FARM AND GARDEN NOTES

ITEMS OF TIMELY INTEREST TO THE FARMERS

Treatise on the Chinch Bug---New Points in Fertilizing the Peach---Hints About Horses---Making Butter.

TREES BLOSSOM BUT ARE BARREN.

Unless the flowers of any plant or tree are fertilized by the pollen of some other tree or by its own, there will be no fruit. In the case of some cherries and plums and equally with other fruits, it is often necessary to grow some distinct kind near another that the blossoms may be fertilized. In this case some other kind of cherry should be planted near the barren ones. When the young cherries wither and dry up or drop off, it is doubtless due to the attacks of the curculio or some other insect, which stings the fruit and lays its eggs in it, by which it is killed.—New York Times.

CHEAP FARM WATER TANK.

To make a cheap water tank, take three or more iron hooped barrels; saw each barrel in two above the center, with the exception of one, which must be about four inches higher than the rest. Now fasten them all to a wide plank with a 2x4, notched and bolted on each side to solidify them. Pump into the highest one, and as they are connected with each other by a short piece of pipe, they will all fill equally. It would make them better to tar them inside.—Rural World.

FOR BEANS AND PEAS.

If the soil is rich in readily available nitrogen, the probability is that a crop of beans and peas would gather but little of that element from the air, but would use what was already at hand in the soil. If the soil is very poor in nitrogen, it may be expected that these plants will gather their supply largely from other sources than the combined nitrogen of the soil. In general it would appear to be rational to apply no nitrogenous fertilizers to these crops, but to supply an abundance of both potash and phosphoric acid.—E. H. Jenkins, Connecticut Experiment Station.

HINTS ABOUT HORSES.

In cleaning them, if they will not stand the currycomb well, get a five or ten cent brush made of broom corn, used for scrubbing in the house; they are very stiff, writes J. W. Palmer. If horses are troubled with the scratches, mix two parts lard and one part gunpowder thoroughly, and apply on the place affected; it is cheap and effective. So manage your stable as to save all of the urine, as it is very valuable; have cement floors if possible. Do not hang harness in stable if you can avoid it. Do not feed too much hay, and avoid watering immediately after feeding a horse much of a dinner. If you have whole rye, you can feed a little, and save expense and trouble of grinding it, to young horses only. Use good snaps on lines and side straps at least, and by so doing save time, which is money on a farm. Farmers need to be cautioned about watering horses when heated.

MEASURING HAY.

The principle on which stacks or mows of hay are measured for weight is that the weight of one cubic foot of hay multiplied by the number of cubic feet in the stack to be measured will give the total weight. There are so many shapes of stacks that rules for all cannot be given, but knowing how to measure any kind of stack by the rules of arithmetic, the cubic feet contained in it divided by the number of cubic feet in a ton will of course give the figures desired. Timothy hay and clover in a barn mow or a stack well settled requires 600 feet for a ton, clear timothy 450 feet, common mixed meadow hay 700 feet, all clover 800 feet. Of course these estimates are only approximate; the guesser must consider whatever variation there may be in the kind of hay, whether it is coarse and heavy or fine and light, or green or ripe. Experience is easily gained by estimating a few stacks and weighing them. The rules for finding the number of cubic feet in any solid body will be found in any good school arithmetic or mechanics' guide to mensuration.

TREATISE ON THE CHINCH BUG.

Bulletin 66, of Ohio Station, just issued, is an exhaustive treatise on the chinch bug. The farmers of that state are warned that many of last year's second brood have survived the winter, and are now laying eggs. If May and June are dry, the pest may become serious. Each female lays about 500 eggs, usually depositing them at the surface of the ground on stems of grass and grain, and in fare cases on other plants. Burning such harbors will destroy millions. The first brood appears in May or June, the second in July or August, according to latitude—the farther north the later. The second brood lives through the winter, if not exposed to exceedingly severe weather. The young are red, but grow darker, the mature bug being black and having wings. The station distributed 700 packages of diseased bugs to 37 counties last season, and has kept a supply which is now increasing, and will be prepared to suppy all demands from Ohio. There are indications that the disease disseminated last year survived the winter along with the bugs in the open fields, and if so this will materially aid the farmers. Heavy rains are not only fatal to young bugs, but moist weather favors the spread of the disease among them. Plowing and ditching ahead of the advancing column, and spraying the bugs with kerosene emulsion are effective means of warfare. This insect never troubles rough broken countries, but confines its ravages to level plains.—Home and Farm.

MAKING BUTTER.

The farmer that is isolated from markets and is obliged to barter his butter at the store for eight or ten cents a pound will never get wealthy, and the best thing he can do is to join with his neighbors and try to induce some one to put in a creamery. The cow worth from $50 to $75 and given $30 worth of feed in a year, if judiciously handled, one dairyman says, near a good market will make a profit for her owner. She should produce 6,000 pounds of 4 to 4 and one-half per cent milk, which, sold to a creamery at the average price of 80 cents a hundred, would return $48 to $54 a year. Besides there would be the skim milk, the calf and the manure. Twenty dollars to $25 is considered a good profit on a cow after paying for feed and labor, saying nothing about the by-products. The cow that produces 300 pounds of butter a year will do so at a cost of ten cents a pound, if she is well managed. The average cost, however, is about 12 cents a pound, based on the price of feeds from year to year. The cow that produces only 200 pounds a year would do so at a cost of 15 cents a pound, and the 150 pounds a year cow at a cost of 20 cents, taking it for granted that the feed is the same in either case. The solution of this question is, maximum quantity at minimum cost, or, in other words, make the cow produce the greatest amount possible at the least possible expense.

A POINT FOR THE RENTER.

If any man should be a good farmer that man should be the one who rents land upon which to make his home and grow crops. He does not like to move from place to place any oftener than is necessary. It is not profitable to do this. Every intelligent farmer understands how necessary it is in order to get the most profit out of the acres of a farm that there be some system observed throughout a series of years in the matter of crop rotation, hauling out manures, keeping up farm repairs, and a hundred odds and ends that go unlooked after when the renter expects to stay on the place but for one year. As the country grows older it is likely that this better policy will hold in these matters in the interest alike of the owner of the land and of the man who is working it.

The point uppermost in mind in this connection is this: Farmers everywhere complain, often justly, of high rents and of the exactions of landlords, etc., but then the landlord complains loudly also of tax-collectors, and of small returns upon his investment, and all this sort of thing; and now here is the point for the renter of lands—farm fewer acres, half the number if you please, and double the yield. If you can pay cash rent and are a good farmer pay it and get the full benefits of your superior methods, but if you cannot pay cash, farm fewer acres any way and make the yield large and your landlord will beg you to stay. As suggested at the outset the renter should be the best farmer in his neighborhood. There is scarcely such a thing as a limit to the possibilities of production within the reach of the man who gives his whole time and skill to a reasonable number of acres.—New York Tribune.

NEW POINTS IN FERTILIZING THE PEACH.

When peach trees are set eighteen feet apart each way, as is the practice in most northern states, there are 130 trees to the acre. An average of three bushels per tree for orchards five years planted, is considered a good crop. Analyses (by Winton and Ogden, Connecticut experiment station, report '95) show that in such a peach crop of 190 baskets, there is contained, of nitrogen 19.7 pounds, potash 21.9, soda 1.2, lime 1, magnesia 1, oxide of iron 0.1, phosphoric acid 4.2, sulphuric acid 1 and chlorine 0.4 pounds. Jenkins adds that, contrary to the commonly received idea, the pulp of the fruit contains the greater part of both the nitrogen and mineral matters. Only about one-fourth of the nitrogen and one-fourth of the ash elements are contained in the stones.

In a paper on fertilizing orchards, Dr. Jenkins shows that the [illegible] healthy peach twigs of one year's growth, from the orchard of the late P. M. Augur, contained 1.87 per cent of ash, of which 54 per cent was lime, magnesia 9 per cent, potash 16, phosphoric acid 4, and sulphuric acid 7 per cent.

It will thus be seen that both tree and fruit require liberal quantities of ash elements, especially lime. The mature leaves of oak and chestnut trees contain, with about 30 per cent of water, 3 to 4 per cent of ash, and of the latter, 30 to 40 per cent is lime.

"Where the water of wells or springs coming from the soil is soft or but slightly hard, the orchard needs lime to be supplied. This substance dissolves rather freely in the drainage water and is therefore subject to constant waste. In case of soil found in a number of states the natural supply of lime comes from rocks (boulders, gravel, sand and rock-dust) which contain but little and yield it up very slowly. For those reasons wood ashes or cheap lime should be broadcast at the rate of some 500 pounds per acre, yearly. If, as is becoming more common, scarlet clover or other legume is sown to gather nitrogen, this dressing of lime and a liberal use of potash salts will probably be essential to the highest success."

ONE WAY TO MAKE A LAWN.

Leaving the old house behind, one of the first to dot the prairies in the late forties, means leaving the yard in this case, as our present habitation is a few rods from the old one, writes L. C. Greene. The new location was well sodded with bluegrass, but the lay of the land in its natural state was scarce suitable to the artificial make-up about a completed dwelling, so no sign was put up, "Keep off the grass." When moving the dirt from the cellar it was put where it would arrange the yard in the best manner. Soon as the wall was completed the dirt was graded up around it in good shape. A few days previous to this a heavy shower washed dirt out of a cornfield into the roadside—twenty tons or more—about ten rods distant. We drew off this dirt and covered the new dirt to a depth of four inches, then sowed winter wheat and red clover on it. That was done in July. They made an excellent growth. Did not allow any blocks or pieces of brick or mortar to be scattered about or tramped into the ground. It happened to be dry while doing the outside work. The ground was not tramped, so the wheat and clover grew close up to the wall.

In December the yard was covered with clover halm, which was never taken off. The wheat and clover wintered nicely. When the wheat was about sixteen inches high, or just before the heads came out, I mowed it rather high. It will grow up again; will probably get three growths of this kind from it, while it is giving the clover an excellent chance, which is better than letting a crop of wheat ripen and seeing the dead stubble the rest of the season. Then it will not do to cut too closely, or everything would be dead before September. You see what I am after is to get that ground filled full of clover roots, then about November will sow white clover; then mulch with bluegrass hay cut when the seed is ripe. This will not be taken off. Then another year let the red clover have growth enough to shade the bluegrass and white clover a little, and I think there will be a sod established that will last for some time to come.

Paper Dishes.

Machinery for shaping plates, dishes and other ware from paper pulp has been introduced in this country and Germany with fair results, says the Paper Trade Journal. The dishes are shaped almost entirely by compression; heavy plungers, fitted with correctly shaped flanges, are forced upon flat sheets of the pulp, and the outer rim of each flange being fitted with cutting devices, a plate is cut, shaped, compressed and made ready for baking at one operation. A new feature, which has not as yet been heralded, owing to its recent perfection, is a process of plating the dishes to imitate china, silver, etc. The aim of the new process is to enamel or plate the paper pulp dishes with a substance as effective as the best used in crockery manufacture, and at the same time very inexpensive. This substance is procured from waste silk. Defective cocoons, cocoons containing a double end, waste made in winding, waste procured from the silk factory, floor sweepings from the silk mill, and in fact anything pertaining to silky wastes are utilized. The waste is gathered, dried, cut up, ground and then dissolved. The field for its use has been very limited, and it is consequently a cheap substance. Sometimes two or more baths are needed to effect a good coating of the silky material. After the plates have received the enamelling, the usual finishing processes of tableware follow, thus completing the goods for the market. The meritorious features of the plates and like ware made from such light durable and elastic stock as pulp paper are well known. The elements worthy of notice in the plating process are cheapness, lasting qualities of the plating, gloss, smoothness, anti-cracking of the enamel and neatness.

Gold has been found in Chen-Chow, China.

A QUEER SUBSTANCE.

ASBESTOS ABSOLUTELY FIREPROOF AND INDESTRUCTIBLE.

A Connecting Link Between the Animal and the Vegetable Kingdoms---Its Many Uses in Modern Life.

Asbestos is a curious sort of a connecting link between the vegetable and the mineral kingdoms, and since the discovery of methods of utilizing it to advantage it had steadily crept into favor in many curious ways. For instance, firemen in London and Paris, clad in asbestos clothing and masks, walk through the hottest flames with comparative impunity. Asbestos fireproof curtains have reduced the mortality of theatre fires in a very appreciable degree. In torpedos, the difficulty of dealing with the charges of wet gun cotton is overcome by inclosing them in asbestos, the employment of which has also, in a great measure, brought the dynamite shell to its present efficiency. Asbestos is made into a cloth available for aeronautical purposes. A balloon made of this uninflammable material escapes one of the most terrible dangers to which an ordinary constructed balloon is liable. Probably one of the first applications of asbestos in this country was to roofing. "To buildings covered with this material the shower of sparks from a neighboring conflagration involves no danger. One of the largest branches of asbestos manufacture is that of sectional cylinders for pipe coverings, for retaining the heat of steam and other pipes, felt protective coverings for boilers, frostproof protections for gas or water pipes and cement felting, which can be laid on with a trowel, for the covering of steam pipes, boilers or stills.

An interesting innovation in this class of manufacture is asbestos-sponge. It is not generally known that sponge has great powers of fire resistance. The discovery was made accidentally not long ago, and the result was that a consignment of scraps of sponge picked upon the southern coasts was ordered for experimental purposes. The sponge was finely comminuted and mixed intimately with asbestos fibre. The combination was found so successful for any covering which had to be fireproof as well as heatproof that the material has become standard. Being full of air cells, it necessarily makes an excellent nonconductor. Another very extensive department in asbestos manufacture is that of packings. Of these there are an infinite number of forms.

To the electrical engineer asbestos is absolutely indispensable. Many parts of electrical devices and machinery and wires through which the electric current passes become heated, and were it not for the electrical insulating and heat-resisting qualities which asbestos possesses, the apparatus would be completely destroyed, particularly in the case known to electricians as "short circuiting." For such purposes it has been found advisable to combine asbestos with rubber and other gums, and this combination is now used universally for not only electrical, but also steam and mechanical purposes.

One of its special uses is for wall plaster. This is a new application which will have a distinct effect in modifying the practice of indoor plastering. Instead of the ordinary tedious and elaborate preparation of studs and strips and the use of inferior and dust-creating mortar, with its after-scoring, which is necessary to give cohesion to the final coat of plaster of Paris, a single coating of the asbestos is laid on. It has a glossy surface that will not crack, as, while firm, it is perfectly flexible. It can be put on the raw brick; and a room of which the walls have been built in the morning can before night have a smoothly finished interior surface, shining like glass and hard as a rock. A kindred application of asbestos is now coming into vogue in the shape of uninflammable decorations for walls and ceilings. These are used a great deal for the saloons of steamships. They are embossed in very beautiful designs, and can be treated with gold varnish, lacquers or any other substance for the enhancement of their ornamental effect.

In itself, asbestos is a physical paradox, a mineralogical vegetable, both fibrous and crystalline, elastic yet brittle, a floating stone; but is capable of being carded, spun and woven as flax, cotton or silk. In appearance it is light, buoyant and feathery as thistledown; yet, in its crude state, it is dense and heavy as the solid rock in which it is found. Although apparently as perishable as grass, it is older than any order of animal or vegetable life on earth. The dissolving influences of time seem to have no effect upon it. The action of unnumbered centuries, by which the hardest rocks known to geologists are worn away, has left no perceptible imprint on the asbestos found imbedded in them.

While much of its bulk is of the roughest and most gritty materials known, it is really as smooth to the touch as soap or oil. Seemingly as combustible as tow, the fiercest heat cannot consume it, and no known combination of acids with destructive effect on the appearance and strength of its fiber, even after days of exposure to its action. It is, in fact, practically indestructible. Its incombustibility renders it a complete protection against flames, but beyond this most important quality its industrial value is augmented by its non-conductivity of heat and electricity, as well as by the important property of practical indestructibility in acids.

Asbestos has been found in almost all parts of the globe. It comes from Italy, China, Japan, Australia, Spain, Hungary, Germany, Russia, the Cape, Central Africa, Canada, Newfoundland, Texas and other parts of this country, and from Southern Mexico, Central America. The asbestos of the different countries is as varied as its characteristic foliage. The Italian, a soft and white, rock-like form of the mineral from the Pyrenees, is an almost direct contrast to the harsh and brittle amphibolite of Servia, unpleasant to handle with its fine needles, like the particles of slag wool, which insidiously penetrate the skin. The Corsican variety is long, soft and silky, its silvery white to pale gold tufts resembling skeins of silk neatly wound from a cocoon, while the Canadian regular Scandinavian forms are short and rugged as the country from which they come. It may be said here that while the appearance of asbestos often proves ten very deceptive as a gauge of its commercial value, the points generally sought for in the mineral are the length and fineness of fiber, combined with infusibility, toughness and flexibility.

POWER FROM REFUSE.

Electric Lighting and Other Uses of Power From Garbage.

Garbage and town refuse disposal is one matter where the cities of England are far ahead of those of this country. An ideal plant of this kind is that at Rochdale. Investigators have all found that burning is the best way to get rid of the accumulations. This preference is due to the fact that by this method not only is all organic matter rendered innocuous, but it becomes a menace to the health of the community destroyed, and can be made to work with any degree of economy. A hardware clerk says that now they have calls for "Anderson's handles," the customer not being aware of the fact that he is describing the man who holds the tool. W. H. Lessig. His handles are used in several counties hereabout. They are used in Huntington, Wabash, Allen and Wells counties. Lessig lives in a humble cottage some miles northeast of the town, along the old canal. He tills the soil in summer and turns his entire attention to handle-making in winter. Recently he was in the city, and went away with $67 in his pocket, received for handles sold.

Life in the Deep Sea.

The report of the soundings made by the Challenger shows that the bottom of the deep sea is covered with worms, or annelids, which swarm up from the depths varying from 100 to 1,000 fathoms. At a depth of 1,000 fathoms his nets caught a beautiful specimen of the ceput medusae. The specimen was preserved and is now in the British Museum in alcohol.

THE KING O... ESTI...

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Mr. Clark is a ... and middle age ... multi-millionaire ... his colossal fo... pearl-fishing a f... a reddish beard, ... a quiet, conside... is very interestin...

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"Where the sh... ceding and the w... to be found the ... biggest pearls.

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"It is because of ... trying to make ... my own farm, whi... and stocked by a... have caught."—Sai...

THIRTY EIGH...

A Telescope That ... Close to ...

The huge block ... becomes the universe ... cope has safely a... all goes well the ... 1900 will be able to ...