# THE FARM AND HOME.

# EXPERIMENTING WITH IRRIGA-TION AND DRAINAGE.

Tiles Used for Both Purposes With Astonishing Success-Starting a Dairy -Management of Sheep-Farm Notes and Home Hints.

# Drainage and Irrigation Combined.

Another investigation undertaken the past year is an attempt to combine drainage with sub-irrigation in the out door garden. In other words, it is an effort to develop a plan for the effective and economical control of soil moisture.

The greatest obstacle to the success of intensive garden culture is the irregularity of moisture in the soil. There is too much at one time and too little at another. In early spring and not unfrequently at other times during the year, the soil is too wet: during summer and autumn it is usually too dry. How to remove superfluous moisture at one-time and supply the lack at another, in a practical way, is the problem we are now trying to solve.

The following is a brief outline the work already done, writes W. R. Hazenby in Colman's Rural World. A fairly level spot was selected in the vegetable garden and divided into five plots each twenty-five by forty feet. In plot No. 2, lines of threeinch tile were laid eight inches deep and two and one-half feet apart, the rows extending lengthwise of the plot.

The tile was laid upon an exact level and the ends embedded in cement. At one end of each row or line, an upright tile was placed, into which water could be turned. The opposite ends were all connected with a line of tile which continued beyond the plots and acted as an outlet when the tiles were usel as a drain. A valve was placed at the beginning of this outlet so that when desired, water could be held in the tiles. That is, when the soil was too wet the valve was opened and the tiles acted as a drain; when it became too dry and water was turned into the tiles, the valve was closed, and the tiles acted as a reservoir from which the water passed into the soil.

Plot No. 2 was tested in the same way except that only one-half the number of tiles were used. Instead of ten rows two and one-half feet apart, there were five rows five feet apart. In every other respect the treatment was the same. The plots were closely watched in early spring to note the effects of the tiles as to drainage, or the removal of surplus water. While no definite statement can now be made, it can be said in general that the soil of the tiled plots was dry and in a fit condition to work several days before that of adjacent untiled plots.

The following crops were planted, each extending across the five plots: early beets, onions, potatoes and string beans. The early beets matured and were marketed early and but little difference in yield was noted between the tiled and untiled plots. Up to the period of harvesting this crop, there was an abundance, although not an excess of moisture. For the onions and string in the barn with it. beans water was turned into the tiles at five different times, and the effect was marked. The former crop an egg is fresh it will so yielded an increase of over fifty per ter if white and clean. cent and the latter was considerably more than doubled in weight. Besides this increase in weight the season was greatly lengthened and the quality of the crop greatly improved. At the above rate of gain, for intensive cultivation, this system of controlling soil moisture is a grand success. It has all the advantages of under-surface watering in the greenhouse, and combines drainage, when an access of moisture renders this necessary.

manhole so that the churn can be easily gotten into and freely aired. This last is of vital importance. Nothing takes the life out of cream and makes old tasting and worthless butter as a stale churn. Use the nose freely on the churn and do not spare it -Home and Farm.

# Management of sheep.

A good authority on sheep management says: It is advisable to give sheep access to salt continually. It can be kept in covered troughs from waste by rains. As a partial protection from ravages by dogs, it is well to bell about one-twentieth of the sheep. There is usually a "leader" in every flock. This one should always be belled, if any are. It is thought by many that sheep are more apt to be worried by dogs when pastured in the woods than when in the open fields. The reverse is the case. Sheep-killing dogs, like human thieves, are great cowards. They must see an apparently free field for escape before they will begin to depredate. There is safety in the woods, but more or less danger in the open fields. Sheep are summered continually in a wooded tract of thousands of acres near me, and by diligent inquiry I cannot learn of a case where they have been molested by dogs, although the latter are plentiful around the tract. Sheep are subject to internal parasites much more than formerly, and flocks are often decimated by them. Salt, sulphur and spirits of turpentine are the best remedy. To administer it, take salt, four parts; sulphur. one part; turpentine, enough to very slightly moisten; mix them, and place in a trough when the animals are hungry for sait. If this should be done once in two months, it is believed these vermin would never trouble.

#### Farm Notes.

Plant the orchards and small fruits on uplands.

Stock need an increased ration during extremely cold weather.

Don't allow the harness to crack and break for want of occasional oiling.

Don't fail to cut up a big lot of green wood to season for next summer's use.

It pays best to raise the kind of stock one likes best, for he will give them better attention.

The surplus of horses in the country seems to be of a class horse buyers don't want to invest in.

If you keep sheep at all put enough good blood in them to get the best returns from their products. The big, thrifty lambs will sell

readily and handsomely. It is a wonder more don't go into it. Stock are matured early mainly by

proper feeding and care; although it can be aided by proper breeding.

If the ewes are kept too fat before lambing they will secrete too much milk; and this will cause caked bag. A poultry raiser advises adding hot water to the cold in the drinking vessels. It acts like a tonic to the fowls. No farm is complete without a good lantern; but great care must be taken to not set hay or straw afire

The appearance of eggs has a great deal to do with the sale. Even if an egg is fresh it will sell much bet-It is claimed by those who have

made analysis that the corn fodder ers in America, the British om one acre yields as much digestible matter as two tons of timothy hay.

# main point is to have a good-sized REPUBLICAN MATTERS.

(INTER) NATIONAL HYMN.

My country : 'tis of thee, Sweet land of liberty, Of thee I sing: Land where the wheels are tied. Land where industries died, And to the Enritish side Took rapid wing.

My native country! thee. Land to which paupers flee, Thy name I love. I love thy Cleveland frills. Thy no trade tariff bills, Thy Greshams. Smiths and Mills, Born from above

Let music swell the breeze. Let music swelt the breeze, And swelt the song! Let those who brought this fate Their medicine take straight, And three years longer wait To ri ht the wrong

Our father, Grover C.. Mogul of miserv! To thee we sing: Bear with us, if you can, But, if not, like a man, Say you don't care a d--For anything --Cincinnati Commercial-Gazette.

SOUND FACTS.

The Beneficence of Protection to the United States.

After the war of 1812 had any American statesman opposed protective tariff he would have been regarded as a foe to his country. Mr. Calhoun, in 1816, as a friend of American protection, hardly lagged behind Henry Clay; and General Jackson, in 1824, was not less its champion than John Quincy Adams. There was then but little more than one party, and that was for "a tariff that would protect." Both houses of congress were Democratic in 1828. and among the eminent senators who voted for tie ultra-protective tariff of 1828, and who subsequently became Democratic presidents, will be found the names of Martin Van Buren and James Buchanan. Such distinguished supporters of protection, I fear, would now be drummed out of the Democratic camp by some self-elected drum-majors. In 1860 the votes of Virginia and Tennessee were given to Bell and Everett. both of whom favored tariff protection. The tariff of 1861, undeniably blessed with the virtues of protection, was approved by a Democratic president. a veteran long in the services of his party.

Any claim of superior stamina on the part of Americans, or of doing more work in a day than any other people, is a vainglorious assertion. The British are of the same stock, and bred in an equally healthy climate. A Briton, so long as he is able to get full pay, without doubt is about as athletic and physically as good as an American, and probably no better.

In Great Britain no wage-earner over rises to be an employer of wageearners. In the United States it is a common occurrence and almost the rule, that the head or business manager of any industrial company has risen from the ranks of practical manual labor. The biographies of our captains of industry shine forth as abundantly as the stars of the milky way.

It has been long roundly, perhaps ignorantly, claimed that the differonce in wages here compared with the lower British wages is compensated by the lower cost of living; but this has no basis of truth, except that the lower scale of wages practically and brutally imposes upon British wage earners a lower and far inferior scale of living. If their provisions and comforts of life were to be made equal to those of wage earncost would be found excessive and insupportable. The foundation of England's large wealth was laid by a century of stringent tariff protection.

report as was desired by the president; but it now occurs to Cleveland that Blount ought to have ascertained and reported all the facts, whether agreeable or not to his excellency. The administration will seek in vain for a scapegoat in this wretched business. As the public looks at it, if there had been any purpose on the part of the president to conduct an investigation with the idea of getting an accurate account of the situation in Hawaii he should not have appointed one man to do the work, nor would he have acted at all in the matter without first consulting the senate.-Times-Star.

15 Sal NO LOVE FOR IT.

Grover Cleveland's Relations With the

Old Flag. Thus far there have been four distinct flag episodes in the official life of Grover Cleveland as president of the United States, and all of them have been shameful. Two occurred during his first term, and two have disgraced him since his second inauguration last March. Nobody has forgotten how the stars and stripes were lowered to half mast on the intorior department building during Cleveland's first administration as a mark of sorrow at the death of Jacob Thompson, the ex-rebel who had tried to introduce small-pox into Northern cities during the rebellion. That incident created a storm of indignation in the North, but a greater tempest of wrath was aroused soon afterward by the order of Adjutant General Drum, which Cleveland approved, returning the rebel flags captured on the battle fields of the rebellion to the Southern states. The opening of the second Cleveland administration was signalized by the hauling down of the United States flag in Honolulu, by Grover's personal representative. Mr. Blount. The next news from Washington is that "Old Glory" no longer floats over the capitol building, because the Democrats cannot afford to buy new flags when the old ones are worn out. If anything were needed to complete the humiliation which every loyal son of the republic must feel at being compelled to live under a Democratic administration, dominated in every department by ex-rebels of the South, says the Cleveland Leader, this latest exhibition of hatred for the stars and stripes is enough. What a spectacle we must present in the eyes of the world! A nation of nearly 70,000,000 of people too poor to float the flag of our country over the national capitol! Of course, poverty is simply an absurd and silly excuse for doing something

# and which every patriotic citizen in the North and West should condemn. Gresham Is Lonely.

which every ex-rebel will applaud,

Secretary Gresham represents the most pitiable sight of any man about Washington. He presents the appearance of one who has lost several nights' sleep. His face plainly tells the story of his mental suffering. He fully realizes that he has sacrificed himself in the Hawaiian affair and that the Democratic leaders are glad of it. There is not a man in the cabinet who at heart is not glad of Gresham's dilemma, and the secretary of state is well aware of the fact. He has no one to lean on in his hour of political trial. He can't look to Republicans for they resent his desertion of them. Yesterday he was comforted by pouring his le of woe into the

PROFIT IN GUINEA PIGS.

Reward of Three Years' Labor in Producing a Caudated Variety.

"I spent last fall in the country," said the young man with the fall style derby, "and I succeeded in making a large and juicy fool of myself almost every day while I was there. I stayed with an uncle of mine who has a farm sixteen or seventeen miles from nowhere, and the Reubers got the laugh on me so many times that I can't remember the number.

"The queerest experience that ] had, though. was at one of their country fairs. They held the fair early last year, for some reason or other, and I was on hand to take it in. I went out to the grounds with a party of women who were visiting in the neighborhood, and, undis-

mayed by the failure of my former efforts to string the rustics. I started out to have some fun with them as soon as we struck the grounds. We walked around for a couple of hours, and I was poking all manner of fun at the people we met. Finally we came to the shed where the poultry was on exhibition, and as we went along looking at the variously bred chickens, I got particularly funny. At the end of one of the rows of coops was a box with five or six guinea pigs in it. There were quite a number of countrymen standing around looking at the queer little animals.

"We walked over and looked at the pigs. Then I said loudly: 'Do you know that if you pick up a guinea pig by the tail its eyes will drop out?" The countrymen stared. 'Fact,' I continued. Pick one of them up by the tail and its eyes will drop rightout. Most queerly constructed anatomically of any animal known to naturalists. If these pigs were mine I would soon show you.'

"A big, strapping fellow who stood beside the box said: 'Stranger, I don't believe you'. I insisted that I was right, but he stood and doggedly shook his head, and the rest of the countrymen sided with him. Now. a guinea pig has no tail, and there is where the joke comes in. I argued for some little time, and then made a grand bluff. I pulled out a little roll of bills and offered to bet the Reuben \$25 that just that thing would happen. Imagine my surprise when the Reuben hauled a greasy old pocketbook out of his jeans and covered the money. I was sure 1 had him, for the bet was a catch one anyhow, and as the young women who were with me were egging me on, I couldn't think of flunking. "'Understand,' I said, 'I claim

that if you pick up that guines pig by its tail its eyes will drop out.'

"'I understand,' said the countryman, as he opened a little door in the side of the box and pulled out a guines pig. 'Now, pick this one up and let's see its eyes drop out.'

"Then I began to laugh. 'Ha, my friends,' I said, 'I have played a little trick on you, that's all. As a guinea pig has no tail you can't pick one up by it. If you could I do not doubt that its eyes would drop out.'

"I reached out for my half of the bet, when the big countryman said: 'Hol' on there, mister. You jes look and see if this here guinea pig ain't got a tail.' I examined it, and I may be switched if it didn't have a tail an inch long. The countryman picked it up by the little caudal appendage, and, of course, its eyes didn't drop out. Then be reached over, grabbed the wad of money and put it in his pocket, remarking the while: 'I did not think when I developed that breed of guineas that they would ever make that much for me. "I'll be blamed if he hadn't been working three years to produce guinea pigs with tails! He had succeeded. and I was chump enough to go against the only cage of that kind of animals in the world with my chestnut about their eyes dropping out."



Symptoms Cancer of Appeared on my lip. Disagreeable eruptions came on my neck. After taking 4 bottles of came on my neck. After taking 4 bottles of Hood's Sarsaparilla, all the traces of disease have disappeared and the medicine has given me renewed vigor and strength. I am now almost 73 years of age, and work like a tiger. And I know that Hood's Sarsaparilla has had much to do with my vigor and strength. I recommended it to my wife, who has suffer. ed so much with rheumatic troubles, as also with female weakness. In two years

Hood's Sarsa-parilla Gures she has used about 3 bottles of Hood's Sarsa. parilla, and to-day, and for the last 6 months, she seems like a new being." Rzv. O. H. Pow. ER, 2924 Hanover Street, Chicago, Illinois.

Hood's Pills cure all liver ills, biliousness, jaun dice, indigestion, sick headache. 25 cents.



#### Starting a Dairy.

There is no "dairy belt" in this country. Just as good butter and cheese can be made in one state as another. Some of the finest dairies in the country are to be found in Tennessee, Mississippi and Texas, while the West is famous for taking first prizes at interstate fairs. What is needed is plenty of good water for cows and washing utensils. It is a real calamity to run short of water in the dairy, and no one should start without a never-failing supply. Then again it must be conveniently located. Waste no time of man or beast in ing brass or copper. going after water, make the water come to you. Lead it through pipes pumping as possible either by hand or power. It is a back-breaking and A good remedy for chapped lips weary business and in hot days, in summer, cows drink a fearful amount of water. Lead the water from a point on the farm high enough to deliver it up to the knees of the cows as they stand in the stable.

In starting a dairy the first thing to learn is the value of a good stable. It not only does not pay, but is foolish to make milk only in summers. That is the hardest time to make good butter, while the market is crowded and down to the lowest notch in price. Build you a good, tight, comfortable cow stable large enough to hold as many cows as you need and give them plenty of room. Put windows in it for light and have no cracks for the cold wind to get in. and if the cows are properly bedded and kept clean, as they must be, there will be no need for ventilation. Cows can stand six months in the stable with perfect comfort and make more milk than they will if turned out to exercise.

What kind of a churn to use. It makes little or no difference so you get the right amount of agitation. The modern barrel churn that turns end for end works easier than most rich blue china is arranged with a of them and does as good work. The most delightful effect.

A Rhode Island poulterer says that if onion skins are placed in the nest boxes and then covered with straw or hay, they will be death to lice, as the vermin cannot live where the skins are.

# Home Hints.

A large, soft sponge, either dry or slightly dampened, makes a good duster.

Never rub your eyes, nor allow your children to do so from their cradles.

A rostaurant keeper says celery wants to lie in cold water an hour before it is chewed.

A tart in great favor is an iced case of puff paste, with the filling of marmalade and whipped cream.

Sweet oil and putty powder, followed by soap and water, makes one of the best medicines for brighten-

Silver, brilliantly polished and arranged on the finest of snowy in barn and dairy house. Do as little | damask, is the chief ornament of the

> A good remedy for chapped lips is made by mixing together two spoon-fuls of clarified honey with a few drops of lavender water. Anoint the lips with the mixture frequently.

> It is very vexing and annoying to have one's lips break out with cold sores, but it is better to have them out than in. A drop of warm mut-ton suet applied to the sores at night, just before retiring, will soon causo them to disappear.

> The correct way to use doylies on the table is to place them under finger bowls and other simple dishes for which they are made. If no ta-blecloth is nsed, and the surface of the shining mahogany table is exposed, the doylies are placed under the plates in order that the table may not be scratched.

In a charmingly-furnished apartment, where the space is very much limitea, the substitute for the cumbersome buffet is a spot of beauty in the little dining room. Two skele-ton shelves have been made of walnut, and placed in one corner against a piece of dark red matting tacked upon the wall. On these shelves

British wage earners, as we all know, obtain on the average, under free trade, but little more than onehalf as much reward for labor as Americans obtain under protection. The advantages of a protective tariff are not claimed on account of its production and diffusion of wealth alone, but on account of its beneficence, its educational and civilizing influence, its distribution of the comforts of life among the men who work, and as the strongest arm of national independence.-From Senator Morrill's speech in the senate.

#### Needed a Lesson.

The World believes in Cleveland rather than Hill. It will fight Hill whenever he is wrong, as a machine boss, as it fought him before and supported Cleveland. It is still in general sympathy with President Cleveland but it supported Senator Hill in this case because he is right. The lesson may prove a wholesome one for Mr. Cleveland. He needs to be reminded that ours is a constitutional government, with coordinate branches strictly limited and based upon the people's will. Judging by Olney, Van Alen and Hornblower, the Hawaiian blunder and the insulting "noise and clamor" letter, he is lacking both in respect for the law and public opinion. This drift towards autocracy, contempt of limitations, and disregard of congress needs checking. It is to be hoped that no severer lesson will be required.--N. Y. World, Dem.

#### Blount, the Scapegoat.

Rumors trickle out from the inner circle of the administration at Washington that in recent confer-ences of Cleveland, Gresham and Blount the president has emitted blue language anything but agreeable to the quondam paramount commissioner. One report has it that Cleveland bluntly told the Georgia statesman that his alleged investigation and one-sided account of the revolution had "plunged the admin-istration into trouble." The difficulty seems to be that Blount culty seems to be that Blount in the next fifty years—in other proved too faithful to the letter of words, till the Democracy again gets his instructions in presenting such a | control.

A second parties

ears of Bob Ingersoll. Now Gresham is assiduously cultivating ex-Senator Edmunds. The Vermont statesman being out of active politics, Gresham feels that he can arouse sympathy there and find advice from Edmunds. -Daily American. Dem.

### Can Not Swallow the Medicine.

Of all the revolutions in political opinion that have occurred in the United States the most remarkable is the change wrought by the common experience since November, 1892. The young voters who were familiar only with prosperous conditions and thought they would chance free trade have rushed over to the Republican party, accompanied by a good many older heads who find that they went after false gods once too often. Moreover, Wilson radicalism, Gresham mugwumpism and Cleveland egotism have driven not a few steady-going Democrats out of the lines, to seek more congenial com-pany behind the Republican bandwagon. The procession of the G. O. P. on the road to victory is a brobdingnagian affair.

# At Morton Agam.

The national Farmers' Alliance in session at Chicago landed again on that sore spot where all the state alliances and granges have been tapping Secretary Morton for the last month or two. Mr. Morton may not know very much about farming, but it begins to look as though he will know quite a bit about farmers before he gets through with his present job.

A Little Reublican Leaven Neciled. The Kansas City Journal thinks Missouri will never take her proper place in the union until she wipes out her Democrat majority and exterminates her train robbers, and it is difficult to say which should be done first, though a Republican administration might be a powerful discourager of train robbing.

## Democracy's Only Chance.

If the country stands the storm now raging over it and striking everything that protrudes above the surface, the future is all right, for nothing worse than this Democratic "change" is likely to be experienced

## A Fresh Translation.

The small boy had been irritating his father with many vexations questions about a psalm he was studying for Sunday school next day. "Father, what does 'Selah' mean?"

was the latest.

"Shut up!" said paterfamilias. The boy said nothing, but in Sunday school the psalm was under discussion.

"Who knows what the word 'Selah' means?" asked the young superintendent.

The small boy's hands went up, and he was half way out of his seat. No one else raised a hand.

"Well?" said the superintendent. "Shut up!" said the small boy. And seeing the look on the teacher's face added, "it is! I asked papa, and he said 'shut up!'"-Toledo Blade.

### Inherited.

The small boy who applied to the Chicago physician to be vaccinated was so bright-faced the doctor asked him who he was. "I'm Johnnie Smith,", he said,

"and my pop's a detective. "Oh," exclaimed the

"Oh," exclaimed the doctor, "run along little boy, there's no need to vaccinate you; you'll never catch anything."

# The Decision Did Her no Good.

Miss Catherine Bitner of Franklin county, Pennsylvania was so overjoyed a day or two ago at a decision in her favor in a suit which she had instituted in Hagerstown, Md., to set aside a deed for a farm, that she was overcome by the excitement and died an hour after.

# Willing to Lose Them.

Mrs. Hylyfe--Why do you think Mrs. Skekkles doesn't tell the truth about the price of her diamon ds? Mrs. Hotong-She wears them to receptions where they haven't en-gaged detectives.-Chicago Record.

DR. MCGREW SPECIALIST PRIVATE DISEASES, Weakness and Secre MEN ONLY. Every cure guaranteed. 18 years experience: 7 years in Omaha. Write for book for full particulars. 14th and Farnam Sts. OMAHA, NEB.