

## "It's good business to help colleges"

"Business has a direct and pressing need for colleges of high calibre. Carnation recognizes that its success tomorrow depends in large part upon the quality of the college graduates it hires today. We also benefit from the continuing stream of ideas and information which college researchers provide.

"Colleges are faced by the continuing pressure of higher costs due in large part to the demands of a more complex technology. To maintain their standards and to fulfill their crucial role, they need increased support by business.

"Carnation now provides voluntary financial aid to more than 125 colleges and feels that this is one of its best investments for the future."

H. E. Olson, President Carnation Company

A major problem in the education of students is rising costs. If companies wish to insure the availability of college talent, they must help support colleges with financial aid.



SPECIAL TO MANAGEMENT—A new booklet of particular interest if your company has not yet established an aid-to-education program. Write for: "The Rationale of Corporate Giving", Box 36, Times Square Station, New York, N.Y. 10036

## COLLEGE IS BUSINESS' BEST FRIEND

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## Nature Note



## **Pahoehoe**

Lava, the molten rock oozing out of volcanoes from the earth's interior, sometimes solidifies into long twisted shapes looking like rope or cable. This is called pahoehoe, a Hawaiian term that is now used by geologists throughout the world. It is also simply called corded lava.

The strange twists are produced in highly fluid basaltic lavas as they flow down the sides of the volcano. The outside surface of the flow cools and congeals, but the still hot molten rock beneath flows on, dragging with it the hardening crust which is folded, twisted and molded as it is pulled along. Sometimes the surface is covered with wrinkles, and sometimes it is smooth, satiny and even glossy. The whole ropy mass becomes solidified into hard rock when the lava finally cools down completely.

There is another type flow which is exceedingly rough and jagged, with sharp spiny fragments of hardened lava sticking up. This type of lava is called aa, also a Hawaiian name. Some scientists declare the name comes from the holler of a person walking barefooted across a jagged lava field: ah! ah! Aa is formed from stiffer, more viscous lava with a thick brittle crust that becomes broken and heaped up as it is carried along by the molten lava beneath.

Sometimes as the crust of the lava cools, the inner molten lava keeps on flowing, and drains out of the tube, forming a hollow tunnel which may extend for thousands of feet or even miles across the land. These are called tunnels or lava caves. Many of these strange dark caverns can be found at Lava Beds National Monument in northern California. Sometimes water flows in these tunnels of rock, then freezes. The resulting ice is preserved all year round. Such an ice cave is found in northwestern New Mexico.

Because basalt lava is more fluid than any other volcanic rock, it tends to flow freely for long distances before it becomes solid. This kind of lava has flowed for nearly 60 miles across Iceland before cooling to a halt. In Hawaii it has traveled nearly 40 miles from the vent of the volcano.

Basalt is one of three types of lava ejected from volcanoes. It is quite dark, and is more fluid than the other types, with a lesser amount of silica. Volcanic gasses are able to escape quite readily from this molten lava, and thus do not build up pressures. Hence, volcanoes containing basaltic lavas generally erupt with little explosion, and are relatively quiet and mild. Basaltic volcanoes are found on Hawaii, Iceland and in parts of the continental United States.

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