Caponizing is profitable.

Range for the chicks is best.

Sheep must have some shelter,

Separate the pullets and cocker-

Good feed, good care, good breed, good stock.

Some cows are better bred than their owners

Do not put the colts in a pasture fenced by barbed wire.

Do you have a lot of young roosters? Sell them for frys.

It's a mighty easy matter to overcrowd the chick coops now.

It may be wise to protect the colts from the flies during the day.

You cannot fatten your cattle while ticks are sucking their blood.

Hill culture produces earlier strawberries than matted row culture.

Unless a man has a great love for a horse he should not handle colts.

A sheep or calf staked in the

front yard is a splendid lawn mower. Warm skim milk for feeding pur-

Most of the fly dopes are fairly good but for results they have to be ap-

plied every day. Sheep have just as important a

place upon the average farm as any other live stock. Drink is all right for the hogs, but | quently the sign of a green hand man-

to go with their milk. There is plenty of farm talk in the

air, but it is farm work that counts in the bank balance. A good plan is to make the lots

long and narrow and sow them to pasture, plowing up alternately,

apt to become foul and unhealthy while the weather is so sultry.

grain and other feed to raise a litter of pigs if they be given pasture.

There is nothing about green fodder that would have a depressing influence upon the milk flow of the cow.

There are about a dozen different them all is the kind that suits you mal.

The best flavored butter is obtained from 5 to 6 per cent. of acid has been | country. developed.

Roughness cannot be made to enheavy crop of roughness is not to be tributing labor. despised.

Ground limestone is preferable to mer cost considerably more than one all lines of farming. ton of the latter. -

There are very few farms on which ing the seed bed would not yield recessary to the soil. bandsome returns.

A wide range and frequent exravages of the stomach worm, that producing cows themselves. fearful enemy of the sheep.

An enterprising farmer living near a town of 5,000 or more can sell every able one of the whole year and dairypound of his butter at full retail prices | men are beginning to find it out. or little above the year round.

without pasture and forage crops is good shelter. Lambs can not make like a puppy chasing his tail. He gets good gains with wet feet, or soggy plenty of exercise, but nothing else.

Sore shoulders on a horse are nothing less than shameful, and no man or coarse sand where the turkeys can should consider himself worthy who find it, as not all farms have sufficient permits them to appear upon his work quantity for the purpose of good di-

If horses are inclined to nab at each other between the stalls, put up no more common than any other comsome tight wire as a partition. They can see through this all right and still not reach each other.

The first incubators used in the of today would be impossible.

Clover silage is excellent.

Never whip a shying horse.

Keep all young stock growing

Clean coops mean healthy, profitable chicks.

Making baby beef is a high feeding

Young turkeys and dampness do not get along together.

Any soil that turns blue litmus paper pink needs lime.

If you haven't a hog house, prepare o build one next fall.

Experts say that topping corn ma temally reduces the yield.

Plenty of good loose dirt should be allowed the molting hens.

The manners of the horse usually reveal the temper of his owner.

Turkeys need a ride range. They do not do well confined to yarda,

Every day you keep the lambs after they are big enough to go is a loss.

Caponizing is another tob the farmer neglects-and thereby loses money.

Water the horse before you give him hay. Hay before grain, concentrates

Good feed will put life into a horse a hundred times better than an 8-foot

Pasture and exercise develops a strong frame in all kinds of young

stock.

Rye may be sown in the fall and used as a late fall and early spring pasture.

Stubble that cannot be stirred this fall should be disked to conserve the moisture.

Don't be in any hurry about weaning the heifers you will add to the poses soon pays the cost of a farm dairy herd.

> need plenty of cool shade during the hot months.

converts forage crops into marketable products. The green straw pile is not infre-

they need some grain and vegetables aging the separator. Keep up the supply of oyster shell

> The lime in it is an essential article in the production of eggs. It pays to grade melons, and it pays

> to market them in the large baskets

now growing in popularity. No land is so rich that its owner Remember, chick coops are very can afford to waste the manure that

In this hunt for the profit dollar, It will only take about half as much keep an eye on the combination of ensilage and clover or alfalfa hay.

is made by his farm stock

The foundation for a silo made of concrete and properly reinforced need not be more than twelve inches thick.

A half-blood Holstein cow bred to a registered Holstein bull will probreeds of dairy cattle and the best of duce a three-quarters Holstein ani-

Sheep must play an important part in the restoration of fertility to the by ripening or souring cream until wornout grain-raising areas of the

Rotation of crops is one of the sim pie, practical methods of increasing irely take the place of grain, but a the productivity of the farm and dis-

Illinois milk producers found they had to organize to get living prices ournt lime unless two tons of the for- for their product. This is needed in

The most profitable way of market ing grain and fodder is through stock. additional labor expended in prepar- They produce manure, which is very

As a rule, sons of great producing cows are more liable to beget large change of pasture will reduce the producing daughters than are great

> The cow that comes in fresh next month is just about the most profit-

A common error of the expert The man who is trying to raise hogs enced feeder is failure to provide

> It is advisable to place a box of grit gestion.

The failures in poultry culture are mercial activities, and are usually traceable to a want of proper knowledge of its requirements.

Re sure that the roosting quarters Unted States were tested in 1875. are well ventilated at this time of the Now thousands are in use in every year. Pure air is free and inexstate in the Union and wonderful pensive and will enter every nook progress has been made. In fact, and corner of the poultry house, if it without the use of incubators and is permitted. It is one of the very brooders, the big commercial plants essential things. Close, stuffy quarters are very injurious.

THREE DISTINCT AGRICULTURAL REGIONS IN U. S. SEGREGATED BY SPECIES GROWN

American Native Grape Is Grown Amost Eatirely in That Section of Country Lying East of Reeky Mountains - Few Cultural Methods Illustrated.

(By GEORGII C. HUSSMANN, Pomolo-| stated in the description of the variable, United States Department of our systems. The varieties most ex-Agriculture 1

There are three distinct viticultural regions in the United States which segregate themselves by the grape

species grown in them. The Vinifera region, in which Vinifera varieties are almost exclusively grown, is located almost entirely west of the Rocky mountains, so much of it being in California that those not Herbert, Iona, Isabella, Ives, Jaeger. conversant with grape varieties erroneously call them California grapes. With few exceptions either the spur, stool or short pruning system is used for the stockier growing varieties, and the long or cane pruning system is usually used for the longer growing varieties, but either system is often modified to suit individual varieties. Thus the spurs are sometimes left longer in the spur system, and either spurs and canes left longer or spurs cut on the laterals in the cane system.

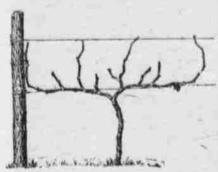
Stakes only are used to give the rines the necessary support; this method allows the vineyard to be cultivated crosswise as well as lengthwise. Vines trained on trellises are comparatively rare in California.

The more generally known Vinifera varieties grown in this district are the Alexandria, Alicante Bouschet, Aramon, Burger, Cabernet, Sauvegnon, Pocklington, Prentiss, Rommel, Sa-Calmette, Carignane, Chasselas de Fontainebleau, Cornichon, Emperor, Flame Tokay, Green Hungarian, Gre- Wetumka, nache, Malaga, Mission, Mondeuse, Mourestel, Pizzutella, Petit Syrah. Purple Damascus, Riesling, Semillon, Sauvignon Vert, Sultanina, Sylvaner, Valdepenas and Zinfandel.

The Muscadine region of the South Atlantic and Gulf states includes the entire southeastern coastal plain extending from the Potomac to Florida, reaching well up into the Blue Ridge tions in which comparatively few mountains and along the Gulf coast people become expert, and vineyards to the Rio Grande river, spreading to in which serious mistakes are not the north along the Mississippi river made are rare. It is well to remember that ducks into the great central plains to southeast Missouri and the Tennessee river. In this region improved varieties of the Rotundifolia and Munsonia spe- distance from the ground. The vines Live stock furnishes manure and cles are grown for various purposes, are cut back usually to four canes and the better-known varieties of these as many spurs each year; the canes being the Eden, Flowers, James, Mish. Scuppernong and Thomas. The multiple cross-wire system or overhead The illustration, A and C, shows an arbor is almost exclusively used. As previously mentioned, these arbors are very similar to the overhead trellis or parrales system used in Spain with the Almerian varieties commonly seen in our markets packed in cork dust and called "Malaga" grapes.

The third or American native-grape

tensively grown are the following: Agawam, America, Barry, Beacon Berckmans, Brighton, Brilliant, Camp bell, Carman, Catawba, Champion Clinton, Concord, Cottage, Cynthiana Daisy, Dawn, Delaware, Diamond, Di ana, Duchess, Eaton, Elvicand, Elvira Empire State, Fern, Gold Coin, Gaert



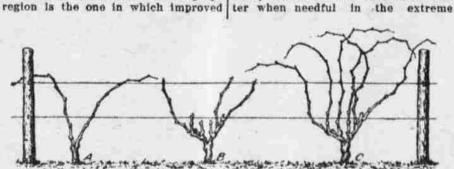
A Vine in its Fourth Year Pruned According to the Block System.

Janesville, Jefferson, Lady, Laussel, Lenoir, Lindley, Lutle, Martha, Massasoit, Merrimac, Missouri Riesling, Nectar, Niagara, Muench. Moore. Noah, Norton, Olita, Perkins, Perry, lem, Triumph, Ulster, Vergennes, Victor, Washington, Wilder, Winchell, Woodruff, Worden and Wyoming.

There are so many species of grapes, each having peculiarities of its own and therefore responding most readily to certain cultural methods to which it is best adapted, that the prun ing, training and growing of vines which otherwise may appear quite simple, become complicated opera-

In the fan system the vine growth which is trained to an upright trellis is annually renewed to within a short are spread out and tied to the trel lis, giving the vine the shape of a fan unpruned vine in the third and fourth years. B shows the same vine pruned the fourth year for this system.

The advantages claimed by the advocates of this system are (1) that most of the old wood is dispensed with each year, (2) that the vines can be easily laid down and covered in win-



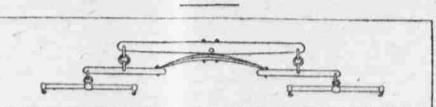
A Vine at Different Ages, Showing the Method of Training by the Fan System: A, an unpruned vine in its third year; B, a pruned vine in its fourth year; C, an unpruned vine in its fourth year.

This region comprises all that part they should be, the young uprightof the United States which lies east growing shoots fasten themselves by ington, but the industry is most extensive in the states west of the Hud- as formerly.

varieties of the more northern native | northern sections, and (3) that if grape species and hybrids of them after pruning the canes are tied and of the Rocky mountains. Of late their tendrils and need practically no years a few plantings have also been tying. This system has the disadmade in parts of Oregon and Wash- vantage of bearing the fruit too low and is not now so generally in use

son river and north of the Ohio river | A system combining some of the that border on the Great Lakes and points of several other systems is the in the more centrally located states horizontal block system. In this the of the Mississippi valley. In this dis- vines are manipulated as with the trict the high-renewal, horizontal arm other systems and pruned for the first spur, horizontal block, fan, Hudson four years, after which the unpruned horizontal, four-cane Kniffin, umbrella vine is pruned as shown in the illusor two-cane Kniffin, Munson, overhead tration. As practiced in some locali-Caywood and Chittenden systems are ties this system appears to be a comused, the localities in which they orig- bination of the high-renewal and the inated or are most common being horizontal-arm spur systems.

ABSORBS SHOCKS FROM HARD ROADS



When a team is pulling a heavy load over a rough road or pavement it is subject to repeated and sudden shocks, which cause much unnecessary fatigue. The illustration shows how to make a doubletree that will absorb all shocks and sudden jerks and prevent sore shoulders.

The spring may be one taken from an old buggy. All teamsters that care for their horses and want them to stand up to heavy work without constantly having sore shoulders should make and use a doubletree like the one which is shown in the accompanying illustration.

The County Fair. The county fair is of greatest prac-

the farmer or stockman enlists as an after on the farm, in improved live in, and purchase the stock from him. stock, improved machinery and a general spirit of advancement in all lines of agriculture. The county fair wellresults, that the county can secure.

Introducing New Blood. When one finds that it becomes tical benefit to the exhibitor. When necessary to introduce new blood in the flock first consider what are the exhibitor at the county fair, the seed special faults among your fowls, and of improvement has been sown and the then, if possible, find the breeder results will be found each year there- strong in the points that you are weak

Peanut as Hog Food.

The peanut is coming to its own as managed is the cheapest advertising a hog feed. It has been given a good medium, with the most far-reaching fair trial and it has stood the test most satisfactorily



MANY FAVOR TOULOUSE GEESE

More Compact in Shape Than Other Breeds and Gander Will Weigh About Twenty Pounds.

(By GEORGE E. HOWARD) Toulouse geese are more compact in shape than other geese, and are preferred by many for this reason, The head is rather large and short, and they have a comparatively short bill that is stout at the base; the neck is carried well up and is of medium ner, Goethe, Headlight, Herbemont, length, They have a broad back of moderate length, which curves slightly from the neck to the tail; their breasts are broad and deep. The body of the Toulouse goose is moderate in length, broad, and very deep and compact, the more compact the better; and in birds in good condition the belly almost touches the ground. Their wings are large, strong and fold nicely against the sides, and they have comparatively short tails and stout thighs and shanks. In color of plumage they are a dull gray. The head is gray and the neck dark bluegray, which shades to a lighter gray as it approaches the back; the back is of dark gray, while the breast is light gray. The body plumage is light gray, which grows lighter and becomes white on the belly; the white extends back to and around the tall, covering the fluffy parts. The primaries of the wings are dark gray or brown; the secondaries are a shade darker than the primaries, with very narrow edging of lighter gray, and the coverts are dark gray. The tail feathers are gray and white, the ends



Pair of Gray Toulouse Geese.

tipped with white. Their eyes are dark brown or hazel in color; their bills are of a pale orange color, while the shanks, toes and webs are of deep reddish-orange color,

The standard weight of the adult gander is 20 pounds; adult goose, 18 pounds; young gander, 18 pounds, and young goose, 15 pounds.

SEPARATING YOUNG AND OLD

Growing Pullet Requires More Food Than Old Birds and Feeds Better When by Herself.

young and still growing, and they need plenty of such blithe expression of eytology, flesh-forming feed, such as barley, Professor Donaldson's brochure on the

The hen should not be deprived of these either, but she can get along on but it lacks the gracile touch and faless, as what you give her will not be cile interpretation of the other. Eithtaken away from the purpose for which you intended it, as in the case with the pullet, which not only needs these things for making the egg, but and the Vinifera species are grown spread fan shaped on the trellis, as to go toward the development of her body.

It naturally follows, too, that the developed bird will require less feed than the pullet, and because the pullet is somewhat timid she is likely not to get enough, or even her share. The young will feed more free among themselves, and, if you can possibly do so, keep them to themselves.



Poultry and eggs are high every winter.

All poultry yards should have shade in them.

Movable, separate nest boxes are the only kind to have. Three months should bring a broiler to the market stage.

well. Better turn 'em loose. The care of the fowls is one of the important things that cannot be neglected.

Ducks do not stand confinement

Exposure to hot weather is as dangerous to the egg crop as is exposure to cold weather.

Keep the dropping-boards clean and free from filth. They should be frequently scrubbed. The poultryman must keep every

thing clean and sweet about the houses and yards. Linseed meal is good to raix with the mash during moulting season. It helps digestion and regulates the

bowels. The average farm poultryman cares more for the number of eggs a hen lays in a year than the number of

Rough timber used in the poultry louse makes the best harbor for lice. Perches, nests, etc., should be made of smooth lumber in all cases. For roup, try putting a few drops of

carbolic acid on a hot fire shovel and

then fumigate the poultry houses

with fowls in it. Keep houses dry.

prizes she wins at the shows.

WILDUR D. NESBIT



The leaves are turning into gold-They always do the same; It is a little way they have, A sort of green-goods game. The hazy twilight brings a moon That takes up half the sky, And makes a hungry fellow think Of future pumpkin pie.

The cider press gets busy now.
It does not stop nor lag,
And country folks again debate;
"Does Cider Cause a Jag?" The price of coal goes up a notch, The price of ice comes down; The folks who spend their coin abroad Are hustling now, in town,

And, oh, the rah-rah boy permits
His hair to grow quite long,
And burst the air with college yells, tunes his college song. The theaters are open and

New ragtime songs we squall, These symptoms make it very plain— We know that it is Fall, Restful Reading. We are in receipt of three charming booklets, all of which we are peru-

ing with intense interest. One is "The Effects of Various Fixatives on the Brain of the Albino Rat, With an Account of a Method of Preparing This Material for a Study of the Cells in the Cortex," by Iseien Dean King. Another breathing the same spirit is "On the Percentage of Water in the Brain and in the Spinal Cord of the Albino Rat." by Professor Henry H. Donaldson. Miss King's sprightly treatment Young chickens, like young people, of her theme reminds us strongly of have more or less timidity, and there- a prose expression of the old nursery jingle about the three blind mice that old together, at least it is much bet- pursued the farmer's wife until she ter to have them separate if you can amputated their tails with a carving well do so. Then again the pullets are knife. Seldom have we encountered bone, meat, with less of fattening amount of water in the brain and spinal cord of the albino rat flows smoothly and rhythmically to the end, er book, however, is ideal for a quiet evening at home, with a fire in the grate and the bait in the trap.

The third publication is of especial timeliness. It is "DeForest's Formula for 'An Unsymmetrical Probability Curve," and is from the pen of Shinkishi Hatai of the Wistar Institute of Anatomy. Professor Hatal goes directly at the heart of the skew bi nomial curve, and the curve that to limited on one side of the mean, and he utters an appealing truth when he deduces that the analytical constants are determined from the first three moments. Anyone who has ever ne gotiated an unsymmetrical probability curve, either with an auto or on foot will testify to this. He also cites the well-remembered fact that DeForest 'actually obtained one of Pearson's curves many years ago, and his work suggests a more generalized curve."

We wish a copy of this illuminative and instructive treatise might be placed in the hands of each person who plans seeing the old year out in the different cases and restaurants. Provided with the formula for an unsymmetrical probability curve the homeward route would not be nearly so difficult of negotiation.

Making Him Useful. "What has become of that poet that ran away with and married the daughter of old Porkenlard, the millionaire

meat man?" "Why, Porkenlard took him into the firm and makes him work ten hours a day writing rhymes for their street car advertisments."

Meber Dresbir

Unusual Event. Mamma-And you say your Auntie Close gave you a penny, Ethel? Ethel-Yes, mamma.

"Why, really, mamma, I was sc

surprised I couldn't say anything!"

'And what did you say, dear?"

Woman's Program-Bacon-I see an electric motor to move a cradle or a child's rocking horse has been patented by a woman Egbert-If the women keep on they will leave nothing for the husband to do while they are out voting.