OF INTEREST TO FARMERS

SALT AND MINERAL MATTER FOR HOGS

It is important for the development of the animal frame that there be a certain quantity of mineral matter in the ration. Certain mineral substances are taken up by plants from the soil, and when fed to stock furnish the needed material to build up the body frame. Some feeds are richer in certain minerals than others. Thus when compounding a ration it is advisable to take into account the mineral content for it is found in all vital parts of the body. For instance, the bone is largely composed of lime, phosphorus is found in considerable quantities in the cells. Iron is essential in the blood. The common feeding stuffs all contain mineral salts, but as a rule the roughages especially legumes are richer in this material than the grains. The matter of the soil will influence the mineral content o fthe crops grown. Any growing animal that fails to obtain sufficient mineral matter does not develop normally. For instance, if lime is lacking the bone will be porous and brittle. If the feed lacks lime it may be furnished by feeding ground lime-stone, ground bone, wood ashes, etc. Too often the rations fed growing pigs do not contain enough lime for thrifty growth of body and tissues. Henry and Morrison relate the following experiment in their book on Feeds and Feeding. "One lot of growing pigs were fed wheat bran from which most of the phosphorus had been removed by washing, together with wheat glutten and rice, both of which feeds are extremely poor in mineral matter. Other lots were fed the same ration plus ground rock phosphate or bone ash which supplied ample calcium and phosphorus. For a considerable time all the pigs did well, but as time went on those fed the ration poor in mineral matter fell behind the others. They had no appetite and disliked to stand up; later they lost control of their hind quarters, and had to be carried to the trough at feeding time. When the pigs were slaughtered it was found that those fed insufficient phosphorus had light, weak bones, while those receiving ground rock phosphate or bone ash had strong, heavy bone." When pigs are fed heavily on corn the lime supply is usually low. The cereals, brans, oil-cake and slaughter house waste generally contains plenty of mineral matter.

Pigs kept in confinement may show a craving for some substance. This is very often due to a deficiency of mineral matter in the ration. It is a good plan to mix such minerals as charcoal, air-slaked lime or ground limestone, wood ashes, bone meal, corperas and salt, and keep the mixture before the hogs.

Hogs require less salt than other farm animals, but they need a regular supply. Experiments cited by Henry and Morrison show that pigs having free access to salt made better gains than those not receiving salt or getting it in very small quantities. Salt adds to the palatability of many feeds, aids in stimulating the digestive glands and possibly improves the appetite.

WINTER GOOD TIME FOR CALF-RAISING

To many, Winter seems an off season in which to raise calves, but, nevertheless, it is a fact that most successful calve raisers find it to be the best season. In the first place the farmer has more time to give the proper attention to the detailss so important in calf feeding; secondly, there is usually a greater supply of skim-milk owing to the smaller number of pigs raised in the Winter than in Summer: lastly, the calf has not got the Summer heat and flies to contend with and is just at a nice age to turn to pasture the following Spring.

When the calf is dropped it should be allowed to remain with its dam until she has licked it clean and dry or else be removed to a separate stal land rubbed dry with wisps of straw or a piece of bagging. If at all possible the Winter raised calf should have the brightest, driest and sunniest place in the stable for its Winter quarters and they should be kept clean at all times, for comfortable quarters mean almost as much as good feeding. The calf should receive within 12 hours, a feed of the colostrum or first milk from its dam. It is important that the calf gets a feed of milk as it has a beneficial effect on the bowels and ensures the calf getting the proper start. For the first few days the cow should be milked and the calf fed three times daily, the milk being fed while still at blood heat. Eight to ten pounds per day should be sufficient for the average calf. Feed the calf whole milk for the first two to four weeks depending on its strength, a weak or puny calf being carried on whole milk for the loingest period. Gradually change from whole milk to skim milk, making the period in which the change is made extend over about ten days as abrupt changes are apt to bring on digestive troubles. At this time the calf should be consuming about twelve pounds of skim-milk daily in two feeds. As the change is made from whole to skim-milk the fat removed from the milk should be replaced by adding a table spoonful of finely ground scalded flaxseed jelly. The porportion of the flaxseed jelly and skim-milk can be increased gradually and at about three months of age add to the flaxseel jelly other constituents to make a calf meal comopsed of ground flax, one part: fine ground oats 2 parts: and ground corn, 2 parts,—this mixture to be fed in the milk, similarly to the flaxseed jelly, at the rate of 1-8 pound per day at the start, gradually increasing to one pound per day at four to five months. At this time the skim-milk ration may be cut off and the dry grain ration mentioned below increased proportionately.

It is well to start the calf eating a little dry and bulky food as early as possible. With this end in view a small quantity of fine clover hay and whole oats should be kept before the calf after it is a month old. As the calf grows older the whole oats may be replaced by a mixture of bran, rolled oats, and ground corn. This mixture should be fed at noon at the rate of 1-8 pound per day at the start up to 1 1-2 pounds per day at time of reducing skim-milk and calf meal mixture at which time the dry grain mixture may well be increased to 3 pounds per day and be fed in two feeds, morning and evening. Roots are a valuable feed for growing calves and may be introduced into the ration in small quantities when the calves are from two to three months of age. Silage should not be fed to very young calves and as it usually gets strong towards the latter part of the Winter, only very small quantities should be fed if fed at all. Feed salt in limited quantities regularly. Provide fresh water but do not let the calves gorge themselves with it.

Strict attention should be paid to the cleanliness of the utensils and mangers in which the calves are fed as well as to the box stalls in which they are quartered. The latter should be cleaned out at least once a week and preferably oftener.

The above ration may seem heavy and the feeding of it a matter of some detail, but it is attention to these points that ensures well grown calves capable of developing into profitable mature animals—G. W. ROTHWELL, Dominion Animal Husbandman.

DAIRY COW'S UDDER AT MILKING TIME

When a fine dairy cow comes up at night with her udder "fairly bursting with milk," as many an owner says, the size of the vessel is not really due to milk, but to blood and blood serum. The milk a cow yields is largely secreted or manufactured at milking time and no matter how greatly the udder is distended it usually contains but two or three pints of milk.

The udder is like four big sponges, two upon each side, with a well marked partition of fibrous tissue between the halves, but practically no perceptible one between the quarters. Each quarter is composed of myriads of tiny chambers called acini, in which milk is made. They are surrounded by elastic and fibrous suppporting tissues and the mass is held up by a network of such tissues, covered with a little fat, loose connective tissue and fine pliant skin. The structures yielding milk are called mammary gland tissue, and upon its extent, the breed tendency of the cow and the amount of nutritious feed she consumes depends largely the quantity of milk yielded.

To form milk, pure arterial blood rushes into the udder, and from it the watery portion of serum is forced out into the acini. This watery portion, or serum, forms 87.3 per cent of normal cow's milk, contains albumen and salts, and into it, to form an emulsion, are mixed the other ingredients of the milk elaborated and manufactured in the acini. The chief of these is butterfat of which normal milk contains 3.6 per cent. Then there is milk sugar amounting to 4.9 per cent and in addition there is 2.9 per cent of cesin and .7 per cent of ash.

Each of the little acini is lined with cells which are full of butter fat at milking time and empty afterwards. The first milk drawn is poor in butter fat, whereas the last of it is rich in that ingredient. It is well, therefore, to strip a cow clean.

The secretion of milk is not governed by the will of the cow, so she cannot "hold up" her milk. Milk secretion is controlled or conducted by the sympathetic nerve system of involuntary nerves, just as is salvia. So-called "holding up" of milk may occur as a reflex effect of some irritating or disturbing cause, such as a chill, fright, shock, pain or attack of nervousness; but the cow cannot say to herself, "I won't or "I will" yield milk any more than she can control her secretions of saliva or gastric juice. Gentle handling, quietude and comfort, however enhance the flow of milk, and all contrary infuences have the opposite effect.

The cow cannot determine the amount of butterfat entering into her milk. That is governed by heredity, and the normal percentage peculiar to the cow will be yielded if she is adequately fed. Such feeding brings out the percentage of fat made possible in her milk through heredity. Poor feeding not only lessens milk yield, but may fail to produce the normal percentage of butterfat.

POULTRY WORLD HALL OF FAME

(Experimental Farm Note)

A short time ago the death of White Wyandottte hen No. B-162. Since this hen has had so much to do with the present high production in our strain of White Wyandottes now kept at this station, her name deserves a place in the "hall of fame" of the poultry world, and her achievement told in story.

No. B-162 was hatched May 1st, 1917, and laid her first egg October 30th, 1917, being 182 days old. Her total record was: 1st, year 257 eggs, 2nd, year, 153 eggs, 3rd year 107 eggs, 4th, year 4 eggs, making a total of 521 eggs. Of these 85 were laid in the winter of the first year, 34 during the winter of the second, 32 during the winter of the third, and 4 during the fourth. At time of laying her first egg, her body weight was 5 1-4 pounds. Her eggs averaged 25 ounces to the dozen.

That her pullets inherited her high producing qualities was evidenced by their production. In 1919 twelve of her pullets gave an average of 232 eggs, the individual production being from 176 to 289 eggs. Of two pullets hatched in 1920, one gave 288 eggs and one gave 243 eggs with two months to complete her year. The second year averages for her pullets were also good, but as yet are not complete.

B-162 was never broody. She was attending so strictly to her business of egg production, that she had no time. It would seem that this character was also transmitted, for only three of her daughters have ever lost time in broodiness.

Much has been said and written concerning the importance of the male of the flock from the standpoint of high production. He does occupy an important place, but we are more and more convinced with the years that if we are to obtain high production, and to hold it, that the trait must be in the blood of the dam as well as in that of the sire.

Experimental Station
Sidney, B. C.

INDIVIDUAL FEEDING DAIRY COWS PAY

Different cows have different capacities for converting feed into milk, and no man who has not a full appreciation of the wide variation in individual cows will be fully successful as a feeder. Some cows may have natural capacity for producing large quantities of milk, and may not receive feed enough for maximum production. By increasing the feed of the highest producing cows and carefully consulting the milk sheets on which each cow's daily production is recorded, the skilful feeder will soon find that some cows in the herd will respond to the increased allowance and return a good profit on the additional feed given. On the other hand, there are cows that have a limited capacity for milk production and are very liable to be overfed. By carefully studying each individaul cow the feeder will soon ascertain the point beyond which any addition to the grain ration becomes unprofitable.

FALL FRESHENING

Fall freshening or spring freshening—which? In the opinion of most successful dairymen fall freshening is the better because:

1. The fall-freshened cow, they say, has two fresh periods—the first, of course, in fall, and the second in the spring when she is turned out to graze.

2. The milk yield therefore is higher in those months when milk commands the highest prices. It has been determined by careful observations that cows freshening in the fall produce from 10 to 15 per cent. more milk during the year than cows freshening in spring. And when the high price of winter milk is considered that 10 or 15 per cent adds quite a little to the dairyman's income.

3. In the winter the dairyman has the time to tend properly to the cow and the calf. In spring and summer when a thousand and one things are calling to him outdoors the lowing of the cow and the blatting of the calf will oft times strike a deaf ear.

4. The fall calf will have the better chance to develop, and to withstand the heat and flies of summer.

WINTER HOUSING OF SHEEP

What They Require

The recent fall of snow is likely to bring the housing of sheep to the mind of the farmer who owns a flock, either great or small. There are very few real good sheep barns to be seen around the country as they do not seem to be included in the general equipment of farm buildings. A sheep is one farm animal that requires less expensive housing than any other. It is safe to say that one can put more money's worth of sheep under less roof value and get results than can be dne with any other class of livestock. They are very often found accomdated with shelter in a shed of any sort that is not occupied by any other stock. There is no fault to be found with this arrangement if the sheep owner is fully alive to the animals' needs during winter confinement. Very often a cheaply got together barn can be arranged to mete these needs, and sheep will do better in them than in any expensive barn built with no understanding about the conditions that keep sheep in comfort and health. Sheep are very poor correspondents with unfavorable environments; they are the one class of animal that are poor fighters aginst the domesticated conditions usually granted them with inconsiderate owners. They are the animals of the hills and plains, and indoor life is not at all fitted to their nature. The small, arable farm gives them no chance to find the dry shelter that nature here and there affords them, and that sheep at freedom roam over a territory will assuredly find when weather becomes inclement.

Death-Dealing Damp and Draughts

In housing sheep two factors are essential, dryness and freedom from draughts. Sheep can stand any amount of dry cold. Good yard accomodation in which sheep can keep on dry footing and haxe plenty of room to exercise is also a first requisite. Damp barns will cause more trouble in a flock of sheep than anything else in the line of attempted winter care. They cannot stand moisture. This fact makes it imperative to have a waterproof roof to the shed or sheep barn. Whatever the quality of the fixtures that make up the other parts of the sheep barn, it is false enonomy to spare the material necessary to make the roof waterproof. While some shelter is necessary in parctically all localities, nothing in the way of close housing is safe, especially with ewes in lamb.

The fleece affords sufficient warmth while it is dry, and for this reason the main need in a shed or sheep barn is protection from storms and plenty of ventilation without draughts. On most dry nights, they will prefer to be out of doors and will winter much better if allowed to do so than they will if kept confined in close or crowded pens. Sheep are good weather prognosticators. Any one who has had the chance to watch them among their native hills where they stay out all winter, must have noted how they trek away to some situation on the lee side of a hill that affords them a dry bed and shelter. If the night is to be a dry one, they seek freeom in the open country. This is their naturel habitat and it should be imitated, in as far as possible in the winter care of the flock around the barns. Let them have a dry yard to which they can go at their own will, when weather permits, and a dry shelter house when storms come along.

But the great fault of most sheep sheds is that they are draughty. This is most detrimental to the welfare of the flocks kept in them. In the winter care of all animals, the owner must make himself intelligent on the difference between draughts and good ventilation. It is a great mistake to have two or three small doors in the shed, as they are conducive to draughts. Also they are very unsuitable as openings for exit or entrance, as in a hurry from fright or anxiety to get in at feeding time, they are liable to jam, in which in-lamb ewes are in danger of losing their lambs. One large door eight or ten feet wide, is usually best. The large door will let the sheep out quickly if they happen to be stampeded and there will be less jamming in the doors. The wide door again, will permit driving a wagon into the barn. Thus, even if it is not desired to haul feed in, manure may be hauled out. Very often the sheep barn is only cleaned out two or three times during the winter, and it is surprising the amount of litter that will accumulate. It is a simple matter to clean out a barn when one can drive in and load directly on to the sleigh or wagon.

What the Sun can do

The arrangement for the windows is different from that of the doors, as the sheep barn should have many windows. There cannot possibly be too much light enter it. Sunshine is most necessary to sheep health. It prevents the growth of many harmful bacteria and also helps to keep the building dry. A dry, light barn is always more sanitary than a dark damp one. It is dark, damp and poorly ventilated stables that are responsible for the somewhat widely prevalent notion that sheep will not thrive in confinement. The windows should be hinged at the bottom and have casing so made that they swing in at the top. There should be at least two square feet of glass windows, through which the sun can shine at some time upon the floor, for each one hundred square feet of floor space, and twice that amount would be better. About fifteen square feet of floor space is necessary for an average sized sheep. This is the space sufficient for the larger breeds, smaller breeds may be accomodated in ten square feet per sheep, but in lamb ewes, are better to get as much room as posible.

It adds to the comfort of the sheep to have a well constructed and well planned sheep shed, and if ahay mow is placed over it with chute to feed racks below, the worry of attending to sheep is eliminated entirely; instead, it becomes an interesting and pleasureable chore in the winter farm work. Every time they are fed hay from a mow overhead, the sheep should be penned outside in the yard, as hay and hayseed will get into the wool and deteriorate its value. It is well also to have movable hurdles of suitable length in order that a ewe that drops early lambs may be penned off and given special care to her feeding, and the young lambs more freedom. It sheep are thus handled in the winter time more sheep would be kept in the country, as it is the lack of facilities to handle sheep in winter that is checking the industry through the numerous troubles that come to them through not affording them any measure of summer freedom in winter housing. Ottawa Journal

HOW TO HANDLE BACK FIELDS WHICH NEVER RECEIVE MANURE

(Experimental Farms Note.)

In Eastern Canada, including Ontario and the provinces eastward, there are approximately 20,761,000 acres under cultivation, of which 9, 686,000 acres are in hay. The live stock in these provinces can produce during the winter months only about 50 million tons of manure, an amount insufficient to cover the entire area under cultivation when applied in any ordinary length of rotation. For this reason, extensive areas, estimated between one-qaurter and one- half

(Continued on Page Ten)

REVELATIONS OF THE NORTH REVIVAL

Scenes at the Headquarters. Strange Psychological Results: Young Mother's Tragic Death.

ABERDEEN, Jan. 11.—The "Aberdeen Daily Journal" has been provided with some extraordinary information regarding the religious revival now at its zenith in some of the fishing towns and villages in the north of Scotland. From time to time during the past two months reports have appeared in our columns indicating the hold the movement has been taking on the emotional fisher folk, but outside the places affected the full significance of what is going on has not been understood. It has spread to such dimensions, and during the past few days some of the consequences have been so serious, that medical man and Local Authorities are regarding even a brief continuance of the present state of affairs with apprehension.

A "Journal" representative has made a tour of the areas under the grip of the spell, and in his account of what was discovered will be found revelations of an astonishing nature.

Never before, perhaps, in the religious history of Scotland have there been such occurrences as are now taking place daily in almost every fishing port on the east coast north of Aberdeen. A staid, unbiassed observer visiting any one of these places just now who seeks to obtain first-hand information of what is happening could only describe the things seen and heard of something akin to sensationalism run riot. There is certainly nothing to equal the present demonstrations in all the written records of intense religious application in the area round Aberdeen, and it is an under estimate to state that 10,000 people have already experienced the force of the evangelical hurricane now sweeping over the fishing ports of the north.

During my investigations I met Monsieur Paul Hargenier, the eminent French psychologist, now resident in London, who wrote the story of the Welsh Revival fifteen years ago. He has come north to study the situation, and declares emphatically that the movement he has witnessed is a far vaster and greater thing than the unheaval in Wales in 1904 and 1905. The two revivals are not, of course, parallels in respect of the temperamental and physical constitutions of the respective peoples, but allowing for these differences, the fervor now manifest far surpasses that of the last great undenominational incoming. The scenes and incidents, too, attending this eruption, there is no better word to describe it, are unequalled, but the impartial inquirer and witness can sense the fact that the widespread excitement will not be of long duration. Monsieur Hargenier holds the view that the cause is to be found in the unemployment now paralysing the fishing industry, and he is convinced that the high-pitched enthusiasm will subside, just like the notorious collapse of the Welsh Revival, when the people affected again become busy in their normal occupation.

Cases of Insanity

Whether the movement is only a passing thing or is likely to stimulate a permanent zeal, and whether its ultimate effects will be for good or ill can however only be matters for conjecture. As to the present, the position is becoming so serious from certain viewpoints as to merit official investigation. Absolute frankness is undoubtedly best in presenting the results of an investigation of this kind, and neither the cause of the evangelists nor the earnestness of the men and women who have responded to their appeal should suffer by a straightforward statement of the almost inevitable consequences of a campaign of the kind now being carried on. So far, at least, five persons have been certified for admission to mental hospitals, three from Cairnburg, St. Combs and Fraserburgh having been removed to the Aberdeen Royal Asylum and two from places farther north to institutions in Edinburgh and Perth.

All these cases have tragic tales attached to them involving the happiness of other people, and one, surrounded by painful incidents, concerns the death from puerperal septicaemis, following insanity, of a young woman in the Aberdeen asylum. The doctors at the ports have under treatment scores of patients on the boarderline of complete mental derangement, and the development of religious mania is causing the utmost concern to the medical profession. The injurious effects are most noticeable among nervous women, the irritation of their naturally neurotic condition leading to hysteria and a form of brain disorder very difficult to treat. In the course of a conservation I had with a practitioner in one of the outlying coast places, he stated that a large proportion of the natives in the fishing districts are very susceptible to influences of the kind now operating among them, and if the revival continued, he dreaded its outcome so far as the health and mind-stability of many of the people were concerned.

In the course of my inquiries I was privileged to read a report upon some of the events, prepared by a committee of one of the local authorities for the consideration of the Scottish Office, and while it would be premature to disclose just now the purpose of the document, it is expected that official advice, at least, will be given with the object of restraining by some means any tendency to cause or aggravate harm. In dealing with this feature of the happenings the authorities are faced with an exceedingly difficult task, only a minor instance of their delicate duties, being the consideration of complaints from residents in the towns and villages regarding the noise made by the large crowds of people who parade the streets until early morning singing hymns and salvation choruses.

Remarkable Scenes

It is difficult to trace where, when and how the revival began. From the statements of business men travelling between these places, however, there is reason to believe that the commencement was simultaneous in Yarmouth, Fraserburgh, and Wick, from whence the movement has spread to the other ports. This is confirmed by a remarkable collection of several hundred telegrams which was shown to me by one of the evangelists. While the Scottish fishermen were at the fishing in England two months ago, missionaries were conducting a religious compaign among their womenfolk at home, and when a mother or daughter was "converted" a telegram was at once sent to the male relative at Yarmouth, the text of the messages usualy being something like "I have found grace here." At the same time there was a quickening of feeling among the men in England and similiar communications were constantly being telegraphed by them to the north. The revival leaders state that there was no organization behind this common process, and they explain that the circumstances of the outbreaks are not surprising, because since the war there have been indications that the fire now raging was smouldering, and once it burned up at one part it was a foregone conclusion that the whole chain of fishing ports would immediately be aflame with the spirit of revivalism.

There is no doubt that the nerve centre of the structure which has been built up is in the adjacent villages of Cairnbulg and Inverlochy, a few miles from Fraserburgh. It is there that the recognised leaders have their headquarters, and where enthusiasm has been developed to the highest pitch. On entering Cairnbulg yesterday I obtained at once conclusive evidence of extent to which matters have gone, when the motor car had to be drawn up to avoid collision with a party of 17 boys and girls who were kneeling in a circle in the middle of the roadway outside the school. Under the leadership of an older child, they were repeating a prayer, a recurring phrase in which was "O God, save mammy and daddy."

The Secret of it

A short distance down the street there appeared a procession of half a hundred children, those in the forefront beating empty biscuit tins and two kettledrums, and all of them singing a glory song with the curious intonation found only among natives of this district. As the car passed they ceased the chant, and shouted together: "Christ is coming; you must be saved." Later I learned that in these words is the secret of the revival. Every sermonette that is preached to them has as its theme the imminent second coming of the Messiah and the end of the world. Among some this has inspired a fear betrayed in almost every sentence of their conversation, and cases are common of men refusing to go to sea lest, to give their own explanation, the Day of Eternity should dawn while they are separated from their families.

On approaching the harbour I witnessed a remarkable sight. About 200 fishermen were standing alongside the boats listening to Bible stories being related to them by two of their fellows, Mr. "Sonny" May and Mr. Willie Third, and after each parable had been explained they knelt down together on the shore and engaged in silent prayer, wringing their hands and swaying their bodies to and fro. In every place I have visited this week the earnestness and faith of the men and women could not be mistaken, but in these villages there is an extreme intensity and expressiveness.

In Cairnbulg alone there are nearly 900 adult concerts and their zeal is exemplified in the fact that every one of them attends at least three prayer meetings daily. While I was in one of the village shops a woman entered and made some purchases. After receiving her change she produced a Bible and, opening it at random, read a verse while the shopkeeper and his wife behind the couter stood with bowed heads. Taking the Bible between his hands the man then said a short prayer and on concluding the three at once entered into normal conversation in which not a single reference was made to the spontaneous incident they had taken part in. A visitor to almost every house hereabouts is asked on entering and before leaving to engage in prayer with the family.

A Curious Pile

It was in Cairnbulg that the woman to whose sad death I have already referred. She was 27 years of age, and had been married for fifteen months. Three days after the birth of her child a company of villagers came to the house and standing by the bedside sang hymns, and prayed and read from the Bible. On the same evening she became delirious, and when medical aid was summoned her removal to the Royal Asylum at Aberdeen was ordered. She died seven days after her admission to the institution.

While in Cairnbulg I visited during the day, the mission hall, where a service is held every evening from 6 o'clock to midnight. Men and women were constantly coming in, and after kneeling in prayer at a "penitent form" at the front of the building, tip-toed quietly out of the room. My attention was at once attracted on entering by a curious pile of objects on the top of the organ, and on examining the collection I found it to consist of about a hundred pipes and tobacco pouches, numerous packs of playing cards, large quantities of cigarettes, draught boards and draughtmen, "crown and anchor" boards and several pairs of dancing shoes. It was explained to me that practically all the men in the place have given up smoking and have surrendered their worldly "gear" so that a bonfire may be made of it in one of the village streets at the end of this week.

One has not to go far to learn who are the leaders of the revival. Their names are ever on the tongues of every person in the district, and without realizing what is going on by witnesses and hearing, it would be difficult to believe that hero-worship could be carried so far. They are a Welshman named Pastor Fred Clark and a young man from Hamilton named George Bell. Of the two, Pastor Clark is the dominating personality, and although intending to hear him conduct the usual service at night I wished to form a closer impression by having a personal talk with him at his lodgings.

Who Pastor Clark Is

He told me he was born 38 years ago at Newport (Mon.) and had been carrying on evangelical work since the Welsh Revival, in which he was associated with Evan Roberts. His denomination, he said, was the Welsh Presbyterian Church, and, referring to the ful clerical garb he wears, very like the costume of a Jesuit priest when I asked him if he was or had ever been in the ministry he replied in the negative. He mentioned that he had served for five years as a padre and as an auxiliary worker with the British Expeditionary Force, but declined to give details of the units to which he had been attached, preferring he remarked, "to forget about the war and everything associated with it." In his conversation he made repeated references to the kind heartedness and open-handedness of the fisher folk, and during the time I was with him ample first-hand evidence of this was obtained. Several women came to the door and with a few words of blessing handed to the pastor parcels of food stuffs. It is common knowledge now outside the revival areas that the people there quarrel among themselves as to which of them will seek the privilege in the morning of blackening and polishing the boots of the evangelists.

The generosity of the people he was working among, he added was unbounded. On the previous night at one service they had collected 55 pounds so that one of the village girls, named Betsy Duthie might be sent to a home in Edinburgh to be trained as a missionary. On previous evenings, among numerous other acts of the kind they had given him 40 pounds so that a native missionary might be prepared for the field in China, and at another meeting they subscribed a large sum for the payment of a native evangelist in India.

A Magnetic Force

I mention these facts related to me by the Pastor as an indication of the enthusiasm with which the people have taken up his appeal or a religious awakening. It is an open secret that numbers of the fishermenhave mortgaged their shares in the boats, so that they may have more money to give, and cheques for substantial sums have been writen by some of them on behalf of objects brought to their notice which they think worthy of support.

Pastor Clark is a man endowed with a compelling force and a magnetism. When seated near him watching his facial expression, one can imagine at times that his eyes are the eyes of a mystic. This is particularly the case when his head is in certain poses, and there is something in the mannerism suggestive of feminine grace as he turns his face from profile to full-view, a firm habit he has when talking.

But for his assurance to me that he had been engaged as a worker in the home mission field ever since he was a youth. I would have declared unhesitatingly that Pastor Clark at some time in his career had been trained as an actor. He has the correct stage deportment, and every other phrase he uses is illustrated by an appropriate, although hardly noticeable gesture. Without his personal account of his career, I would have been convinced that my surmise was correct when I saw him at work among the people in the evening.

Scenes at the Service

At the service at night I was astonished by the scenes. The large mission hall was crowded to the last inch of space, the people for whom there were no seats sitting on the floor and on the window ledges. The door of the building was open, and outside in the roadway were hundreds of people, all there to join in the proceedings. There was a hush when Pastor Clark and Mr. Bell, his assistant appeared. The later is a young man of about 23, well built, the most striking feature of his person being his wide-set, large, pale-blue eyes. Totally unlike the Pastor he wears a morning suit, trench coat and Homburg hat. He told me that he had served in the war on the medical staff of a warship, and, before joining the evangelical movement, intended to adopt medicine as a profession. Somewhat timid in manner and slightly nervous, he has not the influence of his colleague.

Immediately the Pastor came on to the platform the idea entered my mind of a heavy tragedian seeking to get a grip of his audience without delay. His carriage and every trick in the use of the hands and head were such as to force a conclusion that the drama has lost an able exponent in this man. Certainly what happened after his entry was sufficiently dramatic to justify his presence.

Without saying a word he raised his right arm, and everyone in the hall, even those in the street knelt down and prayed, some loudly, others in a low tone but the majority silently. Within a minute sound of weeping came from every part of the hall and a woman's voice shrilled, "O Lord, forgive and forget." After a few minutes the congregation rose one by one to their feet, and in ever swelling tones sang the hymn "At the Cross where I first saw the Light". Then came a perfect tornado of upsuppressed prayer, the voices so mingled that only here and there could the words be distinguished. A young woman weeping copiously, exclaimed again and again: "Lord, You have saved me remember my father and mother." Supported by the arms of a youth probably his son, an elderly bearded, bronze-faced fisherman rose from the floor and cried, "Praise God," "Praise God," while the younger man repeated again and again, "Hallelujah! 'tis done."

Remarkable Reconciliation

In a moment of silence [illegible] Clark stepped forward, and [illegible] fine enunciation and a [illegible] cadence of voice read some verses from the Bible followed with a brief address on the Cavalry spirit and the drawing nigh to [illegible] Christ. All the while he spoke there were emotional cries from the body of the hall, and [illegible] where was the sound of [illegible]ng. As he closed the Bible he held [illegible] his hand the audience without [illegible] intimation or disciplining of [illegible] kind, burst forth into the singing of "He died of a broken heart." Then came the conversions [illegible] lier in the revival a Mercy Seat was placed in the front of the hall to which new converts [illegible] minutes men and women of all ages stood up one after the other and proclaimed their new found faith.

So the evening wore [illegible] moods of the audience [illegible] themselves by remarkable expressions, until all that had gone before was overshadowed by an incident of which I regret having been witness. A woman [illegible] front of the pulpit [illegible] told the company [illegible] been separated from her husband since early in the war. Now she had accepted Christ and having obtained forgiveness from Him asked for pardon from the man she still loved. In a moment [illegible] band was at her side [illegible] moved forward, "I have been [illegible]ed." They embraced and kissed and then left the hall to go home together.

A public reconciliation of this kind gave the unavoidable impression that the affair had been staged managed, and one would have wished that the meeting of the husband and wife had taken place privately in another place. As the couple went out, the enthusiasm of the spectators rose to white heat, and for 15 minutes they sang hymn after hymn, the fervour never waning for a second.

About midnight the outdoor and indoor audiences joined [illegible] street and marched in procession to the war memorial at Inverlochy, where for an hour converts stood in the ring and gave their testimony. Long afterwards sounds of hymn singing could be heard in the dimly lit houses of the village.

A Sad Occurence

As it is with Cairnbulg and Inverallochy, so it is with the nearby village of St. Combs. Every Sunday about 1000 people march between these places, the processionists being led by standard bearers and drummers. The revival in St. Combs has been attended by an occurrence which has cast a shadow over the district. One of the most respected residents of the village has had to be removed to the Aberdeen Asylum, and his "conversion" is a story of a domestic tragedy. After leaving home one evening, he went to the usual prayer meeting in the village and during the proceedings seized a chair, which he smashed to pieces before the audience as a protest against "a Church of Scotland minister having sat in it." Another prominent and well known man in the district sought to restrain him but his interference was objected to by the others present, who shouted, "Leave him, leave him. He is filled with the Holy Ghost." On the following morning the doctors were compelled to certify him insane, and to order his admission to the asylum.

In Fraserburgh the revival is also at its height. Here it is being led by a young man named "Jock" Troup, who was formerly a cooper at Wick. Every night the congregational and Baptist Churches in the town are filled to overflowing and services are conducted in the street until after midnight. A young man from here, a watchmaker to trade, had also to be admitted to the Aberdeen Asylum this week.