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The design and fabrication of the jerrycan—Part II

The plot thickens

MARCH 11, 2019 BY JOSH WELTON

Why is so little recorded in Washington about the jerrycan, a fuel and water container fabricated from stamped metal that was so instrumental in World War II? (See Part I.)

I can't help but wonder if maybe U.S. military leadership was none too keen on using this little marvel of German engineering—the jerrycan; were not happy when it proved to be better than their substitutes; and they were just fine talking up their blitz-can. Changing the name and the story would effectively bury/downplay how much of a difference the basically rebranded jerrycan made in the Allied victory. I feel that had the cannister been something a little bit sexier, like a gun, or a drug, or a magic medallion, there would be at least one movie and three remakes by now.

Oh, wait. It gets sexier, actually. Earlier I stated that I went down some rabbit holes. A more accurate assessment is that I chose the red pill and jumped through the looking glass. It felt like every link and lead I followed turned up some new thread to tug on.



Vintage jerrycan

None of the online stories were complete in and of themselves, but eventually I could piece together a fairly consistent narrative. Of particular interest is Paul Pleiss, of course, the man identified as an American engineer who had just finished working in Germany before all hell broke loose. At the same time, Pleiss was building an overland vehicle and preparing for his epic road trip from Berlin to Calcutta. Every story, in one manner or another, told about his co-pilot, a German engineer who he roped in on the adventure, and how this man eventually used his knowledge of location and his security clearance to nab a few jerrycans just for use on their trip. They hid the cans under their vehicle and made it through almost a dozen border crossings before the German engineer was physically retrieved by the German army, though not before he basically gave Pleiss a blueprint for the *Wehrmachtkanister*. This would indicate that the German had an insider's knowledge of how the can was manufactured, but it's never specified how.

As I was truly attempting to put a nice, neat bow on my article, a blog post popped up about ABP.

Remember Ambi-Budd Presswerk? That's the company that came up with the idea to build the can from two halves of stamped steel, which was key in making the original German canister so durable and simple to manufacture. Turns out ABP was a German division of an American owned steel stamping firm from Philadelphia named the Budd Company. This in and of itself isn't crazy, as most German factories, even those owned by Americans, were commanded to support the war effort with their production. It's this next part of the 8-year-old post on the blog "Jerry Cans of the World" that gave me pause:

"Paul Pleiss, the German-American manager of ABP, sent details of the new jerrycan to U.S. military officials, prior to the war."

Wait, what? Pleiss *worked* for ABP, the company that helped develop and build the damned cans?!? If that's true, was he actually involved in their creative process? If he first told U.S. officials of them before the war, not during it as presented by every other article I

found, was he risking his life by contacting them from Germany? Did he build his automobile to hide the cans? Was the road trip for real, or was it a cover story all along? Did the German engineer actually exist, or was it part of a plan to conceal how much Pleiss previously knew, or how much he was involved in the jerrycan's design?

There's another piece of information in a collection of old Budd Company papers archived at the University of Pennsylvania. It expressed doubt over whether or not the parent company knew its German arm was being exploited to build for the Nazis, while also questioning the fate of ABP's site owner, who was Jewish. Then this:

"Paul Pleiss, a party in the negotiations, did manage to smuggle the design secrets of the Ambi-built fuel can used by the panzers out of Germany later in 1939."

Does this imply Pleiss knew about the canisters long before he was supposedly schooled on them by his driving mate on their way out of town? As the University of Pennsylvania acutely declares, the files are "tantalizingly incomplete."

Who in hades is this dude?

Finally, after many creative Google searches, I tracked down the obituary of Major Paul Pleiss in an archived *New York Times* paper from 1947. It was the only real info with any depth I could find.

Pleiss was described as an industrialist. Originally from Milwaukee, he graduated from the University of Wisconsin before joining the military. He served as an officer of the U.S. Army in *both* World Wars. He was the officer in charge of all nontoxic gases in France during World war II and then was part of the Balloon Division of the Aviation section of the Signal Corps. Still in his mid-20s, Pleiss was on the board of Burdett Oxygen and Hydrogen and wrote industry papers on different gases related to welding and manufacturing, along with books on manufacturing processes. He did R&D on high-altitude breathing apparatuses.

After serving as a board member of the Budd Company in Philadelphia until he was 37, Pleiss was put in charge of the company's European activities in their entirety. The next year he organized the Pressed Steel Company in England, which came to employ 12,000 workers. He was credited with introducing mass production methods to car factories in Europe. That same year he became vice chairman and director of, you guessed it, Ambi-Budd Presswerk.

After retirement in 1938, Pleiss continued to consult the Budd Company on the stainless steel military cargo planes they were building stateside. During World War II he served as the European industry consultant to the U.S. Board of Economic Warfare.

In short, Pleiss was a brilliant engineer, scientist, leader, consultant, and highly involved Army officer. He was an industrial visionary who literally ran ABP when it was responsible for a breakthrough in how to manufacture the *Wehrmachtkanister*. Despite the can's being a classified secret weapon, I have a hard time believing the unknown German engineer he traveled with had to enlighten him about any part of the can his company helped design and was building.

There's no record of his earlier trip through Europe, the one during which he smuggled out the jerrycans, at least that I could find. But the essay on his South American travels was pretty much a straightforward assessment of his journey. Pleiss didn't use hyperbole or colorful language, he just documented it. His trade essays were, more predictably, written in the same tone. This doesn't seem to be a man prone to exaggeration; it feels like he's a man of thought and action. Anyway you take it, he definitely is someone who should be studied and remembered.

Back to our time, the can abides. And whether Pleiss designed the can for the Nazis, or stole it, or both, in the end the German's once secret weapon helped spell their demise.