

THE ORIGIN OF METEORITES

MANY THEORIES ADVANCED TO EXPLAIN THEM.

The Knowledge of Shooting Stars Extends Back to Prehistoric Times.

You have probably wondered as you have watched a brilliant shooting star burn its way through a summer night where these strange visitors come from and where they go. A recent publication of the Smithsonian Institution deals with the origin of shooting stars and fireballs, both included in the term meteor. The explanations put forward at different times in the past to account for these striking phenomena are discussed, and the author then takes up the present ideas and the most probable theory as to their origin.

The knowledge of stones which have fallen from heaven extends into the oldest history of humanity, back into prehistoric times. Among the Chinese the mention of heaven stones goes back 6,000 years, and falling stones have always been known by the people of Asia Minor, by the Greeks and Romans. By all these ancient peoples the "messengers of heaven" were generally regarded as divine gifts. But with the advance of Christianity another idea of meteorites became prevalent. Gradually there was lost the Oriental conception of them as blessings, and though the whole Middle Ages and almost down to the present day the falling of meteorites was considered a warning of approaching misfortune.

Divided Opinion. Passing over the beautiful mythical conceptions of the Oriental peoples and the assumption in the Middle Ages that they might be due to lightning one can divide into two groups those holding opinions as to the origin of meteorites; supporters of the hypothesis that they came from space and did not belong originally to the earth and its atmosphere and the supporters of the hypothesis that they did originally belong to our planet.

There have been many respected adherents of the hypothesis of the origin of meteorites from the volcanoes of the moon. Telescopic observation gave information as to the surface of the moon, upon which craters could be seen, and not until it was established that a volcano on the moon would possess sufficient energy to impart to an ejected block of stone the necessary initial velocity to reach our earth did the hypothesis of lunar origin fall into disfavor. The idea that meteorites were formed out of constituents of the atmosphere was held only as long as their composition was as yet little known. It was soon seen that iron, nickel, chromium, silica, &c., could not be contained in the air, and this and many other reasons withdrew every support from the hypothesis of the origin of meteoric masses in the atmosphere.

Two Opposing Theories. Of longer duration was the theory of their terrestrial origin. According to this they are said to have been thrown out of the interior of our planet in the dim early ages with so great force that they were carried beyond the limit of its attraction to form a ring around it, like that of Saturn, out of which fragments fell to the earth again. Astronomic hypotheses as to the origin of meteorites did not develop until much later and took their rise from the idea that meteorites, shooting stars and comets were all of the same character. By studying the orbits of comets and meteors the theory was formulated that comets which become periodic split up into periodic swarms of shooting stars which revolve in the courses of the mother comet.

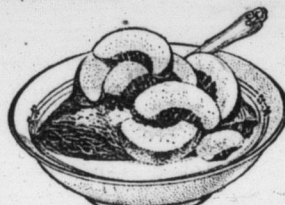
In opposition to this theory a hypothesis was proposed in 1875 based upon a mineralogical basis, upon the study of the component material of the meteorites and upon the times of arrival of meteorites of like composition. According to this theory, which is generally accepted to-day, from the shape and the slicken sided surfaces of meteorites they are fragments broken from small planetary masses by volcanic explosions. Such explosions can only be brought about by sudden expansion of gases and steam, among which hydrogen may have been in the first rank.

Vulcanism as a cosmic phenomenon is the destroyer of planetary masses, as we learn from the constituents of meteorites, in harmony with the solar development of stars, which all go through a volcanic phase. The broken bits after their separation are arranged in swarms which cross the orbit of the earth in accordance with a definite law.

Meteorites then, according to the authority quoted, undoubtedly comes from within our solar system and are broken bits of a world body destroyed by volcanic events.

Stewed Cranberry Pudding.—½ cup suet (ground fine), 1 cup sugar, 1 egg, 3 cups flour or 2 cups flour and 1 cup dried bread crumbs, 2 teaspoons baking powder, ¼ cup milk, 1½ cups cranberries. Beat the egg and add to milk. Mix dry ingredients, add suet, milk and egg. Stir in berries. Put in a greased mold, and steam three hours.

You Can Do Your Bit in preventing waste by demanding the whole wheat in breakfast foods and bread. **Shredded Wheat Biscuit** is 100 per cent. whole wheat grain prepared in a digestible form—contains more real nutriment than meat or eggs or potatoes and costs much less. Serve with milk or cream, sliced peaches, bananas or other fruits.



Made in Canada.

"FAKING" ON BOTH SIDES.

A Tragi-Comedy Between the Battle Lines of Europe.

In the effort to conceal military operations—camouflage as it is called in French—the talent of painters and sculptors is being put to a practical use in the battle lines of Europe. In Scribner's Magazine Mr. Ernest Peixotto writes that it is often necessary to model "fake" horses and trees for observation purposes.

The work is extremely dangerous, for it is not easy, with the Germans a stone's throw off, to crawl out in the trenches at night, remove the carcass of a horse and put an imitation in its place with an observer inside so that no one will know the difference in the morning.

Trees are of vital importance. An old blasted stump may stand between the lines in an advantageous position. The sculptor models a duplicate of the tree, the stump is removed at night and the duplicate erected in its place with the observer inside. He remains all day, peering down into the enemy lines, and after nightfall makes his way back to his own trenches.

Once, after an attack by the French, many German dead were left on the field. Among them was a large, fat, red-haired German who had fallen on a bit of rising ground in a good place for observation. It occurred to the colonel that a French observer might be useful at that point. The sculptor made a fat, red-haired German "corpse," and that night they crawled out with it to where the fat German lay. They threw a rope round the dead man, dragged him away and left him behind a pile of rocks, and in the place where he had lain they placed the French observer inside the imitation "corpse." To the "corpse" they attached a rope so that they could pull the observer back the next evening.

The next morning, to their horror, the Germans made a target of the "corpse" and shot bullet after bullet into it. Of course the French thought that their observer was dead. That night the Germans sent up flares every once in a while and continued shooting, and the French could do nothing. Later, when the flares and the shooting ceased, the French dragged their observer back behind the lines; but when they came to examine him they found, not their comrade, but an irate and very much alive German officer. They crawled back to the pile of rocks where they had left the dead German the night before and found only a Prussian uniform stuffed with straw and cotton and capped with a red wig!

The Germans had been doing a little "faking" of their own. The first "corpse" was not really a dead soldier at all. The observer inside had crept out and made his way back to the German lines. The Germans had then captured the French observer, shot up the imitation "corpse," and between flares the next night had put one of their own observers in his place.

To make typewriters less noisy a Cleveland inventor has patented a platen core that changes the loud click of the type to a dull thud.

Cornstarch Pudding with Fruit.—1 pint of milk, 4 tablespoons cornstarch mixed with a little cold water, ½ cup sugar, 1 teaspoon vanilla, 1 well-beaten egg, ¼ teaspoon salt, ½ cup chopped cooked peaches, apricots or pears. Scald milk; then stir in cornstarch mixed with a little cold water, and cook five minutes in double boiler on fire, let cornstarch boil, return boiler to place, add sugar, egg and salt beaten together, and cook two minutes, stirring continually. Flavor with vanilla, add fruit, and pour into mold. Chill and serve with sugar and cream. An excellent way of using up small amounts of canned fruits.

How to Purify the Blood

Fifteen to thirty drops of Extract of Root of Scilla commonly called Mother Seal's Curative Syrup, may be taken in water with meals and at bedtime, for the cure of indigestion, constipation and bad blood. Persistence in this treatment will effect a cure in nearly every case. Get the genuine at druggists.

THE RED CROSS FOUNDER.

Henri Dunant Was One of World's Greatest Benefactors.

One of the world's greatest benefactors, who died in a nursing home in Switzerland in his eighty-third year, was Henri Dunant, who had lived quite long enough to realize that his "happy thought" had brought untold benefit to mankind, and helped more than any one thing to ameliorate the horrors of war. The plain fact is that every Red Cross train, every Red Cross ambulance, and every Red Cross nurse and surgeon and helper, is a monument to this man with a big heart.

He became a doctor, and was on a pleasure trip in Italy when the great battle of Solferino took place. He witnessed the terrible sufferings of the wounded left untended on the field. He called the women of the district to his aid and had the wounded carried to a neighboring church, where he tended them.

This terrific experience, and the work of Florence Nightingale in the Crimea, led him to initiate an international agreement for the better care of the wounded in battle, and the famous Red Cross Convention was the result. It was signed at Geneva by representatives of twelve Powers in 1864.

When the Nobel Prize was awarded him—never more worthily—in 1901, Dunant is said to have been in a state of poverty.

SERIOUS ILLNESS AVOIDED

Many a serious illness has been avoided by the prompt use of Dr. Williams' Pink Pills. These pills actually enrich and purify the blood, and in this way build up the system, tone and strengthen the nerves and invigorate the vital organs.

Serious diseases generally come from some simple disorder that has been neglected. Therefore any thinning of the blood should be looked upon as a warning sign, and more serious illness should be avoided by the use of Dr. Williams' Pink Pills. In the case of young girls and women the blood is peculiarly liable to get out of order—to become thin and watery—and to lead to a general breakdown in health. This can be avoided by the occasional use of Dr. Williams' Pink Pills, which are suitable for the most delicate constitution.

These pills will give you a new appetite, improve your digestion, tone and strengthen weakened nerves, banish depression and lack of energy, clear the complexion of pimples and blotches, cure pain in the back and general weakness, cause the disappearance of headaches, dizziness and heart fluttering. Give these pills a fair trial and you will soon note a wonderful change in your condition. Your spirits will brighten, good health and strength will return, and you will feel like a new person. You can confirm these statements by enquiring among your friends almost anywhere, as thousands and thousands of hopeless sufferers have been restored to health and energy by using Dr. Williams' Pink Pills.

You can get these pills through any medicine dealer or by mail at 50 cents a box or six boxes for \$2.50 from The Dr. Williams' Medicine Co., Brockville, Ont.

Alfalfa for Sheep.

Alfalfa, if carefully fed and pastured, is one of the best roughages for sheep. The rapid increase in the production of alfalfa during recent years has resulted in a more careful study of its possibilities as a food for all classes of live stock. Formerly it was used primarily as a feed for cattle, but now it is used as a feed for horses, swine, and sheep.

When alfalfa is pastured, great care should be taken to prevent bloat. If the alfalfa has become woody or is mixed with other grasses the danger is somewhat lessened. Before turning the sheep on alfalfa, they should be filled up on hay, fodder, or other roughage, and turned out only when the alfalfa is free from moisture of any kind.

Sheep should never be allowed to pasture more than a short time the first day. The length of time should be increased a little from day to day until the sheep are accustomed to the feed. Flockmasters have found that it is never safe to give sheep free access to an alfalfa pasture.

The amount of alfalfa fed will always depend on the price and the amount available. When it is cheap and plentiful and other roughages are scarce, alfalfa could compose the entire ration of the flock. On the other hand, when hay is scarce and high in price, the ration could be made up of straw, fodder, and like roughages.

In experimental trials, averaging 100 days each, alfalfa was compared to timothy and prairie hay. The lots fed alfalfa made greater gains and required less feed per 100 pounds than did those fed prairie and timothy hay.

For protecting trousers from mud a French inventor has brought out a guard to be attached to shoes like a spur.

The tomato is an excellent article of food. It is properly a vegetable fruit. The tomato is valuable because of the citric acid which it contains, and also on account of its large supply of vitamins and iron. One pound of tomato contains enough iron to supply the body needs for one day. The tomato is an excellent food for persons suffering from a deficiency of blood or blood coloring matter.

Two Desirable Models



The dress that can be worn with a guimpe is very desirable for the small girl. McCall Pattern No. 8080, Girl's Dress. In 6 sizes; 4 to 14 years. Price, 15 cents.



An apron on this order is always appreciated and makes a most acceptable gift also. McCall Pattern No. 8083, Ladies' Apron and Sleeve Protectors. In 1 size, suitable for any size from 34 to 44 bust. Price, 15 cents.

These patterns may be obtained from your local McCall dealer, or from the McCall Co., 70 Bond St., Toronto, Dept. W.

GOWNS FROM PINEAPPLES.

Beautiful Fabrics Manufactured From Bananas and Pines.

People usually connect the Philippine Islands with perfumes and tropical fruits, and very little is heard of the great native industry—the weaving of fabrics from pineapples and bananas.

The lining of the skins is used, and looms not unlike those familiar to us are employed. The finest material is made from pineapples, and called Pena cloth. It is very soft and close in texture, somewhat resembling mullin, and is the color of champagne. It is not, as a rule, dyed, and is beautifully embroidered.

Pena cloth is expensive—a blouse length costing about \$12.50—but it washes and wears well, and is exceedingly graceful and artistic. Yasi cloth is cheaper and coarser, and is produced from bananas. This is the native dress material, and is worn by all the native women.

The best kind, however, is made in the natural shade—exactly the color of the inner side of a banana skin—embroidered in a finer woven mesh of the skin, and trimmed with a lace also manufactured from bananas. Perhaps after the war, some enterprising leader of the world of fashion will introduce these cloths into Canada.

The psalteries of David were made of cypress (II. Samuel vi., 5), those of Solomon of the almond tree (II. Chronicles ix., 11).

ANY CORN LIFTS OUT, DOESN'T HURT A BIT!

No foolishness! Lift your corns and calluses off with fingers—It's like magic!

Soft corns, hard corns, soft corns or any kind of a corn, can harmlessly be lifted right out with the fingers if you apply upon the corn a few drops of freezone, says a Cincinnati authority.

This simple drug does the moment it is applied and does not even irritate the surrounding skin while applying it or afterwards.

This announcement will interest many of our readers. If your drug-gist hasn't any freezone, tell him to surely get a small bottle for you from his wholesale drug house.

GIFT OF RURAL CHILDREN.

Motor Bus, Costing \$2,500, Presented To Military Hospital.

The rural school children of Ontario, out of money they raised at their fall fairs, presented the Military Orthopaedic Hospital at Toronto with a big motor bus in which to carry their soldiers-student-patients to and from the schools in which the Military Hospitals Commission has arranged for their vocational training.

Premier Sir William Hearst made the presentation for the children who were justly proud of the vehicle which is valued at \$2,500, and which the men declare is the finest gift they had yet.

THE ONLY MEDICINE FOR LITTLE ONES

Mrs. H. Blanche, St. Pamphile, Que., writes:—"I have obtained great results from the use of Baby's Own Tablets. They are the only medicine I know of that one can depend upon to promptly cure bowel and stomach troubles." The Tablets never fail to relieve the little one and besides the mother has the guarantee of a government analyst that they are absolutely safe. They are sold by medicine dealers or by mail at 25 cents a box from The Dr. Williams' Medicine Co., Brockville, Ont.

THE WORLD'S HIGHWAYS.

Paved Roads in Babylon As Early as 2000 B. C.

If it is true, as has been said, that road-making is one of the first signs of civilization in a people, then civilization must have dropped back tremendously during those medieval centuries known as the "Dark Ages."

In earlier times roads and paved ways were skillfully made and well maintained in the world's most highly civilized communities. The great road of Egypt, says the historian, was a mighty work which employed a 100,000 men for ten years in a remote past. Doubtless its history, like that of the famous pyramids, is bound up with the story of Israelitish slaves, whipped to energy by Egyptian taskmasters before the great day of deliverance dawned. There is mention of great radiating paved roads, in Babylon 2000 B. C. The Ancient Greeks, through a seafaring race, extended their conquests by land, and then as now the conquest of new lands, whether by war or commerce, involved the making and maintenance of roads.

GIRLS! LEMON JUICE IS SKIN WHITENER

How to make a creamy beauty-lotion for a few cents.

The juice of two fresh lemons strained into a bottle containing three ounces of orchard white makes a whole quart pint of the most remarkable lemon skin beautifier at about the cost one must pay for a small jar of the ordinary cold creams. Care should be taken to strain the lemon juice through a fine cloth so no lemon pulp gets in, then this lotion will keep fresh for months. Every woman knows that lemon juice is used to bleach and remove such blemishes as freckles, sallowness and tan and is the ideal skin softener, whitener and beautifier.

Just try it! Get three ounces of orchard white at any drug store and two lemons from the grocer and make up a quart pint of this sweetly fragrant lemon lotion and massage it daily into the face, neck, arms and hands.

Preparedness.

"In a place in New Jersey a town building caught fire, and the extinguishers failed to do their work. A few days later at the town meeting some citizen tried to learn the reason. After they had freely discussed the subject, one of them said:

"Mr. Chairman, I make a motion that the fire extinguishers be examined ten days before every fire."

TORONTO FAT STOCK SHOW

One of the coming events which all live stock men and farmers should not miss is the Toronto Fat Stock Show, to be held at the Union Stock Yards, on Friday and Saturday, December 7th and 8th. The Auction Sale always brings record prices, and it is well worth your time to see the competition among packers and butchers for the prize winners. Entries for this year's show are larger than ever.

Tree leaves as a rule are free from insects and disease and are valuable for piling up and rotting over winter for turning under in the garden in the spring. It is generally safe to use tree leaves for this purpose when they may not be safe to use potato vines, pea vines and vegetable tops from any plants that show indications of insects or disease. These should be gathered and burned, not permitting them to lay on the soil for any length of time.

Freezies are easily grown and are deliciously fragrant. Plant five or six in a six inch pot and fill a fern dish with them.

The city of Riga is the seat of government for the Province of Livonia. Under normal conditions it has a population of 504,000.

Minard's Liniment Cures Distemper.



ROYAL YEAST

Has been Canada's favorite yeast for over a quarter of a century. Bread baked with Royal Yeast will keep fresh and moist longer than that made with any other, so that a full week's supply can easily be made at one baking, and the last loaf will be just as good as the first.

MADE IN CANADA
E.W. GILLET COMPANY LIMITED
WINNIPEG, TORONTO, ONT., MONTREAL

Clean Food in Winter.

It is important that the larder should always be kept well aired, so that the contents may be fresh and sweet. To prevent dust and smut getting in through the open window cover it with a piece of butter muslin. This lets the air penetrate and, at the same time, keeps everything spotless.

Minard's Liniment Cures Garget in Cows

A war cake may be made with the following ingredients: 4 tablespoons dripping, ½ cup sugar, ½ cup milk, 1 cup flour, ½ cup graham flour, 2½ teaspoons baking powder, 1 teaspoon cinnamon, 1 teaspoon cloves, 1 tablespoon molasses, 1 egg. Mix sugar, dripping, beaten egg and molasses. Add to the flour the baking powder and spices. Add the milk and flour alternately to the first mixture. Bake thirty minutes in a shallow pan.

MONEY ORDERS

When ordering goods by mail, send a Dominion Express Money Order.

Plant crocus, snowdrops and scillas an inch and a half to two inches deep. Set crocus and snowdrops two inches apart and scillas three inches apart. Jonquils and tulips should be set three inches deep and four inches apart. Hyacinths and narcissus four inches deep and six inches apart. Lillies five inches deep and twelve inches apart. These distances are not necessarily exact and can be varied somewhat.

MURINE Granulated Eyelids, Sore Eyes, Eyes Inflamed by Sun, Dust and Wind quickly relieved by Murine. Try it in your Eyes and in Baby's Eyes. No Smarting, Just Eye Comfort. **Murine Eye Remedy** At Your Druggist's or by Mail. Ask Murine Eye Remedy Co., Chicago 4

Creamed Cheese and Eggs.—2 hard boiled eggs, toast, 1 cup milk, ¼ cup grated cheese, ½ teaspoon salt, 1 tablespoon flour, few grains cayenne. Make a thin white sauce of the milk, flour and seasonings. Add the cheese and stir till melted. (Do not boil or the cheese will toughen.) Put the eggs through a coarse sieve. Add the creamed cheese to the toast and cover the top with the grated egg.

Minard's Liniment Cures Colds, Etc.

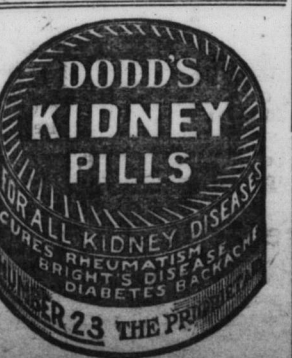
Gentlemen.—Last winter I received great benefit from the use of MINARD'S LINIMENT in a severe attack of LaGrippe, and I have frequently proved it to be very effective in cases of inflammation.

Yours,
W. A. HUTCHINSON.

When the pullets are put into winter quarters spend as much time with them as possible; all your movements should be quiet; when feeding encourage them to eat from your hand; it will not be long before they will recognize you as a friend. Never hurry into a pen unannounced; let the pullets know that you are at hand, so that they will not become startled when you appear.

Minard's Liniment Cures Colds, Etc.

Potato chowder is not bad for supper on a cold evening. Cut into dice six potatoes and a quarter of a pound of salt pork. Put the pork, along with a sliced onion, into a pan and fry until golden brown. The potatoes, onion and pork are then placed in layers in a kettle, and sprinkled with salt, pepper and parsley. Pour over this the fat from the pan in which the pork and onions were fried, add a pint of water and let it simmer for twenty minutes. Scald a pint of milk, thicken it with two tablespoonfuls of flour and one of butter rubbed together, add this to the chowder when the potatoes are tender, and stir until the flour is cooked.



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The so-called Arabian numerals, the characters 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, were borrowed by the Arabs along with the decimal system of notation from the Hindus.

Minard's Liniment Cures Diphtheria.

PRODUCE
NEW LARD EGGS, POULTRY, PEAS, beans, honey, onions wanted. Highest prices given. J. D. Arsenault, 1195 St. Catharine East, Montreal.

MISCELLANEOUS

"HEAVEN AND HELL"—Swedenborg's great work on a real world beyond and the life after death; 400 pages; only 25 cents postpaid. W. H. Law, 4362 Euclid Avenue, Toronto.

CANCER, TUMORS, LUMPS, ETC. Internal and external, cured without pain by our home treatment. Write us before too late. Dr. Helms Medical Co., Limited, Collingwood, Ont.

Agents Wanted

In all towns where we are not represented to sell our photographs to their friends at factory prices. Every machine guaranteed made in Canada and we guarantee satisfaction. Write at once for particulars. The World Photograph Co., Dept. W, 729 Broadway Ave., Toronto, Ont.

When buying your Piano Insist on having an "OTTO HIGEL" PIANO ACTION

Of Vital Interest to Syrup & Maple Sugar Makers

Wide awake Maple Syrup Makers will consult their best interests by ordering their supplies now instead of delaying until March, our busiest time. Write for our free booklet telling about our "Champion" Evaporator, made in 22 sizes, suitable for large or small groves. THE GRIMM MFG. CO., LIMITED 58 Wellington St., Montreal, Que.

YOU CAN'T CUT OUT A Bog Spavin or Thoroughpin

but you can clean them off promptly with

ABSORBINE

and you work the horse same time. Does not blister or remove the hair. \$2.00 per bottle, delivered. Will tell you more if you write. Book 4 M free. **ABSORBINE, JR.** the antiseptic liniment for mankind, reduces Varicose Veins, Ruptured Muscles of Ligaments, Sprained Cuts, Wounds, Burns, All sorts of sores. Price 25¢ and 50¢ a bottle at druggists or delivered.

W. F. TOWN, P. O. 5, 518 Lyman Bldg., Montreal, Can. Absorbine and Absorbine, Jr. are made in Canada.

CUTICURA HEALS ITCHY SCALP RASH

That Burned and Pained Four Years. Hair Came Out. Loss of Sleep.

"My scalp was red and very itchy, and a fine rash developed which itched and pained incessantly. This seemed to destroy the hair roots, causing my hair to come out. It also caused loss of sleep. The trouble lasted four years. Then I sent for a free sample of Cuticura Soap and Ointment which encouraged me so I bought more, and I had one cake of Cuticura Soap and one box of Ointment and I was healed." (Signed) John Cunningham, Church St., Antigonish, N.S., April 4, 1917.

Why not make Cuticura your everyday toilet soap and prevent skin troubles? Absolutely nothing better.

For Free Sample Each by Mail, address post-card: "Cuticura, Dept. A, Boston, U. S. A." Sold everywhere.



Outdoor Workers

are subject to exposure to all kinds of weather, and strenuous outdoor work brings the rheumatic aches. You can't afford to be laid up, so heed that first twinge of rheumatism. Use Sloan's Liniment. Clean and convenient, no need to rub, no stains, no clumsy plasters and your pain disappears.

Sprains, strains, neuralgia aches and stiff, sore muscles are all relieved by the application of Sloan's Liniment.

Generous size bottles at all druggists, 25c, 50c, \$1.00.

Sloan's Liniment KILLS PAIN