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HARVESTING THE ICE CROP.

The ice crop is the only one the farmer harvests that does not rob his soil of fertility and, considering the advantages of a good home supply of ice, no improvement is more satisfactory than a good stock of ice.

"Keep cool" is exceptionally good advice to the political speaker; it is even better to the farm family on hot summer days when the glass registers around ninety in the shade and the folks wish to preserve fruit and vegetables, and when cool drinks are so delicious. Then there is the milk and cream to be cooled and kept cold until ready for market.

Eighty per cent. of the dairy products of the farm require artificial cooling before they are ready for market or home use, while thirty per cent. of the value of dairy products is lost through the failure or inability to cool quickly to a low temperature. Abundant testimony can be given by the manager of the milk plant, cheese factory or creamery, as well as buyers of cream and eggs.

Ice on the farm is not a luxury. It is a money saver and at the same time adds to the comfort of the living during at least three months of the year. Six months is a long time to look ahead and these winter days do not suggest the added heat of June, July and August. But now is the time to "can next summer's cold."

When Jack Frost snaps a way in January or February, it's a sign for the farmers to prepare for next summer's heat and the ice season is at hand. There is no crop that is produced so cheaply and brings higher returns than the ice crop. Instead of depleting the pocketbook it enriches the farmer and makes life more attractive to his family, because it supplies a wider variety of high-grade foods in summer.

Co-operation in ice harvesting is more important perhaps, than the common community get-together at threshing time. It is best that the ice be cut out and hauled to the storage house as soon as possible to permit the ice to form while it is yet cold, and of preventing waste if freezing weather is passing. Then, too, the work can be done much more efficiently when there are enough men and teams to do all the operations at the same time.

To harvest ice efficiently a few ice tools will be needed. A steel scraper is desirable; some types of road scrapers can be used for this work, or a very good home-made scraper may be fashioned of wood and faced with an old crosscut saw. An ice-prow is almost essential if any great quantity of ice is to be harvested. This facilitates the removal of the porous surface ice and greatly simplifies cutting into blocks. Half a dozen pipe poles, bearing vertical points and horizontal hooks, are needed in floating the ice to the loading platform. An ice saw may be useful or an ordinary crosscut saw may be used by removing one handle.

Ice cutting is best conducted by three squads of men, each with a team. The first squad removes the snow or spongy ice from the surface of the field and plows, saws and cuts the ice into blocks of a size most convenient to handle. If the ice is more than twelve inches thick blocks two feet square on the surface would be most convenient; if it is thinner than this, blocks three feet square can be packed conveniently into the house. But thick ice should be cut in proper blocks so as not to call for undue lifting.

The second squad of men cut loose the blocks and float them to the side of the open water where they are ready to be loaded on the sleigh or wagon. Here a tramway with a pair of hooks attached to a rope will make

loading a relatively easy task. Let the ropes extend across the load from the tramway; hitch a horse to it and drag the blocks from the water onto the load.

The third gang of men should be at the ice house to place each load in position and pack sawdust around it as rapidly as possible. Eight men with three teams can work eight in harvesting a crop of ice by this co-operative method.

Where the ice is not quite thick enough to meet the need the snow should be scraped off the surface of the day before the cutting is started, if indications are that the night will be severely cold. The snow acts as an insulation and retards freezing, and when it is removed not only is the entire mass of ice better frozen, but a few inches in thickness is added.

On small ponds the snow may be removed to the shore, but on large fields, especially if the snow is deep, it is impracticable to scrape the snow entirely off the field. It becomes necessary, therefore, to pile it in windrows.

KEEP THE Cakes Uniform.

After the snow is off the field is ready to be marked for cutting. The marking must be done carefully so that all cakes will be rectangular, which aids in economical handling and packing in the ice house. If the proper start is made in marking off the ice field no trouble will be experienced, but if not, subsequent cuttings will be difficult.

Success in marking depends largely on getting the first line straight, which may be done by placing a stake at each end of the proposed line to serve as a guide.

A straight-edge, consisting of an ordinary board about fourteen feet long, is then aligned with the two stakes and the cutting tool or hand plow run along its edge, after which the board is pushed forward and again aligned with the stakes. This is continued until the entire distance between the stakes has been covered. Another way is to stretch a line between the stakes and do the marking with a hand-plow, though this is not so satisfactory, as the hand-plow can not be operated in so straight a line with the board. After the first line has been cut it can be used as a guide for the horse marker, if this implement is used.

After the ice field has been lined off in one direction, the cross-lines should be made. Care should be taken to have these at right angles to those first drawn, which is accomplished by use of a square. A suitable square may be made easily by first nailing the ends of two boards together with a single nail. Measure a distance of eight feet on the outer edge of one board and six feet on the outer edge of the other board, then nail a third board diagonally across the two, adjusting it until the two marks are exactly ten feet apart on a straight line. Nail the boards together securely, forming the desired square. If the first cross is drawn with care it is easy to draw the remaining lines parallel.

HOW TO ESTIMATE QUANTITY NEEDED.

To calculate the amount of ice needed on a dairy farm, take the number of cows kept as a basis. If the average cow produces 3,500 pounds of 3.7 per cent. milk per year, which is equal to 431 pounds of thirty per cent. cream, it will require 431 times 1.18 pounds, or about 500 pounds of ice, to cool the cream produced by each cow and keep it in good, sweet condition until delivered to market. In addition it is best to store 500 pounds additional ice, or a total of 1,000 pounds per cow. This is sufficient to cool the cream needed for household uses and allow for reasonable waste. Therefore, the twenty-cow dairy should have 100 tons of ice stored.

POULTRY

How to determine by an external examination whether or not an egg is fertile and, if hatched, what the sex of the chick will be, has been the subject of a great deal of speculation.

As a matter of fact, the "sure methods" that have been circulated from time to time are unsupported by experimental evidence and are practically worthless.

One of the more common beliefs is that long, narrow eggs will hatch only male chicks, whereas short, round eggs will in most cases produce females. Experimental observation indicates that in the long run both sorts of eggs produce about 50 per cent. of each sex.

Similarly the position of the air cell is of no value in determining the sex of the chick that will hatch from an egg. Other theories work out in just about the same way. One will do best to plan on 50 per cent. males and 50 per cent. females, although in some seasons the actual results may vary quite a bit from this equal division of the sexes.

One of the most important considerations in the successful operation of an incubator is that of maintaining a correct temperature throughout the incubation period. Following are some of the conclusions reached as a result

of several years' work on this question:

1. The optimum temperature for the incubation of hens' eggs was between 100 and 103 deg. F., measured by standing thermometers in a hot-air-type incubator, with the centre of the bulb one and a half inches above the egg tray.
2. A temperature of 101 deg. F. throughout the period of incubation measured with a standing thermometer, gave the best hatching results.
3. The optimum temperature for the incubation of white and brown eggs was the same.
4. White eggs usually pipped and hatched a few hours earlier than brown eggs at the same temperature.
5. Temperatures below the optimum tended to delay the hatch and gave a large number of undesirable chicks.
6. Temperatures above the optimum brought the hatch off earlier, but gave a greater number of undesirable chicks than optimum or lower than optimum temperatures.
7. Standing thermometers with the middle of the bulb one and a half inches above the egg tray and near to but not touching the eggs gave the most dependable temperature for incubation.

Hard work is the best yeast with which to raise "dough."

DAIRY

The dairyman who plans to have his cows freshen during the fall and early winter months finds himself confronted with the problem of stabling a number of young calves. The common practice among dairymen is to stable a number of calves in one pen, stanchioning while feeding, and turning them loose for exercise. I have never been very successful in rearing a number of calves together. They contract bad habits that not only impairs their growth, but gives trouble later in life.

Young calves should be given the best of care. They should not be bunted and jostled around. I find it a good way to provide small pens about four by six feet to keep the calves in for the first few weeks. These pens are made of light panels and can be very easily put up and taken down. Each pen has a small feed box and rack for feeding.

Too much stress cannot be placed upon the importance of having light, dry, well-ventilated quarters for young calves. Damp, poorly-lighted quarters are productive of many of the troubles attacking young calves, and causes heavy losses. Plenty of bedding, I find, helps to keep the pens dry and comfortable. Frequently cleaning of the pens is necessary, and, in case of bad odor, the use of powdered lime keeps the pen clean and sweet.

For the first few weeks during the winter months, I like to keep the calves in a warm part of the stable. Young calves are tender and sensitive to sudden weather changes. Later, as the calves get older, they will stand considerable cold if the pens are kept clean and dry. Give the young calves plenty of exercise.

Well-Earned Rest.

One day a farmer went to the country fair and his hard-working wife remained at home to see that the farm suffered no loss during his absence. He returned about dark, and coming out on the porch he inquired:

"I'm about tired out, Mary. Is the cows in the barn?"

"Yes, long since," replied the wife.

"Is the horses unharnessed and fed?"

"Yes."

"Fowls locked up?"

"Yes."

"Wood chopped for mornin'?"

"Yes."

"Be them ducks plucked and dressed for market?"

"Yes."

"Wagon wheel mended and ready to start in hauling wood to-morrow mornin'?"

"Yes."

"Well, then," he concluded, with a sigh of relief, "let me have my supper, Mary, and I'll turn in. Farmin' is beginnin' to tell on me."

The wrong variety of soy-beans may get in wrong with the crop.



This is the latest study of Capt. Anton Flettner, inventor of the new sailless boat, which has become the centre of attention in all engineering circles on the continent and in America.

Something Good Coming.

Of the forty leading varieties of winter wheat under test in each of the past five years the six kinds which gave the highest average yields per acre were all produced at the College by cross-fertilization and selection, some of which have not yet been distributed throughout Ontario.

Of the fifty-two varieties of winter wheat grown under test in the past year the thirteen (13) highest yielders were all produced at the O.A.C. through hybridization and selection with but two exceptions, namely, Dawsons Golden Chaff which came fourth and Red Rock which came tenth.



Sports in Their Proper Place.

College Head—"And sports have their proper place in our curriculum, of course."

Student's Dad—"Glad to hear it—glad to know my boy will have some chance to study, you know."

The dairyman should ever keep in mind these facts: That the ration with a wide nutritive ratio has a tendency to put on fat, while one with a narrow nutritive ratio tends to promote milk production.

FINANCIAL VALUE OF FLORAL DECORATION

It has become the practice of house builders in some cities who have put up dwellings for sale to set out some shrubs and get them growing before putting their property on the market. Even a small amount of preliminary planting makes it much easier to find a purchaser. One does not require a very vivid imagination to realize the value of this practice. A fine looking house that is completed and the grading only commenced is much less attractive than another of similar type presenting a grassy lawn and foundation shrubbery set out with judgment. A very slight planting adds an air of mellowness and links the dwelling with its surroundings. It makes it appear to be at home and peaceful on its site, which will often attract a buyer that would otherwise make a further search for his prospective home.

The speculative builder who does planting does not do so from the goodness of his heart or because of his aesthetic sense. The few dollars he invests return to him not only the quicker sale of his house but a substantial profit on the investment.

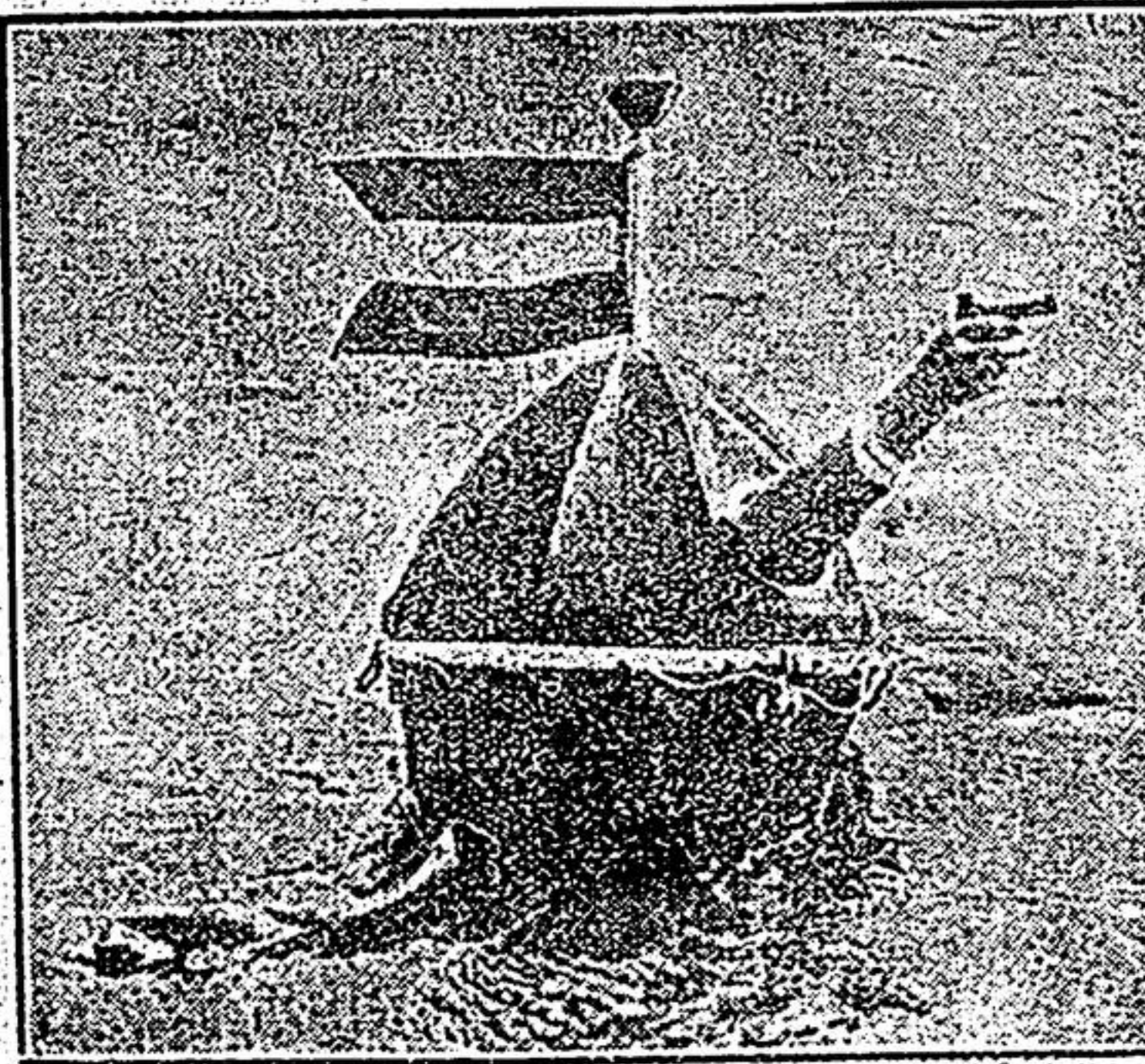
In touring through the country one may go into raptures over a romantic vine-covered cottage or the entrancing

glimpse of such a home seen among the trees. Strip away the vines or take away the trees and the place, if looked at all, would be regarded with disfavor.

In the city of Toronto the appreciation of horticultural ornamentation is stirring some of the realtors of the city to action. It is announced that a campaign has been started to make more attractive the approaches to the city. The routes by rail are to be looked after first. Owners of manufacturing plants and warehouses are being requested to join the movement by cleaning up their properties facing the railways and by making them as attractive as possible. Plots of shrubbery and beautiful lawns are being planned by the realtors, and it is expected that in a few years the approaches to Toronto will be of such a character as to make a fine impression on the minds of the many thousands of visitors to the capital city of the province each year.

The city of St. Thomas, by working along these lines through the instrumentality of the Horticultural Society, has worked a revolution not only in the appearance of the town but in the pride of the citizens in their streets and homes.

—Canadian Horticultural Council.



This new life-saving apparatus is so constructed that the person inside can float on the water and still have excellent shelter. It is equipped with a small aperture to permit the firing of a pistol to attract attention.

Home Education

"The Child's First School is the Family"—Froebel.

Profitable Fussing—By Mary S. Stover.

A successful primary teacher of my acquaintance is an advocate of close supervision in both work and play, so she sharply criticized the methods of a certain new-style private school. While visiting there she found one child fussing by herself with various boxes and other objects on a small table.

"What are you doing?" she asked. The child tossed her curls and replied in a fretful tone, "I don't know what I'm doing."

The visitor regarded this as strong evidence against the school and against every other planned along the lines of incidental education. To me, the happening by itself was not conclusive. Surely it isn't well to get children in the way of aimless work, play or idling, yet why shouldn't they fuss away sometimes, even irritably and resentfully, without knowing what will come of their efforts? All worthy creative workers have gone through hour after hour of such experiences.

Often, even as children, these future artisans and artists had a definite goal in mind but would have hesitated to disclose it for fear of ridicule. At other times their manipulations were purely experimental; the sum total of profit to be shown—and perhaps shown only years afterward—was mastery of the tools of thought and hand. All children need to spend much time just getting acquainted with things.

Rightly circumstanced boys and girls will do enough of this outside; but how few in this age are rightly circumstanced for normal childish development!

Literally millions have no suitable home play space and playthings; many (rich, poor and middle class) have their hours too crowded with other things to allow for developing individually outside of school. They must have their chance there or nowhere.

Directed play and study have their place, but are they not given too large a place in the lives of most twentieth century children? That means too little margin for the experimenting, the observation and first hand thought, the self-exploration and independent actions which are basic elements of all true education.

"Do something; don't idle!" was the frequent injunction of the mother of a famous son. This was good counsel, yet how often a child might fail to know that he or she was truly "doing something," when engrossed in a very worth while way!

We have a homely word to describe such employment of one's time. It is "fussing." "I've been fussing over that for a long while," says the successful inventor, the author, the scientific investigator, the statesman, to explain results over which we exclaim with pleasure and respect.

What valuable creative work, or executive work of the higher types, is ever performed by individuals who never spent long hours concerning which they must honestly say that they didn't know then what they were doing? Failure is often the road to success, and the habit of patient fussing is a profitable one for every child to form.

Triangle Experiments—0-12-4—Best Yield and Largest Profit.

This is the name applied to the form of experiments that the Chemistry Dept. of the O. A. College have been using to ascertain the needs of certain soils for certain crops. The plots are not triangle but the name refers to the arrangement of the quantities of the three fertilizer constituents which are used on the different plots. The experiment as conducted on six farms growing potatoes in Kent, five in Wellington, and four in Middlesex, called for twenty-one plots, giving twenty-one different arrangements of the three fertilizer constituents. One of the most important points that was demonstrated by means of these plots throughout the season of 1922 and 1923 was that where clover was plowed down and some manure used in preparing ground for potatoes, no increase in yield was obtained from added nitrogen. Phosphoric acid in the form of acid phosphate always has a decided influence on the yield. The results of the first two years' experimental work all point to the fact that a fertilizer mixture of 0-12-4 type was most likely to give the best yield of potatoes and largest profit.

This year a little nitrogen in the fertilizer mixture gave paying results. This was probably due to the wet season which kept the ground cold and delayed nitrification, thus making the added nitrogen especially useful. The results of the three years' experiments bring out very clearly the possibility of growing sufficient nitrogen into the ground to make the use of added nitrogen unnecessary for the potato crop in most seasons. It has also been shown that acid phosphate is essential for economical returns.

Triangle experiments are also being conducted co-operatively with bean growers, sugar-beet growers, celery and onion growers.

Corn Versus Sunflowers for Silage.

Where corn does well it proves a more profitable crop than sunflowers for silage purposes. Not only do the sunflowers give a smaller crop yield but the crop is more difficult and expensive to handle, besides this the quality of the silage is not quite as satisfactory. It is in the colder parts of Canada, where corn does not thrive well, that sunflowers find a place.

The Dominion Field Husbandman in his report for 1923 gives the yield of sunflowers at the Central Experimental Farm as 20 tons to the acre, while the corn yielded about three-quarters of a ton less. In dry matter, however, which is a truer index of the value of a fodder crop, corn gave almost a ton more. Both the sunflowers and corn were planted with the grain drill in rows 42 inches apart. In harvesting the crop the sunflowers were not so easily handled with the corn binder and gave greater difficulty in hauling and putting through the cutter. Sunflower silage, owing to the large amount of moisture it contains, freezes much more readily than corn in the silo. This latter difficulty may, however, be reduced, states the report, by allowing the sunflowers to wilt for a time in the field before hauling to the silage cutter.

Some men never think to see if they need gasoline until the car won't go any more.

Many women succeed in the care of poultry under adverse conditions that would cause men to quit in disgust.

Brains as well as feed are important factors in poultry culture. There must not be a shortage of either.

THE CHILDREN'S HOUR

THE DAIRYMAN OF PASS-A-GRILLE.

Nestling in the blue waters of the Gulf of Mexico, a few miles off the southwest coast of Florida, there is a "little bit of Heaven" in the shape of an island known as Pass-a-Grille; and it is here that Silas Dent, the dairyman, better known, however, as the "Hermit of Pass-a-Grille," lives with his twenty-two cows, his horse, his dog, and a few chickens.

His dairy is two and a half miles from the little town which has its being on the south end of the island, and twice a day Silas makes the round trip of five miles down the beach and back in his wagon drawn by "Charlie," old and faithful. Every one of his cows and their calves are pals of Silas; each has a name which he, or she knows; and to which each gladly responds. One calf is called "Jessamine," a little Jersey who accompanies her owner on his delivery rounds, riding in the wagon like a dog.

It is by no means unusual to find Silas seated under a palm-tree with a calf in his lap, tenderly stroking it or scratching its head. It seems to be a source of sorrow to both when the calf outgrows the lap. Another sad event is when a calf inadvertently chances to be a male, and must go to the butcher. On these occasions Silas is invariably pensive for several days preceding and following the transfer. The friendly relations between man and cows and the utter lack of fear on the part of the cows, may have something—a great deal, in fact—to do with the quality and output of the milk. While not insisting that every dairyman shall rock his calves to sleep in his arms, would it not be a good idea if more consideration were shown all cattle, in fact all animals?

Turkey Meat Healthful.

Scientists claim that turkey meat has a much larger percentage of protein, or flesh-forming food, than beef. It is more easily digested, because the fibre is shorter and yields more readily to the digestive process. Beef contains a high percentage of extractive matter which is nearly entirely lacking in turkey.

Turkey diet is considered especially beneficial to persons troubled with acidity of the stomach, a condition often caused by an excessive beef diet. There are the same nutritive qualities in turkey meat as in beef. Beef stimulates the acid secretions of the stomach, and if there is an excess of acid, turkey counteracts the effects.



"Has George decided on your present yet?"

"Yep—and my future."

The mongrel is a haphazard combination, neither one thing nor the other. It is a weed on the poultry farm.