Local Craftsmen Turn Out Precise Lenses For Numerous Jobs

By SAM W. AYERS

Since Benjamin Franklin, traditionally, put together America's first pair of bifocals, eyeglass making has been an important industry in this country.

The Martin Instrument Co., locally owned firm, is one of several optical firms here which help to keep South Carolina among the best-equipped states in the nation.

Workers of glasses, though they do not ponder the matter very deeply, still have reason to be grateful for the skill evinced by the Martin Co.'s craftsmen, who work in modest quarters at 19 E. North St.

Grinding of lenses properly to prescription requires a competence that only can be gained through several years of apprenticeship. Opticians must have four years of apprenticeship before they can take the state board examinations for a license. South Carolina requires that every optical wholesale firm have an optician's license, which requires that retailers of optical products be licensed.

South Carolina is the only state which has such inclusive requirements, according to Robert H. Martin, owner and founder of the Martin firm.

This state's close supervision is reflected in the fact that South Carolina is one of the "cleanest" areas "in the world, optically speaking," Mr. Martin observed. His statement simply means that South Carolinians, including Greenwills, need have no qualms about the quality or accuracy of their eyeglasses.

The grinding of lenses is a complicated process that requires profound patience, as well as skill, on the part of the craftsmen. In this modern age, machinery has taken over much of the work that formerly was done laboriously by hand. Yet it still takes two to three days to duplicate Franklin's feat of making a pair of bifocals.

FILLING PRESCRIPTIONS for the half dozen or so basic eye troubles requires different techniques. Hemispherical grinding of a lens is mostly a hand operation, as Bill Kiser demonstrates.

George F. Von Edwins, one of the most experienced craftsmen at the Martin Instrument Co. here, shapes the edges of a lens on a hand edging machine.

The lenses are then cemented with hot pitch to a steel base. The finished lens is placed in a refrigerator, and the pitch contracts and separates from the lens.

Lenses—those used in special instruments—are used to test lenses at the Martin company, to ensure that the finished product conforms perfectly with all the requirements of the prescription.

After its PERIMETER is edged and bevelled on very fine carbonbundum wheels, the lens only awaits insertion in the eyeglass frame. Plastic frames are made suitable for insertion of the lens by being heated in a bed of hot salt.

A full inspection for strain, which could be caused by a too-light grip of the frames, is given the glasses, and they are ready for delivery to the eye doctor, who will fit them on the patient.

A revolutionary advance in eyeglass making was pioneered here by the Martin company.

This involves heat treatment of lenses, which makes them practically break-proof—ideal for industrial goggles and for dress glasses of children and amateur craftsmen.

The LENSES ARE SUBJECTED to more than 1,000 degrees of heat and then cooled by a jet of dry air. This tempers them, much as steel is tempered. The hardened lenses are tested by having heavy steel balls dropped upon them. They will survive many repetitions of being dropped upon a cement floor, and if they do break, tend not to shatter as ordinary lenses do.

The glass used for lenses making is of the very highest quality. Craftsmen describe this "optical crown" glass as "the cream of the crop."

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