

METEOROLOGY

Rains Mark Summer's End

► THE ANNUAL September rains, which occur with almost clocklike regularity in the northern Midwest, mark the start of the shift from summer to winter weather.

Three Wisconsin meteorologists reached this conclusion after studying weather information from the Great Lakes region collected during the past 45 years. Prof. Reid A. Bryson and James F. Lahey, University of Wisconsin meteorology department, and Paul J. Waite, the U. S. Weather Bureau, report there is nothing new in the knowledge that September rains are a fairly dependable annual event.

Farmers often try to seed their fields to catch these rains, which usually occur within an area bounded by a line running from the western tip of Lake Superior to the edge of South Dakota and Nebraska, then eastward to Ohio.

The rains normally follow a dry spell in late August, which also seems to be a regular occurrence. The rainfall peak, on the average during the 45-year period, occurs on Sept. 18.

The weather pattern marking the shift from summer to winter is the blocking of warm, moist air from the south, which has been predominant during the summer, by a counter-flow of cool air from the north. When these two masses mix, clouds and rain result.

There are also rainfall peaks on Sept. 5, 11 and 26, in addition to the 18th, the meteorologists found. The higher than average rains every seven or eight days throughout the month seem to result from the slow west-to-east movement of the entire weather pattern and the slow passage of cold fronts.

Once a front has passed, a few clear days

may follow before the next rain. After the September rains, the entire continental weather pattern changes and becomes stable, often for long periods, bringing Indian summer days. At this time, the skies are often clear across the entire United States, and air flows are unmarred by centers of deep low pressure systems.

Although the actual dates of the weather events change from year to year, the events can be expected to occur in most years.

Science News Letter, September 21, 1957

PSYCHOLOGY

Mental "Warm Up" Helps In Solving Problems

► A BRISK MENTAL "warm up" may be as helpful in solving problems as in getting a track athlete ready for the 100-yard dash. Dr. Irving Maltzman, Lloyd Brooks and Stanley Summers, University of California at Los Angeles psychologists, have suggested.

Problem solving, by definition, is something that requires an uncommon response, the investigators point out. They believe it is possible to train into people the habit of uncommon responses. Such a habit might facilitate problem solving even though responses in the training situation may not enter into the solution of a given problem.

As a "warm up," subjects were asked to indicate on a written test some uses for unrelated objects such as a table leg, piece of balsa wood and a string. This set mental activity in motion.

Then they were presented a problem involving two strings hanging from opposite corners of a large room, a screwdriver and

a piece of balsa wood. The problem was to grasp the two strings, one in each hand, without detaching or breaking them.

Solution was first to tie the screwdriver to the end of one string, swing it, then grab the other string and extend it to its maximum length, and, finally, catch the first string on its upswing.

Subjects who had experienced the written test solved the two-string problem significantly faster than a control group that had not taken the written test.

The UCLA investigators believe their experiments suggest that facilitation of problem solving may be possible by such simple "warm-up" training procedures.

Science News Letter, September 21, 1957

SCIENCE NEWS LETTER

VOL. 72 SEPTEMBER 21, 1957 NO. 12

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington 6, D. C., North 7-2255. 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 © 1957 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 syndicated 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. 34.40, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283) authorized February 28, 1950. Established in mimeograph form March 13, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index.



Member Audit Bureau of Circulation. Advertising Manager: Fred A. Moulton, 1719 N St., N. W., Washington 6, D. C., ME. 8-2562.

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: Karl Lark-Horovitz, Purdue University; William W. Rubey, U. S. Geological Survey; Wallace R. Brode, National Bureau of Standards. Nominated by the National Academy of Sciences: George W. Corner, Rockefeller Institute for Medical Research; Edward U. Condon, Washington University; Harlow Shapley, Harvard College Observatory. Nominated by the National Research Council: Jerome C. Hunsaker, Massachusetts Institute of Technology; I. I. Rabi, Columbia University; Leonard Carmichael, Smithsonian Institution. Nominated by the Journalistic Profession: Neil H. Swanson, Ruxton, Md.; O. W. Riegel, Washington and Lee University; Michael A. Gorman, Flint Journal. Nominated by the Scripps Estate: Charles E. Scripps, Cincinnati, Ohio; Edward J. Meeman, Memphis Press-Scimitar; Frank Ford, Washington, D. C.

Officers—President: Leonard Carmichael; Vice President and Chairman of Executive Committee: Charles E. Scripps; Treasurer: O. W. Riegel; Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Marjorie Van de Water, Ann Ewing, Howard Simons, Dorothy Schriver, John W. Robinson. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Production: Priscilla Howe, Marcia Nelson. Sales: Hallie Jenkins. Interlingua Division in New York: Alexander Gode, 80 E. 11th St., GRamercy 3-5410.

THE PORTABLE TYPEWRITER BUY OF THE YEAR!



\$49.95

add 10% F.T.
Shipped
Express Collect

JOHN SURREY, LTD., 11 West 32nd St., Dept. SN-21, New York 1, N. Y.

At this price everyone can afford this necessity. Portable Typewriters run two to three times our price. Finest Portable, factory sealed with Standard 4 Row keyboard is offered at a down to earth discount price. Standard replaceable parts.

Just the thing for Travelers, Writers, Businessmen, Students, Secretaries and Home Workers. Makes a practical gift.

FEATURES:

- Lightweight
- Types 8 copies
- 2 color ribbon
- Stencil Switch
- Standard ribbons and spools
- Carrying Case
- Instruction book for beginners
- FULLY GUARANTEED