

**"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 \$19 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.

— WRITE OR PHONE —

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Send me the RIVIERA shaver. I enclose \$19.50 (\$18.50 plus \$1 for post. & ins.). I may return it within two weeks if not amazed and delighted. 1 yr. guarantee for parts and workmanship. (Calif. residents add 5%).

Name _____

Address _____

Zip _____

Since the RIVIERA is an ideal gift, especially for servicemen, outdoorsmen and travelers please send one to the names attached (with a gift card).

SN-0203

haverhill's

western Sicily is too far from the arc that links major Italian volcanoes with Mt. Etna and northern Africa for the recent earthquakes to be volcanic in origin. However, Dr. Bullard notes, no one can now say that "this could never happen."

Volcanoes are normally located in the area where a fracture line intersects a major island arc, such as Mt. Kilauaea in Hawaii. Dr. Bullard said he knows of no such intersection along which the Sicilian earthquakes could have occurred and is, therefore, inclined to believe they are tectonic rather than volcanic.

Tectonic earthquakes are caused by



"Volcanoes"; Dr. Fred M. Bullard

Mid-Mediterranean volcanic regions.

sharp movements—vertical, horizontal or both—along breaks in the earth's crust. Such tremors have occurred in recent years in California, Chile, Turkey, Alaska, Greece and Yugoslavia.

The Central Mediterranean region has been one of the most active volcanic areas in historic times. Much of this activity has been centered near Mt. Etna in the eastern part of Sicily and around Mt. Vesuvius near Naples.

The earthquakes occurring south of the seaport of Palermo, Dr. Pecora believes, could give rise to a new volcano. In this area, there are no records in historic time of volcanic activity, but geologic maps show the presence of prehistoric lava flows.

The sulfur fumes reportedly escaping from the ground in the vicinity of the earthquakes could come from a subterranean lava chamber. If this is the case, and the volcanic pressure increases, the quakes will persist; lava could eventually force its way close enough to the surface to break through explosively.

NO SECOND BURN

Apollo: Cautious haste

The Apollo program has been proceeding with great care since a spacecraft fire killed three astronauts on the launch pad a year ago. Nevertheless, the first flight of an Apollo lunar module last week underlined the fact that space officials are still eager to push on to the moon as rapidly as is safely possible.

No lunar module had ever flown before. With National Aeronautics and Space Administration officials still maintaining that a manned moon landing was possible by the end of 1969, the device that would actually place the astronauts on the lunar surface and then get them off again had never seen space. The first big test was planned to check the LM's descent and ascent engines, simulating the final powered descent toward the moon and the climb back to lunar orbit, where the LM would join the Apollo command module in which the explorers would return to earth.

At 5:48 p.m., Jan. 22, the uprated Saturn 1 booster finally lifted off from Cape Kennedy. The launch went well. No trouble appeared until the first firing of the LM's descent engine, simulating a blast which would have nudged a manned LM out of its lunar orbit and into a trajectory leading to the surface.

The engine was to have fired for about 39 seconds. Instead, a computer shut it down after four seconds. Immediately flight controllers on the ground switched to an alternate flight plan, prepared months before, which was less demanding but still adequate to qualify the LM for manned flight. Missing from the alternate plan, however, was the 12.5 minute second firing of the descent engine, representing the actual descent to the moon. This would have been the longest continuous firing of any U.S. rocket engine in space.

The alternate plan went largely as scheduled, and NASA officials labeled the flight a success. The big question was whether a second unmanned LM test flight would be necessary before astronauts would be allowed to ride in it.

"It is my opinion," says chief flight controller Christopher C. Kraft, "that we will be able to press on with the flight of men in the next lunar module. I sincerely hope that the analysis of the data proves this to be so."

But what about the long firing that never happened? "We feel that we can pick up the long duration descent burn both in ground tests and in manned flight tests at a time when we are still attached to the command module," says



George M. Low, NASA's Apollo program manager.

The confidence of the Apollo officials is obviously high. Last November, even though they were elated about the highly successful first flight of the mighty Saturn 5 booster, they would make no such statements about cutting redundant missions—in this case a second unmanned LM flight—out of the schedule. In March a review board will meet to decide whether the LM is ready for men or not. The answer is likely to be that it is.

OCEANOGRAPHY

First long look at a cold sea

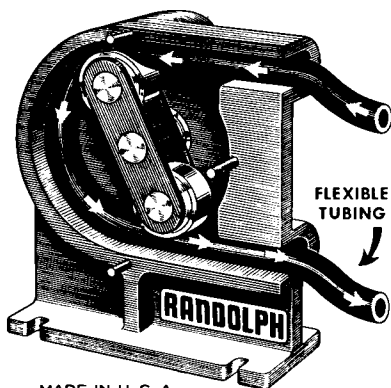
Little is known about the Weddell Sea, which lies in a bight of Antarctica and encompasses almost half a million square miles, extending to within about eight degrees of the South Pole. "There are just scraps of data, a lot of it dating back to the 1930's and collected with 1930's-type equipment," says Comdr. Eugene Delaney, chief of the Oceanography Branch of the U.S. Coast Guard.

Last week, the Coast Guard's largest icebreaker, the 310-foot Glacier, set sail from Punta Arenas, Chile, bound for the Weddell Sea. Together with a 278-foot icebreaker from the Argentine Navy, the General San Martin, the Glacier will take part in the first organized oceanographic survey ever made of the Sea, a project that will last two years and involve 50 scientists and technicians from the U.S., Argentina, Norway and West Germany.

The researchers will conclude their first voyage by mid-March. If they stay much longer, the long Antarctic winter could trap the ships in unbreakable ice and hold them, possibly into 1969. Even in summertime, however, ice is a problem below the Antarctic circle. In addition to the usual helicopter to scout for paths through the ice, this year's expedition is equipped with its own ground station to receive weather satellite photographs showing possible avenues.

Scientists will analyze the water for mineral content and nutrients, and attempt to correlate their measurements with others made northward in the Atlantic. Cold as they are, the Antarctic waters teem with life, so plankton samples and a variety of other biological and chemical observations will be made. To take readings after the ships are gone, the investigators plan to anchor four instrumented buoys in the Sea, equipped with recorders to play back the information the following summer. The buoys will be moored below the surface to prevent the moving ice from decapitating them.

The Pump That Never Gets Wet



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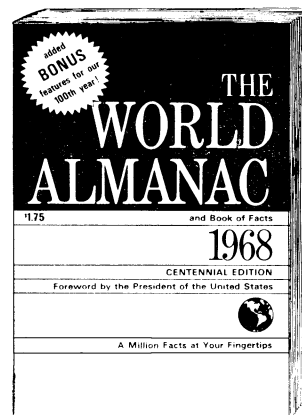
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