DON'T LET CROPS "FIGHT."

Professor Taylor of the agricultural economics department of the University of Wisconsin agricultural experiment station says no single farm crop grown in Wisconsin keeps the farm labor busy all the time, but by a proper combination of crops employment of labor can be extended materially throughout the year. There are, however, limits to diversification. For instance, corn and tobacco require labor at the same time for planting and cultivation and are therefore competing crops, but to bacco furnishes winter employment to labor when there is a scarcity of employment, and therefore to this extent these crops are noncompeting or complementary. The use of noncompeting crops may well extend the operations of the farm. ******************************

ROTATION AND STOCK.

Two Work Together to Bring Greater Profit to the Farmer.

In a bulletin of the North Dakota station R. C. Doneghue says of live stock in the general plan of crop rotation: "In regions of light rainfall the maintenance of the organic matter of solls is the most practical method of increasing their water holding capac-The plant remains. Straw, stubity. ble, etc., in these sections decay very slowly, and much care is necessary in returning organic matter to these solls.

"If live stock is fed on the farm and the straw and other refuse are worked into the manure it will decay faster While when returned to the land. a rotation can be used with profit if live stock is not kept, it is much easier to return the organic matter contained in the crop residues when they are fed on the farm.

"Live stock is not absolutely necessary when beginning a rotation, but for the average conditions when they are kept the profits will be greater. A rotation may be followed without the return of the organic matter for a time, but eventually it must be returned. If not returned in manure more expensive methods must be used."

PUT THE HOG IN THIS.

Homemade Contrivance Good Also For Moving Other Heavy Objects.

Here is the handlest hog chute we ever have seen, and it can be arranged out of an ordinary chute by taking a couple of cultivator or any other small wheels and putting them a little over midway of the floor from the rear end, says the Iowa Homestead. While any piece of strong timber will make a suitable axle for bearing up the chute, an axle from some old discarded spring wagon or buggy will



FORTABLE HOG CHUTE. [From the lowa Homestead.]

last practically a lifetime and prove much more satisfatcory than a wood When it is desired to move the axle. chute all that is necessary is to tlit and and push the fran the desired position, instead of the old, cumbersome method of tugging and dragging it around to where it was wanted. If the wheels are kept well greased or oiled and if the chute is not too heavy one can use it for moving heavy articles around that could not be carried by hand.

***************************** HOW UNCLE SAM HELPS.

W Tracey

Mrs E Lowe

C B McKee

F M Fowler

Wetsern Cedar Co

M Ellis and Co

G Lange

F Lange

G Lange

M Callaban

John Callahan

The White Co

State Highway-

A bulletin of the bureau of plant industry, "a study of farm equipment in Ohto," gives a most valuable review of important data of this character gathered and collated with much painstaking care by Mr. L. W. Ellis. On twenty-one farms investigated the following was found to be the average distribution of capital invested: In land, drainage and water sup ply, 61 per cent; in buildings, 21 per cent; in implements and machinery, 5 per cent, and in live stock, 13 per cent. The bulletin gives much detailed information, of which the figures just quoted represent a gross summary.

Ours is the day of scientific No longer need management the farmer slowly find his way to the best working conditions by a series of successive approximations. The government helps him to profit by the expertence of others who have preceded htm and have paid the heavy dues of that excellent but dear schooling.

DON'T BURN ROUGHAGE.

Expensive and Wasteful Practice With Cornstalks, Straw, Chaff, Etc. A contributor to Farm and Fireside writes

"A tendency exists among many farmers to burn up all cornstalks, loose straw, clover chaff and superfluous roughage about the place. But it is too expensive. "Every time an acre of stalks is

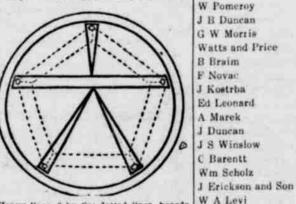
burned twenty one pounds of nitrogen go into the air, and it will cost you \$3.50 to buy it back again. Wheat or oat straw from an acre contains about twelve to fourteen pounds of nitrogen G Lang and clover chaff three times this F Lang amount. "One can easily figure from these

deductions what a reckless loss to the farm is a fire in the chaff pile or stalk field. The cutaway and disk harrows will chop these bulky materials up ready for the plow where they can be turned under. If you want to fatten the old farm, stuff it with organic matter."

FOR A SILO SCAFFOLD.

Directions For Making Necessary Part J E Johnson of Concrete or Tile Structure.

Should any one be thinking of building a concrete or tile silo the accom panying cut might help in building the scaffold. After the foundation wall is inid get five poles at least eight feet higher than you expect the silo to be. Set inside of the wall deep enough to hold poles in place. Lay



Heavy lines, 2 by 4's; dotted lines, boards to work on; five small circles indicate position of support poles.

Court Proceedings Continued from Page 3		W E Chandler
		J C McLeod
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A Nelson	2 40	F E Bostrick
F Banzer	2.40	C Starkey
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A Novotny	11 25	H A Robb
H Roddiman	7 50	N R Edmondson
S Hauppie	6 00	M S Jones
H Manugsen	7 50	S S Murphy
A Birkenfel	6 30	G C McCrillus
District No 14		J Clark
D Magill	30 00	R W Trine
E J Mills	6 10	V Burt
Eichman	8 75	B Smith
L C Boeck	16 55	W E Jensen
Louis Boeck	8 46	Orrin Backus
A L Parker	9 50	V L Johnson
Thos McDaniel	2 50	F A Boss
S Dollman	3, 50	W L Merritt
Distrit No 15		O E MeAdams
Geo McDonald	2 50	R A Backus
Henry Glahn	2 50	L F Sandstrom
I A Ray	1 25	E B Bishop
C B Armstrong	6 25	R C Schott
M J John	6 25	R A Wheeler
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Jensen Backus Johnson Boss Merritt MeAdama Backus Sandstrum Bishop Scholt Wheeler Larsen Doncison Hesse Anderson ers man Bros Lbr Co creupon, Court adjourned until cesday F, chrunry 4, 1914. RDINANCE NO- Con'd and incumbrances whatever; ction 6. That whenever any payof any assessment, interest or shall be made under the prons of this ordinance, the Recordall make an entry thereof in tien docket, with the date of the ; and such payments made and ed in said docket shall operate discharge of said lien to the int of such payment and from the thercof: Section 7. That the common council 12 50 of said city is hereby authorized to is-27 50 sue warrants based upon the credit of 3 75 said assessment district. to be known 11 25 as Tualatin-Winter Street Assessment 43 50 Warrants, District No. 1, bearing in-545 68 terest after indorsement, at the rtae of 22 05 six per cent per annuu, which said 20 00 warrants shall be accepted at par and 8 15 issued from time to time as required to 8 45 defray the expense of said ipmrove-8 75 ment; 30 00 Section 8. That said warrants shall 25 60 be drawn in such form and denomina-72 50 tions that the said taxes or any part of 70 00 the same when collected, may be made 90 20 immediately applicable to the payment 56 00 of some portion of said warrants; 35 95 Section 9. That as soon as the assess-37 50 ment provided for in section 4 of this 31 25 ordinance has been made, the common 40.00 council of said city shall publish notice \$2 50 of such assessment for two successive 42 50 weeks in a newspaper published in said 15 95 city, requiring all persons owning pro-4 00 2 40 perty in said street improvement dis-10 55 trict, so assessed for such improvement 25 oo in the sum of \$25.00 or more, at any time within twenty days from the date Gen, Road Fund 6 50 of the first publication of such notice, 35 oo to file with the Recorder of said city, a 13 50 written application to pay said assessment in installments; such application 1 17 shall state that the applicant and 105 18 property owner does hereby waive all 24 12 irregularities or defects, jurisdictional 17 10 or therwise, in the proceedings to make 41 60 such improvement for which said as-33 31 sesament is levied and in the apportion-53 86 ment of the cost thereof. Said appli-25 57 antion shall contain a provison that the 25 00 said applicant and property owner. 13 05 agrees to pay said assessment in ten 18 63 equal annual installments, with inter-7 89 est at the rate of six per cent. per an-48 77 num, payable annully; 7 15 Section 10. That the applications so 148 10 received shall be entered in a book 373 59 kept for that purpose, showing the 57 70 date of filing each application, the 5 53 name of the applicant, a description of 4 53 the property, and the amount of the 8 25 assessment; 33 25 39 15 Section II. That thereafter there shall be due and payable annually for 15 00 ten successive years to the Recorder of 22 50 said city, by the owner of each lot or 74 06 parcel of land so assessed for said 53 48 street imp ovement, whose application 5 87 to pay the cost of such improvement 36 12 by installments has been filed as here-18 87 in provided, ten per cent, of the cost of 31 17 said improvement so assessed against 158 00 said property of such owner, PS appears 96 77 by said lien docket, with the amont of 60 97 one year's interest at six per cant per 61 94 annum on all unpaid assessments or in-50 81 37 03 stallments. The first payment shall be due and payable at the expiration of 40 65 37 26 one year from the date of the said assessment in the lien docket aforenaid, 33 87 27 10 and subsequent payments at the expira-27 10 tions of each year thereafter. But 27 10 should such owner or owners neglect 27 11 or refuse to pay the sum or sums afore-24 52 said for the period of twenty days a 24 52 ter the same becomes due, then the

72 58 | same shall Le deemed delinquent and 58 C6 the Common Council of said city may lan is shall be sold subject to read 46 45 thereafter order a warrant for the tion as provided for under the 43 55 collection of the same to be issued lands upon execution, except the by the Recorder and directed to the 80 97 31 94 Marshal of said city. Section 12. Such warrant shall re-22 58 quire the City Marshal to proceed to 29 03 26 13 collect the unpaid assessments named having an interest in said land may therein by adveritiing and selling to would entitle him to redeem real 23 23 23 23 the highest bidder, the lots, parts perty sold on execution shall be a thereaf, or tracts of land described ed to redeem the same from the Hand 18 06 2 26 in such warrant in the manner pro- al at any time prior to the execution 15 48 vided by the law of Oregon for the a deed to the purchaser, upon the sale of real estate apon an exceution, ment of the amount bid at such ; 63 87 at the front door of the City Hall in with interets at the rate of site 37 74 5 16 said city; and such Marshal shall re- cent per annum thereon to the turn the proceeds of such sale to the of redemption, together with all a 150 00 city treasurer, and the warrant to the es paid thereon by such purcha 55 17 City Recorder, with his doings endorsed with like interest and any deed he 50 00 thereon, together with the receipt of in provideid for shall be made at 45 98 the treasurer, for such collections, 60.00 Section 12. All sales of real proper-55 00 ty for the non-payment of any street the making of deeds for pro 50 00 improvement assessment, shall be made sold upon execution. 50 00 at the front door of the City Hall in 40 00 said city; and notice of such sale may 24 52 be given through any newspaper of 40 60 general circulation in the city, and said 54 00 city, for want of other bi-lders at such 65 00 sale or sales, may become a purchaser 15 25 26 10 thereat. 66 75 W. J. MUCKLE PAINTS S.ISH HARNESS COWLITZ and RIVER STREETS 3 Some Suggestions

Bricklaying,

Section 14. At any such make certificates of sale shall be into the Marshal, all redemptions mat him and all deeds executed by him

And Provided Also, that any m after the expiration of the time pre ed by the laws of Oregon regulat

Read the first and second times & ruary 3 d, 1914. Read the third is ard passed Fbruary 9, 1914.

Approved February 9, 1914. A. W MUELLER, Mayer, Attest: E. F. QUICK, City Rees

Plastering

WASHINGTON MUCKLE MUCKLE HARDWARE COMPANY DEALERS IN HARDWARE OILS DOORS ST. HELE'S, OREGON KODAKS, CAMERAS, XMAS BOOKLETS, LETTERS, POST CARDS, BOOKS FOR OLD and YOUNG, GUITARS. VIOLINS, BANJOS, LADIES HAND BAGS, MUSIC ROLLS, GENTLEMENS CARD AND BILL BOOKS, PERFUMERY AND TOILET WATERS, CALENDERS AND NLW YEAR CARDS A. J. DEMING, DRUGGIST, ST. HELEN Coppersonantessessessessessessessessessessesses **FI ANS AND ESTIMATES FURNISHED ON ALL** KINDS OF WORK E. W. KE¹ CONTRACTOR IN Cement Finishing. Concrete Work

The Value of Limestone.

"As valuable as lime is on the farm when the correction of acid soils is necessary it is not necessary to pay exorbitant prices for it," said Porter Elliot of the College of Agriculture, Ohio State university. "At recent extension schools during the discussion of soil liming it developed that farmers were paying as high as \$9 a ton for carbonate of lime when ground limestone, which would do the work just as well, could be secured for less than a third of that cost. Get good ground limestone, and it will correct acidity just as readily as the best carbonate of lime you can find on the market. The farm profits will not increase until such useless waste is eliminated from the farm practices."

"GARDEN TRUCK."

The ground dries out more quickly under a high beaded tree and more fruit is blown off by the wind.

Manure the rhubarb and asparagus fields. Both crops are the best where there is an abundance of vegetable matter in the soil.

Asparagus roots, properly planted, fertilized and given good culture, will continue to produce large spears for fifteen to twenty years in succession.

If the currant or gooseberry bushes become infested with worms the pest can be abated by dusting the bushes with powdered white beliebore or spraying them with a solution made by adding the hellebore at the rate of a tablespoonful to a quart of water.

Lime dust around garden plants will. keep away snails. They may also betrapped by putting cabbage leaves, lettuce or bits of raw potato about the infested places, leaving over night and removing and destroying the then analls harbored by the trap material.

SCAFFOLD INSIDE SILO.

[From National Stockman and Farmer.] the silo as high as you can from the O B Beinett

ground; then take 2 by 4's or 2 by 6's and build frame for scaffold as shown in cut.

Leave plenty of room for poles to work easily; then floor as shown by dotted lines in cut. Attach a pulley to each pole and raise when ready. Then spike a piece under scaffold on pole. One scaffold does it all. The scaffold should have just play enough to let it slide up easily. Sometimes if it Libel-McCauley Co is too loose a wedge to hold it firm while at work should be put in.

The idea of having the poles longer than the silo is high is to get pulleys high enough for last raise .- National Stockman and Farmer.

Chicks Need Cleanliness.

Drinking dishes and feeding troughs for chicks are likely to become dirty and insanitary unless special precautions are taken, according to Professor J. G. Halpin of the College of Agriculture of the University of Wisconsin. Drinking water should never be placed in common dishes or vessels where the schicks may get in with both feet, but "sanitary" fountains, either homemade or purchased, should be used. These should be cleaned and scalded at frequent intervals. Wet mashes when fed in wooden troughs mold unless all refuse feed is scraped off and the troughs are placed on end so that they may dry in the sun. Neglect of these two simple matters may cause considerable loss.

Coverings For Silage.

The use of heavy tarpaulin to cover the surface of silage during summer feeding is being practiced quite successfully by some of the readers of the Kansas Farmer. The tarpaulia is very carefully spread over the whole surface of the slinge, and the slinge is removed from baif the surface only at J N Bishop each feeding, alternating from one side of the silo to the other. In this way a thicker layer can be removed from the A C Gillman surface fed from dally. The tarpaulin G W Stubbs cover retards the tendency to spoil on M S Kenedy the surface left untouched.

O B Bennett T A Riggs J K Gill and Co O B Bennett **Orrin Backus** D McDonald Kelley C C Hooley Geo B L O Vadnaia L O Vadnais Libel-McCauley Co Libel-McCauley Co Kilham Sta Co Mist Hotel Clatssanie Mercantille Co. Lyman Griswo'd Meier and Frank Co G E Richmond J K Gill Co J K Gill Co Kilham Sta Co Libel-McCaulley Co Libel-McCauley Co Columbia Argicultural Co Clatskanic Development Co. Barthold Bar; Co Libel McCatey Co J K Gill Co Libel McCaley Co Graham Bros Graham Bros Clatskanie M reantile Co C C Kelley P Van Scoey **D** Beckwith

DS Birkett

C H Gordon

H E Glenson

R Ripley

F J Marsh

G S Knapp

Chas E Fisher

