

flanking movement and settled the thing. No war could be conducted forever the way they conducted World War I in Europe. The French, having the Maginot Line later, which to them was to be an impenetrable defense line, thought falsely that was going to give them absolute security based on what had happened in World War I. Aerial bombing, heavy tank maneuvering, and outflanking movement by the German forces killed that dream in the early phase of World War II.

219th Engineers at Camp Dodge, Iowa

Q: You wanted to mention an incident at Camp Dodge?

A: Well, at Camp Dodge [Des Moines, Iowa], here I was with the 219th Engineers, you might say, the youngest officer of the command, but just by reason of being in the Corps of Engineers and the regular service, I had a comparatively high rank. Although I commanded a company, I was also the senior captain in our battalion. So when they had something to do with the battalion, I was the acting battalion commander.

The other battalion in the 219th was commanded by a Major Walton, I think E. C. Walton, who came from Texas. He was a very prominent consulting civil engineer. One day we were going to have a contest of bridging the Des Moines River. His battalion was going to bridge it, and we also were going to bridge it. We started off simultaneously. He started off upstream and they started building there. As it was a competition, I decided that the thing to do was to build from both sides of the river, because if you're building only from one side then you can progress only so fast. So I had my forces gather some timber and make some rafts. I got a cable across and set up a cable tower on the other side, providing a flying ferry. As we started constructing the bridge on the near shore, we also operated the flying ferry to take personnel and piling across to the other bank, thereby working from both ends.

Well, Major Walton looking at that, I guess, got terribly surprised and chagrined. They tried to work faster and faster, didn't get the piling in deep enough, and all of a sudden, wham! The forward end of their bridge collapsed; the personnel on it went into the water. We had to lower our

cable so that as they came downstream they could hang onto it, and we rescued their personnel. We then kept on building and had our bridge finished far before they were able to resume and get theirs about a third through.

Perhaps young, less experienced leaders may, with imagination, excel and not be held down solely by the regulated procedures of more experienced personnel.

Engineer Inventiveness and Brigadier General Harley Ferguson

Q: Was it a distinctive characteristic of a lot of the engineers that you knew to be very inventive?

A: Not particularly. There were some who were, of course. But in the Corps of Engineers, most of your real technical experts in the various fields are in the Engineer Department civil service. The Corps of Engineers officers who were district engineers, division engineers, are-I'm generalizing, not talking specifics-are primarily engineer administrators and executives able to handle responsibility. In general, they have a technical background on all of this, but they're not immersed in the technical details.

Probably if they were immersed in the details of revetment, reinforced concrete design, or something connected with detailed design of a dam or generator, they'd be so engrossed in that particular phase that they wouldn't be qualified to handle the overall, such as dealing with contractors, dealing with specifications, supply problems, procurement problems, and coordination of it all. And so the district engineers and division engineers are mostly of an executive and administrative type-I mean if they're successful. You may find somebody like John Paul Dean, he was sort of a specialist in the field of hydraulics and flood control; and General Harley Ferguson, who was active on the Mississippi in connection with straightening out the channels through cutoffs.

Q: What about Harley Ferguson?