



G. E. Runyan, sanitation with the Jackson county health department, prepares to take a sample of well water at a Rogue Valley home. First he used a small torch to sterilize the mouth of the faucet and eliminate any possibility of contamination of otherwise pure water at that point. Then he fills the small bottle (on ground) with water. The sample is then sent to Portland for analysis.



Dr. A. Erin Merkel, Jackson county health officer, looks over apparatus used by the health department to determine the presence of detergents in water. Keeping detergents from polluting otherwise pure water is becoming quite a problem nationwide. In the valley this apparatus is often used to determine if sewage leaks are polluting water supplies, Dr. Merkel explained, because if a trace of detergents is found in water, there is an excellent chance that sewage has gotten into the water.

By CLEVE TWITCHELL
Mail Tribune Staff Writer

In this modern age of hot and cold running water in every home, one might find it an unusual sight to see someone filling jugs from a city drinking fountain to take home.

But in spite of—and to a degree, because of—the modern civilization, a small but growing number of southern Oregonians are finding it necessary to carry in their drinking water, not because they have no water pipes, but because their wells are polluted.

No one has figures on how many wells in Jackson county are polluted. For that matter, no one knows how many wells there are in the county. But the sanitarians at the Jackson county health department, who go out and take water samples, do know that quite a number of wells in the county have a higher bacteria count than is considered acceptable in safe drinking water.

Not Confined to Area

The increase of water pollution is not a problem confined to Jackson county or southern Oregon, however. It is a national problem, and one that is a good deal more serious in some other parts of the country than it is here. But the problem is a growing one here, health department officials feel, one that needs constant attention.

Pollution of wells is being caused in Jackson county by three conditions, explained Dr. A. Erin Merkel, county health officer:

1. Heavy rains or snow melt off directly polluting water supplies by flooding in from the tops of wells.

2. Too many houses with wells and septic tanks being built too close together.

Increase in Water Usage

3. The increase in water usage, brought on by the increase in population, causing the water level to drop too fast, with the result of polluted surface water rushing in to fill the vacuum.

In order to reach relatively pure water, a well has to penetrate an impervious layer in the ground, explained G. E. Runyan, one of the health department's sanitarians. Then the casing should be sealed so that no surface water can seep in. The depth at which an impervious layer is reached varies from place to place. One may reach it at 40 feet, or may have to drill down 300 feet. But if a drilled well penetrates that layer and the casing is properly sealed, the well will most likely produce good water.

Drilling of wells is now regulated by law in Oregon, but prior to the 1961 legislature, it was not. All one had to do before that legislative session was to go out and dig a hole, Runyan explained. "As a result, we still have many 60-80 years old dug wells in the county, few of which have the proper casing to keep surface water from seeping in," he said.

Keep On Drinking Water

Some of the people who have polluted wells keep on drinking the water anyway, because they figure if it didn't make grandfather sick, it won't make them sick either. Others boil their water, while still others use the well water only for bathing and washing and bring home safe water from nearby municipal systems or from neighbors who have deeper wells to use for drinking.

There are undoubtedly a number of Jackson county residents who are now drinking polluted water and don't know it. Anyone who is in doubt about the condition of their water may have it tested by the health department, it was pointed out. There is no charge for this service.

Polluted water won't necessarily make a person sick—but it could, say health authorities.

Judged To Be Polluted

When water is judged to be polluted, what is meant is that it shows the presence of bacteria from the intestinal tracts of warm blooded animals. The tests that are made on water samples do not distinguish between

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bacteria from the intestinal tracts of animals and human beings, however.

"We work on the assumption that some of the bacteria might be of human origin," Runyan explained, "and if there are some of human origin, then it's possible some of them may be harmful."

Harmless bacteria occur in far greater numbers than harmful bacteria, he said, but they make the assumption that where there is smoke there may also be some fire. In other words, one may not suffer any immediate effects from drinking so-called polluted water, but on the other hand there may be some long range effects.

Far Reaching Effect

People who live in one place for a lengthy period of time tend to build up immunity to their surroundings. But if just one person carrying harmful bacteria moves into the area, it can have a far reaching effect, he added.

Another problem with wells, Runyan explained, lies in the fact that the process of seepage through layers of earth, which does remove bacteria, appears to be ineffective in removing detergents and certain viruses from water. Health authorities suspect that the national increase in cases of hepatitis may be due to transmission through water supplies.

Replacing wells with community water systems where possible is the only long-range answer to well water pollution, Runyan feels. But until that day comes, there are various temporary solutions to water pollution problems.

The first thing to do is try to determine the source of pollution. If it's polluted because the well is shallow and is drawing only surface water, then drilling a deeper one can be the answer.

Casing May Be Cracked

If the well is already deep (in most cases that would be 50 feet or more) then the casing may have cracked. In such a case, Runyan said, the casing should be repaired and the well chlorinated thoroughly.

If a new well is drilled and initial tests show it to be polluted, the problem may merely be that the materials used were exposed to rats or other small animals while in storage. Thorough chlorination of the well should solve this problem. Persons can chlorinate their own wells with ordinary household bleach. A sheet of instructions can be obtained from the health department.

Automatic chlorinators can be attached to well systems if a single chlorination treatment fails to clear up pollution.

If a person is stuck with a shallow polluted well that is drawing surface water, one way to make drinking water safe is to add two drops of bleach to a gallon of water (or four drops of ordinary iodine), shake it up and let it sit for 20 minutes, Runyan added.

Water can be purified by boiling it for 20 minutes or more, and water that has been sitting in a hot water tank for several hours is relatively safe. The temperature which most hot water heaters maintain is similar to the temperature at which milk is pasteurized.



It is not uncommon to see a scene like the above around the Rogue valley as residents with polluted wells go about finding alternate sources of drinking water. Here the resident of property with a shallow polluted well fills a jug with water from a neighbor's tap, where the well is deeper and the water still "safe."

'New' Highway to Coast Provides Travel Through Historical Area

By GENEVIEVE BRIGGS
Mail Tribune Correspondent

With the opening of the Randolph Collier tunnel through Oregon mountain—an event scheduled for late spring or early summer—a new way of life and destiny for the economy of southern Oregon will be born.

For those engaged in agriculture, lumber and mining, the dreamed of day of cheap transportation to the sea will have arrived, although the impact of opening markets is still to be felt.

The "new" highway, making its way from Salt Lake City across deserts, through high passes, down through valley by babbling brooks and roaring rivers, and down to the valley of the Rogue, the inland empire, will open its doors to progress.

One wonders if the people of Oregon remember the history and romance that has built this highway?

There is an old saying that there is nothing new under the sun. The Winemucca to the Sea highway tends to prove it. The Indians used the pass from Lakeview long before the white man came. In fact, the people who first used this route have long since been forgotten by the Indians.

Then came the Hudson Bay trapper and John C. Fremont's military raids, then covered wagons, some turning north to the Willamette valley, some turning south through Cedarville and over Fandango pass.

Then with the advent of the railroad, the road from east to west quietly closed its doors, stifling the progress and economy of the inland empire.

The road from Medford to Crescent City, through the Applegate area, provides an interesting trip. Following Highway 238, the motorist goes through Jack-

sonville, rich in history and romance, and once one of the wealthy cities of Oregon; to Ruch and the turn-off to the Little Applegate area, and to Provolt with its fields and cattle, and Murphy.

Along what is called Fish Hatchery rd. there was once a ferry across the Applegate. An old fireplace built by the Chinese is visible in the area.

Wilderville has a fascinating history, and was once a flourishing town when Hans Jones commenced to reign. Wilderville had a postoffice, stage barn, blacksmith shop and a hotel. It was for the town smithy that the town takes its name, Jo Wilder.

In early days, Wilderville was the hub of the crossroads from Jacksonville to Galice and from Crescent City to Jacksonville.

The impact of the lack of transportation can be realized by the fact that at one time all food, furniture, clothing, and farm equipment was brought to northern California to Yreka, then over the Siskiyou to Jacksonville. When gold was discovered in Sailors Diggings, a pack trail was built sometime in the 1850's known as the Cold Springs Mountain trail. Sailors Diggings since has become Waldo.

Follows Stage Road

Much of the present Redwood highway follows the old stage road and the old pack trail. At the foot of Hayes hill, the Redwood highway divides into four roads. One winds up Hayes hill and in the spring it is covered with white dogwood growing in profusion. Between the old Redwood highway and the present highway is the old stage road with its ruts worn deep, and close beside the stage road is the old pack trail, where a monument stands dedicated to Alvist Wright, who was killed by Indians there, according to Shube Robinson's notes.

The monument was built at the request of Mrs. Matvey Jess Mills, daughter of Alexander Jess, with stones taken from the old Con Fenner place, now the

Whitewater ranch. The monument is close to the old stage road, where ruts can still be seen.

Anderson's Station

A short distance up Hayes hill an old sign reads "Anderson's Stage Station."

This is old Fort Hayes, built many years before the Anderson family lived there, where many Indian battles took place.

The burning of Fort Hayes in 1951 marked the end of a landmark.



As the Redwood highway approaches Hayes Hill and splits into four roads, one of them goes to this monument, which was erected in memory of Alvist Wright, who was scalped and murdered by Indians at this point, according to stories about the incident.

Kerby, or Kerbyville as it was known, was once the Josephine county seat. The museum was the home of the Thrasher family and has been restored down to the pins in the pin cushions by the county historical society. Here, too, was one of the old stage stations.

In Kerby, Cave Junction and Holland and Waldo, which are off the Redwood highway at Cave Junction, are many interesting sights and historical locations. The old mines are Waldo, or Sailors Diggings, were once counted among the richest in the state.

Mineral in Country
This is country in which is found chromite, nickel, mercury, uranium, silver, asbestos, copper, the Knobcone pine, Alpine wildflowers, and a species of tree found nowhere else in the United States.

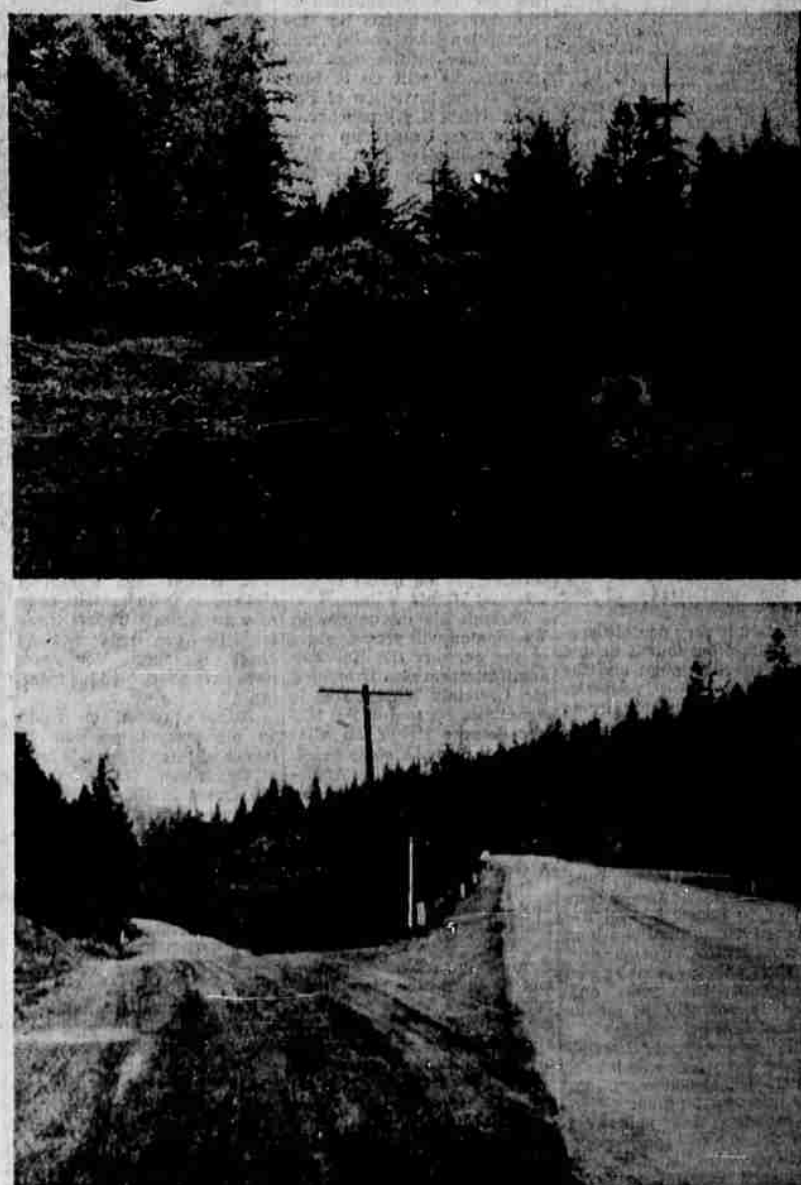
In this area also is the Illinois river with its swimming and other recreational opportunities.

The Randolph Collier tunnel through Oregon Mountain is just over the state line in California, and the motorist continues through Patrick's Creek, Gasquet, location of an old stage station, and on to Crescent City.

Crescent City was laid out in 1853 and became one of the ports on the west coast after gold was found in Sailors Diggings. The first trail inland over Cold Springs Mountain was traveled in 1853, and by 1854 it was called crowded.

Through the infant port of Crescent City came the merchandise to go inland to Sailors Diggings and Jacksonville. In 1950 large amounts of money was spent by the federal government to expand the breakwater, resulting in increased amounts of shipping.

Southern Oregonians hope that Crescent City will again become one of the coast's outstanding harbors.



There have been four different routes over Hayes Hill, between Wilderville and Selma, ranging from the old pack trail (upper left) to the present highway (lower right). After the pack-trail came the old stage road (upper right). The third road to be built, now called the old Redwood Highway, may be seen at lower left.