

AGRICULTURAL HINTS

AN IDEA FROM OHIO.

Neighbors There Got Together and Installed a Co-operative Corn-stalk Shredder.

There are perhaps many farmers who realize the value and convenience of shredded fodder but do not feel that the results justify the expense of personally owning a shredder. Two years ago we hired a husker and shredder, the first one ever in our community, at \$10 per day. But with cold weather, short days, moving the machine, etc., we found it a very expensive method. Besides, the owner was some distance from home and did not like to stop work when the fodder was not in the best condition for storing. Last year eight



COOPERATIVE CORN SHREDDER.

of us, neighbors, bought a husker and shredder, including a knife grinder, etc., for \$225, or \$25 per share, as one stockholder was allowed two shares, he having about twice as much corn as the others. He also had to furnish two men when husking, as it took nine to work it up to full capacity; two in the field to load, three to haul corn from field, one to haul husked corn and three around the machine, to haul water and keep the thing moving in general. They also took turns in feeding, as that was perhaps the hardest work in connection with it.

Each shareholder was charged three cents per shock, 144 hills, for what he had husked, and was allowed ten cents per hour for helping the others, no charge being made for teams or wagons, as they would have been idle anyway. We found this better than husking at so much per bushel, as it was less bother. If one's corn was good and large, it cost him less proportionately than his neighbor, but as it took longer to husk it he had to pay for more labor, and vice versa, so that at the settlement things were pretty well evened up. We hired a man with his traction engine and necessary outfit, at 50 cents per hour actual running time. As most of us had considerable stock to feed we began at eight a. m. and quit at four p. m., so that we were not "rushed to death." If the fodder or fields were not in good condition we quit until they were. One of the number kept account of the shocks and time we were at work. In 110 hours we husked 1,700 shocks, which made at least 3,500 bushels shelled corn. Much of the crop had been husked by hand before getting the machine.

This plan gave very good satisfaction. This year, however, we have not accomplished much, as the weather has been so unfavorable. We found no difficulty in keeping the fodder, if practically dry when shredded. The blower is much better than the old style carrier, as that requires a man in the mow, which causes the fodder to heat where tramped over. We tried stacking the fodder and it kept very well, except where the blower deposited on the stack. But it was quite a job to stack it, and much of the lightest and best parts of the fodder were blown entirely off the stack. It was also quite a task to haul the shredded fodder to the barn, as it is difficult to handle by ordinary means. A neighbor had some baled, but did not find it profitable selling it in competition with hay at \$10. He said the bales were nearly all moldy when opened for feeding. Shredded fodder is all right if one has mow room to store it, and plenty of stock to consume it, otherwise we doubt its value when compared with its cost.—Ohio Letter, in Rural New Yorker.

President Roosevelt says: "While I am a son of Harvard, I believe that the state land grant institutions are doing a greater work and are closer to the hearts of the people than many of the older and better equipped colleges."

The time to shape the heads of trees is while they are young. Then the tops can be easily trained in almost any shape desired.

THE DISEASE OF BEES.

Foul, Black and Pickled Are Most to Beared and Should Be Stamped Out Promptly.

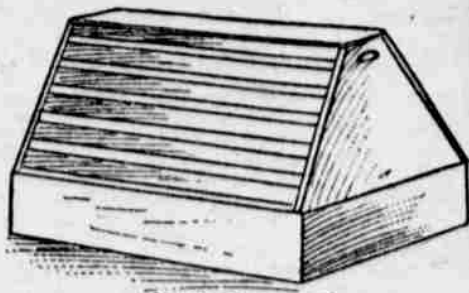
It has been said that bees are less liable to disease than any other living things. It is probably because the older members of a colony are constantly giving away to younger ones. Nothing but a contagious disease can do much harm where youthful and vigorous members are being added to the family almost daily for a great part of the year, says the Farm, Stock and Home. Therefore, if bees lack thrift, start brood-rearing briskly, and if the queen is at fault, substitute another. Therefore, we have little to fear from any disease that does not attack the brood or young hatching bees. Luckily, we have but one such disease, "foul brood." The novice in bee-keeping need not be at loss to know foul brood at sight. It has two features which make it easily distinguishable from "black brood" and "pickled brood," which somewhat resemble it. Foul brood always has an odor somewhat resembling that of a glue pot, and the matter contained in the cells is always ropy, will stretch like rubber and snap in the middle.

Of late years a good deal has been written about what, for a better name, has been termed "pickled brood;" and another disease of like nature has gained considerable headway in many apiaries in New York, which is at present termed "black brood." The diseases are not so well understood as yet as is foul brood. We are not prepared to state positively whether these diseases are contagious or not. For several years we had what appeared to be pickled brood in both of our yards, some colonies had only a few cells of dead brood scattered here and there with the cappings sunken down slightly, and a little pin hole in most of the diseased cells, and in some cases it seemed as if the young bees matured to the point of hatching and then died. They would cut their way partly out of the cell, but seemed to lack the strength to come clear out. All the diseased matter was usually left in the cells, as the bees seemed very unwilling to clean them out. We were alarmed when the disease first made its appearance, but soon decided that it was not serious, for with one exception the colonies affected showed up about as well as their healthy neighbors. The expected colony was seriously affected for two seasons, and in the fall of 1899 had but few bees to go into winter quarters. They gave no surplus that season, but had over 20 pounds of honey for winter stores. They were put in the cellar along with the others, and died soon afterwards, leaving the honey almost intact. We would impress upon the mind of every beekeeper who reads this the necessity of extreme care in handling all colonies that have any disease in the least resembling foul brood. The germs of that dread disease are contained in the honey, and are conveyed from one hive to another by robber bees getting a load of the diseased honey and feeding it to the larva in a healthy colony.

NEAT SHIPPING COOP.

If Built of Good, Sound and Light Material It Will Last for a Long Time.

Here is a very neat and attractive coop, and about the best coop for shipping to near-by customers and the show-room. When you ship your birds to the poultry show, line the inside of the coop with unbleached muslin, to prevent your birds from soiling their



FOR SHIPPING POULTRY.

feathers. Whenever you use the coop to ship birds to a customer, request him to return the coop, and it will last for several shipments. In building the coop use good, sound and light material. For the ends and partition use three-quarter-inch dressed pine, and for the bottom, sides, slats and top use half-inch pine. Put the slats on with screws, and then it does not make any difference which slat is taken off to remove the birds. For single birds build the coop 12 to 14 inches wide and 20 inches long and 20 to 24 inches high; for a pair, 16 inches wide, 20 inches long; trios, 20 by 20. Double coops with partitions should have two separate slats to remove so that the birds can be taken out of the coop without any trouble. The top of coops should be from four to six inches narrower than the bottom, says the American Poultry Journal.

In profitable farming the farm products must be put in the form in which they will command the most money and yet leave the farm in the most productive condition.

NEW STATE TAX LAW

Synopsis of Measure Prepared by Committees from Both Houses.

County Assessors to Have Charge of the Listing of All Property Except Railroads for Purposes of Taxation.

Lincoln, Neb., Feb. 19.—This summary of the revenue bill, which in its completed form is now in the hands of the joint committee for final review, pending introduction in the house, was prepared by Representative Thompson, of Merrick:

One of the most important changes made in the existing law is the provision for county assessors who are to be elected at the general election in 1903, and who shall hold terms of office for one year and shall not be eligible to re-election, and shall with the consent of the board of supervisors determine the number of deputy assessors to assess the property in his county, and the same shall be subject to removal by the county assessor.

The salaries for county assessors in counties having a population of \$5,000 or less, \$250; a population of 5,000 to 10,000, \$350; from 10,000 to 30,000, \$500; from 30,000 to 50,000, \$600; from 50,000 to 100,000, \$1,200. The compensation for deputies shall be at \$3 per day for each day necessarily employed. The deputy assessors are required to assess property upon actual view thereof. Stringent provisions are made for the assessment of property belonging to parties removing from one county to another and to secure the listing for taxation of property brought into the state of Nebraska for grazing purposes.

The bill creates the state board of equalization and assessment, consisting of the governor, auditor, treasurer, secretary of state and commissioner of public lands and buildings.

The county board, county assessor, and county clerk shall constitute the county board of equalization, the county clerk being the clerk thereof. This board is provided with powers of equalization to hear complaints of those who feel themselves aggrieved by reason of some other taxpayer being assessed too low. They shall at their meetings in 1904, and every four years thereafter, revalue all the real property, which is only to be assessed once in every four years, but betterments are to be added thereto and losses to be deducted therefrom when they exceed \$100.

Insurance companies, express companies, telegraph and telephone companies are to be locally assessed, and the basis of such assessments shall be the gross receipts of such companies in the localities in which they transact business. The tangible property of these companies is to be locally assessed as other personal property. Special provisions are incorporated in the bill for reaching pawnbrokers, interest on government bonds and also specific provisions for the assessments of corporations, pipe line companies, railroad and car companies, by which it is sought to render cars not owned by companies in this state, but transported through the state liable to be listed. All property is to be assessed between the first day of February and the first day of April of each year.

On or before February 1, 1904, and annually thereafter, the officials of all railroad companies doing business in this state shall make and file with the state board of equalization and assessment a statement of all the property owned by such companies on the 31st day of December preceding. The act provides a penalty for failure on the part of any corporation to make the return as provided for, the corporation to forfeit to the state a sum not less than \$1,000 or more than \$5,000 for each offense, a recovery thereof to be had by an action in the name of the state. It is also provided that this return shall not be conclusive upon the board, but that the board may from such information as it has or may procure otherwise, assess the corporate property on the same basis as all other property. The valuation of each road is to be obtained by dividing the total value by the number of miles of the line within the state. The state board of equalization and assessment shall have power to require the attendance of officers of railroad companies, their agents, and all other witnesses, and to require the production of books and papers and records which it may deem necessary.

Another important feature of the bill is the liability of the county treasurer, who is ex-officio the collector of all taxes in his county. Upon the receipt of the tax rolls by him he is charged with all taxes assessed against the personal property of his county, and he and his bondsmen are liable therefore, unless he shows collection of the same or a full compliance with all of the requirements of the act relative to his duties in the premises.

On May 1 of the year in which taxes shall have been assessed unpaid taxes

upon real property, except in cities otherwise provided for, shall become delinquent and draw ten per cent. interest. September, distress warrants shall issue. It is provided that the treasurer shall collect delinquent taxes by distress warrants and the sale of the property. Distress warrants shall be issued against all persons who are delinquent for taxes of 1903, or any year thereafter, unless such person shall file an affidavit of poverty, in which case distress warrants shall not issue. The county treasurer of one county is given power to issue distress warrants to the treasurer of another county. Drastic penalties are provided for the tearing down or removal of buildings located upon real estate against which there are delinquent taxes; the lien of the tax following such removed property wherever it may be taken or in whatever form it may be converted. When the county treasurer becomes aware of such tearing down or removal it becomes his duty forthwith to issue a distress warrant and to follow the property wherever he may find it.

Taxes upon real estate are made a lien from and including April 1 until paid; upon personal property from and after October 1. All general taxes due the state or any of the subdivisions thereof are made a first lien upon the real estate upon which levied. Special assessments regularly assessed and levied are made a lien on real estate, but are junior to general taxes.

All real estate on which taxes are not paid by November 1 after they become delinquent is by the act made subject to sale. The act provides the manner in which the sale provided for is accomplished; and the county treasurer is to make out a list describing the land and the unpaid taxes against it, providing for the publication thereof for three consecutive weeks and providing the formalities of the sale. Any person who offers to pay the amount of the tax due, or the smallest portion thereof, shall be the purchaser of the same, and when he designates the portion the taxes against which he will pay, that portion is to be considered an undivided portion. But the treasurer may sell the whole.

The act contains a provision for the purchase of real estate, on which taxes are delinquent by the county board for the benefit of the county. When such purchase is made it is provided that the county treasurer shall issue a certificate of purchase for the land which is to be held in his hands until any person who will pay the amount due thereon is found, whereupon the county treasurer may make an assignment thereof to be attested by the indorsement of the county clerk.

Whenever it shall appear to the county board that any tract of land is of less value than the amount of taxes upon it, it shall be the board's duty to fix a minimum price for it, this price to be certified to the county treasurer, and such land to be sold at private sale for not less than such price, irrespective of the amount of taxes due against it, and the land shall thereupon be divested of all tax.

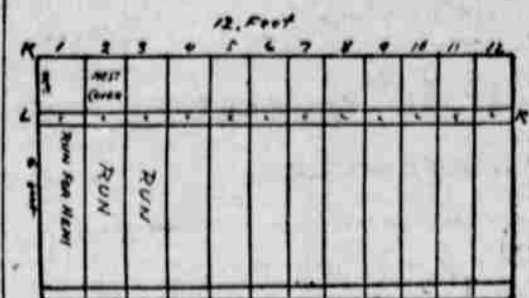
No purchaser of a tax sale shall be entitled to a deed until it is shown that at least two months before the time of redemption he caused a notice to be served upon the owner of record or his agent, stating therein the amount due and the date when redemption expires. If the person cannot be found notice by publication may be had. When these conditions are complied with and at any time within three years after the expiration of two years the county treasurer shall on request execute to the purchaser a deed on the premises described in his certificate. The deed shall have the official seal of the treasurer and be acknowledged by him and will then be entitled to record as other conveyances, resting in fee in the grantee and his heirs the title thereto. Such deeds are declared to be presumptive evidence in all the courts of this state and in all controversies relating to the rights of the grantee, his heirs or assigns. The act makes further provision with reference to the manner in which the owner may defeat the title of the purchaser, by showing that the property was not subject to taxation, that the taxes had been paid before the sale, that the property had been redeemed or that here has been an entire omission to list the property. But no person shall be permitted to question the title without first showing that he had title at the time of the sale, or that the title had been acquired from the United States after the sale, or that the taxes had been paid by the claimant or his grantees. It is also provided in such cases that the claimant against the tax deed may show that he paid his taxes, but through a mistake the entry thereof was made upon other land. He may also show fraud on the part of the purchaser, and if it is established the deed is void. Provision is also made for the foreclosure of tax deeds and tax sale certificates in the district courts and permitting several tax deeds or certificates to be foreclosed in one action without constituting a misjoinder of causes of action or defenses.



HOME-MADE HATCHER.

Device Here Described Has Been Used by Its Inventor for Several Years with Success.

The accompanying illustration is a diagram of a home-made hatcher, which I have used with great success for two years. Take three boards 12 feet long, 14 inches wide, and construct a pen 12 by 6 feet. From corner K to point L, 14 inches, nail a three-inch board from end to end to point M. Then divide that side of pen into nests, using scrap boards, if necessary, for partitions, making each nest 14 inches square, placing a narrow board direct-



CHICKEN HATCHER.

ly below L M on edge to secure partitions. The top of hatcher on side of nests may be covered with one wide board running full length. Or if one has time, money and tact the cover of each nest may be hung with hinges at points 1, 2, 3, 4, etc. Leather makes a good hinge. At point C place a board upright wide enough to make the pen dark and secure the hen in the enclosure. Now construct runways for the hen where she may eat and drink at will. These runs are best made of lath, and should extend from L to N, and 14 inches wide, giving each hen a separate enclosure, excluding all intruders. These slat covers slip under board L and board N. As soon as a hen wishes to sit, place her at night on eggs in one of these nests, fastening her in securely with board at C C, making the pen quite dark, and let her remain until feeding till toward night the next day. Then let her out into the runway to eat and drink. She will return to nest and require no more care. The earth in the runways should be loose and a few ashes thrown in, that the hen may have her required dust-bath. It is best to fill the entire 12 nests at one time, or half of them at least. When my flock is small, and I wish to rush the chickens, I give the 12 broods to three or four hens, and reset the hens, if they seem healthy and not needing rest. I use tomato cans fastened securely in corner of runway for water. This hatcher may be made larger or smaller, as one's needs demand. Last year I hatched 129 chicks from 156 eggs set in this hatcher.—J. K. Sexson, in Agricultural Epitomist.

CATTLE VACCINATION.

Philadelphia Professor Announces a Sure Way of Defeating Tuberculosis in Bovines.

Dr. Leonard Pearson, dean of the veterinary department of the University of Pennsylvania, announces that he has discovered a method of vaccination whereby cattle may be made immune to tuberculosis. He has been assisted in his experiments by Dr. S. H. Gilliland, demonstrator in bacteriology in the veterinary school.

In a recent experiment Dr. Pearson used four young cows which were as free from symptoms of disease as any that could be procured. Two of these were vaccinated in March. In July all four were inoculated with tubercle bacilli. All were killed in the following October. The two which had been vaccinated showed no signs of tubercular infection, but the others had marked traces of the disease.

In the process of vaccination a suspension of tubercle bacilli which is nonvirulent for cattle was injected. The operation was repeated at intervals and the quantity of matter in for a few times failed to appear.

"I consider that the principle of immunization," Dr. Pearson said, "as shown by our experiments, is proved and it is now only remains to work out the details of the method. This work is to be continued on a larger scale for the purpose of ascertaining the simplest and shortest practicable method of vaccination."

Irrigation in New England.

The idea that irrigation is profitable only in the arid regions is rapidly becoming obsolete, especially where the production of vegetables and small fruits is made a specialty. Forty acres devoted to the raising of garden crops in Rhode Island in 1899, where irrigation was practiced, amounted in value, according to the late United States census, to \$32,515, or an average of over \$800 an acre, whereas the average garden crop of the state grown in the usual way was only about \$100 an acre.—Farm and Fireside.