

AGRICULTURAL NEWS

THINGS PERTAINING TO THE FARM AND HOME.

Fuel Value of Corn as Compared with Coal—Experiments as to the Cost of Butter in Eastern Canada—How to Feed for Strength.

Fuel Value of Corn.

The present abundance and low price of corn throughout the Northwest has caused it to be used as fuel by hundreds of farmers and by some dwellers in the towns. To test the economy of this practice, the station burned 5,232 pounds of corn in a furnace under a boiler, and a careful account was kept of the quantity of water evaporated by the heat. The next day a like quantity of coal was used, and a careful account kept of the quantity of water evaporated (converted into steam).

The experiment proved that one pound of coal will evaporate nearly twice as much water as one pound of corn—the exact figures being one and nine-tenths times as much. The coal used cost \$6.65 per ton in Lincoln, and according to that price the corn was worth, for burning, \$3.50 per ton, or 12½ cents per bushel. When coal is worth \$4.87 per ton, corn is worth, for burning, 9 cents per bushel; when coal is worth \$5.41 per ton, corn is worth 10 cents; coal \$5.85, corn 11 cents; coal \$6.40, corn 12 cents; coal \$7.11, corn 13 cents; coal, \$7.57, corn 14 cents; coal \$8.11, corn 15 cents. But, by burning corn, the farmer saves hauling the corn to town and hauling the coal home. Another consideration, however, is this: May it not pay better to hold the corn till next year than to burn it? Two years ago wheat was so cheap that farmers were feeding it to hogs; now it is well up in price. It is not unlikely that corn may go the same road.—Bulletin of Nebraska Experiment Station.

The Cost of Butter.

A very close calculation was made by a writer, "F. J. S.," in the Farmers' Advocate last year on the cost of butter in Eastern Canada. He divided the question into three parts: "Grass butter," "fall butter," and "winter butter," and worked it out on the basis that a cow gives 5,000 pounds of milk, yielding 200 pounds of butter, and that she milks nine months.

Labor is charged at 10 cents an hour, board included. The strictly grass butter season he puts at two months, May 20 to July 20. The total cost for feed, labor, milking, caring for milk, churning and marketing he puts at \$5.80 per cow for sixty days. He then charges up to this "grass butter" the proportion of cost of keeping the cow three months in idleness, which is \$1.33, making a total of \$7.13, which brings the cost of the ninety pounds of butter which was produced on grass by a two-hundred-pound cow to be eight cents a pound.

The fall period he placed at ninety days. For this period the cost per pound of butter was found to be fifteen cents.

The cost of winter production for a period of 120 days, with ensilage used, is placed at 20½ cents, while the cost of milk per 100 pounds was found to be 68 cents.

Feeding for Strength.

It is not accidental that oats, the grain which, next to whole wheat, is best for furnishing growth to the muscles, should have always been the favorite food for horses. They are better than wheat for all animals except man, and as good also for man, if properly prepared. It is the large proportion of hull which makes oats superior for horse feed, as the hull distends the nutriment and prevents it from compacting and heating in the stomach. Oat grain not only contains a large amount of nitrogenous nutriment, but it has besides a certain stimulative substance, which is peculiar to the oat.

Covered Runs.

A covered run is absolutely necessary for the well-being and comfort of poultry. If it rains and snows, they must have shelter; if the fierce rays of the sun beat down upon them, they like to be able to get into the shade. If your fowl-pen is small, it should be covered over with roofing felt, boards or zinc.

There is an objection to two-story poultry-houses. The ground floor may make a neat-looking run, but it has its disadvantages, and the main one is that if it snows or rains during the day the fowls crowd under, and very probably remain there all night long rather than step out into the storm for the purpose of going to roost in the proper place.

In summer, the fowls would not take much harm, but in winter one night of exposure like this would mean death or disease, and certainly it would not be likely to add to the supply of eggs.—Massachusetts Ploughman.

Top Dressing Poor Knolls.

It is often hard work to get a clover seeding on the dry, elevated knolls in grain fields. Lack of moisture is usually the cause. But the evil may be remedied by drawing a few loads of stable manure and spreading over these knolls. The manure not only protects the young clover plants, but it also holds the moisture in the soil by checking evaporation. A few times seeding the knolls thus will make them as rich as any part of the field. It is usually the lack of clover seeding on such places that has kept them poor.

Persistent Milkers.

Each year in keeping cows confirms me more and more in the belief that the matter of having persistent milkers is largely under our control. As illustration of this, a certain cow in our herd, owing to lack of grain feed at milking time, was dry for six months, and yet, under our treatment, she can be milked

the year round. Two years ago we bought a cow that I picked out for a persistent milker, but she had been carelessly handled and poorly fed, and was dry three or four months. This fall we wanted to dry her in time to give her sixty days' rest, but found her still giving four or five quarts daily. Much is said nowadays about milking continuously. If cows will do so, I have had a number of cows that could be milked without difficulty, and occasionally have done so, but have always found it resulted in a loss. The cow needs at least eight weeks' rest, and will do enough better when she comes in to pay for it.—Hoard's Dairyman.

Phosphate for Timothy.

The wheat plant belongs to the family of grasses, and all these need phosphate to perfect their seeds, as well as for the general welfare of the plant. Whenever timothy is sown with any grain, especially in the fall, no small part of the phosphate used for the grain crop goes into the subsequent crop of grass. The grain may retard the timothy growth the first year, but the phosphate will show in the growth of grass for several seasons. Timothy roots do not run far. When the phosphate is applied with the drill, as it always should be, the grass growth will show the drill mark as long as the land remains seeded.—American Cultivator.

New Uses for Greenhouses.

The decreased cost of constructing and managing greenhouses is leading to a great multiplication of their number, and as another result of the uses to which they are put. A Philadelphia owner of numerous greenhouses, for which he could not find profitable use, devoted several to the growing of potatoes. Of course in rich soil and with abundant warmth and moisture, the crop was very large. He had home-grown potatoes as early as they could be brought from the South, and made a fair profit by selling at the same price per peck as new potatoes brought per bushel a few weeks later.

Team Horses.

I think if we could have a larger breed of horses started there would be money in raising colts for team purposes, as I think a native colt at four years of age weighing twelve hundred pounds would bring from \$125 to \$150, and it seems as though it might be made to pay to raise colts for these prices, and I would much rather have a pair of such horses than those brought from the West and Canada.

It will pay you to breed your farm mares this year, if they are good ones. If they are not good, keep selling and trading until you get good ones. A good team tells a good farmer.—Farm News.

Cropping Bearing Orchards.

It requires some extra profitable crop, and one that will itself pay for a good deal of manure, to make the cropping of a bearing orchard pay. We have seen it done with both blackberries and raspberries, both of which do well when partially shaded, and which will not suffer from drought, as do most of the crops grown in orchards. On no account should grain crops be grown in the orchard, unless it be where young trees have grown to bearing size, but without producing a crop. Even then the result is better accomplished by sowing clover, to be grown for a year or two.—Exchange.

Percherons.

The horse is a noble animal, but I think the time may come when electricity will crowd him out. Our mowing machines, horse rakes and wagons of all kinds will be shooting around, and not a horse to be seen. But for the present for farm wear, would have Percheron horses weighing from ten to twelve hundred, and the feed should be cracked corn and oats, equal parts every time.—Farm News.

Odors and Ends.

Powdered alum applied to a fever sore will prevent it from becoming unsightly or noticeable.

A thermometer to be fastened upon the oven door is one of the most useful of articles to the cook. With this the heat of the oven can be determined without opening the door, and the baking of cakes, puddings and souffles can be accomplished much more successfully.

To make codfish balls, simmer together equal quantities of raw fish and potatoes—cut in small pieces—until the potatoes are thoroughly cooked. When done drain and mash; add a dash of white pepper, a little sweet milk and butter and the beaten white of one egg for every cupful of the mixture. Fry in hot pan, drain and serve at once.

For the sewing room place boxes instead of piece bags are much to be preferred. These may be built along the wall, forming pigeonholes about eighteen inches square, duly labeled for each member of the family, and for linings and patterns. A chintz curtain falls to the floor in front of such a cabinet, whose convenience has only to be tried to be amply demonstrated.

To make linen beautifully white, use refined borax in the water instead of soda or washing powder. A large handful of powdered borax to ten gallons of boiling water is the proportion, and you will save one-half in soap by this method. Borax being a natural salt, does not injure in the slightest degree the texture of the linen, and will soften the hardest water.

Both dishcloths and dusting cloths should be put through the wash regularly and a fresh supply given out each week. This is done in order that they may pass inspection regularly. They should be washed out carefully every day they are used, and dried at least once in the twenty-four hours in the open air. This will prevent any danger of "death in the dishcloth" in the shape of mold and the germs of disease so often bred in putrid and offensive cloths.

ALL ARE NEW WOMEN

FIVE SCHOOL SUPERINTENDENTS IN ILLINOIS.

Representative Types of Up-to-Date American Womanhood Who Have Attained High Positions in Their Chosen Professions.

Women Educators.

Here are sketches of five women, prominent in educational circles in Illinois. Each of them, made competent by her educational experience in public school work, has been elected by the people of her county to fill the office of Superintendent of Public Schools.

Miss Nannie J. McKee, County Superintendent of Schools of Alexander County, is an excellent type of American womanhood, being unusually bright and intelligent, possessed of a sturdy self-reliance, yet is womanly and sympathetic. She has lived in Cairo nearly all her life, and graduated from the Cairo High School in the class of 1874. Soon after graduating she was employed in the local schools, where her tact and skill as a teacher caused her rapid promotion from one grade to another, until in a few years she was principal of the very school from which she had graduated. This position she filled to the complete satisfaction of the Board of Education until Oct. 27, 1891, when a vacancy occurred in the office of the County Superintendent of Schools. The Board of County Commissioners appointed her to fill this position until the next annual election. Almost without an effort she was nominated by the Republican convention of 1892 and elected by a handsome majority.

Miss Mamie Bunch, Superintendent of the Douglas County Schools, is one of the six women in the State who are at the head of school affairs, and as a Superintendent stands very high with the people, as she belongs to that progressive class that wishes to be abreast

quite a young miss, leaving upon her and her younger brothers the care of a large family. She ceased her high school studies before final graduation to begin the work of teaching. She taught a number of terms in the county, where her excellent success caught attention, and she was elected to the city schools, in which she has taught nearly eight years, being re-elected as many times. She aspired to the position of Superintendent and won.—Chicago Tribune.

Teaching the Points of the Compass.

Early in the commencement of the study of geography, the children should learn to locate the points of the compass. They all know in what direction the sun rises; they may point toward the place where the sun rises. The teacher should inform herself by observation where the sun rises directly in the east, and by the use of a compass get the true direction of north. Let the pupils point to the setting sun. Some of the class may have visited a place east of the town where they attended school, as Buffalo, N. Y. Let the class point to the places named.

It is best to have a compass in the schoolroom. Every child is interested in watching the needle. Let the class point to the north. After the teacher has explained the direction of south, practice in the same way. The teacher may name prominent cities and give their directions in order that the class may be exercised in learning direction.

Care must be taken lest the pupils associate points of the compass with different parts of the school-room. In order to test this, a pupil may be sent into a recitation room or a hall and directed to point as the teacher or the class may direct. Afterward the immediate points may be taught.

When the directions are taught on the map the teacher must use great care lest she speak of north on the map as "up" or south as "down," and she should exact correctness of expression on the part of her pupils. But little time will usually be required to teach the points of the compass, as most chil-



Blacklisting of Workmen.

One of the bills before Congress which is likely to give rise to no little discussion is that which defines the act of blacklisting men who have taken part in strikes as a "conspiracy against the United States." The object of the bill is to prevent large corporations, and particularly railroad corporations, from putting the names of strikers upon their blacklists, and thus largely depriving them of the chance to earn a living, says the San Francisco Call. According to reports which have come to us the bill excludes from its benefits all strikers who have engaged in lawless acts in connection with a strike, lockout or other conflict between labor and capital, but it affirms the right of every wage earner to leave his work whenever he pleases, and to leave it either by and of himself or in company with a multitude of others.

There can be no question of the essential justice of such a measure. A strike is no doubt frequently an act of folly, which results in damage to the community at large, but that is no reason why the striker should thereafter find himself debarred by corporate influence from obtaining work. A combination of large employers to keep industrious men out of employment by way of vindictive punishment is as prejudicial to public welfare as anything that could be well imagined. The men who are thus shut out from all revenues of employment at the trades in which they are skilled are forced to join the already too rapidly increasing army of the unemployed and add materially to the mass of discontented men. In their discontent, moreover, there is a sense of injustice which will add to its aggressiveness and tend to make it a menace to the general peace and public welfare. A folly is not a crime, and it should not be punished as such. Whenever a striker engages in a criminal act there are laws sufficient to punish him, and no corporation should presume to take the punishment into its own hands.

No Aristocracy of Labor.

Hard times have almost obliterated the aristocratic line drawn by labor. Labor unions have done much toward eradicating it, but hard times have proven a greater equalizer, says the Union Label Advocate. We find the once aristocratic telegrapher nicely ensconced in a box car with your gay and festive hobo print, making himself quite sociable and agreeable, willing even to share a few stray straws. The paper hanger, who heretofore prided himself as an interior decorator, is not now above doing the freight-car-jump act with the tinner, whom in earlier days he has passed unnoticed. And the printer, who in former days was an artist, can now be seen almost any clear day disporting on the pikes with the grimy blacksmith as his companion. Nor is it uncommon to find the carver in stone pedestrianizing with the builder of the foundation.

And so you will find them all along the road, traveling together, sharing each other's joys and sorrows, and the results of the other's panhandling. Yea, verily, these hard times have made strange bedfellows, and road fellows, too. If we had possessed this kindly feeling for each other long ago would we now be suffering? There is a chasm yet open; let it be closed as rapidly and effectually as possible, so when better times come, if come they do, we will be prepared to stand firmly together and weather what storms may arise. Let it be as a warning to us. Our suffering should draw us closer together to meet in battle a common enemy. Our war cry should be "The Universal Use of the Union Label."

Labor Doesn't Like Him.

Few labor men have had the poor taste to applaud Sovereign's last and most blatant bid for notoriety, the letter in answer to Private Dalzell, says a writer in the Nashville Journal of Labor. Sovereign has, by his erratic and shameless conduct since becoming general master workman of the Knights of Labor, distinguished himself as one of the most dangerous men in the labor movement. As the tool of John W. Hayes he has assisted in dragging the once great order down to a position where it is both distrusted and despised. His last move in having himself elected president of a so-called Reform Press Association shows how low down he has got in politics, as in everything else. It's about time editors of the labor press of this country were getting out their machetes and going out after Mr. Sovereign and his clique. The labor movement will be a great deal better off by his removal, as he has long ago shown himself to be, in our opinion, unworthy of the confidence of the working people.

What to Do with Women.

More than fifty women and girls were examined as witnesses in the investigation regarding the surroundings and wages of working women and girls in New York City, and as a result the labor commissioner in his report, recently published, says: "It is a puzzling problem for the statesmen and the philanthropist to determine what to do for the thousands of women and girls in the greater New York who work, and who are willing and anxious to work, and yet are not receiving wages enough to enable them to live as human beings should live. It is a difficult thing to point out an adequate remedy; in fact, the nearest approach to one is, it seems, the organization of unions of

these working people, for wage workers who are members of unions seem to receive better wages, better protection and to have better surroundings than those who are not connected with labor organizations."

Restriction in Immigration.

If the resolution, which would place the American Federation of Labor on record as opposing any restriction to immigration, is right, then the ethics of trade unionism is wrong, says the Locomotive Firemen's Magazine. If we have no moral right to prevent a non-union Chinaman or a non-union Italian coming to America to accept employment at reduced wages, then by what right do we object to a non-union native of the country accepting employment at reduced wages. Are we to curse an American scab for taking our places when we strike to sustain existing conditions and then invite a horde of people to this country who do not appreciate the conditions we have maintained?

Housing of Working People.

"The Housing of the Working People" is the title of a report recently issued by Labor Commissioner Carroll D. Wright, of the Federal Labor Bureau, and it contains a number of model designs for small dwellings and residence blocks, and a review of the work done by various societies in this and other countries organized to inaugurate sanitary reforms and abolish the slum districts in the larger cities. The report declares that the investigation clearly proves that the percentage of earnings of heads of families which is absorbed in the payment of rents is far too high, and this is the principal cause for all the overcrowding.

Frequent Elections Best.

The executive board of the New Jersey Federation of Trades Unions is out with a strong address against the proposed amendment to the constitution by which it is intended to hold legislative sessions every two years. It points out how the idea meets with the approval of ringsters and other enemies of good government and continues: "Frequent elections and short terms of office may not be agreeable to official leeches, but they are of vital importance to the perpetuation of government by the people, of the people and for the people."

Labor Notes.

Michigan printers object to having the State printing done in reformatories, as the Legislature proposes.

Reading, Pa., Iron Company has posted the information that the wages of their 2,000 workmen must be reduced.

Cleveland Building Trades' Council will demand eight hours on April 1. Carpenters secured this a year ago without a strike.

Several university professors who signed a declaration in favor of the striking dock laborers of Hamburg, are to be prosecuted by order of the German Government.

A large body of unemployed waited upon the Mayor of Los Angeles, Cal., and demanded assistance. Mayor Snyder assured the men that he would act upon their request at once.

It is reported that Tom Mann will resign the secretaryship of the independent labor party of Great Britain and confine himself to organizing labor apart from parliamentary action.

An ordinance was recently passed by the City Council of Hamilton, Ont., declaring that uniforms for policemen, firemen and other city employes in future shall bear the Tailors' Union label.

Buffalo boss barbers have organized and will support the Bundy bill. This measure will abolish barber schools, provide for examination by a board, and under it apprentices must serve three years.

The St. Paul Plumbers' union has established a scale, ranging from \$15 to \$21 a week, according to the number of years' experience, while non-union plumbers receive almost any sum from \$5 to \$10 a week.

Over 150 hands employed in the bindery of the Munzy Publishing House at New London, Conn., were discharged on account of the strike of the other hands. Mr. Munzy will move his plant to New York.

A 10 per cent. reduction in the wages of the miners employed in the Chapin and Sunny Lake mines, Michigan, has been put in force. A similar reduction will probably take place at the Pewabic and Penna. Iron Company mines, in which event 1,200 men in all will be affected.

The present membership of the Knights of Labor order is reported to be hardly 41,000, where in its palmy days the order embraced more than 500,000 workmen. Bankruptcy also stares it in the face, for expenses are exceeding receipts, and the salaries of the general officers are largely in arrears.

The California Legislature has passed the following labor bills: at the instance of the California labor convention: Changing Labor day from first Monday in October to first Monday in September, providing for a minimum wage of \$2 per day on public works, providing for a bond equal to one-half the contract price for wages on public work, providing for a stated pay day at least monthly for loggers and lumbermen. Several other bills are still pending.



WOMEN SCHOOL SUPERINTENDENTS IN ILLINOIS.

of the time, Miss Bunch owes her nomination to her pluck, for at the time she was nominated in the summer of 1893 she entered the race with five popular men teachers who were aspirants for the honor. It appeared to be the field against the young woman, but for thirty days prior to the date of the convention she made a thorough canvass of the county, mingled with the people, and appealed directly to the voters to assist her. Her winning manners, her intelligence, and good common sense captivated the people, and when the vote was cast Miss Bunch was the choice over all.

Mrs. Mary E. Sykes was elected Superintendent of Schools in Warren County in 1894. Previous to that she had been teaching in the city schools for eight years, and the latter part of that time as special teacher of drawing. She had also taught this subject in county institutes here and in other portions of the State for four years. She secured the nomination for the office through her wide and favorable acquaintance with teachers and influential people through the county. In the convention she got the necessary majority with ease. She managed her own campaign and was elected without difficulty.

Miss Sarah J. Whittenberg, the present County Superintendent of Schools in Johnson County, was born and raised in Johnson County, and is now 35 years of age. After leaving the public schools she took the teachers' course at the Carmel Normal, and next went to Paducah and spent one year as teacher and pupil in Prof. Thomas' normal school. She afterwards took the four years' Latin course at the Southern Normal at Carbondale, graduating with high honors in 1893. Miss Whittenberg began teaching at the age of 16 and has been engaged in the work of actual teaching for twelve or thirteen years. Her last year's teaching was as principal of high school at Duquoin. She was elected Superintendent of Schools in 1894, is devoted to her duties, and is making one of the most efficient and popular School Superintendents the county ever had.

Mrs. Hattie Porter Wilson, the Superintendent of De Witt County's schools, was born at Clinton, in 1860, and is a daughter of the late Edward Porter, who was an educated physician, scholar, and a soldier of the One Hundred and Seventh Illinois Volunteers. Her father died while she was

dren are familiar with them before entering the primary school.

Elementary Arithmetic.

Explanations and reasons, and pictured illustrations, have expanded the course of arithmetics, until the unfortunate pupil is lost in a wilderness of words, and does not find his way through in time to learn to cipher. The science of arithmetic receives so much attention that the art is neglected; and the elements of the science are so much expounded that its higher parts are never reached. The primary object in the earlier years, from 7 to 15, should not be to develop the reasoning power, but to give familiarity with the forms of calculation; so that when a child is asked a question he should not begin a course of analysis and reasoning based upon a model in the text-book, or given by the teacher, but should begin instantly to add, subtract, multiply, divide the numbers themselves, and give the answer in numbers instantly. After the age of 12 he may begin to learn to explain. Life is not long enough to spend so large a proportion of it on arithmetic as is spent in the modern system of teaching.—Hill's True Order of Studies.

The Bashful Boy's Piece.

There were never two people exactly alike—
At least so the philosophers say—
And I know if the teacher and I were alike
Not all would speak pieces to-day.
I like to hear Jennie get up and recite.
She does it in such a fine style;
Her hair is so smooth, and her hands are so white,
And she has so complacent a smile.

You hear every word, and each motion is grace,
An actress could scarcely do better—
She'd as lief do all of the speaking, I guess,
And I know I would cheerfully let her.

But, oh, when John Wilson or I get the floor
We seem to have come here to stay;
Our hearts beat like hammers, our feet weigh a ton
And our hands are right square in the way.

—Cincinnati Public School Journal.

While there is no objection to smoking cigars or pipes in the waiting-rooms of the Union Depot at Atchison, Kan., the mandate has gone forth that cigarette smoking is positively forbidden.