

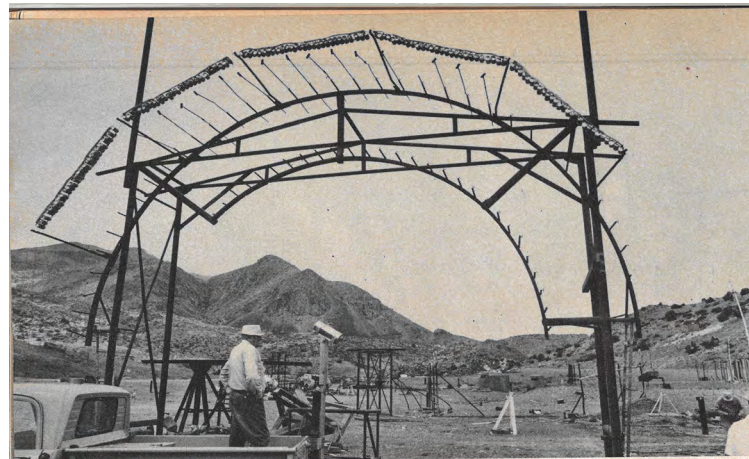
SCIENCE / Blasted Old Beer Cans

Sooner or later, somebody other than Japanese toy makers was bound to think up a use for pesky old beer cans—blast them! Working under a Navy contract to develop more effective antiaircraft warheads, the New Mexico Institute of Mining and Technology has found that the canisters make dandy indicators of the size, shape and force of an explosive fireball. Harvested along highways and other places where beer drinkers throw them, the empties are strung together like beads, carefully numbered and

draped above a test charge which is then detonated. Photographs taken over the next few seconds show that the force developed by the explosion does not take a symmetrical form as some experts thought. Instead, it expands in an irregular, amoeba-like shape, hitting some cans sooner and harder than others. By reassembling the test pattern on the ground (below), institute researchers can begin to get an idea as to how warheads should be detonated to do maximum damage to airborne targets.



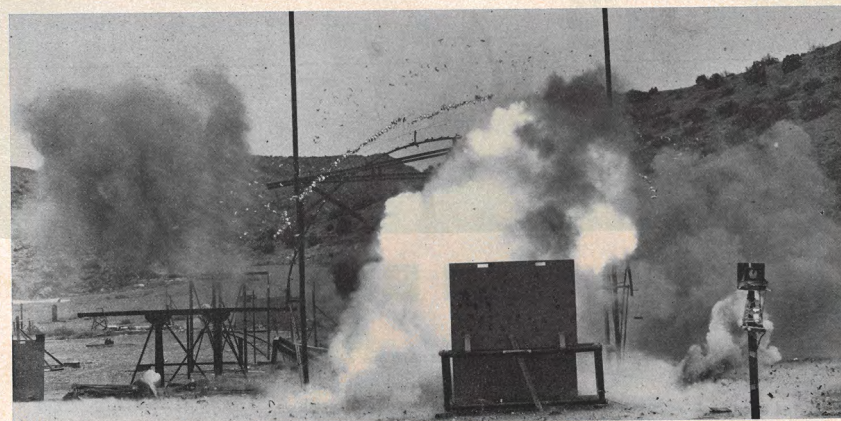
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BEER CANS CONTINUED

A dusty look at the shape of a bang

On a rainbow-shaped rig (left), beer cans are all the same distance from charge and are strung with welded seams up to give maximum "crunchability." The dents made by the blast are a measure of its maximum force and, coupled with the can's velocity, indicate its possible effect on aircraft.



Because of the noisy nature of the tests, the institute decided to conduct them out in a New Mexico desert—and straightaway ran into a bad visibility problem. The scrubby, boulder-strewn hills made it difficult to photograph the beer cans in motion. To solve the problem, explosive specialists planted a length of primer cord under desert clay and detonated it (middle picture) a moment before each test blast, sending up an instant backdrop of opaque dust that screened off the hills. In front of the cloud, the flying cans showed up sharply enough to give the researchers a look at the first effects of the bang, then soared on up against the sky in an irregular pattern (right) as the test explosion expanded.

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