

FINE FOR CHICKS.

Model Plant at the Kansas Agricultural College.

IT COST \$2,500 TO BUILD.

Houses, Coops, and Sheds All Constructed to Obtain Best Results in Raising Poultry at Lowest Expenditure of Time and Money.

The model poultry plant at the Kansas Agricultural college is not a luxury. It is just what any modern, progressive, prosperous farmer should and would have. The state might build the finest kind of a plant, and the farmers would say it taught nothing because it was beyond their means. Here is a first class plant that did not cost a cent more than any man could afford if he intended to go into the poultry business. Probably \$2,500 would cover the whole thing—fences, houses and needed machinery.

At present the plant uses four acres. It consists of a laboratory building and feed house combined, one laying house, two colony shed roof laying houses, other colony houses and coops and yards. The gates to each yard are conveniently arranged to permit easy going from one yard to the other and consist of larger gates in the end of which are self fastening smaller ones. Every house is equipped with special watering and feeding devices.

The laboratory building is 28 by 44 feet, with 10 foot studs and an eight foot rise to roof. This building contains one laboratory 28 by 44 feet for students. The basement is eight feet high and contains one incubator room 28 by 30 feet, one egg room 9 by 12 feet, one furnace room 8 by 12 feet and one killing room 9 by 12 feet. The attic of the building is used for storage. The feed house is built on next to the laboratory building and is 18 by 30 feet. It contains five large bins

made of laths and front and sides of wire netting.

The floor is made of concrete placed six inches above the ground surface. The foundation also is made of concrete, 8 by 18 inches. The partitions are built up two and one-half feet with solid boarding and a one inch mesh wire netting used the rest of the way. This laying costs at the rate of \$1.25 per bird and allows four square feet for each bird.

The two colony laying shed roof houses are each 10 by 12 feet and house thirty to thirty-five birds. The roosts, dropping board and broody coop are constructed on a similar plan as in laying house. These houses have curtain and window openings and doors in the front. Trap nests are used, which enable the poultryman to separate the laying hens from the non-laying ones.

The other colony houses consist of one cockerel house 9 by 9 feet, with a screen front and end; three colony houses 8 by 8 feet, used in summer and costing \$25 to \$30, and one gasoline colony house 8 by 8 feet, used for 200 young chicks in spring and for hens in winter; also a house made of two piano boxes used for a brooder house for 150 young chicks and five coops used as brooders for 75 to 100 chicks.

FARMER AND BUSINESS MAN.

Recently a prominent business man said that if merchants, manufacturers, bankers or other business concerns did the majority of farmers there would be a panic in two days and ruin would stare every man in the face. Every merchant has the cost price and the selling price marked on every piece of goods and can tell the amount of his profit or loss at a glance. He is not reproved for his book learning, and why should the farmer who attempts to conserve his own business interests be derided in that manner?

WINTER LANDSCAPES.

Season Not One Without Color, as is the Common Delusion.

There is a curious delusion that winter is a season without color. Once live this season out close to mountains, forests, fields and stretches of cultivated valley, and you may discover such lovely colors and such odd combinations as you never dreamed, and even days of absolute prismatic dazzle, reducing summer by comparison to a tame green velvet, remarks a writer in Scribner's. Winter, to be sure, has its moods of black and white, when pictures are reduced to their simple elements of line and chiaroscuro. But even these are fascinating, as if nature were bent upon showing you that she is not dependent on her color box for her charm.

In early winter, when the snow is yet light, you may walk up a back road through the timber and note where a wagon has turned off up a logging trail. The snow has melted in the wheel tracks, making two brown paths, where the dead leaves show through. Those tracks have all the rich irregularity of the lines in an etching. Presently you come upon a brook, following it into the woods. It runs through the white carpet, quite black, as if laid on with a free brush loaded with ink. There is ice in the back waters, and that is black too. The dark pines rise from its banks, straight, geometrical. Nature today is drawn, not painted, washed in with black and white.

LEE AS TEACHER.

Manner of Reproof Peculiar to Confederate General.

An interesting story is told in the New York Evening Post of the methods of reproof which were peculiar to Robert E. Lee after he became president of Washington and Lee university.

A student was once called to account for absence. "Mr. M., I am glad to see you better," Lee said to him, smiling. "But, general, I have not been sick." "Then I am glad you have better news from home." "But, general, I have had no bad news." "Ah, I took it for granted that nothing less than sickness or distressing news from home could have kept you from your duty." In the same vein was his remark to a student who had been late for prayers. "Mr. Page, will you kindly give my compliments to Miss — and ask her if she will please have breakfast a little earlier for you?"

To a negligent student he said: "How is your mother? I am sure you must be devoted to her. You are so careful of the health of her son." His reply to a certain young sophomore was in a different tone. Summoned to Lee's office, he was gently admonished that only patience and industry would save him from failure in college and in life. "But, general, you failed," the student replied with sophomore ineptitude. "I hope that you may be more fortunate than I," was the quiet answer.

When the Letter Carrier Gave Assistance to Cupid

By HENRY S. SCOTT

THERE was a girl on my route," said the postman, "to whom I delivered letters from the time she was just old enough to read them. It may seem strange to you, but whenever I had a letter for her it was the pleasure of the day for me. There's no happiness equal to giving happiness to another, and whenever my little girl received a letter the joy that lit up her childish face was reflected in mine.

"When she was about seventeen there came a new interest for her in her letters. One morning when I was sorting the mail for my route I saw a letter the superscription of which indicated that it was not from a girl friend. It was written in a clerical hand, evidently by a young man whose chirography had not become set. My little girl was waiting for me at the gate, and I knew that her eyes were upon me while I was yet far down the street. Before I reached her they were big with expectancy. While I had still two stops to make before coming to her I held up her letter, but I was too far for her to see the superscription, and she was only partly reassured. When she saw the youthful writing ornamented with pen flourishes a gladness spread itself over her features that made my heart correspondingly joyful.

"Every day for weeks I gave her a letter addressed in the same hand. Then I noticed by the postmark that the writer was going from place to place and the letters were less frequent. This made the girl more anxious to get them, and, as soon as I turned a certain corner far down the street and saw her watching at the gate, when I had no letter for her I would raise an empty hand, but when I had one I would wave it aloft.

"The letters were coming again daily when suddenly they stopped. Every day that I passed my little girl without one for her she grew more anxious, and when a week had gone by and I was obliged to pass the worried pale face at the gate without bringing comfort I felt as a doctor must feel who can give a patient no relief.

"One day I had a letter for her addressed in the usual hand. I was mightily pleased and watched her face eagerly when I delivered it. She tore it open and ran it over eagerly. I had no right to delay, but I did, wishing to know if the news was good or bad. I saw her turn red, and, crumpling the letter spasmodically, she ran into the house.

"That was the last of her waiting at the gate for letters.

"Several years passed, during which I delivered my little girl no love letters. Of this I was sure, for of all she received few were in masculine hand, and such came only at intervals. Then

one day while sorting my mail for delivery I came across one on which the handwriting seemed familiar. Then I recognized it as that of the youthful correspondent, only now it had become a man's fixed hand. I handed it in at the house to a maid with other mail, so I didn't see the recipient when she opened it. At the next delivery my little girl appeared at the door and handed me the letter I had delivered unopened and readdressed, evidently to the sender.

"Do you know I just couldn't send that letter back? I should have been 'fired,' I know, but I would have rather lost my position than let that little girl blight her life. If she had been doing it for any reason except 'mad' she would either not have replied at all or by letter." "Mad" it was, I was sure, and I believed that if the fellow got his letter back in that way the matter would be ended forever. At the post-office I shoved the letter into a box marked 'Missent,' put a bit of paper in an envelope on which I wrote, 'Never give up the ship,' and sent it instead, disguising my hand and not signing what I had written.

"In about a week another letter came for the girl from the lover. I handed it in, not seeing the recipient. After that I delivered several letters at intervals of five or six days, and I knew the correspondence was on again. In a few weeks more when I whistled at the house of my little girl she opened the door herself and snatched her letter with some of her old eagerness.

"It was about three months after this that I was tipped to carry a big bundle of wedding cards to the post-office. They were given me by the girl herself. I braced up and made bold to say to her: 'I've delivered letters to you for years, and you know how much interested I've been in you. Won't you tell me what came between you and your lover?'

"You've been very lovely to me ever since I was a child, so I'm going to tell you. It was all his fault. In one of his letters he spoke of my beautiful gray eyes. My eyes are blue. That started it, and it went on till he wrote horrid things to me."

"When they were about to be married I delivered letters to the young man at her house. I gave him the one she had sent back and I had stopped. He looked at it, then at me with astonishment.

"If I had got that letter," he said, "she would never have got another one from me."

"Taking a ten dollar bill from his pocket, he handed it to me. But went on without it.

"There are some things a postman can't be paid for."

100 MILE AN HOUR AEROS.

Walter Brookins Says They Will Be a Reality This Year.

Aeroplanes for this season, according to Walter Brookins, will be able to make from ninety to 100 miles an hour. He predicts that they will be able to make long voyages over seas, to alight in the ocean, start again from the water, and "trim sail" aloft in the air.

"I can tell you what caused me to have that smashup at Belmont park," said Brookins, in telling of the outlook for aeroplanes as he sees it. "It was the same kind of a smashup that automobiles used to have fifteen years ago or so. In those days there was only one speed, and a car leaped away at top speed, and stopped abruptly. That gave the automobile makers their chief problem. Today we, of the air game are just where the automobilists were then. We have got to get speed control.

"We can fly fast enough to keep up, but not slow enough to make safe landing. If we should fly slow enough to land safely we would simply drop, and that we must overcome. At Belmont park I had very little wing space on the baby Wright racer and a big engine. Flying was fine, but alighting—well, I had to hit the earth at a higher speed than it could be done.

"Now, this is the way out, and experiments are going to demonstrate it. An aeroplane to get off the ground needs lots of wing space. It also needs wing space to alight on. After it gets up, and gets to going it can move along on materially smaller wings.

"We are coming to adjustable wing areas and adjustable angles of incidence for our planes. The sharper the angle the more the upward thrust as the plane leaves the ground. After it is up and strikes a cruising level the angle ought to be lessened and the sail area—that's the best term for it—ought to be reefed in.

"If we could get that matter solved we'd have aeroplanes whose speed we could control. We need aeroplanes that can stay aloft at twenty miles an hour and under, and if we get them in a condition to do that and then can reef in the sail spread after we get up we can send them to 100 miles an hour on the present engine development. A single aeroplane capable of running at twenty and then at 100 miles an hour—how would that be for a development? Wouldn't it make the automobile look sick?"

ODD SCHEMES TO SAVE.

A Few Interesting Methods, Results of Which Are Surprising.

The conversation had drifted around to the question of saving money as against making it, and the receiving teller in the savings department of one of Detroit's best known banks, who had been an interested listener, joined in the discussion; relates the Detroit Free Press.

"The methods employed by many people in swelling their savings accounts are very interesting," remarked the teller. "A young business man in Detroit was left in possession of some means when his father died, and he kept that money working with good results. He has ambitions, however, and when a daughter came to gladden the household he decided that some day this young lady would have the finishing touches to her education put on abroad.

"Here was his plan. Every nickel and penny he received in change went down into a pocket that was never touched save to remove therefrom the accumulation of coins and transfer them to a small bank kept at the house. This in turn was emptied and the contents deposited in the bank to the credit of the child. It must be all of eight years ago that this plan was put into effect and with the same thoroughness that marks him in other lines he sticks to the resolution.

"One man I know is particularly fond of having his wife take luncheon with him. This happens on an average twice a week. Immediately afterward he hustles to the bank and deposits an amount equal to the cost of the luncheon, and they don't eat fifteen cent meals either.

"Plenty of fellows duplicate the price of every luxury and deposit the proceeds to the credit of their savings account. It is not a bad idea either, and it is surprising how rapidly the money counts up."

When Women Were Knighted.

It is not at all well known that knighthood has constantly been conferred upon women. Many English ladies received the accolade, and many more were members of such knightly orders as the Garter and St. John. When Mary, Queen of Scots, the bold lady of Cheshire, was knighted by Elizabeth for her valiant address on the queen taking the command at the threatened invasion by Spain, did she know that a whole city of Spanish women, the gallant women of Tortosa, had been knighted for saving that city from the Moors? Mary and Elizabeth had both been knighted at their coronation, but by the time Anne, the second Mary and Victoria, ascended the throne it had been quite forgotten that according to English law and use a woman who filled a man's office acquired all its privileges and was immune from none of its duties.

Capal Work of Yore.

Early years ago I watched the workers on the Suez canal. Many of them were girls, digging up the sand with their bare hands, scooping it into a high basket each had woven for herself, lifting the baskets to their heads and carrying the load of twenty to thirty pounds up to the bank and dumping it. Engineering Magazine.

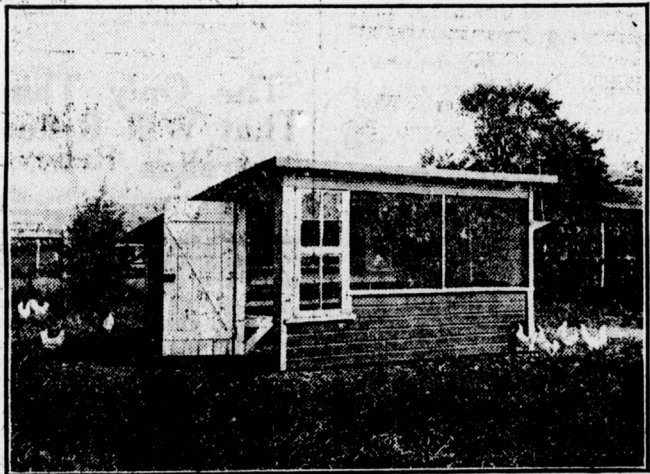


Photo by Kansas Agricultural college.

MODEL POULTRY PLANT.

5 by 4 1/2 feet for grains, three small bins 5 by 2 feet 8 inches for ground feed and five medium sized bins for grit and shells.

The laying house is constructed on a model plan and contains six pens. Each pen is 15 by 15 feet and will house from sixty to sixty-five birds. The material used in the construction is of yellow pine, and for the framework 2 by 4's were used. The sides, back and front, are covered with one thickness of seven-eighths inch drop siding. The roof is made of matched flooring, covered with two ply Kongo roofing paper. An inside wall is constructed in the rear of each pen and extends two and one-half feet from the rear plate down toward the floor. The rafters are also boarded up for three feet over the roosts.

The dimensions of the laying house and its different parts are given in detail. The house proper is 90 by 15 feet, eight feet high in front and five feet in the back. The curtain opening in the south side is three feet above the floor and 3 feet 6 inches by 6 feet 10 1/2 inches in size. The window opening is 2 feet 4 inches by 5 feet 7 1/2 inches and contains a window with two sashes, having nine lights each. The door opening into the yard is 3 feet by 6 feet, and the swinging door from one pen to the other is 3 feet by 5 feet 8 inches. The placing of doors between the different pens affords a runway the whole length of the building when all doors are opened. The dropping board in the rear of each pen is 3 feet 4 inches by 15 feet and is three feet above the floor. The three roosts are set on the dropping board and are made of 2 by 4 pieces, set on end, placed ten inches from the wall, twelve inches apart, leaving six inches from the edge of the dropping board to the center of the last roost.

The dropping board is fixed like a shelf and can be removed easily. And as roosts are set on this board they also can be removed without inconvenience and cleaned and sprayed. The nests are 14 by 14 by 14 inches, made like a drawer, with coarse screen or hardware cloth bottoms. These nests are immediately under the dropping board, and the hens must enter the nests from behind. A door fixed on hinges enables the poultryman to gather the eggs from the front. A broody coop, made in one corner of the pen, rests on the dropping board. It is 3 by 3 feet and has a bottom

Water Required For Crops.

Various investigators have found that it requires from about 400 to 1,000 pounds of water to produce a pound of dry matter of a farm crop. The water requirement increases with a higher temperature, a great amount of sunshine and a drier atmosphere. In the arid regions a moderately high temperature, a cloudless sky and a dry atmosphere prevail. Consequently the water requirements of plants naturally tend to be higher for the same kinds of crops. It is concluded that about 750 pounds of water are required in the arid regions for the production of one pound of dry matter of common farm crops.—Colorado Agricultural College.

Not Too Much Fertilizer.

Dr. G. S. Fraps, state chemist of Texas, at the Texas experiment station at the Agricultural and Mechanical College of Texas, College Station, Tex., says:

"Commercial fertilizers are good for young plants in hotbeds, especially nitrate of soda. However, great care should be taken not to use too much, as too much will injure the soil and perhaps kill the plant. A friend of mine killed all of his mother-in-law's geraniums and other flowers by dosing them too heavily with fertilizer.

Three Milkings Daily.

According to some experiments noted by the department of agriculture, it was found that where cows were milked three times a day—morning, noon and evening—the milk was richer at noon and the poorest in the morning, and when milked morning and evening the milk was slightly richer in the evening.

Good For the Chickens.

Meat meal, beef scrap, green bone, etc., are good for the fowls. A considerable amount of protein will be needed by the fowls, especially the laying hens and young chickens. When insects are scarce give the fowls a meat ration occasionally.

Prepare the Soil For Spring.

Prepare to rotate crops and get the benefits that may be derived from a systematic rotation. Build up your soil in plant food by a liberal application of fertilizers or manure and turn under green crops to supply humus.

Proxy's First Name.

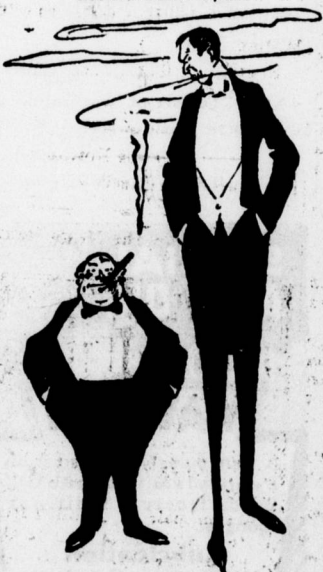
Albert Tiedemann, a freshman at the University of Pennsylvania, was called upon to vote for officers in a recent gathering. Not being well acquainted with the nominees, he thoughtfully hesitated before filling out his ballot.

One of the company left the room with the explanation that he would "vote by proxy."

"So will I," said Albert, and with his pencil poised above his paper he leaned over to a companion on his right and asked:

"Say, what's Proxy's first name?"—Pittsburgh Dispatch.

Looked Down Upon.



One or the Other.

"What's the trouble, wife?" "No trouble whatever." "Yes, there is. What are you worrying about now—something that happened at home or something that happened in a novel?"—Louisville Courier-Journal.

Strangers.

"Have you met your wife lately?" I asked Lord de Vere. He yawned and tried hard to remember. "I haven't," he said, "but society notes declare she'll be home in February."

His Request Granted.



"Oh, let me drink of thine eyes! Oh, let me drink! Oh, let me drink!"



"Drink, then, and shut up!"—Life.

Ready to Crank Up.

White got all equipments for your car? Green—Yes; an extra tire, an atlas, an alibi and enough cash bail.—Harper's Bazar.

Caught With the Goods.

Mrs. Newlywed (weeping)—Henry, I am sure I have grounds for a divorce. I am positive that you have deceived me!

Mr. Newlywed—What in the world do you mean? What have I done to arouse such a foolish suspicion?

Mrs. Newlywed (weeping harder)—I saw a memorandum in your pocket this morning to—buy some new ribbons for your typewriter!—Western.

The After Dinner Speech.



How you feel just before you're called upon.

Protection Against His Friends.

"Why do you want the fact that you have inherited all this money kept a secret?" asked the lawyer.

"Just to save myself the trouble of refusing to invest it in the fool schemes that my friends will propose if they know I have it," he replied.—Detroit Free Press.

A Poor Husband.

"Did your sister marry a rich husband?" "He's a rich man."