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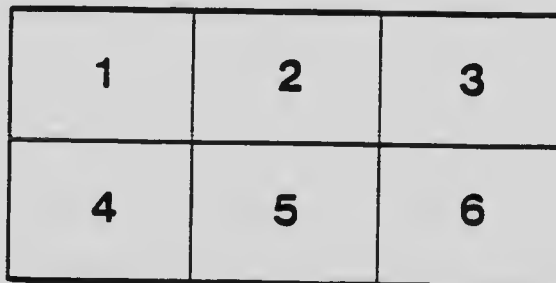
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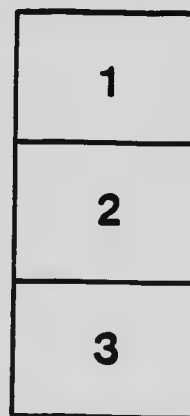
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DOMINION OF CANADA
DEPARTMENT OF AGRICULTURE
BRANCH OF THE LIVE STOCK COMMISSIONER
POULTRY DIVISION

F. W. HODSON,
Live Stock Commissioner

F. C. ELFORD,
Chief of Poultry Division

FARMER'S POULTRY HOUSE

BULLETIN No. 8.

Published by direction of the Hon. SYDNEY A. FISHER, Minister of Agriculture, Ottawa, Ont.
MAY, 1905

OTTAWA, May 1, 1905.

To the Honourable

The Minister of Agriculture.

SIR,—I beg to transmit herewith bulletin 'The Farmer's Poultry House,' by F. C. Elford, Chief of the Poultry Division, and to recommend that it be printed for distribution.

I have the honour to be, sir,

Your obedient servant,

F. W. HODSON,

Live Stock Commissioner.

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THE FARMER'S POULTRY HOUSE.

I. Introduction.—The poultry house on the farm has not received the attention that the merits of the industry demand. The increasing prices of poultry and eggs, however, are creating an interest in poultry and poultry houses to such an extent that many are inquiring about practical plans. To get the best results suitable houses must be supplied the laying stock. These houses need not be expensive, and a number of plans are given in this bulletin that contain ideas which may be included in the construction of a poultry house on the farm. The various plans herein shown are of houses used by up-to-date practical Canadian poultry raisers. Each plan contains good ideas, some of which may be adapted as the needs of various poultry men demand. The walls may be constructed of any material that insures perfect dryness. Most climates do not require more than a well drained earthen floor, but in a moist climate a floor is essential and in some instances it is beneficial to raise it from the ground.

II. Why Comfortable Houses are Needed.—With the average farmer, comparatively little attention has been given to his poultry house, under the excuse that poultry does not pay. Poultry, if handled properly, does pay. According to the statistics for Canada of 1901, we find that for every dollar invested in land there is a revenue of 20 cents in the way of field crops, for every dollar invested in bees the revenue is 50 cents, and for every dollar invested in dairy cattle, the revenue is \$1; but for the dollar invested in poultry, there is a revenue of \$2, and this revenue comes in spite of the fact that poultry does not receive the attention it merits. Give it the same attention that we give the other adjuncts to the farm and the revenue will be even better. To get the best results, we must have suitable buildings; not by any means expensive, but comfortable. We might as well try to make a profit out of dairy cows wintered at the straw stack as to expect hens to pay with the treatment they so often receive. A farmer who was losing his hens wrote Prof. Dryden, of the Utah Experimental Station that his hens were dropping dead, and asked what was to be done. In reply the professor said to never mind it was a way hens had; some preferred death to the treatment they received.

The demand for good fat poultry and fresh eggs is growing. The more we raise the greater the demand and the higher the price. A shortage exists for more than half the year. G. F. Johnston, Dominion Statistician, has compiled the following figures and comparisons to show where we stand in regard to this growing industry.

According to census of March 31, 1901, there were 16,500,000 hens and chickens in Canada, and in 1891 there were 2,700,000, showing an increase in ten years of 13,800,000, or 380,000 a year.

There would now be 17,500,000 if that rate of increase has been maintained. Of the 16,500,000 there were 233,612 pure-bred fowls; of these the Plymouth Rock numbered 80,102 (34.29 per cent). The Leghorns numbered 29,033 (12.42 per cent); the Brahmas 7,788 (3.33 per cent); Game, 3,955; Cochins, 2,574, and other families, including Orpingtons (144), 7,502. The pure breeds unspecified numbered 80,215.

We had then 16½ millions of the scrub or common birds. The industry of this great array of crowsers and cluckers resulted in the production of 84,132,802 dozen eggs the twelve months of the census year. The value of these millions of dozens was set down at \$10,268,159, equal to 12.23 cents per dozen. In addition, the poultry slaughtered had a value of \$1,369,259.

The value of the living birds on March 31, 1901, is set down at \$3,500,000, a total value of products and stock on hand of \$15,000,000.

How do we compare with our neighbours on the other side of the line?

They had 233,598,035 hens and chickens in 1900. That sounds a large number, but when we test the figures they are not so far ahead of us. We had 3.08 hens per head of our population, and they had 3.33 per head, which is only a quarter of a biddy more per head.

If we assume that two-thirds of these were laying hens, the great Canadian hen laid 91 eggs in the year, and the great United States hen laid within a fraction of 100 eggs in the same period. But our hens' eggs had a value of $12\frac{1}{2}$ cents per dozen, while United States hens' eggs averaged $11\frac{1}{4}$ cents per dozen. Our smaller average number had the same value as their larger numbers, and our hens were saved the exertion of laying those nine extra eggs.

The Canadian hen raiser must look better after his hens, in their food, their age, their shelter, their breeds and strains and their general management. He should never be satisfied till he reaches double the present egg-laying record of his hens. It is well to aim high in egg-production as in other things. By breeding from the best and the best only each year, and selecting these by the use of trap nests where convenient, it will not take many years to double the average production of the Canadian hen. Indeed, if poultrymen and farmers would pay attention to this matter of selection, it would not be too much to expect that before another census year rolls along (1911), the average Canadian biddy would lay at least 150 good large eggs in the twelve months.

Prince Edward Island has more hens and chickens per family than any other province, and she has held this proud pro-eminent for years. She was away ahead of any other province in 1891, when she had 26.1 fowls to each family, and she maintained her lead. In 1901 she had 27.5 of these barnyard pests; though hard pressed by Ontario, which had 18 per family in 1891, and increased to 21.16 in 1901, and still harder pressed by Manitoba with 21.5 per family in 1901, increased to that number from 16 per family in 1891.

Nova Scotia has the least number of hens and chickens per family of all the provinces. She had fewer per family in 1901 than she had in 1891, in the latter year having 8.45, and the last census only 8.25.

Canada secures from the poultry yard a yearly return equal to \$14.13 per family. The eggs yield a value of \$9.60 every year, the poultry killed or sold for export a value of \$1.28, and the sum of \$3.25 represents the value of hens and chickens in active business.

The banner province in this respect is again Prince Edward Island, with a total of \$20.69 per family closely followed by Manitoba with \$17.74 and by Ontario with \$16.50, while Nova Scotia follows in the rear, with but \$8.39. The province of Quebec has but \$9.84.

While Ontario's hens lay an average of 93 eggs a hen, and Manitoba's 83, and Prince Edward Island's 85, and Quebec's 91, and New Brunswick's 86, Nova Scotia's hen lays 108 eggs in the year.

If everybody goes into chicken raising and egg production, where will we all get a market?

The home market, with a production of 84,000,000 dozens, our Canadian consumption was last year not fully supplied. In 1902 we exported 12,000,000 dozen and had, say, 72,000,000 dozen for home consumption. We needed quite a number to put under the hens and into incubators. But we had probably an annual home consumption of 68,000,000 dozen, say 12 dozens, making allowance for addled eggs, per head of the population. That looks large. But it is not one egg in two days for each person, and then consider how much eggs enter into daily use in household cooking, in confectionery shops, bakeries and other businesses, and in the arts and sciences.

The British Isles imported last year 198,500,000 dozen, Russia sending 68,000,000, Denmark, 38,000,000, Germany, 31,000,000, Belgium, 23,000,000, France, 16,000,000 and Canada, 7,333,000 dozens. We sent fewer dozens last year than in the preceding year, though here again I note a compensation—while the average price of the 198,500,000

dozens was 16½ cents per dozen, Canada's eggs had a value of 19 cents. We are being beaten by the Russian hens, who are contributing more and more to the wants of the British consumer.

Shall we let the Russian hen continue to carry off one-third of this enormous business, valued at \$32,000,000 or \$33,000,000 yearly, while we send but little more than one-twenty-eighth—Russia one dozen in every three, Canada one dozen in every 28? Perish the thought.

III. Location.—In building a poultry house a number of things should be taken into consideration.

(1) *We Must Allow for Growth.*—It is not well to build where, owing to the cramped condition, we can not extend as the work demands. In keeping breeding stock we must give them plenty of room if we wish to get the best results.

(2) *Convenience.*—So many houses are constructed with apparently no idea of this. In this time of high-priced labour it is quite necessary that we have our buildings located not only near the house, where they can be easily reached, but also near our feed rooms and near the water supply, and have the buildings internally arranged with this in view. The roosts and drop boards should be constructed so that they are easily cleaned. In fact, all the internal fixtures should be made movable, thus facilitating the frequent cleaning the house must necessarily get. Filth and its companion, vermin, cause more mortality than all other agencies combined. Conveniences reduce the labour of cleaning to a minimum. When the habit is once formed of cleaning the poultry house as regularly as the horse and cow stable, the work is comparatively light.

(3) *The Location Must be Dry.*—This is the most important point in locating our poultry house. If it is not dry we had better discard it at once or provide measures to make it dry. Thus in choosing our locality it is well to place our buildings where no water will cause dampness. A gentle slope to the south or southeast is very desirable, and protection from the north wind. Do not place the buildings in a hollow where water will back up. The floor of the building should be at least several inches above the highest surrounding soil. To insure sufficient dryness, a gravelly soil is best. Soil for the yards that will raise nothing else is not the most suitable. Such a soil may be sufficiently dry, but laying fowl require in the runs not only room but vegetation. A plot of fresh alfalfa pasture gives better results for a yard than ten times the size where nothing will grow. Shade in the run is very essential.

Nothing has been said in reference to the market, as most farmers are already permanently situated, but persons who are looking for a location should, other things being equal, settle as near as possible to their market, not only to save freight and express, but to get the produce on the market in the best possible condition.

IV. Essentials.—The essentials of a poultry house may be summed up briefly under sunlight, fresh air and warmth.

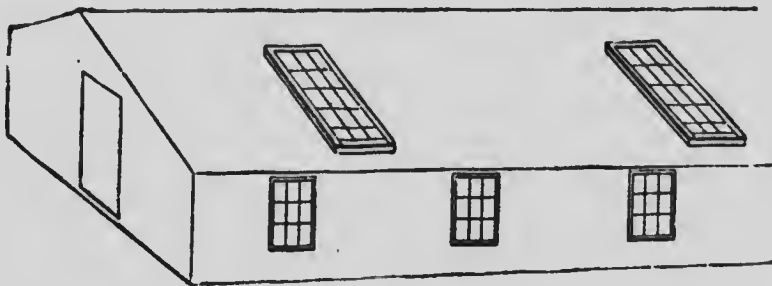
(1) *The Sun is our Best Disinfectant.*—The windows of the poultry house should be so arranged that the sun will see all the floor space during the day. Windows should come to within 2 feet of floor and extend to the same distance from peak, large enough to contain about one-third front of house. If there is a curtain before the roosting quarters, it should be lifted during the day and the sun allowed to penetrate every nook and corner of the roosting pen.

(2) *Fresh Air* is very essential for the laying stock. Houses should not be built to admit the fresh air through cracks, forming draughts, but admitted so that the air can be changed in the house at will. One of the best ways of accomplishing this is to have the windows so arranged that they can be opened every day. In the winter an hour or less would probably be sufficient, but it is essential, even in cold weather, to allow the house to be purified by ventilation. For this purpose a number are using burlap screens which give good satisfaction. Some of these plans show also what is called the open scratching shed, where nothing but screen wire is between the outside air and the fowl as they are exercising during the day. Ventilating shafts have not

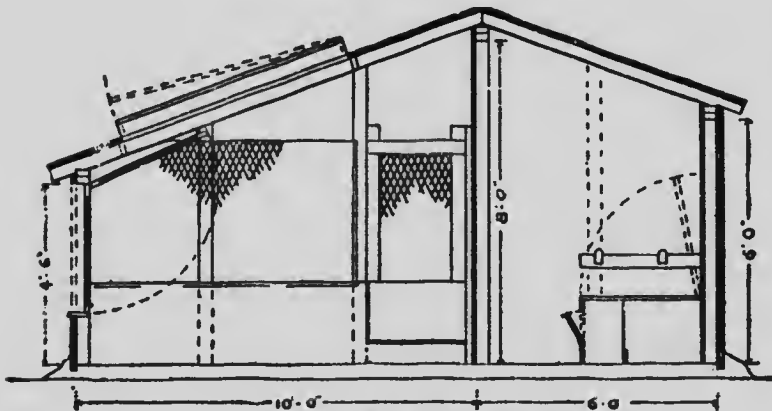
given the best satisfaction. Where the burlap curtain or the open scratching shed is not used, a small opening, say a foot square for every 12 hens, is sometimes made over the window or near the roof towards the south, and in this opening is placed a cotton or burlap screen, a similar opening may be made beneath the window, this arrangement allows a moderate change of air continuously.

(3) *Warmth.*—It is not meant that poultry houses are to be built warm, nor artificially heated, but simply that they are to be built so that the fowl will be comfortable. No animal can do its best if it is uncomfortable. Aim to keep the temperature as even as possible day and night. For this purpose it will be necessary to contrive some simple arrangement that will substitute during the night the heat that the sun and exercise provided during the day. To allow the fowls to roost in the same pen they have been exercising in during the day, without any extra covering, is not wise. It is not the cold days, but the cold nights that keep hens from laying. Then if they can be made more comfortable at night by means of the burlap curtain or the board partition, or anything else, let it be done. The up-to-date farmer's poultry house is one with plenty of room, light and sunshine, fresh air without draughts, movable fixtures, convenient, built for comfort according to modern plans to suit his purse.

No. 1.—DOUBLE HOUSE.

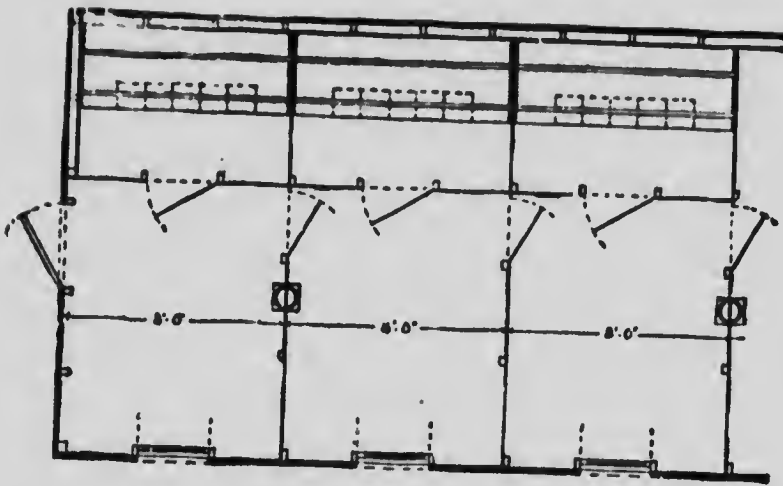


GENERAL VIEW

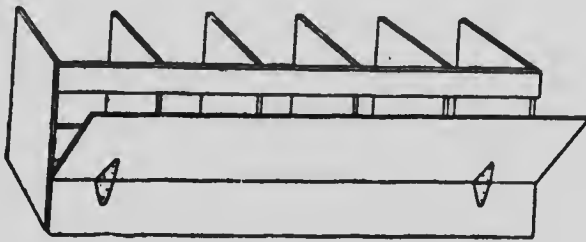


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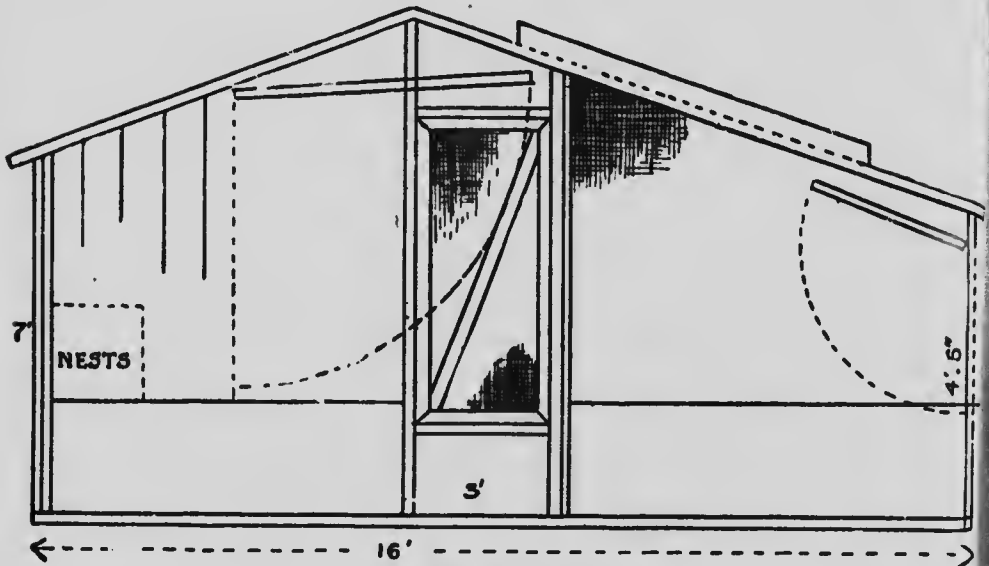
THE NESTS.

Illustration No. 1 is the double house used by the Department of Agriculture at a number of the poultry stations. The sloping roof to the south contains a skylight for two pens. Each pen is 8 x 16 feet, and the building is divided by a partition running from end to end, 6 feet from the north wall, thus forming a roosting pen 6 x 8 at the north side, and a scratching pen at the south 8 x 10 feet. A door opening into the roosting quarters may be closed on cold nights. The two roosts are placed 10 inches from the drop board, which is 3 feet wide, and underneath are the nests which allow the hens to enter the nest from the rear. The eggs are taken from the nests through a door immediately under the front edge of the drop board. The north side of the building and the ends north of the entrance doors are built with three-ply boards and two thicknesses of building paper, the rest two-ply boards and one thickness of paper. The roof one-ply board, paper, and shingles.

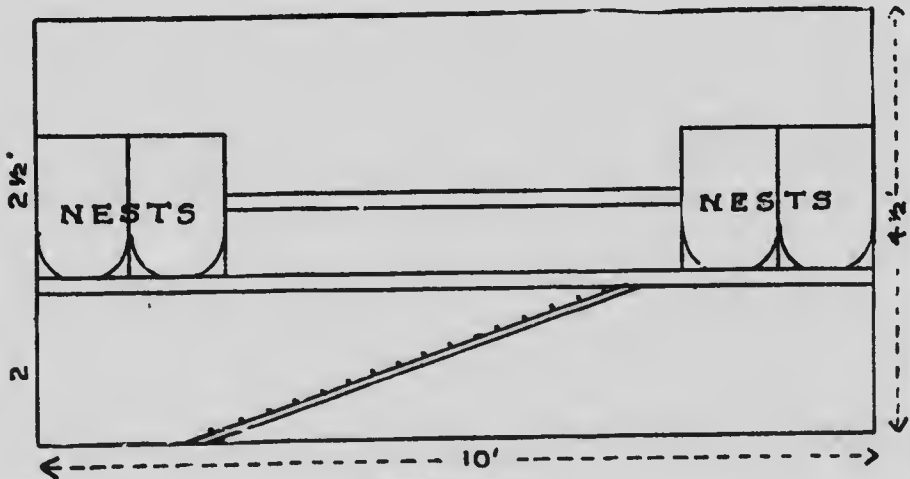
No. 2.—STRATFORD HOUSE.



GENERAL VIEW.



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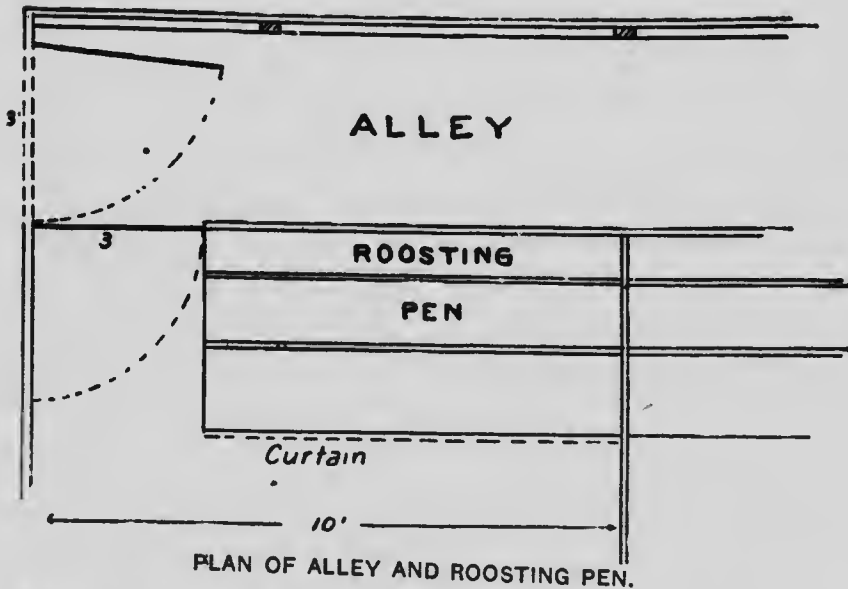
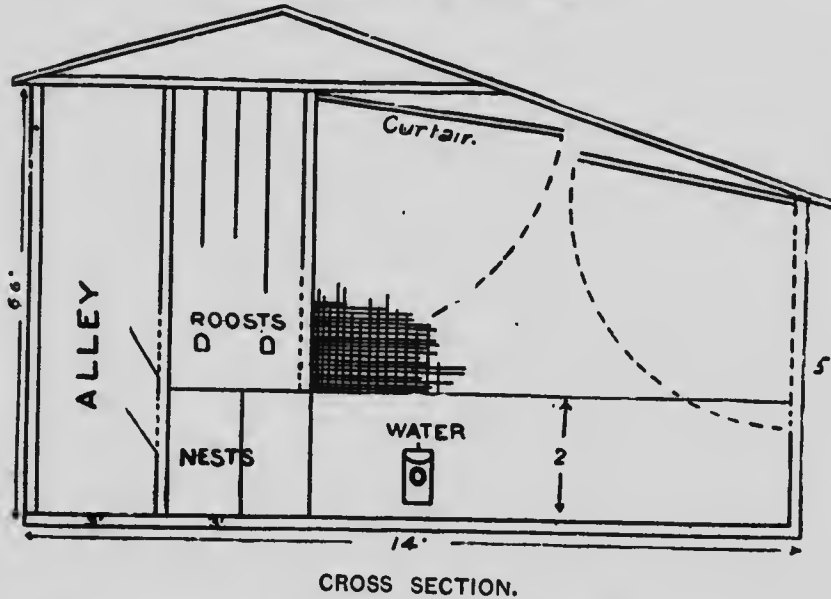
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No. 2 is the plan of a house used by the Canadian Poultry and Produce Company, Stratford, and is built after the exterior plan of No. 1. Some alteration appears on the interior. The dividing partition is done away with, in place of which a curtain is dropped from the ceiling, immediately in front of the roosts, which provides warmth on cold nights. The nest boxes are placed on top of the drop board. The siding is the same as No. 1.

No. 3—TRURO HOUSE.

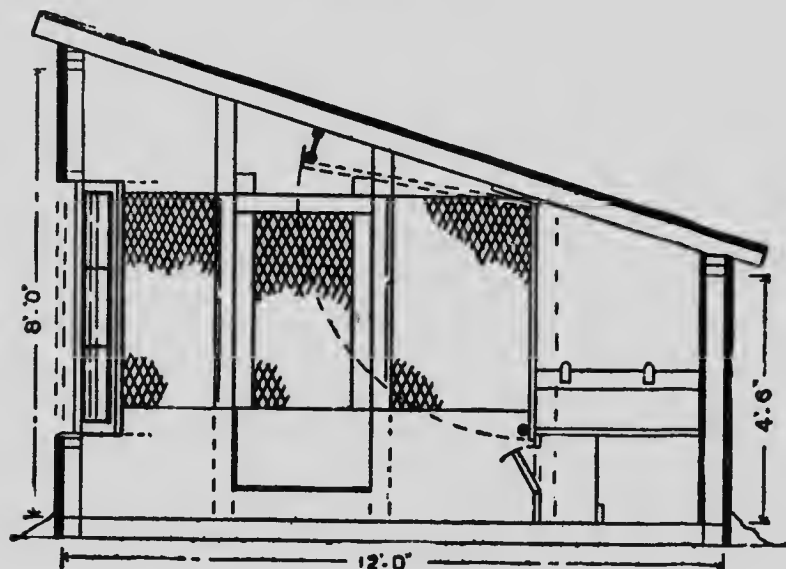


No. 3 is the plan of house used at the Truro (N.S.) Agricultural College. It has the double roof of 1 and 2, minus the skylight. The distinguishing feature, however, is the alley way, which runs the entire length along the back wall. From this passage the drop boards are cleaned and the eggs collected. Sided same as No. 1.

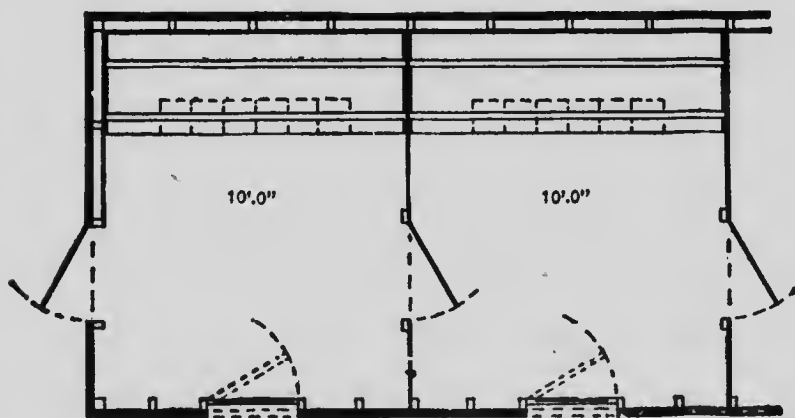
No. 4.—SINGLE HOUSE.



GENERAL VIEW.

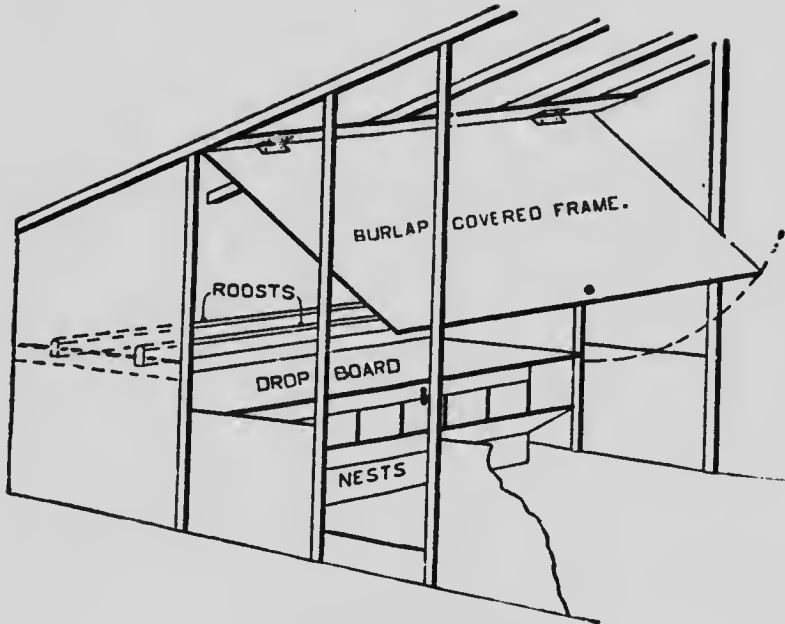


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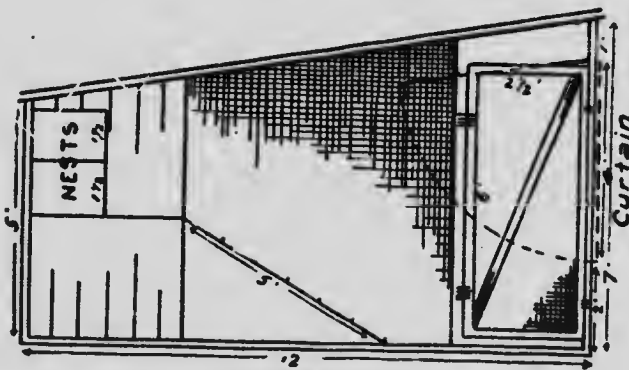
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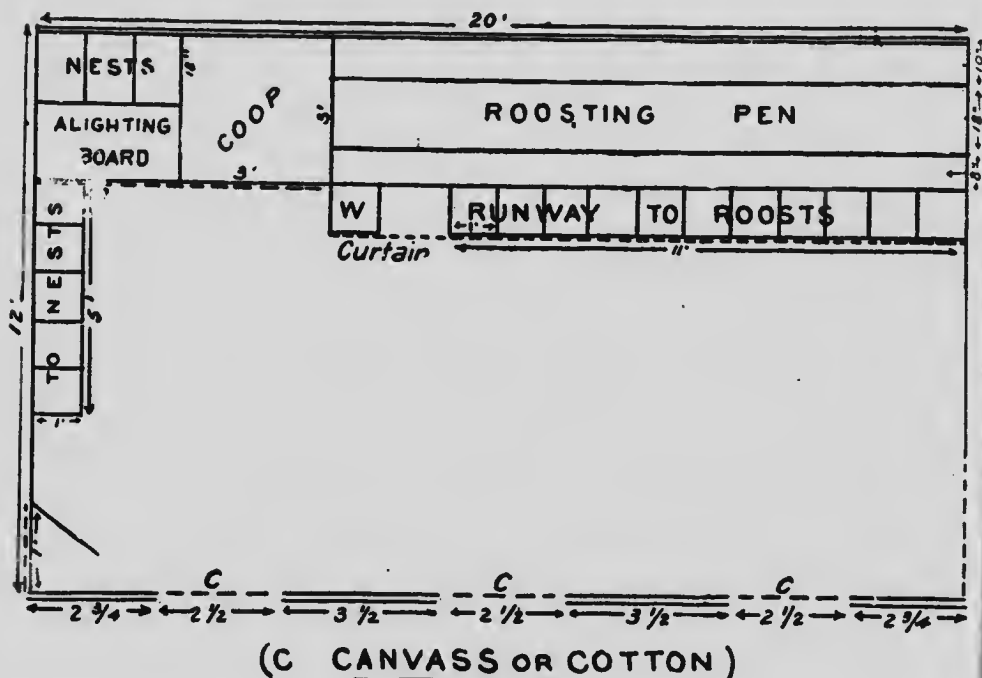
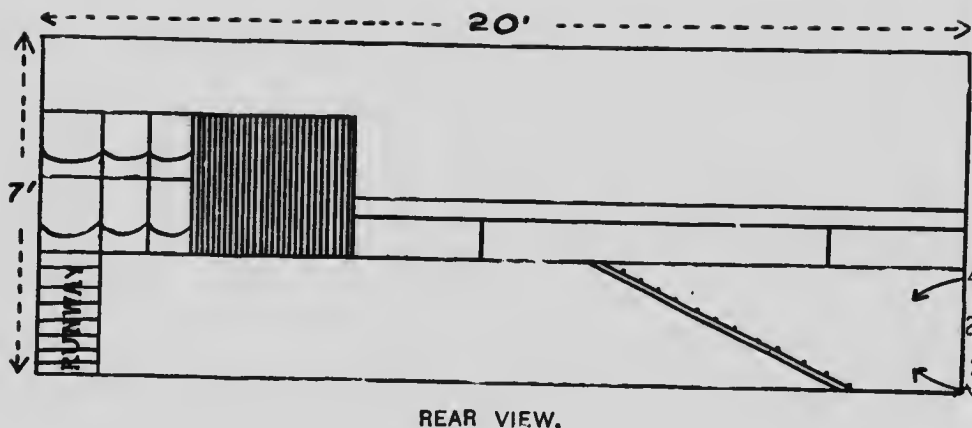
ROOSTS AND NESTS.

No. 4 is the plan of the single house used by the Department of Agriculture. The dividing partition of the double house is replaced by the drop curtain. The arrangement of the roosts and nests is the same as No. 1; pens 10 x 12 feet. This is also sided the same as No. 1.

No. 5.



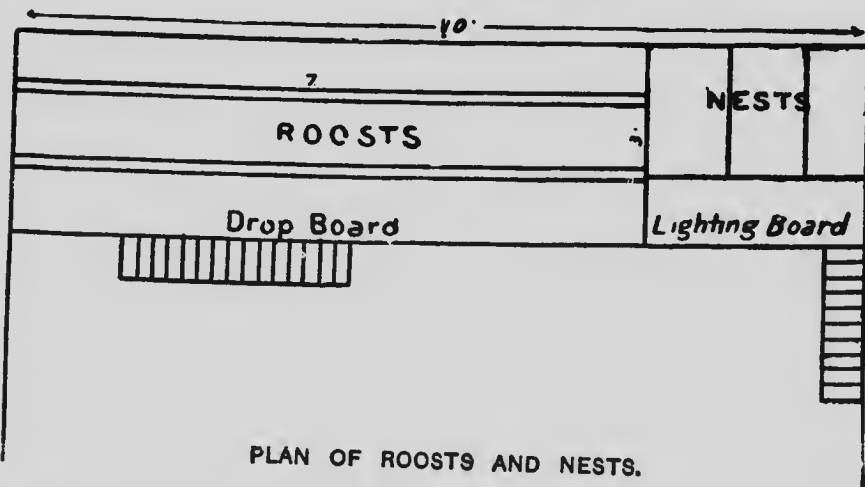
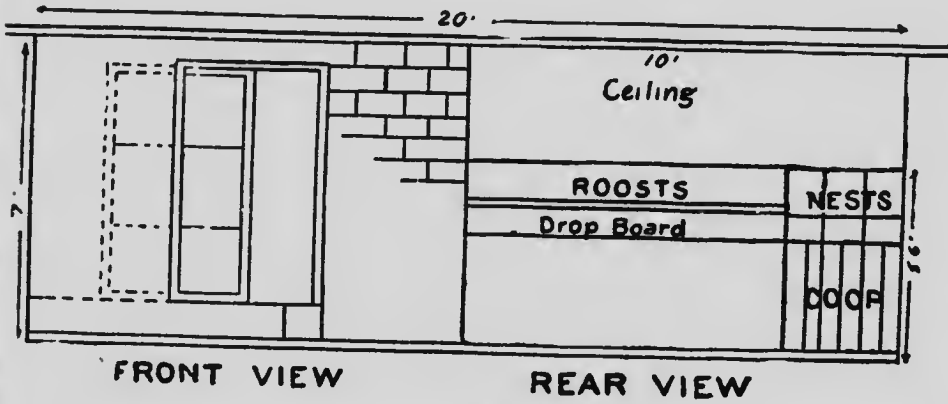
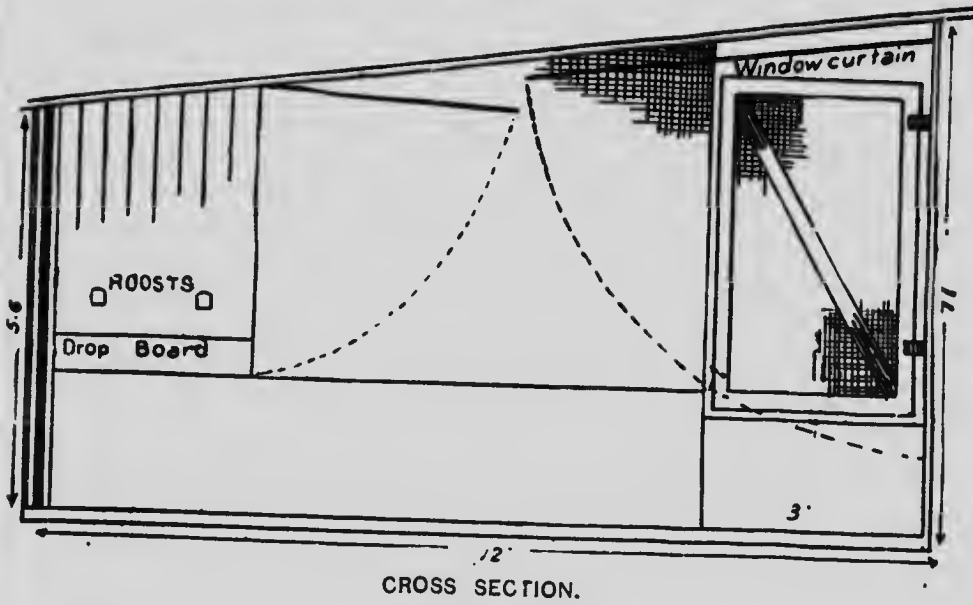
CROSS SECTION.



PLAN OF ONE PEN.

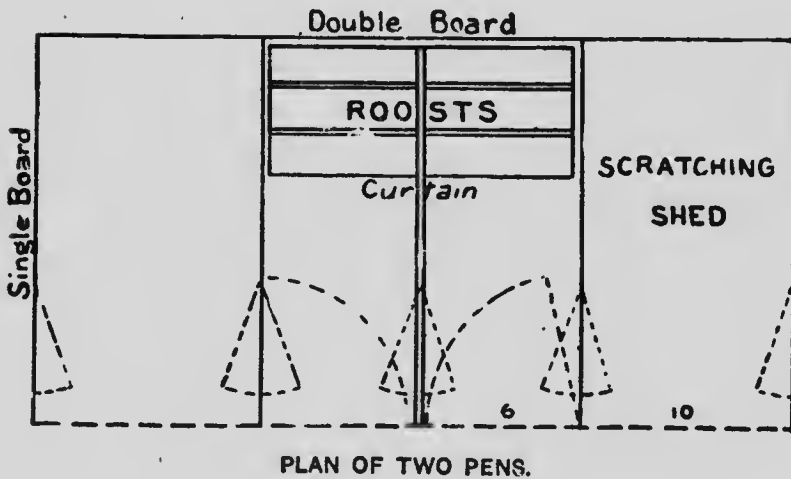
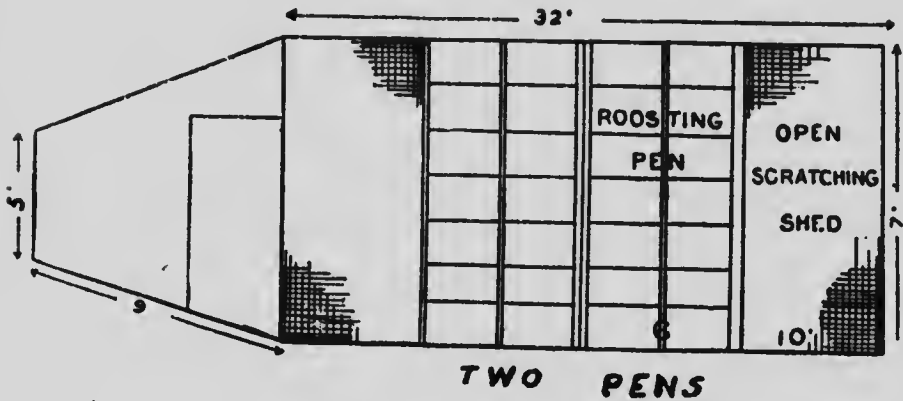
No. 5 is a plan of the house used by L. H. Baldwin, Toronto. The pens are 2 x 12 feet and over the drop board is placed, in addition to the roosts and nests, a coop for males or brooding hens. Instead of the windows front, this house has canvas covered frames, hinged, which allow the free admission of air as well as light. The canvas can be opened in favourable weather. This house is sided and roofed with rough in boarding and Ruberoid roofing. The inside of the north wall, and the ceiling as far as the coops, are sheeted with tongued and grooved material.

The pens in No. 5 house are about as large again as those contained in the other houses. Two males are kept for this, but are confined on alternate days in the coop for the purpose.



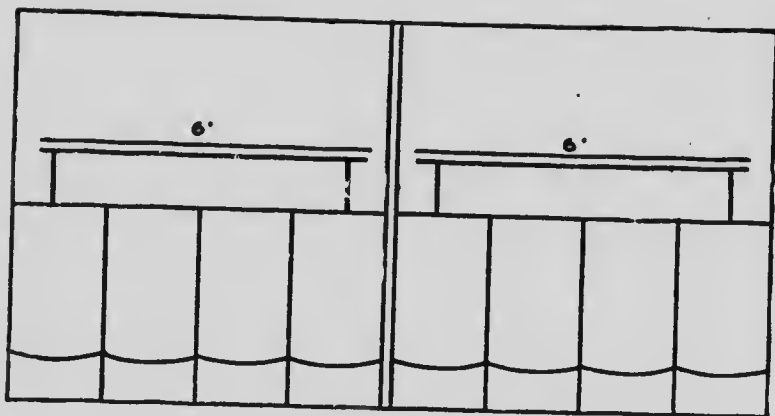
No. 6 is the plan of house used by J. W. Clark, Cainsville. It possesses both the window and the curtain front. The window slides back and in place of it a cotton screen can be let down to fill the opening. The pens are built 12 x 13 feet, and it will be noticed by the sketch that the coop in this house is placed beneath the dropping board. The house is sheeted with rough boards, paper and cheap shingles on outside. The north side has an additional ply of paper. The inside is lathed and plastered.

No. 7.



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ROOSTS AND NEST BOXES.

No. 7, used by J. Bedford, Toronto, is simple and the most cheaply constructed to the lot. It has an open scratching shed with a closed window front roosting pen. This house is single boarded, battened, with an additional ply of boards and paper immediately behind at the end and top of the roosts, as shown in the plans. The scratching shed is 9 x 10 feet; the roosting pen, 6 x 10.

These houses may be built with or without a foundation. A cement or stone wall sufficiently underground to exclude rats and vermin is an advantage. The cost varies according to the price of lumber and help. The floor in most cases is the soil, though cement or wooden floors will give good satisfaction. The different plans are given to suit different conditions. One or two main ideas prevail throughout, viz.: Warm roosting pens, plenty of sunlight, fresh air without draughts and convenience in cleaning. All the houses from which these plans were taken have given good satisfaction.

In calculating the number of fowls these buildings will accommodate, allow six to eight square feet of floor surface for each breeding fowl and give them from five to ten times as much yard space. For each pen one male will be found sufficient, but it is sometimes advisable to change the male if not specially mated.

