

LIGHTNING

THE CRAZIEST THING IN THE WORLD!

**TO BE SAFE
FROM
LIGHTNING:**

Don't Stand Beside a Metal Bed—It's All Right to Sleep in One.
Don't Stand Beside an Open Window.
Don't Seek Shelter in a Barn Filled with New Hay.
Don't Stand Near Gas or Water Pipes.
Don't Stand Beside a Stove or Stove Pipe.

Don't Ride
in an Auto
or Other
Vehicle.
Don't Get
Under a Tree.
Don't Get in
a Crowd.
Don't Stand
Upright in an
Open Field.
Don't Carry
a Metal
Umbrella.
Don't Milk
the Cow.



MEN FOUND AS IF
PETRIFIED BY LIGHTNING



A SKY SPLITTER

Beware of an oak,
It draws the stroke;
Avoid an ash,
It courts the flash;
Creep under a thorn,
It might save you harm.

THUS ran the old saying, for since the beginning of history men have watched with awe and terror the lightning as it zigzagged across the heavens. One of the greatest generals in all history, Julius Caesar, could never bear the sound of thunder or the sight of the flash of lightning.

In the belief that lightning never penetrated deeper than five feet into the earth Emperor Augustus always ducked into a cave during a thunderstorm. The former rulers of Japan made use of a deep grotto, in the midst of which was a pool of water, as an especial refuge in times of electrical disturbances.

If you are afraid during a thunder and lightning storm it doesn't necessarily mean that you are a coward. Scientists have discovered that it means rather that you have a highly organized nervous system which responds to electric phenomena. And considering the havoc that lightning has played the fear which exists when it is in the midst of its pranks is not astonishing. Yet it does not perform as mysteriously as it would seem, and there are many fallacies concerning it.

Lightning does strike twice in the same place. Some trees, favorably located for attracting the flash, bear seven or eight scars, all visible and determined by a steam analysis of the trunk.

The majority of persons killed by lightning did not seek refuge under trees, as has often been stated. More than one-half of such deaths occur in the open and less than one-quarter under trees.

Linear Lightning Most Destructive.

Lightning, as defined by an agricultural department bulletin, is a violent discharge of electricity, either from one cloud to another, from a cloud to the earth, or between two strata of air differently electrified. The discharge is commonly assumed to be from a higher to a lower level, although it may be from either or both.

Two principal kinds of lightning are distinguished, linear and ball. The effects of the first may be peculiarly destructive. Its flashes are followed by thunder and usually accompanied by a downpour of rain. When its light is seen from a great distance, often through clouds near the horizon, it is called diffused, heat, or sheet lightning. The same appearance may, however, be due to actually diffused and silent discharges at great altitudes.

Statistics show that there is no part of the United States that is absolutely free from thunderstorms and lightning strokes. Even in California, Nevada, New Mexico, and Arizona reports have come of fatalities and accidents from lightning, but thunderstorms with lightning are four or five times as frequent east of the Rocky mountains as west, due to the generally mountainous condition of the west. Lightning is said to be most frequent in Illinois and Florida. The average number of lives lost by lightning is 800 in a year.

Queer Pranks Recorded.

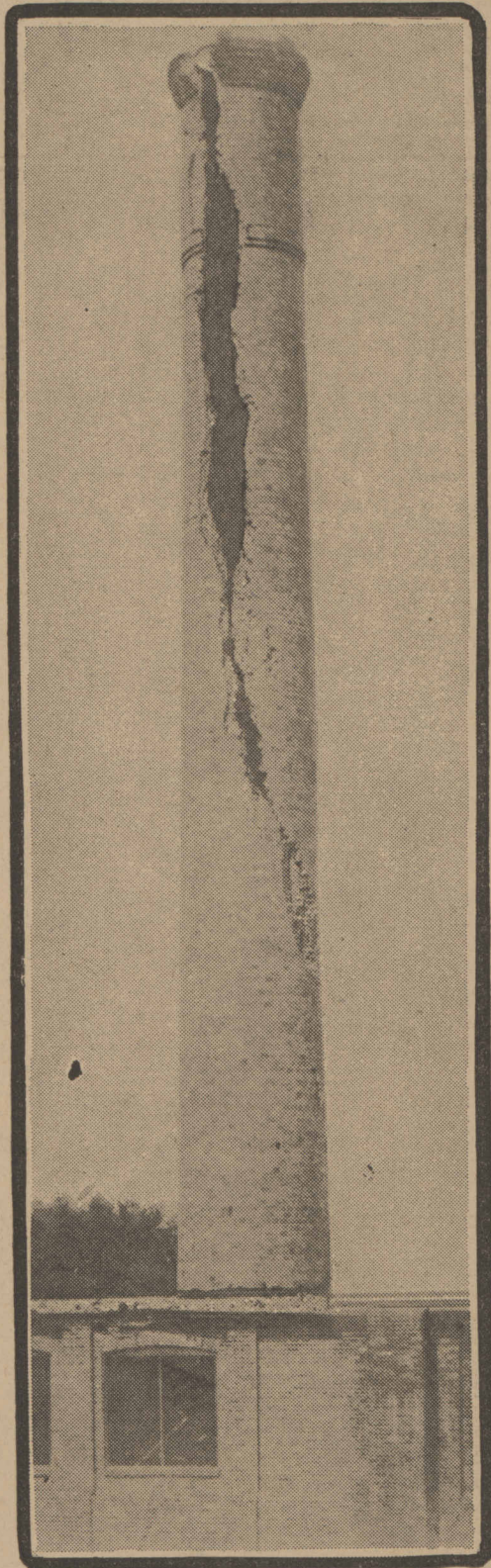
Lightning is a wizard that is forever performing strange tricks. A woman once raised her arm to close a window. There was a blinding flash of light, and although no injury resulted to the woman, her gold bracelet had disappeared.

In 1843 three men were struck in a mine shaft 330 feet beneath the surface. Lightning has been known to strike a powder magazine, scattering the powder without exploding it.

In Norwich, Conn., lightning is said to have cut half an inch off the rim of an inverted goblet on a table and left the goblet sitting as it was. The work is said to have been done as neatly as if it had been cut with a diamond. The electricity also set the hands on the dial of the clock four hours in advance of the true time without stopping the clock.

In Victoria, Tex., two negroes and two Mexicans were sitting on a bench during a thunderstorm. A bolt of lightning is reported to have struck one of the negroes, passed over the Mexicans between them, and struck the other negro, killing both instantly.

An English minister named Butler is said to have witnessed the following: In the town of Everdon ten harvesters had sought refuge under a hedge during



WHAT LIGHTNING
DID TO A CHIMNEY

a storm. Lightning struck and killed four, who were left as petrified. One was found holding in his fingers the snuff which he was about to take. Another had a little dead dog on his knees and had one hand on the animal's head, while holding in the other hand some bread with which he had been feeding it. A third was sitting with his eyes open and his head turned toward the storm.

Before the invention of the lightning rod various methods were employed to ward off danger from the lightning flash, which was supposed in the olden times to have no power to harm those who were asleep. The Romans believed in the power of the skins of seals and snakes, either worn upon their persons or made into tents beneath which they could take refuge until the storm was over. In



MAN WHO WAS UNDERESSED BY LIGHTNING

remote parts of England today the castoff skin of an adder is often suspended from the rafters of a cottage. In France the peasantry still wind a snake skin about their hats when they see a thunderstorm brewing.

Coral necklaces have often been worn for warding off lightning; also an eagle's plume, as that bird is supposed to be quite invulnerable to lightning from its connection with Jupiter. The Romans were also much addicted to wearing bay leaves as a preservative. The laurel, the holly, and the fig trees are supposed to be quite free from evil effects of lightning. The elder Pliny said: "Lightning never strikes the laurel."

Natives of South Africa have said regarding the mopane tree, which is often struck. "Lightning hates it"; but they say that the morala tree is never touched. The Portuguese share this belief.

The Germans place their faith in the power of a nettle. In Sussex the house leek or "Jupiter's beard" is often planted on cottage roofs to avert a flash. For this same reason people gladly welcome the nests of such birds as the stork and swallow.

To this day there are many persons who still insist that the beech is never struck, while in parts of the United States the aspen is considered immune from lightning.

There was once a widespread belief in Europe that conifers were almost immune, but records made there show that conifers rank third in liability to stroke.

Next after farmhouses and barns it is an established fact that the favorite prey of the lightning bolt is the church edifice. Its steep

ple affords a fair chance for the destructive flash, and in consequence every year brings tidings of the destruction of many places of worship.

Curious Effects on Trees.

The same flash of lightning, says an agricultural department bulletin, may strike and blast a number of trees, and the results may be quite as curious and erratic as the lightning itself. A tree may be scorched, it may be stripped of its leaves, it may be cleft longitudinally, or, more rarely, severed horizontally. Pieces of bark or wood may be torn off in strips. One half of a tree's crown may be withered, the other half remaining unharmed. Sometimes the bark is stripped from only one side, occasionally without a trace of burning; at other times it may be trilled as by worms, with a multitude of little holes.

The lightning furrow on a tree is usually single; but it may be double, usually in parallel lines. Furrows may be oblique or spiral, the current in such cases following the grain of the new wood. If the tree is inflammable or is rendered dry by the flash a fire may result. In other cases the dry duff or humus at the base of the tree is ignited by the flash.

A flash of lightning striking upward through the tree from its base acts as an explosive. The tree may then be torn into small fragments, and cases have been recorded where these appeared like a piece of hemp. If the upward flash is less violent the tree may be split radially. The tops of trees may be torn off while the lower parts remain un-

injured. On the other hand, the lower portion of a tree has been demolished, while the upper part fell to the ground intact.

It has been held, though not proved, that the big trees in California are repeatedly struck by lightning, and that, although not killed, their leaders are broken and their tops stunted in consequence.

When lightning strikes solid rock it may either enter the mass and form a fulgurite tube or it may be diffused over its surface, according to the conductivity of the formation. In one case it may split the material into large or small pieces, or it may fuse the surface, giving it a vitreous coat, usually with nodules or blisters. When these phenomena are seen on high summits or prominent points they may be considered evidence of lightning strokes. The presence of metal in the earth increases the danger of the stroke, and it is probable that veins of metal favorably situated will protect surrounding nonmetallic areas.

Lightning Rod "Agents."

It was in the early '70s, when the lightning rod was becoming exceedingly popular, with competition among the various companies tremendously keen, that unscrupulous men entered the field as "lightning rod agents." These crooks carried on their operations chiefly in the farming sections of the middle west, where barns, because of vapor rising from the hay in them, were being struck with frequency.

The confidence man would first, upon going into a new field, find out from a local banker the circumstances of certain farmers thereabouts, and his scheme then was to land a "sucker" out of the list by holding out the "something for nothing" lure.

"We want a reputable farmer in the neighborhood to put our rods on his buildings for advertising purposes," the agent would explain to the farmer upon driving out to his place.

And the farmer, under the impression that he was getting his rods for a mere song, would sign a note, which the agent, hurrying back to town, would have immediately discounted at the bank. Later the farmer would wake up to the fact that instead of paying a small price for the rods he had signed a paper fixing the price at a figure per foot that in many instances meant financial ruin.

The newspaper and the telephone, entering isolated districts, eventually caused this species of sharks to become practically extinct, lightning rods today being handled by agricultural implement stores and known salesmen.

Lightning does not strike large cities? Another fallacy. One of the most terrible accidents from lightning recorded in the United States took place in Chicago when twelve persons were killed by a single stroke under the old Robbins pier on Chicago's lake shore. It is true that in the heart of the city, where skyscrapers are numerous, lightning is not so prevalent, but it must be remembered that skyscrapers form only a small percentage of the number of houses in a great city.