

WHY

Effect of Lightning on Trees Is Important.

Very frequently the old belief is the correct one and is so because it is based on the observations of many. Just now the United States government is testifying one of the old "they say" theories regarding trees and lightning. Time immemorial the woodman and even more so the shepherd has believed that there was greater danger from lightning stroke to those standing beneath certain species of trees. Why this should be none could tell logically, though the fact, if it is a fact, was enough to give birth to various mythical explanations.

But now the government wishes to know positively what truth there is in the ancient wisdom of superstition. This study is being made not in the interest of the occasional storm-trapped man so that he may seek shelter under the safer tree, but in the interest of our great forest wealth. The lightning bolt is one of the important causes of forest fires and the forest service wishes to know whether there are certain tree species that must be specially guarded against as offering the greater electrical attraction. If it is found that certain growths escape such heavenly attacks it may be possible to neglect those and concentrate on the more susceptible growths.

At any rate that is the line of study the authorities are pursuing, and it may be that the observations of the shepherds of olden times will be verified among the forests of our American Far West.

Why Human Portage Is Universal in China

In the absence of railroads in southern China and because of road conditions goods in transit are generally moved by pack animals or coolie power. In certain sections, however, coolies refuse to permit competition from pack animals. Consequently a considerable portion of goods transported is handled by porters and in many places they hold a freight monopoly.

Portage is usually done by contract, each man undertaking the delivery of his load at a point given distance away. The porters as a class are young men, necessarily vigorous, with specialized muscular development and pads of callus on the line across the shoulders. They are invariably opium smokers.

They usually travel in groups of ten to twenty for company and mutual protection, and it is quite common for the bearers of two or three different consignments to travel in company for days at a time. Their wages average about \$1.50 a day and are paid in the currency of the region through which they travel. Bare living expenses take about 35 cents of this, leaving \$1.15 for opium and display.

Why Ostriches Are Slain

Reports from South Africa indicate that from 400 to 500 ostriches are being slaughtered daily in the Cederberg district, the principal center of the ostrich feather industry, due to the high cost of feed for the birds and the lack of a market for ostrich feathers. The slump in the world demand has made the birds practically valueless and the Co-operative society, through which the farmers are required by law to dispose of their feathers, is unable, financially, to take up this year's crop.

This society now holds practically all of last year's crop and is said to be in serious straits as it makes advances to farmers against feathers deposited. In 1923 there were 384,884 pounds of ostrich feathers exported, while last year the exports totaled 141,600 pounds.

Why Hail Differs

The weather bureau says that the summer hail, or true hail, is caused by the rapid uprush of air in a violent thunderstorm which carries raindrops so high that they freeze. On freezing they fall back to a lower level, where they pick up more water and again are caught in an upward current and carried up to the freezing levels. This is repeated several times, until the hailstone gets so heavy that it falls through the rising air down to the earth. The winter hail, properly called "sleet," consists of frozen raindrops, the rain having fallen through a surface layer of cold air.

Why Horseshoe Is Hung

In one of the county institutions where bad luck and misfortune enter the door with the great majority of people stepping across the threshold, a large horseshoe hangs in plain view. When asked regarding the instrument of luck, the clerk replied that it was there as a beacon of hope to those entering the place and that frequently people expressed their belief in the luck it would bring them.—Detroit News.

Why Eye Nerves Shine

All the nerves of the eye, when stimulated, shine by their own light, and some of the luminous nerves can be seen by the individual himself under certain conditions, according to a distinguished American scientist.

Why Electric Bell Rings

The bureau of standards says that when you press the button of an electric bell, the button closes a switch completing an electrical circuit between a battery and an electromagnet which operates the bell.

HOW

SILKWORM OPERATES IN PRODUCTION OF FIBER.

One of the most perfect and beautiful silks in the world, that produced by the silkworm, is a fluid as a fluid says a writer in *The Bits*. The fluid is manufactured by a pair of small glands inside the silkworm's head. It is not a silky fluid at first, but a kind of hom—If you can imagine horn melted down and diluted. This substance, which is called "fibroin," gives silk its toughness and elasticity.

Immediately on leaving the glands the fibroin flows into a minute reservoir, where it is surrounded by a second material called "sericin," which is manufactured by another pair of glands. This is a gummy fluid, which forms an outer covering to the fibroin and gives it a shining appearance.

Now the silk material is complete, and only requires to be formed into thread. After passing through the reservoir, it is forced into two little flattened tubes with strong muscles that work above and below them, and squeeze out the silk in the form of two tiny ribbons.

The two little ribbons are next welded together by means of another minute organ, and issue from the caterpillar's mouth as one thread, which hardens directly as it is exposed to the air.

If this silk is boiled in soapy water it will be found to separate again into two separate threads. This double thread is strong enough for the insect's purpose, but it is too fine for our use, so the threads of several cocoons have to be spun together. Eight cocoons at a time are used in the making of ribbons, and fourteen in making velvets. The length of thread which can be taken from one cocoon of the mulberry silkworm varies very much, but the average yield of a thousand cocoons is about 500 yards of silk, ready to be placed on the loom.

How German Scholar

Gave Name to America

America was named, of course, for Amerigo Vesputi, the Florentine navigator and merchant, who first visited the New world five years after its discovery by Columbus. Vesputi was a ship chandler in Spain, and having helped to fit out a number of expeditions, decided in 1497 to make a voyage westward himself. Between then and his death in 1512 he went on four or five expeditions to America.

More important for his own time, he wrote a book which was the first to show that South America was a continent, and not a part of Asia. It was translated into several languages, and did much to acquaint scholars with the character of the transatlantic discoveries. For this reason, one of his translators, the German, Martin Waldseemüller, proposed in 1507 that the new continent be named for Vesputi. The suggestion had a gradual adoption, and the name America, which Waldseemüller had offered, came finally to be extended to the northern continent as well as the southern.

How Patent Office Works

An inventor is unprotected until he has been granted a patent. The filing of a patent application is merely a step in that direction. It is not necessarily the first person making application who is entitled to a patent. In case two or more persons seek patents for the same thing, priority in filing gives one competitor certain advantages over others, but the patent office undertakes in case of a controversy to grant the patent to the person who establishes that he was first to invent.

Test of Society

Society—the only field where the sexes have met on terms of equality, the arena where character is formed and studied, the cradle and the realm of public opinion, the crucible of ideas, the world's university, at once a school and a theater, the spur and the crown of ambition, the tribunal which unmasks pretension and stamps real merit, the power that gives government leave to be, and outruns the lazy church in fixing the moral sense of the age.—Wendell Phillips.

How to Make Waterproof

The bureau of standards says that it knows of no way to make china, wood or metal with an alcoholic solution of shellac. A resin-china-wood oil heat-treated varnish often has very satisfactory waterproofing properties. A solution of paraffin in benzol is sometimes used to waterproof stone, but is unsatisfactory on wood. Aluminum stearate has very good waterproofing qualities and is often used on fabrics.

How Snakes Inject Poison

The venomous snakes have a pair of fangs on the upper jaw; these are hollow teeth connecting with the poison glands. In some species of snake these fangs are binged so as to lie back in the fold of the gum when not in use. These fangs or poison teeth bite the victim, injecting the poison at the same time.

Bizarre Footwear

Loses Popularity and Heavy Trimmings in New Shoes.

Bizarre trimmings, lurid colors and extreme lasts have lost caste with the Paris bottlers and, incidentally, with the smart Parisienne. Simplicity, notes a Paris fashion correspondent in the *New York Herald-Tribune*, is distinctly the essence of the new shoes and there is a marked lack of the violent colorings and heavy trimmings that were recently en vogue.

No radically new types are shown and the principal shapes are the broad one-strap model, the closed oxford and the Prince of Wales. Open oxfords, step-ins, opera pumps and center-strap types also are being affected during the afternoons on the smart avenues. Brown is the leading color and calf, suede and kid are the outstanding leathers. Following them in popularity come real and imitation lizard, alligator, water snake and python. Fewer novelty leathers are being exploited among the new slippers.

Trimmings are notably more discreet and while they are seldom entirely absent they never reach the ornate heights of last season. Thus toe caps and heel quarters are an outstanding method of elaboration. Sometimes both of these are scalloped, fringed tongue effects also are being widely featured and occasionally an insert of light-colored leather is employed to give a cut-out effect. Indeed, it may be said that the smartest method of shoe decorations are contrasting trims of matching or opposite colors.

For semi-formal models black satin is easily the premier fabric. Closely following it is black patent kid, usually employed in combination. Thus a black patent quarter, a black and silver brocade vamp and a beige kid heel frequently are encountered in a single type. Restrained decoration, as with afternoon sports models, also is the governing factor of the more formal afternoon shoe now in the fashion limelight.

Paul Poiret has some very definite ideas about summer footwear and he has laid down the following doctrines for his clientele: Daytime footwear should be unobtrusive; ornate trimmings and radical color combinations should be sedulously avoided. Chic should consist entirely of cut, and cut, while it may occasionally give the aspect of luxury, always should be fundamentally simple. Heels should be neither as high as they were during the very feminine pre-war period, nor as low as the extremes of the current mannish mode often have made them. Only for golf and walking is the very low heel advisable, and even for walking a semi-high type is recommended for women who are in any way inclined toward embonpoint. It is a fact that heels utterly low invariably result in a heavy and ungainly gait. The various reptile skins, such as snake, lizard and python, are mushroom fancies, and while they may be worn during the immediate season their vogue is bound to be brief. In general, the most adaptable shoe leather is kid—it can be dyed in soft and delicate colors, it molds the foot and it is conducive to easy and graceful walking.

Smart Street Outfit

of Two-Piece Variety

Showing an attractive two-piece street costume, the skirt of which is made of gilt metal cloth, paired. The overskirt is made of heavy black crepe with rows of embroidered metal braid in gold and blue and red. Gray fox fur and black satin hat, tan pumps and gloves, which match the shoes, and heavy, complete the outfit, which is worn by Mary Phillips, noted star.



Ornate Lame Wrap Is Richly Furled, Draped



The summer season favors a particularly gorgeous array of evening wraps. From the warmth-giving velvet, rich in embroidery, in bold and pallid to the lightest of chiffons, the mode is varied and extremely beautiful. Dorothy Mackall, motion picture actress, who wears many glamorous gowns and wraps in the film "The Road to Romance," has selected a particularly pleasing wrap of ornate lame richly furled and draped into smart lines.

Homely Girl Benefits by New Sports Clothes

The homely girl will benefit this summer from the increasing popularity of sports clothes. Fashion designers, both at home and abroad, are concentrating on this department of their work, and the result of the effort is hailed by Hazel Rawson Cades in the *Woman's Home Companion* as the most pleasing and useful development in years of fashion history.

"Sports clothes are the great equalizer of beauty," says Miss Cades. "Heretofore many girls whose looks started being spoiled by bonnet and wigs have gone on being spoiled by one feminine thing after another all their lives. But now Marguerite, of the big blue eyes and the bobbing curls no longer has an advantage over Jeanne of the round head and freckled nose. There are compensations in sports clothes which help even things up."

"However, there are many things to remember in these costumes also to be given the proper air. Above all things, they should be simple, unaffected and easy fitting, not too heavily masculine and never too furry. English sports clothes have never of fended by being too fancy, but are occasionally somewhat stiff and trying for the average woman. The French are apt to sacrifice utility to chic, which is rather a mistake, for if they are to be convincing, they should look useful whether or not they are really over put to the test.

Belts and Decorative

Scarfs in Limelight

Belts continue to be of interest, especially when they are in themselves worthy. The belt does not match, but on the contrary contributes something of color to the costume. An innovation in the matter of belts has been achieved by using a wide black inter-ribbon bow at the side on a pastel sports frock of two-piece genre, the skirt in sectional plaits and the overskirt cut with a V neckline.

The status of the decorative silk scarf has been somewhat affected by the return to favor of the animal scarf. One will be glad to lay aside a fox scarf for a smart silk scarf not only because of greater comfort in warm weather, but because the animal scarf is not appropriate with a sports costume. It belongs with the tailored suit for town wear with dresses of certain types.

Boys' Fashions Are Copied by London Girls

Girls will be boys again, it seems, this summer. At least young English girls will. If any forecast can be made from the women, ranging from royalty down to scrubwomen of all ages, who have been attending the London fashion shows. Even the ordinary department stores now have mannequins showing.

Princess Helena Victoria, the aunt of King George, has been one of the most regular attendants at displays made by prominent houses.

Non-Catholics Take Title of Church, Card. Bourne Says

London, July 25.—In appropriating the title of Primitive, Scriptural and Evangelical, non-Catholics are claiming titles which belong to the Catholic Church alone, declared Cardinal Bourne in a sermon at Holy.

The Catholic Church proved her claim to these titles, said His Eminence, by teaching that Our Lord came to teach a definite doctrine that He instituted one central act of worship and that He established the Apostolic See as the center of unity and the source of authority.

Parochial Schools Save Santa Barbara \$68,470 Each Year

Santa Barbara, Calif., July 25.—Mayor T. R. Bailey and members of the city council of this place acting as a body of equalization voted that assessments against Catholic schools properly remain unchanged.

A. H. Adrian, former mayor of Santa Barbara, appeared before the board, and entered a request for a reduction of the assessment against school properties, claiming that the city is saved considerable expense through existence of the schools.

Mr. Adrian, who was also superintendent of schools here at one time, stated that the establishment of parochial schools here save Santa Barbara taxpayers \$68,470 annually. There are 330 pupils in the Catholic grammar school here and 40 pupils in the high school.

"California is the only state in the Union which taxes parochial schools," Mr. Adrian told the board.

Shimek Called Best 2-Miler

Chicago, Ill., July 24.—Kurt K. Shimek, athletic director at the University of Notre Dame, lists Melvin Shimek, long distance runner of Marquette University, as the country's outstanding two miler of 1927.

Shimek, who won his first at the national intercollegiate games in Chicago, was graduated from Marquette last month. He is expected to join the United States Olympic team for the 1928 games at Antwerp.

BUSINESS REVIEW

BUYER'S GUIDE

AUTOMOBILES:

Nash Sales Co., 775 Oakley Road.

AUTO SUPPLIES, ACCESSORIES:

Behr's Service Station, 1114 Main St.

AUTO TIRES:

W. J. Van De Walle, 112 Main St.

AUTO TRIMMING:

C. T. Higgins, 16 Gardiner Bldg.

AUTO REPAIRING:

1400 Lake Ave.

BAKERY:

Town Talk Bakery, 904 West Main St.

BUILDING SUPPLIES:

Schaefer Bros., 114 Power Block.

Portland Builders Supply, 1075 Ridge Road.

CINDER BLOCKS:

Rochester Cinder Block Corp., Norman Street.

CONTRACTORS:

Home Knapp, 1441 Main St. E.

COAL DEALER:

Edelman Coal Co., 41 Portland Av.

COAL & COKE:

McGarry Coal Co., 1 Reynolds Arcade.

DRUGS:

Crumer Drug Store, East Ave., Denver.

Wm. Yalovich, 111 Madison Ave.

ELECTRICIANS:

R. D. Ward Electric Co., 1550 Lake Ave.

FLORISTS:

Ben-Art Flower Shop, 304 Main Street West.

FURNACES:

Charles Dahl, 118 1/2 W. 4th St.

GROCERIES:

Meyerhoff Bros., 1471 Lake Ave.

1705 Denver Ave.

GROCERIES & MEAT MARKETING:

Hennrich's, 174 Chiff Ave.

HARDWARE:

I. S. Mann Co., 198 Thurston St.

De Visser Bros., 1430 Denver Ave.

Martin Van Dusen, 316 North St.

JEWELERS:

Bellows & Rowden, 191 Geneva Street.

LUMBER:

Robert B. Rowe, 1001 Chiff Ave.

Whitmer-Jackson Co., 45 Warehouse Street.

MONUMENTS:

F. J. Hart Monument Co., 2345 Denver Avenue.

MOVING AND CARTING:

J. C. Clancy Carting Co., 3 Grand Avenue.

OIL STATIONS:

Behr's Service Station, Child & Maple Street.

Painting and Paper Hanging, C. L. Behrman, 27 Fullerton Ave.

RADIO DEALERS:

R. D. Ward Electric Co., 1550 Lake Ave.

Boyd and Reed Music Works, 404 South Ave.

SAMPLE DRESSING:

Edwards, 1645 Lake Avenue.

STORAGE AND MOVING:

Service Storage Co., 124-15 Osage Ave. S.W.

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