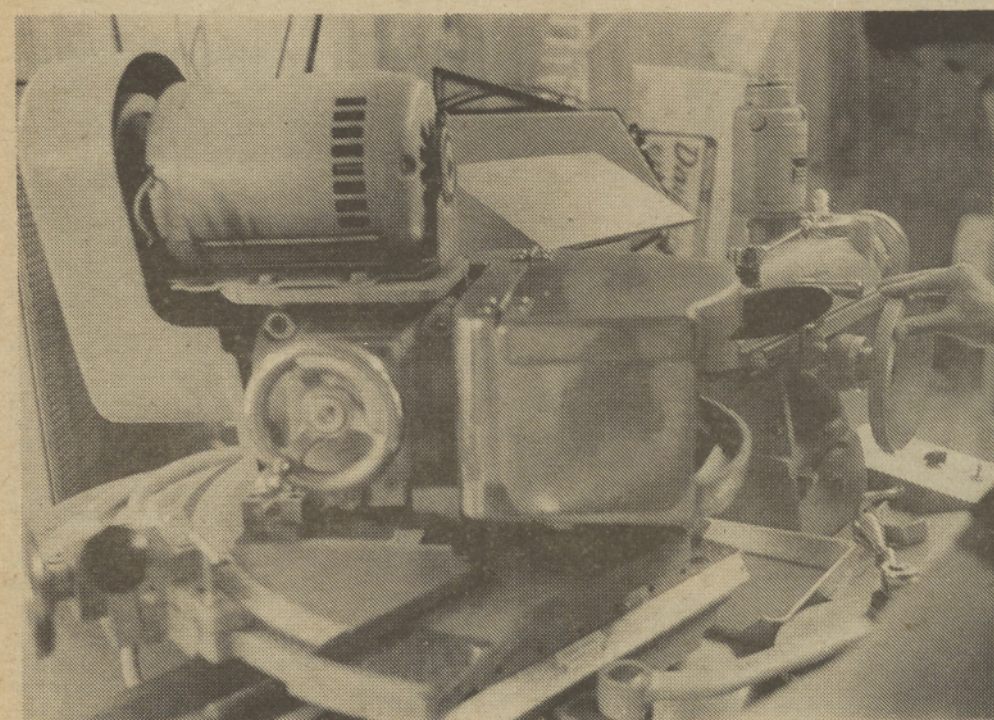
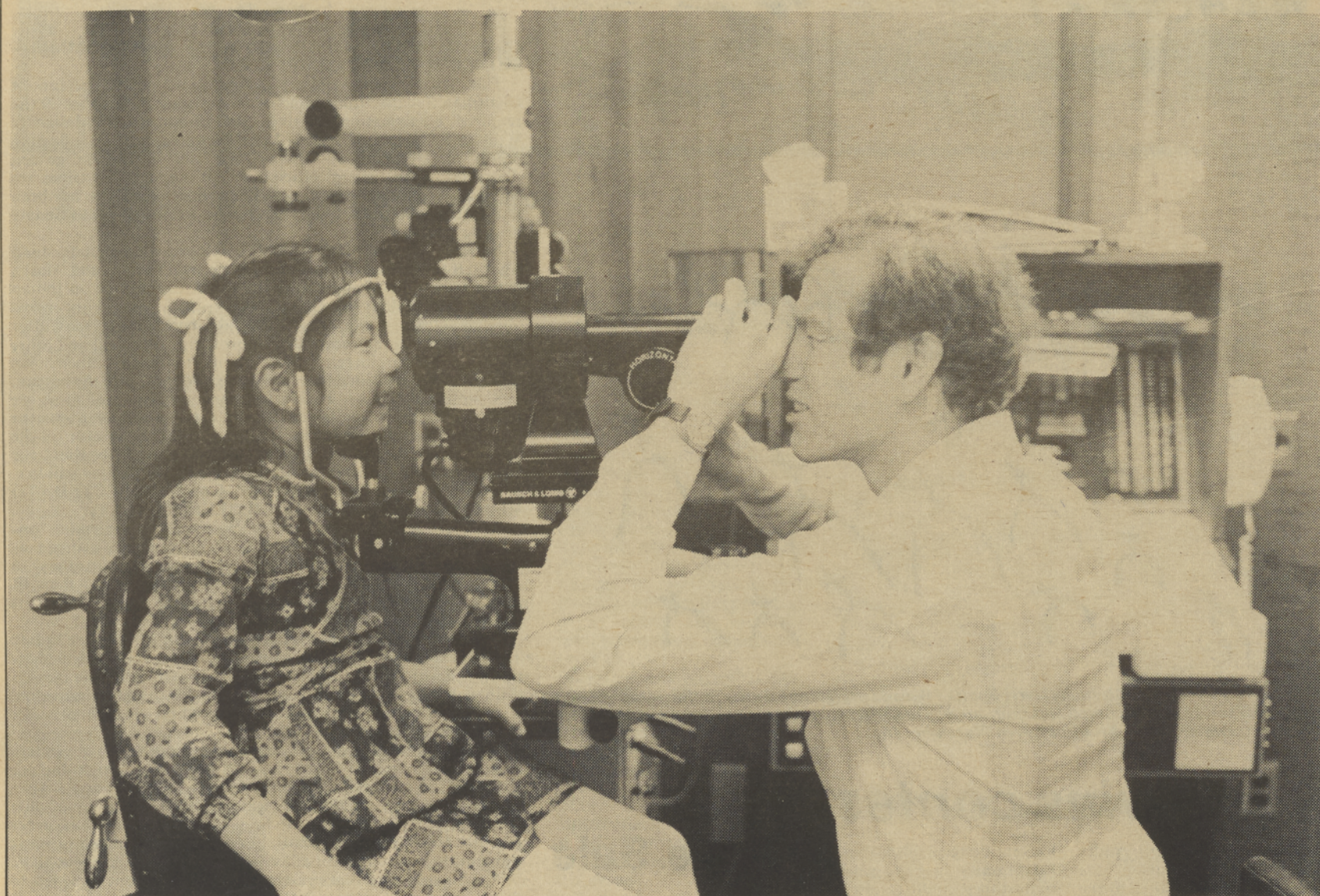
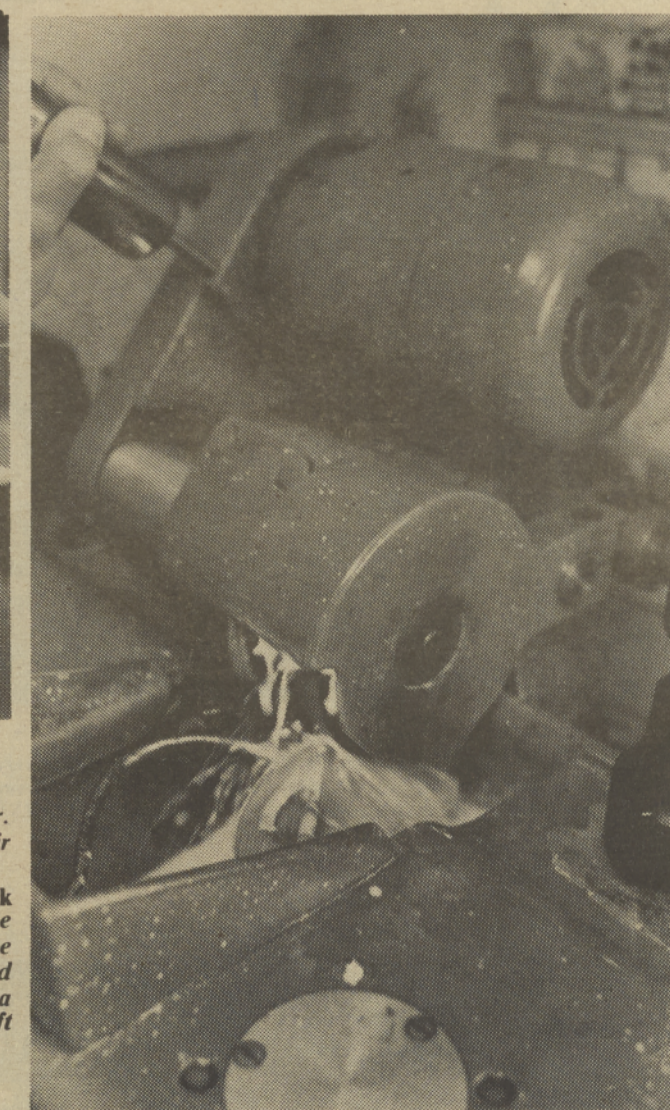




Making a pair of prescription glasses involves a long, time-consuming process. But Dr. Derryl McKenzie of Madras assures most of his patients that they can expect to have their new glasses within one day.

Following an examination similar to the one that Serena Winishut is receiving (left) thick lens blanks are put into a generator where the back surface is roughed out (above). Then the lens is polished in a cylinder machine. An automatic bevel edger (right) is used to cut the lenses to fit into frames. And to insure the lenses have no rough edges, each lens is hand ground with a chamfer (below right). Before new glasses are dispensed, they are put into a vertometer to check for any flaws and lens orientation (below). Small photo at far left shows a pair of glasses and a lens blank.



Doctor focuses on speed and convenience

With over half the U.S. population wearing glasses, most of us take for granted the hard work, careful calculations and equipment required to make a pair of lenses.

For many, Dr. Derryl McKenzie, who has been practicing in Madras for about a year, has been a good alternative for the many area residents who have traveled hundreds of miles to Bingen, Washington, for one-day service and economical prices.

Not only can he give you an eye examination at your convenience, Dr. McKenzie also offers one-day service for a new pair of glasses. How can he do it? He and an experienced optician Dave Flores, grind, polish and mount lenses, right in the office, sometimes even while you wait.

McKenzie is one of only two doctors in Oregon who make optical lenses in their own offices from their original one-inch thick state. All other eye doctors order lenses through professional labs.

McKenzie has invested nearly \$100,000 in manufacturing equipment because he feels that he makes better quality lenses than the professional labs can produce.

"It took two weeks for an order to arrive and one out of three lenses would come from the lab incorrectly ground," said McKenzie. On top of that, "the lenses had to be returned to the lab, meaning another two-week wait. Some patients had to wait a month for a new pair of glasses," a delay that McKenzie thought was totally unnecessary.

How they're made

All lenses, plastic or glass, are made from thick semi-finished lens "blanks". These blanks are put into an oil-lubricated generator and the back surface is roughed out according to prescription requirements. Then, the lenses are put into a cylinder machine with a heavy metal lap for a two-step final polishing process to make them crystal clear and smooth.

After the final polishing, the lenses are then put into an automatic bevel edger so they can be cut to fit into frames. A rotating hand wheel, or a chamfer, is used to take off any rough edges that may still remain on the lenses.

To make lenses impact-resistant, they must be tempered with either chemical or heat. If the chemicals are

used, the lenses must remain in an ion exchange resin for 16 hours. If the heat machine is used, then the lenses remain in an asbestos-lined furnace for at least one minute and 15 seconds, where the temperature reaches 1,200 degrees.

And finally, the glasses are put into a vertometer where Flores checks for aberrations, power and lens orientation. At this point, the glasses are ready for dispensing, with all the steps taking less than one day.

His business

The young doctor is drawing many patients from outlying areas and he says that many people have been disappointed when they have traveled to Bingen for glasses and found out that difficult prescriptions and bi-focals could not be made in one day. This delay meant that these patients would receive their glasses in the mail and then have to visit another doctor to have them fitted.

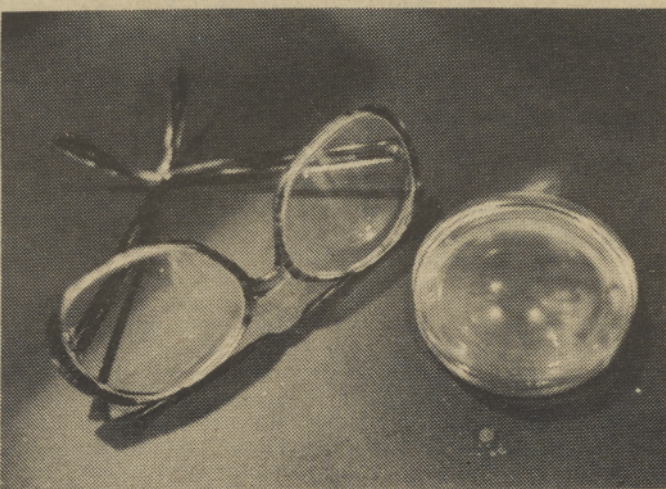
McKenzie built his own office which is located near Mt. View Hospital and also purchased a small house across the road, part of which he remodeled to accommodate his lab machinery. After he completed most of the construction, McKenzie opened his office, offering one-day service to many patients. He operated an "envelope lab"

(pre-ground lenses) by himself for several months which limited him to filling common and easy prescriptions until his lab equipment was set up.

McKenzie says that he really doesn't make money by producing his own lenses and so far hasn't taken orders from any other doctors. His main concern is the convenience for his customers.

The reason McKenzie selected the Madras area is because there is a real need. "Madras is isolated and people here appreciate quick service."

The optometrist works 12 to 14 hours a day examining patients and working in his lab.



Text and photos by Donna Behrend

