

PROVIDE SPACE FOR IMPLEMENTS

Farmers Will Find Combined
Horse Barn and Shed a
Great Convenience.

STRUCTURE SHOWN IN DETAIL

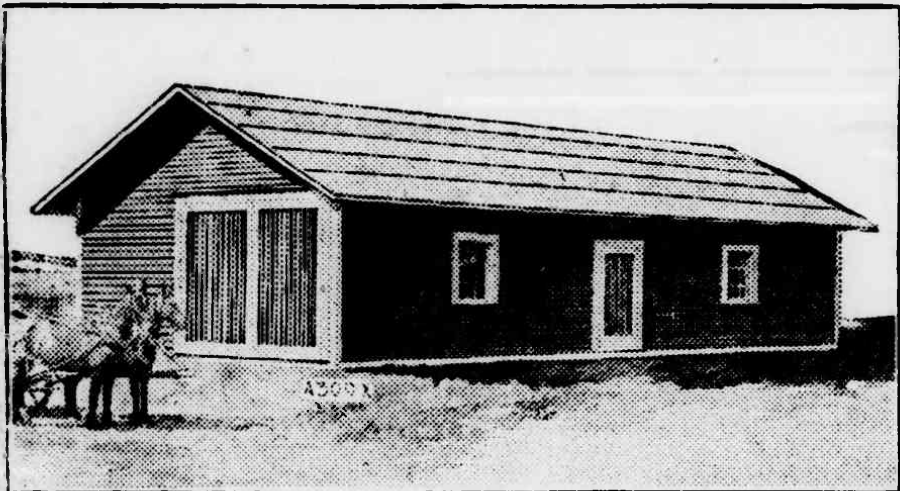
This Building, Designed by Experts,
Arrangements for Every Sort of
Tool Needed on the Farm May
Be Made With Perfect
Precision.

Mr. William A. Radford will answer
questions and give advice FREE OF
CHARGE on all subjects pertaining to the
subject of building work on the farm, for
readers of this paper. On account of
his wide experience as Editor, Author and
Manufacturer, he is, without doubt, the
best authority on all these subjects.
Address all inquiries to William A. Radford,
No. 127 Prairie Avenue, Chicago,
Ill., and only inclose two-cent stamp for
reply.

Most farmers do not care to allow
the money they spend in farm
machinery to be wasted by the rapid deterioration of this machinery from exposure to the elements. Quite often it is possible to give up a portion of one of the barns to the implement storage space. The combined horse barn and implement shed is a common and useful structure. There are advantages in building an entirely separate structure for housing the farm implements. As a rule there are enough duties to be performed in connection with the maintenance of farm machinery to warrant the construction of a separate building. A farm workshop is a necessary thing and the implement shed furnishes an excellent location for it.

The type of structure will depend to a certain extent upon the farm upon which it is located, but there are a few things which should be included in such a structure, no matter what its surroundings. The floor construction and the arrangement and size of doors should be given considerable attention. The design illustrated here suggests a structure which is well adapted to the purpose, and the cost of its erection is not excessive.

It is 24 feet in width by 50 feet in length. There is a 16-foot door in each end for the easy entrance of the larger farm implements, and there is a small



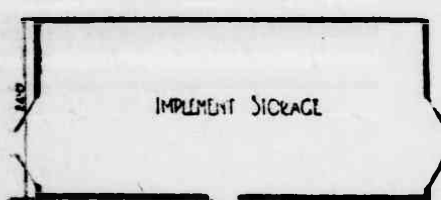
Farm Implement Storage Barn.

door in the side to be used when passing in and out and for the carrying in of hand tools and other small farm implements.

Farm machinery and implements deteriorate about 10 per cent a year when they are properly housed and kept painted. The loss from leaving tools out in the weather is enormous. An implement shed constructed in this manner is a great convenience in doing repair work.

All farm machines require overhauling in the winter time to put them in a thorough working condition during the busy time in spring. A house of this kind makes it easy to take the machines apart and examine every wheel and every casting, so that the worn parts may be replaced and the whole machine gone over with paint or linseed oil.

This implement house has a concrete wall extending all around the outside



and it has a concrete floor to keep the tools and machinery up from the ground and to keep them dry to prevent rusting.

The sides and ends are built in the usual way by using a light sill and 2-by-4 studding covered with drop siding or clapboards. The roof is constructed by 2-by-4 rafters with matched roofing boards covered with roll roofing. The advantage in using matched roofing boards is to prevent the wind from flapping the roll roofing. Good roofing boards will sometimes double the lasting qualities of the roof.

Some farmers build a regular repair shop in one end or in the center. The shop is provided with a blacksmith kit and all the necessary woodworking tools to make small repairs on any farm machine or implement; such work as replacing lost bolts or broken braces, or replacing worn parts with new ones is done in the winter time, between crop periods.

But a farmer is helpless without tools. It is not necessary to collect an expensive outfit of blacksmith's, machinist's or carpenter's tools, but a few, anvil, vise, drillpress, with a

small assortment of cold chisels, punches, hammers, wrenches and tongs, will enable a farmer to do a good deal of blacksmith tinkering and save many trips to town during the busy season, when time is an object.

A few carpenter's tools, such as saws, a square, a couple of good heavy hammers, with a brace and bits and a few wrenches and half a dozen chisels, will give a handy farmer enough tools to do extensive repairing.

Farm machinery and implements are made with standard patterns so that repairs may be ordered for almost any implement manufactured. There are so many different patterns that mistakes may occur in filling an order, so it is a good plan to get all such orders off to the factory a long time before the machines are needed. The difference between preparing a good seedbed in the spring or doing a hurry-up job at the end of the seedling season depends more upon management in this respect than upon hard work or extensive seedling outfits.

A good implement shed is a valuable acquisition to any farm, because it places a farmer in a position to attend to little things at the proper time to prevent trouble later.

In building an implement shed it is a good plan to use plenty of concrete in the foundation, and if it has a concrete floor the full size of the building, the machines may be moved about much easier.

The object of a machinery shed is to protect farm implements and machines from the weather. If machines stand on the ground, moisture comes up from below sufficient at times to rust every iron part of a machine that is not covered with paint, oil or grease.

A floor for the purpose of preventing this damage should be made the way a sidewalk is constructed. The ground is laid off in divisions 4 or 5 feet in width by 2-by-4 that is held in place by stakes. The top of the 2-by-4 is leveled so the concrete when filled in and tamped and properly surfaced with a layer of cement mortar is struck off level with the top of the 2-by-4 girders.

That's Gratitude.

Conrad Keller, Justice of the peace, was for 30 years a druggist in Indianapolis, and many years ago, Keller says, when he was a single man, he slept in a room in the rear of his drug store.

Late one night, after he had gone to bed, he heard a knock at the front door, and arose and opened it. A man living in the neighborhood entered and asked whether he might use the telephone to call the doctor for his little daughter, who was seriously ill. The

request was granted. About noon the next day the same man again entered the store and asked to use the telephone a second time. "Sure," said Keller. "By the way, how is your little girl?" "Oh, she's all right," the visitor replied. "The doctor came and left a prescription and she's getting along fine." "Where did you get the prescription filled?" "Why, down at the next corner. I didn't like to wake you up again, so I went down there." "Just to square yourself now," Keller concluded, "you go down to the other corner to call the doctor the next time, and come up to me to get the prescription filled." — Indianapolis News.

Blight-Killed Wood Valuable.

The department of agriculture has issued a circular to the effect that experiments conducted by the forest service of the department to determine the value of chestnut wood that has been blight-killed, show that it is just as durable as healthy timber. Posts, poles and ties made from infected timber show that, after three years' use, they are as sound as timber not infected. Blight-killed timber, which had seasoned on the stump for several years, and which had lost its bark, resisted decay better than healthy wood from which the bark was not removed.

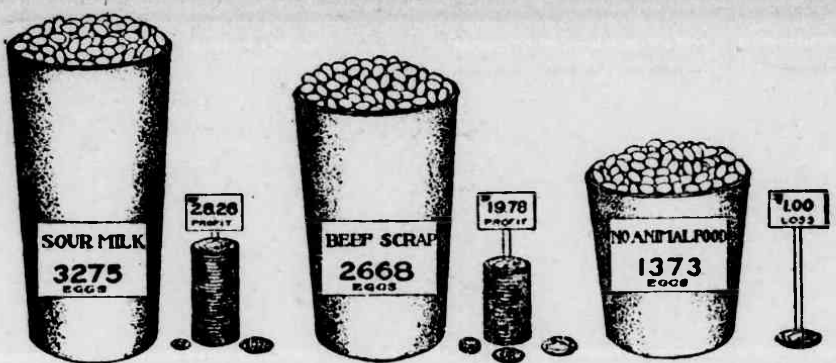
Quit Colleges for Munition Shops.

To help toward meeting the ever-increasing demand for munitions of war numerous groups of young students belonging to more than 200 Italian state universities have signified their willingness to quit the lecture halls for the workshops. In encouragement of this movement the Italian government has decided to grant exceptional concessions in the matter of studies, exemptions and degrees, so that their patriotism may not prove a handicap to the volunteers in their future professional career.

May Be an Exodus.

Boxes of food are to be placed in the north woods for the use of hunters who get lost. Happy thought—maybe there'll be an exodus of hoboes to the north woods.—Cleveland Plain Dealer.

FAVOR SOUR MILK FOR POULTRY FEEDING



TAKE YOUR CHOICE OF THESE FEEDING METHODS.

(By PROF. H. L. KEMPSTER, Missouri College of Agriculture.)

Poultrymen everywhere have long recognized the value of beef scraps as food for the laying hen. College and experiment station men have found by their tests that the use of buttermilk or sour milk reduces the cost of production per dozen of eggs as compared with either beef scraps or no meat ration. Sour milk is cheaper than beef scraps as it is on the average farm. Mr. W. R. Graham tested three different breeds of chickens and reported that the use of either buttermilk or beef scraps reduced the cost of egg production very greatly. Mr. A. G. Phillips found that when no meat or other animal food was fed to hens in their ration they laid 32 eggs apiece while those which received meat scraps laid 135 eggs apiece and those that received skim milk laid 135.4 eggs apiece a year, or more than four times as many as those which received no animal food.

Tests With Feed.

In tests conducted with three 25-bird pens, about two-thirds of the ration given to each pen consisted of a scratch food made by mixing two parts of corn and one part of wheat. The remainder of the feed given to each pen was a mash made by mixing bran, middlings or shorts and cornmeal for the no-meat pen, or the pen which received no animal food whatever. The sour-milk pen received the same mash and all the sour milk the fowls wanted, while the beef-scrap pen received the same mash with the addition of beef scrap mixed with the mash.

The usual poultry yard method of feeding was followed, practically the only difference being in the protein concentrate or the animal food given to the hens. In the morning a little scratch feed was sprinkled in the straw litter deep enough to make the fowls scratch and take exercise. Water was placed in clean pails and a pan of sour milk was given to the sour-milk pen. At noon the proper amount of dry mash was measured into trough and green feed was frequently given at the same time during the winter. Two or three times a week the fowls were made to eat more of the mash by mixing the dry mash with water or with milk in case of the sour-milk pen. This wet mash was fed at the rate of a handful for every four birds. At night the scratch feed was given again and the birds were allowed to eat all they would in order that they might go to roost with full crops. The purpose of this method of feeding was to keep the hens busy all

day and keep their appetite keen and yet give them all the feed they would use. Feeding a small amount of the scratch feed in the morning encouraged the hens to eat more of the mash. An attempt was made to get them to consume about half as much of the mash as they did of the grain or scratch feed.

Cost of Feed.

The prices paid for feed will of course vary from county to county and state to state and from year to year, but these prices quoted by a local mill are probably fairly representative for that season. Even if they should be a little too high or a little too low to show the probable cost in the reader's locality they will enable him to compare the cost of egg production on no meat, beef scrap, and sour-milk ration.

The 25 hens in the no-meat pen laid 1,373 eggs or an average of 55 per hen for the year. The beef-fed hens laid an average of 107 eggs apiece or almost twice as many as the no-meat hens and sour-milk hens bent both with an average of 131 eggs apiece or almost two and a half as many as the no-meat hens. There is no question but that the meat scrap and sour milk is responsible for the great increase in the number of eggs laid.

Profits.

The probable effect upon the pocket-book, of course, decides what ration a poultryman will choose, and a glance at the results of the above experiments show that the fowls fed no meat, milk or other animal food laid only 1,373 eggs in return for the \$23.00 worth of feed they ate, or that at 20 cents a dozen they returned eggs worth \$22.90. In other words the poultryman gave his work for nothing and paid \$1 more for the feed than the eggs returned him in cash. The beef scrap fed hens on the other hand brought a profit of \$19.78 because although the feed they ate cost \$1.78 more than if they had received no meat scraps they laid nearly twice as many eggs and so paid many times for the beef scraps they ate.

The biggest profit of all, however, resulted from feeding sour milk, in spite of the fact that it was charged at 20 cents a hundred pounds. This is perhaps more than it would be worth on the average farm where it would probably otherwise be fed to the hogs. Even at this price there was a profit of more than 100 per cent from the hens fed sour milk. The cost was \$26.32, but the eggs laid were worth \$28.26 more than those laid by the same number of hens which received no animal food and laid less than half as many eggs.

DISEASES OF POULTRY

Little Has Been Done to Find Cures for Many Ailments.

Every Poultryman Should Have on Hand Plentiful Supply of Permanganate of Potash Crystals and Epsom Salts.

(By D. B. GREENBERG, Instructor in Poultry Husbandry, New York State School of Agriculture.)

The old adage "an ounce of prevention is worth a pound of cure" is nowhere more applicable than in the case of diseases of domestic birds. So little has been done thus far by scientists to find cures for the numerous ailments of fowls, that not very many of them can be cured.

Our attention must then be directed to the prevention of diseases, and in most cases they can be avoided, if the poultry man is only willing to take the proper sanitary precautions. There are two medicines, which every poultry man should always have on hand, namely, permanganate of potash crystals and Epsom salts. The former is now very expensive, due to the unsettled condition of the chemical market, but so little of it is really needed that a poultry man should not go without it. The crystals can be bought at any drug store. Do not buy it in solutions, as you are then paying for water.

Two tablespoonfuls of permanganate of potash should be added to a quart of warm water. Most of it will dissolve, but a few crystals will remain at the bottom of the bottle. Use this solution to color the drinking water of your birds, young and old, being careful to shake solution well each time before using. The drinking water should show a claret-red color against your hand thrust into the water. It is necessary to put your hand in the water because presence of light or shadow will make the water appear to be a different shade than it really is.

Too much of this permanganated water cannot be given to poultry. Sick birds should receive no other water. The permanganate acts as a disinfectant for the water and the digestive organs of the fowls. It is also good for healthy birds. In damp

weather it should be put into the drinking water two or three times a week, as this will often prevent the spread of catarrh. Chickens just hatched should receive permanganated water for the entire first week, as the infection from white diarrhea occurs nearly always in this critical period of the birds' existence.

Epsom salts should be used when fowls are constipated or have diarrhea. In both cases it cleans out the system. The dose varies from one-quarter of a teaspoonful for a very young chick to a full teaspoonful for mature birds. Dissolve the salts in warm water and moisten mash with this solution. Do not feed the sick birds in the morning but in the middle of the afternoon give them the mash.

IMPORTANCE OF GREEN FEED

Essential Item in Poultry Rations During Egg-Laying Season—Beneficial to Health.

Plenty of green food for the poultry, all they will eat, is an important item in poultry rations during the winter egg-laying season as well as at other times of the year. This can be supplied by growing kale and other winter greens outside the pen and giving the birds daily quantities, or by sowing a full pasture of vetch, rape, mustard, rye, wheat, oats or other crop that will make consistent winter growth.

In the latter case the fowls will have to be kept off the sowed area until the young plants get well established, when they will afford the hens all they need with no trouble to the owner.

Provided in either way, the greens will have a beneficial effect upon the health of the flock as well as exert a valuable influence on the yield and quality of the eggs.

SUNFLOWER SEEDS FOR FEED

They Make an Excellent Variety and Will Be Greatly Appreciated by Hens in Winter.

Sunflower heads stored away in the attic and fed this winter will make an excellent variety and be appreciated by the hens. Cut whenever the seeds are ripe and store heads in dry place by hanging from some support where mice will not be able to reach them.

INTERNATIONAL SUNDAY SCHOOL LESSON

(By E. O. SELLERS, Acting Director of the Sunday School Course in the Moody Bible Institute of Chicago.)
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LESSON FOR JANUARY 7

JESUS THE LIGHT AND LIFE OF MEN.

The studies for the first six months of this year are devoted to the gospel of John; the remaining portion of the year to 11 Kings, Ezra and Nehemiah, being a study with the prophets. One year from now we begin the new "graded uniform lessons" recently adopted by the reorganized International Lesson committee.

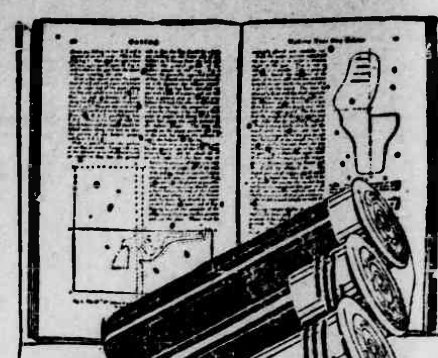
John was younger than his brother, James, and lived to be the oldest of the apostles, dying somewhere between A. D. 85 and 98. His name means "Peace," though he is surnamed the "son of thunder" (Mark 3:17). Five of the New Testament books bear his name. He blended the gentleness of a dove with the force and vision of an eagle. The purpose of his gospel is clearly stated (ch. 20:31). Only about 8 per cent of it is found in the other three gospels. Seventy-six times the word "witness" is used. The word "father" occurs 140 times and the name "Jesus" 240 times.

I. The Word (vv. 1-5). Words utter thoughts; a word is an expression of an inaudible and invisible thing. As the Word, Christ is Creator (ch. 14:9; 8:19), he is the source of light. "The word is God heard; the life is God felt, and the light is God seen"—Moody. This eternally existing person is called the Word because in him God fully expresses or reveals himself. The Bible is the written word because in it God speaks and reveals himself through this person who is the eternal Word (Hob. 1:3). The first verse brings out the fact that there are at least two persons in the Godhead, the one divine person in company with whom the word was, and the word, himself, was God; that is, was also a divine person. He who by his incarnation became our brother and our savior was first our creator and the creator of all things, and apart from him not anything came into existence. The Word did not become the light of men by his incarnation in Jesus of Nazareth. He was ever the Light of Men. The light that shone in the Old Testament time shone from him. When sin came, night came.

II. The Witness (vv. 6-10). John the Baptist came for a witness. He was not the light. Some might have thought him to be the promised Messiah. This he denied. He was a lamp which held forth light to men concerning the true light "which lighteth every man that cometh into the world." He reflected light (v. 8). John told all that he knew. Testimony will expand as experience enlarges. The spoken word of man must confirm the experience of the word in our lives. John was a wonderful man, a man whom God delighted to honor, but he was a man. Men are not asked to believe blindly, but always upon an abundance of testimony.

III. The World (vv. 11-14). This world was created by Jesus, and throughout its existence he has been in the world, though the world knew him not. This living light had been coming into the world and was not fully come until he was manifest to Israel at the baptismal act of John. In order to be made manifest the "Word was made flesh" in the person of Jesus. The world did not apprehend the light (v. 5) nor did the world which he was in and which was made by him (v. 10). Even his own people, literally his own household servants, i. e. Israel, received him not to themselves, but whoever receives him, even the vilest sinner of earth, and takes him into his heart to be all Jesus desired to be, savior, lord, teacher, friend, that instant he becomes a child of God. We cannot attempt to explain this mystery. The union of spirit and body was in one person, a simple fact; though unexplained, still true. The union of God with a human body, forming one person, Christ Jesus, sometimes spoken of separately, sometimes as a whole, sometimes as divine, sometimes as human. We cannot divide his activities into two sections and say this is divine and this is human; they are inexplicably blended into one. This Christ really dwelt among us. He did not merely appear to some persons, or come in a vision, and yet his abode among us was only temporary, only a few years, and we beheld his glory, the glory of the only begotten Son. The world expected a Messiah and his own creation, his own inheritance received him not, rejected him, opposed him, crucified him, their lord, savior, king and messiah. Those who received him and believed on his name became sons.

To be a child of God we must be born into the nature and character of God, into his spiritual life. We are members of his family. We are heirs of all things through him, his joy, his love, his character and his blessing and the privileges of working for him and with him. We become heirs by being born of God, not of blood, physical descent nor inheritance, for the best of parents cannot bestow this gift upon their children. Not by our own efforts or exertions nor the will of the flesh, not by the will of men, through wisdom and man's highest powers of intellect, but of God.



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UNITED STATES CARTRIDGE CO.
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Church Gave Away Apples.

The big red Western apple was the text of a recent sermon by the Rev. Christian F. Reiser in Grace Methodist Episcopal church, New York. Twelve hundred apples were given away to the congregation.

Doctor Reiser used the apple to illustrate that as sunshine, proper nourishment and care will grow fine apples so will clean living, good government and religion develop fine citizens. He praised the efforts of Billy Sunday, and said the evangelist has been so successful that he has even got Boston awake and interested in his form or religion.

10 CENT "CASCARETS" IF BILIOUS OR COSTIVE

For Sick Headache, Sour Stomach, Sluggish Liver and Bowels—They work while you sleep.

Furred Tongue, Bad Taste, Indigestion, Sallow Skin and Miserable Headaches come from a torpid liver and clogged bowels, which cause your stomach to become filled with undigested food, which sours and ferments like garbage in a swill barrel. That's the first step to untold misery—indigestion, foul gases, bad breath, yellow skin, mental fears, everything that is horrible and nauseating. A Cascaret to-night will give your constipated bowels a thorough cleansing and straighten you out by morning. They work while you sleep—a 10-cent box from your druggist will keep you feeling good for months.—Adv.

Take a Tub of Electricity.

Electrotherapy is a great field in which there are unlimited possibilities for the application of electricity. High frequency currents especially have a great future. The time is bound to come when this form of electrical energy will be on tap in every private residence. Nikola Tesla writes in Collier's.

It is possible that we may be able to do away with the customary bath. The cleaning of the body can be instantaneously effected simply by connecting it to a source of electric energy of very high potential, which will result in the throwing off of dust or any small particles adhering to the skin. Such a bath, besides being dry and time saving, would also be of beneficial therapeutic influence.

Now electric devices that will be a blessing to the deaf and blind are coming.

Trench Descriptions Vivid.

The soldier is not usually a man of words, but he can string them together very effectively at times, and some of his similes would not disgrace our American cousins, past masters though they are in the art of picturesque and vivid phrasing. "He would pluck the sugar from your tea while you were stirring it!" is the description I heard applied to one warrior with confused ideas of ownerships, and of another of parsimonious habits it was said that "he dings his money about like a man with no arms!"—London Chronicle.

Why Wait

Mr. Coffee Drinker, till heart, nerves, or stomach "give way?"

The sure, easy way to keep out of coffee troubles is to use the pure food-drink—

POSTUM

Better quit coffee now, while you are feeling good, and try Postum, the popular American beverage.

"There's a Reason"