

# NUGGETS OF BOULDER COLOR

By Elton Garrett

## RAYS THROUGH STEEL

What! See right through a human body? Yes, and they take pictures of one's bones without taking 'em out to do it.

Not so long ago that feat was regarded as a miracle.

Suppose someone should tell you they could send rays through an opaque sheet of tin. That would be hard enough for the layman to believe—but what of sending rays through a sheet of solid steel more than four inches thick.

Impossible, say you.

But it's not impossible. They're going to do it every day on the Hoover dam project. The Babcock and Wilcox company will use that method of finding flaws in the steel pipe sections they will manufacture for the huge steel linings for the penstock tunnels.

This great steel corporation has some of the most modern methods of X-ray for use in photographing every section of weld to insure perfection in every seam.

R. F. Dent, technician of the General Electric X-ray corporation, was in Boulder City from Chicago last week working with members of the Babcock and Wilcox staff on the X-ray system being installed in the big steel plant down below Observation point.

X rays, says Dent, have ability to penetrate matter that is opaque to light—different substances in different degrees.

The maximum for steel now is four and one-quarter inches of thickness. When the rays go thru a sheet of steel, at a welded seam, for instance, registering on a sensitized film on the other side, it records darker spots where there are pores in the steel, showing there was less steel for the rays to penetrate in passing through to the other side.

When these pictures are taken, numerals made of lead are placed against the steel alongside the seam being photographed. Being of different X-ray consistency, the

lead registers darker areas on the negative, enabling the technicians to determine at any time where the particular section was taken.

When a bubble or flaw is found, these numbers make it possible to take the negative to the steel pipe section having the weld, locate the exact spot where the flaw exists and chip out the steel right to the flaw. The pipe then can be re-welded, in that portion, and the flaw is thus eliminated.

Thus will the government be assured the best possible quality in the huge 30-foot pipe sections that will comprise the penstock tunnel linings on Hoover dam.

The astounding total of 300,000 volts of electric current is used in this X-ray photographic work.

— BUY AT HOME —

## NOTHING NEW

The Friars' clubhouse in New York is to be sold at auction. This will, of course, not be the first time the club was under the Ham-