Wind-Breaks for Farm Yards and Fields

By R. J. BALDWIN, Michigan Agricultural College

Shade is a Necessary Part of a Pasture Field.

Many farm places would be more attractive in appearance and more pleasant as homes if there were more trees to beautify in summer and protect in winter. The older settled sections of Michigan have long since learned the importance of tree planting and the homesteads there are surrounded by the maples, hickories, elms and evergreens planted years ago. The lack of trees is painfully evident in the newer districts, especially in the regions covered by the great fires of 1871 and 1881.

A well grown, well placed windbreak possesses great ornamental and practical value and is one of the easiest and best methods of adding to the number of farm trees. The value of a wind-break about farm buildings is most evident, of course, in winter when it protects the stock and prevents drifts by causing the snow to fall evenly over the protected area. In fields the soil is kept more evenly covered, thus preventing winter killing of such crops as wheat, alfalfa and clover. In summer the soil in the protected area retains moisture better and the humidity of the air is greater in the shadow. The region in the lee of the wind-break is protected one rod in width for each foot of height of the trees. For example, a wind-break thirty feet high should protect a strip of land lying next to it, thirty rods wide. As a matter of fact this rule holds true for the wind-break on the College farm as may readily be seen on a windy day of either summer or winter. Not least in the list of benefits is the fact that an evergreen wind-break affords protection for birds the year around.

The cost of planting a wind-break need not be excessive. Three-year-old once transplanted stock with good thrifty roots is the youngest stock that should be used. Trees of this age give best results because they withstand the shock of lifting, change of soil and handling much better than older trees. Such stock should cost from eight to twelve dollars per thousand.

The ground where the wind-break is to stand should be plowed and cropped one year before setting out the trees. This treatment makes regular cultivation possible until the trees are too large to work. Grass should not be allowed to grow about the young trees if rapid, healthy growth is desired.

The two trees most widely used for this purpose are Norway Spruce and White Pine. The White Pine gives best results on the heavier soils, both clay loams and peat loams, while Norway Spruce is better adapted to the lighter soils and sandy loams.

The White Pine wind-break (shown in the illustration) on the Agricultural College farm is seven-eighths of a mile in length with an average height of from 25 to 30 feet. Three-year-old stock was used in the planting, which was done during the seasons of 1899 and 1900. Seven years after planting the lower inner branches, which were mostly dead, were trimmed off as a precaution against fire. The outside branches extend to the ground and since they have sufficient light remain alive and green.

PROFITS IN CORN GROWING

By Henry Homer Fletcher

For several years now boys' corn-growing associations have been in operation in various counties in the state. In every case the results obtained indicate that the boys are going at their work in a very practical manner, and that they are demonstrating that largely increased yields may be obtained, that profits may be in-

Frederick Graff.

creased and that the quality of the corn can be greatly improved.

In Ionia County the boys are doing unusually good work. Mr. Frederick Graff is the "chief engineer." The leading business men of Ionia are supporting the work and adding enthusiasm in a very generous way. The boys are working for large yields and for economy in production. The following report of a fourteen-year-old boy, who, by the way, is president of the Boys' Association, tells its own story:

How the Corn Was Grown.

May 1st disced the ground, as ground disced before it is plowed permits the moisture to come close to the surface for the use of the plant roots and also leaves a mulch of fine dirt which fills up the air spaces left between the furrowed slice and the ground beneath. May 2nd plowed the ground about 9 inches deep, and from now on until the 10th I fitted the ground.

May 10th marked corn ground into hills 3 ft. and 10 inches apart and planted so it averaged 3 kernels in hill.

May 16th, corn was up.

May 19th, hoed corn.

May 22nd, cultivated; May 27th, cultivated; June 10th, cultivated; June 15th, cultivated; June 20th, cultivated; June 26th, cultivated; July 4th, corn was tassled so laid it aside. September 10th, cut up corn and failed to find a stalk but what had on one or more ears. The last of September I husked the corn and found I had grown 140 crates.

Now I will give you the expense in procuring the same:

Seed corn	$ .40
Rent of ground	5.00
Plowing, cultivating and planting	8.00
Cutting corn	2.00
Husking	5.60
Total	$21.00

From this you can see my 140 bushels cost me 15c a bushel to produce, and if I were to sell at market price of 40c a bushel, I would have a net profit of $35.00 for corn besides having the corn stalks left.

DISEASES OF BEES

We have but recently awakened to the fact that a new disease of bees, one called European foul brood, has gained a foothold in our state. This new disease in addition to the better known American foul brood is threatening the bee industry with serious losses. Furthermore the two diseases while quite different are becoming confused.

There has recently appeared a bulletin, Special No. 58, from the Michigan experiment station, which deals with the detection and treatment of bee diseases. This bulletin is taken almost wholly from one written by Dr. E. F. Phillips of Washington, D. C., by his permission. The reason for reprinting this bulletin is to get it before every bee keeper in the state. It being impossible for the bureau to supply us with sufficient copies for sending out by the station, it was decided to reprint it.

This bulletin dealing with four brood can be had by directing a postal card to the Michigan Experiment Station, East Lansing.

MICHIGAN HAPPENINGS

Flint.—Robert Taylor, a tailor, is mysteriously missing, and fears are entertained by his family and friends that harm has befallen him. It was at first supposed he had taken a notion to go somewhere on a visit, but as time passed and no trace of him could be found the assistance of the police was asked in the search for the missing man.

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Durand.—Mrs. William Bennett and her six-year-old son are in the University hospital, Ann Arbor, taking the Pasteur treatment. Both were bitten by the family dog at their home east of Durand. It was proved later the dog had rabies and after its death many other dogs in Durand and vicinity were tied up, awaiting developments.

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Petoskey.—Joseph Karamol, six-year-old son of John Karamol, is in a serious condition at the Petoskey hospital as the result of an explosion which occurred when he hit a cap of dynamite with a rock on his father's farm near the city. One eye was torn out and a leg is badly injured.

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Ann Arbor.—Mrs. Nellie McCarl, a lit-medic student in the university, died a victim of the sore throat epidemic which has been puzzling the physicians of Ann Arbor for several weeks. Mrs. McCarl was sick just one week and her death was finally caused by peritonitis, but physicians say her condition was the direct result of her sore throat.

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Calumet.—Otto Tourmala, aged twenty-two, killed himself on his mother's farm by exploding a farm dynamite bomb beneath his body while lying in the field. His left side was torn away. Ill health prompted the deed.

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Cadillac.—Alexander Harper of Fife Lake is dead from fright occasioned when lightning struck the house he was living in. Harper was a Civil war veteran and seventy years old.

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Detroit.—At the Northern Baptist conference in Des Moines Robert S. Holmes of this city was elected to the board of managers of the Baptist Foreign Mission society. Rev. Carter Helm Jones of Oklahoma City, Okla., was elected president of the society. Other officers are: Vice-president, I. W. Carpenter, Omaha; recording secretary, George B. Huntington, Newton Center, Mass.; foreign secretary, Rev. J. H. Franklin, Colorado Springs, Colo.; home secretary, Rev. Fred P. Haggard, Boston, Mass.; treasurer, Ernest S. N. Butler, Boston, Mass.

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Grand Rapids.—Within less than an hour of the time when the jury was chosen by Judge Perkins to hear the case brought by the Superior Iron company against the M., St. Paul & S. S. M. railway, an upper peninsula line, the court directed a verdict of no cause of action. Suit was brought in the county for alleged overcharging in freight rates contrary to the interstate commerce commission schedule.

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Kalamazoo.—According to Miss Josephine Casey, the labor organizer who is serving time in the county jail for violating an injunction, she received an offer to go on the vaudeville stage, an eastern company offering her a high salary. She says all they will require her to do is give a little curtain speech on how it seems to be a prisoner and also tell something about her fight for organized labor.

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Mt. Pleasant.—Members of the Russian orchestra which assisted the Normal chorus at the May music festival denied the county sheriff and deputy at the Pere Marquette train and left the city with the coach door barricaded to prevent the arrest of one of their number. It is claimed by a local liveryman that a horse hired from his stable by one of the Russians was overdriven.

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Grand Rapids.—Divorced less than a year ago in Mecosta county, John Hesley, aged fifty, and Mrs. Edna Hesley, aged thirty-nine, secured a marriage license to marry again. The ceremony was performed by Justice Loucks. This is the third time that Hesley has married and the fourth time for Mrs. Hesley. Two of the marriage ceremonies were between themselves.

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Bay City.—Former Alderman Herman Hirschfield has leprosy of a pronounced type. That is what Prof. A. S. Warthin of the University of Michigan told Secretary Dixon of the state board of health officers after he had completed an examination of Mr. Hirschfield at his home here.

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Mrs. McCarl was twenty-three years old and came to Ann Arbor last September from Oklahoma. She would have entered the medical department of the university in the fall. With her mother, Mrs. H. C. Hanna, she lived in Ann Arbor. She is survived by a twenty-months-old baby, her parents and one sister.

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Northville.—Mrs. William J. Simmons was struck by a Pere Marquette at a crossing near Novi and killed. Mrs. Simmons was sixty years old and a husband survives her.

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Alpena.—Lloyd, the year-old son of John Muellerweiss, was fatally burned while playing with matches. His mother and nine-year-old sister were also badly burned while trying to extinguish the boy's burning clothing.

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Lansing.—Amos Collins, aged fourteen, was drowned in a gravel pit near East Lansing. The recent rains had filled a deep hole in the pit and the Collins boy, with his companions, were in bathing. Collins was evidently seized with cramps.

FEARED AN OPERATION.

Found a Wonderful Cure Without It.

James Greenman, 142 East Adams St., Ionia, Mich., says: "What I suffered with kidney trouble I can never express. It was nothing short of torture. In bed for three months with terrible pain in my back, an awful urinary weakness, dizziness, nervousness and depression. I rapidly lost 45 pounds. My doctor advised an operation but I would not submit. Gravel was forming and the urine had almost stopped. I began taking Doan's Kidney Pills and after using one box, I passed a stone half an inch long. I continued passing smaller stones until forty had been ejected. I recovered then and was soon as well as ever."

"When Your Back Is Lame, Remember the Name—DOAN'S." 50c. all stores. Foster-Milburn Co., Buffalo, N. Y.

Being a Baseball Star.

A star's job is a hard one. The mental strain is even greater than the physical. For what he undergoes the fabulous salaries are not fabulous.

Before going into details let us define a star—the ball player's definition:

"A star is any player who, through individual excellence, achieves a reputation for brilliant work, thus attracting fans to the park to see him play."

He is a star only so long as his performances stand out. He is paid the salary of a star as long as his reputation brings fans to the stands and money to the box office. The day that see the waning of his sensationalism also sees the waning of his salary.—Edward Lyell Fox in Outing.

Lamb's Tenure of Life Not Long.

A party of privileged sightseers were admitted to a private view of a menagerie between performances, and among other things were shown what was called a "Happy Family," that is to say, in one and the same cage there was a toothless lion, a tiger, somewhat the worse for wear, and a half-famished wolf. Beside these wild animals, curled up in one corner, was a diminutive lamb which shivered as it slumbered.

"How long have the animals lived together?" asked one of the party.

"About twelve months," replied the showman.

"Why," exclaimed a lady, "I am sure that little lamb is not as old as that."

"Oh," said the showman, quite unmoved, "the lamb has to be renewed occasionally."

Repartee Off the Stage.

In the big Weber-Fields dressing room Joe Weber and George Leslie sat tense over a game of checkers. "I'm working him up to his part," murmured Mr. Weber, in a kind voice. "He must go on the stage in a tantrum in a few minutes. Every night I beat him a game of checkers in here before his entrance. I has just the right effect on him." "Every night you don't beat me!" cried his opponent. "I owe you $1.90 in 12 weeks. Is that much?" "Not so much, but I'd be glad to get it," suggested the sweet-voiced Weber.

Powerful Plea.

A man in North Carolina, who was saved from conviction for horse stealing by the powerful plea of his lawyer, after his acquittal by the jury, was asked by his lawyer:

"Honor bright, now, Bill, you did steal that horse, didn't you?"

"Now, look a-here, judge," was the reply, "I allers did think I stole that hoss, but since I learn your speech to that 'ere jury, I'll be doggoned if I ain't got my doubts about it."—National Monthly.

When Your Eyes Need Care

Try Murine Eye Remedy. No Smarting—Feels Fine—Acts Quickly. Try it for Red, Weak, Watery Eyes and Granulated Eyelids. Illustrated Book in each Package. Murine is compounded by our chemists—not a "Patent Medicine"—but used in successful Physicians' Practice for many years. Now dedicated to the Public and sold by Druggists at 25c and 50c per Bottle. Murine Eye Salve in Aseptic Tubes, 25c and 50c.

Murine Eye Remedy Co., Chicago

Consoling Thought.

"Do you believe, doctor," asked Mrs. Wumps, "that men become what they eat?"

"Yes, madam, I do," said the bishop.

"What a comfort that must have been to those early missionaries when they were eaten by the cannibals!" sighed Mrs. Wumps.—Harper's Weekly.

The man who makes light of others seldom sets the world on fire.

A Quarter Century

Before the public. Over Five Million Free Samples given away each year. The constant and increasing sales from samples proves the genuine merit of Allen's Foot-Ease, the antiseptic powder to be shaken into the shoes for Tired, Aching, Swollen Tender feet. Sample free. Address, Allen S. Olmsted, Le Roy, N. Y.

His Pose.

"Mrs. Hewligus, what is your husband's attitude on the woman suffrage question?"

"One foot in the air, of course. He's one of the chronic kickers."

Mrs. Winslow's Soothing Syrup for Children teething, softens the gums, reduces inflammation, allays pain, cures wind colic. 25c a bottle.

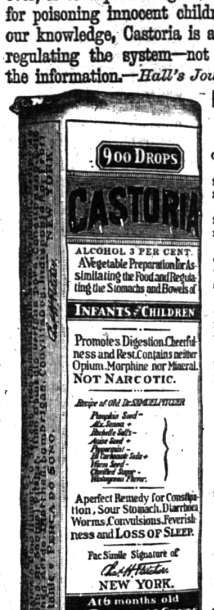
Women commiserate the brave, men the beautiful. The dominion of pity has usually this extent, no wider.—W. S. Landor.

For costiveness and sluggish liver try the unrivaled herb remedy, Garfield Tea.

A double wedding is one kind of a four-in-hand tie.

Physicians Recommend Castoria

CASTORIA has met with pronounced favor on the part of physicians, pharmaceutical societies and medical authorities. It is used by physicians with results most gratifying. The extended use of Castoria is unquestionably the result of three facts: *First*—The indisputable evidence that it is harmless: *Second*—That it not only allays stomach pains and quiets the nerves, but assimilates the food: *Third*—It is an agreeable and perfect substitute for Castor Oil. It is absolutely safe. It does not contain any Opium, Morphine, or other narcotic and does not stupefy. It is unlike Soothing Syrups, Bateman's Drops, Godfrey's Cordial, etc. This is a good deal for a Medical Journal to say. Our duty, however, is to expose danger and record the means of advancing health. The day for poisoning innocent children through greed or ignorance ought to end. To our knowledge, Castoria is a remedy which produces composure and health, by regulating the system—not by stupefying it—and our readers are entitled to the information.—*Hall's Journal of Health.*



Exact Copy of Wrapper.

Letters from Prominent Physicians addressed to Chas. H. Fletcher.

Dr. B. Halstead Scott, of Chicago, Ills., says: "I have prescribed your Castoria often for infants during my practice, and find it very satisfactory."

Dr. William Belmont, of Cleveland, Ohio, says: "Your Castoria stands first in its class. In my thirty years of practice I can say I never have found anything that so filled the place."

Dr. J. H. Taft, of Brooklyn, N. Y., says: "I have used your Castoria and found it an excellent remedy in my household and private practice for many years. The formula is excellent."

Dr. R. J. Hamlen, of Detroit, Mich., says: "I prescribe your Castoria extensively, as I have never found anything to equal it for children's troubles. I am aware that there are imitations in the field, but I always see that my patients get Fletcher's."

Dr. Wm. J. McCrann, of Omaha, Neb., says: "As the father of thirteen children I certainly know something about your great medicine, and aside from my own family experience I have in my years of practice found Castoria a popular and efficient remedy in almost every home."

Dr. J. R. Clausen, of Philadelphia, Pa., says: "The name that your Castoria has made for itself in the tens of thousands of homes blessed by the presence of children, scarcely needs to be supplemented by the endorsement of the medical profession, but I, for one, most heartily endorse it and believe it an excellent remedy."

Dr. R. M. Ward, of Kansas City, Mo., says: "Physicians generally do not prescribe proprietary preparations, but in the case of Castoria my experience, like that of many other physicians, has taught me to make an exception. I prescribe your Castoria in my practice because I have found it to be a thoroughly reliable remedy for children's complaints. Any physician who has raised a family, as I have, will join me in heartiest recommendation of Castoria."

GENUINE **CASTORIA** ALWAYS
Bears the Signature of
Chas. H. Fletcher.
The Kind You Have Always Bought
In Use For Over 30 Years.
THE CENTAUR COMPANY, 77 MURRAY STREET, NEW YORK CITY.

OF NO IMPORTANCE.

"Are they to be married soon?"

"Well, he thinks they are."

"Oh! that's not of the slightest consequence in an affair of this kind. What does she think about it?"

In an Epigram.

Mrs. J. G. Phelps Stokes (Rose Pastor) stated epigrammatically at a dinner in New York the value of an education.

"Many poor people, she said, "are spending their second childhood in the almshouse because they spent their first in earning instead of learning."

Cole's Carbolisalve quickly relieves and cures burning, itching and torturing skin diseases. It instantly stops the pain of burns. Cures without scars. 25c and 50c by druggists. For free sample write to J. W. Cole & Co., Black River Falls, Wis.

No Novelty.

"People are queer."

"I have heard, rumors to that effect."

"Frequently they pay money to go to theaters for the purpose of seeing ballet dancers walk around on their toes when women are doing the same thing in the streets all the time."

Don't buy water for bluing. Liquid blue is almost all water. Buy Red Cross Ball Blue, the blue that's all blue.

Lots of It.

"They say a man's wife often makes him, but Bingle's wife will never be able to put any push in that man."

"Just you wait until she gets a lawn-mower in his hands."

Garfield Tea helps humanity the world over. Taken for liver and kidney troubles, billiousness and constipation.

Goodness does not certainly make men happy when happiness makes them good.—Landor.

Too True.

The Rev. Dr. Aked, in an address on generosity in New York, said:

"A woman remarked to me the other day:

"Mrs. Blank is very shabby this spring. Mr. Blank adores the ground she walks on, yet he won't allow her enough to dress decently.

"'Ah, madam,' I replied, 'it isn't always the devoutest worshipper who puts the most money in the collection plate.'"

The Difference.

"There is such a vast difference between the ideal and the practical in stage art," sighed the intellectual young actor.

"The difference," replied the stolid stage manager, "as lies between the artistic role which leads to Arcady and the fat part which leads to the pork barrel."

The most powerful remedy against sudden starts of impatience is a sweet and amiable silence.—St. Francis de Sales.

The woman who cares for a clean, wholesome mouth, and sweet breath, will find Paxtine Antiseptic a joy forever. At druggists, 25c a box or sent postpaid on receipt of price by The Paxton Toilet Co., Boston, Mass.

Poor Girls.

Mrs. Willis—What do you think of that Highupp girl marrying Mr. Bullon?

Mrs. Gillis—Isn't it awful the way some girls sell themselves for money?

Mrs. Willis—And did you hear about Miss Mutney marrying that chauffeur?

Mrs. Gillis—Yes. Isn't that about the worst case of infatuation you ever heard of?

Which wins? Garfield Tea always wins on its merits as the best of herb cathartics.

Always meet people with a smile—If it's your treat.

Why Rent a Farm

and be compelled to pay to your landlord most of your hard-earned profits when you can own a farm. Secure a Free Homestead in Manitoba, Saskatchewan or Alberta, or purchase land in one of these districts, and realize a profit of $10.00 to $12.00 per acre yearly.

Land purchased 3 years ago at $10.00 an acre has recently changed hands at $25.00 an acre. The crops grown on these lands warrant the advance. You can

Become Rich

by cattle-raising, dairying, mixed farming and grain growing in the provinces of Manitoba, Saskatchewan and Alberta. Free homestead and pre-emption areas, as well as land held by railway and land companies, will provide homes for millions.

Adaptable soil, healthful climate, good schools, churches, good railways. For author's lecture, pamphlets, literature "Last Best West," how to reach the country and other information, write to Dept. of Interior, Ottawa, Canada, or to Canadian Government Agent.

W. V. Bennett, 706 Jefferson Ave., Detroit, or C. A. Lawler, Marquette, Michigan

Please write to the agent nearest you.

Out of Sorts?

Lots of discomfort—the blues—and many serious sicknesses you will avoid if you keep your bowels, liver and stomach in good working order by timely use of

BEECHAM'S PILLS

Sold everywhere. In boxes 10c., 25c.

Ladies or Gentlemen To introduce newly patented Household Article—One Sale every home. Big profit. Exclusive Territory. Write today. LION MANUFACTURING CO., Boston, Mass.

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W. L. Douglas makes and sells more $3.00, $3.50 and $4.00 shoes than any other manufacturer in the world

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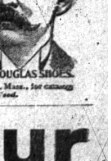
FOR MEN, WOMEN AND BOYS

W. L. Douglas $3.00 & $3.50 shoes are worn by millions of men, because they are the best in the world for the price. W. L. Douglas $4.00, $4.50 & $5.00 shoes equal Custom Bench Work costing $6.00 to $8.00.

Why does W. L. Douglas make and sell more $3.00, $3.50 and $4.00 shoes than any other manufacturer in the world? BECAUSE: he stamps his name and price on the bottom and guarantees the value, which protects the wearer against high prices and inferior shoes of other makes. BECAUSE: they are the most economical and satisfactory; you can save money by wearing W. L. Douglas shoes. BECAUSE: they have no equal for style, fit and wear. DON'T TAKE A SUBSTITUTE FOR W. L. DOUGLAS SHOES.



If your dealer cannot supply W. L. Douglas shoes, write W. L. Douglas, Brockton, Mass., for catalog. Shoes sent everywhere delivery charges prepaid. *Fast Color, Eyelets Used.*

Henkel's Bread Flour

MADE IN DETROIT

Choice Grain from the fields of Minnesota and the Dakotas contribute to its quality.

Expert Millers, who spare no pains or expense, superintend the work that takes every unworthy particle from the wheat and produces this rich, creamy flour.

Three generations of housewives have attested the goodness of this wonderful flour.

Surely Economy and Cleanliness are both served in transporting wheat (not flour) from these distant northwestern wheat fields. Ask for Henkel's BREAD flour.

Henkel's Cornmeal—Henkel's Graham Flour—Henkel's Prepared Pancake Flour