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EGGS

THE YEAR ROUND

FROM TABLE SCRAPS

HOW IDLE LAND
AND TABLE WASTE
CAN BE TURNED
INTO DOLLARS

BY
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AUTHOR OF THE
"MILLION EGG FARM"

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Eggs the Year Round From Table Scraps

How Idle Land and Table Waste Can Be Turned Into Dollars

FEW subjects have been so much discussed as that of raising chickens. There are grounds for supposing that the first thing Adam and Eve did after their investigation of the forbidden brought up the problem of the high cost of living was to turn to the hen for a solution.

An Old Problem

And there are equally good grounds for believing that the hen made good.

As a matter of fact, the universal notion that "there's money in chickens" has endured through all the ages simply because it has a solid foundation in truth. The hen has no special faculties for fooling all the people all the time. Her popularity has increased with the years because when other things combined to make living hard, her merry cackle—and often her expiring gasp—has sounded the note of relief.

The person doubtful of whether vacant lot or back-yard poultry can be made to pay will do well to question:

Why are so many in the business? Is it from pure philanthropy that the other fellow is eager to supply me with eggs and chickens? Has he no other concern than to serve society by protecting against worry me and the others that eat his eggs every day and his roosters and elderly hens when in the course of human events it becomes necessary to celebrate a holiday?

The answer will readily appear. It will take the form of \$.

The willingness of the back-yard poultryman to publish his tribulations would be astonishing were there not some reason to suspect the motive. He will cheerfully supply the cloud so long as you will furnish the silver lining. Getting down to brass tacks, he has a good thing and isn't hankering for competition.

**Dollars—
That's All**

Some of the things he could tell but doesn't are:

That table waste turned into eggs will keep a family of 6 in fresh eggs every day in the year.

That you throw enough perfectly good food material into the garbage can every day to pay half the cost of keeping a dividend-paying flock of hens.

That you pay fancy prices for fresh or near-fresh eggs during the fall and winter months merely because you are paying for fresh eggs out of season.

That while some of the "strictly fresh" you pay for were really in the hen until comparatively recent times, many could prove an alibi if challenged.

A fact too often lost sight of is that there **IS** an off season for eggs as well as for strawberries. Strawberries out of season are the outward and visible sign of inward and arrogant opulence.

Same way with eggs—only we **must** have them.

The farmer—most of him at any rate—handles his chickens just as Abraham handled his in the country about the Jordan.

He accepts them as gifts from an all-wise Providence and seems terribly afraid to interfere with the Providential plan.

Often his poultry buildings resemble New Year's Resolutions in being "fearfully and wonderfully made." His chickens are alternately overfed and underfed. They molt when they will, take all the time they want to do it in, and lay when they have to.

That's why so many eggs blush when questioned about their age.

Fancy poultry has been raised scientifically for many, many years. But not until recently did the world wake up to the fact that scientific methods could be applied to the utility poultry business with results most gratifying to the applier.

For a longer time than you'd think possible, scientific egg production was paired with perpetual motion in the minds of poultrydom's wiseacres.

When the first edition of the "**Million Egg Farm**" was issued, people read with incredulity the straightforward story of the wonders achieved at **Rancocas**. When they found it stated that the same methods could be used with proportionately good results on a farm of any size, many gasped and exchanged a knowing wink with the mirror.

Hundreds that accepted the invitation to visit **Rancocas** came to laugh and stayed to learn.

They learned that **Rancocas** methods had caused **Rancocas** layers to yield about double the number of eggs a year laid by the ordinary barnyard hen.

They learned that it was not only possible, but easy, to have young pullets come into the laying age at all seasons, and to get fresh eggs during the 80-cent as well as during the 30-cent period.

They learned that hens could be forced to molt early and get back to daily deliveries at the very time when all fresh eggs are a luxury and most of them a delusion.

They learned that watchfulness and a sane feeding system will make "chicken diseases" a meaningless phrase and cause debility in hens to be as scarce as teeth.

They came, they saw, they marveled. Then they returned home to sow the seed of knowledge and reap the reward in gold.

But, objects the doubting Thomas, the **Rancocas** plan may be entirely practicable for a person with even a modest amount of loose land and money, and still be wholly impracticable for the fellow with no land but a back yard and no capital but horse sense and a disposition to use it.

The best answer to such an objection is the fact that discussion of

There IS An Off Season

What They Learned

back-yard poultry raising was omitted from the first edition of the "**Million Egg Farm**" because the question of just what could be made on poultry when only a vacant lot or back yard was available, had not been answered to the full satisfaction of the author. Many experiments were necessary to determine the cost of housing, feeding, and taking care of a back-yard flock.

Perhaps the most interesting element in the situation was the extent to which table waste could be turned into eggs. To determine this fell largely to the lot of Mrs. Foster, who put into the investigation the natural enthusiasm of a woman for work of the sort. In a paper setting forth the result of her experiments she said:

"With a flock of healthy chickens in the back yard, table waste ceases to be a bugaboo to the housewife.

"The tops of her celery stalks, and the trimmings of her lettuce, cabbages, beets, radishes, etc., provide ample green stuff for the flock, and the tailings of her steaks and roasts yield plenty of meat food.

"Even the ashes from her range can be turned to account; for sifted ashes make the very best material for the dust baths hens delight in.

"My experiments were conducted in a back yard with no natural advantages not common to back yards generally. The results convinced me beyond argument that the table waste of a family of 6 would pay half the cost of fresh eggs every day in the year and a chicken dinner every other Sunday."

Probably the most familiar objection to back-yard poultry raising has been the neighborhood hue and cry against the reveille, or morning call of the wakeful and boastful chanticleer.

I shall waive discussion of the advantages of early rising by explaining at once that the **Rancocas** plan for keeping chickens in the back yard is as free from males as a suffragette convention in secret session.

The **Rancocas** back-yard unit consists of 24 pullets—every rooster found on the premises to be peremptorily condemned and promptly executed. The different plans for getting the 24 pullets, and for securing eggs from some of them every day in the year, will be explained in the following pages.

The cost of living is high and nothing in political or economic conditions indicates relief. You pay big prices for food and a big tribute to the garbage can. Whatever spare ground you have costs you a high rental and yields you little but envy of the landlord or tax collector.

One man in New York City has made more than a **million dollars** dealing in garbage. Landlords and tax collectors are a veritable chosen people.

Your problem is to lower the cost of living without lowering the standard, to make the vacant lot or back yard you are paying for yield something in return.

The purpose of this discussion is to help you solve the problem—to give you a simple, workable, thoroughly tested plan for making chickens the solution.

**Tried and
Proved**

In a Nutshell

How to Do It

Giving Some Plain Facts and Telling How to Establish a Poultry Farm in Any Back Yard

Dollars and Cents

Although I can sympathize strongly with those that see in the chicken business a source of entertainment and refreshment, I know altogether too little about raising chickens for fun to discuss the subject seriously here or elsewhere. Besides, I am writing for the great majority to whom the problem of mere existence is becoming every day more tangled and involved.

Closing the mind to everything but net returns, then, the reader will find the following facts enlightening and interesting.

At times when eggs are plentiful and the price low, **Rancocas** receives 24 cents a dozen for eggs. These same eggs are sold by retailers at from **36 to 40 cents a dozen**. At present—December, 1911—**Rancocas** eggs are bringing 65 cents a dozen in New York. Retailers are getting from **85 to 90 cents a dozen for them**.

Now, **Rancocas** is not conducted along purely philanthropical lines. When our eggs sell for 65 cents a dozen, we make a clear profit of from 35 to 40 cents a dozen on them.

Maybe we'd ought to be ashamed of ourselves, but our stockholders don't think so. Then, too, just so long as the supply of fresh eggs remains about 3 seasons behind the demand, just so long will the retail price continue to hit the sky.

The thing for you to consider is this:

The Thing to Consider

If it costs only from 25 to 30 cents a dozen to produce eggs during the season when you have to spoil a dollar bill every time you think of an omelet, wouldn't it be to your advantage to produce?

To this question there can be but one answer—

“Yes, if I can produce at anything near the rock-bottom.”

Let us see:

The cost of your equipment will depend upon your resources. If you have \$75 to invest, you can build an ideal poultry house such as is shown in the plans given in this book and begin with high-grade stock and a high-grade equipment throughout.

If you have little or nothing to invest, you can make a poultry house out of second-hand lumber and on a less elaborate plan. Then you can get eggs from a farmer or reliable groceryman when the price is low, gain possession of a couple of broody old hens, and start the ball a-rolling.

Provided you have a little capital to invest, 3 excellent plans for establishing a back-yard poultry plant are available:

FIRST, you can buy hatching eggs and hatch them in an incubator or under hens.

SECOND, you can buy day-old chicks and raise them to maturity.

THIRD, you can buy pullets just coming into the laying age and have eggs from the first day.

With any of these plans the first expense will be for the poultry house and equipment. If built according to the plans and specifications herein given (see page 17), the house will cost \$40. The equipment necessary with all 3 plans—drinking fountains, feed hoppers, a bucket, etc.—will cost \$3, making a total minimum initial expense of \$43.

Partitioning off 4 feet for your brooding section (see "a" Fig. 2), securing an incubator or some broody hens and 100 hatching eggs, and putting in an International Sanitary Hover, you will be prepared to proceed according to the first plan.

The Sanitary Hover will cost \$8.50, and a 100-egg-capacity incubator about \$15. To this will have to be added the \$40 for your building and the \$3 for drinking fountains, feed hoppers, etc. With this plan, therefore, your expense for building and equipment will be \$66.50, to which will have to be added \$10 for 100 hatching eggs. (This \$10 cannot be charged against your permanent equipment).

Your hatching eggs should be bought and set in two lots of 50 each.

The first hatch should begin about the middle of January, which will give you early February chicks. Pullets from this hatch will begin to lay in July and keep at it for 4 months. In November about 60 per cent. of them will go through a light molt. These will be laying again in January.

Your second hatch should begin not earlier than April 1 and end not later than May 15. The pullets will begin to lay between the 5th and 6th months (October or November) and continue without interruption until the following August.

The merit of this plan is in the fact that it will give you laying pullets throughout the whole year. Were you to set all your eggs in January, a majority of your birds would be molting in November—the very season when the price of eggs is beginning to give pointers to flying machines. If all your birds were April or May hatched, you would get but few eggs from them till well into fall.

The astonishing success of the **Rancocas** Farm is owing largely to the fact that the **Rancocas** hatching and feeding systems keep the hens working overtime during the season when the other fellow's hens are taking their annual holiday to molt.

With ordinary care you should hatch 65 chicks from your 100 eggs. Of these 80 per cent., or 52 birds, should be alive and healthy when 6 months old. If your hatching eggs were **Rancocas Strain** stock, 60 per cent. of the birds should be pullets. This would give you for your first season 31 pullets and 21 cockerels.

The cost of grain food for 6 months will average 4 cents a month for each bird. The cost of feeding your flock up to the laying point will be,

Plan 1— Starting With Hatching Eggs

60 Per Cent. Pullets

therefore, $4 \times 52 \times .06$, or \$12.48. Only grain food is considered, because the scraps from your table will supply more than enough green food and meat for the flock.

Returns

Should your purpose be to keep no males, you will now dispose of the 21 cockerels. They will sell readily at 50 cents each, thereby yielding as your first income \$10.50. Inasmuch as the **Rancocas** Back-Yard Unit consists of but 24 pullets, you will sell also the 7 extra females. These should bring an average price of \$1.50, which will add to the income another \$10.50.

Counting on a yield of but 140 eggs in the pullet year from each bird, your first season's yield will be 24×140 , or 3,360 eggs. Placing an average value of 3 cents each on the eggs, your return on the season's yield will be $3,360 \times .03$, or \$100.80.

Inasmuch as you will renew your flock each year, you will dispose of the pullets at the end of their laying season. They will average 5 pounds each in weight and be worth easily 16 cents a pound. Your return from this source will accordingly be $24 \times .80$, or \$19.20.

Recapitulating and striking off 10 per cent. of the value of the house and equipment for depreciation, we get the following results:

Statement of Expenses and Receipts Showing the Estimated Net Profit on 52 Birds Incubated and Raised from 100 Hatching Eggs. First Hatch in February—Second in April.

| EXPENSES | RECEIPTS |
|----------------------------------|-------------------------------|
| Hatching eggs..... \$ 10.00 | Sale of 21 cockerels at .50 |
| Expressage..... 1.00 | each..... \$ 10.50 |
| Oil for heating incubator... .50 | Sale of 7 extra pullets at |
| Feeding 52 birds 6 months | \$1.50 each..... 10.50 |
| at .04 each a month..... 12.48 | 3,360 eggs at .03..... 100.80 |
| Feeding 24 birds 11 months | 24 birds marketed at .80 |
| at .05 each a month..... 13.20 | each..... 19.20 |
| Depreciation on house and | |
| equipment..... 6.65 | Total..... \$141.00 |
| Total..... \$ 43.83 | Profit \$97.17—more than |
| | 221 per cent. |

To be sure, your own family will have consumed many of the eggs, and several of the young roosters and yearling hens will have served to grace your own table. This, however, offers no excuse for omitting them from the profit side of the sheet. Indeed, were you to buy the eggs and poultry at market rates, you would probably have to pay more for them than the prices credited.

Conservative Estimates

The estimates upon which our statement is based are conservative throughout. With the exercise of judgment in disposing of your eggs, you can almost certainly get at least 4 cents apiece for them, which would add \$33.60 to your profits. In addition there is the possibility of selling some of your surplus cockerels for much more than 50 cents each, of selling hatching eggs as well as market eggs, and so on.

“The Million Egg Farm”

THE plain, unvarnished story of how the great Rancocas Poultry Farm, at Browns Mills in the Pines, N. J., was built up. A forceful demonstration of the fact that great farms from small beginnings grow.

In “The Million Egg Farm” the story of Rancocas is set forth without frills or embellishment. It is a romance—yes, but a romance of absolute fact. Not a line of fiction was allowed to enter. The object is to enable poultrymen to apply Rancocas methods and get Rancocas results.

The book is profusely and beautifully illustrated and neatly and durably bound.

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Buying the right eggs for poultry raising means that you get your money back many times over in increased profits.

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90% Fertility Guaranteed

No risks to run—and when the chicks arrive, they are birds that will bring top-notch prices in any market. The eggs are laid at our own plant, the largest poultry farm in the world, where 15,000 Rancocas layers are kept. No pullet eggs are sold for hatching purposes.

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we will do your hatching for you—take the trouble, stand the loss. You can start with a clean slate and without dread of failure. The day-old chicks we send you will be thorough-breds—healthy, hearty, hustling, strong.



We will assume the risk—you will reap the profit. Experience has taught us how to get the best results. Why not take advantage of it? Get your order in early, so you will not be disappointed in your booking. Write for prices and shipping dates to

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The first year's hatches will carry you from February of one year to the middle of August of the next—or until such earlier time as your second-season birds, by coming into the laying age, shall make it profitable for you to dispose of the older layers.

Naturally it occurs to you now that since you made preparation to accommodate only a certain number of birds, you will have no room to take care of additional chicks during each spring and summer.

The answer to this objection is that you prepared to accommodate a certain number of birds **during all seasons**. Now, the space required to house 100 baby chicks is only about 4 feet, which can always be made available at one end of the poultry house in the way shown in Fig. 2. Before the chicks shall have attained their growth, spring will be at hand.

Throughout the spring and summer your birds will spend but little time in the poultry house during the day; most of the time they will be out in the air and sunshine getting their exercise. And inasmuch as they will use the house chiefly to roost in, there will be ample room to keep the entire flock in comfort till the older birds are disposed of in the fall.

If your plan were to increase the size of your flock every year, you would of course require additional room to meet the increase. So long as you have only a vacant lot or back yard to operate in, however, it will be better to hold to the **Rancocas Back-Yard Unit** of 24 full-grown hens during the fall and winter months.

Chief among the advantages of doing one's own hatching are the satisfaction of watching the process of incubation—observing the chick from the moment it begins to develop in the shell; freedom from dependence upon others for high-grade baby chicks; and the profit to be derived from the sale of baby chicks to neighbors at 15 cents each.

Many to whom the plan of hatching their own chicks will not appeal will nevertheless want to raise their own birds, first because of the diversion it will afford from business cares, and secondly because it will appear to them a better plan than that of buying pullets in the fall of each year and selling them just before their first molt in August of the following year.

Should you prefer to begin with day-old chicks, you will follow the same plan as if you were to start with hatching eggs—except that you will buy chicks in February and April instead of eggs in January and March.

One hundred day-old chicks bought in two lots of 50 each will cost \$20—\$10 more than 100 hatching eggs, but you will have no incubator to buy.

Having started with 100 chicks instead of with but 65, you should have at the end of 6 months 80 vigorous birds, of which 48 should be pullets and 32 cockerels. Selling the cockerels at 50 cents each and the extra pullets at \$1.50 each, you will reap as your first income \$52.

From this time on your profits will be the same as if you had started with hatching eggs. All things considered, it is probable that your profits, year in and year out, will be about the same whether you begin with

**Plenty of
Room**

**Plan 2—
Starting With
Day-Old
Chicks**

**Plan 3—
Starting With
Pullets**

hatching eggs or baby chicks—that is, they will be about **220 per cent. on your investment.**

Hundreds that would like to keep a flock of chickens in the back yard are deterred because they are disposed to magnify the labor and risk involved in hatching and raising chicks. Wincing under the necessity of paying fancy prices for eggs of doubtful quality, they would be glad to find relief by keeping hens of their own; but they dread the problems of incubating and brooding.

The simple truth is that with good eggs, a good incubator, a good hover, and common sense, there is little or no risk, and a lot more recreation than labor, in hatching and raising chickens.

Many a victim of the nerve-racking habit of carrying home at night the cares and worries of the day has found recreation and forgetfulness in “watching a hatch” and lending a hand to the chicks during the critical early days. Many a woman longing for something to break the pitiless monotony of her week-in-and-week-out grind has found a wonderful delight in “tending the eggs” and visiting with the animated little cotton balls that flash in and out of the hover. It is remarkable how little is sometimes required to change the current of a life. The satisfaction of “raising our own chicks” has proved a channel of happiness for hundreds.

But the person doubtful of this need not remain at the mercy of others because of his doubts. He can buy pullets just coming into the laying age, keep them during their pullet year, and market them at the end of their laying season just before the first molt.

**How to Go
About It**

Should you determine upon this course you will buy 12 February hatched pullets about July 1, and 12 April or May hatched pullets in September.

As with both the other plans, your building will cost \$40, and your drinking fountains, feed hoppers, etc., \$3, a total of \$43.

The cost of your pullets will be \$2 each, or \$48 for the flock, and the expressage on them will be about \$2.50. They will eat—in addition to your table scraps—about 5 cents worth each a month of grain food. The cost of feeding for the year will be, therefore, $24 \times 12 \times .05$, or \$14.40.

Counting on an egg yield of but 140 eggs from each bird for the pullet year, and placing a value of but 3 cents apiece on the eggs, your return from this source will be $24 \times 140 \times .03$, or \$100.80.

Your birds will now be marketable at an average price of 80 cents each. Placing this value upon them, your meat return will be $24 \times .80$, or \$19.20. Adding \$19.20 to \$100.80, we get \$120 as your income for the season. Summarizing and allowing 10 per cent. for depreciation on your house and equipment, which cost \$43 and will last for years, we have:

| | |
|---------------|---|
| Receipts..... | \$120.00 |
| Expense..... | 69.20 |
| | \$ 50.80—a little more than 136 per cent. |

The difference between 136 per cent. and 220 per cent. represents the

Feeding

One of the Most Important Problems the Back-Yard Poultryman Has to Deal With

We shall begin here by assuming that you have never seen a baby chick and wouldn't know a "layer" if you were to meet one on the street. In other words, we shall start you at the foot of the ladder and lead you rung by rung to the top.

Regardless of whether you break in with hatching eggs or baby chicks, your first feeding problem will be to take the little chicks along the right road.

Comfort the First Feed

The first thing to feed your chicks is comfort.

In order to provide this, and to make sure that everything is in good working order, it will be advisable to heat your hover for two days before putting the chicks under it. The floor of the hovering place must be covered with 1 inch of clean sand, on top of which there must be at least 1 inch of litter. Cut straw makes the best litter, though cut hay or mow scrapings will serve. If clean sand is not available, ashes, dry earth, or an extra inch of litter may be used.

The temperature under the hover should be maintained at 92 degrees during the first week.

Your chicks should be placed under the hover 24 hours after the hatch has been completed—or immediately upon their arrival if you bought them already hatched. Chicks must be left in the incubator at least 24 hours after the hatch in order to dry out.

Provided you hatch your own chicks, the best time to transfer them to the hover will be about 3 o'clock in the afternoon.

Running entirely around the hover, and about 4 inches away from the curtain at the beginning, there should be a circle of building paper or some similar material from 8 to 10 inches high. Enough of the paper should be lapped to permit of enlargement of the circle every day or so till the chicks have learned to run to the hover for warmth, after which the paper wall can be taken away.

A strip of building paper 12 feet long will give ample material.

The Feeding Board

A board about 2 feet long and 8 inches wide should be placed in the yard or run to hold the first feed of grit and be used thereafter as a feeding board. Lengths of ordinary building laths should be tacked to the four sides of the board so as to form a rim around it and keep the grain from rolling off.

The feeding board, containing a little grit, but no food, should be in the hovering pen when the chicks are put there.

Water

At about 10 o'clock, on the morning after the chicks have been placed under the hover, their drinking fountains should be filled with clean water from which the chill has been taken off. The temperature of the water should be between 60 and 70 degrees, and the fountains should be so placed that the chicks can get at them easily. Be sure to have the fountains level, so as to prevent water from running over into the litter. Should any of your litter become wet, replace it promptly with dry litter.

From this time on, fresh water should be kept within easy reach of your chickens during every hour of their lives.

Begin feeding rolled oats—plain Quaker Oats such as you can buy at almost any grocery store—about 4 o'clock in the afternoon of the day following the transfer of your chicks to the hover.

Do not cook the oats. Feed them just as they come to you from the store.

Take a small pinch, about what you can hold between three fingers and the thumb, crumble it a little, and scatter it on the feeding board. When the chicks have disposed of this, put more on. You will find that for the first 3 days a pinch will be required every 2 or 3 hours.

Be careful to see that your chicks have cleaned up their food before giving more to them. Throw a little of it into the litter after the third day and make them scratch up an appetite—just as you and I should do between meals.

Don't Overfeed

On the morning of the third day after beginning to feed rolled oats, you should have on hand a preparation called "Baby-Chick Feed," which you will be able to buy from any reliable poultry supply house.

During the next 7 days this chick feed should be given to the chicks just as the rolled oats were—that is, small pinches of it should be scattered on the feeding board and in the litter. After the 10th day all grain food should be thrown into the litter. The necessity of scratching for it will sharpen the appetite of the chicks.

I would recommend that, provided your birds have picked up all the grit, you put a little more on the board about the 4th or 5th day—not much—just a small pinch or so. Chickens chew their food with a gizzard instead of with teeth. Grit in the gizzard is helpful to good digestion in the hen.

Beginning with the 10th day you should be ready with a pound or two of fine, sifted charcoal, and about the same amount of very fine oyster shell. You should now make a mixture of one part charcoal and one part oyster shell, of which mixture you should put a sprinkling on the feeding board every 2 or 3 days.

By this time it will be unnecessary to provide grit so often, because the chicks will be spending considerable time on the ground, where they will scratch up nearly enough grit and sand.

When the chicks are 7 days old they will have arrived at the time when some of your table scraps can and should be fed to them. Take the tailings of your steaks, roasts, chops, and other meats, grind them in a meat chopper, and—for the first 2 days—feed the meat to your chicks in the proportion of 3 tablespoonfuls a day for 100 chicks.

Table Scraps

You can gradually increase the quantity of meat food as your birds grow older; but you must be careful not to feed too much to the young birds, because—owing to the high percentage of protein concentrated in meat—it would satisfy their appetites and cause them to neglect their grain. This would keep down their weight and therefore their value as broilers.

More Scraps

You may begin to feed also about the 8th day some of your waste lettuce leaves, cabbage leaves, celery tops, beet tops, etc., to which should be added about the 14th day a part of your left-over mashed potatoes, fried potatoes, and cereals. All these—and almost any other left-over food you may have—should be run through the meat chopper and fed to the chicks in small quantities.

For the first week or two it will be better to chop up fine your green stuff (cabbage leaves, lettuce leaves, celery tops, etc.). After that gather it up, tie a string around it, and hang it where the chicks will be able to get it only by jumping up and pulling off a little bit at a time. This will give them good exercise.

Do not worry in the least because your flock will not be able to eat all your table scraps at this time. As the birds grow older they will require more and more of the particular kind of nourishment to be found in table leavings.

This process of feeding with baby-chick grain, meat scraps, and vegetable table leavings should be followed until the chicks are about 8 weeks old. The first feed of the morning and the last feed in the evening must positively be grain food. At noon table scraps should be fed.

And Still More

As the birds begin to come into the broiler age, it will be well to include in their table scraps boiled potatoes, macaroni, cooked oatmeal—everything you have, in fact. This will aid greatly in making fat.

Once the birds have reached the age of 3½ months, they should be fed **all the table scraps possible**. The last feed in the evening, however, should always be of grain in the litter. Of course if you have not enough table scraps to satisfy the appetite of the flock, you must make up the shortage with grain food.

Right here I want to call your attention to the feeding of one waste that occurs occasionally in every household—namely, **sour milk**. This, if fed continually, will cause a 25 per cent. increase in the egg yield over the yield of hens fed chiefly on grain and water.

When you have any sour milk, put it on the back of your stove in a vessel or dish and allow it to come to a curdled or clabbered state. Then put it in a pan and place it where the hens can get at it. Any time you have sour milk, clabber it and feed it to your hens. Should they fail to eat it all today, they will finish it tomorrow or some other day.

Don't be afraid that because there may be a little pepper or salt in your table scraps, they will be harmful to the chicks. Pepper and mustard actually stimulate laying; and salt—though it must not be fed in lumps—is good in small quantities.

Your next concern will be with the time when the birds have come into the laying age—between their 5th and 6th months.

You will then secure a small combination hopper, fill one side of it with cracked oyster shell and the other side with medium-sized charcoal, and keep it within reach of the birds at all times.

The oyster shell can be bought of any poultry supply house. Inasmuch, however, as pullets prefer fresh oyster shells to the dry shells big poultry farms have to buy, you will obtain fully as good results by having your boy go to some sea-food house on Saturday afternoon, get some oyster shells, and smash them up fine with a hatchet. This, by furnishing agreeable exercise for the boy, will keep time from hanging on his hands.

Charcoal is the only tonic used on the **Rancocas** Farm. By absorbing gases in the digestive tract, it keeps the digestive organs in good condition and protects the birds against disorders.

Of course the chicks you secured in April or May will be treated at every stage in just the same way as those hatched in February.

We have now discussed the feeding of your flock up to the beginning of winter.

In connection with winter feeding I wish to impress upon you the fact that corn should be fed to chickens only as a generator of heat. Corn is necessary during the winter months because without it the chickens would be unable to stand the severe temperature. In the feeding of your evening grain—which must be made up of wheat and corn—follow this rule:

When the temperature is about 40, give a mixture of one-third corn and two-thirds wheat; when the weather becomes frosty, the mixture should be composed of equal parts of corn and wheat; in December, January, and February—if the weather runs about 15 degrees above zero—the proportion should be 3 parts corn to 1 part wheat; with the temperature below 15 degrees above zero, the evening feed should be all corn. When you have fed an all-corn food at night, throw into your litter the next morning a little wheat.

The birds should be given at night just what food they will clean up—though a little should be left in the trough for the bashful and late comers. Care should be taken to keep the hens from getting too fat, because overfat birds will not lay up to full capacity.

It is not necessary to use nest eggs.

The hen with an egg in her will be impelled to lay it—not by means of counterfeit hen fruit in the nest—but from a course of feeding that will so develop the egg as to make her eager to place it on exhibition.

In the housing of chickens it is important to keep the perches clean, remove the droppings, provide new litter when the old has become foul, and supply fresh drinking water. You should secure a spray pump (it can be bought for 50 or 60 cents) and spray the perches and perch poles with a solution of kerosene and naphthaline flake—mixed in the proportion of 16 parts kerosene to 1 part naphthaline flake. This will kill mites, which are likely to gather under the perches and poles where birds roost at night. In addition you should get a good lice powder after your birds are 2 weeks old and put it on them in the evening while they are on the roosts. Rub some powder into each bird, beginning at the tail and working up to the

**Your Boy's
Part**

A Good Rule

Important

head. By working against the feathers, you will cause the powder to cling to them.

When explaining why you will be able to accommodate your whole flock during all seasons, we referred to the way in which you will partition off 4 or 5 feet at the end of the poultry house and use it to brood one year's baby chicks while the preceding year's birds are providing your daily breakfasts and occasional sponge cakes.

A point not heretofore touched upon, however, is this:

The birds hatched in February of the first year will begin to lay early in the summer; the April or May hatched birds will come into laying in the fall, while a small percentage of the older pullets are molting.

Naturally there will be a time—during February, March, April, May, and June of the second year—when all the 24 pullets will be laying. At this time the egg yield from 24 pullets should be from 18 to 20 eggs a day.

Chicken Dinners

Now, unless yourself and family can eat from 18 to 20 eggs a day, I would suggest that you treat yourself to 6 or 8 chicken dinners—making the less likely looking pullets provide the treat. This, because in July and August the early second-year pullets will come into laying and work hard.

And remember: No matter what rules I might lay down for the feeding and care of your chickens, you might profitably depart from them at times according to your own best judgment. It is not unthinkable that you might work out some excellent idea that never occurred to me.

Should you get into any trouble with your flock, write to me freely. None of us can teach the other fellow without teaching ourselves—and I pity the man that is not eager to learn.

Specifications for Constructing a 24-Hen "Rancocas" Utility House

General

The site selected for the house should be in the back yard, wherever convenient. The front should face the south as nearly as possible. The location should not be in a hollow place, where surface water will collect and form a pool, but should be as high and dry as circumstances will permit.

Location

In these specifications we have specified mostly hemlock. If, however, you can purchase other lumber more cheaply, you may use it.

Foundation

Should you desire to build a concrete foundation, first stake out the dimensions according to the measurements on the plan in Fig. 1. Then excavate a trench 9 inches wide and deep enough to extend below the frost line, which, in a cold climate, will be anywhere from 1 foot to 2 feet deep in sandy soil, and from 2 to 3 feet deep in clay soil. Have the bottom of the trench level all around.

Concrete

Now box in the trench with wood, thoroughly bracing it on the sides to make a "form" to receive the concrete. Make the top of the box level with the point intended for the wall head, allowing 7 inches for the thickness of the wall. The level of the wall head should be 3 inches above the ground at its highest point.

Mix 1 part of Portland cement with 3 parts of clean sharp sand and 4 parts of clean gravel, cinders, or broken stone. Mix these thoroughly in a dry condition—then add water and mix thoroughly with a shovel to the required consistency.

Dump the concrete into the trench, stamping it thoroughly. Once you have begun this work, do not stop until the cement is all in and the top of the wall head smoothed down to a level. Leave the forms up till the cement is hard. Then remove them and proceed to lay the cement floor.

Level the ground inside the walls 3 inches below the wall heads, tamping the ground thoroughly. Then cover the ground with two-ply tar paper. Now mix some more cement concrete in the proportion specified and spread it on top of the tar paper to a depth of 2½ inches. Stamp it solidly in place and bring it to a level surface.

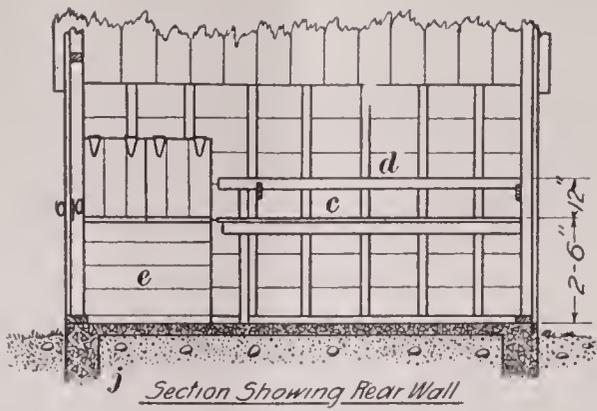
Cement Floor

Walls

Lay a hemlock 2×4 sill all around the wall head, making the outer edge of the sill flush with the outer face of the foundation. Halve and spike the sills thoroughly at the corners.

Sills

PLANS
For a 24 Hen
"RANCOCAS"
Utility House



- KEY
- a - Laying House Walls
 - b - Nests
 - c - Dropping Boards
 - d - Perch Poles
 - e - Grain Bins
 - f - Manure Box
 - g - Door
 - h - Muslin Windows
 - i - Chicken Doors
 - j - Concrete Foundation

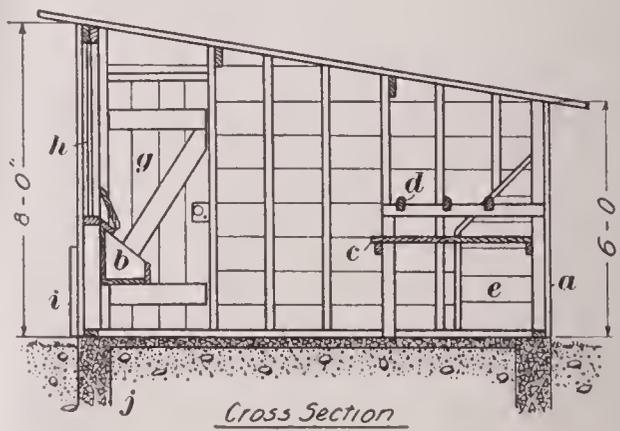
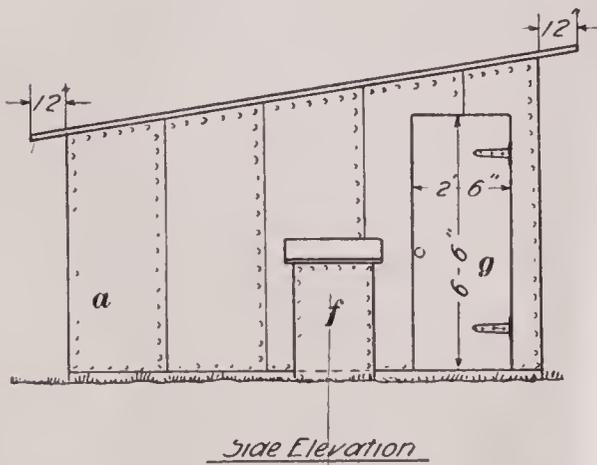
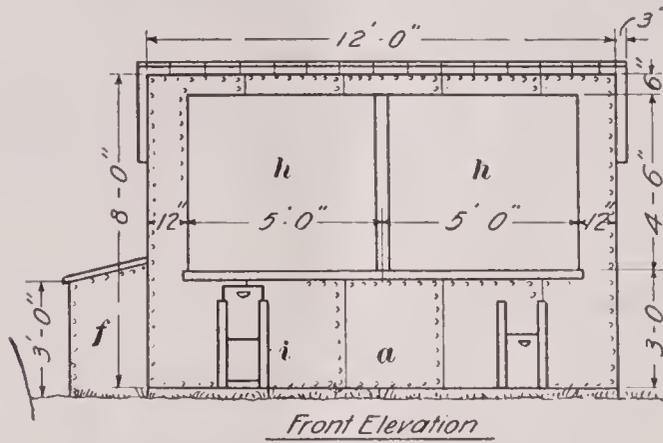
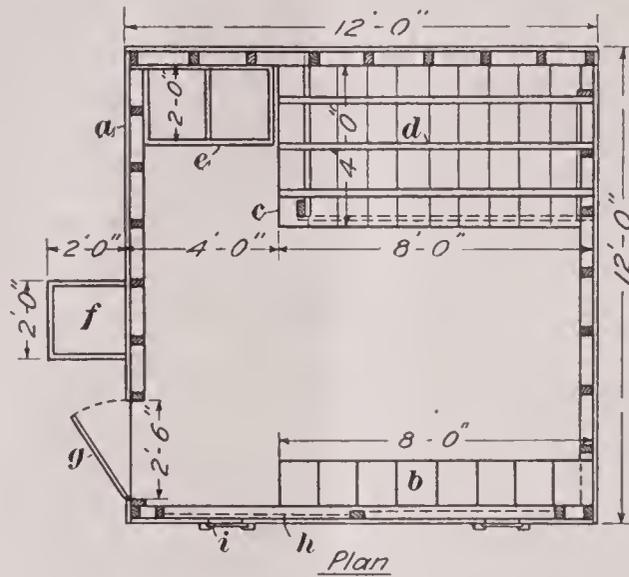


FIG. 1

Use 2×4 hemlock studs set approximately 18 inches on centers. The height of the studs in the front to be 7 feet 10 inches, and in the rear 5 feet 10 inches. Place a stud at each side of the door, at each corner of the building, and at each side of the windows. The studs being erected and made perfectly plumb, hold them temporarily in position by braces stitched at the top.

Studs

The sheathing should be preferably 8 or 10 inches wide by $\frac{7}{8}$ -inch thick. It should be nailed across the studs horizontally, beginning at the wall head and working up. Allow the lowest board to hang down over the concrete 1 inch to prevent water from working in under the sill.

Sheathing

All sheathing boards must be laid with edges abutting tightly against each other, thus making a flush wall. Each board should be secured with three 8-penny wire nails to each stud it crosses.

Openings in the Walls

The plan shows 1 door, 2 windows, and 2 openings (10 inches by 14 inches) for the chickens to get into the yard. Leave these openings while sheathing the building.

Over both the windows run a beam of two 2×4's securely spiked together with 10-penny nails. The studs at each side of the windows must be cut down 6 inches. The beam over the windows will be 11 feet long, each end resting on a 2×4 stud and spiked to it.

Windows

The sheathing board in front of this beam must run the full length of the building and be securely nailed with 10-penny nails to the beam as a reinforcement.

The window sill should be 10 feet long and made of 2×4 selected hemlock. The upper edge should be 3 feet above the floor level and securely toe-nailed to the stud at each end with 10-penny nails.

Between the 2 windows place a vertical 2×4 stud with the 4-inch side facing the front. This will leave 1 inch space in front and 1 inch space at the back for the sashes to slide in horizontally.

The muslin frames should be made of $\frac{7}{8}$ in. × 2 in. planed pine, halved and braced at the corners. Each frame should be covered with muslin, folded over and tacked with carpet tacks 4 inches apart. These frames should be made to fit the opening snugly, so that when closed they will be air-tight.

Sashes

Cover the entire opening of both windows with 1-inch mesh, galvanized wire netting, securely nailed with $\frac{5}{8}$ staples all around.

The chicken doors should be 10 inches wide and 14 inches high above the sill. At each side of each opening nail a strip 2 inches wide and 2 feet high, of $\frac{7}{8}$ -inch material. On top of this nail a strip of the same height and thickness, but 3 inches wide. This will provide a channel or guide for a sliding door 12 inches wide and 15 inches high, which should be fitted inside the strips. On the upper edge of each door fasten a screw eye, and at a convenient height in the wall fasten a hook, so the door can be held open.

Chicken Doors

Over the door opening run a 2×4 lintel, projecting 1 inch below the top of the door. Finish the edges of the sheathing at the sides of the door

Door of House

1 inch back on the 2×4 studs, so that when the door is closed it will butt against the studs and lintel and keep out the cool air. The door may be $\frac{7}{8}$ -inch hemlock, the same as the walls, but made with vertical strips; and it should be held together with two $\frac{7}{8}$ -inch by 8-inch-wide cross-timbers and one $\frac{7}{8}$ -inch by 8-inch-wide diagonal brace inside, as shown. On the door screw securely two 4-inch iron **T** hinges and use a latch, clasp, and a good padlock.

Roof

Joists

Run lengthwise of the building from sidewall to sidewall two 2×6 selected, straight-grained joists, securely spiking the ends to the studs.

Sheathing

Cover the top with hemlock sheathing 8 or 10 inches wide and $\frac{7}{8}$ -inch thick, running the boards from front to back and allowing both ends to project 1 foot. Nail the end boards so they will project over the side walls 3 inches. Nail all these boards securely with 8-penny nails.

Waterproofing

Cover the entire roof with waterproof roofing felt. Begin with a horizontal layer at the back of the roof, running from sidewall to sidewall. Then put on succeeding layers with asphalt cement between them at the joints, and give an overlap of 3 inches at each seam. Nail the seams 3 inches apart with $\frac{7}{8}$ -inch nails and tin disks. These come with the roofing felt. Turn the felt down 2 inches all around the edge of the roof and nail it securely with tin disks 3 inches apart.

Cover all the walls and the door on the outside with roofing felt, making the joints vertical. Overlap, cement, and nail them close with nails and tin disks. Be careful to have no opening at the wall heads for cold air to blow through.

Interior Equipment

Nest Boxes

Build of $\frac{7}{8}$ -inch material, and as a separate fixture, a row of 8 nests, and screw them against the studs under the windows. The bottom may

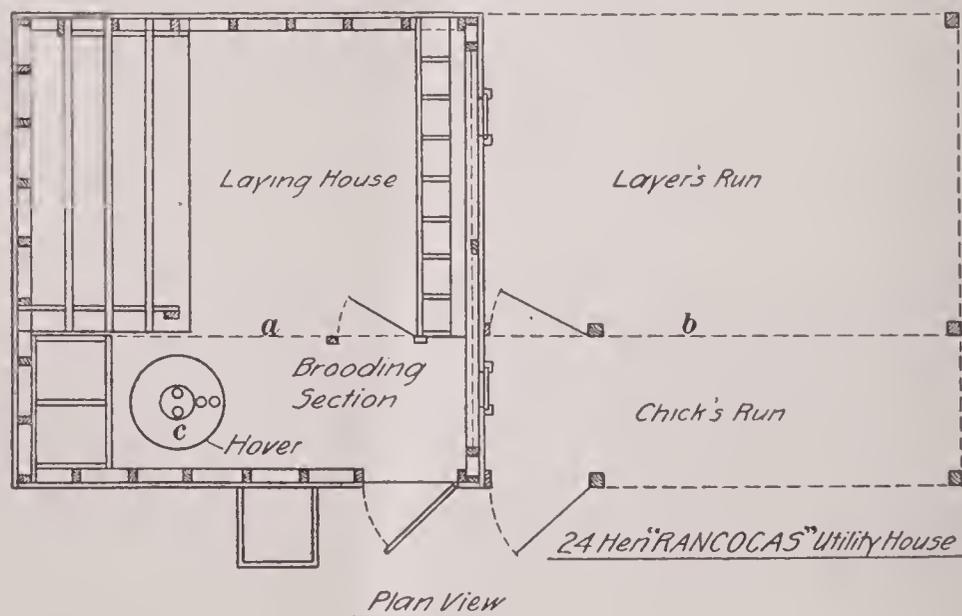


FIG. 2

be of two 8-inch boards. The front board should be 4 inches wide. The back may be made of two 8-inch boards. The partitions between the

nests should be cut at an angle. At the top of the back board nail over the partitions a board 8 inches wide. As a lid for all the nests, use a $\frac{7}{8}$ -inch by 10-inch board the full length of the space they occupy. Secure this to the 8-inch top board with three 3-inch butt hinges, so that the board can be folded back against the windows during the day.

Construct a dropping board as shown in the plan.

On the face of the studs at the rear wall nail a $\frac{7}{8}$ in. \times 3 in. strip the full length of the dropping board. At the corner place a 2 \times 4 post running up 10 inches higher than the dropping board. At the front, as a support for the dropping board, nail one end of a 2 \times 4 on edge to the post. Nail the other end to the stud at the wall. Lay the dropping board on this 2 \times 4 and on the strip previously nailed to the back wall. The dropping board should be composed of $\frac{7}{8}$ -inch matched boarding, with the joints running from front to back. Leave a clearance of 1 inch between the dropping board and the grain bin.

Nail a 2 \times 4 on edge from the top of the aforesaid post to the corresponding stud at the back wall. Nail a strip $\frac{7}{8}$ in. \times 3 in. on the face of the studs, at the other end of the dropping board, to carry the perch poles. Make the perch poles of 2 in. \times 3 in. material.

Construct a grain bin of $\frac{7}{8}$ -inch material, with a partition in the middle and with a slanting cover, so the birds will not be able to roost on it.

Dropping Board

Roosts

Grain Bin

Exterior Equipment

The box shown at the left of the door is a manure box, which should be built of $\frac{7}{8}$ -inch material and provided with a tight-fitting cover.

Although we show a 12 ft. \times 12 ft. run, it will be better if a longer run can be made, say a run of 20 feet the full width of the building.

The fence will prove most satisfactory if constructed as follows: Use 1-inch mesh netting 2 feet up, the lower 4 inches being sunk into the ground. Use 4 feet of 2-inch mesh wire for the upper part. Around the top slope the netting in at an angle of 45 degrees, with an overhang of 2-inch mesh wire 18 inches wide. This overhang will usually prevent chickens from flying over the fence. It should be held up at the corners by braces. A gate should be placed near the door of the laying house.

Manure Box

Runs

Fence

For the Baby Chicks

In Fig. 2, showing the interior of the laying house, there is indicated with dotted lines a wire-mesh partition and a gate. The partition should be 6 feet high. For 2 feet above the ground the partition is to be constructed of 1-inch mesh wire netting, and for the remaining 4 feet to the top, of 2-inch mesh wire netting. The purpose of the partition is to prevent the layers from flying into the compartment reserved for the baby chicks, which are to be raised under the **International Sanitary Hover** shown at the lower left-hand corner of the figure.

Outside the house, in the yard, a similar fence is to be constructed, as indicated by the dotted lines. This temporary fence should be provided with a gate through which a person may enter the layers' yard.

How Do YOU Keep the Ball Rolling?

IS it a heart-breaking struggle with hard work and small pay? Are you sometimes filled with dread because you seem to be slipping in spite of all you can do?

Well, what **can** you do?

What position are you qualified to fill that any one of a million others could not hold down?

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Since it costs nothing to investigate, why hesitate? Send a post card to the

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Scranton, Penna.

Reveries of a Rooster

Overfat hens mean empty nests.

How long we've lived not years but liars tell.

To turn hens into dollars you must use common sense.

The female of our species is more welcome than the male.

Man wants but little here below, and most of him is getting it.

The "strictly fresh" you see so often may have reference to the clerk.

Believe me, my countrymen, there is no such thing as a pretty good egg.

Keep your hens in comfort and they'll do their best to return the compliment.

Seest thou a man diligent in business—let him look out for the Attorney General.

If it be true that I would rather crow than work, is it not equally true of the rest of men?

Consider now the hen, who tries not to attract attention till she has first delivered the goods.

It has taken the world a long time to wake up to the fact that there *is* a science of poultry raising.

The old idea was trust to luck and get eggs sometimes. The new idea is use intelligence and get eggs all the time.

With eggs 60 cents a dozen and steak 30 cents a pound, it must keep the common people busy trying to decide whether to keep their hens for eggs or kill them for meat.

'Tis something in the dearth of fame, though linked among a henpecked race, to feel at least an honest shame, even as I crow suffuse my face; for what is left the rooster here—the ax for Mr. Chanticleer. (Apologies to Byron.)

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Eleven Points of Superiority Possessed by the **International Sanitary Hover**

(1) It is warmer at the curtain than near the center. This causes the chicks to distribute themselves just back of the edge of the curtain, where they have a constant supply of fresh air and plenty of room. (2) It is entirely circular and has no corners for the chicks to crowd into. (3) The lamp holder can be lifted out through the top of the hover by a person standing up. This makes it unnecessary for the operator to kneel in dust or mud to tend his lamp.

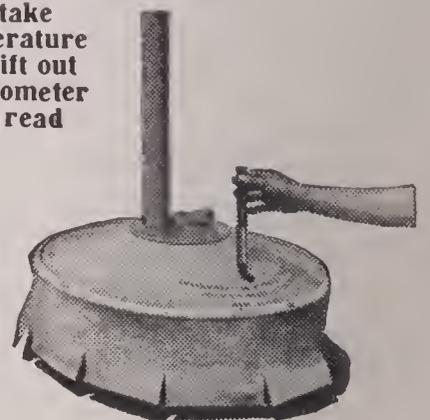


(4) It can be carried around with ease and used anywhere, thus making unnecessary the building of an expensive brooder house. (5) No carpenter work is required in connection with it—no cutting of holes nor building of platforms. (6) It is complete in itself and ready for use wherever it may be dropped. (7) It is metal throughout (except the curtain, of course) and is therefore vermin proof as well as fireproof. Unlike the wooden hover, it will not absorb dirt and hold it. (8) The inch of selected insulating material between the two layers of the top prevents excessive radiation of heat upward from the cover. Plenty of heat is radiated downward upon the backs of the chicks. (9) It cannot be burned nor broken and cannot warp and fall apart. At the worst it can only be dented or

kinked through rough usage. (10) Although portable—easy to carry around and usable anywhere—it provides nearly two hundred square inches more hovering space than any other hover. (11) It gives ample heat under the hover without so heating the surrounding floor space as to cause leg weakness among the chicks.

**The International Sanitary
Hover raises chicks and stops
there—it doesn't raise trouble**

**To take
temperature
just lift out
thermometer
and read**



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