

LIGHTNING FLASHES.

HOW THEY ARE EVOLVED AND THE ENERGY THEY POSSESS.

Inhabitants of Compactly Built Cities Have Little Cause to Fear These Mysterious and Destructive Balls From the Clouds.

Without doubt lightning was the first electrical phenomenon that was observed by human beings. To this day it remains the least known and least understood of natural electrical manifestations except, perhaps, the aurora.

There is a vast deal of popular misconception concerning the danger of lightning and the nature of it. The lightning flash is a discharge from a cloud at a high potential with reference to the earth. When the atmosphere is charged with water vapor and some eddy or current in its colder upper strata is deflected downward, causing condensation, exceedingly minute drops of water are formed, each bearing an electrical charge. The consolidation of these into larger drops results in a very great increment of the potential of the charge since the capacity of the drop varies with its diameter and the volume of the drop with the cube of the diameter.

The consequence of this is that it takes, for example, eight drops consolidated to make one of twice the diameter of the constituent drops, and the charge on the surface of the consolidated drop will be four times as great as that upon the surfaces of its elements. In this way, as the small water particles unite to form drops which fall as rain, the potential of the charge they carry increases until it attains enormous values, and the lightning flash leaps to the earth, which may be regarded simply as a body of very great electrostatic capacity. The discharge, which is called lightning, is apt to be more or less destructive, although the energy of an individual flash is perhaps not very great. Often the conditions are such that the discharge takes on an oscillating character, producing violent surges of current. No very accurate measurements have been made upon the current involved, but it is taken to be of the order of 1,000 to 5,000 amperes. The electro motive force necessary to cause a flash a mile long is probably several million volts, and of course the power of the flash measured in watts is very great, but its duration is correspondingly short.

Protection of property and life from lightning flashes has been a subject that has entrained the attention of natural philosophers since Franklin sent up his historic kite. The net result of more than a century of attempt to secure protection has been the lightning rod in its more or less inefficient forms and the discovery that buildings of modern construction, having metallic roofs and often metallic frames as well, are practically immune from attack by lightning.

The total number of deaths due to lightning in any given summer is comparatively very small—in the ratio of about one to each 200,000 population in the United States. In cities the destructive influence of lightning is exceedingly small, although occasional fires are caused by it, especially where gas pipes abound.

Protection of electric circuits from lightning has been an interesting subject for research for a number of years, and several highly efficient devices have been constructed for this purpose. Today lightning is little feared by the station superintendent and should be very little feared by any one. The time honored rule that it is wisest to keep in the open and not seek the shelter of trees is one which common prudence dictates. Recourse to the feather bed of our ancestors, however, is no longer necessary except to quiet the nerves of timorous persons, while the ancient superstitions regarding handling steel instruments and sitting in drafts may be utterly disregarded. A modern building in a city is as nearly absolutely lightning proof and those in it are as nearly absolutely protected from lightning as is possible.

Burdock BLOOD BITTERS

WILL CURE OR RELIEVE

BILIOUSNESS, DYSPEPSIA,
INDIGESTION, JAUNDICE,
ERYSIPELAS, SALT RHEUM,
HEARTBURN, HEADACHE,
DIZZINESS,
ACIDITY OF THE STOMACH,
DRYNESS OF THE SKIN.

And every species of disease arising from disordered LIVER, KIDNEYS, STOMACH, BOWELS OR BLOOD.

Hay Fever can be Cured by Japanese Catarrh Cure.

IT KILLS THE GERM WHICH IS THE CAUSE OF THIS MOST PREVALENT COMPLAINT.

Hay fever has been the cause of much scientific study and research by many of the most prominent physicians throughout the world. Many of them differ as to its real cause, but the majority agree that the cause is due to the little germs contained in pollen grains, principally hay pollen, but many other flowers and plants contribute largely to its cause. Japanese Catarrh Cure has been found the only complete cure for hay fever. It contains an organic compound of Iodine, which is a thoroughly harmless antiseptic, and destroys the hay fever germs completely. It soothes, heals and gives almost immediate relief. You will find it pleasant to use. We will be pleased to send you a trial quantity free. Enclose 5 cent stamp for postage, to The Griffiths & Macpherson Co., Limited, 121 Church St., Toronto. Sold by all druggists, 50 cents, or mailed direct.

SELLING GIRLS IN NIGERIA.

Dealers Push Business Just Like a Horse Dealer.

Business connected with the sale of some silver took me one day to the house of a slave dealer who had some twelve or fourteen very engaging females to dispose of. Entering the house through the heavy pillared, low be-matted porch, I found myself, when my eyes had grown accustomed to the subdued light and the fleecy smoke of the burning spices, in a large, square, hall-shaped room. The young women were squatting about on skins and mats, doing up one another's hair, touching up one another's eyes with kwoili (black antimony powder), laughing, talking, singing, and to all appearances thoroughly enjoying themselves, notwithstanding that they had only recently been torn from the bosom of their families. When the dealer had looked at the silver I brought with me he directed my attention to his stock, and, after a few observations relative to their place of origin, called up two or three of the girls and tried to push business, expatiating upon their points just as a horse dealer might do in this country. One was cunning in the preparation of the perfumes of the country, in the blending of civet and frankincense and myrrh, just the wife for a wealthy Ba Ture (white man) like me. Another could sing and dance; all were clean and well favored. After listening to the dealer for some time I told him very plainly that I did not require a female slave. "Ah," he replied, "then I know what you want, and have just the article to suit you." And a girl, half Arab, half Sudan, was immediately produced from a different room. The dealer was sure she would suit me—he was aching to get that silver without paying currency for it—he would let me have her cheap; she wasn't everybody's money. "No! she is not," I readily admitted, adding rather more forcibly, "she isn't mine, for instance." — Empire Magazine.

Baden-Powell on Buller.

Major-General Baden-Powell, when interviewed as to the dismissal of General Buller, said, with a lot of feeling: "It seems terribly hard luck, after all the splendid service. It seems to me to have been a little breakout that should have been forgotten."

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Rev. Dr. Bochor, of Buffalo, says: "My wife and I were both troubled with distressing Catarrh, but we have enjoyed freedom from this aggravating malady since the day we first used Dr. Agnew's Catarrhal Powder. Its action was instantaneous, giving the most grateful relief within ten minutes after first application. 50 cents."

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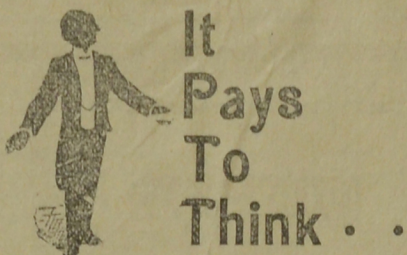
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Express for Sussex... 16.30
Express for Quebec, and Montreal... 17.00
Express for Halifax and Sydney... 22.35

TRAINS WILL ARRIVE AT ST. JOHN

Express from Halifax and Sydney... 6.00
Express from Sussex... 8.30
Express from Montreal and Quebec... 12.40
Express from Halifax and Pictou... 16.00
Express from Halifax... 19.15
Express from Moncton, (Saturday only), 23.50

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General Manager

Moncton, October 18, 1901.

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Aug. 14, 1901.—d & w.

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8.00 a. m. Mixed train leaves Stanley Village, connecting with Canada Eastern freight for Chatham, also with Canada Eastern Express for Fredericton, returning to Stanley 11.30 a. m.

2.00 p. m. Leave Stanley for Cross Creek Station, connecting with Canada Eastern freight for Fredericton, also with C. E. Express for Chatham, returning to Stanley 4.00 p. m.

Trains run on Standard time.] Stanley, Aug. 26, 1901.

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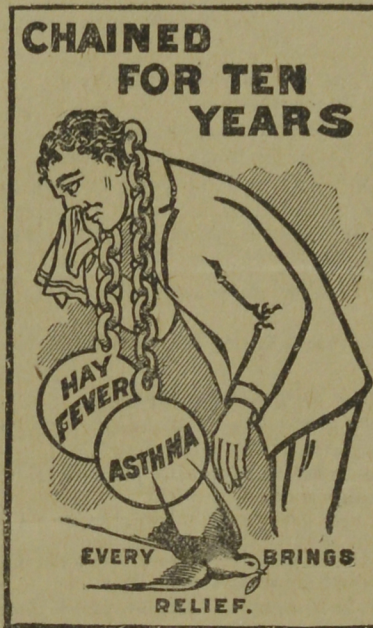
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REV. DR. MORRIS WECHSLER.

Rabbi of the Cong. Bnai Israel.

New York, Jan. 3, 1901.

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Avon Springs, N. Y., Feb. 1, 1901

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Gentlemen: I write this testimonial from a sense of duty, having tested the wonderful effect of your Asthmalene, for the cure of Asthma. My wife has been afflicted with spasmodic asthma for the past 12 years. Having exhausted my own skill as well as many others, I chanced to see your sign upon your windows on 130th street, New York. I at once obtained a bottle of Asthmalene. My wife commenced taking it about the first of November. I very soon noticed a radical improvement. After using one bottle her Asthma has disappeared and she is entirely free from all symptoms. I feel that I can consistently recommend the medicine to all who are afflicted with this distressing disease.

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