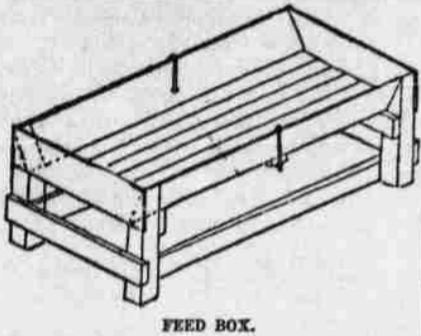


FARM NOTES

Plan for Feed-Box.

The illustration of a feed box is self-explanatory, and with the following list of dimensions should be easy to build: The legs are made from 4x4's 34 inches on the high side, sawing a bevel at one end of 12 inches; the sides are 2x12 inches; the length of the box is 8 feet. The bottom is made by joining seven common floor boards, generally using fence flooring clear of knots as possible. The best way to lay the bottom is to take 16-foot fence boards, laying the two end 2x4 cross pieces 4 inches from the end. Across the center lay two other 8 inches apart, sawing the bottom in two to make the bottoms for two boxes. The 2x4 across the center, which is used for supporting the center of the bottom, should be made of hard wood. Clamps go around this 2x4 and over the top of the box. Use a 16-inch clamp, such as commonly used for building hay racks; bore through the 2x4, place the clamp bottom side up over the side of the box and draw it up tight. The lower edge



FEED BOX.

of the 2x12 used for sides should be planed to a bevel to match the bottom of the box.

For feeding meal it would be well to place a corn crib strip 1x4 inches around the top of the box. This will prevent the wind from blowing the meal out, as it projects over on the inside 2 inches.

Teeth Should Be Examined.

A great many of the troubles of the horse come when the owner thinks he is treating him the best in winter when there is little work and the horse is turned out to pasture, or to an alfalfa stack. There are a number of points to keep in mind when disposing of the horse for the winter, says a Colorado bulletin.

First of these is the condition of his teeth. Remember, if he has been living largely on chop feed, or other grain that requires little mastication, that his teeth may not be in condition to handle the roughage of the pasture or the poor quality of hay which is usually fed to horses that are not working. He may be parrot-mouthed and not able to bite off the grass.

The teeth should by all means be examined by a veterinarian, if the owner is incapable. Rough feed must be well chewed before it can be properly digested.

Reducing the Meat Bill.

In many American families meat is eaten two or three times a day; in such cases the simplest way of reducing the meat bill would very likely be to cut down the amount used, either by serving it less often or by using less at a time. Deficiency of protein need not be feared when one good meat dish a day is served, especially if such nitrogenous materials as eggs, milk, cheese and beans are used instead. In localities where fish can be obtained fresh and cheap, it might well be more frequently substituted for meat for the sake of variety as well as economy. Ingenious cooks have ways of "extending the flavor" of meat; that is, of combining a small quantity with other materials to make a large dish, as in meat pies, stews, and similar dishes.

Properly Braced Corner Post.

The ordinary braces set in line with the wires do not prevent the corner post from leaning. A brace set in the direction that a post would lean, or a stay wire in the opposite direction,



BRACING FOR THE CORNER POST.

are either effective, but both are undesirable. The two posts on each side of and nearest to the corner post should be braced, as shown in the cut. A wire should run from the top of one post to the bottom of the other to tighten the brace, which will throw the strain on five posts instead of one. —C. C. Ormsbee, in Farm and Home.

Chickens for Market.

Old and young chickens to be sold for market purposes will bring much more if they are confined in close quarters for a week or more and fed heavily during the time. A part of the well-equipped poultry plant, therefore, should consist of a poultry fattening pen, provided with adequate feeding and watering devices. —Journal of Agriculture.

Value of Guinea Fowl.

The guinea fowl is growing in favor as a market bird, the flesh coming nearer to the flavor of game than any of our domestic poultry.

How Much Seed to Sow.

The question of the proper amount of seed to sow is never settled. Two and one-half bushels of average oats, sown broadcast, are not too many on average land, average seasons; and about one-half bushel less when drilled in, is looked upon as about right by most oat growers.

Many good farmers differ, however, on this, many thinking a peck will bring as good or better results. There are varieties of oats with a very large berry which would have to be increased to get the same number of plants to the acre that the very small berry oats would give. Still, as a rule, a large vigorous seed will produce a large vigorous plant and this would need more room than a smaller one. The season and soil make considerable difference, too, with the amount of seed. Pasturing grain with sheep or other light stock, tends to thicken it, also to shorten the straw and to prevent lodging, though it frequently adds to the length of time for ripening. When there is danger of oats lodging, thick seeding tends to prevent it.

A New Dip for Cattle.

The Oklahoma State Board of Agriculture has adopted a new dipping solution for cattle. The crude oil method has been abandoned on account of its often injurious effect on steers. All cattle shipped in from Texas must be dipped in order to keep out Texas fever by killing the ticks, which carry the disease. The new dip is an arsenical solution, much cheaper than the crude oil, just as effective and less injurious. It is made by boiling 10 pounds of commercial arsenic, 24 pounds of sal soda and 1 gallon of pine tar in 40 gallons of water. It is then increased to 50 gallons by adding water, and this solution is enough for 450 gallons of water when mixed with it. The cost is about a cent a gallon, or about 25 cents per steer in dipping. The only danger from the use of this dip is that a steer might accidentally swallow some of the solution, a quart of which would cause death.

A Novel Insect Catcher.

Only people who have had crops or plants destroyed by insects can appreciate what a pest these little things are. Always excepting, of course, the victims of the voracious mosquito. In the country all sorts of homely devices are used to catch the bugs and kill them, and an Oregon man, who probably had his apple orchard overrun by some destructive species, patented a trap for the pest. A barrel has pieces cut out of the upper portion and is half filled with rotten or bruised apples or some other odoriferous fruit. On top of the barrel is placed a pan partially filled with water, oil or some poisonous liquid. From the apex of a tripod that keeps the basin from falling off the barrel hangs a lantern. In the daytime the insects will be attracted by the odor of the fruit, and in flying up to feast many of them are likely to fly into the water. At night the lantern is lighted and bugs will come from afar to flutter against it and meet their death in the liquid below.

Hints About the Farm.

Avoid extremes in everything. Refill the salt box in the pasture. Give the horses a bran mash twice a week. Money invested in land cannot easily be lost. A good swing stanchion is not uncomfortable to the cow. Gratifying the appetite adds greatly to the thrift of the flock. No ups and downs in care and feed, but keeping everlastingly at it. Set the strawberries in rows four feet apart and two feet in the row. If the pump bucket leaks, take it to town with you. The tinner will fix it while you wait.

The plan of hay farming with chemicals has its attractions, especially for the oldish man, who desires to get rid of the care of live stock, and to cut down his labor outgo to the lowest possible amount.

Milk from unhealthy cows is not safe to use and only cows in good health can make profitable use of the food given them. The herd should be inspected at regular intervals by a competent veterinarian.

A garden of an acre, well tended, will produce vegetables enough to supply an ordinary family year in and year out, as well as to feed a flock of fowls whose eggs may be traded for groceries at any country store.

The man who puts the finest products on the market is the one who reaps the bountiful rewards. Be sure your products are in the most acceptable condition before marketing. If there is a desire to win new customers.

Related.

"I understand that Frallman has come to the conclusion to contest his wife's will."
"Well what is there courageous about that? She's dead, isn't she?"

THE TRAINING OF UNITED STATES CAVALRY CADETS.



BLACK HORSE TROOP FORDING A STREAM.

Although the United States Government supports but one national military academy it encourages military training in a number of other schools and colleges by detailing to these institutions officers of the army and navy. These subsidiary military schools are of three kinds. There is, first, the state school which receives financial aid from the state government and is regarded as a part of its military establishment. A notable example of this class of schools is the Virginia Military Institute, famous as the West Point of the Confederacy, and now enjoying the distinction of having more of its graduates in the United States Army than any other school or college. The second class comprises the agricultural and mechanical colleges which have received donations of land from the government and which under the terms of these grants are required to give instruction in tactics. Private military schools may be considered as



A COSSACK RIDING EXERCISE.

forming the third class. These schools use military training because of its value as an educational instrument. The course of instruction in the classi-



PYRAMID OF CADETS.

fied schools varies from the two or three hours per week of drill or lectures in schools and colleges with military departments to the daily routine of the essentially military institutions in which the cadets live in barracks under constant discipline, march to classes and to meals, and receive a course of theoretical and practical military training which takes as its model and approximates as closely as can be done in a private or state institution to the superb course of training at the National Academy at West Point. Even in colleges in which the course is most limited a large number of young men receive each year at least a general idea of drill, discipline,

and the art of war, while from the essentially military schools some hundreds of cadets are turned out annually who are thoroughly disciplined and well instructed in the care and handling of troops and who will in time of war prove thoroughly competent officers of volunteers. Thus somewhat the same results are obtained from the military schools, though, of course, on a smaller scale, as from the compulsory military training of European countries. Great attention is paid to horsemanship. Indeed, there is nothing that could be more delightful for a boy than to have a horse of his own and to be taught all sorts of feats such as these pictures illustrate.

POPULAR SCIENCE

Suez canal has proved to be one of the most profitable commercial undertakings in the history of the world, and the Manchester ship canal is now accomplishing all and more than was promised at first.

Engineers and scientists are making exhaustive studies of the recent floods in Paris, to devise a system which will prevent a repetition of the disaster. It is planned to keep the Seine within its channel either by constructing higher embankments or by carrying the surplus waters around the city in a by-pass channel.

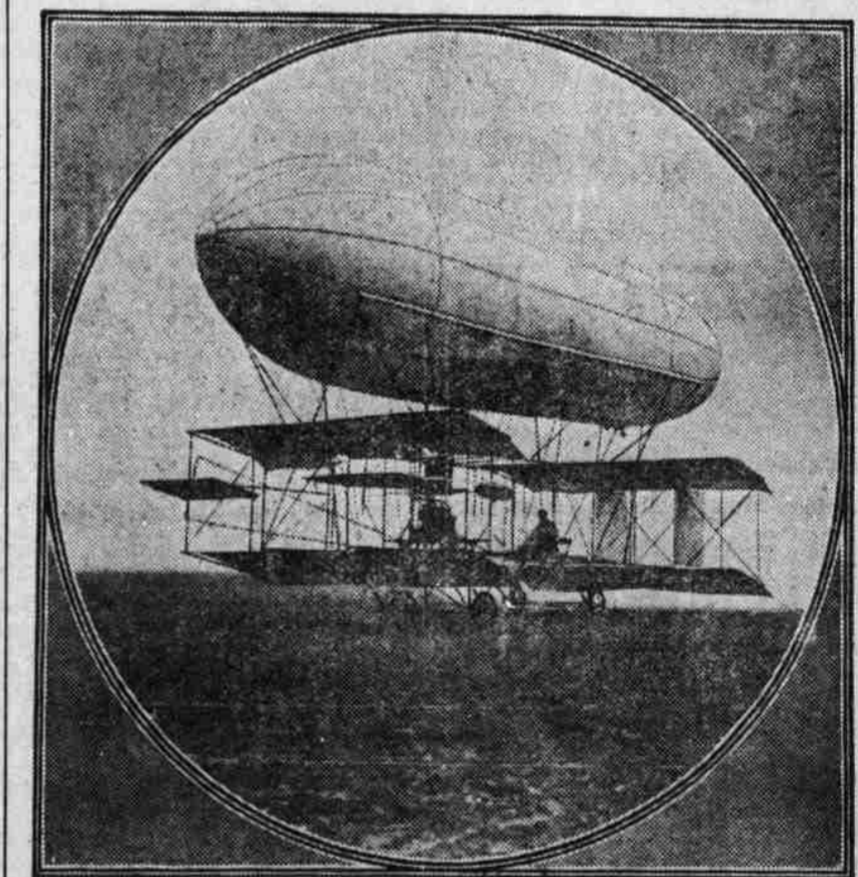
That the steel car is of great value as a protection to passengers in the event of collision was demonstrated in a recent clash of two trains in the Hudson tunnel, New York City. There was no telescoping, as would probably have occurred with wooden cars, and the injuries were merely such as resulted from the passengers being thrown down by the shock of the collision.

The latest report of the Geological Survey shows that the value of the metallic products of the United States for 1908 was \$549,923,116, as against \$903,802,244 for 1907. The only increase was in the case of gold—\$94,560,000, against \$90,435,700. Yet in the case of copper the quantity was greater in 1908 than in 1907—942,570,721 pounds, against 868,996,491 pounds. The value of the non-metallic products also showed a falling off from \$1,167,705,720 in 1907 to \$1,045,497,070 in 1908. The unspecified mineral products, however, increased from \$100,000 to \$250,000. Petroleum showed an increase in both quantity and value—179,572,479 barrels, against 166,095,335 barrels, and \$129,706,258, against \$120,106,749.

A new petroleum field is being developed on the northern slopes of the Caucasus, about fifty miles from the seaport of Touapse, on the Black sea. In the district of Malkop, South Russia. It is reported that the thickness of the oil series indicates that the district will take a prominent place among the world's oil regions. The oil is found in Oligocene beds of Tertiary age, and a fact of great interest is that the oil beds are everywhere associated with a vast abundance of fish and vegetable remains. In one cliff no trace of petroleum is found except in a layer of sandy clay, which alone is full of ancient fish remains. This is regarded as making the inorganic theory of the origin of petroleum inadmissible so far, at least, as the Malkop district is concerned.

At least two Brazilian travelers have described an extraordinary phenomenon connected with the nests of white ants, or termites. Dr. J. S. da Fonseca, who saw the exhibition on the headwaters of the Rio Verde, describes the

COMBINED BALLOON-AEROPLANE.



NEW FRENCH DIRIGIBLE-BIPLANE IS CONSIDERED ABSOLUTELY SAFE.

A series of aeroplane trials which have been taking place at Issy-les-Moulineaux, the well-known aviation center in France, have been marked by the novel feature of a combination of the dirigible with the gas bag, and the trials are being watched by aviators with the keenest interest. The above illustration shows the tandem biplane belonging to M. Cesar making a flight. It has a cigar-shaped envelope and is fitted with a 50-horse power Prissl and Bertahud motor. —London Sphere.

appearance as that of tiny stars, giving the nest the look of a miniature tower brilliantly illuminated. When the nest was struck with a stick the lights went out, only to reappear again little by little. Castelnau, in the middle of the last century, beheld a similar spectacle near the city of Goyaz. He says that the lights were produced by an immense number of small phosphorescent larvae, which withdrew into the galleries of the mound when an attempt was made to capture them. Prof. J. C. Branner of Stanford University remarks that this exhibition is probably confined to some particular species, or to some special occasions or conditions of termite life, since he has lived and traveled ten years in Brazil without seeing it.

HOUSE OF CEMENT.

Maine Man Made Himself a Home After an Entirely New Pattern. In Belfast, Me., there is a house, built by Frank Hoag, believed by the builder and citizens of that place to be the only one of the kind on earth. Aside from the blasting and digging for the cellar, the house was built by Mr. Hoag himself. The entire outside, the Boston Globe says, is of cement,

the mixing of the component parts being undertaken after long study of the subject. Mr. Hoag finished the inside of the house first. This being done, he lathed the whole outside with wire screen stuff, such as is used for fencing chicken pens. This was firmly fastened. The studding was close, and when the wire was on it gave a rigid surface on sides, ends and the slopes of the roof.

Over this layer of wire he spread a first coat of cement. It was well pressed on, so that it oozed through the meshes of the wire for a clinching hold. When this first coating was thoroughly set another and a heavier one was spread over the surface. Shingle effects were fashioned on the gables, and on the roof the cement was shaped and lined, to give an appearance of slating. Then over the whole outside was laid a finishing veneer of cement paint.

The house is as tight as a bottle. It is impervious to heat or cold, or leak of rain; and, as its foundation is a solid ledge, it can defy the frost to wrestle with it. Mr. Hoag says the cost of building was about the same as wooden construction would have been, but he says there is no great number of repairs

ASHES OF FUN

Top (who has dined off hashed mutton)—Bill, waiter. Waiter—What did you have, sir? Top (sarcastically)—I haven't the faintest idea.

"Did you get in without your wife hearing you last night?" "No, and I didn't get in without hearing her, either."—Houston Post.

"Who is the gentleman seated in the large touring car?" "That is the poet laureate of a well known biscuit factory."—Birmingham Age-Herald.

"Do you think there is really any such thing as platonic love?" "Yes. It exists between most husbands and their wives."—Chicago Record-Herald.

"Papa, what is faith?" "Well, my boy, they say your baby brother sleeps, but I've never seen him do it. Yet, if I believe he does, that's faith."—Life.

She (as they dance)—I'm afraid I'm tiring you rather. He—Oh, not at all. I used to be attendant in the elephant house at the zoo.—Meggendorfer Blatter.

Knicker—Jones is all the time wanting more money. Bocker—No wonder; his father was a college president and his mother was a woman.—New York Sun.

"Do you really believe this aviator will come back to the starting point?" "He won't dare do otherwise. His wife is waiting for him there."—Fliegende Blätter.

Vicar—And what induced you to send for me, Mr. Russett? Russett—What's your name, Betty? Betty—E says: "What the deuce did you send 'im for?"—M. A. P.

"Why don't you teach your son a lesson by making him live within his allowance for a while?" "Goodness! I can't even make him live within it!"—Cleveland Leader.

Lady—My cooking always tastes so good to you, and it never suits my husband at all. Beggar—Well, why don't you get a divorce and marry me?—Meggendorfer Blatter.

"I am a plain-spoken man," said the applicant for a job. "I'm afraid you won't do," replied the railroad official. "We are advertising for an experienced train announcer."—Philadelphia Record.

"Father," said little Rollo, "what is an epigram?" "An epigram, my son, as modernly propounded, is any sentence containing less than two conjunctions and three commas."—Washington Star.

"Does she seem to take kindly to society ways, now that her husband has made such a pile?" "Oh, yes, indeed. She was the loudest talker at grand opera the other night."—Cleveland Plain Dealer.

"John," queried her husband's wife, "if some bold, bad man were to kidnap me would you offer a reward?" "Sure thing," replied the wife's husband. "I always reward those who do me a favor."—Boston Courier.

Inquisitive Lady—And what is this little box for? Nerve-Racked Clerk—Oh, for odds and ends! Inquisitive Lady—But it has two compartments. Why is that? Nerve-Racked Clerk—One for odds, madam, and the other for ends. —Harvard Lampoon.

"Would it be any harm to deceive her about my age?" inquired the elderly millionaire. "Probably not." "I'm sixty. How would it do to confess to fifty?" "I think your chances would be better with her if you claimed seventy-five."—Kansas City Journal.

"How nicely you have ironed these things, Jane!" said the mistress, admiringly, to her maid. Then, glancing at the glossy linen, she continued in a tone of surprise: "Oh, but I see they are all your own!" "Yes," replied Jane, "and I'd do all yours just like that if I had time."—Central Christian Advocate.

"My brother, my poor brother!" she moaned, as a halfback was carried unconscious from the field. "Ah, but how thankful we should be," her escort, an old player, cried gaily. "Thankful! Thankful for what?" exclaimed the girl. "Thankful that it wasn't a full-back," said he. "We haven't a decent fullback sub, you know."—Minneapolis Journal.

Friend—So yours was a case of love at first sight? Mrs. Getthere—Yes, indeed. I fell desperately in love with my dear husband the moment I set eyes upon him. I remember it as distinctly as if it were yesterday. I was walking with papa on the beach at Long Branch, when suddenly papa stopped, and, pointing him out, said: "There, my dear, is a man worth ten millions."—New York Weekly.

"Jane," said a lady rather sharply to her cook, "I must insist that you keep better hours and that you have less company in the kitchen at night. Last night you kept me from sleeping because of the uproarious laughter of one of your woman friends." "Yes, mum, I know," was the apologetic reply; "but she couldn't help it. I was a-tellin' of her how you tried to make cake one day."—Ladies' Home Journal.

Trapped.

The perpetually clever man listened solemnly to the tramp's hard-luck story.

"That's the same old yarn you told me last week," he said, winking at his companion.

"Maybe it is," admitted the weary one as he started on. "I'd forgotten having met you. I was in the penitentiary last week."—Success Magazine.

Many a girl passes for a beauty because her feet don't show