

Winter Months on the Farm

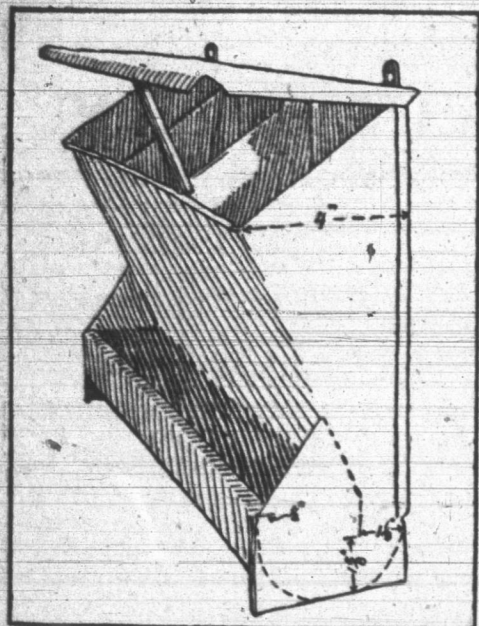
How to
Improve
Them

Feeding Hens for Eggs

Winter Feeding and Care of Farm Fowls
to Get Eggs When Prices Are High
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Many poultry raisers make radical mistakes in changing their fowls from summer to winter rations. They do not appreciate the importance of maintaining the proper proportions of meat and succulent feed in the winter ration and above all of supplying these constituents to the birds immediately at the beginning of cold weather. During summer the birds catch and eat an abundance of grass-hoppers and in addition have a large supply of green food constantly available so that all their wants are satisfied. Just as soon as extensive ranging is prevented by cold weather the feeder should begin to supply succulent feed, such as alfalfa, roots and clover hay and beef scraps in the ration so



A Hopper for Grit or Dry Mash.

that it will correspond as closely as possible to the summer feeding. The feeder should not wait until after Christmas to begin this system of feeding but should commence it as soon as the fowls are off the range.

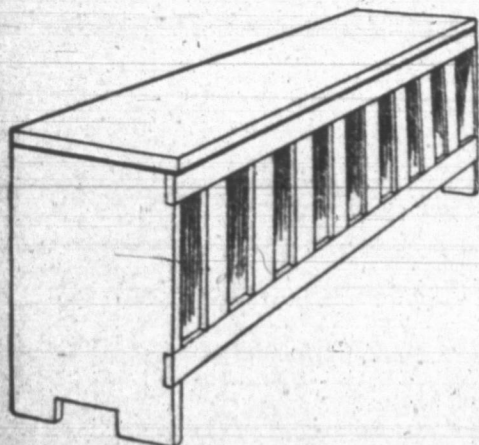
Feeding a Wet Mash.

Changes in the system of feeding hens should never be abrupt, but should be very gradual, slowly accustoming the birds to the variation in their ration. Where a wet mash has been fed to the young fowl it is preferable to continue to feed the older birds with this variety of mash. Although a wet mash is more palatable than a dry mash, it is also more trouble to prepare and has to be fed more carefully. There is always a danger of it scouring or freezing. A wet mash should be thoroughly mixed and allowed to swell and expand. This mash should be uniformly spread in the troughs so that each bird receives an equal allowance. Otherwise the stronger birds will gorge themselves while their weaker mates will starve.

An excellent wet mash ration consists of one part alfalfa meal, one part wheat bran, one part middlings, one part cornmeal and one part beef scraps. If possible these concentrates should be moistened and mixed with skim milk and allowed to stand for several hours before feeding. Five per cent of oil meal is used advantageously in this ration, due to its value as a laxative and general tonic and stimulant. The wet mash should be fed once daily, in amount never to exceed what the birds will clean up readily in ten minutes, preferably at the noon hour.

How to Feed Dry Mash.

The dry mash is not so palatable and accordingly can be fed to the hens at any time although the stock usually eat more and thrive more rapidly if allowed access to this feed for three to four hours each afternoon. This



Trough for Feeding a Dry Mash. Slatted Front Prevents Waste.

gives the "underlings" plenty of chance to eat and lessens the possibility of the mature fowls stuffing themselves. The dry mash has the same composition as the wet mash the only difference being that it is fed in a dry form. Where ground oats and barley are plentiful they can be added to the dry mash with excellent results. Green bone is an excellent constituent to use in the ration for egg production. It must be fed in moderation about one ounce per hen three times a week and then gradually increased until one ounce is supplied daily to each hen.

Several prominent poultrymen have recently attained remarkable success by using a combination of wet and dry mashes. Their system includes a noon feed of a light, well-scattered wet mash and then during the afternoon giving the birds free access to a dry

mash. The main advantage of this method is the extra labor involved. In a well-arranged house when a dry mash is fed in hoppers one man can feed 2,000 hens in about a half hour. As ordinarily fed a wet mash for 2,000 birds requires at least two hours for mixing and distributing the feed.

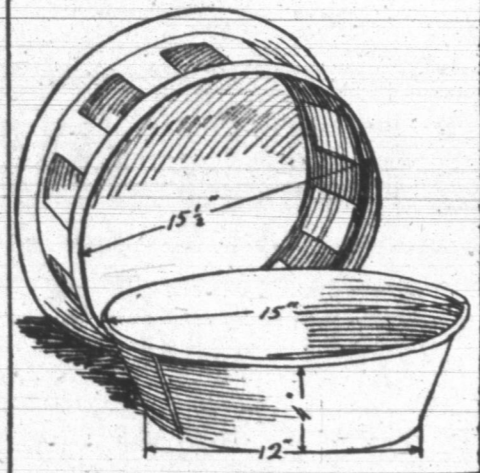
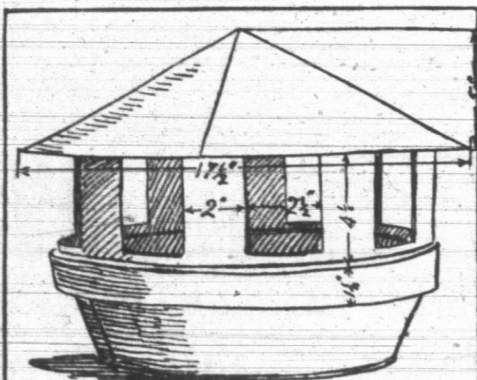
Roughage for Hens.

Where alfalfa meal is fed the demand for a succulent roughage is decreased. Even in this case, however, the addition of succulent clover or alfalfa hay is beneficial. Root crops play an important role in the dietary of poultry. Mangels may be fed entire once a day in troughs. Cabbages are best fed by suspending them by cords to keep them clean. An additional advantage is obtained here through the extra exercise necessary for the fowl to secure the feed. Where available sprouted oats can be fed. Carrots in small amounts are very palatable and tempting to the flock. Clover chaff can be fed wet or dry and is a very economical egg producer. Begin to feed the green stuff and mangels as early in the autumn as possible.

Clover Good for Poultry.

Steaming clover hay increases its palatability greatly. If free from long fiber, clover is an excellent feed to mix with bran, table scraps, or with a regular mash. A convenient way of handling the poultry flock is to thoroughly bed down the house with straw in the fall and then to add a forkful of clover or alfalfa hay every day until the litter begins to get dirty. The house should then be cleaned, the straw replaced by clean litter, and the daily forkful of clover or alfalfa continued.

The importance of litter cannot be overestimated as a means of compelling the birds to exercise in obtaining their food. A generous allowance of corn mixed with the litter works out excellently for winter feed-



Two Views of a Simple Drinking Vessel for the Small Hen House.

ing. Corn may be fed either shelled or on the ear—broken into small pieces.

It is of great importance that a little grain be left in the litter overnight so that the hens have something to eat immediately after leaving their perches in the early morning. This accounts for the generous allowance of grain which is absolutely necessary in the litter. If no grain is left in the litter the birds should receive their first feed by daylight for best returns. A very detrimental practice on the general farm is to finish all the morning chores before feeding the poultry. The hens as a result remain on their perches too long, so no incentive urges them to get down and exercise. This common mistake is one of the fundamental errors which results in a diminished egg production.

Grit for the flock should be furnished by putting a load of gravel in the house each year. Oyster shell should also be constantly accessible for the flock. It may be placed in an inexpensive hopper where the birds can easily reach it. Charcoal is another article of indispensable value around the poultry house. Clean, pure water in sanitary dishes should always be available for the fowls.

Feed a Generous Ration.

An essential factor in poultry feeding is to furnish a liberal, correctly balanced, fattening and growing ration. To merely supply the flock with a maintenance ration is not sufficient. Besides maintaining bodily vigor and health the hen must produce eggs and on this account requires an amount of feed in excess of that required for mere maintenance. Where a well balanced ration is supplied in abundance, and where the flock have plenty of exercise, the birds will not become over-fat, but will maintain good thrift and will produce a quantity of good quality eggs.

SHIPS MADE STEADY

Gyroscope Has Wonderful Effect on Vessel.

Engineer Tells Naval Architects and Engineers How it Stops Rolling Motion of Boats and How Applied to Compass.

New York.—The wonders of the gyroscope were hinted at by Elmer A. Sperry at the meeting of the naval architects and marine engineers at the Engineering Societies building. He told how ships could be made to keep an even keel in a heavy sea, and how the gyroscopic force was applied to the compass.

The meeting was the second day session of the annual gathering of the naval men for the presentation of their scientific papers on a wide range of subjects. Besides the gyroscope, such subjects were discussed as the reduction of loss by fire aboard ship, the use of producer gas as motive power, and coaling warships.

"When the motive power of vessels changed from an upsetting force (the sail) to one almost exclusively of forward thrust," said Mr. Sperry, "the design of ships underwent quite radical changes in connection with lines affecting the stability, decreasing this factor and favoring decreased resistance, aiding the attainment of higher speeds. Now that stability may be imparted to a structure of naturally small righting movement, we are on the eve of even more radical changes in design."

"The problem is to hold the ship from rolling by neutralizing with the gyroscope each disturbing influence as it reaches the ship while availing ourselves of all the aid possible through the design of the hull and the disposition of the masses. A great many ships as they now stand could with profit utilize the gyroscope steady gear, which is at present available, and some important installations are now being contemplated."

Mr. Sperry told us seeing Russian warships constructed in Hamburg which were furnished with 350 to 400 tons of water slushing back and forth periodically in huge tanks to counteract the roll of the ship so as to make it possible to operate the guns on a level. The movement of the water has to be timed to the roll of the sea, and when it gets out of time it turns into a menace.

"The gyroscope, on the other hand, is not limited to any particular period of the boat; it simply responds to whatever motion the ship has, synchronous or non-synchronous," said Mr. Sperry, "the question is often asked: 'Why is a gyroscope better than a moving weight in a ship for roll quenching?' Every pound in the rotating mass of the gyro can be made to do the work of from 150 to 200 pounds, and directed in any desired line or plane, whereas when we use water or any other form of moving weight each pound represents a pound only and can do the work of only a pound and only in a vertical direction."

Mr. Sperry gave a very interesting, though strictly scientific demonstration of the peculiar faculty possessed by the gyroscope which made it possible to transfer energy "around a center." He compared a ship without a gyroscope to a ship with one.

LITTLE MEXICAN CAT

Pretty Animal Makes New Yorkers Hold Noses.

Mystic Zone of Wrath-Making Odor Around Central Park Sets Monkey House in Uproar—Somebody Vents Spite.

New York.—If one happened to be passing early the other day in front of the row of mansions on Fifth avenue that overlook Central park arsenal, and had a bad cold, one would have noticed butlers and footmen were acting strangely.

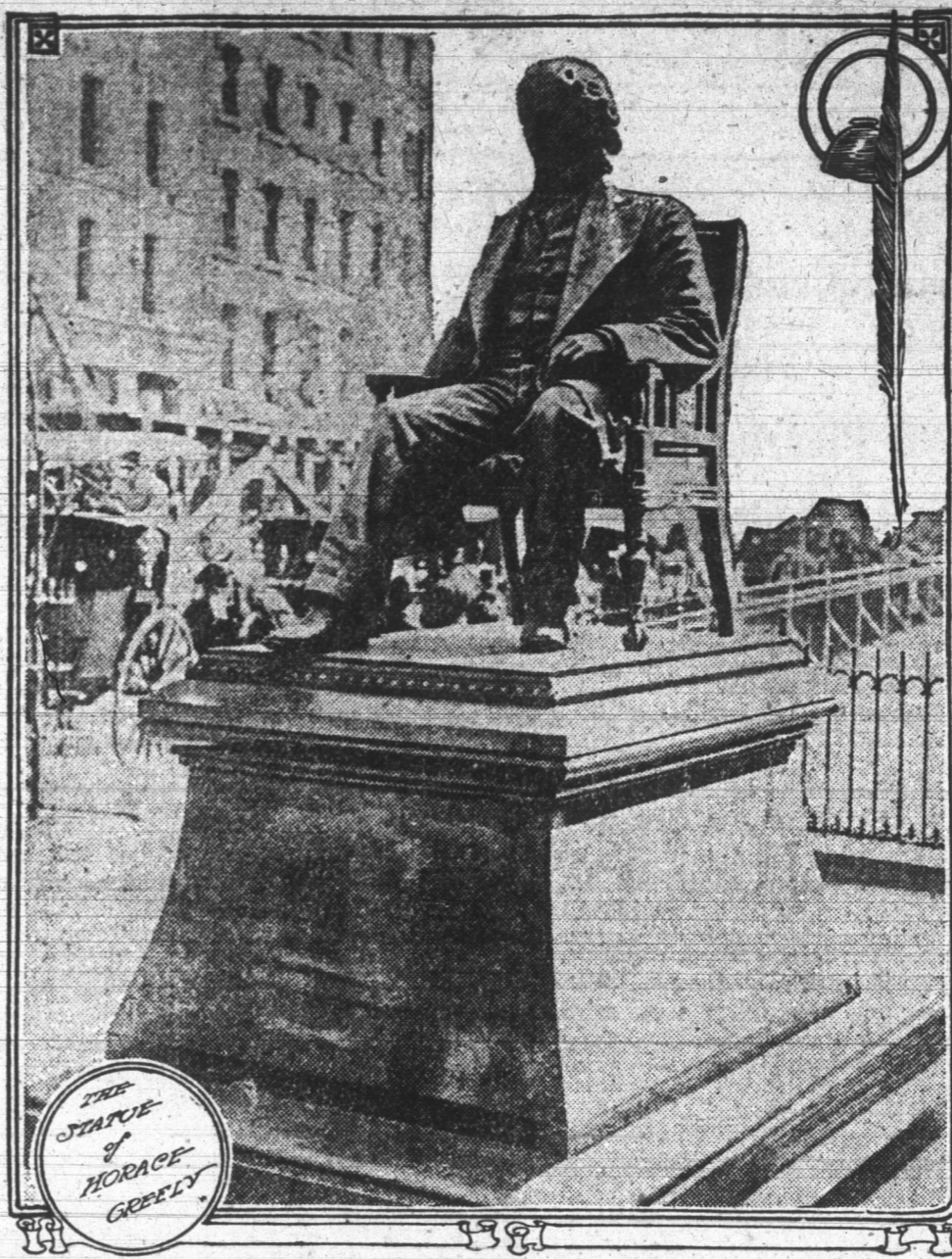
A front door would open and a stately figure in yellow plush emerge to take bearings on the weather. The stately figures would suddenly assume a startled attitude, sniff, clap his fist on the offended nasal organ and leap backward into the house. A footman or two ventured down to the curb, sniffing all the time, then turned and bolted within. Bedroom windows facing the park went banging down in a volley.

Singularly and impressive as all this was, if one had ventured nearer the arsenal there were yet stranger sights. Policemen patrolling their beats marched swiftly along, their noses buried in handkerchiefs. Keeper Snyder could be seen making his rounds of the animal houses with one hand over his nose and the other bearing a burning joss stick. Nursemaids who passed within the mystic zone suddenly clasped their aprons to their noses and pranced away.

All the while there was a terrific din in the lion house. Lions roared and tigers spit and hissed; panthers snarled and leopards howled. The prairie dogs were digging furiously in the frozen ground with an evident desire to escape from something that made them snarl peevishly.

Passing into the lion house attention would be drawn instantly to a cage in which a pretty spotted cat was curled up purring contentedly. Opposite the cage in which the pretty feline reclined in such demure

GREELEY STATUE TO BE REPLACED



NEW YORK.—Because of the forthcoming celebration of the centenary of Horace Greeley in February next, and of the consequent interest that attaches to anything that has to do with his memory, people will be glad to know that that statue of him which gave his name to the little square at Broadway and Thirty-third street, New York, which last spring was reported to be lost, has only gone into temporary retirement. By the time the arrangements for the centenary are completed, the statue will be replaced within a few feet of its old site, and the calm face and resolute figure will once more offer a vivid contrast to the rush and roar amid which it is seated. Some months ago the Hudson & Manhattan Railroad company began the construction of a subway station at the site of the statue. The work called for the removal of the latter and this was done in a single night.

The model ship in a smooth surface is tilted to an angle of 25 degrees and then allowed to rock itself to an even keel. The diagram showed that the ship with the active gyroscope made about three rocks in each direction and then suddenly became so steady that a man could shave or play billiards, while the ship without it rocked too and fro, taking a long time to "let the old cat die."

Mr. Sperry praised the work of Capt. D. W. Taylor in the Washington navy yard in respect to the gyro and said that his treatise on the subject was of immense value toward the understanding and practical application of gyroscopic energy.

The gyroscopic principles applied to the compass has proved invaluable, Mr. Sperry said. "This type of compass is not affected in the slightest degree by the steel of the ship or cargo, or any magnetic disturbance. It is also free from the influences of those disturbances technically known as deviation or variation."

Samuel D. McComb gave a paper embodying suggestions as to the prevention of loss by fire. He spoke of

the harbor tugs, which are necessarily small for maneuvering, and yet must have high power. The result is that the engines must be made as large as the space will permit, and the walls of the boilers are put as close to the woodwork as the law will allow. Such a condition requires more careful watching than most tug masters give, and that explains the large number of fires aboard tugs.

Manicure Parlor in School. Minneapolis, Minn.—A manicure parlor is the latest addition to the appointments of the shower bathroom in the Blaine public school. By order of the building committee of the board of education one corner of the bathroom will be partitioned off and will be used for manicuring purposes.

Fund for Madrid Beggars. Madrid.—Some time ago the Imperial, in connection with the agitation to rid the streets of the capital of the large number of beggars infesting them, started a subscription to aid these unfortunates. The subscription closed with a total of \$14,400.

monkey house, but we no sooner got in the door than the monkeys began to faint."

SNAKE LADEN SHIP ARRIVES

Vessel Carrying Many Reptiles, Apes and Dwarf Elephant, Has Exciting Voyage.

New York.—Carrying snakes by the dozen, none of them under twenty feet in length; red faced apes, huge lizards, a "dwarf" elephant of three-foot height, and with a record on its log of having saved twenty-one persons from suicide, the British freighter Muncaster Castle from the Orient arrived the other day.

The rescue occurred three months ago, just before the Muncaster Castle left the waters of the far east, when twenty men and a girl were taken from a dismasted vessel that had been adrift seventeen days, for six of which none on board the derelict had anything to eat or drink. The derelict had drifted 1,200 miles and all on board were ready to cast themselves into the sea, crazed by their sufferings.

"The twenty-one told us they had just decided to drown themselves," said Lieutenant W. J. Donohue, chief officer of the Muncaster Castle. "Six vessels had passed them without paying any heed to their signals and all were on the verge of insanity when we came within hailing distance. There was four feet of water in the hold of the derelict."

"After the twenty men had been taken off we found a girl of 16 years huddled in the cabin. We saved her and then landed the survivors on the Malabar coast in southwest India."

Nearly 400 feet of python set sail on the Muncaster Castle, but only 240 feet survived the voyage. The snakes, lizards, small animals and the tiny elephant had a bad time of it when huge seas battered the freighter, tumbling over the crates and cages and causing an uproar in the jungle passengers' section.

In the straits of Malacca one of the Chinese stokers saw the snakes. He rushed on deck, peered over the side, shouted that sharks had no terror for him and dived into the sea. A volunteer crew rescued the Chinaman.

"Thy Speech Betrayed Thee"



WE had thought of preaching of the importance of having such a manifestation of God's presence at all times in our lives and in the church that the unsaved would at once recognize that no man can do these things except God be with him, that "God is in us of truth." In looking up some references from the scripture, "they took knowledge of them that they had been with Jesus," we were directed to the scripture where Peter was recognized "as one of them" for "thy speech betrayed thee." It brought at once a new thought to us. Let us indeed let our speech betray us and show where we stand. When we are in the house of God, when we write to our speech betray the fact that we have been with Jesus and learned of him.

How easily we discover character by the speech. How plainly the speech tells what is in the heart. When Jesus dwells within how natural for the mouth to betray that fact, for "out of the abundance of the heart the mouth speaketh." And when we see professed Christians wishing to talk about almost every other subject under the sun but Christ and his salvation, does it not reveal a worldly, carnal heart? The maid knew Peter by his speech and the world knows us, perhaps better than we think, by our speech. When a doctor is called to see a patient he often wishes to examine the tongue. That little member tells him what is below. And so the tongue is a good indicator of the spiritual life. There is nothing that more plainly evidences often a shallow spiritual life than just to listen for a little to the speech.

Be Temperate in Speech.

The word of God has a great deal to say with reference to our conversation and words. Many a person has grieved and lost the Holy Ghost by light and foolish talking. We need to learn to be temperate not only in our eating and drinking and sleeping, but in our speech. "Talkativeness is utterly ruinous to deep spirituality. The very life of our spirits passes out in our speech, and hence all superfluous talk is a waste of the vital forces of the heart." "He that hath knowledge spareth his words."—Prov. 17:27.

Wherever, as a rule, you find a deeply spiritual person, you find one that has learned how to order his conversation aright. He studies in this as in everything else to please and glorify God. "Whatsoever ye do in word or in deed, do all in the name of the Lord Jesus." David asks the question, "What man is he that desireth life, and loveth many days, that he may see good?" He at once answered it by saying, "Keep thy tongue from evil, and thy lips from speaking guile."

We are elsewhere commanded to let our "speech be always with grace, seasoned with salt." "Let the words of my mouth, and the meditation of my heart, be acceptable in thy sight, O Lord, my strength and my redeemer."—E. H. Cook in Wesleyan Methodist.

MUST PUT HEART IN WORK

Both Holy and Earthly Service is of Little Avail When Performed Without It.

There is no true work done without enthusiasm. The artist whose heart is cold is a mere artisan; the student of science who works with no great humane enthusiasm for knowledge is only a mechanism more delicately organized than his microscope or his magnetic battery; the statesman who is simply a calculating player, with human pawns on the chessboard of a nation or a political party, is less a man than the humblest citizen whom the impulse of patriotism urges to the daily discharge of civic duty or pushes on to the battle's front in the hour of his country's peril.

The deepest secret of life, as well as the mightiest force of life, is love. Without love there is no enthusiasm. We freeze our hearts by selfishness and stifle them by sordidness; we fix our eyes upon the little field circumscribed by our day's activities and ends. With no wide-reaching affection and no uplifting ideal, we make our life a treadmill and of our duty an unrelenting drudgery. We disclaim the highest endowment of the soul and deny our sonship to God. Narrow faiths and narrow hopes put fetters on the spirit, and small affections keep small the heart.—Philip S. Moxom.

Spiritual Life Needed.

Nothing is wanted by the church of the twentieth century but a truer and deeper religion; and nothing else will suffice. The influence of the church upon the world is in exact relation to her own religious life. The effect produced by Christians in any age is directly proportioned to the nature of the religion enjoyed. It is the merest truism that the church possesses just as much influence as it deserves.—Professor Davidson, in London Quarterly Review.

No man is ever laid on a shelf by fate. He climbs up there of his own will and lies down beneath the dust, because he lacks the heart to rise and face the business of life.—H. S. Kerman.