OF INTEREST TO AGRICULTURISTS.

Some Up-to-Date Hints About Cultivation of the Soil and Yields Thereof-Horticulture, Vkiculture and Flori-



HETHER manure should be fermented, that is, piled up in a heap and allowed to heat, in mean while being turned and kept moist enough to prevent a volatilization of ammonia, has been one of long con-

troversy. Experiments by Professor Voalker of the Royal Agricultural society of England, and of others, have shown that the fermentation of manure, when properly conducted, results in its decomposition, and under proper conditions does not involve loss of ammonia, although carbonic acid, or a part of the organic matter, is lost. The material thus lost has a relation to the physical condition of soils and the decomposition a relation to the warmth of the soil and a relation to the chemical reactions in the minerals of the soil. The question, then, is whether this loss is compensated by a slightly more soluble manure at the time of its application.

On sandy soils this loss of organic matter, it would appear, is a serious matter, for it is already deficient in it and the water-holding capacity that it brings to the soil is of value to it. In soils already overrich in organic matter and inclined to retain moisture too much-and these are soils where decomposition is likely to be slightanother question will be presented. Again, fermentation, unless carefully conducted, will result in loss of the nitrogen or ammonia of manure. It may be said that gardeners who seek to produce very early crops generally advocate the fermentation of manure, because it will give them an earlier start, through its greater amount of available nutritive or soluble materials and because the manure can be spread much more evenly and be commingled with the soil very much more thorough-

Chinch Bugs in Oklahoma.

At the Oklahoma Experiment Station Farm, at Stillwater, as well as in many other parts of the territory, chinch bugs were nearly or quite as injurious to crops in the summer and fall as was the dry weather. Experiments at the Station and throughout the territory as well as in different states, in causing the destruction of the chinch bugs by the most butter was a high-grade Holthe introduction of disease among them, were generally unsuccessful. The conditions under which the disease rapidly spreads are not fully known, but it is evident that dry weather is unfavorable to such spread. With present knowledge it is unwise to rely on the introduction of disease as an effective method of destroying these destructive insects. It has been proved entirely possible to prevent the passage of the insects from one field to another, except at the pairing season, when they fly freely, by a system of barriers and traps. Furrows sides of nnely pulverized earth, or lines of coal tar on a well smoothed surface, have been found entirely effective. The insects will collect in holes in the furrows or at the side of the coal tar line in vast numbers and be destroyed by hot water or a kerosene mixture. Something can be done to make the passage of the insects difficult by keeping the corn, sorghum and similar crops as distant as may be from the smaller grain and millet crops.

Green Manuring .- A report from the New Jersey Station gives the plan of an experiment for the improvement of light lands by the use of crimson clover and cow peas and a statement regarding the method of cultivating cow pens on a larger scale in New Jersey. Cow peas, following crimson clover, yielded at the rate of 14,400 pounds of green material per acre. The vines contained 2,278.1 pounds of organic dry matter, 70.6 pounds of nitrogen, 17.3 pounds of phosphoric acid and 50.4 pounds of potash. The roots on one acre weighed only 1,080 pounds, and contained 295.2 pounds of organic dry matter, 4.2 pounds of nitrogen, 1.5 pounds of phosphoric acid and 4.4 pounds of potash per acre. The roots and vines grown on an acre contained a total of 34.8 pounds of nitrogen, 18.8 pounds of phosphoric acid and 54.8 pounds of potash. The nitrogen in the vines is equivalent to that contained in 4371/2 pounds of nitrate of soda and is valued at about \$11.

Propagating Raspberries.-The proper way to propagate the black cap raspberry is by sticking the long, snakelike tips in the soil and growing a new plant from these. If the soil has been well cultivated and the plant is very vigorous a plant can be made not only from the tip of the main stem, but from most of the branches. So soon as they are well rooted the new plants should be separated from the old stem. The wind blowing the bush loosens the branches where they are rooted in the soil and uproots them. This is pretty sure to happen if the plant is left with these numerous rooted tips in the ground over winter. Freezing and thawing is hard enough on any new plant, but is especially so to one attached to another above it and constantly pulling it upward. As the soil is loosened when thawed, up flies the branch with its rooted tip, and a short time in spring sunshine destroys its Horses turned cut to graze feed on the

When washing anything that has a cream tint do not rinse in blued water, but in clear water.

As all successful breeders realize, the time is past when we can wholly rely upon the pedigree as a guide in selecting the animals whose characteristics we wish to perpetuate in our flocks or herds. Not that the law of heredity is any less true than formerly, but be-cause we are coming to appreciate that an animal parent is more likely to transmit its own characteristics rather than those of some ancestors. So, instead of studying the pedigree and the pedigree only, the breeder of today will study in its connection the individuality, the type and general conformation of the animal with special reference to their economy of production, appreciating the fact that more and more will the "cost of production" be the standpoint from which all animals kept for production be judged. Applying this principle to dairy cattle, the question is raised, What sort of a cow is the most economical and therefore the best cow? That cow is the most profitable which will produce a pound of butter fat the most economically, and although it is conceded that there is more difference in the individuals of the same breeds than there is in the different breeds, that breed which contains the greatest proportion of most economical cows is the best breed.

In order for a cow to produce a pound of butter fat economically (which should be the standard by which all dairy cows should be judged), she mustbe able to consume a large amount of coarse fodder, which, of necessity, will always be grown in large quan-tities by every farmer and dairyman. All of these coarse foods contain the same ingredients found in the grains and concentrated by-products, but not in the same proportion, and for this reason a cow is obliged to eat 60 pounds of corn stalks to get the amount of nutriment which she would obtain from a few pounds of corn meal and bran for example. Hence it follows that if an animal can consume enough roughage, whose intrinsic value is a very few cents, and get from it the same amount of digestive nutrients that would be obtained in eight pounds of highly concentrated food which is intrinsically worth that many cents or more, she will be, by far, more profitable than one whose limited capacity will allow her to take but a few pounds of roughage and the main part of whose ration must be highly concentrated and

expensive.
Considering the general type of the Holstein breed, is it too much to say that as a breed it contains a greater proportion of cows capable, on account of their large storage capacities. of making butter cheaper than any other breed? I was very much interested in looking over the results obtained at the Minnesota Experiment Station from a herd of 23 cows composed of nearly all breeds and their grades, to find that in a year's trial the cow that produced stein and that the next greatest amount was produced by a registered Holstein, the two making 494 and 453 pounds respectively, at an average cost per pound of 8.06 cents and 9.06 cents. Of course it is unfair to draw any conclusions from so few figures, but they certainly serve to indicate that the large, roomy Holstein, properly handled, has before her a future as a large and economical butter producer.-H. Hayward in Journal of Agriculture.

Smutty Corn and Steers There is scarcely a year that there is not more or less smutty corn. We would be pleased to have the views and experience of feeders on this subject in the Farmers' Review. Having fed thousands of steers in twenty-five years successfully, without losing a steer from this smut; we tasted it to know its flavor; not using narcotics, or spirits, we found it had the flavor of cornmeal, dry ground. Hence we stacked the entire season's crop and let it sweat. We feared spontaneous combustion, but the wind changed daily, and cooled the stack to the windward, and thus prevented spontaneous combustion. Stacks, one rod wide at the base, two rods long, ten feet high, setting stover at an angle of forty-five degrees, like a roof, built at one-half pitch. It saved dry, sweet and clean. Last season we fed no husked corn in the ear, with very little hay, thus reducing cost, buying no ear corn. The average steer's weight was less than in other years. The profit equal, or nearly so, because no ear corn was bought. They were fully mature, fine, fat and fleshy.

Richard Baker, Jr.

High-Headed Orchards.—Every year great deal of fruit is lost by heavy winds blowing it from the trees. This is before it has attained full size. This is partly due to the fact that trees are generally headed too high, a relic of times when the high-branched tree was cut up until a team could walk under it to plow and cultivate. If the orchard is headed low there will be little growth under its branch, which when loaded with fruit will frequently be bent down until they touch the earth. The fruit on low trees is easily gathered from the ground or with a short step ladder. If there were no other reason for low heads in trees this of ease in gathering the fruit would be sufficient to make it always advisable. No kind of stock should be allowed in orchards except pigs. Cattle and horses will eat both leaves, fruit and branches as high as they can reach, and to get the fruit out of the way of being eaten by stock seems to be the reason for the high pruning and heading of many old orchards.-American Cultivator.

Is Golden Rod Poisonous?-Dr. C. F. Scott, Wisconsin's state veterinarian, states that the golden rod, which has been suggested as our national floral emblem, is responsible for the death of hundreds of horses in the mining camps in the nothern part of that state. plant and it is reported to be so poisonous that no administered remedy will counteract its effects. Dr. Scott declares that the golden rod should be

SPEAK AT LAST.

AN AGRICULTURAL PAPERTELLS TARIFF TRUTHS.

Vital Interests of Farmers Ignored by Farm Papers Generally-Afraid to Mix in Politics. So Let Farmers Suffer-A Southern Journal for Protection.



thing, de not mix up much with political matters. Why, it is hard to say, because the interests of agriculturists are wrapped up, and involved, in tariff legislation, as are other interests. Any agricultural paper that has the true welfare and prosperity of its subscribers at heart would, without any hesitation, give full discussion to the policies of free-trade and protection. Then it would not take farmers long to understand the question, and the result would be a unanimous verdict for protection. The Sugar Planters' Journal. of New Orleans, apologizes because it has "no taste for politics." It follows

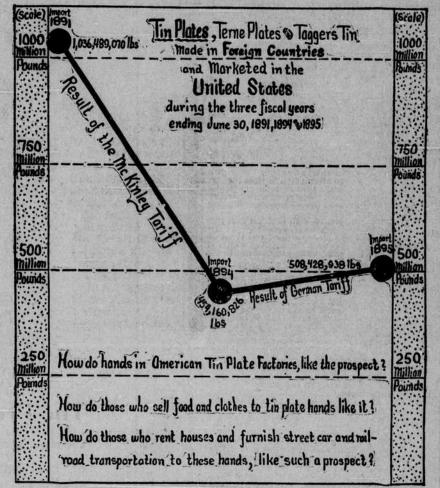
of blunders, the government has been through ignorance or by design, our nation, which was once and could and should be again the most independent on the face of the earth, has been made the suppliant of European money changers, and our gold and other national wealth is being rapidly diverted

to foreign lands.
So much for the nation; but when it comes to Louisiana, one of the nation's children, we have been betrayed "in the house of our friends;" pacified with promises after the democratic congress had broken a solemn contract, and now those promises, which were considered as sacred as legislative enactment could make them, are trifled with and sought to be annulled on mere quibbles. This is more than human nature can stand.

Have sugar planters any longer hopes of justice or reasonable legislation at the hands of the democracy? We say no, emphatically no. Louisana's interests before the war made her a protectionist state; her interests to-day lead her in the same direction. Therefore, all sugar planters who consult their own best individual interests should declare that they are done with the democratic party, state and national, now and forever, and standing together with thousands of other patriotic citizens all over the state, who wish economical and just government, strive to build up a good, honest party, which believes in fair elections and honest count at the polls, and the maintenance and protection of all American industries.

Some Wool Growers Happy. There are good times in Australia. Wool growing is the staple farm pro-

Tin Plate Trade and Tariff.



this apology, however, with such a ring- duct there. It is, in fact, the mainstay we take pleasure in reproducing it as follows, from the issue of October 5,

A year ago, the dangers which menaced the sugar industry caused our sugar planters, and thousands of others whose interests were allied with them, to forsake the democratic party and ally themselves with the former sectional but now great national party, the Republican Protective organization. In making this change, it cost many of us a severe struggle, for it meant the sundering of life-time political ties, but to many others it was really a return to their former principles, as old Whigs. A few years ago, it would have meant

Out of Sight

Where is the Free Trade Donkey?

a sundering of social ties, as well, but thank God we have at last reached an era of political as well as religious tolerance.

When we review the political history of Louisiana since the war, and remember the struggles we had to overthrow radical corruption; then look around us to-day, and realize that after all our efforts to secure good government, state and municipal, we to-day have corruption equally as great as that which caused us to resort to arms to right our wrongs, it should cause the most serious reflection on our part. What can we expect from the present democratic state government?

Turning to the national government, what do we see? Incompetency of so exterminated as a poisonous weed.—Ex. gross a character that, by a long series

editorial in favor of protection that | of the colonies. A good demand for wool and an advancing market naturally make the Australians feel happy. The largest woolen house in Melbourne in its latest report, had this to say:

"A fair total has changed hands at rising prices, and there is every indication that the demand at the sales will be particularly keen. The noticeable expansion of trade of the past few months has led to a very large absorption of the stocks existing at the beginning of the year, and in this respect the position of the market is regarded most favorably. A very promising outlook is presented for the forthcoming season, of which we shall hold the opening sale on the 16th prox., and a substantial improvement on the values of its predecessor is assured. The position as regards the local market recalls that of 1889, and appears likely, as then, to secure a large addition to the total disposed of in the sales."

This is very cheering news to American wool growers. Free wool in the United States enriches the Australian farmer. But it ruins the American.

Hops and Wool Cheap.

Farmers in this state who have grown hops this year are uncertain whether to have them picked or to let them rot on the poles. The reason for this is that the cost of picking hops is more than they sell for. The lot of the western farmer, who grumbles because the price of wheat has declined from a dollar to 62 cents a bushel, is a happy one compared to that of the New York farmer, whose chief product is hops .-New York Evening Post.

The state of the hop industry is no worse than that of wool growing. Wool was put on the free list by the tariff of 1894, and the duty on hops was reduced from 15 cents a pound, under the tariff of 1890, to 8 cents. But the depression that fell upon all industry with the advent of Clevelandism has brought the price of hops down to the amount of duty per pound. In the year 1894 we imported, according to the Evening Post, 8,300 bales of hops, each weighing 500 pounds, or a total of 4,150,000 pounds. These hops ought to have been raised upon American farms.-New York Democrat and Chronicle.

A Democrat Owns Up.

For the fiscal year to date the deficit is now sixteen million dollars, and the hope of making both ends meet for the twelvemonth is vain .-- N. Y. Herald.

What is there that is illustrious that is not also attended by labor?-Cicero.

FOLLOWING FANCY.

How the Up-to-Date People Find Piens

People are fanciful and it is Fancy, after all, that is happiness, and the motive which dictates to the world. Some one fancies that the cozy fire at home and the environment of favorite books is enough to make life worth living during the winter months. That will do for the way worn, weary, easily satisfled, old fashioned man and woman, but the up to date cavalier and the new woman require a change-many changes in fact, and they seck in the dull winter days to find the climate they wearled of in spring and wished would pass away in summer. Sitting behind frosted window panes and gazing on the glistening snow crystals they sigh for the warmth and brightness they love better now than a few short months ago and, in no other country may these whims, these fancies be so easily gratified as in America. Absolute comfort in these days, and in speed and safety, too, instead of the wasted time and discomforts of the not distant past. Ponce de Leon who sought the fountain of Eternal Youth on the shores of Florida consumed many of the preclous days of later life, and died before attaining the great prize. De Soto was lured in the same direction and found at Hot Springs, by the aid of Ulelah, the dusky Indian maiden, the wonderful product of the "Breath of the Great Spirit," but before he could return home and apprise his friends of the great discovery and enjoy the certainty of gold and youth, which he believed he had in his grasp he fell a victim to the miasmi of the Great River and found a grave in its muddy depths. To-day the seeker after health simply boards one of the magnificent trains of the Missouri Pacific System, and after something to eat and a nap, wakes up to find himself in this delightful winter Resort, ready to embrace health which seems to be invariably renewed by the magic of the air and water. In De Soto's time the secret of the Fountain of Life was sedulously guarded by the savages, but now a hospitable people opens its arms to receive the tourist whether his quest be for health or amusement. Fancy sometimes tires of Hot Springs, strange as it may seem, but Fancy says "the fields beyond are greener" and the climate of San Antonio is more desirable and thus another ride in another palace, and new scenes and new faces please the eye and satisfy the restless cravings of this master of man. Thus from the Father of Waters to the waves which wash the western shore of this great country the tourist is led by a whim, but most delightedly captive. Mexico has been described as the Egypt of the new world, and the comparison is fitting, and he who dare not face the dangers of the deep, and prefers to retain his meals as well as his life, should make the journey to the land of the Montezumas, and there learn the story of the ages within the faces of a people which change less in the passing years than any other on the Western Continent. This is the land of Sunshine and Color; of history and romance; and as bright eyes will smile at you from under bewitching head gear as may be found in Castile or Arragon.

Fancy carries one to California of course, and this journey, as it once was termed, is now so easily performed as to have lost all of its terrors and left only a most emphatically delightful trip to be the subject of many future conversations. The land of fruits and flowers and fair women; Fancy can ask no more after this tour unless it has been satisfied for once; and still it is Fancy which takes the wearied traveler back to the home and the familiar surroundings and the friends and loves of home. There he may contemplate new journeys and new divertisements, but there lingers in his memory a pleasure he would not part with, and he hopes soon to again enjoy the comforts afforded by this Great System of Railway which has taken him safely out and brought him safely home and has not robbed him of the joys which Fancy

The region in the immediate vicinity of the Dead Sea is said to Le the hottest on

F. P. BAKER.

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Points not conductive to pleasure, especially when occasioned by corns. Handar will please you, for it removes them perfectly.

Honor women; they strew celestial roses on the pathway of our terrestrial life.—

Piso's Cure for Consumption is an A No. 1 Asthma medicine.—W. R. WILLIAMS, Antioch, Ills., April 11, 1894.

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New Form of Blood Poisoning.

A 4-months-old infant, Maria Careguta del Domino, died at New York recently from convulsions and septicaemia, a form of blood poisoning. Not long ago the parents of the little one, as is the custom of Italians, had the ears of the child pierced for rings. After the operation a piece of fine green floss was run through the ear and fastened, so that the hole should not grow together. The dye in the piece of floss, it is believed, caused the blood poisoning.

"Ennson's Magic Corn Salve;"
Warranted to cure or money refunded. Ask
ruggist for it. Price 15 cents.

A new house for Italian Opera is to be built in London on the site of Her Majesty's theater in Haymarket, which was torn down some years ago. Marcus Mayer is to be manager and J. H. Mapleson operatic director. Mayer says the new Imperial Opera Company, limited, will have a capital of \$1,700,000, and will produce Italian opera and send their company each year on an American tour from October to April, while the London season will be from May to August.

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