

METEOROLOGY

New Rainmaking Methods

Experiments now being conducted in Australia and Hawaii test possibility of bringing rain by seasoning clouds with salt or spraying with water.

► MAN MAY soon make rain by seasoning clouds with salt. Or he may make rain by spraying a cloud with water.

Experiments to find out whether this is feasible are now being carried out in Australia and Hawaii. The Australians claim to have emptied cumulus clouds of their water merely by spraying droplets of the right size into the base of the cloud.

The theory is that drops big enough to fall out of a cloud must form through the coming together of lots of little drops before it can rain. However, droplets of just the right size must be present in the cloud before the coming together process starts. The Australians think they are supplying these right-sized missing droplets.

Alfred H. Woodcock, of the Woods Hole Oceanographic Institution in Massachusetts, has measured the amount of salt and the size of the salt particles to be found in rain clouds.

He has found that salt particles travel many hundreds of miles inland from the oceans, carried by marine winds. The size distribution of salt particles found inland is the same as the size distribution over the ocean. It is known that salt particles, measured in millionths of a meter, form the nucleus of rain drops over the ocean.

Mr. Woodcock's study of these salt particles shows, he says, that there is a relationship between the amount of salt in rain and the intensity of the rain. He believes that the salt particles play an important role in the formation of rain even over land.

His study suggested to him that the failure of some large clouds to produce rain may be due to the absence in them of the proper kinds of salt particles.

"If such is the case," says Mr. Woodcock, "the possibility of inducing precipitation by seeding with appropriate numbers and sizes of sea salt or other particles becomes evident."

Now Mr. Woodcock is out in Hawaii, seeing whether his theory works out in practice. The pineapple growers of the islands, vitally interested in the weather, are financing experiments in which salt is put into the air. So far no results of these experiments have been announced.

Officials at the U. S. Weather Bureau, however, are interested in both the Hawaiian and Australian experiments. They see possibilities in both theories.

Mr. Woodcock's findings on salt particles appear in the current issue of the *Journal of Meteorology* (June).

Science News Letter, August 2, 1952

PSYCHIATRY

How to Handle Cranks

► SOME MURDERS like the killing of the young girl employee of the American Physical Society might be prevented if it were generally recognized that cranks with crackpot ideas and a feeling that they are persecuted can be very dangerous.

Although those in scientific offices, men in public life and newspaper editors are especially likely to be the victims of such individuals, you or anyone might receive letters or visits from them.

It is a mistake to ignore these people, thinking that they are "harmless cranks," psychiatrists warn. It would be a good idea if there were some agency to which "nut" letters could be referred to look up the writer so that he could receive psychiatric treatment, if necessary, before crimes are committed.

What would you do if such a mentally ill person with a gun were to walk into your office? Here is some advice for you, suggestions by Dr. Winfred Overholser, superintendent of St. Elizabeths Hospital for the mentally ill, Washington, D. C.

Never argue with him. Do not try to talk him out of his ideas. If you argue, he will think you do not understand or that you, too, are in conspiracy against him.

Accede to him so far as possible.

Above all, listen attentively and respectfully. Remember, if his ideas seem crazy to you, that is because you do not know what is going on in his mind. From his point of view, and based on his distorted perceptions, his ideas and fears are completely logical and worthy of respect. Try to find out by listening who he is, who his relatives are, and where he comes from.

Assure him that you consider his complaint important and try to get him to report his grievances to the police or the FBI.

If you are scared out of your own wits, try not to show it. Do not excite your visitor by starting to scream or trying to grapple with him. He might then act, in what seems to him self-defense.

It is probably better not to call the police. In most cases they will have no power to act unless the man is chasing you with a

carving knife or has actually shot you.

If you receive a threatening letter through the mail, however, you can call on the services of the FBI or the Post Office inspectors. To use the U. S. mail for this purpose is a federal offense.

Dealing with the mentally unbalanced is a daily happening for the FBI, the Secret Service and, especially, the White House Police. These men, through experience, develop a very good understanding of how to deal with such situations. They are in frequent consultation with specialists.

Science News Letter, August 2, 1952

SCIENCE NEWS LETTER

VOL. 62 AUGUST 2, 1952 No. 5

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N. St., N. W., Washington 6, D. C., NORTH 2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Copyright, 1952, by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service. Science Service also publishes CHEMISTRY (monthly) and THINGS of Science (monthly).

Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C., under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 3440, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283), authorized February 28, 1950. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to periodical literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., Pennsylvania 6-5566, and 360 N. Michigan Ave., Chicago, State 2-4822.

SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: Edwin G. Conklin, Princeton University; Karl Lark-Horowitz, Purdue University; Kirkley F. Mather, Harvard University. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; R. A. Millikan, California Institute of Technology; Homer W. Smith, New York University. Nominated by the National Research Council: Ross G. Harrison, Yale University; Alexander Wetmore, Secretary, Smithsonian Institution; Duane Roller, Hughes Aircraft Co. Nominated by the Journalistic Profession: A. H. Kirchhofer, Buffalo Evening News; Neil H. Swanson, Baltimore Sun Papers; O. W. Riegel, Washington and Lee School of Journalism. Nominated by the E. W. Scripps Estate: Frank R. Ford, San Francisco News; John T. O'Rourke, Washington Daily News; Charles E. Scripps, E. W. Scripps Trust.

Officers—President: Harlow Shapley; Vice President and chairman of Executive Committee: Alexander Wetmore; Treasurer: O. W. Riegel; Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Jane Stafford, A. C. Monahan, Marjorie Van de Water, Martha G. Morrow, Ann Ewing, Wadsworth Likely, Allen Long. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Sales and Advertising: Hallie Jenkins. Production: Priscilla Howe. In London: J. G. Feinberg.