

Northern Alberta for Stock Raisers.

A trip up the Calgary and Edmonton road to the northern terminus at Strathcona, is a revelation to the Easterner of the possibilities of that country. Although under the temporary disadvantage of a series of heavy rainfalls, the depth of rich black, almost inexhaustible soil, the bluffs and streams, the rich grasses, etc., show conclusively that as a stock country this territory is hard to equal. The cattle are all in good condition, and are a speaking testimony to the nutritive properties of the grasses. With a cool climate and moist soil, one is not surprised to learn of Edmonton oats winning at Paris. Dotted along the line are numerous little villages, each claiming superiority for its district. In the Olds district, the land appears freer of brush than further north, and is eminently adapted for stock-raising, little attempt being made to grow grain. From the railroad can be seen fine houses, evidences of the district's wealth. At Innisfail, further north, the land takes on a different appearance: more bluffly and suited to mixed farming. At this point is a large Government creamery, at which the patron's cream is made up into butter at a cost of four to five cents a pound. The contributors are paid every month ten cents a pound on their butter, the balance coming at the end of the season, when the cost of manufacturing is deducted. The benefit to the farmers and small towns can be imagined by the monthly distribution of cash.

Midway from Calgary to Edmonton is the thriving town of Red Deer, surrounded by a typical stock-raising and dairying country. A Government creamery and a sawmill indicate the leading industries of the district.

At Lacombe the character of the country changes markedly, being flatter, although east of the town a few miles is a beautiful country on a gentle slope. As referred to in the Gossip columns, Lacombe is the great center of the pure-bred herds of cattle. Oats is the principal grain marketed, for which provision is being made in the erection of a fine elevator. The land varies from a sandy loam to a black loam. The settlement here is mainly Canadians. At Ponoka, about twenty miles north, Americans have gone in in large numbers. Some large-sized timber is floated down to the sawmill there. This is also a mixed-farming country. The town is situated on a rise of ground, the soil seeming to be somewhat sandy. Wetaskiwin is another creamery point and oat-raising center, two elevators being erected here. A large Government creamery is located here also, to look after the dairying interests. This spot seems a favorite with settlers, and all nationalities are rushing in, the soil being of much the same general character as the previous points. Between this point and Ponoka, to the south, is a beautiful country, part of which is included in an Indian reserve, the station being Hobbema. Leduc is another thriving town, with elevator and other facilities for business. Frenchmen are quite numerous in this neighborhood, dairying here again being the mainstay. At Strathcona, the present terminus of the line, large elevators and oatmeal mills are located. The country around is very fine, the soil being very deep and rich. The country close around is well settled up, and one hears of big crop yields, 100 bushels to the acre of oats being a common yield. A drive of three miles, necessitating the crossing of the iron bridge over the Saskatchewan, brings one to the old town of Edmonton, modern in its appointments, electric light, telephones and schools. Here a person can see the gold dredge at work, and the Hull-Gallagher packing houses. The soil here is of the same tenacious character as that south of the river, and is as productive, as is demonstrated at the fairs held here. In the vicinity are noted districts such as Horse Hills, Spruce Grove, Clover Bar, and Lac du Bice. The settlement extends for miles north of the town. Judging from appearances, a person would say that for farms close to the railroad, dairying will pay, owing to the proximity of the creameries, while back from the road ranching can be carried on. Some of the towns have very flat sites, and unless great care is taken with regard to the night soil, the wells and stagnant pools will receive a sad baptism of typhoid, an experience some Manitoba towns with similar sites have gone through years ago. In a country where land is so plentiful and cheap, it is hard to understand why townspeople will crowd so close together, and thus prove a menace to their own health, besides making the insurance rates so high. Such close quarters cannot be made attractive in the way of lawns, gardens and trees. Children galore are to be seen all along the line, and the main agricultural structure of nearly all the villages is the modern schoolhouse. Education is the great force, after all!

Americans Gradually Following Our Lead.

Prof. C. S. Plumb, Indiana Agricultural Experiment Station, in reply to an editorial in the *Chicago Live Stock World* on the feeding and breeding of hogs, says:

"Without intending to be particularly radical on the question, as one interested in the production of American pork, I believe that our farmers must do something further than to adhere to the particular type of fat pig which is now being produced by them. If our people do not believe that the bacon pig can be profitably handled, I believe that other men may also realize that many of our people are getting far more unsatisfactory returns than they should have from our typical market pigs."

"It is not simply a question of how much gain an individual pig will make in a given length of time to make a profit, but the matter of reproduction and the future development of our swine interests have everything to do with the future development of our pork trade."

"The man who has a sow that produces a litter of six, other things being equal, is at a disadvantage when compared with the man who handles a breed of pigs that will farrow litters of ten or twelve."

"I think observing handlers of Poland-China swine, for example, must realize that this breed is deteriorating to a greater extent than it should. It has been fed on corn and bred within such fat-production lines that its capacity to reproduce, and the character of its bone, is, as I believe, considerably injured over what the breed was fifteen years ago. This is not simply an opinion of my own, for I have heard many Poland-China breeders express the same thing."

"Again, there is such a thing as a pig maturing too quickly and forming more of the dumpling style of hog than an animal capable of strong, full growth. At the Indiana Experiment Station, where we keep some of the very best of American breeds of pigs, purchased from the best known breeders in this country, I have had very good opportunity to see something of this form of development which, in my eyes, is defective. Some of our breeds should have a greater capacity to continue growth and expand, and have a large size for breeding animals."

"The extreme type of the bacon pig is not likely to meet with favor in the United States, and I am not prepared to say that it would be the most profitable type of pig that our farmers should handle. I do believe, however, that the better type of Large English Yorkshires or the leaner type of Berkshires will commend themselves from the breeder's standpoint to farmers who will give them a fair and impartial trial. Our American pigs as a rule lack bone. The leaner type of pig inclines materially to better bone, will produce altogether larger and better litters than the fatter pigs, and have greater activity and, I believe, constitution than the heavier, fat-producing sort. It is not so much a question as to whether we shall produce a bacon pig or not, but it is an important question as to whether we shall produce a class of pigs that will have constitution, bone, and great reproduction capacity, and yet that will produce a type of meat that is in demand the world over."

"Exclusive corn-feeding will do much to injure any breed, but if our swine-breeders will study the subject of breeding, combined with the influence of feeding, I feel sure that they will not be satisfied with the swine question as it stands to-day."

"There is a first-class opportunity for the improvement of our pigs, as I have already indicated, and the bacon type of hog can play a perfectly legitimate part in this improvement."

Horse Breeding in Alberta.

THE RAWLINSON RANCH.

Nestling in a cluster of hills, down whose sides trickle little rills which become young torrents after a summer's rain, within sight of the snow-capped peaks of the Rockies, lies the ranch of the Rawlinson Bros. In days of old, probably before count was made of time, the River Bow rolled over this land, and in its variable way scooped out the hollows and left the hills. Hill and hollow, it is all coated with that benediction of nature—grass—whose nutritive qualities do so much to aid in the growth of the well-shaped bodies, flinty feet and cordy tendons of the equine tenants of this ranch. Doubtless the ozone-laden atmosphere does its work so that the wind of the Western horse is irreproachable and unrivalled anywhere. To discourse on things mundane is our theme, and to the student of horse-breeding we would commend a visit to the Burmooor stud farm, some twelve miles distant from Calgary. This large property, surrounded by and divided into fields by what is termed the A fence, carries some 250 head of horses and quite a few sheep. The proprietors are breeders of Hackneys of the useful type, and, while themselves conversant with the pedigrees and performances of noted sires, are not led away by a craze for blood, but aim at the target of utility. To the farmer who so often objects to the massive draft horse as the farm worker, and who desires a horse that can draw a fair load and go a fair pace, and yet who is in doubt as to how to breed the desired type, we can say, unhesitatingly, the Rawlinson brothers have solved the problem. By the aid of upstanding, strong sires, with the quality that wears, grading carefully up, strong, useful horses are got, with plenty

of action, the right conformation, and weights ranging from 1,100 to 1,350 lbs. Such a horse, the granddaughter of a French-Canadian pony, was shown the writer, a conclusive proof that by a careful selection of sires and persistency along right lines, the grading up of horses is just as satisfactory as the grading up of cattle or sheep. The brood mares number sixty, and are bred in June or July, the stallions being turned into the corrals with the mares for a few hours once every three or four days. In order to provide sustenance for the stock during the winter, 100 acres is put in crop, oats being the cereal grown, which is cut so as to make oat hay. Two crops are taken, and then the land is summer-fallowed. The largest yields are thus obtained, taking sometimes 5 lbs. of twine to the acre to tie the crop. The owners prefer oat hay to hard feed, such as oats and native hay, as by its use in the fall the colts are gently scoured out and thus rid of any worms which they may have been infested with. Colts are all halter-broken and fed the first winter, a course of instruction which they never forget, and are, therefore, more readily handled when mature. One leaves regretfully when the time comes to return to town, as the hospitality tendered by the Rawlinsons is hearty, and one's store of horse lore is much enhanced by the visit.

FARM.

The Farm Well.

How often we hear that a certain farm is an extra good stock farm, either because of running water or an inexhaustible well. In many places the location of the buildings depends on the location of the water supply. There are certain essential features of a good well: (1) Ample capacity to supply pure, clear, cold water; (2) a location which renders it not likely to be contaminated by seepage from surface impurities; (3) a casing or curbing which is verminproof at the top, and, if possible, waterproof in its upper ten or twenty feet. The capacity of a well should, if possible, be much greater than the probable demands which will be put upon it; it should not be possible to pump the well dry with an ordinary pump.

With the ordinary domestic pump about thirty strokes are made per minute, enabling one to fill a pail of twenty to twenty-four pounds; at this rate about seven and a half gallons would be pumped every three minutes. A good well should be able to keep this rate up for several hours. As the domestic animals require for every 1,000 pounds weight about a cubic foot (7.5 gallons) a day, the stock-carrying capacity of a farm can be gauged to some extent by the water supply. Generally speaking, the greater the depth the greater the capacity of the well, provided the water-bearing strata has been touched. From experiments made, an increase in the diameter of a well has little effect on its capacity, therefore in most wells little is gained by making them larger in diameter than would be necessary to allow space for the pump. As before mentioned, an important feature of every well, where the water is intended for domestic or stock use, is a sufficient depth to prevent the quick-entrance of water from the surface, and to maintain a constant low temperature. The depth should usually exceed twenty feet (for reasons which we shall state later), and even when water is found nearer the surface than this, it is better, if the water-bearing strata will permit, to go thirty feet, and place the pump so as to draw from the bottom where the water is the coolest and freshest. Before ground water becomes fit to drink it needs to go through a depth of soil, practically filtering, and time to bring about changes in it by which it becomes free of organic matter. In the analyses of well waters its fitness for potable purposes depends mainly on the absence of organic matter. The temperature of well water becomes of considerable importance on those farms where well water is used for the deep-setting milk or cream cans. The geologists and soil physicists tell us that the zone of the lowest ground temperature is generally from twenty to seventy feet below the surface, and between these depths the coldest waters are procured. Above twenty feet the waters will be colder in winter and warmer in summer, while below the extreme depth (seventy feet) the water generally becomes warmer from the internal heat of the earth.

The well curbing is of importance, because if properly put in and of good material vermin will be totally excluded. An authority on such matters recommends a six-inch lap-weld steam pipe; if galvanized, all the better. A curbing of cement tile (somewhat similar to what is recommended for road culverts by Ontario Road Commissioner Campbell), or glazed sewer tile, with the joints set in cement, ranks next in utility to the metal (steel) piping. If the well is to be curbed with brick or stone, the upper ten feet should be laid in cement and plastered on the back to keep out the surface water and vermin. At the top of the well the curbing should be carried up fifteen or eighteen inches above the surrounding surface, the earth being graded up to it so as to secure perfect and quick removal of the surface water.