

### Gathering Cream.

At the convention of National Creamery Buttermakers at St. Louis, October 24th to 26th, the question, "How to improve hand-separator or gathered-cream butter, from a manufacturer's standpoint," was discussed by M. Michels, of Garnet, Wis. In considering the question, he called gathered cream that skimmed by hand separators and collected by a wagon from the farms. This he believes to be the most economical and surest way of getting cream to the churning plants in the best possible condition. He deprecates the common practice of delivering cream infrequently, and of not properly caring for separators and cans. To obviate the latter trouble, he suggested that two sets of cans be used, leaving one at the farm at the time the can with the cream is collected. The cans could then be thoroughly washed and steamed at the creamery, and put in first-class condition. He recommends using double canvas covering for cans on the wagon, and a top for further protection, and collecting at least four times a week, sending each hauler out over the same route. He has found great difficulty in getting the patrons to milk with clean hands from clean cows in clean surroundings, and believes this is the most difficult thing to accomplish. He recommends visiting the patrons, sending out circular instruction matter, and also a practical suggestion sheet on the back of the monthly statement, changing this matter each month. Thirty-five to forty per cent. cream is best for buttermaking purposes, and to improve hand-separator butter he recommends the use of a good commercial starter and pasteurizing the cream.

### A Small Cold Storage.

By J. A. Ruddick, Chief of Dairy Division, Ottawa.

The accompanying plans are intended to illustrate a cheap, easily-managed and fairly effective arrangement for securing cold storage on farms, or in connection with country stores or butcher shops.

**CONSTRUCTION.**—All lumber, except clapboards, should be tongued and grooved, and spruce only should be used for the ice-box, cold-room and anteroom. No tar paper should be used, on account of its strong odor. The building will be better and more permanent if placed on a stone or concrete wall. Otherwise, it must be well "banked" to prevent circulation of air underneath. The extra course of lumber under the siding may be dispensed with on the walls of the ice-chamber, but not on the other parts of the building.

The partitions between the ice-chamber and the other compartments, and also between the ice-box and the cold-room, need to be well insulated, as shown, to prevent dampness. A poorly-insulated partition against an ice-chamber will become cold on the surface, and, consequently, collect moisture. Many refrigerators and cold storages are failures from this cause. Emphasis is laid on this point, because we often find thin partitions placed between the ice-chambers and cold-rooms, on the theory that refrigeration secured in this direct way is all that is needed. Dryness in a refrigerator is just as important as a low temperature.

No roof is shown in the plan; that is left to the fancy of the builder. Sufficient room must be left above the small compartments to allow of the blocks of ice being transferred to the ice-box through the ice trapdoor. The window in the anteroom has double sash, each sash being double glazed, giving four thicknesses of glass. The floor under the ice-box should be covered with galvanized iron, sloping in one direction, with a gutter at the lowest edge to carry off the water from the melting ice. The drain-pipe from the gutter must be trapped to prevent the passage of air. A simple plan is to have the end of the pipe turned down, and extending nearly to the bottom of a small dish or vessel of any kind, so that the water will rise above the end of the pipe before the dish overflows.

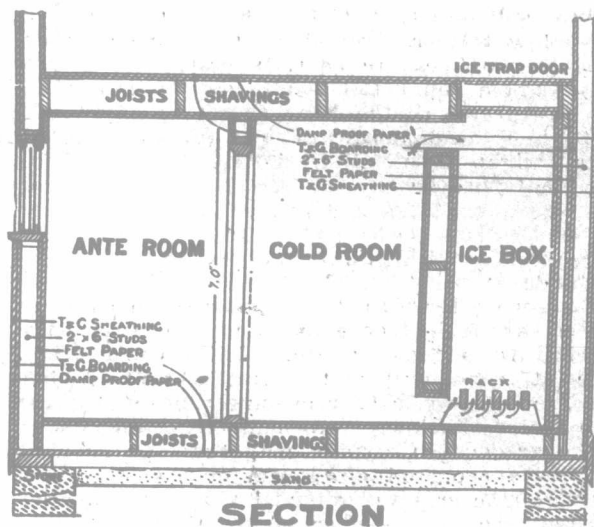
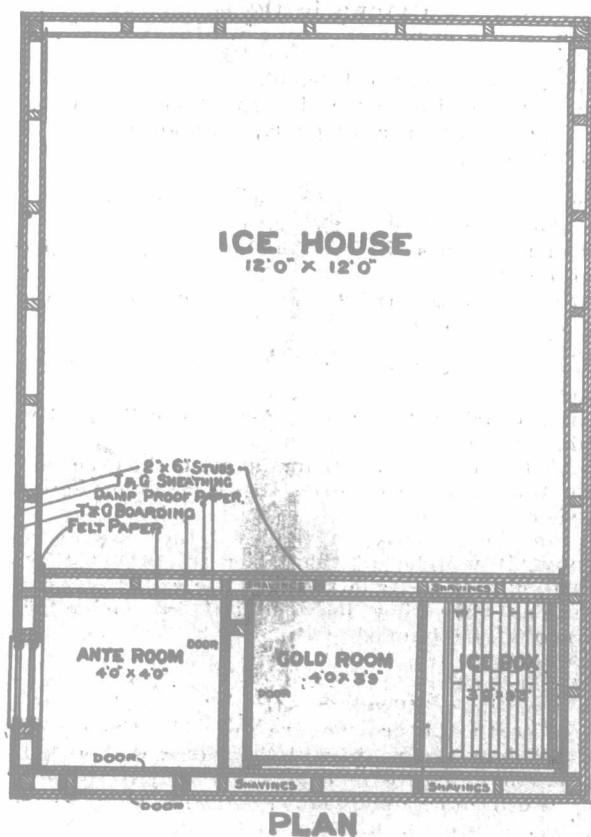
Planing-mill shavings are highly recommended for filling the spaces between studding and joists, as shown on plan. They are always dry, and do not become musty. If they cannot be procured, sawdust is probably the next best thing, but it should be thoroughly dried before being used. The spaces between the studding around the ice-chamber should not be filled. Any filling will eventually become damp from the ice, and damp material of any kind has very little insulating value.

**MANAGEMENT.**—As there is no floor in the ice-chamber, the earth beneath it should be well drained. Cover the surface with six to eight inches of broken brick, coal cinders, tanbark or other similar material of a nonconducting character. If nothing better can be procured, use broken or cobble stone covered with a layer of gravel or sand. This material will make the permanent bed.

Before filling with ice, put eight inches of sawdust over the permanent bed. This should be renewed every year. The ice should be packed as closely as possible, filling all spaces with crushed

ice or snow well rammed. Leave a space of twelve inches between the walls and the ice, to be filled with dry sawdust. The top of the ice should also be covered with twelve inches of dry sawdust. If sawdust cannot be procured, cut hay or straw may be used, but the space filled should be eighteen inches instead of twelve inches, and the filling well packed.

To utilize the cold-room, fill the ice-box with



cleaned ice in lumps as large as convenient to handle. The box shown on the plans will hold about a ton of ice, so that it will not need to be filled often. Care should be observed in keeping the trapdoor tightly closed. The openings at the top and bottom of the partition, between the ice-box and the cold-room, may be fitted with a slide to regulate the circulation of air. Particular attention must be paid to the keeping of the doors perfectly air-tight. A cushion of thick felt for the door to close against is about the best thing to ensure a good joint.

### APIARY.

#### Middlesex Beekeepers' Convention.

The annual fall meeting of the Middlesex Beekeepers' Association was held at the City Hall, London, Nov. 5th, 1904, with R. H. Smith in the chair. Reports of members showed the output of honey to be less than last year, owing to the poor condition of bees, and the unfavorable season. Interesting addresses and discussions on management for and sale of honey occupied both morning and afternoon sessions. There were plenty of men present with experience to give valuable advice on all questions which beginners could ask, and even beginners could give pointers which older men might well learn. The officers appointed for next year were: President, R. H. Smith, St. Thomas; Vice-president, Morley Pettit, Belmont; Secretary, E. T. Bainard.

R. H. Smith, in an address on "Who shall ripen the honey, the beemen or the bees?" pointed out the great injury thin honey is to the market, and urged the necessity of leaving it with the bees until thoroughly ripened. We have no way of ripening honey which can compare with that of the bees. In dry climates the honey may be thick enough to extract before it is capped, but in our country we can only wait until it is three-quarters capped.

Speaking of cappings suggested wax extractors and presses. For cappings there is nothing more convenient than a good solar wax extractor; but for old combs one must have some means of pressing the wax out of the refuse which they contain. Mr. Gemmell spoke highly of the Gemmell-Hatch wax press, and said if rightly managed it was ahead of any other. The meeting seemed to favor his style of press, with possibly modifications, suggested by Mr. Anguish.

Morley Pettit spoke briefly on the cellar wintering of bees. A cellar must be all under ground to preserve uniform temperature, and well ventilated. The hives should have warm covers on—preferably chaff cushions—and have plenty of ventilation at the bottom, full entrance in front, and raised 4-inch from bottom-board at back. With this arrangement temperature should be 40° to 42° F. Without top packing higher temperature is needed. In any case, the comfort of the bees is judged largely by the amount of noise they DO NOT MAKE.

### POULTRY.

Every poultryman should have a small terrier to keep away rats and other enemies of the hen.

Make your hens lay when eggs are high in winter.

The poultry industry is booming more every year. Why? Because there is money in it. Help it along.

A henhouse should have plenty of light, and have the roost and laying-room separate.

It takes no more care or feed to keep pure-bred poultry than it does to keep mongrels.

Cabbage and mangels are good for poultry in winter, also meat scraps.

Make your hens scratch for what they get.

It is very good to have a book on poultry remedies in the house, as your hens might take sick.

E. L. D.

### Getting Eggs in Winter.

[Written for the "Farmer's Advocate"]

One of the chief difficulties connected with the management of poultry is the problem of how to get eggs in the winter. More has been written on this than almost any other subject pertaining to poultry, and still comparatively few succeed in getting a liberal supply of eggs during the winter months.

One of the most serious drawbacks to winter egg-production is the severity of the climate. It is, however, not impossible to get eggs under these conditions, providing that we give the fowls reasonably good care. It is on the early-hatched pullets that we must depend for winter eggs. If these birds are given proper care during the summer season they will start laying at the age of six or seven months, and continue during the winter season, when eggs bring the highest price.

A well-lighted, comfortable house, feeding well-balanced rations, and plenty of exercise, are the most important requisites for winter egg-production.

In feeding for eggs, we must be governed by existing conditions. These conditions vary so greatly from east to west and from north to south, that it is impossible to give a fixed regimen of feeding. Generally, the best methods to be adopted are those which are found out by one's own experience.

The grain rations should not consist of grain having a fat-producing tendency, as they only result in making dormant the egg-producing qualities. Judiciously feeding such grains as will promote laying, will seldom fail to bring encouraging results. All grain should be thrown in litter strewn over the floor to a depth of from six to ten inches. Grain thus fed will induce the fowls to work, giving them the exercise necessary to keep them in a healthy laying condition. A warm bran mash should be given once a day. Clover leaves and table scraps, mixed with this mash, will form an excellent midday meal. Green cut-bone should be fed in limited quantities, as it is unsurpassed as an egg-producing food. Fresh water should be provided daily. Green food should be given in the shape of cabbage or turnips. Plenty of grit, and the dust-box must not be neglected.

M. C. HERNER.

Waterloo Co., Ont.

### Michigan Millers Need Wheat.

"It is a hard scramble for Michigan millers to get wheat to grind this year," said Mr. Badger, who operates a 400-barrel mill at Niles. "We did not raise a third of a crop in Michigan, and have had to get four-fifths of our supplies outside the State, from Illinois, from Kansas, from Nebraska, from Missouri, and from the Pacific Coast; in fact, wherever we can get it. We have bought 22,000 bushels Pacific Coast wheat ourselves since July 15th."