

FARM AND ORCHARD

Notes and Instructions from Agricultural Colleges and Experiment Stations of Oregon and Washington, Specially Suitable to Pacific Coast Conditions

Poultry Raising as a Business.

The importance of the poultry industry as a business is now generally recognized throughout the country. This is particularly true to those who have given the industry serious thought and study. When one compares the poultry industry with other agricultural pursuits, he is confronted with more or less inaccurate data. Many people at first thought place the industry far below its true value, due to the fact that both the farmers and townspeople depend upon the hen for daily help in providing the family with food for each meal. Because a large proportion of poultry products go directly to supply the daily needs of the producer's families, it is impossible to ascertain the exact quantity thus consumed. Very few of these producers keep any account of either the fowls or eggs used in this way. As a result the increase in the development of the poultry industry of this country is undoubtedly much above that shown by census reports.

Unlike many industries the poultry industry may be begun in a small way and conducted successfully with the expenditure of a small sum of money. If a person is gifted with those qualities which make a good poultryman, is intensely interested in poultry keeping and determined to become successful, the highest success may be won. Poultry raising is a vocation which gives opportunity for the deepest study, the best talents, and the most skillful practice.

A small flock and little land will enable one to commence in the industry. Income from the money invested begins to come in quickly because eggs and chickens are soon produced and are readily sold at any time for cash. These products are in constant and increasing demand. I might say to those who are about to make their first start in the poultry business on an extensive scale, that the surest way to success is to start on a small scale and in the meantime learn the business thoroughly before investing any great sum of money. Mistakes will certainly be made and the most difficult problems will arise which must be solved and the business should be well in hand before success can be gained in any extended way. Many failures are due to lack of knowledge, experience and common sense. When the owner can look after his own flock in detail, he is many times successful, whereas when he enlarges his plant he must depend upon hired help, consequently his business may prove a failure when conducting it on a large scale.

If circumstances will permit, the fall of the year is a good time to begin the business, for at this time the fowls may be purchased somewhat cheaper than in early spring and the experience gained by caring for them through the winter months is of great value to the beginner.

As to the amount of land required, I would suggest that four or five acres be allowed for 800 hens, kept in moderately small flocks. Laying hens will do well confined in yards, provided they are kept clean by cultivation and a section grown to green stuff. This acreage will also be ample space for the rearing of the young required to keep up the original flock. If the grain be purchased a very small area may be sufficient on which to raise the green or succulent food for the winter months. It is more important to have a large run for the young fowls during the growing season as they require more exercise when developing than a mature bird, which is being fed principally for the production of eggs.

There is probably no branch of agriculture that brings such quick returns as poultry keeping. Whether the raiser requires eggs or meat, the product is ready for the market in a comparatively short time. There should be no difficulty in producing for the market in from five to eight months, in fact, that so little time is required for the development of a paying business, makes poultry raising attractive to those having little capital and who must enter some business that will bring quick returns. The breeding, raising, and managing of the birds is an occupation enjoyed by both men and women, who find it not only profitable, but a pleasure. There is no branch of animal industry that offers so many inducements to women as some of the various phases of poultry keeping. Certain lines of poultry work may be conducted more profitably than other lines so that those who make a study of the subject and their adaptabilities, are able to select the line of work which will be the most satisfactory. For instance, the poultryman may devote his entire attention to the production of fancy fowls for breeding purposes, or confine himself to egg production, or the rearing of broilers, roasters or capons.

More attention than formerly is now being given to the production of special articles, which find a ready market at good prices. As better products are placed on the market, the demand for a good article is becoming strong and constant. The best on the market is usually sold first and at advanced prices. Better work with poultry will result in better products, which find an easy market and will be in demand. It should be the aim of every poultryman to produce the best which the

market affords. Great skill and a thorough knowledge of the business is required in order that one yield the greatest profits.

LILLIAN BLANCHARD.

About the Dairy.

OREGON AGRICULTURAL COLLEGE, Corvallis.—The three points to observe in keeping milk or cream in the best possible condition for market of manufacture, are 'clean, cool and covered,' said Professor R. R. Graves, head of the Agricultural College Dairy department. "The public demand is not so much for richer milk as it is for cleaner and better milk, and it is a demand that must be answered if the dairyman is to have a continued market for his products. There is undoubtedly a very general belief that there is a great deal of expense and labor required to handle milk in a sanitary way, and that it is not practical on the farm or in small dairies. Such is not the case, however, and it is possible to improve the quality of the milk greatly without increasing the cost of production.

"The quality of milk is impaired by bacteria, by dirt that falls into it, and by odors that are absorbed by it.

"Bacteria are present in amounts ranging from a small number to several millions in a drop—about one cubic centimeter, generally referred to as a c. c. They are found in the milk while in the udder of an unhealthy cow, and to less extent in the udders of healthy cows, usually about 500 per c. c. In the latter they are mostly in the 'foremilk,' and in the strippings. The number of bacteria do not, for some reason not well understood, increase during the first hour after the milk is drawn. After that, if the milk is warm, they increase very fast, and the milk is soon full of them.

"Perhaps the largest number fall into the milk during the milking. Part of them come from the dust in the air, and the remainder from particles of dirt, manure and hair, which drop into the milk. In order to lessen the number which fall into the milk, the cows should be cleaned well before being milked, and the milk should be drawn into a pail with a small, hooded, cloth-covered opening. Such pails exclude more than one-half of the germs which fall into an ordinary open pail during the milking process.

"If the cows are curried and brushed once a day and then are carefully wiped about the flank and udder with a damp cloth, most of the dirt will be removed and the remainder attached close to the skin so that it will not fall down during the milking. The best milking pails have openings from five to seven inches wide. In some pails the opening is covered with a single thickness of cloth that is stretched across the opening about three inches below the rim.

"The floor, walls and stanchions of the stable should be kept clean and free from dust and cobwebs, and if the floor is dry it may be sprinkled lightly before milking. All dry feed is given after milking, so that no extra dust is raised. The practice of wetting the teats with milk is too filthy to be allowed in any dairy.

"While milkers in large commercial dairies wear clean white clothes, a good substitute for the farm dairy is a light, loose-fitting long coat which should be kept clean in a clean place, and slipped on just before milking. The milkers' hands must be scrupulously clean, and never permitted to come in contact with the milk.

"As soon as milked the milk should be poured into a can in the milk house or somewhere else where the air is free from dirt and odors, and cooled to the lowest water temperature available. If the temperature of the milk is reduced to 50 degrees F. or lower, within the first hour, harmful bacteria will not multiply. Hence, if the milk is cooled, kept cool and covered, it will keep for two or three days.

"The best way to cool the milk in the small dairy, is to place the cans into tanks or tubs, of the coldest water that can be had, and stir both milk and water occasionally with a clean rod, until they have the same temperature. After the milk is as cool as the water, stirring should cease.

"Another source of bacteria in milk is improperly cleaned milk vessels. If the pails, cans and cloths are washed in warm water, with a bit of soda or other similar detergent, and then immersed for five minutes in boiling water, they will be thoroughly cleaned and disinfected. In cleansing the pails and cans it is necessary to give special attention to the corners. Where the corners are not smooth and rounded, dirt and decayed milk will collect, literally teeming with bacteria of the souring and putrefying kinds.

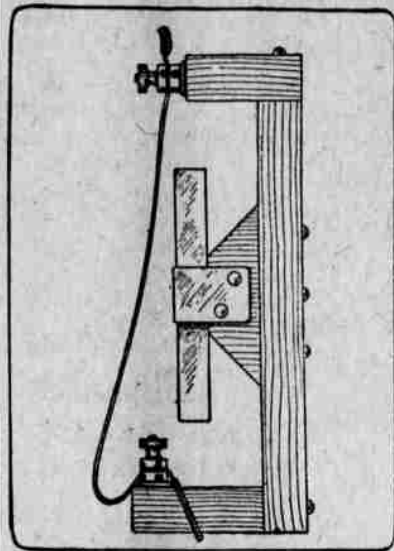
"Such feeds as turnips, silage and kale should not be fed before or during the milking time as warm milk takes up odors very readily, and for this reason, too, the milk should be removed from the barn as fast as it is drawn.

"In following the above simple rules there will be but little increase in cost over that of the usual methods, and the more wholesome milk, with the better prices it will bring as soon as its reputation is established should induce every producer to conduct his dairy operations in a clean and sanitary manner."

MYSTERIOUS WRITING SNAKE

Bar Magnet and Few Braided Strands of Tinsel May Be Used in Making Quite Amusing Toy.

An amusing piece of experimental apparatus may be made using a bar magnet and some braided strands of tinsel, says the Popular Electricity. Fasten the bar magnet to a wooden stand as shown, and between the binding posts connect a very slack braid of tinsel. Connect the binding posts to a switch and three or four dry cells. By arranging a double pole, double throw switch not shown and throwing it over first to one side and then to the other, the tinsel will wrap



Mysterious Writing Snake.

itself in one direction around the magnet and then uncoil and coil itself about the bar in the opposite direction, depending upon the direction of the current through the tinsel.

To prevent the bar from short circuiting the tinsel, the bar may be wrapped with a layer of paper or linen tape.

MANNERS A BUSINESS ASSET

English Lord Urges Boys to Cultivate Politeness Because of the Commercial Value They Give.

Lord Rosebery, speaking to some English grammar school boys, dwelt on the "enormous commercial value of manners." He urged every boy present to cultivate manners "not for the higher consideration," but because they "will give him a value which he will never possess without them."

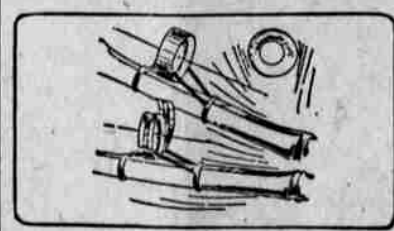
His lordship neglected to specify the particular commercial centers where manners command a premium. But it has not been observed that manners have much to do with business success in New York, or for that matter in Chicago or Berlin, however it may be in London. If Wall street regarded manners as possessing a commercial value it would long ago have capitalized them. But good manners never looted a traction system or organized a trust or created the necessity for federal regulation. No captain of industry has ever been indicted for politeness, and the manners of railroad presidents and bankers have not been extolled for their suavity, says the New York World.

The son-in-law of Lord Rothschild apparently takes an academic view of manners. They have their uses in some walks of life and are an asset to creators of swollen fortunes who seek to break into "society." But generally speaking, books of deportment do not seem of much value to youths ambitious of commercial success. The captains of industry are not captains of courtesy.

LINE RINGS FOR FISH POLES

Novel Detachable Device for Rods Has Just Been Brought Out in England—Works Easily.

A novel detachable line ring for fishing rods has been brought out in England. When the agate or porcelain ring portion of the fixture breaks it may be replaced with a whole ring.



Detachable Line Rings.

All that is necessary is to insert a knife in the catch of the ring holder, lift the hinged top, substitute the new center and then close the hinged top until the catch clicks.

Not Always.

Why was the whale that swallowed Jonah like a milkman who has retired on an independence?

Because he took a great profit out of the water.

Well Supported.

Why is a man in front of a crowd well supported?

Because he has the press at his back.

On Old Ben Nevis

AT ONE period Ben MacDhul was held to be the highest hill in Great Britain, but with the advent of more accurate scientific methods in the determining of altitude it was forced to yield pride of place to Ben Nevis, the summit of which, dominating the Atlantic seaboard of Scotland, stands just over 4,400 feet above sea level. In reality Ben Nevis has a great superiority in height over the first-mentioned hill, for at its base it is no more than 100 feet above the waters of the Atlantic, whereas Ben MacDhul takes its rise from the high ground of Mar at an elevation of quite 1,500 feet. It was early afternoon when we left Glen Nevis with the object of spending the night on the summit of the Ben. After a long spell of cold and misty conditions, an Atlantic anti-cyclone, which had some time been struggling to dominate our weather, at length gained the upper hand over a series of small depressions, and a succession of magnificent days was the result.

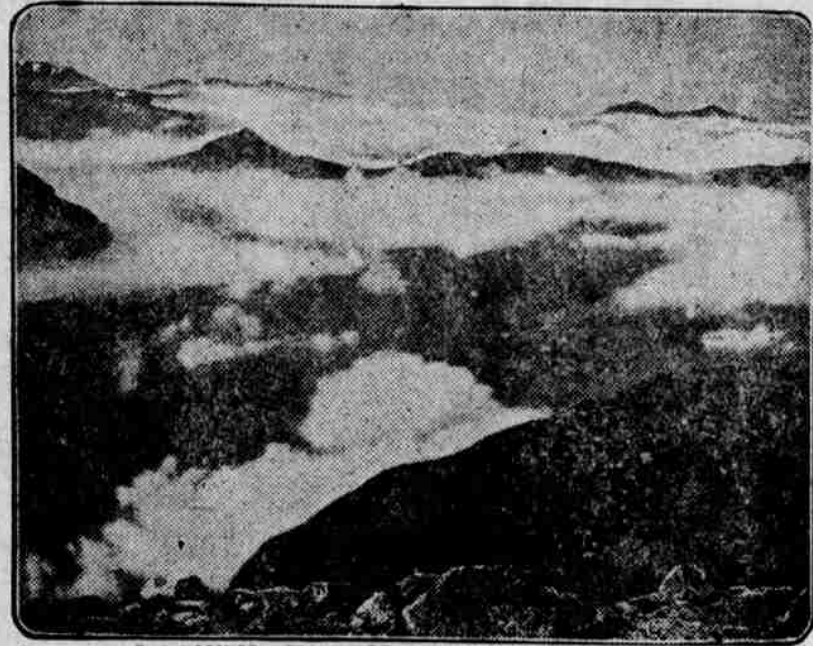
Birches on Lower Slopes.

The walk up the lower slopes of Ben Nevis is comparatively uninteresting, though we noted that up to the 1,500-foot level straggling birches clothed the hillside, and we were interested in comparing the limit of their growth with that attained by them on the Cairngorm hills. As we gained the upper reaches of the hill the stary saxifrage (*Saxifraga stellaris*) and also *Saxifraga hypnoides* were common, and an occasional plant of the parsley fern (*Allosorus crispus*) protruded its delicate foliage from between the rocks. For the last 1,000 feet of the climb, however, vegetation was quite absent, hundreds of acres of volcanic "scree" covering the hill as far as the eye could reach. At an altitude of 4,000 feet the writer watched for some time a number of

were distinct on the horizon. To the east all was haze, save where a waning moon struggled, just above the horizon, to pierce the mist with her silvery rays.

Sea of Mist.

By dawn the entire face of the landscape had changed. During the brief hours of darkness a pall of white mist, whose place of origin was the cold waters of the North sea, had crept silently and rapidly over the hundreds of miles of country dominated by the hilltop. From this vast sea of mist the tops of the highest hills stood clear and sharp in the morning air. Such a sight as we were privileged to look down upon is one which is extremely rare in this country, and during an extensive and varied wandering on the Cairngorms at every season of the year the writer had never once experienced similar conditions, when, more than at all other times, the lover of the grand and lofty in nature has instilled into him the charm of the hills in its most inspiring form. Prior to the rising of the sun the mist was of a cold gray tinge. Then gradually, almost imperceptibly, a rosy hue was imparted to the clouds beneath, and soon after sunrise the shadow of the Ben was projected on the mists for many miles to the southwest. Scarcely a breath of wind stirred on the summit of the hills, but far below the clouds were being guided westwards, and during their silent progress assumed in places the forms of gigantic billows, or rose above the average level as they slipped over some less prominent hill which barred their progress. By ten o'clock the sea of cloud was as yet unbroken, and now reflected the rays of the sun with dazzling brilliance. High above the mist to the eastward the Cairngorm hills were visible, Cairn Toul (4,241 feet) being specially prominent across the 50



LOOKING TOWARD ATLANTIC SEABOARD

ravens, apparently a brood of the present season accompanied by the parent birds. They were feeding on a spur of the hill, and as they rose gave an exhibition of soaring powers little inferior to those of the eagle himself. It was near sunset as we reached the summit cairn. Even with the summer half gone, the winter's snow still covered the plateau, in places to a depth of quite four feet, and cornices of snow projected over the giant precipices. Though the sun had already set in the glens below, the plateau was still bathed in its soft rays, the snowfields in its glow taking on a faint pinkish tinge, Arctic in its effect. Lower and lower sank the sun in the northwestern sky. Passing just above the tops of the Coolin hills in the Isle of Skye, and throwing out their jagged peaks in strong relief, it ultimately sank beneath the horizon across the hills of Knoidart at exactly four minutes to nine. For a full three-quarters of an hour after this time its rays still shot high into the northern sky, and at no period of the night did the dull red afterglow disappear entirely from the horizon. A short time previously we had seen the light of the sun reflected on the waters of the far Atlantic, and now the hills on the island of Rum—the home of heavy stags—stood out sharply. Near by we could make out a strip of the low-lying island of Elgg, and the Hebrides, with their conical peaks, prominent among which was Hekla,

its colour was clearly seen—even the corrie of Clais an Toul, and, further north, the slopes of Braerisch, with the large snowfield in the Horseman's corrie. Across the valley of the Dee, Ben MacDhul was made out, the cairn on its summit being distinctly visible. Loch-na-gar held its top above the clouds, and, just appearing above the summit of Ben Alder, one could distinguish the outline of Beinn a' Ghlo, "the Mist Mountain," so named because its summit is often shrouded in cloud when the surrounding hills are clear. But the most prominent of the peaks projecting from the sea mist was that of Schiehallion, whose tapering cone stood out with true Alpine effect. Westwards the twin tops of Cruachan were just visible above the clouds, but here the mist enveloped all but the summits of the highest hills. In the corrie of the Allt a' Mhuilinn, far beneath us, the mist ebbed slowly backward and forward, seemingly endeavoring to press upwards to the higher ground, but making little, if any, headway. Sgor a' Mhalm, a few miles to the southwest, was prominent, its crater-shaped corrie being flooded in bright sunshine, and as we scanned the corrie through the glass a couple of stags were seen to gain the ridge and to look down into the white sea below. An intense silence was everywhere—one missed the low croaking of the ptarmigan and the dark form of the eagle.