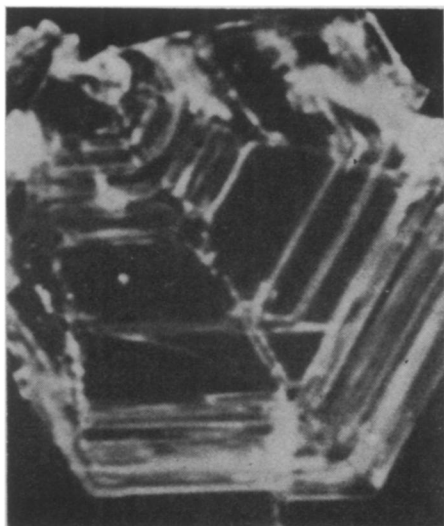


Nature Note



Agriculture

Cup Crystals

As snow falls to the ground and packs down in soft layers, many fragile six-sided snow crystals are crushed and melted into various kinds of granules that make up the snow cover.

Yet at the same time, a curious new kind of crystal is being built up within this snow cover, formed by the sudden sublimation of water vapor into

ice in the presence of colder air. Sublimation means the change from the solid ice stage directly into gaseous water vapor, without going through the liquid water stage.

These strange new crystals are called cup crystals; they are in the shape of tiny ice cups, with faceted sides that have a pyramid or stepped outer surface. They are exquisitely fragile and transparent. Some of these crystals grow to a length of half an inch, although most are only about a quarter of an inch long.

Unlike many snow crystals that fall from the sky, these cup crystals have no cohesive quality, and tumble against one another like loose fragile pebbles. It is because of these crystals that the snow sometimes "squeeks" as a person hikes along on icy nights, and crunches billions of cups beneath his feet.

Cup crystals were first identified in the polar regions in the 19th century, but then they were also found in the Alps in 1932. Subsequently they have been found in all cold snowy areas.

Cup crystals have been called depth hoar because they are formed in the same manner as air hoar, a kind of ice crystal.

"They laughed when I wound up my shaver..."



That's liable to happen to you when you first use the RIVIERA in front of anyone. A wind-up shaver may seem a plaything. Or at best an emergency type of shaver (because it needs no cords or batteries). After all, how can a hand-cranked shaver rotate fast enough to do a clean and close job? And how many times do you have to wind the darn thing to finish one shave?

One answer at a time: The three-blade shaving head revolves at such a fast clip that it actually gives you seventy-two thousand cutting strokes a minute! Compare that to your \$30 TurboDeluxe. Now, about the winding. The palm-shaped body of the RIVIERA (named for its birthplace, Monte Carlo) is filled with a huge mainspring made of the same Swedish super steel used in the most expensive watch movements. You crank the key just like a movie camera (about six turns) and the RIVIERA shaves and shaves and shaves. From ear to ear; from nose to neck, without slowing down. Maintains its full shaving speed right to the end—and long enough to do the complete job. Hard to believe, but really true.

A few more details: The surgical steel blades are so designed that they are continuously self-sharpening. You will find that the more you use the RIVIERA the sharper and the better it gets. The guard is so unbelievably thin (5/100 of a millimeter) that pressure is unnecessary. You just touch the shaver on your face and gently guide it in circular motions.

We could go on. But we don't expect to sell you with words. We just want to get you open-minded enough to tie up \$17 for two weeks. We'll give you that long to put the RIVIERA to the test. If it disappoints you (if you want to return it for any reason), send it back. Your money will be in the return mail. Obviously, we have reason to believe that this won't happen and that you will want to keep your RIVIERA for the office, club, cabin or in a permanent place in your bathroom cabinet. It's that kind of a thing. Once you've tried it you won't let it go.

P. S. You not only save the cost of an electric motor, but you save the cost of repairing it. The money that it leaves in your pocket; the dependability; the good, fast, clean shaves that you'll get—they'll give you the last laugh.

PLACE YOUR ORDER HERE

Dept. SN-0204
 Mail to: HAVERHILL'S
 526 Washington St., San Francisco, Calif. 94111

Please send me the RIVIERA Shaver. I must be amazed and delighted or I may return it within two weeks after receipt for immediate refund. I understand that there is a one year's unconditional guarantee on parts and workmanship.

I enclose \$16.95 plus \$1.00 for postage and insurance. (Calif residents add 4% sales tax.)

Amer. Exp. Acct. # _____

Name _____

Address _____

_____ Zip _____

© 1966 **Haverhill's**
 Searching the World to bring you the Finest

SCIENCE NEWS

A Weekly News Magazine
 of Science and Its Applications

Vol. 91 February 4, 1967 No. 5

E. G. SHERBURNE JR., Editor

Watson Davis, Director Emeritus, Editor, 1922-1966

WARREN KORNBERG, Managing Editor

DEPARTMENTS

Aerospace:

Jonathan Eberhart

Earth and Environment:

John Ludwigson

Life Sciences:

Barbara J. Culliton

Medicine:

Faye Marley

Physical Sciences and Astronomy:

Ann Ewing

Physical Sciences and Technology:

Carl Behrens

Science and Public Policy:

Frank Sartwell

Social Sciences:

Patricia McBroom

Contributing Writer:

Barbara Tufty

New Ideas and Gadgets:

Ruby Yoshioka

Production Editor:

Marilyn Raleigh

Copy Desk:

Nadine Clement

Assistant:

Karen Turner

Books:

Margit Friedrich

Advertising Director:

Louis D. Young

Circulation Manager:

Marcia Nelson

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: Wallace R. Brode,*** Washington, D.C.; Bowen C. Dees, University of Arizona; Athelston F. Spilhaus, University of Minnesota. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; Detlev W. Bronk, Rockefeller University; Henry Allen Mae, The Clark Foundation. Nominated by the National Research Council: Leonard Carmichael, National Geographic Society; Eric A. Walker, Pennsylvania State University; Glenn T. Seaborg,* U.S. Atomic Energy Commission. Nominated by the Journalistic Profession: Gordon B. Fister, Allentown (Pa.) Call-Chronicle; Ralph B. Curry, Flint Journal; O. W. Riegel,**** Washington and Lee University. Nominated by the Scripps Estate: Ludwell Denny, Scripps-Howard Newspapers; Edward W. Scripps II,** Edward W. Scripps Trust; *President, **Vice President, ***Treasurer, ****Secretary.

Director: E. G. Sherburne, Jr.
 Assistant Director: Dorothy Schriver.

Copyright © 1967 by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS is strictly prohibited.

