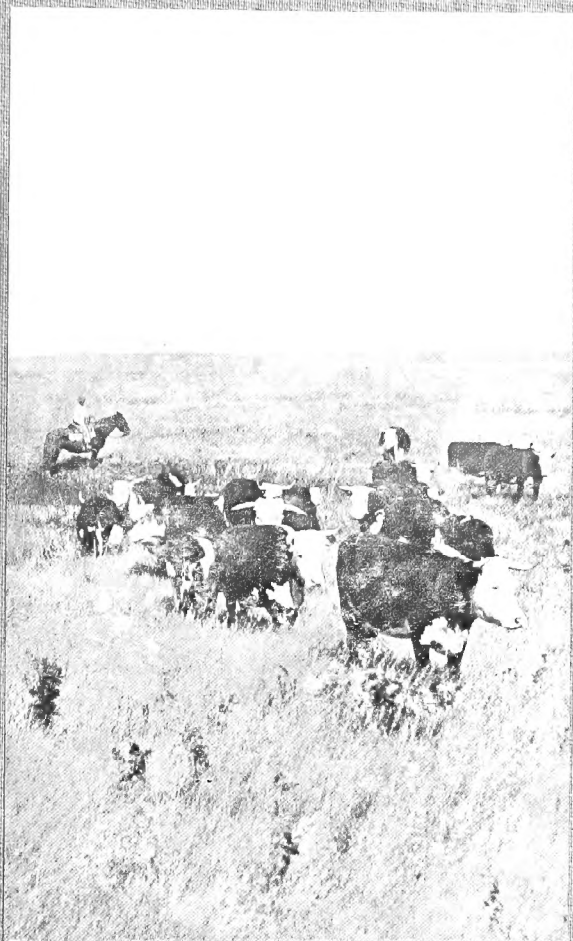
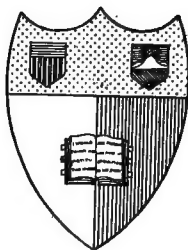


**RANCHING · IN · THE
· CANADIAN · WEST ·**



· A. B. STOCK ·



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At Cornell University
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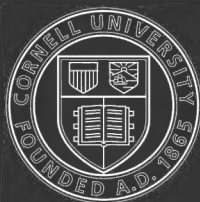
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PUBLISHED BY

A. AND C. BLACK, 4, 5 AND 6 SOHO SQUARE, LONDON, W.

RANCHING IN THE CANADIAN WEST

AGENTS

AMERICA	THE MACMILLAN COMPANY 64 & 66 FIFTH AVENUE, NEW YORK
AUSTRALASIA	OXFORD UNIVERSITY PRESS 205 FLINDERS LANE, MELBOURNE
CANADA	THE MACMILLAN COMPANY OF CANADA, LTD. ST. MARTIN'S HOUSE, 70 BOND STREET, TORONTO
INDIA	MACMILLAN & COMPANY, LTD. MACMILLAN BUILDING, BOMBAY 309 BOW BAZAAR STREET, CALCUTTA

RANCHING

IN THE

CANADIAN WEST

A FEW HINTS TO WOULD-BE STOCK-
RAISERS ON THE CARE OF CATTLE,
HORSES, AND SHEEP

BY

A. B. STOCK

LONDON
ADAM AND CHARLES BLACK
1912

TO
MY BROTHER
RALPH,
FOR WHOSE INVALUABLE ASSISTANCE
DURING THE PREPARATION OF THIS LITTLE BOOK
I AM DEEPLY GRATEFUL

INTRODUCTION

RANCHING, as carried on in the Canadian West, is an entirely different business from that of Argentina, Mexico, Texas, Australia, or, indeed, anywhere that I have heard of in the world where the country is suitable for the purpose. In the countries just mentioned huge tracts are purchased and fenced off, and the stock allowed to graze within this prescribed area, bounded by posts and barbed wire. On the Canadian prairies an entirely different system is adopted, which entails much less expense, with greater profit to the rancher, and decidedly more freedom to the cattle, horses, and sheep, who wander placidly grazing for months over the rich grass, pathetically unconscious that—in the case of cattle and sheep—they are qualifying to provide wholesome food for countless families across the seas. In the ranching districts the vast stretch of undulating prairie is common to all settlers' live stock for hundreds of miles, with the exception of the various homesteads dotted over it, which must be properly fenced if cultivation of any sort is contemplated. In the case of horses and cattle, they have been known to travel for a hundred miles or more in all directions, seeking food and water for themselves, and are usually gathered in twice a year by the district "round-ups," organized by the ranchers for this purpose, and worked in a thoroughly methodical and business-like manner, which will be described later.

Briefly the aim and object of the intending cattle-raiser is to buy yearlings at \$15 (£3 2s. 6d.) to \$20 and sell them in three to four years for \$42 to \$60, according to the market prices prevailing at the time. During this period they are maturing and fattening on grass and water alone, at no expense to their owners, for no grain finishing is necessary where there is such an abundance of nutritious grasses and good water, together with an invigorating climate.

Special areas are allotted by the Government to those who desire to engage in sheep-rearing, on account of this animal's habit of cropping the grass so short that no cattle would be able to feed after them with any hope of adequate returns to their owner.

Horses are bred in large numbers, and are profitable to breeders who thoroughly understand them, and are alive to the advantages of raising only those which are suitable to, and have a demand in, the particular market which it is intended to supply. I will fully explain my meaning in the chapter devoted to horse-ranching.

I have often wondered, when riding after cattle on the prairie in the invigorating air and bright, unclouded sunshine of an early spring day, that more of Britain's sturdy sons, now languishing, chained to the office stool of some large commercial house, do not manage to escape somehow and taste the joys of a free, open-air, healthy life where God's air can be breathed every hour of the day. Where in the large towns of the British Isles can the average small clerk earn 30s. a week, *exclusive of board and lodging*, and in a congenial vocation at that ?

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RANCHING IN THE CANADIAN WEST

CHAPTER I

OUTFIT—SUITABLE DISTRICTS—PROBATIONARY HIRED MAN—FRIENDLY ADVICE

A FEW words to the intending rancher would not be out of place here in regard to his outfit, and the best way of gaining some knowledge of the details concerning the business he proposes to take up on the Canadian prairie.

OUTFIT.

My advice to all would-be settlers is—leave your riding-breeches at home. Oh yes, you'll have plenty of horse exercise—more than you want sometimes!—but the English pattern of garment is totally unsuited to the country and climate. Good strong woollen clothes you will find the most useful for wear on all occasions when not at work, but on the ranch the most durable material is undoubtedly that used for the manufacture of overalls and

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“blouses” (short work-jackets), which you can procure in any town on the other side for \$1 (4s. 2d.) to \$1½ each, and which will last for a long time with the roughest work. As many pairs of boots of the heavy working order as you care to take with you will be useful, for I have so often found the Canadian leather defective and the workmanship of the boots imperfect that this would really pay you. Some of them should be a size or so too large, in order to allow of three or four thick socks being worn. Thick woollen underwear for winter use, both vests and pants, is imperative if you wish to avoid discomfort from cold. Strong dark grey flannel shirts, with tennis collars, are the most serviceable sort for working wear, with a few lighter ones, both in colour and texture, for the hayfield in summer, when it is very hot. A fur coat or jacket, lined with sheep-skin, will be a grateful addition to your kit when the thermometer is at 30° below zero. These should be bought in Montreal or some large eastern town on your way up country, where the selection is larger and the prices are more moderate than in the small towns farther west. A good coat (with fur worn outside) would cost anything between \$30 and \$100, according to quality, and a strong canvas jacket lined with sheep-skin about \$6½. Three or four good warm woollen blankets are absolutely necessary,

and should be purchased on this side of the Atlantic if economy is a consideration, likewise a good-sized waterproof ground-sheet, which will be found most useful to take on "round-ups," and for camping purposes generally. Both pipes and razors are very dear in Canada, so do not forget to furnish yourself with these before sailing, should you require them. You will find a small assorted medicine-chest come in handy on occasions. If you have a shot-gun, by all means take it, but do not buy a new one before starting on the voyage, or you will be charged duty for it by the Customs on landing. A good horse-bridle, reins, and bit, too, it would be quite worth while to include amongst your baggage, as I have found them superior to those of "Canuck" manufacture, and very much cheaper.

Remember that all articles which you take into Canada go through as "settler's effects," free of duty, *provided you can prove that you have had them in use during the previous six months.* The Customs officials are not ultra-particular in enforcing this law, I am happy to say, which redounds to their credit, for in a highly protected, and consequently prosperous, country like the Dominion a large sum annually must be lost to the revenue in this way, but they get the settler, and that is what they want more particularly.

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SUITABLE RANCHING DISTRICTS.

The district chosen by the would-be rancher for his field of activity must be governed entirely by—

(a) The amount of capital at his disposal ; (b) the class of ranching he desires to embark in, whether cattle, horses, or sheep ; (c) whether he wishes to combine with it some of, or all, the various forms of mixed farming. It is essential that these points should be well considered before leaving the Old Country if the saving of time, trouble, and expense, is an object. If you have unlimited capital, are a devotee of field-sports of all kinds, and would engage in stock-raising for want of some new and really delightful employment, I should say at once “ go to Calgary or Southern Alberta ” district, where you can get all the social amusement you reasonably require, although “ workers ” are to be found there too, who are making big money from their “ bunches,” as well as by horse-breeding. There are also some large concerns over the Rockies in British Columbia, but this little work would not be of much service to any but the “ small man ” with limited means, who wishes to commence in quite a modest way, and gradually increase his herd according to his opportunities. This would entail an

entirely different system of going to work from the outset.

With £500 to £1,000 a very fair start could be made with cattle or sheep, and even horses if due economy is observed, but in the latter case it is more of a waiting game for the profits that accrue.

Should a combination of stock-raising and various branches of farming be desired, I know of no better locality than that north of Calgary, on the Calgary and Edmonton line, as far as, and all round the neighbourhood of, Edmonton in Alberta. Here, however, the herd laws are strictly enforced, owing to its particular suitability as a farmer's country, large tracts being under cereal and other crops, which would be seriously damaged by roving herds of cattle and horses. Manitoba is now being so thickly settled by farmers that ranging of stock is quite out of the question.

Roughly speaking, the area devoted to ranching extends from the southern bank of the Red Deer River, as it flows from the foothills of the Rocky Mountains, in a straight line east, to the western bank of the Southern Saskatchewan River at about latitude 52°. This is the northern boundary. Practically the whole country south of this as far as the international frontier is grazing land (approximately 300,000 square miles), so it will readily be seen by a

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glance at the map what a vast tract is available for ranching purposes, with no aggravating herd laws to interfere with the liberty of the beats. At present the ranching area is only stocked at the rate of about one head of cattle, horses, or sheep, to each 250 acres.

THE PROBATIONARY HIRED MAN.

My advice to all those desirous of trying their hands at cattle, sheep, or horse-ranching, is to seek employment with a competent man, already firmly established in the business, for a couple of years at all events. A longer period would do no harm, and would be the means of giving you that confidence and self-reliance so much needed in an undertaking of this kind, as well as of adding to the capital you intend to invest at a future date in a homestead of your own. If you have a head on your shoulders and any "go" in you at all you should have no difficulty in earning \$30 a month in the summer and \$15 in the winter, board and lodging supplied by your employer. You would be surprised how soon it is possible by this means, with care, to amass quite a respectable sum, if you give the hotel bars only an occasional visit when in town, and are not extravagant in other ways. I could name many

ranchers now running respectable herds, who started in with only what they were able to save after a few years of playing hired man to large stock-keepers. If you happen to be a "green-hand" when first you arrive in the particular district you have selected to find a job, it may be that it will be necessary to go out with some stock-owner to work for him the first three months for your board alone, as you cannot reasonably expect him to feed, instruct, and pay you wages. Three months should see you a fairly handy man, and deserving of some remuneration for your labours, provided you have been industrious during that time, and if your employer cannot see his way to gratifying your request, take yourself off to another in the neighbourhood who can. Labour is not so easily come by that he will be content to let you go unless you are utterly useless, especially during haying-time. I would especially warn all those desirous of ranching or farming in Manitoba and the Western Provinces generally against men who advertise for pupils, whom they claim to instruct—for a fat premium, of course—in all branches of the industry. You are naturally in a far better position for acquiring the necessary knowledge from an old settler, who will teach you all you need to know without a fee of any sort to start with, and will pay you wages as soon as

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you show signs of having gained a little experience under his direction.

When sailing from these shores you should book straight through to either Swift Current, Maple Creek, Medicine Hat, Lethbridge, or Macleod. They are all on the Canadian Pacific Railway (the first three on the main line), and are important towns well in the ranching centres, and between them are plenty of smaller ones to choose from, in one of which you are bound to find employment if you go the right way about it.

FRIENDLY ADVICE.

A little friendly advice on one or two points that would be of real value to him, would do no harm to the emigrant, provided he will only follow it. Canada is essentially a democratic country, and a man's status in life is determined there, not by the length of his genealogical tree, but by that of his purse, or, to be more exact, the number of dollar bills in his pocket-book. Do not, therefore, when you arrive at the dollar-a-day hotel at which you elect to stay, and find yourself in what you consider rough company, crawl into your shell, answer in monosyllables with haughty mien, or utterly ignore the kindly person who may address a remark to you, as I have

seen so many fresh arrivals do. A little geniality and bonhomie go farther than you would imagine when you are trying to "hit a job." The "Canuck," as a rule, is a good-hearted soul, and will often go out of his way to do a good turn to the "greeny" looking for work.

When you have been taken on as hired man, too, and are told to do a job in a particular way by your employer (although you may have had some previous experience of the manner in which it is done at home), carry out his wishes to the letter, without question. You will find in the end that his is usually the best method to suit the exigencies of the climate or other varying conditions that have not to be taken into consideration here.

Do not be afraid of asking your employer intelligent questions, which may bear upon your work with him, or the plans for your own projected ranch. He will readily give you what assistance he can if you have made yourself valuable to him, and will always allow you to run any young stock you may buy out of your savings at odd times, as opportunity offers, with his own herd (properly branded with your own irons, free of charge) until you have built your own place, and the beasts can be transferred to their new range.

CHAPTER II

HOMESTEADING—CHOOSING A LOCATION—BUILDING —THE CORRAL—THE STABLE—THE SHED—THE ROOT-HOUSE

WE will now presume, having worked conscientiously for a couple or more seasons with ranchers of some standing, that you have kept your eyes open during that time for a likely location for your own homestead (experience will have taught you the most suitable one to select), and will proceed to describe how best to start the running of a modest bunch of your own. First, however, it is absolutely necessary to have your buildings up ready for its shelter in the event of an early winter coming on. Your own comfort also must be considered in the way of housing and conveniences.

HOMESTEADING.

All the lands in the ranching and farming areas of the West are laid out in what are termed "townships," which are practically square in form,

on east and west, bounded by true meridians of longitude, and on north and south by circular parallels of latitude. Townships are subdivided into thirty-six sections, containing 640 acres, more or less, with road allowances 66 feet in width dividing them off. Each section in turn is divided into four quarter sections of 160 acres each, which are designated the south-east, south-west, north-west, and north-east quarters. The corners of each division are marked out on the prairie by "mounds"—viz., stone or earth heaps—into which is fixed an iron rod with a metal label attached to the top, bearing the number of the quarter-section of which it denotes the boundary, so that it should be an easy matter to locate any piece of land you may have selected, provided strolling, predatory Indians have not removed the label, which they often do. Early white settlers have seen rows of them, forming a necklace, adorning "squaws" of the Cree tribe.

	N						
	31	32	33	34	35	36	
	30	29	28	27	26	25	
W	19	20	21	22	23	24	E
	18	17	16	15	14	13	
	7	8	9	10	11	12	
	6	5	4	3	2	1	
	S						

160 acres	160 acres
N.W. $\frac{1}{4}$	N.E. $\frac{1}{4}$
S.W. $\frac{1}{4}$	S.E. $\frac{1}{4}$
160 acres	160 acres

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The two plans on p. 11 will more clearly illustrate my explanation, and are those of a township and section (the latter with the quarter-sections of 160 acres marked on it).

With the exceptions which I will point out, the even numbers (2, 4, 6, etc.) are sections owned by the Canadian Government, and (unless already taken up) are open for occupation by intending settlers on payment at the local land office of the district of a registration fee of \$10. At the end of three years, provided you have fulfilled the conditions laid down—viz., residence upon your quarter-section for at least six months in each year, and improving it in the form of buildings, fences, or placing 15 acres of it under cultivation—you apply to the District Land Agent for your patent. Having received this the 160 acres are your own property to do as you like with, but there are certain reservations in regard to minerals found on them, as in the case of all Canadian lands.

The odd-numbered sections (1, 3, 5, etc.) are railway lands, and the property of the Canadian Pacific Company (within a prescribed distance of 25 miles each side of the railway track) from whom they can be purchased outright, or on an easy instalment principle, at from \$3.50 to \$10 an acre, according to the part of the country in which they

are situated, *but are not open for homesteading in the same manner as Government lands.*

Sections 8 and three-quarters of 26 in each township (see plan) belong to the Hudson Bay Company (the north-east quarter of 26 being Government land, and available as a free grant), and must be purchased if any part of these sections is desired by the would-be rancher. Sections 11 and 29 in each township are school lands, and are sold from time to time to raise funds for educational purposes, but never "homesteaded."

Only one quarter-section of Government land can be taken up at a time by the settler. Mr. H. A. Kennedy, in his interesting book, "New Canada and the New Canadian," estimates that there are 95,180,000 acres of Government land still available for cultivation, and that it will take thirteen years to exhaust the supply.

BUILDING.

In selecting the spot on which you propose to build your future home, one or two important details have to be taken into consideration. The first of these is undoubtedly the water-supply, both for yourself and the stock. The second is wood for fuel, building material, and fence-posts. If possible, you should endeavour to choose a quarter-section

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through which a "creek" (stream) runs, or on which there is a "slough" (pronounced "sloo": small lake), but make quite sure that neither of these sources of supply runs dry during the heat of summer, or floods your land too much in spring when the snow melts, also that the water is suitable for drinking purposes. If you are close to a large lake or river, which you have definitely ascertained from local information does not play the tricks described, it should be a desirable location to choose. Water can be found anywhere by digging a well from 12 to 50 feet deep, but this entails a lot of work in finding, and also watering the stock with it when found, unless a windmill is used for drawing it, the purchase of which would entail too much of an inroad upon a small capital.

If you should have no timber on your homestead it would be well to apply to the local agent of Dominion lands for a permit to cut what you require for building, fencing, and fuel from the nearest available supply that grows in the neighbourhood of your ranch. The office fee for this permit is 25 cents (1s. 0½d.). You are allowed—(a) 3,000 lineal feet of building timber, but no log exceeding 12 inches at the butt end, unless it is cut from dry trees; (b) 400 roof-poles; (c) 2,000 fence-rails; (d) 500 fence-posts, 7 feet long, and not more than 5 inches at the

small end. All dry wood, suitable for fuel, can be taken at any time without permission.

When choosing a site for your house, endeavour to build it in a position as sheltered from the north wind as possible, and not too far from your water-supply. The homestead should be at least 3 miles away from your nearest neighbour, with plenty of good hay-grass within a reasonable distance. Do not be afraid of settling down 30, or even 100, miles from a town if, by so doing, you can insure the advantages I have mentioned. Close crowding is the most fatal mistake you can make if you wish to succeed with ranching. The question of the material used for construction now must be considered, and this is largely a matter of how much you can afford to lay out upon it. A good four-roomed frame house would cost you anything between \$500 and \$1,500, according to the quality of workmanship and lumber employed. The careful beginner, however, will be wise (especially if he have no family with him) to content himself with quite a modest structure to commence with, formed of square pine or cotton-wood logs placed one upon the other, neatly grooved or dovetailed at the corners, the interstices being filled in ("chinked," as it is termed) with good cement, or the more homely "gumbo" (a kind of sticky white clay, found in patches, more

or less all over the prairie country) pressed well in on both sides with a trowel. Cow-dung, mixed into a thick paste with water, and put into the crevices, also makes a good chinking material, which dries hard, but it requires more frequent renewal than the other two processes I have named. The very best composition I know for this purpose is made by using equal quantities of wood-ashes and quick-lime to three times the amount of sand, mixing it well together with salted water, to the proportion of 1 pound of coarse salt to a gallon of water, which must be applied at once. It soon dries almost as hard as concrete, and lasts for a great length of time.

The easiest "shack" (hut or cabin) to build, and decidedly the most economical—to say nothing of its being the warmest—is that constructed from large sods cut out of the prairie and piled up to the desired height, on the same principle as the majority of the poorer farms in Iceland. Banking earth up round it to 3 or 4 feet high will insure additional warmth in winter, as well as coolness in summer. Take care, though, to leave sufficient space for door (or doors) and windows, as well as a hole for the stove-pipe to pass through, in the process of building, either with logs or turf.

Another system which I can recommend the man to whom money is an object, and who does not want

to go to expense in building, is the house erected by means of walls of "pisé," or rammed earth, which is fully described in that handy book for all amateur builders, carpenters, etc., "Every Man his own Mechanic," published by Ward and Lock, pp. 576-582. Space does not admit of my attempting to deal with the process here, but it is fully and lucidly explained by means of diagrams in the work referred to, which is obtainable at most public or lending libraries, and would amply repay study, not only on this particular subject, but others of great value to settlers in a new country, who are compelled to turn their hands to all sorts of mechanical work.

I cannot hope, in the small compass of a manual such as this, to deal exhaustively with the subject of building requirements on the Canadian prairie, even if it were possible, without the aid of innumerable diagrams and lengthy explanations, to make my meaning sufficiently clear to be of service to you. In the course of your work as a hired man you will have ample opportunities of looking round for yourself and noting the various modes of construction of dwellings, stables, corrals (pronounced "kraal"), cattle-sheds, root-houses, etc. You will be greatly impressed sometimes by the ingenuity displayed by some ranchers in devising means for providing shelter both for themselves and their

dumb friends. In many cases one man will expend a hundred or so dollars to attain the particular object he may have in view, whilst another, with a few posts, poles, and "brush" cut from a neighbouring clump of bush, some turf, a little wire, a few nails, and his own labour, will accomplish work which is equally serviceable for the same intended purpose.

I would always recommend your having shingle roofs on the house and stable if you desire your own and your work-horse's comfort in the spring. A turf roof is excellent in winter, but it is apt to leak badly when the snow is melting.

On application by letter to the proprietors of the paper, *The Nor'-West Farmer*, Winnipeg, Manitoba (which you might, with considerable advantage to yourself, subscribe to regularly, \$1 per year), they will send you plans for any sort of house or out-building of which you require information for helping you to build, with full details as to how to set about it.

THE CORRAL.

The corral should be sufficiently large, and made of stout posts let into the earth (without being tarred) $2\frac{1}{2}$ to 3 feet deep, with 4 to $4\frac{1}{2}$ feet standing out of the ground, to which three or four tiers of poles are strongly fastened horizontally with thick wire. A

great saving of time and labour in watering the stock would be effected if the corral fence were extended to the opposite bank of a creek, or, in the case of a slough, some little way out towards the middle, so as to insure a supply of water inside the enclosure, to which the animals can have access at any time.

Abutting upon the corral, in whatever dry position is deemed most convenient, should be the stable, shed, and stackyard, each with doors and gates opening into the corral. It would be well to take note of any ranch you have seen that particularly impresses itself upon you as being laid out in the best manner in regard to its outbuildings, and model your own upon it. The principal thing to aim for is to have the hay-yard as near to the stable and shed, and on as dry land as possible, so as to facilitate the feeding of stock during winter.

THE STABLE.

The stable for the accomodation of your work and saddle-horses need not be an expensive structure so long as it is windproof and has a good roof. Logs, half-dressed lumber (boards planed only on one side), or even rough lumber (unplaned), roofed with cedar shingles, will do excellently, as long as the logs are well chinked, to keep out draught, and the

boards, if lumber is to be used, are nailed on to the framework perpendicularly, and 3-inch battens put on outside to cover the joints. The interior fittings should be simplicity itself. No flooring-boards are necessary, as the earth soon gets beaten hard by the horses' feet, and the animals are inured to the inclemency of winter, and only require a little bedding of hay during the colder months. Single stalls, as we know them in this country, are seldom met with in the West, unless one may be occasionally rigged up temporarily for the accommodation of a nervous, restive broncho, to prevent his doing damage to the horse next him.

Team-stalls—that is, accommodation for two horses—are formed by the simple device of digging post-holes in the ground, where necessary, beneath the ridge-log of the roof, and placing pine-poles in them, the other ends of which are spiked to the ridge-log overhead, so that each team or each pair of saddle-horses has a stall to itself.

With a few feet of 2 by 4 scantling and 1 by 3 rough lumber a serviceable hay-manger can be constructed down the whole length of the side of the building opposite to that in which the door is placed, and strong boxes should be firmly fixed at intervals, according to the accommodation, from which to feed oats to the horses.

THE SHED.

This is a useful structure during winter-time in affording shelter to stock that is unable to face the rigours of a really severe season, and for this reason care must be taken to render it as warm as means and circumstances will permit. A good shed is half the battle in pulling calves and weakly beasts through a long and trying winter of storms and blizzards. A plentiful supply of hay is the other, and perhaps more important, half, everything considered.

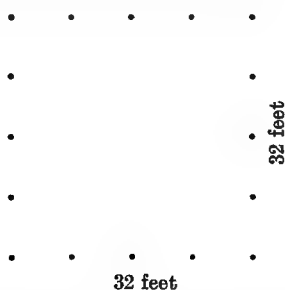
The dimensions of your shed should be governed by the amount of stock you intend to invest in when your building arrangements are complete, allowing a good margin for increase within the next few years. Assuming, therefore, that you contemplate putting 50 cattle or 150 sheep on to the range, you would require a shed accommodation of 128 square feet—that is to say, the boarded sides of the erection should be 32 feet in length on each of its four sides. This is amply large enough to allow for any small augmentation of your bunch that you may contemplate, as well as the arrival of calves. A rough building such as this can always be enlarged by the addition of a panel or two at any time, with no further outlay beyond the cost of rough lumber for the sides and nails, provided you use trees as the posts. Horses

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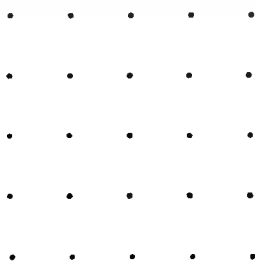
do not require an artificial shelter, and will be dealt with in the chapter devoted to their care and management.

After you have selected the position you desire the shed to occupy, measure out the ground in a square the size you require, and dig a post-hole $2\frac{1}{2}$ to 3 feet deep at each of the four corners. This is done with a spade used specially for the purpose, the post-hole being square in shape, each side the exact size of the breadth of the spade, cut sheer and perpendicularly. Having previously taken your axe to the bush, and cut the requisite number of trees of a suitable size to use as supports for the roof, and lopped and trimmed them to the length of 11 feet, select the four stoutest ones (these should not be less than 6 inches in diameter), and place them in the post-holes at each corner, butt end downwards. While someone holds the post in an erect position you should first throw some stones in and well ram them down round it at the base, then shovel in some of the earth taken out in the process of digging the holes, pounding that down firmly also. More stones and more earth are added alternately and well beaten down, until the hole is filled up level with the ground round it. If these directions are closely followed you should now have the four corner supports of your shed in position, with their

butts embedded securely in the earth, standing up straight 8 or $8\frac{1}{2}$ feet out of the ground. Presuming that you are erecting a shed the size I have mentioned as suitable for 50 head of cattle or 150 sheep, you now dig similar holes, and firmly fix posts in them every 8 feet, in line with your corner ones, along each four sides, making a square of sixteen posts in all, thus :



Proceed then with the holes and posts inside the shed, 8 feet apart in every direction, in precisely the same manner, when the most arduous part of your labour will be over. The roof supports will now number twenty-five, in the following form :



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After any irregularities in the posts have been levelled off to a uniform height with a saw, you must now select forty smaller trees, or limbs of larger ones, which have been properly trimmed of twigs (dry wood is no use), 8 feet 6 inches long, with a diameter of not less than 4 inches at the thicker end; these are called "stringers," and must be notched 3 inches at each end so as to rest flat on the tops of the posts from one to the other in every direction, and are spiked in that position. Across these "stringers" poles must now be laid, 9 to 10 feet long and about 3 inches in diameter, 18 inches apart from, and parallel to, one another, covering the whole area of the shed, but they need not be secured in any way. On these, again, branches of quite small trees, scrub (known as "brush" in Canada), or any form of low willow-shrub, cut with the leaves on them, which can be found on most creeks, are placed evenly and fairly thickly over the whole roof, and well trodden down with the feet. Hay is then thrown up and spread over the brush to the depth of about a foot, and your roof is complete, after a little trampling to insure its settling down.

The sides have now to be put on before the shed is ready for use. At about 1 foot above the ground and 1 foot from the roof horizontal notches, 2 inches deep and 4 inches in width, must be cut with saw

and chisel in all the posts round the building on the outside, so that a piece of 2 by 4 scantling will lie in it flush with the surface of each post. About 50 feet of scantling will be wanted in all, which must be sawn into the requisite lengths (about 8 feet 4 to 5 inches) to enable you to spike each end into the centre of the notches, both top and bottom, in each post. It will be seen that these serve the double purpose of bracing the posts at the top and bottom, as well as being used to nail the boards to, which form the sides. You must now proceed to cut up your half-dressed or rough lumber (1 by 12 feet is best) into lengths of 8 feet. You will require about 1,000 feet in all. The boards should be firmly nailed in an upright position on to the stays at top and bottom, one end resting on the ground, taking care to knock each board as closely as it will go against its neighbour before making it secure. The entrance from the shed into the corral, which is formed by leaving one of the panels—viz., spaces between one post and another—unboarded should face towards the south or south-west (never north or north-east), and can be closed, when desired, by a gate 4 to 5 feet high worked on hinges, or by the simple expedient of placing poles across the entrance on the inside of the shed, held up at each end by a support of some kind on the posts.

When the whole of the shed on each of its four sides (with the exception of the entrance) has been boarded up as indicated, strips of 1 by 3 quartering should be nailed on to hide the joints and to keep out any draught in the same manner as was advised in the case of the stable.

THE ROOT-HOUSE.

This is usually excavated in the south side of a hill or rising piece of ground which slopes to the south, and is of the simplest character. After hollowing out with pick and spade as big a chamber as you require, make a roof 6 feet high by spiking a number of poles as close together as they will lie across the top of a rough framework of posts 6 inches or so in diameter. Rough lumber should be nailed to the framework on each side, leaving space for a door to be hung to give access to the cave on the south side. Pile up the earth which has been taken out in digging the chamber on each side and all over the top of the structure, adding from time to time a good layer of dung from the shed when cleaning it out. You will then have a good frost-proof store-house for field vegetables in the winter-time.

CHAPTER III

CATTLE—BREEDS—BULLS—BUYING STOCK

As soon as the house and buildings are completed, it will be necessary to set about the stocking of your range. By the time you have finished your probation with the ranchers on whose places you have been working, you should have a fair knowledge of what constitutes the best stock to run on your own account. But, for all that, it would be as well to have the advice of a thoroughly competent man when selecting your breeding stock, as, from want of knowledge mistakes can often be made which you might afterwards regret and be unable to rectify, thereby wasting both your money and time. Dealers, I am afraid, are not always too conscientious and scrupulous in their transactions with those they see a chance of making a little additional profit by, on account of want of experience, so that it is only fair to warn the settler to be on his guard, when approached by some of them with beasts of any kind for sale, and especially (let me whisper it in his ear) a

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word of advice in regard to not trusting too implicitly the commercial integrity of the greater majority of American dealers, would not be out of place, or, I hope, thrown away. *Verbum sat sapienti.*

Before turning your beasts out upon the prairie, it is necessary to apply to the Minister of Agriculture for your district for a brand which is registered to your name in the books of the department, on payment of a fee of \$1. To save time, it would be as well to do this during your stay at the rancher's with whom you are working, so as to have your branding-irons made by a blacksmith in readiness for your newly purchased bunch.

As regards the latter, it is an excellent plan, while working out, "learning the ropes" (so to speak), to buy a calf or two every now and then as opportunity serves, where you see a chance of picking up a few good yearlings at a reasonable figure. These can be branded with your own irons, and allowed to run with your employer's beasts, being gathered in with his own at the next round-up.

CATTLE.

Where their means allow I would strongly urge the purchase of range stock for those starting in the cattle business, as being hardier and better able

to resist disease and climatic rigours. Those, however, who do not feel justified in laying out such a sum as would be required for a herd of these excellent animals would be well advised to expend their money in "dogies"—viz., yearling calves, fed from their birth on skim milk until weaning time ("bobbed," as it is called down east)—which are shipped up in considerable quantities to the prairie country by farmers and dairymen in the Eastern Provinces and Manitoba. Under these conditions, it is not to be expected that they would develop so well or be ready for beef within the same period as "salted" range stock, whose calves run with their mothers for six months or so before weaning. Under favourable conditions, and given a good season, range stock should be ready for the buyer at the end of three years, and "dogies" in about four years.

Another choice lies before the intending rancher, which it would be well to put before him when about to select his bunch, whether of range stock or "dogies," and that is the question of running a given number of steers with the object of ultimately maturing them into "beeves," or a mixed herd and bulls, with a view to breeding for the same object. By adopting the former plan, the trouble and anxiety at calving-time is obviated; but should a severe winter occasion loss, it would entail the purchase of

fresh beasts to make good the depletion of his herd. In the latter case he would rely upon the progeny of the survivors of your mixed bunch to supply the deficiency, although, of course, it would take three or four years to attain this object. To the small capitalist I would recommend unhesitatingly the mixed bunch. The rate of increase for cattle has been placed at about 45 per cent. of the cows bred, but many small proprietors fix it at 60 per cent. and over. It will therefore readily be seen what profit can be realized, always providing the winter is not too severe.

BREEDS.

Great difference of opinion exists as to the most suitable breed with which to stock a range. The chief ones are Durham (short-horn), Hereford, Pole Angus, and Highland, the milking breeds, such as Jerseys, Holsteins, etc., being, of course, quite useless. The Durham is undoubtedly first favourite, by reason of its being a big-boned animal, easily fattened where good grass abounds. It is "chunky" throughout, whereas the Hereford has a tendency to thin out towards the flank. The days of the long-horned, slab-sided range steer are now providentially drawing to a close. The Highland,

though weighing well for its size, does not impress the prospective beef-buyer (a man who has to be considered) to the same extent as the two breeds just mentioned. The fact must not be lost sight of that hardiness and beef-producing qualities are the main features to consider in selecting a suitable breed of cattle to run on the Canadian prairie, and the Durham more nearly meets these requirements than any other known pure breed. A few Hereford bulls may, with advantage, be introduced into the herd after three years or so, this cross being a hardy one.

BULLS.

Every three years, too, all bulls should be sold, and good pure-bred ones bought, or exchanged with other ranchers, so as to insure an infusion of fresh blood, in order to maintain the stamina of the bunch. Several thousand bulls are annually required to increase the cattle stock in the ranching districts, and barely 5 per cent. of the required number are to be found on the ranches to-day, although the Canadian Government admit into the country duty-free, both from Great Britain and the United States, *pure bred* beasts with a view to general improvement in stock. An arrangement is also entered into by them with the Canadian Pacific

Railway Company, by which any actual settler in any part of the Western Provinces can have pure bred bulls conveyed to him at the uniform rate of \$5 per head from Ontario or Manitoba.

In the summer-time, usually about June, an arrangement is made by which the stockkeepers of the various districts consign the bulls of their respective bunches to the care of a man whose duty it is to herd them apart from the cows and heifers for two months or so. Special care should be taken of the bulls in winter-time. If quite gentle, they may be placed with the calves and herded with them in the ordinary way when not grazing with the she-stock; but should they evince the slightest disposition to be wild, it would be best to corral them by themselves.

BUYING STOCK.

Unless a rancher may happen to be selling out at the time you are desirous of buying range stock (cattle born and bred on the prairie), it is often difficult to pick them up, as there is no object in a man selling to you what he can realize upon, perhaps in a few months, at beef prices. Yearlings, however, might be obtainable (especially if beef is at a low figure at the time) at somewhere in the

region of \$20 a head, but two-year-olds are practically unobtainable, except at beef prices.

A good plan for getting together the nucleus of a herd is to quietly approach any man who may be contemplating selling off at the time, and come to a mutually advantageous arrangement, by which you can obtain beasts at an all-round price, including calves, yearlings, two-year-olds, and beef, at perhaps \$25 per head. If this can be done, it would pay you, provided there were a good sprinkling of maturer stock in the selection ; but if a higher price is asked, do not invest your money, for it would not be worth while.

“Dogies ” are procurable at almost any time, and are indispensable to the small man who is starting up for himself in a modest way. After weathering the first winter, they usually prove to be quite hardy, and take kindly to the range. It must not be forgotten, though, that they naturally mature more slowly than range animals, and are not ready for beef, as a rule, before four years ; but good returns are annually made by men who use ordinary care during development.

Yearling “dogies ” should be picked up in any of the ranching districts at between \$12 and \$15 per head, and two-year-olds at from \$15 to \$20.

CHAPTER IV

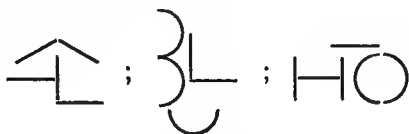
BRANDING—FEEDING IN WINTER

HAVING in a previous chapter given details how and to whom to apply for the registration of a brand to your name, we will presume you have had your irons made, and, having concluded a satisfactory deal for a bunch of cattle, are desirous of branding them.

A rancher's brand is *prima facie* proof of ownership, and, as such, its choice entails a good deal of consideration. When applying for one (it is usual to have a separate brand for your horses, by the way), sketch a few samples of those that may occur to you as most suitable, and, if one of these has not already been selected by anyone in your province, the Minister for Agriculture will register it to your name on payment of \$1. To save yourself trouble, it would be advisable to choose a brand which can be formed by the use of a bar, or bar and semi-circle—thus :—



Here are a few samples :



It is desirable to have the irons made as large as possible, on account of the growth of the beast's coat in winter-time, which would quite obliterate a brand of small proportions. A half or totally effaced marking, by this means, is more productive of bad language than anything during a round-up, when it involves the roping and throwing of an animal to ascertain the brand while "cutting out" from a big herd. The brand marking grows with the animal, so the necessity seldom arises to apply the irons more than once during the beast's lifetime.

Ear-marking is very general as a means of additional identification, but it is not essential, nor is it registered.

As the employment of several men is necessary to satisfactorily brand an animal, it is the usual custom in the ranching districts to form "bees" (as they are called) for the purpose. In other words, your neighbours (often living five to twenty or more miles distant) will come over and give you a hand, on the understanding that you will do a like service for them when required.

The calves about to be branded should be driven

into the corral, where a fire has already been made, and the irons placed therein in readiness for the ordeal. The animals are each in turn roped (lassoed) by the hind-legs while on the run, and thrown by a man on horseback. This is an accomplishment which months and years of practice will never make you efficient at, if you do not acquire the knack readily after repeated attempts. It is a heaven-sent gift to any stockman, and too few in the cattle country can, in these days, lay claim to handling the "hard-twist" as it should be handled. Should you, my reader, be one of the favoured few, good luck to you! You will never want for a job at \$30 a month the year round. The calf is then dragged by the rope (which is made fast to the horn of the Mexican saddle) to the fire, where a man should be ready to apply the irons to whatever part of the body is indicated on your brand certificate, while another man holds down the beast's head, and another one its flank. The chief difficulty about the operation lies with him who manipulates the irons. It requires one with experience to know exactly how hard and how long to apply them so as to burn away the hair and make a slight impression in the hide without burning through it. If too deeply pressed, it blotches the brand, and in time a horny excrescence forms over it; and if done too lightly the hair is apt to cover the markings and obliterate them in winter-time.

Castration of the steers, and branding and ear-marking of both sexes, should all be done at the same time, so that the calves are then free of any further attention of this kind until their death at maturity.

Newly-branded animals should be herded for a week or two and watched closely. Should flies cause the markings to fester, a weak solution of carbolic acid and water may be applied until the wounds heal, after which they may be turned loose on the prairie to roam "fancy free," presuming you have not bought them shortly before the approach of winter, in which case they must be held at the ranch.

FEEDING IN WINTER.

A good deal of judgment is required in tending cattle through those variable seasons, late autumn and winter, for as a rule the stock-raiser seldom has more hay than he can do with. It is usual to turn loose to shift for themselves all steers over a year old, and to keep the she-stock a few miles from the ranch, so that, should a severe blizzard come up, they are easily accessible, and can be driven into the corral to be fed hay in the shed. This would, of course, involve a desultory herding of the she-bunch each day, but only with the object of keeping them

together and preventing their wandering too far afield. It will be necessary to look more closely after all calves that have just been weaned, allowing them to graze within sight of the homestead during fine days, when there is not too much snow, and giving them as liberal a supply of hay as you can afford on being brought into the shed at sunset. This is where a good fenced field is very useful, as they can be put there to graze without the constant attention that herding entails. At the time of putting up your hay (which will be dealt with later) it is most important to allow for one ton to every two animals, inclusive of your whole bunch, if you wish to be on the safe side and ready for almost any atmospheric visitation that winter can bring with it.

It is generally believed on the prairie that a plentiful supply of good water is of almost equal importance to that of hay for the purpose of keeping all stock in good condition ; and for this reason water should be always accessible by so constructing the corrals that they include a creek or slough at one end, where a drink can be had at any time, as already described in corral construction.

By the advent of spring it will generally be found that the cattle become weak, especially the cows which are in calf. These latter should be looked up every now and then, and their condition noted,

for should one of them inadvertently become bogged in a "muskeg," after the frost has left the ground soft, she would quickly succumb, if prompt assistance were not at hand.

Use every possible precaution against two-year-old heifers getting in calf, unless you wish to lose them. Provide a separate field for them, if you cannot have them herded. But they must be kept from the bulls at all costs, as, if the slightest degree weakly, they are almost sure to die during calving, and it is never worth running the risk.

Experiments have been tried, and have answered very well in the case of those men who have been able to put up sufficient hay for the purpose, in specially feeding those animals which are all but ready for beef throughout the winter, so that a shipment can be made of some twenty-five to fifty or so of them by the late spring or early summer. The steers that would fetch $3\frac{1}{2}$ to $3\frac{1}{2}$ cents a pound in the autumn, with a live weight of, say, 1,150 pounds, would realize to their owners a little over \$40 per head. Should an additional 200 pounds be gained through winter feeding on good hay, there is every prospect of a rancher making a nice little profit of \$64 a head in the earlier season of the year, when beef is fetching $4\frac{1}{2}$ to $4\frac{1}{4}$ cents a pound.

The average price of beeves in the autumn, when

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the greatest majority of stock-keepers sell, is between \$40 and \$50 each, and \$35 for dogie four-year-olds. The net profit amounts to about the same, whether the rancher exports them himself or disposes of them to buyers who visit the ranch, as the cost of transport to Great Britain represents about half what a beast realizes when sold for beef.

CHAPTER V

HORSES—BREEDS—BUYING YOUR BUNCH—GENERAL MANAGEMENT

GIVEN an adequate capital to enable one to live while the bunch is increasing—say, three years (£750 to £1,000 would be about the sum required to make a start upon in a small way)—there is no more congenial or profitable undertaking, combined with a minimum of labour and anxiety, to be found on the prairie than that of horse-ranching. There is no necessity to put up a wisp of hay, except that needed for any draught or saddle horses kept for use in your stable ; and for these it is well to allow a ton for each head through the winter, to be on the safe side, giving them now and again a feed of oats.

A good-sized shed and corral built out over water, and a large fenced-in field (also giving access to water if possible), are the chief requisites for horse-ranching.

In all stock-raising the same rule applies in regard to breeding stock. Whatever class of animal you

elect to keep, get the very best available, for in the long-run you will be the gainer, all things being equal, and presuming you have good sound knowledge to back you up.

For anyone with more or less limited means it would be best to devote his energies to the production of the animal that is likely to command the readiest sale in farming districts, and to such I would recommend the breeding of good, strong draught-horses, such as are used by farmers and ranchers in Manitoba, Saskatchewan, Northern and Southern Alberta, where new settlers, on the lookout for likely work-horses, are constantly arriving, and afford a good market. To the man with plenty of spare cash, however, it might be well to specialize in pedigree saddle-horses and American trotters ; but it would mean waiting longer for returns on your capital, and probably having to send the animals for sale to a distant market, which is rather speculative.

Whichever branch you may prefer to take up, the cost of raising the animals is practically nil, provided they be descendants of prairie stock. They happily graze, summer and winter alike, and subsist solely upon the nutritious bunch, blue-joint, grama, and wild brome grasses of the vast expanse of prairie, roaming at will until gathered in at the round-ups. They will scrape up two feet of snow

to get a bite beneath it, and drink water through several inches of ice, which they have broken with their hoofs, withstanding the severity of a blinding blizzard at 20° below zero, with never a mouthful of hay or a morsel of grain. It is pretty generally recognized that the horse has the strongest blood circulation of any beast of burden or domestic animal.

BREEDS OF HORSES.

The days of the wild-spirited, hardy little "cayuse," or Indian pony, are now practically over, no serious attempt being made nowadays to perpetuate the breed, except to a limited extent among the Indians. The horse stock throughout the West is gradually being improved by frequent importations of animals more suited to the particular work required of them. Pure Shire, Suffolk Punch, Clydesdales, Percherons, and trotting stock from the United States, have all contributed to the present-day blood found on the plains, with the result that the colts now bred there will compare well with any to be found elsewhere in Canada. In hardiness they are, of course, unrivalled.

To the man who must of necessity commence in a small way, and go cautiously, I would urge the cause of the Percheron, whose ancestors were the old French coach-horse. Anything hardier in horse-

flesh I have never seen. If in the autumn you turned loose to shift for themselves any of the other breeds mentioned above, you would find by the spring round-up they would be skin poor, but in nine cases out of ten the Percheron would come through the winter in fair condition. For general utility purposes you cannot find a more suitable breed.

BUYING YOUR BUNCH.

By keeping your eyes open at the various ranches where you have been working you will soon ascertain the type of horse which is in greatest demand, and with a little experience, backed by common sense, quite a useful little bunch of brood mares can be got together. Care, however, should be taken not to run more animals than you can handle, with or without help, as the case may be, and according to your means. For it is well to remember that a halter-broken colt will realize more to its breeder when sold than a wild "broncho," and one that is thoroughly broken to saddle or harness (or perhaps both) is worth still more; so it will be seen that it is worth your while to spend some little time and trouble in this most interesting branch of horse-raising. Great patience is necessary, though, and no good end will ever be served by cruelty while

breaking in a colt. For this reason I would advise you never, under any circumstances, to entrust this work to a half-breed, should you have one working for you.

A good three-year-old draught-horse of from 1,200 to 1,600 pounds, unbroken, should not cost more than \$150 ; if broken or partially so, \$175 to \$185. Mares are worth a little more, and good ones should be picked up at about \$200 each, but it must not be forgotten that prices fluctuate according to the rules of supply and demand. I would not advise anyone to attempt the breeding of saddle-horses unless he be the happy possessor of a good sum by way of capital, to enable him to await returns ; for, as already pointed out, the demand for fairly heavy work-horses is far keener, and the raising of them more suited to a small man, dependent upon a ready market to keep him going.

GENERAL MANAGEMENT.

A small bunch of, say, thirty brood mares could with comparative ease be managed by two capable men, even at the busiest time of the year. Throughout the winter there is very little to do beyond the care of those horses you may have in the stable and the stallions.

Having concluded the building of your house, shed, and corral, as already described for cattle purposes, the only additional requirement will be a large field—the larger the better—the fencing of which is dealt with in another chapter.

When buying, great care must be exercised in procuring the most suitable she-stock that you can hear of in your district, either from a long-established and reliable horse-rancher, or from reputable dealers, who visit the towns periodically with carloads of horses for sale. You will understand the great importance of purchasing, from the first start off, only animals of the very best blood in the particular breed of your choice, when it is pointed out that on this depends your success, or non-success, with their progeny in the future. You cannot be too particular in this.

A well-fed stallion would be capable of serving 100 or even 150 mares, and the months of June and July are the best ones to put them to the stud. But allow me to voice a much-needed warning to those who put a heavy stallion to a mare of light breed, for it never answers. The same also applies to a light stud serving a mare of heavy type. Should you purpose raising two breeds of horses, it is imperative that a stallion for each kind be used. In the case of a man in a small way, it is usual to

turn the stallion into the field where the mares have previously been driven, and leave them to themselves for a time, bringing him in at night for a good feed of oats, but where a man is the owner of a fair-sized bunch it is best to see that each mare is individually attended to in the corral. The stallion is usually kept in the stable, and given exercise every day, but, for obvious reasons, never allowed to be at large on the prairie.

About the first week in August all the brood mares can be set at liberty to roam where they will, and are gathered in at the spring round-up, often having wandered for hundreds of miles in every direction, driven by thirst and the search for water in the summer, and the desire for shelter from blizzards in winter. Many are found each year on the American side of the International Boundary, and those of the U.S.A. ranchers on the Canadian, but losses are peculiarly few, all things being considered. It is a fine sight to see a large herd of horses being driven in at the end of the annual round-up, with a good proportion of the mares either heavy in foal or closely accompanied by a sturdy little son or daughter, which has come into the world, unassisted by the hand of man, in some sequestered spot in one of the many folds of the vast upland plains.

CHAPTER VI

SHEEP—BREEDS AND MANAGEMENT

ANY man who thoroughly understands his business, and is conversant with the methods adopted in the Old Country, should do well with sheep-raising in the Canadian West, and, given a good average year, it is quite one of the most remunerative undertakings in which he can embark, although it entails more work and strict attention to petty details than is the case with either cattle or horse ranching.

By reason of the close cropping propensity of the sheep, certain districts throughout the ranching country have had to be assigned to them by the Canadian Government, as a safeguard against eating out a whole region, where one could never hope to graze cattle or horses after them with any hope of profit. It is forbidden by strictly enforced law to run sheep at large on any other areas of land than those set apart for them, unless, of course, a particularly wealthy owner chooses to buy and fence in a few miles of territory for the purpose, which

would never pay him. By this it will be seen that, whatever the size of your flock, it is absolutely necessary to herd it throughout the year, in order to prevent any wandering outside the prescribed limits of the particular district.

The principal markets for prairie-grown mutton are British Columbia, the Yukon Territory, and, to a lesser extent, the Province of Manitoba (which latter should be a fast-growing one in the course of a year or two); and I cannot see why Great Britain should not eventually be supplied from this source also, when the industry has had a chance to expand a little more. The only disease that has ever shown itself so far is foot-rot, but this is by no means prevalent.

BREEDS AND MANAGEMENT.

The rams mostly to be found in the sheep areas are pure-bred Oxford Downs, Shropshires, Leicestershires, Cotswolds, and Southdowns, but the two first named are by far the best adapted to the all-round requirements of the country.

There seems to be a great paucity of ranchers in the Western Provinces who devote their energies to the raising of pure-bred sheep, which seems a pity, and I cannot help thinking, in view of the increasing

demand for pure-bred ewes, that a splendid opportunity offers, for a man who thoroughly knows his business, in breeding pure Shropshires for disposal at good prices to his neighbours, as well as to ranchers throughout his province, by dint of a little advertising in the local papers.

Strong, close-woolled, pure-bred rams of the most approved, acclimatized stock can be bought for from \$12 to \$18 each. Ewes (usually of decidedly mixed breed) are to be had, as a rule, at about \$5 a head.

As before hinted, it is absolutely necessary to keep close and constant watch upon your flock, not only to prevent it wandering beyond the sheep limit, but also to guard against attacks by stray wolves in summer-time, who take their toll of calves as well. In winter the flock is driven into the corral, and placed for shelter beneath the shed every night, as much on this account as to protect them from the cold when very intense. The Government pay a bounty of \$15 each on every wolf-pelt you can bring to town, and there is an agitation in some districts to increase it. The official to whom the skins are taken merely cuts a small piece out of each ear, by way of acknowledgment that the bounty has been paid, after which you are free to dispose of them, if you wish. \$3 to \$4 can usually

be obtained for them, and \$1 each for coyotes. You need have no apprehension of danger to yourself from these grey timber-wolves, for I have never heard of one attacking a man. A good plan for making a few dollars during the winter is to make small incisions in any dead beast that you may find lying on the prairie, and fill them with strychnine. In the course of time, as the wolves devour the carcass, they are bound to swallow some of the poison, and cannot get far away before they drop dead.

In sheep-ranching more than a little depends upon the herder. This is the whole secret, in fact, and a really first-rate, competent man can earn good wages the year round ; but he is obliged to lead a lonely life the greater part of the year. Many a herder has to pass the time from November to the following April in a tent (heated by a stove, with sheep-dung frequently as fuel), or at best a draughty shack, sometimes only seeing a human being once a month—viz., the man who brings him his stores and supplies from the ranch miles away. Should a blizzard come up unexpectedly before he has time to get his flock into the shed for shelter, and his charges should stampede before it, he must take things philosophically, snatch up what food may be handy, and keep with them wherever they may go,

never losing sight of them for a moment until the storm abates (perhaps after two or three days), and he is able to drive them back to the camp again.

What one has particularly to be wary of are early frosts during lambing. Many thousands of newly-born lambs have perished for want of forethought and care on the part of owners, when they might have been saved if a little trouble had been taken with them. Some ranchers employ rather an ingenious contrivance in the shape of a large, somewhat flat box, exactly fitting the interior of their waggons, which is divided off into compartments after the style of mineral-water cases. In each one of these, which is snugly lined with hay, a lamb is placed, which is found to need resuscitation, when the waggon goes its rounds in the early morning to pick up any which have been given birth to during the night, in order to thaw them out in the shed, where their mothers follow them. When snow is any depth on the ground, hay has to be fed either in the corral or shed, according to the severity of the weather, as described in the case of cattle.

I do not propose to go fully into all the details concerning sheep and their management, as it would be a pure waste of time to do so, considering that

they could be found in any good handbook on the subject ; and all points not touched upon here call for pretty much the same treatment as those practised in this country, such as suckling of lambs, castration, dipping, shearing, etc. Besides, no man in his senses would contemplate taking up sheep-ranching without some knowledge of the subject, and this is easily acquired by working for a year or so (at good pay, too) on some ranch, as recommended to those embarking in cattle. This would be of more value to him than all the treatises that are published.

Most of the shearing is done by hand, although some of the bigger flock-masters are introducing machinery, much to the disgust of the shearing gangs (mostly Americans) who travel over the country in the season, working on contract, or, if preferred, at a uniform charge for the job of $7\frac{1}{2}$ cents per sheep. Close shearing is never resorted to east of the Rocky Mountains, because of the necessity for the development of a good winter coat before the late autumn ("fall," as it is called) sets in, when the temperature frequently drops unexpectedly low, especially at night.

In building your sheep-corral there is no need to make them so elaborate as those for horses or cattle, although a shed of the same design is a great con-

venience when cleaning it out (as all sheds must be periodically), in allowing a man to stand upright during the process. The walls of the corral can be built of turf, if desired, which will save the expense of cutting corral-posts and poles for the purpose, to say nothing of forming good shelter from the wind.

CHAPTER VII

HAYING

THERE is no doubt that the wild grasses of the prairie country are excellent, and of a particularly nutritious nature, owing, in a great measure, to the long spells of sunshine throughout the year, and the splendid quality of the soils upon which they grow. From the farmer's and rancher's point of view there is a distinct advantage, too, in the fact that, if left standing, they cure naturally, and obviate that tiresome process known as "haymaking" in this country. On the prairie the grass is cut, carried, and stacked on the same day, provided, of course, that there is no rain at the time. To the stock-raiser the annual gathering of the hay-harvest is the most important work of the year, and six weeks, or at the very outside two months, is the time limit Nature allows him to get up the full quantum required for winter use.

Nominally the date is fixed each year by the Minister of the Interior when haying shall commence

throughout the settled parts of the Dominion, but *actually* each individual is the best judge as to when the grass in his own district is ripe for the machine, and he mows it at the time most convenient to himself, usually early in July, but the years vary according to the severity of the previous winter and other causes.

As already pointed out, the unappropriated parts of the prairie are common to all settlers alike, therefore each one has a wide choice to select from in the matter of hay. As a rule a man chooses his square mile of country, hitches up his team to the mower, goes ahead, and cuts the necessary quantity according to the size of his bunch or flock, which is carted to the place deemed most convenient for building the stack (or stacks).

According to the number of men and horses employed in the operation of harvesting the crop, so the *modus operandi* will differ. We will presume that two men, each in charge of a team of two work-horses, are engaged in the first place, as this little work's primary object is to be of some slight assistance to the small man. It would be beyond the task of one, I am afraid, as you will readily see later.

When the required square patch has been mown by working round the four sides of the square and

gradually narrowing your operations inwards until all the grass has been cut, the rake (a 10-foot one for choice), drawn by a second team, is brought into requisition, and the newly-cut grass is taken up and dumped in bulky winrows, about twelve paces apart, right across the mown area, after which (presuming the hay is quite dry, for remember it has cured while standing) the rake is taken down the whole length of each winrow by the driver, who is mounted upon it, and, by judicious use of the foot or hand lever, according to the make of the rake, sufficient is gathered up in the teeth of the machine to form a good-sized hay-cock which, by the sudden release of the teeth, is left behind. When all the winrows have been thus treated, neat little piles of hay, all equidistant from one another, will cover the field, and be ready for carrying to the stack.

A light, but at the same time strong, waggon-rack is a necessary item in every rancher's outfit, for the purpose of conveying hay from the field to the stack. It is quite easily and cheaply made with a few lengths of 2 by 4 inch scantling, 1 by 12 inch boards, some pretty stout willow-sticks, iron bolts, and wire. It is hardly worth while to go into its plan of construction here, it being somewhat difficult to describe without diagrams, but close examination of a good

one, to be found on almost every ranch, will enable anyone with ordinary intelligence to fix one up for himself. The " box " (*i.e.*, the body) of the waggon is lifted off (this can be done by two men of average strength), and the rack placed on the running gear, ready for use at haying-time. The hay is pitched into the rack by means of forks in the ordinary way, one man pitching while the other mounts on top of the load to trim it and trample it down into place. When a full load has been put aboard, the team is started and is taken to the place selected for the stack, care being taken that it is not in any hollow where rain-water may collect. No staging or foundation of any sort is necessary in so dry a climate, and, when completed (with the ordinary apex top, as is customary here), it requires no thatch, if built properly and in a compact manner. After a few such loads have been brought in it would be well for one man to pitch it off the rack while the other one builds and trims the stack, although time will be saved by both of them working out in the field (so called) at filling the rack.

In accordance with the number of your stock, the hay necessary for winter use should be placed inside the corral (fenced, of course) in as convenient and accessible a position as possible to the shed,

in order to avoid having to carry it any great distance when feeding. This is a consideration fully worth taking into account, you will find, on a cold winter's day. Any overplus should be stacked and fenced (to keep off beasts) in the most suitable place available in the field, so that it can be drawn upon as required.

Where three or four hands are available a somewhat different procedure is advisable. When all the hay that is wanted has been mown and raked into winrows, as described, an ungainly appliance, called a "sweep," is used, which greatly facilitates stacking operations. A stout pine-log, 15 feet or so in length, is procured, and 2-inch auger holes are bored along the top and side at intervals of about 1 foot apart throughout its length. Tough willow stakes, 4 feet long, are then driven firmly into them, making an L-shaped barricade (looked at down the length of the log), that can be dragged over the ground by two teams of horses, hitched one at each end of the log by chains and waggon double-trees. Two drivers are necessary to this clumsy but useful contrivance, who stand on the "sweep" (one at each end of the log, of course) and drive it broadside on down a winrow, the hay bunching up and spreading out in front of it as it goes, until a full load is caught up and dragged to the site chosen

for the stack, where it is left. The horses are then turned round and draw the "sweep" away, to repeat the process down another winrow, while a third man shapes the stack as the loads are brought in. When a good foundation of hay has been thus collected, three barked pine-poles of about 20 feet in length are placed in a slanting position, one end on the ground and the other resting on the top of the accumulated pile of hay, and the next load brought in sails up the poles into its place on top, the teams passing each side of the stack, at which, when it has reached a fair height, the horses frequently have to be put to a gallop in order to rush the hay up. If the horses are fairly heavy, however, and a little grease be applied to the three skids, no difficulty should be experienced in building a stack at least 25 feet high.

Excellent labour-saving devices, which have proved of great assistance to the small man with perhaps but one helper, are the sling and derrick-poles, which are to be bought quite cheaply. (A handy man can make his own sling, and two tall pines would give him his poles, presuming they are procurable.) With the requisite tackle and a single horse it is possible to lift a ton of hay bodily from the waggon-rack, swing it over the stack, and dump it into its place.

When haying is through and done with, whatever you do, never omit to plough at least a 10-foot fire-guard round your stacks. This is a precautionary measure about which one can never be too particular, for no one can tell when a prairie fire may start up and devastate the country for miles round.

CHAPTER VIII

THE ROUND-UP—FENCING—IMPLEMENTS

THE prairie country is divided into "round-up districts," each of which is governed by a local Stock Association, which legislates on all questions relative to its own particular district, and to which a small annual subscription is paid by each stock-raiser (of horses and cattle, that is) who resides in it. There are between twenty and thirty well-equipped and organized round-ups in the ranching area, which are annually engaged in riding out, searching for, and bringing in, the thousands of cattle and horses which are branded and turned loose on the prairie, and the results of their efforts materially affect the livelihood of individual ranchers, as to whether a clean gather of stock is made or not.

The party consists of from fifteen to thirty or forty men, as a rule, at the head of which a captain is elected, whose word is law on all matters concerning the conduct of the round-up. The balance of the company comprises the "riders" (cowboys are

practically extinct now), the horse-wrangler, one or more cooks, and the herders, all of whom (perhaps bar the cooks) are detailed to their individual duties by the captain. The camping outfit and everything necessary to the expedition are carried in a waggon, and accompanying them goes the herd of spare saddle-horses, under the charge of the wrangler during the daytime. At night they are herded by one (or sometimes two) of the cow-hands, in turns arranged by the captain, and for the first few days the horses are apt to give a deal of trouble in their efforts to break away and get to their respective homes. With the miles and miles of territory that the riders have to cover, it will be readily realized that the horses soon become exhausted, so that a frequent change is necessary. Each man, therefore, according to his weight and the amount of riding he expects to do, takes with him from his ranch a "string" of between six and nine of them for his use during the time he may be out.

To the uninitiated the first round-up is rather an ordeal. Some of the older hands are a little prone to pull a new man's methods to pieces, finding out his faults, weaknesses, and lack of experience. "Forewarned is forearmed," and a hint by way of help to the novice may be useful.

In the first place, never brag of any accomplish-

ments you may possess, or put on side, for it never goes down on a round-up, or anywhere else, for that matter. Just do the particular task that may be assigned to you by the captain, without question or comment, and to the best of your ability.

The new hand is nearly always put on to horse-wrangling or cattle-herding to start with, as it is the simplest work, although the least congenial, the older and more experienced ones being sent round the country in twos (as a rule) to hunt up and bring in any horses or cattle (as the case may be) which they may find on their circuit.

At about 4.30 a.m. the herder takes the horses out on to the plain a little way from camp, staying with them and keeping them together (but not too close) by riding round and round them until noon, when he is relieved for half an hour for dinner. He then goes on again from 12.30 until six or seven, when the night-herder (or two herders, if the horses are fresh) undertakes the care of them until the early hours of the morning. (And a monotonous task it is, too !)

Very early in the morning the cook prepares breakfast, which is despatched quickly, and the work of the day begins. The saddle-horses are driven into an improvised corral, consisting of a long rope made fast to the waggon at each end,

and the bight supported at the requisite height by pointed stakes driven into the ground, forming thereby a small enclosure. Each man who is about to beat round the country selects ropes (lassoes) and saddles up the horse he intends to use, getting away to his work as quickly as possible, leaving the camp to the care of the cook, the wrangler, and the man who has done the last shift at night-herding, in order that he may get his full share of sleep.

At the end of the first day's operations quite a respectable bunch of cattle or horses (according to whether it is the spring or fall round-up) is driven into camp, and makes things busy for all concerned. The numbers gradually increase as the days go on, which necessitates more men being employed in herding, for it would never do to allow any beasts to escape after all the trouble entailed in gathering them.

After the round-up has completed its work, the cutting out of all cows and calves commences. The "cutters" ride at a walk through the bunch, select those animals that are required, and edge them gradually towards the outside, round which all the other available men keep moving (mounted) to prevent any beast breaking through. When the animals wanted approach sufficiently near the outer circle, they are quickly driven out and away to

their own ranch-mates. As a rule the calves (at a spring round-up) are not branded until they and their mothers have arrived at their respective homes. Branding would naturally play no part in a fall round-up, which is usually devoted solely to the gathering in of cattle for beef.

It is advisable to thoroughly know the characteristics and powers of endurance of each one of your "string" of horses on a round-up, and, if it can be avoided, do not employ strange ones, borrowed, may be, from a kindly rancher, as you never can be sure how any one of them will act under certain contingencies, and this may lead you into some awkward, not to say dangerous, predicaments. Saddling at 4.30 a.m. with a frozen numna and saddle, for instance, is a severe test to any horse, and the rider is liable to be suddenly, and most unexpectedly, bucked off.

The man who feels disinclined to ride on the round-up, or send a representative to do so for him, can, if he likes, and is a subscriber to the local Stock Association, get his bunch collected and driven into his own corral by payment of a dollar per head. This may pay a man with a very small bunch, where the wages of a deputy to ride for him have to be taken into consideration, but would spell ruination to him with a large one.

FENCING.

A sound, durable fence is one of the most important of all the items that go to make a well-appointed ranch, whether large or small, and for this reason forethought and due care in its construction is never wasted.

It is generally reckoned, at a rough calculation, that a line of three-strand fencing one mile long, including the purchase of posts (placed 20 to 25 feet apart) and barbed wire, with the cost of labour, would work out at about \$100. It would, of course, involve considerably less outlay if you could set to work upon it yourself, with the help of a competent man, buying the wire (by the 100 pounds, the spools should cost about \$4 each), and procuring the posts from the banks of some creek where a good supply of willows grows. These make the best posts (bar cedar ones) you can find, as they resist both dry and wet rot longer than any other wood obtainable on the prairie. A good willow post, say, 6 inches in diameter at the butt, will last five years without any tar being used. Tarring any sort of post is never resorted to in the West, as it induces dry rot, quite apart from the prohibitive price of tar.

After selecting the piece of land you intend to make your field (and do not forget to include a constant water-supply within its confines), or the place you have determined upon for the vegetable garden, poultry-run, a crop of oats, or other enclosure, the first thing to do is to carefully mark out, by means of a line of pointed stakes, the whole area you intend to fence in. Whatever shape your field may assume, at all costs avoid curves when planning its formation. Each side, whether it be triangular, quadrangular, or many-sided, must be plumb-straight, if you wish to make a good, lasting job of it, and economize your wire. All corner posts, too, must be braced with stout willow braces against the strain of carrying the wire, and the same applies to any posts you may put up to support a gate, so as to enable convenient ingress and egress to the field for stock.

I would point out here that it seems quite admissible for any man to run his field anywhere he chooses on the wide prairie, as long as he does not enclose land actually in the possession (by purchase) of another rancher. At all events, it is done, and large tracts of land are fenced in and used by men who have not an atom of legal claim to them, and seem quite put out when a new settler jumps his fence and commences to build a home on a

Government quarter-section, which he has "home-steaded" in the orthodox manner, and is preparing to farm.

You next take a crow-bar along the line marked out by the stakes, and punch holes $1\frac{1}{2}$ feet deep at a distance of 20 feet apart. (The corner post-holes should be 2 feet deep, at least.) This is called a "panel" of fence, and, although shorter ones are really better for general purposes, this will be found a safe length. This done, the posts are cut and chopped to a uniform size of 8 feet long (care being taken to select those that have the straightest growth), pointed at the thick end with the axe, and sawn off flat at the other. Load up the waggon with these and drive round the field, placing the posts into the holes already prepared for them; after which a second journey round must be made with the sledge-hammer and, while standing on the waggon, knock the posts firmly down into the ground, taking care that they stand straight. Two strands of wire are all that is necessary in order to confine horses, and the top one should be fastened to the posts at the same distance from the ground as used for cattle, while the lower one should be $1\frac{1}{2}$ to 2 feet below it. For cattle, three strands are necessary, and the top wire should be fixed so that it comes level with the eyes of a full-grown cow, and

the two lower ones the length of an ordinary carpenter's claw-hammer apart.

You now have to fasten your wire to the posts, and here the ever-useful waggon and team also play a part. Lift the waggon-box off and place the crow-bar through the spool of wire, so that it will revolve freely, and fix to the "standards" of the waggon running-gear, so that as you drive slowly and carefully ahead, keeping *outside* your posts (that is to say, outside what is to be your field), the wire will gradually unwind, the slack of it resting on the ground at the feet of the line of posts, the other end being firmly stapled to the particular corner post you elect to start from. When about 50 yards of wire are unwound, take up a little slack and hitch it round one of the ends of the crow-bar which project through the spool, which will prevent the latter turning, and, using great caution so as to avoid a sudden jerk, drive slowly ahead once more. By this means the wire will be pulled quite taut, and after placing a stone beneath one of the hind wheels of the waggon to prevent the strain pulling it backwards, go down the line of posts, "stapling" the wire to them. This process is continued right round until the field is enclosed with the number of strands you require.

IMPLEMENTS.

Compared with those necessary for use in farming, the rancher's outfit of implements and tools need be but small. The following list gives some of the more important items of the best quality, with their approximate prices in most ranching towns. Never invest in second-hand machines, or implements of any kind, if you wish to avoid trouble. It never pays in the long run, unless you happen to be a practical mechanic, and can correctly appraise the probable future value of any used article for the particular purpose for which you may require it.

Hay-mower	\$55.00
Plough	22.00
Waggon	75.00
Hay-rake	20.00
Crow-bar (steel)	2.50
Spade	1.50
Hay-fork	0.75
Axe	1.50
Cross-cut saw	3.00
Bucksaw	0.85
Hammer	1.00
Chisel	0.75
Brace and bits	3.50
Auger (2 inch)	1.00
Wire nails, per 100 pounds ..	5.00
Wrought nails, per 100 pounds ..	4.70

CHAPTER IX

APPROXIMATE ESTIMATE OF INCREASE IN STOCK ON THE RANGE IN SIX YEARS

CATTLE.

It need hardly be said that absolutely trustworthy figures to gauge the increase in a herd of a given number of cattle, horses, and sheep, are humanly impossible, unless an individual is gifted with the power of foreseeing future events.

A long list of losses could be put on record—from causes which would astound the farmer of this country, who has never been brought in contact with the conditions prevailing on the plains—by a recital of which I do not wish to discourage the embryo stock-ranger in a new land ; but it is only right to warn him of what he may expect, and so put him on his guard.

Hard winters—including the dreaded blizzard, with big snowfall—wolves, electric storms, black leg, anthrax, and various kinds of accident (not forgetting two-year-old heifers getting in calf, and

dying in consequence), contribute to the largest number of deaths, and make the task of forming a correct estimate of increase utterly impossible. One might as well attempt to estimate one's profits and losses at the gambling table. The man with a small number of beasts, however, is better placed for combating disaster, as a rule, than he with a large one, by reason of being able to give more individual attention to his animals, both on the range and in his corral and stable.

It is pretty safe to say that none of the original settlers (and the same applies to most of the present-day "old timers") kept books or accounts of any sort. But do not run away with the idea that they were unaware of the number of their bunch, however large, or the character, sex, and general appearance of every beast they had. These old pioneers seldom possessed any cash or a bank balance, all their available wealth being perhaps miles away on the prairie and four feet. Many present-day men are similarly situated. They run up enormous bills at stores in the nearest town, and only settle up each fall (if they can), when the buyer comes out to relieve them of what beeves they may have to dispose of. Some lead a very "hand-to-mouth" existence, being practically insolvent if a particularly severe winter has depleted

their stock ; but they struggle on manfully, under the goad of misfortune, obtaining additional credit, possibly from the bank (at 10 per cent. interest) to tide them over until better times and another year brings its calves (an asset) and beasts ready for beef. Two mild winters following this adversity would put them on their feet again, with a very fair balance to their credit, the whole of which would be at once invested in more cattle, and perhaps some horses.

In the following attempted estimate we will allow for a 10 per cent. loss of calves each spring, and for 50 per cent. of the cows calving. This is on a liberal basis. We will "put out" a bunch of fifty she-stock, as being well within the means of most men starting up to raise cattle. A commencement could, of course, be made with two-year-old animals, if desired, but this is not to be recommended, owing to the proportionately larger outlay necessitated at the outset ; and, as before pointed out, three-year-olds could not be bought except at beef prices, so they are quite out of the question.

First Year.

One-year-old heifers, born the previous spring .. 50

Second Year.

Original heifers 50

ESTIMATE OF INCREASE IN CATTLE 75

There may possibly be a few calves born in the spring of this year. Should they live, they ought not to be reckoned in forming an estimate of increase, and any heifer becoming a mother in her second year will stand a grave chance of being permanently stunted in growth, even if she survive.

Third Year.

Original she-stock	50				
Calves (reckoning allowance of 50 per cent. of the cows calving), 22 ; 10 per cent. allowance for winter loss of calves, 2 = 20				}	<table style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding-right: 5px;">Steers</td> <td style="text-align: right;">10</td> </tr> <tr> <td style="padding-right: 5px;">Heifers</td> <td style="text-align: right;">10</td> </tr> </table>	Steers	10	Heifers	10
Steers	10								
Heifers	10								
Total of bunch	70				

Of these calves, it is, naturally, impossible to foretell the sex of each, so, for the sake of argument we will conclude that half are male and half female.

The only difference, by this time, to be noted between dogies and range-stock (if both should have been put on the range) is that the latter will be better developed, and more forward by nearly a year (as far as appearances go), by comparison with their "bobbed" brothers and sisters ; and your loss of them in winter, in all probability, would be less.

Fourth Year.

Original she-stock	50				
Calves of third year	}	<table style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding-right: 5px;">Steers</td> <td style="text-align: right;">10</td> </tr> <tr> <td style="padding-right: 5px;">Heifers</td> <td style="text-align: right;">10</td> </tr> </table>	Steers	10	Heifers	10
Steers	10								
Heifers	10								
Calves of fourth year, 22 ; 10 per cent. allowance for winter loss of calves, 2 = 20	}	<table style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding-right: 5px;">Steers</td> <td style="text-align: right;">10</td> </tr> <tr> <td style="padding-right: 5px;">Heifers</td> <td style="text-align: right;">10</td> </tr> </table>	Steers	10	Heifers	10
Steers	10								
Heifers	10								
Total of bunch	90				

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<i>Fifth Year.</i>					
Original she-stock	50
Calves of third year	{ Steers	10
				{ Heifers	10
Calves of fourth year	{ Steers	10
				{ Heifers	10
Calves of fifth year, 22 ; 10 per cent. allowance for winter loss of calves, 2 = 20	{ Steers	10
				{ Heifers	10
Total of bunch	110

<i>Sixth Year.</i>					
Original she-stock	50
Calves of third year	{ Steers	10
				{ Heifers	10
Calves of fourth year	{ Steers	10
				{ Heifers	10
Calves of fifth year	{ Steers	10
				{ Heifers	10
Calves of sixth year, 22 ; 10 per cent. allowance for winter loss of calves, 2 = 20	{ Steers	10
				{ Heifers	10
Offspring from calves of third year (deducting percentage for possible loss)	4
Total of bunch	134

There will be ten steers ready for beef now, if range-stock were started with. It is always advisable to commence with a mixed bunch (steers and heifers), as a few animals sold for beef in each year after the third is a great help ; and as opportunity occurs of getting hold of good yearlings of both sexes, at a reasonable price, advantage should be taken of it, according to means.

All dogies which were bought in the first year of

embarking in cattle-raising would be, to all intents and purposes, range-stock by the third year, at all events ; but their calves will still require careful attention through the winter.

After the age of seven or eight years, when any of your cows miss calving (or in the event of your wishing to stop the increase of your bunch for any reason), it would be best to spay them, in order to more readily fatten them for beef. Two-year-olds can also be spayed with great advantage, and will fatten as well as, if not better than, steers, should your bunch become too large for proper management. They lay on fat at once after this operation.

The period of gestation for cows is forty weeks.

HORSES.

Horses that have been bred in the Western parts of Canada are little trouble to rear. In fact, the more they are left to their own devices, and not pampered, the better. This would not apply to those imported from Great Britain or Australia (for climatic reasons), or to stallions, geldings, and mares from the Eastern Provinces, where they have been accustomed to greater care and luxury.

The percentage to allow for possible losses of

foals each year should be about 12 per cent., and 50 per cent. of your mares throwing a foal would be considered good, but most unaccountable accidents will sometimes occur which you are powerless to avert. I remember coming across a horse one day, miles away from the ranch house which had got firmly fixed between two tree stumps, one on each side of a small creek, and there the poor thing must have lain for hours—perhaps a day or more—with his back in the stream and his legs in the air, firmly wedged. It took us some time to extricate him by cutting away small portions of the stumps on each side with axes. He was very weak when liberated, and, I am sorry to say, did not survive long, despite all our care. I can still see the almost human look of appeal for help in his eyes when I discovered him.

On another occasion, while engaged in building, we were living in a tent, two days out from the nearest town. We had the horses secured by long picket-ropes, made fast to big pegs, which were driven into the ground. One little saddle-mare, which we valued, got wound in her rope, and could not move during the night. In the morning we woke to find it snowing hard, and lying to a depth of two feet, although we were in the middle of May, and thought we had seen the last of winter

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seven weeks back. We cut the mare free at once and did our best to restore her circulation by every means we could devise, including the pouring of our last half-bottle of whisky down her throat, but she died with her head in my lap an hour or two after.

For a man with a small capital, twenty-five good brood-mares of the right type, with a stallion, will suffice for a start, so we will base our calculation of probable increase on this number.

	<i>First Year.</i>			
One-year-old colts	..	..	..	25

	<i>Second Year.</i>			
Two-year-old colts	..	..	..	25

	<i>Third Year.</i>			
Three-year-olds ..	..	..	..	25
Presuming 50 per cent. of the mares foal, 13; 12 per cent. allowance for winter loss of foals, 2 = 11	..			<u>11</u>
Total of bunch	..			36

	<i>Fourth Year.</i>			
Four-year-olds ..	..	..	..	25
Colts of third year	..	..	..	11
Presuming 50 per cent. of the mares foal, 13; 12 per cent. allowance for winter loss of foals, 2 = 11	..			<u>11</u>
Total of bunch	..			47

	<i>Fifth Year.</i>			
Five-year-olds ..	..	..	..	25
Colts of third year	..	..	..	11
Colts of fourth year	..	..	..	11
Presuming 50 per cent. of the mares foal, 13; 12 per cent. allowance for winter loss of foals, 2 = 11	..			<u>11</u>
Total of bunch	..			58

		<i>Sixth Year.</i>			
Six-year-olds ..	..	..	..	..	25
Colts of third year	..	..	..	..	11
Colts of fourth year	..	..	..	..	11
Colts of fifth year	..	..	..	..	11
Presuming 50 per cent. of mares foal, 13; 12 per cent. allowance for winter loss of foals, 2 = 11 ..					11
Increase from colts of third year (providing 6 out of 11 are mares, and 50 per cent of them throw foals)..					*3
		Total of bunch	..	..	69

The duration of pregnancy for a mare is forty-eight weeks.

SHEEP.

On the Western plains of Canada sheep thrive well, and it is only when a more than usually unkind winter makes its presence felt, or on the visitation of an unexpected "cold snap" after spring has well begun, that trouble is in store for the sheep-rancher. He stands, in fact, a better chance of making money than either of his *confrères* with cattle and horses, because he has such a good stand-by in the wool crop, although the detail of the work of the ranch generally is more exacting. It must not, however, be forgotten that it is imperative that he should have knowledge and experience. I have frequently noticed that Scotchmen who have had the handling of sheep on their own native heath are among the most successful.

* We cannot include this number in the total of the bunch, because it will not permit an allowance of 12 per cent. for loss in winter.

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It is usual to allow one ram to every twenty-five or thirty ewes, according to the age of the former ; but it never pays to run rams that are too young, if you have an eye to the steady increase of your flock.

It must be borne in mind that in the following attempt to gauge the probable increase of 100 ewes, no allowance is made for those that give birth to two lambs ; but this is not of such frequent occurrence as in this country—whether due to climate or not, I am unable to say.

With the care that ewes should receive at lambing-time, and the whole flock throughout the year, the percentage of births ought to be higher than that for cows and mares. Wolves are really the only danger.

	<i>First Year.</i>			
One-year-old ewes	..	..	..	.. 100
	<i>Second Year.</i>			
Two-year-olds ..	..	..	..	.. 100
	<i>Third Year.</i>			
Three-year-olds	..	..	..	.. 100
Should 75 per cent. of them lamb, 75 ; allowance of 10 per cent. loss of lambs in spring, 8 = 67	..	..	}	{ Male 34 Female 33
		
		Total	..	.. 167
	<i>Fourth Year.</i>			
Four-year-olds	..	..	..	.. 100
Third year's lambs	..	..	..	{ Male 34 Female 33
Should 75 per cent. of original stock lamb, 75 ; allowance of 10 per cent. loss of lambs in spring, 8 = 67	}	{ Male 34 Female 33
		
		Total 234

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<i>Fifth Year.</i>				
Five-year-olds	100
Third year's lambs { Male	34
			.. { Female	33
Fourth year's lambs { Male	34
			.. { Female	33
Should 75 per cent. of original stock lamb, 75; allowance of 10 per cent. loss of lambs in spring, 8 = 67	..	..	.. { Male	34
			.. { Female	33
Total	..	..	..	301

<i>Sixth Year.</i>				
Six-year-olds ..	..	..	..	100
Third year's lambs	..	..	.. { Male	34
			.. { Female	33
Fourth year's lambs	..	..	.. { Male	34
			.. { Female	33
Fifth year's lambs	..	..	.. { Male	34
			.. { Female	33
Should 75 per cent. of original stock lamb, 75; allowance of 10 per cent. loss of lambs in spring, 8 = 67	..	..	.. { Male	34
			.. { Female	33
Offspring of third year's lambs, 33: should 75 per cent. of them lamb, 24; allowance of 10 per cent. loss of lambs in spring, 2 = 22	..	..	..	22
Total	..	..	..	390

Twenty-one weeks is the time reckoned for ewes to carry their young from conception to lambing time.

In conclusion, I should like to heartily wish all readers who decide to embark in stock-raising in the great Canadian West—that which they will learn to appreciate more than all else the longer they live on the vast health-giving prairie—the best of good luck.

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