

### Airplane Scatters Dry-Ice On Top Of Clouds And Starts Snowstorm

By HOWARD W. BLAKESLEE  
AP Science Reporter

SCHENECTADY, N. Y. — The scientists who created the first man-made snowstorm over Greylock Mountain in Massachusetts, by dropping six pounds of dry ice pellets on a cloud three miles long, were amazed to see this cloud change its shape.

The transformation began about two minutes after the dry ice was scattered from the plane.

The cloud originally was wide and somewhat flat, a stratus type. The first step in the change was streamers of snow pouring out of the cloud's bottom.

Steamed at the Top  
Quickly after that pillars of cloud began to rise from the top of the stratus formation. These pillars were cumulus, that is, the familiar high-piled cloud formations of summer, that frequently carry rainstorms, often with thunder. These cumulus clouds have cistern-topped and low, flat dark bottoms, out of which rain pours.

Something like that, on a small scale, happened from the scattering of the six pounds of dry ice. The explanation is that when the water particles in the original cloud turned into ice, this reaction released a lot of heat. The heat changed the formation of the cloud, to cumulus.

But the heat change did something vastly more important for man's prospects of making snowstorms for useful purposes. It set up a chain reaction. That is, although the dry ice started the snowing, the snowfall continued under its own power, and actually built itself up. Apparently the

extra heat drew more moisture to be precipitated by natural means, as snow.

#### Scientists Explain It

The General Electric scientists who made the snowstorm were Vincent J. Schaefer and Dr. Irving Langmuir, Nobel prize winner in chemistry.

The explanation of the dry ice pellets is that each one, due to its intense coldness, about 110 degrees below zero, chills nearby droplets of water so rapidly that they form tiny bits of ice, probably too small to be visible under a microscope. These bits act like seeds, a drop of snow forming from each one. This process then spreads automatically to nearby areas not directly cooled by the dry ice.

In the Greylock Mountain cloud the water particles were still liquid, although below freezing in temperature. This sub-cooling is also a known and frequent phenomenon in clouds and vapor. It is one cause of icing on airplanes.

The man-made snow was all tiny ice crystals. Whether large flakes of snow can be produced remains to be demonstrated, but it is likely they can, and their appearance will depend on weather conditions around or in the clouds.

#### Might Produce Rain

After producing the snow storm, Mr. Schaefer flew under the cloud and through the snow crystals. As seen from his plane, the crystals caused a brilliant halo around the sun. This is also another natural phenomenon, that probably everywhere in temperate regions has been seen. Dr. Langmuir estimated that a single dry ice pellet, the size of a pea, might produce enough ice

### Our Great America ☆ by Mack



### New Hormone Hailed As Probable Cure For Peptic Ulcer Sufferers

By WILLIAM J. CONWAY  
AP Neurosurgeon

CHICAGO—Discovery of a new hormone which apparently cures peptic ulcers is a reward for years of research.

A team of Chicago scientists, back in 1928, joined in the centuries-old hunt for a chemical that would heal the gnawing sores afflicting a million Americans.

Some of the research was Northwestern University's medical school. The men who did the work are Dr. Andrew C. Ivy, physiologist and now executive vice president of the Chicago professional schools of the University of Illinois; Dr. Morton I. Grossman, another physiologist now at Illinois; and two members of the Northwestern medical faculty—Dr. Harry Greengard, who handled most of the chemical phases, and Dr. Arthur J. Atkinson.



DR. ANDREW C. IVY

From Hog's Intestines  
In time the investigation was focused on a hormone found in the mucous lining of the intestinal tract of freshly slaughtered hogs. The problem of extracting it was solved in this way:

Strips of the intestine were turned inside out, and washed in an acid solution to leach out the hormone. The fluid was filtered off, and the solid matter was put through a purifying process. The product was a colorless substance. They called it "enterogastone."

Dogs with ulcers were given daily injections of "enterogastone" for a year. Then the treatment nuclei to develop several tons of snow. He thought that one plane, in a five-hour flight, sowing dry ice pellets, could generate enough snow to cover a few inches of ground over a considerable area. This would require hundreds of millions of tons of snow.

The first snowstorm, however, carried a hint that a lot of study will be needed before man can produce snowstorms where and when he will. This snow fell from a cloud about two miles above sealevel. The snow fell into dry air and all of it evaporated before it reached the ground. Under some other conditions such snow pellets might melt into raindrops.

ments were halted. It was expected that ulcers would develop again in a few months. But they didn't. The earliest recurrence was 18 months.

The post-experiment record of one group of ten dogs is this: One succumbed to a perforated ulcer after 28 months. Eight others, all free of ulcers, died of various causes at intervals ranging from 11 months to four years after the injections were discontinued. One still is living, in fine fettle, nearly six years after the test.

In another group of five dogs, one died of perforated ulcer two and a half years after the trial period. The others demonstrated they had received lasting protection.

"We established," comments Dr. Ivy, "that it prevents ulcers in dogs." During the last three years, treatments have been given to 58 human patients. All of them had had peptic ulcers for at least five years. They were given intramuscular injections of the hormone concentrate consisting of a minute amount (200 milligrams) of the pure substance mixed with about a teaspoonful of a neutral saline solution.

X-ray Verified Results  
"Many of the patients reported symptomatic relief within a few days," the researchers report. "Most of them were free of distress after two weeks. In the remaining few approximately two months elapsed before relief from pain and distress was complete." Definite improvement in two to five months was verified by X-ray examinations. Improvement was recorded in 40 of the 58 cases, including 15 still under treatment.

The most beneficial frequency of injection is once a day, six times a week, for a year. None of the patients who adhered to this schedule suffered a recurrence after the treatment had been concluded.

In tests now under way in a California hospital, the hormone dose is taken by mouth in pills about the size of a pea.

### DREADFUL FATE

A sailor was explaining the inner workings of the navy to a dinner companion.  
"If a guy is hep, he won't give his right trade when he joins up."  
The gal wanted to know why.  
"Well," he explained, "if you tell them you are a mechanic, they make you a medical corpsman. If you've been a cook, they are sure to give you a yeoman rating; and if you happen to know something about bookkeeping, they are sure to make you a mess cook."  
"But," inquired the sweet young thing, "suppose you tell them you don't know anything?"  
"Oh, that's the worst of all. If you do that, they hand you a commission."

Compromise  
It was market day. Prices had been high and the man leaning over the fence round the sale ring was looking disconsolate. Suddenly a farmer rode up on an ancient horse.  
"How much do you want for that bag of bones?" asked the bystander, his interest awakening.  
"A hundred dollars."  
"I'll give you five dollars."  
For a moment the farmer stared at the man in amazement. Then he dismounted.  
"Young man," he said, "I ain't going to let a little matter of 95 dollars stand between me and the sale of a horse. The animal's yours."

Oriental Craft  
The back of the Japanese theater stage opened on the street, and the manager was instructing an American occupation soldier in the art of drawing cash customers.  
"When the play begins," he said, "I'll raise this back curtain—just a little."  
"Yes," the G.I. replied.  
"People will crowd up to hear the play free. Well, I'll let them hear it until the moment of big suspense."  
"And then?"  
"Why, then I'll drop the curtain and they'll rush to pay their way in. They always do."

### LOST BY A HAIR



Bill—Darling, there is something that has been trembling on my lips for weeks and weeks.  
Coo—Yes, so I've noticed. Why don't you shave it off?

Twice-Told Tales  
The late Frank Harris took his literary material wherever he could find it, and sometimes he would tell a story which bore more than a faint resemblance to something already concocted by another, and frequently more famous, writer. One day in a group which included Oscar Wilde he related an incident which nearly everyone present recognized as something which had occurred in a story by Anatole France.  
There was an uncomfortable silence.  
"You know, Frank," broke in Wilde, "Anatole France would have spoiled that story."

You First, Sir  
It was very obvious that the new recruit was a raw hand at boxing as he entered the ring, and when he saw his hefty opponent he became more nervous still.  
As he went to his corner he saw there a man with a towel thrown over one shoulder.  
"Who are you?" he asked.  
"I'm your second," was the reply.  
A look of relief lightened the recruit's face as he said:  
"No, you go first—I'll go second!"

Second Best  
A candidate for county sheriff was soliciting votes in a cowtown in Oklahoma. After haranguing the crowd, he asked for support.  
"Well, Mister," said the town barber, "you're my second choice."  
The would-be sheriff pondered a moment. Then he asked cheerfully, "And who's your first choice?"  
"Oh," was the reply, "any fellow who wants to run."

USE THE CLASSIFIED ADS

### From where I sit... by Joe Marsh

Who Gets Off Easiest—Men or Women?

Maybe you saw that poll on who has the easiest life—men or women? Of course, the men voted that the women did, and the women vice versa.

It would be the same in our town—take any family. Thad Phibbs envies his Missus spending the day at home, with no hot office to attend to. And Sue envies Thad his luncheons with the boys; and his evening glass of beer with friends (while she cleans up the dishes in the kitchen).

Of course, none of it goes very deep. Thad knows way deep down that the Missus has plenty of work running a house; and Sue knows Thad's friendly glass of beer is well-deserved relaxation after a long hard day's work.

From where I sit, most husbands and wives may grumble now and then—but they know in their hearts it's a case of live and let live, give and take, that comes out pretty even in the end.

Joe Marsh

### THE DIMINISHING DOLLAR

FIGURES SHOW ACTUAL BUYING POWER

1939	100
1941	80
1943	60
1944	78
1945	76
1946 (SEPT.)	68

FIGURES BY INSTITUTE OF LIFE INSURANCE

Keith Gibson At Asheville Hospital  
Keith Gibson, young son of Mr. and Mrs. Albert Gibson, of Waynesville is a patient at Aston Park Hospital in Asheville where he has been taken for an operation.

James Bradshaw Discharged From Army  
James Bradshaw, of the Crabtree section of the county has recently been discharged from the U. S. Army. Since his discharge he has been joined by his wife, the former Miss Kathleen Abney, daughter of Hillard Abney of Waynesville, R.F.D. No. 2 and their son, and are now residing at Crabtree.

Army Chapel Offered For Sale For \$1  
A frame chapel at Fort Dev, N. J., is being offered for sale to the public by the North Atlantic Division of the Corps of Engineers. It will be sold at a fixed price of \$1 but the buyer must remove it within thirty days and leave the site in a tidy condition. Preferential consideration will be given by the Army to the use to be made of the chapel, first, as a shrine or a memorial, second, as a denominational house of worship.

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