

G1 Atom Detail

THE ATMOSPHERE AT OAK RIDGE WAS AS HEAVY WITH MYSTERY AS A DIME DETECTIVE NOVEL, AND UP TO THE BOMBING OF HIROSHIMA FEW G1s WORKING THERE KNEW THE PURPOSE OF THEIR SECRET JOB.

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YANK Staff Writer

OAK RIDGE, TENN.—Up to now, every time S/Sgt. Ed Fritz has gone home to Superior, Wis., on furlough he has had trouble. Usually, it would begin when he stopped at a local tavern for a short beer.

Inevitably, either the bartender or one of Fritz's old friends would ask, "Where you stationed, Ed?"

"Tennessee," Fritz would answer evasively, hoping to end the matter right there.

"Where in Tennessee?"

"Oak Ridge," Fritz would say.

"Never heard of it. What is it—an airfield?"

"No."

"Well," the other party would continue, a little irritated by now, "what the hell is it then?"

"I can't tell you," Ed would reply uncomfortably.

"Oh, a big shot," the former friend would retort. "I don't even think there is a place in Tennessee called Oak Ridge."

Fritz would gulp his beer and hurry home.

But even there he ran into trouble, because his

father and his mother would say, "Surely, you can tell your own parents what you're doing." And his girl friend, who is a graduate chemistry student at the University of Illinois, was annoyed because, as she put it in a letter, "You never write about what you're doing with all your time these days."

Fritz couldn't answer anyone's questions. He was working on the most closely guarded secret in military history, and even when talking together about what was afoot at Oak Ridge, Fritz and his fellow G1s down here would speak of the "campaign buttons" or the perpetual-motion machine they were making or of the new kind of chicken they were producing for armies of occupation.

At least once a week a commissioned officer, occasionally a colonel from Washington, would issue a stern warning to as many of the EM here as could be assembled at one time. The warning seldom varied. "You men are soldiers," the officer would say. "You may think you're geniuses. You may have a high IQ, and you may all be college graduates, but as far as the Army is concerned, you're not paid to think—not after you finish work, anyway.

"If anybody, soldier or civilian, asks any questions—even the time of day—your answer is three simple words, 'I don't know.' Anybody here who can't learn those three words will be subject to an immediate court-martial. Understand?"

Until recently, as a matter of fact, a majority of the EM at Oak Ridge weren't exactly sure what they were working on. A few, like Pfc. Joe Stein, who became an American citizen not long ago, were fairly certain that they knew. Stein, who was born in Antwerp and who left Europe on the last trip the *Ile de France* made to the U. S. before the war, had been a science student in Switzerland. Not long before taking off for the U. S. he had a talk with a German scientist whose name he still won't mention. Up until the time the German scientist, a Jew, had been unceremoniously kicked out of his Berlin laboratory by the Nazis, he had been experimenting on a new atom-splitting process. So Stein had some inkling of what was up in the field of atomic research. But he thinks it was mere chance that he was sent to Oak Ridge after reaching the U. S. and getting drafted.

"Until after the first bomb was dropped," he said, "I never told anyone what I thought we





Guards stop cars or trucks coming in or out of the Carbide & Carbon Chemicals Corp. plant.

were doing—or that I was afraid the Nazis or maybe the Japs would beat us to it.

"My uncle in New York City used to ask me what I was doing in the Army, and I told him that I was in the Engineers, which was true, and that we were building portable GI latrines.

"I don't think he believed me."

Since Aug. 7, however, the day the first atomic bomb was dropped on Hiroshima, the friends and families of Frits and Stein have known that Oak Ridge, Tenn., a mushroom town with a population of around 78,000, is the place where much of the research on the atomic bomb has been done. And for the first time the 1,200 enlisted scientists who are members of the Special Engineering Detachment here can use words like "uranium," "heavy water" and "isotopes" in public.

Even with the end of the war, however, talk about how the atomic bomb is actually produced is strictly forbidden and will probably remain forbidden for a long, long time to come.

The EM in the Special Engineering Detachment are a carefully selected group—whatever Stein may think—and all of them are what the MPs around here call the "briny type." Occasionally, a wag will nail a sign to one of the barracks saying, "Geniuses sleep here," or, "Every man an Albert Einstein." The average score in the soldier-scientists' Army General Classification Test is 132; a number of the men have scores of 150 and above; very few scored below 120. The men in the SED are physicists, chemists and engineers, most of them recent college graduates. Their average age is just 23.

In a typical barracks recently a dog-eared copy of Plato's "Republic" was lying face up on one of the unmade bunks. Among the volumes piled in gloriously un-GI confusion on a locker were "Calculus for the Practical Man," "Applied Nuclear Physics" and "The Handbook on Radio-tro-n."

The only magazine visible was a publication called *Chemical and Engineering News*. All it contained by way of pictures were a few highly

technical illustrations. The record player in the corner was surrounded by albums of Tchaikovsky, some Grieg and quite a lot of Johann Sebastian Bach. Long-hair, see.

For a time there had been nine Ph.D.s in that particular barracks and six Masters of Arts. Naturally, everyone of the 48 enlisted men billeted there had earned at least a Bachelor of Arts or of Science degree.

Like everybody else in the Army, the GI scientists—Ph.D.s or not—have their troubles. They have special trouble, they feel, with the SED T/O, though the number of high-ranking non-coms is considerably larger than in an ordinary outfit. Promotions are recommended by the civilians, usually also scientists, under whom most of the EM work.

"Now, where I am," explained a man who had been a pfc for 18 months, "there's a Yale professor in charge. So, naturally, all the Yale men get the ratings. If you just went through New Haven on the train once, he makes you at least a buck sergeant." The embittered pfc was a graduate of Princeton.

In general, however, the GI scientists agree that being stationed at Oak Ridge has been a good deal—as Army deals go. There is no reveille, because the men work on a three-shift basis—0800 to 1600, 1600 to 2400, 0001 to 0800—alternating shifts every seven days.

There is no KP at Oak Ridge because there is no Army mess. The EM are paid a rations allowance of \$2.25 a day and may eat at any of the nine restaurants, five cafeterias and three lunch-rooms in Oak Ridge.

Also in Oak Ridge are several thousand young women from all over the U.S., most of them single and many of them lonely. More than 30 of the GI scientists have been married to Oak Ridge women—workers since being assigned here.

Aside from the advantages represented by no KP and plenty of girls, every member of the SED was assured a Stateside assignment as long



Hundreds of plant workers live in trailers like this one, but most GIs are quartered in barracks.

Some residents of Oak Ridge leave a chapel in the Jackson Square district after services.



as the fighting was on. The men possess such important secret information that the War Department could not allow any of them to risk capture by the enemy.

Some of the men, like M/Sgt. James Park of Lexington, N. C., live with their wives in houses, apartments or trailers. At Oak Ridge there are 10,000 houses and apartments, 5,000 trailers.

Park, who was graduated from the University of North Carolina in March 1943, after majoring in chemistry, met his wife, Lois, at the plant here in which they both work. Lois gets a considerably larger pay check each month than her husband.

The pay differences between civilians and soldier-scientists who may be doing exactly the same job in exactly the same place are conspicuous. A T-3, for example, may be a foreman and have 20 to 30 civilians working under him, all of them getting paid from three to four times as much as he.

And then there are men like Pvt. Milton Levenson of Northfield, Minn., who once worked on the atomic-bomb project as a civilian and drew \$350 a month. Now he is back in the same department with the same people working over and under him. But his salary these days is \$50 a month.

Despite these differences, relations between soldiers and civilians here have been fine—"mostly," I guess," explained T-3 Don Mark of St. Paul, Minn., "because we know we're just about the luckiest guys in the Army."

T-3 Mark was in the 55th Combat Engineers, attached to the 10th Armored Division, and was at Camp Gordon, Ga., preparing for shipment overseas when he was ordered to Georgia State Teachers' College to become an algebra instructor for an ASF unit. He was slated for shipment overseas a second time when he was transferred to Oak Ridge in March 1944.

"The experience I'm getting I couldn't buy for a million dollars," Mark pointed out. "I've worked with some of the biggest brains in science, and I'm learning about something that's still going to be a hell of a thing a hundred

years from now. As I said, I'm one of the luckiest guys in the Army."

Another reason for the relatively good soldier-civilian relations here is that several hundred of the nearly 78,000 civilians are discharged veterans of the recently ended war. Among them are men like Ruby Owens of Booneville, Miss., a former sailor who lost a leg in December 1943, when a Jap Betty strafed his destroyer off New Britain. Owens is a traffic checker at a gate leading into one of the closely guarded buildings in which work at Oak Ridge still goes on. He and his recently acquired wife, another Oak Ridge employee, live in one of the temporary hutments put up in the past two years and pay \$25-a-month rent for three rooms and a bath.

Robert Roy of nearby Maryville, Tenn., is a member of one of the half-dozen always alerted fire departments in the production area. Roy is a discharged veteran of the First Division. He was wounded in the first wave of the D-Day landing in Normandy in 1944 and was wounded again when his outfit was breaking through the Siegfried Line into Germany. At the time of his release from the Army last July, Roy had 136 points; a week after getting out he came to work in Oak Ridge at three times what he had been making before the war.

IN general, recreational facilities at Oak Ridge are about like those in a town of similar size anywhere in the States. There are two big exceptions, however. Oak Ridge has only one night club, which is generally crowded to the doors, and there is a ban against the sale of hard liquor. In Oak Ridge beer is the only alcoholic beverage you can get.

There are several movie houses, a swimming pool and a skating rink, and the low, rolling hills of Tennessee are pleasant for evening walks—either with a civilian girl friend or with one of the handful of Wacs stationed here. But like most GIs everywhere, the men assigned to Oak Ridge spend the better part of their time off sitting in the Post Exchange drinking 3.2 beer and discuss-

ing the subjects that are always discussed by soldiers over 3.2 beer.

Once in a while, now that the world knows what the atomic bomb can do, the conversation turns to the problems raised by the release of the atom's energy. One man, a disillusioned T-5, thinks that anyone who knows anything at all about atomic energy, including himself, ought to be placed on an obscure, out-of-the-way Pacific island and left there—"to keep us out of mischief."

"This splitting-the-atom business," the T-5 said, "is about like giving a two-year-old baby a ton of TNT and a match and telling him to have a good time. The world isn't ready for this thing yet."

Other men are scarcely less troubled. "They say in the newspapers that we'll be running our cars and heating our houses with atomic energy before very long," commented Pvt. Joe Silverman of Brooklyn, who was a civilian researcher for the project at Columbia University before he was drafted a short time ago and sent down here to become a GI scientist.

"It looks to me as if it's going to be 30 years or more before we learn how to harness atomic energy for peace. You never can tell. I suppose we might blow each other off the face of the earth before then."

"Obviously, a lot of people better start doing a lot of thinking about just what's been let loose down here. Otherwise, we ought to let the ants take over the earth. Scientists can't do much—by themselves, anyway—to prevent wars. Science can only warn people that the next one will certainly be the last one."

Right now, most of the GI scientists here are sweating out the possibility of shipment overseas for occupational duty, but unofficially, at any rate, the consensus is that the work at Oak Ridge will go on for a long time yet.

Not one of the men here has any hope of getting out of the Army for quite a while. The average number of points of the 1,200 EM at Oak Ridge is 29.



T-3 Edward Fritz chats with his date, Lona Staller, while waiting for a bus at the post office.

Four of the GI atomic bomb workers read about the devastating results of their work in the paper.



A number of soldier-scientists listen to their CO reading letters of commendation on their work.