively economical system of road improvement. I will go a step further than the St. John men and try to suggest what, in my mind, will be conducive to that end and I write from a nine years' experience of tramping back and forward over nine miles of the worst road in New Brunswick, viz., from Point Sapin, in Kent, to Escuminac, in Northumberland.

This particular piece of road presents a perfect object lesson to road makers, inasmuch as you have evidence of good road making and road destroying, but unfortunately the bad largely preponderates. I can point you to fifty rod of road that was sold at contract for fifty cents eight years ago that has been a monument and will remain a monument and example for another eight years to what common sense and economy can accomplish. It was simply a good and sufficient drain, wide enough and deep enough to carry away all surface water and all spring water that accumulates and this is the secret of good and economical road making under every circumstance; and if the money expended on this particular nine miles of road had been utilized absolutely in opening up old drains and making new ones where necessary this last two years, we should have had fairly passable roads today, and as it is I heard a man say this fall that he would not put his team over it again for $20. What applies to this road applies to all roads. Like diseases require like remedies. One speaker suggested at the meeting that Ontario and Nova Scotia be patterns to follow in good road making. I don't know anything about Ontario, but I lived in Nova Scotia when $600,000 was borrowed to supplement the provincial resources to repair roads and bridges. I will draw the veil over how it was spent to hide the blush of shame that dyes the face of all good men, Grit or Tory, at any allusion to it. A competent engineer was required to manipulate that vast sum and he was on hand and a solid phalanx of eighteen Liberals from Nova Scotia testifies to his capability. So I would say don't imitate Nova Scotia for there are bad roads there yet.

The poor little highway act, launched upon its career three years ago, though abandoned by its friends and Hazened to death by its foes, is not a failure, only in the sense that the selection of men to carry out its provisions has been a failure. Though the department ignored politics in the selection of men, still the result is the same—failure. I must ascribe that to a want of judgment or "not enough in it." I contend, however, that if the government will utilize the good germs within that act and make as generous a provision as the last two years with regard to an intelligent expenditure, they can still formulate a system by which the roads of our province can be permanently improved and no additional taxation. I would suggest that they make the opening of good wide and deep ditches an imperative necessity. Give out contract work and then we shall not see the spectacle of six men loading one cart on a half-mile haul. Make plugging the drains by debris a crime. Select good sensible and conscientious men to carry out its provisions in every detail and I dare venture to say that before two years they will see a universal improvement on all roads which will not only reflect on the government but will be a satisfaction and comfort to the people.

Yours truly,

COUNTRYMAN.

Point Sapin, Kent (N. B.), Dec. 5, 1907.

**Lame Horses**

certainly discard Kendall's Spavin Cure. Whether it is from a Bruise, Cut, Strain, Swelling or Spavin, KENDALL'S will remove the lameness—quickly—completely.

This Cure was discovered over 40 years ago, and I have used Kendall's Spavin Cure for 20 years and find it a sure cure."

FRANK E. ADAMS.

Price $1—6 for $5. Accept no substitute. The great book "Treatise on the Horse"—free from dealers or address

KENDALL'S SPAVIN CURE

Dr. B. J. Kendall Co. Enosburg Falls, Vermont, U.S.A.

# COUNTY GOVERNMENT CONVENTION FRIDAY

## Will Be Held in Berryman's Hall—Simonds and Musquash Choose Delegates.

The St. John county convention to choose candidates for the next provincial election, will be held next Friday evening at 8 o'clock in Berryman's Hall. All the parishes have now selected delegates.

A meeting of the electors of the parish of Simonds favorable to the provincial government was held last night in the Ben Lomond house, to elect delegates to the convention. There was a good attendance. The following were named: District No. 1—J. M. Donovan, Francis J. Rafferty, Edward Boyle, Martin Dolan; No. 2—John Sherwood; No. 3—Councillor Fred Adams, and Alex. Johnstone. Lawrence Donovan, Frank B. Hamm, Samuel Poole, James Crozier and John McGuire were named as substitutes.

There were but five at a meeting in Musquash No. 1 Friday evening to elect a delegate. Charles Spinney was chosen. Musquash No. 2 was also to choose a delegate last night but no word was received in the city.

## FIRST EXCURSION TRAIN.

(London Standard.)

No. 17 St. James street, Nottingham, which has just had a narrow escape from destruction by fire, possesses unusual interest, for it was there that the Nottingham Mechanics' Institution passed its early days, an institution to which belongs the distinction of having organized the first railway excursion ever run. This was on July 20, 1840, to Leicester and back, and so great a success was achieved that on Aug. 24 a larger excursion was run.