AGRICULTURAL HINTS

Warm Water for Cows.

If a cow gives 16 quarts of milk per day she must consequently consume at least an equal quantity of water. If the water is icy cold she will not drink because she thereby becomes chilled. She will fall off in her yield of milk because she cannot produce it unless she drinks a quantity sufficient for the milk and the demands of her body. She voids usually a large quantity of water. The water for the cows must therefore be warmed if the flow of milk is to continue.

Grain Weevils.

It is said that the grain weevil has a natural dislike to salt, and that wheat or other grain stored in salt sacks was not touched by them, while that in other sacks in the same pile was badly infested and virtually ruined by weevils. If this is true it would be a simple matter to dip all grain sacks in brine and dry them before using, or perhaps to surround the grain bins with salted sacks. It is an experiment worthy of trial in the grain-growing regions. It is cheaper and as easily tried as the bisulphide of carbon treatment, and we think could not injure the grain for seed or any other purposes. The grain does not absorb the salt, but it stands as a fence around it to repel the weevil.

An Experience With Separators.

Whether it is desirable or not to buy a separator depends upon circumstances. Do not trust all stories of the enormous increase of yield of butter because of the separator. To be sure the separator removes practically all the butter fat, but more than that it will not do. The ultimate profits will depend upon what the individual dairyman will or will not do. For instance, I do not think it advisable to mix fresh warm cream with that previously separated, or warm or diluted cold cream with fresh milk. These additions always contain more or less animal odor or are otherwise tainted. They should be aerated and cooled before mixing. Neglect of any one of the many necessary precautions will result in more loss than can be made up by the use of a separator. —L. W. Zahra, in Orange Judd Farmer.

Cow Peas in Northern States.

If the cow pea has any place in the farming of the northern states it is not as a forage crop, either as hay or ensilage. Some have succeeded in making fair ensilage by mixing a little with corn, one-fourth part or less, but others have failed. When the pea vines are fit to cut it is not good haymaking weather, and they need a great deal of curing. A small patch for the hogs to feed upon, or for the hens to pick the peas from, may do very well, but the use for them is on some of the outlying lots of poor soil, so far away that it will not pay to draw manure from the barnyard to them. Sow the cow peas there, as they will grow where clover will not. Put on some acid phosphate and potash to give them a start, and plow them under in the fall. Then sow rye as a winter cover crop to prevent the nitrogen from being lost in winter. Plow that under in the spring and add more phosphate and potash, and the peas and rye will have furnished organic matter and nitrogen enough to grow almost any crop that may be wanted there. This requires some labor, but it is cheaper than paying 20 cents a pound for nitrogen in chemicals or the commercial fertilizers.

Stocks and Seedlings.

In planning an orchard of any kind of fruit trees the relative value of stocks and seedlings will often occur to the orchardist. Not every one who goes into commercial fruit growing realizes the importance of understanding when to raise seedlings and when to depend upon grafted fruits. Grafting is more rampant today than ever before, and it looks as if all our fruit in the next generation will be from grafted stock. This of course is due to the success of some of our best grafts, which will produce their best fruits only when successfully grown on good, thrifty seedling stocks. We have practically turned the matter of raising seedlings over to the nurserymen, and then we set our young orchards with these stocks and graft the improved varieties on them.

Personally I would advocate the growing of good seedling stocks on the farm more generally than is the case today, and not trust everything to the nurseryman. I do not say that the latter is giving us anything less than what he agrees to, and there are many times when we must depend upon him to supply us with our needs. But the fruit grower who does not have his own young nursery of seedling stocks must fail to reach the all around results which an experienced grower obtains. We must know something of the trees from their first start in life up to the time we cut them down for kindling wood. This can come only by planting a few seeds every year in a small nursery where the stocks of future trees can be tended and watched.

Seedling stock should possess above all other things strength and vigor. The stock that is weak in any way can hardly be desirable for grafting purposes. The reason we select the seedlings for stock is because of their superior hardiness and rapidity of growth. The graft is supposed to be of a weaker kind, and it gains strength and vigor from the sap of the stock. If this latter is not in perfect condition we must expect to see the fruit inferior in quality or amount.

We cannot always get the best seedling stock when brought from a long distance. The change of soil and climate affects it badly oftentimes and puts it back for several years. We cannot afford to make the graft until it has become accustomed to the new soil and surroundings and has recovered some of its thriftiness. This delay is not only aggravating, but very often very unprofitable. Good seedling stock taken from the home nursery seldom causes such a serious setback, and if one tree does it should be quickly replaced by another. But even if we depend upon the nurseryman for our stocks, it is always well to supplement them with a few raised in the home orchard. Then when one or more of the purchased stocks fail supplant it immediately by one from the home nursery. In this way we can avoid these wide gaps in orchards which are the result of the failure of some of the original trees.—C. S. Walters, in American Cultivator.

Fruit Trees in the Spring.

Now that it is nearly time for the fruit trees to blossom it would be well for farmers who desire large crops of fruit to consider the matter of the pollenation of the blossoms, which is so necessary in securing perfect fruit. The various experiment stations have been at work in the direction of pollenation for several years, and the Cornell station has performed excellent service in calling attention to the facts which have not been well understood by fruit growers. It may not be known that scarcely one fruit blossom in 10 sets fruit, even in the most favorable seasons and with the most productive varieties, and trees making very vigorous growth may drop their blossoms, while brown rot or apple or pear scab and pear blight may also destroy them. As all farmers understand, however, frost will injure blossoms, and even flowers that are apparently uninjured may be so weakened as to be unable to set fruit. Rain during the blooming season partially prevents the setting of fruit, chiefly by destroying the vitality of the pollen, injuring the stigma, or by preventing fertilization because of the low temperature. The washing of pollen from the anthers, however, seldom causes serious loss. The position of an orchard, the soil, the protection in the form of windbrakes, the sudden appearance of severe cold, or a warm spell of weather in February or March all affect the fruit to a certain extent. The trees that have the greatest number of blossoms do not always produce the most fruit, as local conditions may not be as favorable as for some other trees in the same orchard.

The main cause of the unsatisfactory fruiting of orchards over the whole country is self-sterility. Any tree is self-sterile if it cannot set fruit unless planted near other varieties. The cause of self-sterility is the inability of the pollen of a variety to fertilize the pistils of that variety. Poor stamens and pistils are also causes. An indication of self-sterility is the continued dropping of fruit from isolated trees or solid blocks of trees of one variety. Self-sterility is not a constant characteristic with any variety, as the same variety may be self-fertile in one place and nearly self-sterile in some other. Well-fed trees are less likely to be sterile with their own pollen than trees that are poorly nourished. When sitting out new orchards the trees should be of mixed varieties and not a solid block of any one kind, and where orchards are already established and the trees are unfruitful it will probably be found profitable to put a few grafts of another variety in each tree. In the matter of preventing loss of fruit by spraying it has been found by experimenting with apple trees that the number of blossoms saved is quite large compared with trees that received no treatment, in many cases the crop being doubled. It is safe to claim, however, that the majority of growers allow their trees to overbear and carry too large a crop to maturity, instead of thinning out the fruit at an early stage. First save the blossoms by spraying to destroy insects and parasites and reduce the fruit on the trees later.

Some kinds of fruit do not require mixing with other varieties, while others perfer to be with varieties best adapted for the purpose. European and Oriental pears can fertilize each other, and many varieties of the domestic, Japanese and native plums are likewise inter-fertile, provided they bloom at the same time. The pollen of some varieties will give larger fruit than that of others when it falls on or is applied to the pistils of either self-sterile or self-fertile varieties. Among our common orchard fruits cross-pollenation seldom has an immediate influence on the size of the fruit itself, but cross-pollenation probably gives better results than self-pollenation with nearly all varieties. It is advisable and practicable to plant all varieties of orchard fruits, be they self-sterile or self-fertile, with reference to cross-pollenation. Insects are probably more important than wind for carrying pollen from tree to tree, hence growers who have but one variety in a solid block have been benefited by the varieties growing in some neighboring orchard, which may even be some distance away, but this should not be relied upon, as the safest plan is to have at least two varieties of all kinds of fruit, the two varieties to come in blossom at the same time in order that the one may provide pollen for the other.—Philadelphia Record.

There are no trial trips on the sea of matrimony.

GREAT NAVY BUILDER

CHIEF CONSTRUCTOR HICHBORN TO RETIRE.

The retirement from active service of Chief Constructor Philip Hichborn, of the United States navy, on account of the age limit, is a severe loss to this important branch of the service of Uncle Sam. Although his name is not as familiar to the general public as those of Dewey, Sampson and Schley, nevertheless he was one of the men whose genius made possible the glorious work of our navy during the war with Spain. When the country was ringing with the praises of the officers and men who carried our victorious emblem into Manila bay and who strewed the coast of southern Cuba with the battered wrecks of Spain's best fighting vessels, and honors and promotions came thick and fast to those who participated in the engagements, there were three men at the heads of three naval bureaus in Washington whose work did not receive the recognition that was due them, at least by the public at large. These men were Chief Constructor Hichborn, George W. Wallace, engineer-in-chief of the navy, and Charles O'Neil, head of the ordnance bureau. Theirs were

The Master Minds

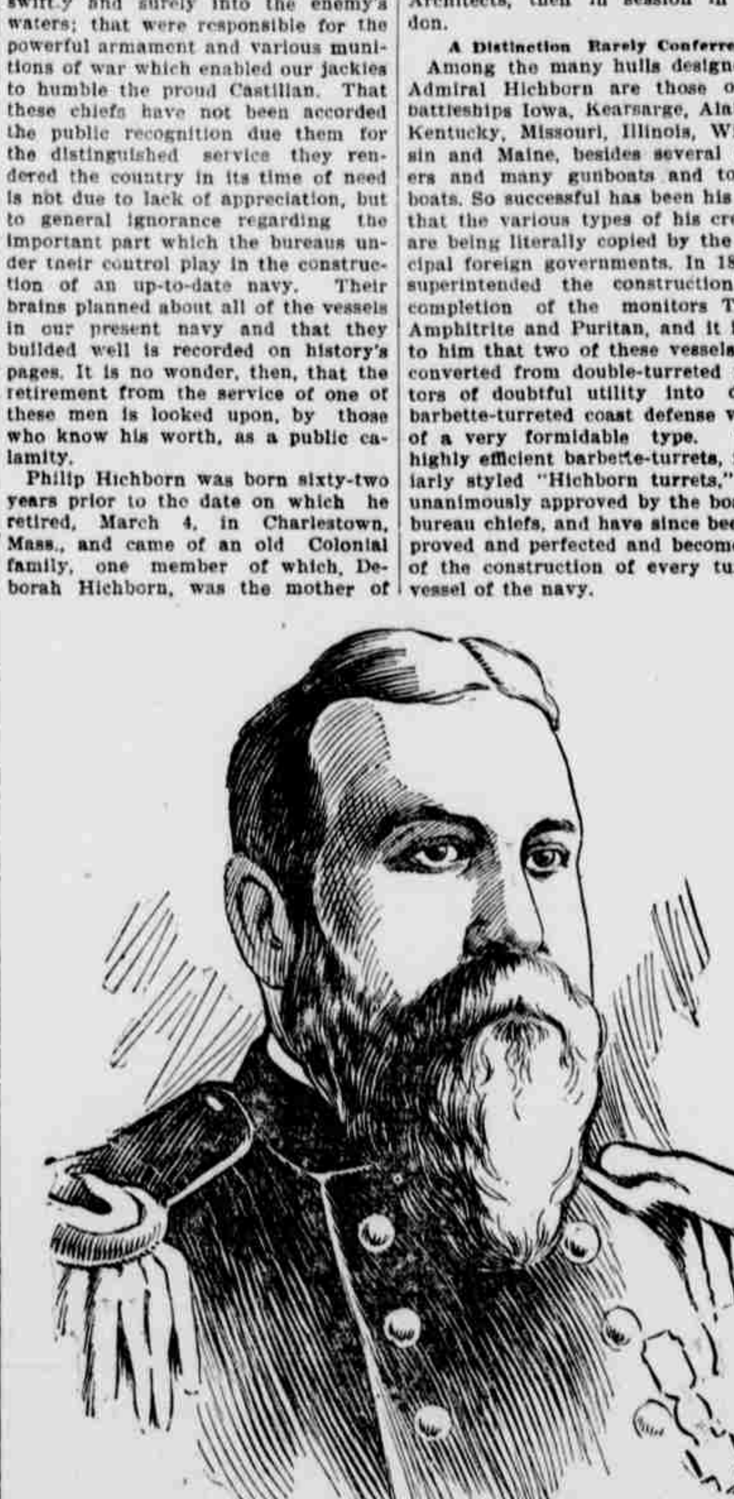
that planned the hulls of our modern vessels of war; that designed the mighty engines which carried them swiftly and surely into the enemy's waters; that were responsible for the powerful armament and various munitions of war which enabled our jackies to humble the proud Castilian. That these chiefs have not been accorded the public recognition due them for the distinguished service they rendered the country in its time of need is not due to lack of appreciation, but to general ignorance regarding the important part which the bureaus under their control play in the construction of an up-to-date navy. Their brains planned about all of the vessels in our present navy and that they builded well is recorded on history's pages. It is no wonder, then, that the retirement from the service of one of these men is looked upon, by those who know his worth, as a public calamity.

Philip Hichborn was born sixty-two years prior to the date on which he retired, March 4, in Charlestown, Mass., and came of an old Colonial family, one member of which, Deborah Hichborn, was the mother of Paul Revere. He graduated from the Boston High School and when 21, at the direction of the navy department, he received a special course of instruction in ship building, etc., in the Boston navy yard. In 1861 he took a trip as carpenter on a ship going from Boston to San Francisco, and entering the Mare Island navy yard there, rose to the position of master shipwright. In 1869 he was appointed an assistant naval constructor with the rank of lieutenant. Two years later he was detached from duty at Mare Island and ordered to the Portsmouth navy yard. After passing a competitive examination at the New York navy yard, in which he distanced all competitors, he was in 1875 commissioned a naval constructor. He became chief constructor of the navy in 1893 and was appointed for a second term in 1897.

Since he first entered the navy as an assistant constructor in 1869, his life has been one of uninterrupted activity in the immediate concerns of our naval vessels. As a government expert he has inspected the principal navies of Europe and has made exhaustive reports on their condition and efficiency. In 1899 he was promoted to the rank of rear admiral, and in the same year was elected an honorary member of the Institute of Naval Architects, then in session in London.

A Distinction Rarely Conferred.

Among the many hulls designed by Admiral Hichborn are those of the battleships Iowa, Kearsarge, Alabama, Kentucky, Missouri, Illinois, Wisconsin and Maine, besides several cruisers and many gunboats and torpedo boats. So successful has been his work that the various types of his creation are being literally copied by the principal foreign governments. In 1880 he superintended the construction and completion of the monitors Terror, Amphitrite and Puritan, and it is due to him that two of these vessels were converted from double-turreted monitors of doubtful utility into double barbette-turreted coast defense vessels of a very formidable type. These highly efficient barbette-turrets, familiarly styled "Hichborn turrets," were unanimously approved by the board of bureau chiefs, and have since been improved and perfected and become part of the construction of every turreted vessel of the navy.



REAR ADMIRAL PHILIP HICHBORN.

Mrs. Emmons Blaine

The Chicago Institute, as the academic and pedagogic school established by Mrs. Emmons Blaine is called, is to become a part of the University of Chicago, as a separate department to be called the Emmons Blaine Philosophical and Pedagogic Institute. Thanks to the munificence of Mrs. Emmons Blaine this institution is endowed in the sum of of $2,000,000, which insures its perpetuity. The purpose of the school is to promote psychological and philosophical investigation by teachers and to furnish opportunity for mental culture. Beside the advantages it offers teachers, the school has kindergarten and academic branches, and nature study, domestic economies and manual training are also taught.

MRS. EMMONS BLAINE.

The founder of this school, Mrs. Emmons Blaine, is a daughter-in-law of the distinguished Maine statesman, James G. Blaine, and a daughter of the late Cyrus McCormick, of reaper fame. She is a business woman, and has an office in the general offices of her brothers, who are among the foremost business men of Chicago. Her estate amounts to several millions, and she looks after it herself. She has ideas of her own regarding education and the social problems that perplex great thinkers. She believes that text books are a sin and a shame and that examination papers are the device of the evil one. She believes that her servants should be obliged to work only eight hours in a day, and she believes that a rich woman should have brains enough to look after her own property. Mrs. Blaine is 35 years old.

Confusion is the enemy of all comfort, and confusion is born of procrastination.—Amiel.

KEYSTONE STATE NEWS CONDENSED

PENSIONS GRANTED.

Two Boilers and Boiler House Demolished by Explosion—New Glass Plant For Washington—Trolley Franchise.

Pensions have been granted the following persons: Hugh Galeher, Ford City, 8; D. C. Wonderly, Salter, $8; Robert M. Black, Fredericktown, $10; Leonidas W. Townsend, Edmond, $8; Elijah Stratton, Beaver Falls, $10; Conrad G. Merkle, Canonsburg, $8; Franklin Moher, Duncannon, $10; Samuel Miles, Steelton, $8; Sarah Jane Branter, $8; Rochel H. Hilmon, Frankstown, $; Mary Priscilla Barry, Punxsutawney, $12; William C. Renouf, Beaver Falls, $12.

A special meeting of the stockholders of the Pennsylvania Canal Company has been called for April 11, at Philadelphia to perform the last act in the life of what was once one of the most important coteries of transportation in the state of Pennsylvania. It is proposed at the meeting to adandon the canal in its entirety forever, it having served its purpose long, but now being of no further use to its owners.

A mortgage given by the United Telephone and Telegraph Company of Philadelphia to the Equitable Trust Company of Philadelphia has been entered in the recorder's office. It is for $2,000,000, and is payable January 1, 1931. The revenue stamps on the mortgage cost $999.50. This mortgage will be entered in 36 counties in the state in which the company owns property.

Anthracite coal has been discovered on the farm of Jeremiah Gulden, in Fulton county. The vein was reached at the depth of 33 feet. The shaft filled with water, which has impeded progress. The out-cropping of coal along the creek bank led to the investigation. Two hundred acres are under lease, and it is said the Reading Railway has made a bid for the land.

Two boilers and a boiler house at an oil well on the Smith farm, about two miles east of Washington, owned by J. A. Anderson, were demolished by an explosion that is thought to have been caused by miscreants. It is thought that the explosion was caused by nitroglycerine. The boilers and boiler house were torn to pieces and very little of them remains.

H. H. Trask, of Montville, O., is getting rights of way from Charden to Meadville for the Cleveland and Eastern trolley line, which is now in operation to Charden. The intervening distance is 54 miles. Three other trolley projects are under way connecting Meadville with Titusville, Cambridge Springs and Oil City.

At Laughlintown, William Saltzman's watchdog became rabid and sprang upon Mr. Saltzman's little daughter, biting off the end of one of her fingers. The animal then turned on Mr. Saltzman and bit him on the foot. A gun was secured and the dog shot. It is feared that the little girl is badly injured.

Brownlee Murray, about ten years old, was bitten by a horse at Washington, and grave fears are entertained for the child's welfare. Some believe that the horse was afflicted with rabies. The owner stated that a few days ago the horse was bitten by a dog that acted strangely. The horse was shot.

There are about 50 incorporators, half of whom are workmen in the Pittsburg Window Glass Company, which is about to build a plant at Washington. The concern is capitalized at $100,000, and the plant will employ about 120 hands, of whom more than 100 will be skilled men.

Mine Inspector C. B. Ross, of the Greensburg district, has made public his report for the past year. It shows that in 1900 there was an increase of 1,570,739 tons of coal over the output of 1899. There was an increase of 2,794 persons over the number employed in 1899.

The blast furnace operated at Sharpsville, posted notices at the different furnaces that an advance in wages of 10 cents a day would be granted immediately. The employes threatened to strike unless their wages were raised. About 75 men are affected.

Plans have been drawn by Architect William Kauffman of Pittsburg for the new court house of Westmoreland county. The new structure will be built on the present site. The estimated cost is $700,000. Maine granite and structural steel will be used in the superstructure.

At the close of business March 30 the State Treasury shows the handsome balance of $5,025,560.61, the largest for many months. An advance of $238,239 has been made to the members and employes of the Legislature.

Miss Annie Lyle, principal of the Cohocksink school, Philadelphia, has rounded out a term of 50 years as public school teacher. She was tendered a reception in which all the prominent educators in the city took part.

The will of Mrs. Mary Maxton, one of the richest women of Latrobe, has been admitted to probate. She divides her $100,000 estate between her husband, Martin B. Maxwell and her daughter, Nellie Parker.

George Chrissinger, a wealthy merchant of Pocahontas, Somerset county, was thrown from a vicious horse and when he fell on the ground the horse began stamping him, crushing his skull so that he cannot live.

James Anwyl, a druggist of Wilkesbarre, and one of the best known Welsh singers in that section of the state, was found dead in bed of heart disease, aged 34.

The boiler in the sawmill of William Steen, near Corry, exploded, destroying the mill and injuring the owner.

Experimental use is now being made in the Cambria Steel Company's works at Johnstown of an English patent process by which three rails are rolled at once, instead of one.

Joseph Costello, a coal miner, was caught by a fall of slate in the mines at Baggeley. His back was broken and he sustained other injuries that will probably cause his death.

Engineers have commenced on the survey of the extension of the Westmoreland Traction company's lines from Irwin to East Pittsburg to connect with Pittsburg lines.

Within the last twenty years freight rates from and to England have decreased from fifty to seventy-five per cent.

Switzerland has 125 schools for girls. Domestic science and gardening are among the branches taught.

...mor of the Rock...

High up ... n the Laramie range is a little ... tation called Sherm... mere wat... ng place for trains on Union Pacific railway. Near ... is a gigant... pyramid of stone, 60 ... high and ... feet square at the ... which was set up by the railway as a monument to Oakes Aimes and Oliver Aimes.

In the later eighties there arrived at Sherman a shabby person of melancholy aspect, who put up a "shack" —Western for shanty—not far from the monument. Ostensibly he was prospecting, and he continued to prospect for three years without accomplishing any results, so far as could be observ... ed. At the end of that period the ma... agement of the Union Pacific rece... from him a communication dema... the immediate removal of the ... ment from the premises, whic... claimed as his under the homes... law.

The matt... was regarded in ... morous ligh... t first, but subse... proceedings ... eloped the fact ... the squatter ... what lawyers ... "case." T... r, it seems ... located on ... land whic... not belon... n Pacific ... same sec... had, by an... He knew ver... and the ups... the railway ... squatter's tra... title good.—Sa...

From Russia ... printed paper is ... Britain to the ... 70,000 pounds. ... also received in ... from Russia.

There is an ... acres near Cha... proprietor is ... money.

The Columbia ... dian Rocky Moun... of at least 100 sq...

When taken ... Garfield Headach... to cure quickly ... It is unusual to ... harmless. ...

Most girls ... why men in ... as they do in ...

Non-Not-... Constipation and ... remedy. Made ... No. Neurotic ...

Some ... other ...