A BALLADE OF WHITE FINGERS.

Her fingers stray along the frets,
Her fingers wander o'er the strings;
A little while my heart forgets
Its griefs and cares and petty stings.
The air is filled with rustling wings,
Forgot are folly, wrong and sin,
And earth seems made for happier things—
She plays upon her mandolin!

Her fingers fly along the frets,
Her fingers dance along the strings.
Courage, my soul! Though strife besets,
Stand firm, whatever fortune brings,
Heir to the ages, peer of kings!
High over the turmoil, dust and din,
The clarion call of Honor rings—
She plays upon her mandolin!

Her fingers dream along the frets,
They linger lightly o'er the strings;
What spell is woven in the nets
Of meshed melody she flings!
A burning tear unbidden springs;
Old hopes, loves, dreams—all dwell within
That dying music's whisperings—
She plays upon her mandolin!

Prince, at the gate of Paradise
I fear I scarce would enter in,
If still without, with luring eyes,
She played upon her mandolin!
—New Orleans Times-Democrat.

Duke's Mission.

HARRY was lying under the apple tree by the brook, Duke by his side.

"You see," Harry said, running his hand over the shaggy head, "you and I, old boy, have got to patch this thing up. But how," meditatively, "that's what I want to know. She won't let me say anything. Every time I do she gets mad or cries. Dorothy won't speak to Jack, and couldn't if she would, for he won't come near enough to give her a chance. You and I don't have any more drives or picnics or nice long tramps in the woods. Taken altogether, things are dead slow in this old place in the country. First thing we know he'll go back to town, and then it's all off. I wish you could help me."

Duke wagged his tail sympathetically.

"Here comes Dorothy now, old boy." And Harry waved his hand to the slender little figure in the pink muslin gown coming across the meadow.

"Harry," said his sister, as she came up and sat down beside him. "I think you are the laziest boy I ever saw. You and Duke have done nothing but lie around all day lately. Why don't you go somewhere such lovely days?"

"What's the use?" he answered, as he rose and lazily stretched himself. "There's no one to go with or no one to lend a fellow his dogcart, and one thing and another.

"Say, sis," he said persuasively, "why don't you and Jack make up? I'm missing heaps of good times."

"Harry Graham!" Dorothy said, "don't you ever as long as you live mention Jack Thurston's name to me again or I'll see that you never come with me again to Aunt Nettie's for the summer."

"Don't care if I don't," he answered crossly, "I'm going to write home for them to send for me, anyway, if something don't turn up pretty soon. Come on, Duke," and he was off.

But Duke did not move, but lay looking at Dorothy, then rose and stood thoughtfully gazing after Harry's retreating form.

Dorothy leaned back against the tree and let her thoughts have full sway. "Harry was right," she thought, "we have all missed heaps of good times the past four weeks."

And it was all her fault, all her ungovernable temper, she thought, and now she might never see Jack again. Since their quarrel she had only seen him once. He had changed his boarding place and was living at the other end of the town. There was a pretty girl staying there, too. The day she saw him they were driving together, laughing and talking with each other. He seemed happy enough even if she was miserable. Suppose he had fallen in love with her!

At the thought she buried her face in her hands and sobbed bitterly.

A cold nose was placed in her hand, and looking up she saw Duke's big, brown, sympathetic eyes fixed on her.

"You are sorry, boy, aren't you?" she said, "but you can't help me. I want to tell Jack I am sorry, but he won't give me a chance, for he won't come near me, and perhaps it's too late, anyway; he may not love me any more. Oh! I am so miserable!" and the sobs broke out afresh.

Finally she ceased crying and fell asleep from sheer exhaustion, her head leaning against the tree trunk and her hands loosely clasped together. Duke stood and looked at her for a few minutes, then lay down close beside her. Suddenly he pricked up his ears, then was off to where in the distance he could see a figure coming through the trees that bordered the meadow. With a rush he was upon him, licking his hands and with low barks telling him how glad he was to see him.

"Duke, old fellow," said Jack, "I haven't seen you in a long time," and he stroked the shaggy head. Then he stopped amazed, for Duke had his teeth in his coat and was pulling him in no gentle manner toward the lower end of the meadow.

"What is it, boy?" he said, as he was pulled along in spite of himself, then stopped suddenly, as Duke loosed his hold, and there in front of him was Dorothy fast asleep.

He knelt down beside her. "Dorothy," he said softly, taking her hands in his, "wake up, dear, it is Jack." She woke as she felt his kisses on her lips, and seeing his face above her, nestled back with a contented sigh in his arms.

"I am sorry, Jack, and wanted to tell you so, but you——" but he stopped her.

"There, dear, say no more about it. We have both been naughty—" with a happy laugh, "but now we will be good."

"And you don't love that pretty girl you took driving?"

"I love only one pretty girl," he answered, "and that is Dorothy Graham."

There was silence for a minute, then she said: "How did you know I was here, Jack?"

"Duke told me, good fellow," turning to pat him, but Duke was nowhere to be seen. But coming toward them at breakneck speed was Harry.

He precipitated himself into Jack's arms. "Say, isn't this bully?" he said. "I was sitting on the fence by the barn, wishing I was home, when Duke came up and commenced to pull me toward the meadow. Then I saw your hat and I knew everything was all right, and here I am——" and as a shaggy head was put against his face, "here's Duke."

Duke stood and gazed on them all with smiling benevolence and wagged his tail.

"Dear Duke," said Dorothy softly, and Jack answered her with a happy smile.

"Say, Jack," said Harry, a little later, as he started for the house with the dog. "I think I deserve a ride and Duke a collar. Course Duke did the work, but he wouldn't known about the trouble if I hadn't told him."

FOOTBALL STAR MARRIES.

New Jersey society was greatly interested in the wedding of Miss Elizabeth Sill to William Heath Bannard. Every Princeton man who has watched "Billy" Bannard, the best halfback who ever wore the Tiger stripes of old Nassau, make his twenty-five yards around the end toward the Yale goal line will congratulate him upon winning one of

MRS. ELIZABETH BANNARD.

the prettiest of the younger society set of New Jersey.

She is a graduate of the Woman's College of Baltimore and a member of the Gamma Phi Beta, a leading woman's college fraternity. The bride is tall and graceful, with chestnut hair and dark eyes. Her college popularity followed her when she came home from Baltimore and made her debut two seasons ago.

"FINEST LAND OUT OF DOORS."

Millions of Acres of Canadian Territory So Described by Travelers.

L. A. Hamilton and Land Commissioner Griffin have arrived in Winnipeg after a three weeks' drive through 500 miles of what Mr. Hamilton says an American would call "the finest block of land that lies out of doors." This land comprises about 25,000,000 acres and was covered by two men from Wetaskiwin through Battleford east, north to the Vermilion Lakes, across into the Blackfoot Hills, then to the Saskatchewan River, from there south to the Trapping Lake district and east again to Saskatoon.

"The object of our journey," said Mr. Hamilton, speaking to a Free Press reporter, "was to note the resources and progress of this district for intending settlers. Mr. Griffin had not been over this ground before and it was to him a trip of great value on this account. What we saw confirms the view I have taken that here lies one of the richest tracts of land in the world. We found that settlers have pushed their way in and are located not only on land all along the railway, but 10 miles on each side of it. The soil in all parts we saw is of the richest, and timber and water plentiful, except an eastern tract lying south of Eagle Hills, where timber is scarce. In the Battleford district, lying 120 miles from the railway, we found excellent fields of grain being grown, but in the majority of the farthest districts cattle raising is the chief industry. Settlers are pushing their way out from Calgary and Edmonton east as far as the Buck Lakes, 100 miles from the railway."

Game throughout this district, Mr. Hamilton states, was very plentiful—in fact, too plentiful. "We were told that the prairie chickens were so thick," said Mr. Hamilton, "that disease among them had developed and they were dying off in thousands. This I am told, occurs about every seven years, when the ravages of the disease are much more destructive than that wrought by the hunters after feathered game. There is no scarcity of fresh meats, however, and in many of the farming districts or ranching properties the owner has his own game preserves.

"On this tract of 25,000,000 acres there is no reason," concluded Mr. Hamilton, according to the Winnipeg Free Press, "why 500,000,000 bushels of wheat could not be raised and this will be the case some day not far distant."

Never dry your prints by artificial heat as it hardly ever leads to success.

In taking groups do not place the sitters all in a row as it gives them a very formal look.

If you are starting in photography do not buy a so-called complete outfit, but purchase the articles separately from a regular dealer.

Oxalic acid has been found by repeated experiments to be the best as a preservative in the hypo solution. Two ounces to a gallon of water is a good proportion.

If you have a fixed focus camera dust the lens frequently with a soft camels hair brush and occasionally remove the front board and thoroughly dust the shutter, etc.

A developing solution will keep much better if kept in small bottles that only just contains it. A large one that allows an air space between the solution and the top of the bottle spoils the solution.

A good method to bring out detail in the less exposed parts of the negative is to breathe on these parts. The heat of the breath apparently raises the activity of the developer on these places. Try this little dodge and you will be astonished with the results obtained.

The average amateur photographer of to-day is a very different type of person from his prototype of ten years ago. In the twentieth century there are very few amateurs who have not an object of some kind in photography, unless they belong to that nondescript class who take up one hobby after another, dropping their latest, as soon as the next new fad appears upon the horizon. This latter class is beyond redemption. Some are photographers because they have an artistic temperament, are admirers of nature, and in view of the want of the necessary skill to use the brush or pencil, embrace photography as a means of recording choicest subjects.

Here is a tip on focusing. This is not needed for hand camera users, although they may want to use the ground glass now and then, and it is a good thing to remember. To get the best definition and depth of focus try the following: Focus without a stop between the nearest and most remote points in the picture, which usually comes between the center and right or left edge of the ground glass. Do not focus at the center, but to one side of it, and the result will be much more satisfactory. After getting the focus put in the diaphragm. For large heads be sure the focus is well divided to get a uniform definition. The smaller the stop the more the definition and depth, but this is at the expense of what they call the "artistic effect." Keep this in mind. Focus with the lense wide open, and put in the diaphragm after you have the picture where you want it.

It is an excellent idea to frequently clean your lense. It may not look as though it needed it, but at the same time its best capabilities may be impaired by dust. If you wear glasses you know it is a good thing to rub them often. But do not rub your lense too hard. It may in time disturb its correction that is very delicate. Some say old linen is good, others recommend a specially prepared chamois skin, and still others think the only thing really proper to use is jeweler's tissue. A camel's hair brush is all right to remove the dust, and fine linen to polish the glass is found by manufacturers to be first-class. But be very careful not to touch the lense with the fingers. There is a natural oil in the skin to smear the glass, and it is almost impossible to restore it its original clearness. I have seen curious examiners of a camera rub a finger around the lense to clean off what they thought might be a bit of dust. Men have been killed for less offense, and the owner of a fine lense could well claim justifiable homicide for slaughtering on the spot any one who would do such a thing.

AROUND A BIG STATE

INTERESTING ITEMS OF LATE IOWA NEWS.

Iowa Land Worth More than Eastern Acres—Rock Rapids Man Resists Attempted Extortion—Shot by a Professional Gambler—An Actress Insane.

J. R. Sage, director of the Iowa weather and crop service, has returned from a month's visit in New York, New Jersey and other Eastern States, where he made some interesting agricultural investigations and comparisons. While there Director Sage conferred with the best posted men in the sections visited by him and now returns to his home State with a better opinion than ever of the agricultural riches of Iowa. Concerning his observations and investigations Director Sage said: "It is a fact, and a rather startling one at first appearance, that, acre for acre, farm land in Iowa is worth more on the market and brings a better price than farm land, acre for acre, in New York or any of the Eastern States. If there should be a forced sale of farm land in Iowa and farm land in New York to-morrow, selling the land in bulk, the Iowa land would command the higher price. Of course one reason for this is found in the fact that there is a larger proportion of tillable land in Iowa than in New York; but the output on the tillable land is better here than in the East. Take the land in the immediate vicinity of the large eastern cities and of course it commands higher prices, as it is used for small gardening purposes. But out in the country, acre for acre, Iowa land is worth more than New York. It is the same in comparison with other Eastern States."

Extortioners at Work.

For some time past there have been rumors afloat to the effect that an attempt has been made to kidnap the son of O. Keck of Rock Rapids. Letters which have been sent to Mr. Keck have recently been made public. In the first instance a letter was found on the porch of the Keck home reading as follows: "Mr. Keck: I demand five 100 dollars before one week of you, the same in gold in a sack right by your hitching post, or I will kidnap your baby when you least expect it if you do not come to my terms I will dinamite your house no fooling there are 20 of us in this work comply with my wishes or you and your family will be no more on this earth do not put it off any longer than Wednesday I will follow you to the end of time or comply with my wishes the demand is leave it there in a small red sack and if you try to ferrit this out sure death." This communication was unsigned and had been thrown carelessly upon the porch. Mr. Keck at once placed himself in consultation with the Pinkerton agency, whose detectives are now trying to find a clue to the mysterious letter writers. Later another letter was received which demanded of Mr. Keck the sum of $10,000 as a forfeit for not complying with the demands of the first letter. The second letter was couched in the most vulgar terms, every sentence reeking with filth.

Athlete Is Shot Dead.

Homer Holland, the sprinter and jumper who represented Drake University and the Chicago Athletic Association in the spring of 1898 and 1899, breaking records in hop, step and jump, was shot and instantly killed at Mount Ayr by A. M. Hunter, a professional gambler. The men had quarreled and were gambling. Hunter hunted Holland upto demand $20. No one saw the shooting, but several persons heard the shot and saw Hunter stand over Holland's body with a smoking revolver in his hand. He confessed the deed and said he would give himself up, but later hid in a livery barn, where he was arrested without resistance. Hunter is 30 years of age. He is a cousin of the notorious bandit Polk Wells. As Holland lay dying Hunter lighted a cigarette. Holland was 23 years old. The bullet from Hunter's revolver passed through Holland's body, mangling the lower part of the heart. Hunter claims Holland started for him and reached for a revolver, but the weapon which was found lying under Holland's body was not loaded.

Actress Goes Mad on Car.

Sadie Claflin of New York, a member of "The Village Parson" company, was taken from a train in Fort Dodge violently insane. Her clothing had been torn and disordered in her struggles and while she waited in the station for an ambulance to take her to the hospital it required four men to restrain her. Miss Claflin was taken suddenly insane while on the train. Her insanity is considered to be directly due to a morbid interest in spiritualism which she has manifested recently, having attended several seances.

State Items of Interest.

John Mehlhop, Sr., Dubuque's pioneer grocer, died at the home of his daughter, Mrs. A. L. Clark.

A free rural delivery mail service has been established at Elliott. Length of route, 25 miles; area covered, 29 square miles; number of houses on the route, 110; population served, 530. Postoffice at Grant to be supplied by the carriers.

The town of Denver is experiencing a boom since the extension of the Waterloo Rapid Transit Company's road to that place. There are now in course of erection two saloons, two hotels, two restaurants, two livery barns and two bowling alleys.

A free rural mail delivery will be established at Onslow, covering an area of thirty square miles; population served, 535; number of houses on route, 107; length of route, 22 miles. Postoffices at Clayford and Claymills to be supplied by the carriers on this route.

Ernest Shellhorn, a 10-year-old boy who lived at Council Bluffs, died from the effects of a gunshot wound received accidentally while hunting at Lake Manawa.

A Muscatine dealer has offered Stewart Sailer $800 for one of the pearls which he found, but the offer has been declined. The pearl is round, clear and white and weighs seventy-four grains.

The contract has been let for the erection of a new feeding shed at the Iowa State Agricultural College at Ames for $1,740. This building will take the place of the one recently destroyed by fire.

Lou Phillips stabbed and seriously wounded Thomas Jacobs while they were engaged in a quarrel at a social gathering near Bard.

The bank at Turin was raided. The robbers failed to reach the cash chest and secured only $50. The bank building was wrecked.

Commandant Herton of the Marshalltown soldiers' home has received a letter from Frederick Rosebrock, Osnabrueck, Prussia, inquiring for Dietrick M. Miller, former member of the home, who is the only direct heir to $25,000 left by his brother, recently deceased. Miller left the home in 1898 and his whereabouts is unknown.

Mrs. William E. Fuller, wife of Assistant Attorney General Fuller, died at her home in West Union after an illness of many months.

Fire damaged the plant of the Iowa Recorder at Greene to the amount of about $500. The explosion of a gasoline engine was the cause.

George Hausman, a well-known farmer living seven miles north of Waterloo, is missing, and the local police are of the opinion that he has been foully dealt with. Hausman had considerable money on his person. Several unknown men were seen with him, and an officer who ordered Hausman to go home believes he can recognize some of them.

J. B. Thornburg has been appointed postmaster at Orchard, vice W. R. Flint, resigned.

Margaret Huskins De Voe died at her residence in Lone Tree, in her seventy-second year.

James Drake, a laborer, shot his head off at Eldon. The cause of the suicide is unknown.

Wall Lake has been leased by the State executive council to the town of Lake View for $5 per year.

Fish Commissioner Lincoln has placed a car of about 25,000 young fish in the Des Moines river near Humboldt.

Ernest J. Hausen of Whitten had his collar bone broken while playing the industrial school eleven at Eldora.

The Mississippi Valley Telephone Company of Keokuk has filed a deed for its lines in consideration of $300,000.

A murdered colored man was found in a corn field near Ireton, who had apparently been dead about eight weeks.

James Anderson, white, was shot and killed in a drunken brawl at Foster. Paul White of Ottumwa is under arrest.

Captain A. M. Carpenter, an old river captain, was found dead in a cabin boat near Quincy, having committed suicide.

J. L. Schroeder, a farmer living near Pocahontas, was found frozen to death in a corn field a few hundred yards from his home.

Henry Forman committed suicide at Winterset by shooting himself with a shotgun. Poor health is supposed to have been the cause.

Alva Mooney, an Iowa Central employé, was knocked insensible by a blow from a sand bag and robbed of $15.45 by a negro at Marshalltown.

A man named Wilcox, who was operating a palmistry swindle, has been arrested for attempting to defraud a poor widow out of $300 at Dubuque.

The large barn belonging to H. W. Amos, seven miles south of Glidden, was struck by lightning and entirely destroyed. The loss will reach about $3,000.

The jury in the case of Mel Clemons, accused of killing Wm. Burghduff at Union, June 17 last, brought in a verdict finding the defendant guilty of murder in the second degree.

John Clark of Newton attempted to steal a ride from Des Moines to Newton and while boarding the train was thrown under the wheels. He will probably lose one leg as a result.

The bottling works of Snyder & Larkin at Marshalltown was entirely destroyed by fire caused by spontaneous combustion, causing a loss of about $8,000, partially insured.

Mrs. G. L. Richardson of Ackley was very badly burned by an explosion of gasoline. She was pouring gasoline into boiling water and allowed some of it to slop over on to the stove.

Par Jenkins of Tynes was adjudged insane and ordered to confinement in the hospital at Mt. Pleasant. He had been attending revival meetings and his mind became unbalanced over religion.

David DeWitt, a 17-year-old boy living at Oskaloosa, was arrested for attempting to pass bogus checks to the amount of about $535. He has been bound over to the grand jury under $2,000 bonds.

While passing between some cars in the yards at Red Oak, E. D. Anderson, a brakeman on the K. & W. Railway, was caught between two cars and crushed so badly that he died in a short time.

Charlie Swalm, an inmate of the Soldiers' Home and a brother of Albert W. Swalb, consul at Montevideo, Uruguay, came near losing his life by drowning while fishing in the Iowa river near Marshalltown.

Tracey Home, a hospital in which fifteen smallpox patients were quarantined, was badly damaged by fire at Des Moines. The inmates were rescued, the firemen and police risking exposure to the contagion.

Conductor McMillan of Ottumwa was killed at Afton by being crushed beneath a box car, which was overturned by a freight train crashing into another freight engaged in switching and which blocked the right of way.

George Williams, a former resident of Independence and owner of the famous race horse Axtell, died at the home of his parents at Galesburg, Ill. He was one of the originators of the kite-shaped track at Independence.

Judge Smyth, in the District Court at Burlington, decided against the city of Burlington in the case of the National State Bank vs. The City of Burlington, holding the assessment of the capital stock of the bank was excessive and deducting from such assessment all United States bonds, which could not be assessed, holding that the individual stockholders had already been assessed for the value of their bank stock, including government bonds. The case will be appealed.

A spark from an engine of the Omaha Railroad grew into a blaze which destroyed about $8,500 worth of property at Merrill, as follows: Plymouth elevator, $3,000; two and one-half carloads of wheat, $1,475; two tons of flour, $75; one ton of feed stuff, $15; one car household goods, $1,200; one car slack coal, $37; three box cars damaged, $2,500; total loss, $8,302. The elevator, wheat, flour and feed stuff belonged to the Plymouth Roller Mill Company of LeMars. This property was partially insured.

James R. Faust, five years ago a prosperous farmer near Marshalltown, who was sentenced to three years' imprisonment for burning his barn, reappears as from the grave. Faust was released from the Fort Madison penitentiary in June, 1900, perfectly sane. He then disappeared. Now he says he was kidnaped by three men and placed in a private asylum at Toledo. He escaped two months ago and made his way home through terrible hardships. He is now before the grand jury to show his conviction was the result of a conspiracy.

The United Workmen Lodge in Dubuque refused to pay the beneficiary of a certificate in the order because the holder was running a saloon when he died. The case will be appealed from the Dubuque District Court, which gave a full verdict to the beneficiary.

Mrs. Ira Campbell, aged about 25 years, died at her home, one mile north of Colfax, from lockjaw, caused by stepping on a rusty nail. At first the wound seemed slight and little attention was given to it. In a day or two blood poisoning set in and she died in great agony.

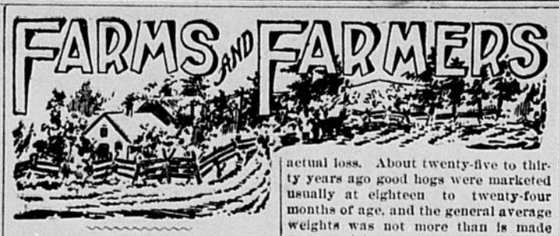
A freight train on the Great Western was ditched at a bridge near Dunkerton. The caboose and three box cars left the track and plunged into a creek twenty feet below. J. W. Emery, a stockman from State Center, who was riding in the caboose, was struck by flying timbers and instantly killed.

Charles Gaynor, a well-known South Ottumwa young man, was arrested by Capt. Peter Galagher as he was getting on a Burlington train, charged with desertion from the United States army. When taken into custody young Gaynor admitted the charge. Chief Gray took him to Des Moines, where he will be turned over to the federal authorities.

Eddie Fraikes, the 6-year-old son of Mr. and Mrs. Nelson Fraikes of Keokuk, climbed a fireman's ladder, unnoticed, to the distance of fifteen or twenty feet, and in attempting to descend fell the full distance to the rocks below, alighting on his face and receiving dangerous injuries.

The question of the whereabouts of N. S. Berry and C. L. Montgomery, representing respectively the Simmonds Hardware Company of St. Louis and the Plano Company of Chicago, was dispelled by the finding of their bodies in Clear lake. They were picked up by grappling hooks. Both men were married and had families.

FARMS AND FARMERS

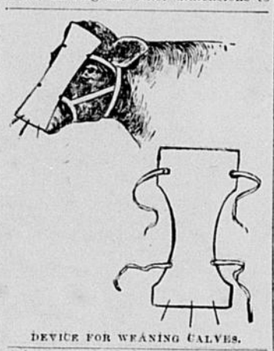


Seed Wheat Per Acre.

At the Ohio State University and Experiment Station they have for many years been testing different amounts of seed wheat per acre. The first experiments were on rich bottom land. Where they sowed five pecks per acre the yield was thirty-four bushels, and where they put on seven pecks they harvested thirty-seven bushels, a gain of a bushel for each peck of seed. It was repeated the next year on five duplicate plots sown at each rate. In every case the results were in favor of the seven pecks per acre, it giving enough larger crop to more than repay the extra cost of the seed. Tests have been made on the same farm several years since with varying quantities, with the result that best crops were always obtained when not less than five pecks or more than seven pecks were sown. Having removed in 1892 to a farm where the soil is less productive than that first tested, they have found the most profitable harvests from the use of eight pecks or more of seed. In unfavorable seasons the best results there have been from nine to ten pecks of seed. While we cannot dispute the correctness of their tests, we think some of those who thoroughly fit their ground get better results from less than seven pecks than from more, and it may depend for profit upon the point of the comparative cost of extra seeding or of extra labor in fitting the soil.—American Cultivator.

Calf-Weaning Device.

It is sometimes a difficult task to wean calves, for some of them will persistently suck the old cow at every opportunity. A device to break up the habit may be made of a board an inch thick, making the other dimensions to



DEVICE FOR WEANING CALVES.

suit the head of the calf. The sides should be cut out so that the eyes of the calf will not be obstructed when the board rests against its face. Holes are bored in the board and straps run through them in such a manner that they may be fastened to the halter worn by the calf.

Is Butter-Making Profitable?

Dairymen frequently get discouraged and conclude there is more money and less hard work in producing milk and selling it to wholesalers in the large cities than in making butter. If a man is manufacturing butter and is netting even 20 cents a pound for it, there is something wrong if he is losing money. It is admitted, however, that butter sold at the price named can not give one much profit. In most sections the net price obtained for milk is very low and in shipping milk the producer loses the skim milk which he has when he makes butter; this skim milk is worth taking into consideration if one has swine or poultry on the farm. It is impossible for one to advise without some knowledge of local conditions, but on general principles it certainly would be poor business policy for any one who understands the art of producing good butter, and who is getting a fair price for the product of his dairy, to think of giving it up for the uncertainty of the fresh milk market.—Indianapolis News.

The Barn-Yard in Winter.

In the fall get the barnyard in shape for winter. Drainage should be provided the first thing that is done, and the drains should be so arranged that all the liquid excrement can be carried into barrels or vats, where it may be saved and used on the farm. Many a farmer has buried his hope of prosperity in his barnyard. After the drainage is done, the soil should be leveled, low spots filled in and high ones cut down, so that at no time will there be puddles of filth. It is a good plan to have a reserve pile of sand under cover, so that the holes made by the hoofs of the animals may be filled in from time to time. No barnyard should be without a shed open to the south, under which the cows may find protection from rain and wind, should they be left out for any length of time. Roughage of some kind should be placed in racks under this shed, so that the cows may have material for a cud or two.

A New Horse Disease.

The disease, pronounced to be cerebro-spinal meningitis, continues to play havoc with the horses in Worcester County, Md., and nothing yet has been found that will effect a cure when a horse is once down. Dr. Buckley, veterinarian of the Maryland Agricultural College, and Dr. W. G. McAllum of the Johns Hopkins University, have been investigating the disease and its causes. They took away with them parts of the brain and blood of horses just dead and will make further tests. Dr. McAllum says the disease is undoubtedly a brain trouble and is not meningitis, but is encephalitis.

Windmills and Progress.

Under this head the United States geological survey sends out an interesting sketch. "In Holland," says this bulletin, "windmills are used to get rid of water; in America they are employed to produce it."

On the great plains in Kansas, Dakota, Iowa and the adjoining States, an ideal place for windmills where the country lies flat, and the winds sweep uninterrupted for miles, the landscape is fairly dotted with them. A number of the larger ones grind corn or do other similar work, but the majority are engaged in pumping.

Keep the Pig Growing.

The pig should be kept growing continually, says an agricultural writer. It requires a certain amount of food for maintenance. If there are no growth and no gain, this maintenance food is actual loss. About twenty-five to thirty years ago good hogs were marketed usually at eighteen to twenty-four months of age, and the general average weights was not more than is made now at eight to ten months, showing the great improvement in the present methods and the great loss of feed by the old plan of long maturing.

Farmers, Keep Accounts.

The farmer who does not keep an account of all his business and farming operations is making a great mistake. The benefits derived from keeping such an account are many and varied. It begets an interest in one's business to know the profit on every detail. It forms a reliable basis of knowledge of the most profitable departments. There is a satisfaction in feeding stock when one knows the profit that is being made. It enables the farmer to conduct operations on business principles. A good business man would scarcely think of doing business without an account book. Why should a farmer? Get an account book and keep tab of your business. You will get 100 per cent in satisfaction. I would also advise the keeping of a notebook, in which to note briefly the title and a few general points of the articles of interest that occur in the farm papers taken. By noting the title, name and date of paper, and filing the papers away in proper order, one can readily look up any desired article, which otherwise might requore hours. Try it, and see if you do not take more interest in your farm papers.—Exchange.

Broad Tires for Farm Wagons.

The great value of broad tires for both farm wagons and carts and those used for carrying heavy loads on the road has long been demonstrated beyond question. In a recent bulletin issued by the experiment station of the University of the State of Missouri, the director says: Numerous tests of the draft of wide and narrow tired wagons have been made at this station during the last two years on macadam, gravel and dirt roads in all conditions, and on meadows, pastures and ploughed fields, both wet and dry. The draft has been determined by means of a self-recording dynamometer. The net load was in every trial the same, viz., 2,000 pounds. Contrary to public expectation, in a large majority of cases the draft was materially less when tires six inches in width were used than when the tests were made with tires of standard width—one and one-half inches.

First Step Toward Winter Eggs.

The poultry-keeping operations of the farm will always be on a low plane where there is lack of system in regularly getting rid of the hens after their second, or, at most, third year, says Wallace's Farmer. We wish we could impress this fact upon every farmer who is disposed to give the slightest recognition to the part which the chickens play in connection with the farm revenues. It is a sheer waste of money to build good houses and fill them with hens which have lived beyond the day of their greatest usefulness. Send the aged hens away this summer just as soon as they have weaned their brood. Don't wait until fall, as they will then have to be sold in competition with the young stock, with which the market will be flooded. You could not find poorer employment than trying to get winter eggs from hens more than two years old.

Grinding Corn Fodder.

That the corn shredder is a valuable piece of machinery there is no question, neither is there any doubt but what even the old-fashioned corn cutter is an improvement over feeding the whole stalks to the cattle. A new attachment to a corn cutter drops the cut corn stalks from the hopper of the cutter between two cogged cylinders, which literally chew the corn into bits, so that every particle of the stalk is eaten by the cows. This attachment may be fashioned by a local blacksmith. Such a machine ought to be manufactured and sold for less money than a shredder and be just the thing for the farmer who cannot afford a shredder.

Value of the Soy Bean.

Recent analyses have shown that the meal made from soy beans exceeded cotton seed in the fat contents, and was a little behind it in protein. There is no good reason why farmers of the Middle and Northern States cannot grow the soy bean profitably and, by feeding it with other grains or using it with roughage, gradually accustom the stock to it, so that it will become a valuable addition to the ration. It seems too bad that a food so high in fat and protein, the two most valuable portions of stock food, should be neglected, or, at least, treated with indifference.

Harness Blacking.

The following is from National Stockman and Farmer: "To two quarts of fish oil add two pounds of mutton tallow, one pint of castor oil, one-fourth pound of ivory black, one-half pound beeswax, four ounces of rosin, one ounce of Burgundy pitch. Put all together in an iron kettle over a slow fire. Boil and stir half an hour. Then set off and let settle fifteen minutes. Then pour into another vessel, leaving all sediment in the bottom. When cold, it is ready for use.

Sheep Shearings.

Keep the best of the ewe lambs.

Young rams should be kept thrifty.

Large flocks do not pay relatively as well as small ones.

Give the lambs a little grain feed a few days before weaning.

After the corn is laid by it is often a good plan to turn in the sheep.

Lambs, wool, mutton and manure are the four cardinal points of sheep raising.

The longer a man keeps poor sheep the poorer he will be.

In dressing a mutton the woolly part should not be allowed to touch the flesh.

Sheep may be termed the gleaners or savers of the waste on the farm.

No one breed of sheep will succeed best on all soils or in all situations.

Of all methods of improving the soil and destroying weeds sheep are the best.

So far as can be done sheep should have nothing to eat for twenty-four hours before killing.

A weakened constitution predisposes to disease of any kind.

Ewes will produce larger and better lambs if in a good, plump condition at the time of coupling.

If a sheep is injured in any way, wash the wound, bathe with turpentine and cover with tar.

DR. CHARLES K. ADAMS.

Eminent Educator Who Has Left the University of Wisconsin.

The retirement of Dr. Charles Kendall Adams from the presidency of the University of Wisconsin is an event of importance in the collegiate world, in that it removes from the field of activity one of the strongest figures among the educational forces of the West. Behind his interesting and forceful personality is the long record of a life that was full of professional zeal, literary industry and scholarly endeavor.

Dr. Adams, who is compelled to tender his resignation in order to seek a restoration of failing health, is a fine type of the self-made "college man." He was not pushed through college by the impelling pride of wealthy parents or relatives. He had the aid of no adventitious circumstance influential or financial, in his struggle for an education or in his subsequent efforts for professional preferment. He "worked his way" through the University of Michigan, graduating in 1861. Four years later his alma mater honored him by making him instructor in Latin and history. His subsequent promotions were rapid and were won upon demonstrated merit, until he finally succeeded Dr. White in the chair of history, the latter having resigned to accept the presidency of Cornell University.

Prof. C. K. Adams

The retirement of Dr. White as president of Cornell and the appointment of Dr. Adams as his successor gave the latter the opportunity to build the enduring monument of his life. The impress left upon Cornell by his scholarship and administrative genius cannot be effaced. When he left it in 1892 to take the presidency of the University of Wisconsin he had raised it from a staff of fifty-four instructors and an enrollment of 1,506 students.

Under his administration the University of Wisconsin has also enjoyed an era of great prosperity. A most captivating and instructive writer upon historical subjects, a lucid and forceful expositor in the classroom, and a man of great geniality and liberal-mindedness, his retirement is a severe loss to higher education and will occasion wide regret.

ONE OF THE LAST OF HIS FAMOUS BREED.

One of the most noted and valuable long-horned cattle in the world is the famous Texas steer Geronimo, named after the celebrated Indian chief. He is as fierce and dangerous as was his namesake. He is said to be 36 years old, and his great horns measure nine feet six inches from tip to tip, three to four feet being the length of the average horned steer.

Geronimo is almost the last of the type of long-horned Texas cattle in this country, and the bureau of animal industry, wishing to preserve a pictorial record of the last survivor of so famous an American breed and type, had Geronimo photographed recently and secured the accompanying picture. The horns, which are the most distinctive feature of this breed, are brought out very prominently and are the record ones for length.

FAMOUS TEXAS STEER.

Geronimo has taken many State and national prizes at the various live stock shows. It is understood that at his death the bureau of animal industry will secure the body and have it mounted in the National Museum at Washington.

English Bank Precautions.

The recent attempts of a gang of American swindlers to victimize the London banks have drawn attention to the remarkable precautions which banking houses take against fraud. Every employe, from the office boy to the manager, has to take an oath on entering the bank that they will not divulge the business of the establishment, except under compulsion of law. And they are not allowed to forget this oath, for every year the entire staff is assembled in the board room to hear the oath read over. The effect of this precaution has been admirable.

There is also very great care exercised to prevent fraud by means of worthless securities and promissory notes. In almost every bank there is a department devoted to scrutinizing all notes which may be deposited for this purpose. These records, which have been compiled after years of collections, show the standing of almost every firm in London. Many a business house would be dismayed if they knew that practically all their most cherished secrets were known to the bank. Reference to these records will indicate at once whether the firm concerned has at any time dishonored a bill, and so the bank is able to gauge the value of the securities offered, say, for a loan for three months.

These are merely a few of the precautions adopted, but they will serve to give some idea of the constant and unremitting care taken to prevent fraud.—London Mail.

Largest of Flying Birds.

The largest of flying birds is the Californian vulture or condor, measuring from tip to tip 9½ to 10 feet, and exceeding considerably in size the true condor of South America. The bird lays but one egg each season, large, oval, asby green, and deeply pitted.

Age of Whales.

The age of the whale is calculated according to the number of laminae, or layers, of the whalebone, which increases yearly. From these indications ages of 300 to 350 years have been assigned to whales.