

Man-Made Rain Still A Problem To Worry Science; Tried Often

Experiments Since Dawn Of History Failed To Provide Relief From Drought.

(Merriett Frank in N. Y. Times) Since time immemorial man has tried without success to make rain. In Hongkong recently aviators flying in the clouds dropped powdered kaolin, hoping thereby to precipitate the moisture in the clouds. It had no effect and a long standing drought remained unbroken. Man today, despite his great advances in scientific knowledge, apparently cannot discover how to achieve this feat of nature.

Scientists' theories of how to make rain have changed radically since the time when ancient magicians muttered incantations and brewed their concoctions. Then it was thought that magic could bring about rain. Later it was believed clouds must be shattered before they would deliver their moisture. Scientists today assert that rain can only be produced at will when man is able to imitate nature's enormous heating and condensing machine. In the present range of scientific accomplishment this is not yet possible.

It is now generally recognized that nature produces the necessary cold for condensing the cloud moisture by great vertical movements of air. Man has attempted to condense this moisture by using liquid air, ionized gases, electrified sand and chemicals. Some idea of the vastness of nature's process may be realized from the calculation that to cover 100 square miles with one hundredth of an inch of water 650,000 tons of water vapor must first be raised from the earth and then condensed.

Concussion Theory Given Up. When theories were held that shattering clouds would produce rain, great explosions and concussions were tried to "open" the clouds. But it was held to be definitely proved by the World War that no amount of concussion will produce rain. And even as man has failed, by concussion, to bring rain, so has nature failed. No volcanic eruption, from the smallest convulsion to the great eruptions of Asama, Vesuvius and Krakatoa, has ever resulted in any more than the normal amount of rainfall.

Rain-making has long been a source of revenue for charlatans and a basis for many superstitions. In August of 1923 two British South African negroes were sentenced to death for killing four twins. An ancient belief of their tribe held that

drought could be broken if two sets of twins were killed, the bodies placed in a pot and the pot thrown into a river.

Practically every tribe of North American Indians had its rain-making superstitions. Many of them had religious dances and all of them called upon their medicine men to produce the rain. Some tribes shot arrows toward the clouds from high while others had their braves shoot arrows toward the clouds from high places. The lucky one whose arrow was thought to have pierced the cloud was made a medicine man.

The Choctaw tribe believed that if a fish were tied to one of their braves who then stayed in water for two weeks, rain would follow. On the other hand, they thought that excessive downpours could be stopped by drying sand over a fire in a frying pan. Particularly clever medicine men who observed signs of rain in skies probably went through their rites until the rain fell, and were then honored by the tribe.

Even today in parts of the world ancient tribal rites are practiced. Throughout India, Pacific Ocean islands and Africa sacrifices to rain gods are made. According to the American Museum of Natural History, Indians in the southwestern part of the United States enact rain dances practiced by their ancestors.

Fires As A Cause. It was long thought that great fires brought rain, and forest fires have been extinguished by rainfalls said to have resulted from the fires. James Espy a Pennsylvania meteorologist in the latter half of the nineteenth century, was an enthusiastic devotee of the "fire-to-bring-rain" theory. He published a long letter stating his belief and giving a method involving great fires which, he contended, was sure to precipitate moisture. Espy's letter also told of a communication he had received from one George Mackay, who asserted that setting fire to large tracts of prairie had caused rain.

In 1880 "General" Daniel Ruggles of Fredericksburg, Va., patented a rain-making machine under the theory that explosions in the clouds would cause rain to fall. Under the directions of a scientist named Dysenforth, experiments were made in Texas with money appropriated by congress. Dysenforth contended he was successful, but scientists who witnessed the experiments said the rain that fell came from natural causes and not because of Dysen-

forth's explosions.

Other Methods Employed. In 1891 a Chicagoan named Gathman patented another scheme on the theory that "sudden chilling of the atmosphere by rapid evaporation" would accomplish what others had failed to do. Gathman also asserted that a heavy concussion set the air currents in motion. In view of the present knowledge of the physical causes of rain, Gathman may have antedated in theory some of the other modern scientists. In one home experiment Gathman was said to have shot liquid carbonic acid 600 feet into the air, contending that clouds formed as a result. Gathman also said he could and did produce rain at will, but there is no record of his having done so.

Causing rain by establishing an electrical contact with clouds, the medium of a kite, was the method tried in 1893 by Baudouin, a Frenchman. Baudouin said that he was twice successful—both times in experiments conducted in Algeria—and that by withdrawing the kite and breaking the contact he stopped the rain.

The United States weather bureau according to a report published last February, definitely asserts that man cannot produce rain at will. The bulletin says that "it is quite true that in a laboratory a small amount of moisture can be precipitated by using special equipment, but meteorologists know of no practical scheme of producing rain on a large scale. Widespread drought is due to a lack of sufficient moisture in the air. If there is little moisture to bring down obviously no device for causing rainfall has any value."

In the countless attempts to bring rain, one of the greatest drawbacks has been the enormous costs involved. Dysenforth's Texas experiments cost \$80,000. Gathman said his rain would cost from \$30 to \$90 a square mile. Extensive fires—either prairie or forest are obviously costly, and concussions are not only expensive but give rise to annoyance and danger.

ADMINISTRATOR'S NOTICE.

Having this day qualified as administrator of the estate of J. R. Melton, late of Cleveland county, N. C., this is to notify all persons having claims against the said estate to present the same to me properly proven on or before the 17th day of October, 1930 or this notice will be pleaded in bar of recovery thereof. All persons owing the said estate will please make immediate settlement to the undersigned. This Oct. 17, 1929.

L. A. JACKSON, Administrator
Estate of J. R. Melton, deceased. (adv.)

WOMAN FOND OF COLLEGIANS AT 97

Mrs. Elizabeth Moore Of W. Va. War Tells Of Civil

Morgantown, W. Va.—After 97 years of life in West Virginia, the major part of which has been spent on the campus of West Virginia university as its educational predecessor, Mrs. Elizabeth I. Moore is looking forward to the opening of the university which she has loved and in which she has seen the ideals of her youth develop into successful fruition.

One of the founders of the thought of coeducation in West Virginia, she devoted her life to the teaching of boys and girls of a former generation, and when the span of her active years had passed, she handed her ideas, her enthusiasm and the benefit of her experience to her daughter, Miss Susan Maxwell Moore, who has given more than 50 years of her life to the teaching profession and continues to be part of the educational movement at West Virginia university.

Girls Same As Ever. Mrs. Moore believes the modern girl is no different from girls of her generation as to foundation and faith. She calls them the product of a newer day and an enlightened period wherein the girl demands more freedom, more knowledge and a frank and candid analysis of life and its mysteries.

She does not approve of girls smoking, but looks upon it with the same light as she looked upon equal voting suffrage and declares smoking is not so much a question of morals as it is of manners, and then adds with a smile, that no girl should consider it good manners and good breeding to smoke in public.

The story of the teaching career of Mrs. Elizabeth Moore goes back to the days of the Civil war, when she was principal and an instructor at Woodburn seminary, which was a part of the present university campus.

Appealed To Chivalry. Confederate troops were in the vicinity of Morgantown. They burned the river bridge across the Monongahela river at this point and overflowed on the school grounds.

Mrs. Moore served the entire party with bread and butter and coffee, and after they had been amply fed she called upon them as southern gentlemen to withdraw from the school grounds. Her appeal did not fall on deaf ears and the entire party withdrew without having touched a building.

Educated at Wheeling Seminary, Virginia, Mrs. Moore came to Morgantown shortly after her marriage in 1883 and became associated with her father, who was principal of Mongalla academy. In 1857 her father and two other men bought the 13-acre manor of Thomas P. Reay and on it was built Woodburn Hall of West Virginia university, which is still standing and in daily use.

Assisted Her Father. Mrs. Moore assisted her father in teaching until his death. She went to Pittsburgh, where she taught in a girl's seminary in East Liberty for a number of years and then returned to Morgantown to make her home with her daughter, who had started her teaching career.

After teaching a few years at Mount Holyoke and at Dennison university Miss Susan Maxwell Moore, daughter of Mrs. Moore, came to Morgantown to teach and became dean of women, which position she filled together with that as an instructor in the school of music. Miss Moore remained as dean of women 20 years, but relinquished this duty in 1923 and since has devoted herself to teaching music.

That the state of West Virginia was not slow to recognize the service given by Mrs. Moore was indicated when the new physical education building for women was erected on the campus. By recommendations from the West Virginia Alumnae association the state, of control, by unanimous consent, named the new building Elizabeth Moore Hall and today this monument to the venerable woman is serving upward of 600 girls where swimming, folk dancing and other forms of physical education are taught.

Mrs. Moore, at the age of 97, continues to take an active interest in university affairs and makes it a point to be in attendance at functions whenever health and weather conditions permit.

EXECUTOR'S NOTICE.

Having qualified as executor of the will of Carmila Ervin, deceased, late of Cleveland county, North Carolina, this is to notify all persons having claims against the estate of said deceased to exhibit them to the undersigned at RFD No. 1, Shelby, N. C., or his attorney, on or before the 18th day of October, 1930, or this notice will be pleaded in bar of their recovery. All persons indebted to said estate will please make immediate payment.

This October 18, 1929.

J. T. ERVIN, Executor.
Carmila Ervin, deceased.
David P. Dellinger, Attorney,
Chesapeake, N. C.

Urges Generous Use Of Newspaper Adv.

Banker And Promotion Expert Favors Use Of Newspaper Campaigns.

Insurance Field.

Generous and judicious use of newspaper advertising space will enable life insurance companies of this country to reach their second \$100,000,000 in business in five years, St. Paul underwriters were told October 11 by promotion expert. He spoke of "The Second Hundred Billion of Life Insurance and Cooperation."

"In order to secure this as expeditiously as it can be done," Mr. Kelly said, "the insurance companies should educate the public through advertising the business in the newspapers. Newspaper advertising is the most valuable medium of acquainting the public as to the necessity of purchasing life insurance."

Educational Campaign Will Pay. "The man who sold me my first life insurance policy 30 years ago I consider one of my dearest friends and since the purchase of my first insurance policy, I have never failed to increase my life insurance investment when my financial means permitted. So you see I have contributed to the first \$100,000,000."

"An educational campaign fostered by the large insurance companies of the United States through the purchase of newspaper advertising liberally will certainly be the

means of thousands of families in the United States; purchased life insurance who today, through the lack of knowledge as to the value of life insurance, have neglected to evaluate themselves of this protection. I consider life insurance an investment that is sound to the core and equal to an investment in the purchase of United States Liberty bonds but it will pay a greater premium."

Advertising Brings Sales. "Newspaper advertising by insurance institutions is capable of producing not only good will, good public relations and prestige, but it can be made to show definite sales results," said R. C. Braun, advertising manager of the Reliance Life, at a meeting of Baltimore representatives of the company. He outlined a plan for a concentrated sales campaign to be conducted during November, based upon newspaper advertising.

About 40 Reliance Life representatives in the Baltimore district will participate in the campaign. The newspaper advertising campaign will begin October 21 and continue throughout November and has been planned as the basis of personal contact between the company's representatives and the general public.

"The opinion among insurance officials and advertising executives has been that insurance advertising in newspapers could produce only good will, create prestige for the company and otherwise establish good public relations. We believe that the newspapers are more vital than this."

Umpire at an Ohio baseball game killed a fan who had been criticizing his decisions, and 5000 newspaper paragraphs instantly sat down and tried to think up some new way of stating the old proverb about the turning of the worm.

ADMINISTRATOR'S SALE.

Pursuant to an order of the superior court, made in special proceeding entitled "F. L. Hoyle, administrator et al vs. Izella Swink, et al" by the clerk of superior court, the undersigned will sell to the highest bidder at the court house door in Shelby on

Monday, November 4, 1929 at 12 o'clock or within legal hours, the following described real estate: Lot No. 3, in No. 11 township, on the head waters of Wards creek, adjoining lands of lot No. 2 and others; Beginning on a stone, then N. 1 E. crossing the branch 51 poles to a small hickory; then N. 27 W. 10 poles to a stone in old line; then S. 71 W. 66 poles to a stone; then with division line of No. 3 and 10 42 poles to a stone; then N. 68 E. 40 poles to a post oak; then S. 89 E. 32 poles to the beginning containing 28 acres more or less. Said land being conveyed to Scott Wright by deed by his father and mother, Peter and Viney Wright the first day of February, 1919, which was recorded in book 3-M, page 12 of deeds, of the office of the register for Cleveland county, N. C.

Terms of sale: One-half cash on day of sale balance January 1, 1930, title reserved until all purchase money is paid.

This October 2, 1929.

F. L. HOYLE, Administrator
of Scott Wright's Estate.

NOTICE OF SALE OF LAND.

Under and by virtue of authority conferred in a certain mortgage executed by O. E. Stewart, and wife, Emma Stewart to Ralph T. Mauney, of the County of Cleveland, State of North Carolina, dated the 15th day of November, 1928, and recorded in the office of the Register of Deeds for Cleveland County, in Book 130 at page 254, I Ralph T. Mauney, will at 12:00 noon on

Monday, 18th November, 1929 at the Courthouse door of Cleveland County, in Shelby, North Carolina, sell at public auction, for cash, to the highest bidder, the following described real estate:

"Beginning at a stake on the northwest edge of Peachtree Street, the southwest corner of the Sam Wilson lot, and runs thence with the south line of the Sam Wilson lot North 58 3-4 west 100 feet to a stake; thence south 31 1-4 West 66 feet to a stake in the R. L. Mauney lot; thence with the North line of the said lot South 88 3-4 East 100 feet to a stake in the north west edge of Peachtree Street; thence with the said edge of the said Street North 31 1-4 East 66 feet to the place of beginning. Same being a part of lot No. 4 of the R. L. Borders property, a plat of which is recorded in the Office of the Register of Deeds for Cleveland County, in Book No. 1 at page 72."

This sale is being made on account of default in the payment of the obligations as set out in the foregoing mortgage, which is a second lien on the herein described premises.

This 17th day of October, 1929.

RALPH T. MAUNEY,
A. R. Bennett, Atty. Mortgagee

ATWATER KENT SCREEN-GRID RADIO



Announcing Salon Showing

The only radio manufacturer who lets us offer you a wide selection of cabinets!

OPEN house this week in our store! Special Salon Showing of latest Atwater Kent Screen-Grid models in widest variety of charming cabinets! Choose the one of many that suits your taste and pocketbook!

Designed by America's foremost makers of furniture! Beautiful woods, lowboy or highboy, simple or elaborate, swinging doors or sliding doors or without doors! For a small apartment or a mansion! Prices vary with design—there's a cabinet Atwater Kent for every pocketbook!

Each type is authentic. Each cabinet is built to bring out in true tone the surging power of Atwater Kent Screen-Grid radio. Only Atwater Kent lets us offer you this freedom of choice—this breadth of design—this glamorous array of exquisite woods to suit your taste. Imagine the very cabinet you have always wanted! See it here today! Have it tonight!

CABINET WEEK

October 26—November 2

Shelby Hardware Co.

"WE SERVE TO SATISFY."

PHONE 330 SHELBY, N. C.

OUR 70th ANNIVERSARY

ESTABLISHED 1859

WHERE ECONOMY RULES

Karo Blue Label Or Golden Crown Syrup	No. 5 Can 33c	No. 10 Can 59c	Scooco or Swift's Jewel Shortening 8 Lb. Bucket 99c	White House Evaporated MILK 5 Tall Cans 39c
Eagle Condensed MILK Large Can 18c	CAMPBELL'S TOMATO SOUP 3 Cans 25c	NUCOA lb. 25c	FLOUR 12 Lb. BAG 49c, 24 Lb. BAG 95c, 48 Lb. BAG \$1.85	RAISINS Seeded (or Seedless) pkg. 10c
HERSHEY And Other Favorite CANDY BARS 3 For 10c	N. B. C. CRACKERS ASSORTMENT DE LUXE Pkg. 29c, 6 5c Pkgs. Crackers 25c	COFFEE Received fresh each week and ground to suit the individual taste. 8 o'Clock The world's most popular coffee—more grounds, sold than any other brand. lb. 35c, Red Circle A Blend of the Finest Coffees Grown. lb. 39c	PILLSBURY FLOUR 12-Lb. Bag 63c, GOLD MEDAL FLOUR 24-Lb. Bag \$1.25	QUAKER GRITS 3 pkgs. 25c
HOUSEHOLD NEEDS Palmolive Soap 4 cakes 27c, Lux Toilet Soap 6 cakes 39c, P. & G. SOAP 7 cakes 25c, FAIRY SOAP 6 cakes 25c, IVORY SOAP 2 1/2 cakes 15c, Lifebuoy Soap 3 cakes 20c, SUPER SUDS 3 pkgs. 25c, GOLD DUST 6 pkgs. 25c, Waldorf Tissue 2 rolls 11c, MATCHES 3 Large Boxes 10c	Lucky Strike, Old Gold, Camel, Chesterfield, Piedmont Cigarettes 10 large pkgs. \$1.19	GRANDMOTHER'S the BREAD Value of the hour ROLLS Square or Round Pan 8c, FULL POUND Wrapped Loaf 7c	Sunnyfield Whole Milk Butter In 1/4-Lb. Prints. lb. 53c	
<h2>HAMS KINGAN'S RELIABLE ARMOUR'S STAR & SWIFT'S PREMIUM LB. 25c</h2> <p>THE GREAT ATLANTIC & PACIFIC TEA CO.</p>				