You can't take piping for granted

When you draw a piping line on a blue print—when you indicate a symbol that means a valve—remember that ultimately those lines and symbols will have to be translated into hard metal, and that those lines you draw will have much to do with determining the success or the failure of the engineering project.

The parts that make up any piping system are many. But each one of these parts—the pipe, valves and fittings; the traps, joints and gauges; the flanges, unions, gaskets and insulation—is part of the complete Crane line.

When you are writing specifications, keep this fact in mind: Crane's single source of supply, Crane's experience, and Crane's reputation for high quality will do much toward assuring the success of the systems you design.

Here's engineering data to help you—

Crane engineers have prepared several important books and treatises on piping systems. These include the Crane Catalog, listing more than 48,000 piping items and containing valuable engineering data—Piping Pointers Manual, packed with piping information—Flow of Fluids and Combating Corrosion, two technical papers of value to any one laying out pipe lines. This material is available from the following persons in your school, for reference.

Dr. J. R. Withrow, Chm. Chem. Engineering
Prof. S. R. Beitler, Mechanical Engineering
Prof. John C. Prior, Civil Engineering

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CEMENTED CARBIDE
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Page 30
George Washington could have had a Jeep

All the raw materials needed to build a jeep were obtainable in George Washington's time.

Only the knowledge of how to obtain them, refine them and fabricate them into such a vehicle was lacking.

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A PARENTHEtical ASIDE: FROM THE AUTOBIOGRAphY OF

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- This message is printed by Aluminum Company of America to help people to understand what we do and what sort of men make aluminum grow in usefulness.
The shell that brings 'em back alive -

What makes a Nazi surrender? Sometimes it's a "prisoner passport" delivered in a propaganda shell, compliments of the U. S. Artillery. Today industry is turning out all types of shells faster than anybody ever dreamed. Certainly Carborundum takes great satisfaction from the big part its products play in this vital war job! Nowadays shells big and little pour out of centerless grinding machines like this in a never ending stream.

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CHRISTMAS DINNER IN THE TROPICS

It is more than likely that many of the American boys in the South Pacific will have turkey for dinner this Christmas. It's not a military necessity, but it's good for morale, and high morale is an asset for any fighting force.

Good refrigeration equipment—the same sort that cools blood plasma, medical supplies, drinking water, and stores of ammunition—will make this possible.

Recently, in collaboration with U.S. maritime and naval architects, General Electric engineers designed new, prefabricated refrigeration equipment for Victory ships which saves cargo space and materially reduces shipyard installation time. These refrigeration systems furnish 3 1/2 tons of refrigeration for low temperature meat and fish rooms, and 3 tons of refrigeration at 40°F for vegetable, dairy, and thaw rooms. And six and a half tons is a lot of Christmas dinner in anybody's language.

JUNIOR

A LARGE smoke generator, principles for which were worked out by Dr. Irving Langmuir and Vincent Schaefer of the G-E Research Laboratory, produces a heavy blanket of smoke which has been used frequently to protect our men during landing operations. Now the Chemical Warfare Service has designed a smaller model. "Junior" will fit into a jeep or a foxhole; can be carried by two men. With favorable wind conditions, it can blot out an area five miles long and 200 yards wide. The smoke will help the doughboys when the going is tough on jungle trails, mountain passes, and other vulnerable places.

NO STREAMLINING HERE

MOST airplanes look smooth. But some are definitely "lumpy." The plane which General Electric calls its flying workshop is of the lumpy variety. It cruises high over Brownsville, Texas, carrying engineers and new equipment. Many new aircraft products and systems built in the laboratories and experimental shops of General Electric receive their first trial by air in this strangely shaped plane. It's one way G.E. makes certain that its aircraft equipment can stand the rigors of high altitude flying. General Electric Company, Schenectady, New York.

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