

Harvesting Ice.

It requires no argument to convince anyone that there are great advantages in having a supply of ice at command during the heated season. Not only is it profitable as an aid to keeping milk and cream in best condition, but it affords a great deal of comfort in making it possible to hold fresh meats, fruit, etc., without deterioration for a reasonable length of time. Whether it will pay or not to store a supply of ice, is more a question of nearness to a suitable body of water from which to secure it than the providing of a place to store the ice, as a cheap shed that will keep out the sun, rain and wind is all that is required in a storehouse. Provision must be allowed, however, for drainage, but that, in general, is easily secured. We find throughout the country many ice-houses consisting simply of sheds of inch lumber, using 2 by 4 inch scantling for frame, constructed at the north side of the house or woodshed, or at the back of a driving-house. Occasionally, a box stall, apart from where stock are stabled, is appropriated, and we have seen a corner of the woodshed binned off so as to answer the purposes of a suitable storage for ice.

In filling the house, the blocks of ice should be cut as nearly even as possible, a convenient size to handle, so that they will pack in close and leave but little space between. It is well to pack in broken ice between the rows, and if the filling is done on a cold day, by pouring water on the broken or chapped ice between the rows the whole mass will freeze together, which is an aid in reducing the waste by melting during the season. Sawdust, where it can be secured, is an excellent packing material; it is convenient to handle, and is a good non-conductor. It is well, after providing for good drainage, to cover the floor of the house, which should be of earth, with several inches of sawdust. This will prevent the warmth of the earth from reaching the ice. The ice should then be laid in tiers, fitted closely and chinked, leaving ten inches or a foot of space between the ice and the walls. Build up the tiers as high as is needed, and fill the spaces outside with dry sawdust, well packed down as each tier of ice is laid. Straw, shaff or shavings will answer well as packing, but they must be well packed down. The top should be covered nine or ten inches deep if sawdust is used. More than this is liable to heat and melt the ice. Straw is sometimes used for covering, and answers a good purpose when from one and a half to two feet deep, as when ice is taken out in summer the straw can be rolled back easily, and after the ice is removed the same cold surface is rolled on again; whereas, when sawdust is used, some of the warm dust may be thrown on the ice, causing more or less waste. Whatever is used, it should be kept well tramped down, so as to fill all spaces, and thus avoid the introduction of air. While it is important to keep wind from blowing into the building, good upper ventilation should be provided, so as to protect the ice from the ordinary atmosphere.

Comparisons.

The saying that "comparisons are odious" is often applicable, and it is equally true that the person who uses sarcasm invites comparisons not wholly flattering to himself. A schoolmaster in one of the Boston schools occasionally compared the achievements of his pupils with the work of noted Americans in their boyhood days, much to the scholars' disadvantage.

"Now, John, have you solved the problem?" asked the teacher.

"No, sir," replied the boy, "I can't."

"How old are you, John?"

"Sixteen," was the answer.

"Sixteen!" repeated the instructor. "Sixteen, and can't solve a simple problem like that! Why, sir, at your age George Washington was surveying the estate of Lord Fairfax!"

The pupil did not seem to be at all abashed at this reproach, and gave a smiling assent.

After the class was dismissed a classmate inquired of John if Washington ever did anything else remarkable when he was sixteen.

"I don't know," responded the boy. "He was a surveyor when he was as old as I am; and when he was as old as Mr. C—," referring to their teacher, "he was President of the United States."

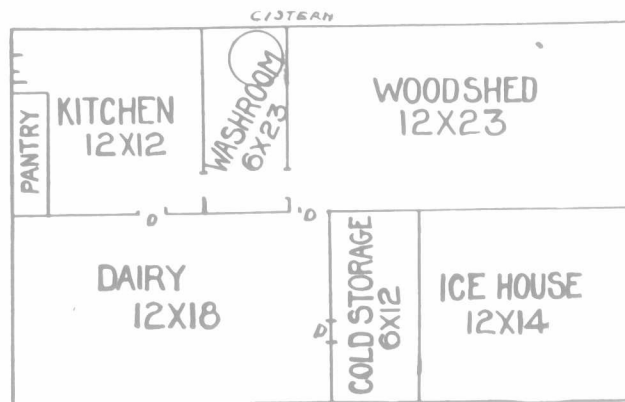
Farm Laborers in U. S.

The total number of farm laborers in the United States, according to a report prepared by the Department of Agriculture, is 4,410,910, of whom 2,366,149 are members of families of the farmers, leaving only 2,044,761 persons hired on farms outside the farm families, or less than one hired laborer for every alternate farm. The great number of farmers manifestly do their own work, by aid of their families, with occasional exchange with a neighbor for work requiring more than one person.

DAIRY.

Cold Storage and Kitchen Plan.

We contemplate building a new kitchen, dairy, cold storage, ice-house and wood-shed, and write you for a plan and information. We want a kitchen for a large family, with wash-room, pantry, cistern, etc., and dairy opening off the kitchen, but at the same time entirely separate from it; the dairy to be large enough for from 50 to 100 cans, and cold storage to store dairy produce and meat in. There will be a good cellar under kitchen and dairy. We also want summer kitchen. The kitchen will be put to the



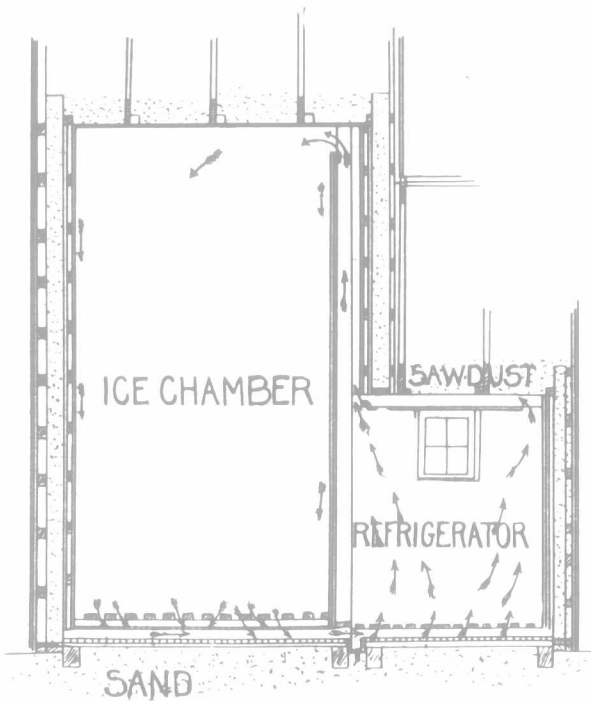
south-west side of a stone house, the front of the kitchen to north and back to south.

Lanark Co., Ont.

J. C. H. S.

Ans.—The problem of cold storage for farm purposes has not as yet been quite satisfactorily solved. In a few years something much more complete may be devised. However, we submit a plan, not as a model, but that it may suggest some ideas to anyone who is about to build an ice-house and cold storage of some kind in the near future. In the plan submitted will be seen the arrangement of the different rooms. Unfortunately, the dairy must be situated on the south side in the case of our inquirer; otherwise it would be best to have the dairy and ice-house to the north. As to having a cellar under the dairy, we doubt the practicability of the plan. By having the floor of the dairy a few inches underground the temperature would more easily be controlled. That detail and the dimensions may be decided by the proprietor, as it is not very clear what this dairy is to be used for besides storing the cans.

It will be seen in the plan that no provision is made for a summer kitchen. As a general rule, we do not recommend one. Where there is a dining-room, as is the case in all modern houses, the kitchen can be used as a kitchen the



year around. A summer kitchen generally means that everything must be carried across the winter kitchen to the dining-room. If the kitchen is too warm in summer a large hood over the stove connected with the flue will be a great benefit in reducing the temperature. In this particular case, if it could be made convenient, we would have a back veranda on the kitchen, where some of the work in summer could be done.

The details of the ice-house and storage-room may require some explanation. The plan here outlined is an example of the Hanrahan system recommended by the Dairy Division at Ot-

tawa. The first essential is to have walls, floors and ceiling well insulated. The necessity of this is evident, as the ice is not packed in sawdust or other material, but is exposed so that the air may circulate around it, as indicated by the arrows in the illustration. To secure properly-insulated walls requires a liberal use of lumber and paper. In the best of cold storage and ice chambers seven thicknesses each of boards and paper are used, and in these walls two or more dead air spaces are made. The studding for the walls should be of 2x10 hemlock, or other rough stuff. These are covered inside and out with close-fitting sheeting, inch or three-quarter inch. In the space between the studding is packed sawdust, asbestos or mica; then a ply of good building paper is put on over the sheeting, and another coat of boards over that again. Over this sheeting more paper and two-inch wooden straps are nailed; paper over these straps, and more sheeting. This makes six ply each of paper and sheeting, and two dead air spaces. The seventh ply of paper and a finishing ply of sheeting is then put on the outside. This wall should enclose both the ice-house and store-room. Whether so much insulation is used may depend upon whether the first cost is more than one cares to incur. The movement of the air in the ice-house and store-room is indicated in the plan, and is briefly this: The air in the store-room is warmed by the products there, and ascends to the ceiling, where it is conducted through a space formed by a false ceiling to a flue running up the side of the ice-house. On coming in contact with the ice the air is cooled down again and settles down. At the bottom of the ice-house it is drawn into the store-room through openings in the side of wall; is warmed up again and circulates as before.

The ice-house in this particular case would be built at the end of the main building, and would be 18 feet high. Its foundation should be solid, and drainage provided for the melting ice. The storage-room floor may be a few inches below that of the ice-house, but this detail can be arranged as desired. Close-fitting double doors should be provided at intervals up the side of the ice-house to take in the ice. The ceiling should be well insulated, and a window in the store-room wall should have three or four sashes of lights, the outer ones being frosted. This whole plan, it should be remembered, is not given as a model, but simply to suggest some ideas on the subject. It has, however, been tried on a large scale, and found quite satisfactory. If any of our readers have had practical experience with a cold storage such as our inquirer asks about, we should be glad to hear from them for the benefit of others.

Milk Fever Again.

A German correspondent of the London Livestock Journal, writing of the treatment for the cure of milk fever, or, as it is consistently called in England, "dropping after calving," mentions that his veterinary surgeon in applying the Schmidt treatment, or the injection into the udder of a solution of iodide of potassium, found that when air was introduced with the drug the cure was more prompt and effectual than when the iodide was used alone.

Mr. Harold Leeney, M. R. C. V. S., in commenting on this in a late issue of the same journal, says, "It is undoubtedly a fact that the admission of some air when injecting the iodide solution helps to liberate the iodine," and adds: "My own plan is to inject some air with each dose of chinosol and iodide of potassium, which drugs are not chemically incompatible, and to manipulate the udder in all directions, producing a bubbly sound for some minutes, and distributing the medicament pretty equally over the glandular surfaces before leaving it to become absorbed."

The oxygen treatment so often recommended by the "Farmer's Advocate" has been amply proven an improvement on the iodide injection, and it is satisfactory to have the admission made that "some air" is also an improvement. We are not at all ashamed of the belief that "some more air" would be better still, and that with reasonable care in the use of antiseptics the fresh air injection alone, which is over 20 per cent. oxygen, will be found to prove the safest and most effective cure of all. The oxygen treatment is all right, and where a veterinarian has the equipment for administering this, we advise employing him, but in the absence of this there is no good reason why the fresh air treatment may not be used by any farmer. All that is necessary is a bicycle pump, with a couple of feet of rubber hose attached, and a common milking tube at the end for insertion into the teats. Of course, to be sure of preventing the admission of germs, the teat-syphon should be disinfected by being placed in boiling water before being used, or in some antiseptic or disinfecting fluid.

I think your weekly paper a great improvement and I am glad you are enlarging the poultry department very much. C. E. BROWN.

Waterloo Co.