



Agricultural Department.

HORSE-SHOES AND HORSE-SHOEING.

On an average, horses require shoeing once a month. The length of time a shoe will wear depends much on the kind of service a horse is doing, and on the kind of road he is daily travelling. A team horse in heavy draught does not wear out as many shoes as one used in a hack; quick motion grinds shoes down more rapidly than slow use. Some pavement is harder on shoes than an ordinary road, while the friction of a gravelly road wears them away rapidly. Wooden pavement is but a little saving to the wear and tear of shoes, for the grit and dust which become impacted in the interstices of the wooden block grind away shoes like the friction of an emery wheel. The hind shoes wear out first, and there is more strain and friction on them than on the forward shoes. It is impossible and improper for a horse to wear shoes more than six weeks, for the growth of the foot shortens the shoe, as well as changes the shape otherwise. The neglect will cause the shoe to encroach upon the soft textures of the foot and produce lameness.

There are but few practical mechanics who have sufficiently studied the foot of the horse. It is not enough to know the anatomy of the foot, and where to insert a nail not to cause pain, but the foot should be studied in the state of nature, before the mechanism of man has by artificial appliances distorted it. The shape of the hoof of the wild horse, or of one which has never been shod, should be taken as a model. The foot is then properly balanced, neither too long nor too broad, but it has adjusted itself to nature, and the muscles and tendons are not strained by travel. Confinement and unskilful shoeing change the anatomical relations of the foot, and the best judgment of the mechanic is often taxed to correct the growing deformity—from unskilful shoeing. When a reasoning, skilful mechanic is found, the horse is safe in his hands, for he only preserves the normal shape of the hoof, and adjusts the shoe to protect it. The frog in the hoof of the horse is placed there for a particular purpose, and should not be cut by the shoer. If this is allowed, contraction and lameness will follow. The shape and weight of the shoe should be accommodated to the purpose for which they are designed. The track horse requires a shoe lighter and without corks, while the draught horse must have a heavy, broad shoe, with corks, to enable him to obtain foothold and travel with the least possible strain.—*Forest and Stream.*

AGRICULTURAL CAPABILITIES OF THE STEWIAKKE VALLEY.

Both at Middle and Upper Stewiacke on Thursday, Professor Lawson referred in his lectures to the marked fertility and beauty of the Stewiacke Intervale, which he had seen for the first time, in that morning's sun; to its broad expanse of rich grass land, as flat and smooth and green as the fields of Holland, stretching away for twenty-five or thirty miles and scarcely anywhere less than two miles in breadth.—the large square fields, here outlined by giant elms, and there adorned by scattered trees, all stately and graceful. And on either side of this immense carpet of broad and verdant acres, we have a sheltering range of beautiful rounded hills, rich in undeveloped wealth that lies at the surface as a fertile soil, underlaid by plaster and lime, to supply the means of making it still more fertile, and these gently undulating hills are inviting the plough up and over their grassy slopes, for which the healthy white flocks are now preparing the way. The whole scene (he said) was a picture of pastoral beauty, which reminded him more than anything else he had seen on this continent of some of the richest agricultural districts of England. We want only a steam plough and a dotting of thoroughbred short horn Durhams and Devons and Ayrshires over the meadows, to make Stewiacke look very much like the Rothschilds' farms and other rich tracts in Buckinghamshire, where fields feed twenty thousand cows, besides all other kinds of cattle, and annually send two thousand tons or more of beautiful butter into the London market, realizing, in the poorest year, from this product alone, a million and a half of dollars. To render the fields of Colchester as productive as those of Buckinghamshire is a very simple problem to the scientific agriculturist. Three things are required—systematic culture, selection of suitable thoroughbred stock; economical, that is intelligent, feeding. But why the people of such a country should dream of wandering West through some Manitoba wilderness to hew out

new farms for themselves that cannot possibly, in their lifetime at least, be as good as the old—this is a problem that he did not attempt to explain on any scientific or other principle. Horace Greeley used to say to the young men, "Go West." Our formula should be "Go to Stewiacke."—*Halifax Chronicle.*

CULTIVATION OF APPLES.—The following from an essay by Prof. Beal, of the Michigan Agricultural College, are valuable suggestions for apple-growers everywhere: A young tree must be treated very much as you would treat a hill of corn. Hoed crops will answer in a young orchard; sowed crops will do much harm to young trees. I think it a good plan to keep young trees mulched, and I am not sure but it is best of all ways to treat large or old trees as long as they live. Mulch prevents the rapid evaporation of moisture from the soil, keeps the surface mellow, prevents the soil from freezing and thawing in winter and becoming overheated in summer. Whether or not to cultivate trees which have become well established depends upon circumstances. I have never seen an apple orchard which I thought was injured by too frequent shallow culture, but this may be the case in some places, especially in warm climates or where the soil is deep and very rich. Whether to cultivate or not can be told by the looks of the trees. Now if the color of the leaves is good and the growth all right and the trees bear well of fine fruit, they are doing well enough even in grass. But if the leaves are pale, the growth of the annual twigs much less than a foot in length on trees set twelve years, and the fruit small and poor, something is the matter, and they are suffering for want of plow, harrow, or cultivator, or a heavy mulch or a coat of manure, or two or more of these combined. The upper twigs of twelve years ought to grow six to twelve inches each year. To judge of the condition of an apple tree is much like judging of the condition of sheep in a pasture. Look at the sheep and not at the pasture. As long as the sheep are plump and fat they are all right.

VEGETABLE MOLD.—The *Gardener's Record*, in giving directions for the preparation of mold, says:—As early in November as the leaves of the trees can be collected, let them be brought in a considerable quantity into a close place, and dressed up there in the form of a hot-bed. Let this be well saturated with drainings from the dung heap, with suds from the wash house, with urine from the stables and cow house, where the latter article can be procured. Let this bed or heap be covered and lined with fresh stable dung, to make it heat. When the heat is sufficiently subsided, let the leaves be uncovered and turned over, to mix the dry and wet well together, and if moisture be required, let them have it of the same description, repeating the process till all be reduced to fine mold. This will be ready for use in two months from the time of collecting the leaves, and to prevent any waste of the liquid recommended, a layer of maiden earth, of two feet thick, should be made the substratum, which would receive any of the valuable liquid that would otherwise run to waste. Leaves of slow decomposition should be avoided, as those of the oak, etc., which however, are the best for retaining heat in hot-beds and pits. The leaves of fir should be avoided, but those of the sycamore, elm, alder, maple and all of the soft kinds are better suited for the purpose. This compost should be kept dry, in an airy place, and ridged up, so that the rain can not wash out the salts with which it abounds.

CHICKEN-FEEDING.—There is one ingredient in chicken-feeding which deserves special notice, being of the greatest assistance to those whose space is limited. We allude to the bone-dust, or ground dry bones, which is often used by gardeners in potting plants. For the knowledge and use of this ingredient we had originally to thank Mr. John Stuart of Helensburg, well known in Scotland as a successful breeder, and to whose unvarying friendship in many other ways and instances we feel pleasure in acknowledging heavy obligations. After full and satisfactory trial ourselves, we had no hesitation in recommending the use of bone-dust to other breeders; and the extent to which other writers have followed us in various periodicals, and to which the substance is now advertised in the poultry papers, besides the many private testimonies we have ourselves received, are conclusive evidence of the value of an article of diet which Mr. Stuart's kindness had enabled us to be the first to introduce generally to poultry-breeders. . . . Bone-dust for mixing in poultry-food should be on an average about the fineness of coarse oatmeal. There are usually larger pieces interspersed, but these need not be taken out, as any too large will be rejected; though the meal may be sifted free from any larger than peas if desired. The price being never very much more per hundredweight than good meal, it should be used liberally with all the soft food, and about an ounce may be mixed with every half-pint of dry meal before adding the milk or

water.—From "The Illustrated Book of Poultry" for October.

THE DRAINAGE OF HOUSES.—Formerly the problem of domestic drainage consisted in little more than keeping the cellar dry and disposing of refuse matter where it would be inoffensive and would not contaminate the water supply, and even these simple demands were often entirely neglected; but the introduction of "modern conveniences" has placed in every house all the elements of a complicated sewage system, necessitating an abundant water supply, workmanship and thorough ventilation. It is in the last respect that the system is most universally defective; poisonous sewer gas is necessarily formed in every sewer and soil pipe, and in some way will manage to escape. If a proper ventilating pipe be provided, extending from the soil pipe to above the roof of the house, the poisonous gas will escape through this pipe and, mixing with the free oxygen of out-door air, will become harmless; if ventilation be not provided, no system of water traps can be trusted—they will either be drained as syphons or forced by air pressure; in either case, poisoning the air of the house by direct communication with the vaults or drains. The want of ventilation is usually the most glaring defect, but other details might be mentioned, among them the common pan water closet, which a high authority (Latham) has described as "a cumbersome appliance which can not be introduced into a house without creating a nuisance," and for which very superior substitutes can now be had at a slight increase of cost.—*George W. Warren.*

GRASS-RUNS FOR CHICKENS.—We believe the very best results possible in chicken-rearing are obtained by keeping a comparatively small number in a moderate-sized grass-run, nicely shaded with trees, and a spacious shed with a flooring of dry sand or gravel kept perfectly clean. Kept in large numbers, on unlimited grass, the birds grow up in beautiful condition, but often mature rather too rapidly, and do not become so large; whilst in small gravel yards, though size is easily obtained and good condition may be secured, the exquisite gloss so beautiful in grass-fed fowls is very difficult to produce, and large cockerels frequently become heavy and ungainly in carriage for want of exercise. We speak comparatively, of course; for much depends on the skill and care brought to bear, and we often see the best country yards beaten by people who only possess a few square feet in town; but a dozen chickens in a grass-run of about twenty by fifty feet will take care of their condition for themselves with less real trouble than in any other circumstances.—From "The Illustrated Book of Poultry" for October.

HINTS ON THE CARE OF CARRIAGES.—Carriages, like most other things of value, demand constant care and attention to keep them in a good state of preservation, and a good coach-house is the first if not the chief requisite. It should be dry and cool, as the woodwork of a carriage, no matter how good or well painted, will swell or shrink if subject to any extreme of damp or warmth. The carriage-handles and other metal fittings require polishing daily, and in summer weather the wheels should be constantly damped to prevent them shrinking. After a carriage has been out in the rain and mud it should be cleaned before the dirt dries, otherwise the labor will be much greater, and the injury to the paint considerably increased. Plenty of water is necessary, which should be thrown over the carriage until the dirt is removed; then the surface should be rubbed dry, and polished with a soft wash-leather.—From "Cassel's Domestic Dictionary" for October.

RHEUMATISM AMONG FARMERS.—There is a good deal too much carelessness generally among farmers with regard even to ordinary precautions for the preservation of their health and yet, after all, there is scarcely any class to whom sickness or disease is more irksome and inconvenient. Rheumatism is frequent among them, because they wear wet clothing, heat and suddenly chill the body, over-eat after very hard work, and because they do not keep the skin in a clean and healthy condition. If farmers would avoid suddenly cooling the body after great exertion, if they would be careful not to go with wet clothing and wet feet, and if they would not over-eat when in an exhausted condition and bathe daily, using much friction, they would have less rheumatism.—*Rural New Yorker.*

TO BRING THE COWS HOME.—A neighbor of mine has two cows, and one of them hasn't missed coming home at night in two years, and the other but once in that time. He says give them every night a little of something they are fond of and can't get outside, with a little salt. Change their feed often, giving sometimes wheat bran, and at other times corn meal, dry hay, or fresh cut grass. But be sure and give them something to eat every night, and then shut them up in the barn-lot, or some other place over night. See that they have plenty of water.—*C. R. Comer, in Indiana Farm-*

DOMESTIC.

USEFUL HINTS.

CLEANING IVORY.—When ivory ornaments become dingy or yellow wash them in soap and water with a teaspoonful of ammonia. Brush carefully with a small brush, and place while wet in clear, warm sunlight. Wet them in this suds for two or three days and leave in the sun and they will be beautifully white.

COFFEE SACKS washed clean and cut in suitable shapes will, if embroidered with bright colors, make nearly as pretty and useful mats to put by the bed, bureau, etc., as burlap, without the same expense. This enables one to use up material usually thought only fit for scrubcloths—and too stiff for comfort even when thus used—in a useful as well as ornamental manner.

CAYENNE PEPPER is the best when made from chilis instead of the common capsicums, as their flavor is much better. The cayenne which come to the market, we are told, is made by drying the peppers for twelve hours before the fire, then put them into a marble mortar with one-fourth their weight of salt. Pound and rub them together as fine as possible, then put this powder into a closely-stopped bottle.

POTATOES.—Many recommend putting salt into the water in which potatoes are boiled, but we don't think that the best way. Put potatoes into boiling water, and, as soon as done, pour off the water, remove the cover till all the steam has evaporated, then sprinkle a teaspoonful of salt over the potatoes, cover the pot closely with a towel, and in a few minutes they will be very mealy.

VEGETABLES.—Never leave any vegetables soaking in water. It destroys the real flavor. Potatoes are often peeled and left soaking in water some time before using. This is a very bad practice. They, like all kinds of vegetables, should be washed quickly when it is time to put them on to cook, and without being allowed to remain in the cold water at all should be at once transferred to the kettle of boiling water in which they are to be cooked. Lettuce is greatly injured by lying in water. Put it on ice when gathered, and wash just before sending to table.

PRESERVING EGGS FOR WINTER USE.—Pour four gallons boiling water over three pounds of quick-lime. Stir it slowly till well mixed, and then let it stand thirty or forty hours, and then take off the clear lime-water so as to remove as little lime as possible. Mix a teaspoonful of salt with the lime-water and pour it over the eggs, previously put into glazed earthen pots, till it rises full an inch above the eggs. This quantity is sufficient for twelve dozen eggs. We have kept eggs perfectly, put up in this way, from November till June.—*Mrs. Beecher, in Christian Union.*

TO REMOVE INK FROM CARPETS.—If you have cotton batting in the house soak up all of the ink that can be removed without rubbing, then have ready fresh cotton batting and a basin of milk; skim milk is as good as new, only it must be sweet. Wet the ink spot thoroughly with the milk, and then soak it up with the batting. Apply more milk and sop up again. Continue this, taking fresh batting as soon as one piece is discolored, dipping it each time in milk till the ink disappears. If fresh spilled it will take but two or three applications before the spot will all disappear. Then wash it in clear hot water first, then with a weak soap-suds, and rinse in clear water. Wipe dry. Old cotton cloth will answer, but batting is the best.

HINTS ON WASHING.—The quickest and best way to do the washing for a family of six or eight persons: "First, have plenty of boiling water; to every boilerful add from two to three tablespoonfuls of pulverized borax; use some of the borax-water from the boiler for every tubful of clothes, adding only enough cold water to make it comfortable for the hands; use soap on the most soiled, and rub on the board, or through a washing-machine; do not boil the clothes; have a tub partly full of boiling-hot borax water, in which to put the clothes that have been rubbed; let them remain in the hot borax water until you are ready to rinse them; from a quarter to a half hour will do; rinse in one clear water, without borax. Use very little, if any bluing. Borax will not injure the texture of the finest linen, and for infant's clothes or flannels it is the only thing that can be used with perfect safety. If stockings or socks are badly stained, they might be boiled in borax water for a few minutes only—too much boiling makes clothes yellow. Borax acts slowly but surely. The improvement in clothes washed after this direction, will be noticed after the second or third trial, often after the first. Add a teaspoonful of borax to every quart of starch—it will keep the starch from sticking and add to the polish.