Back in 1903, when you could still acquire a reputation as a wit by yelling "get a horse," a group of American auto mechanics really showed their English cousins, including some representatives of royalty, what mass production of interchangeable parts was all about.

They stripped three cars and threw the parts in a pile. Then they rebuilt the cars using stock parts, and they ran perfectly, much to the delight and surprise of the audience. Today thanks to the high accuracy of interchangeable parts, the marvel of mass production is commonplace. But few people stop to think how much mass production with accuracy owes to modern grinding methods, and modern abrasive products such as are made by "CARBORUNDUM."

Helping Industry increase production and lower costs is one of the most satisfying of occupations. And that is the job of "CARBORUNDUM" Abrasive Engineers. If you would like to consider this form of engineering for your life work, please write The Carborundum Company, Niagara Falls, New York.

PRODUCTS BY
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HELP YOU MAKE THINGS BETTER
IN INDUSTRY, AGRICULTURE, ARTS AND CRAFTS

("CARBORUNDUM" is a registered trade mark of and indicates manufacture by The Carborundum Company)
COPPER MAN

Copper Man isn't human, but he can feel hot and cold all over. His job is testing G-E electrically heated flying suits and casualty blankets in high- and low-altitude chambers where it's 60 below—a job that used to be done by humans, if they were particularly rugged. But even the rugged ones weren't as efficient as the Copper Man. Their reactions changed if they had just finished a hearty meal or been out late the night before.

The shiny-skinned Copper Man is 5 ft 10 3/4 inches tall. The 15 areas of his body are each subject to temperature control varying from sub-normal to above normal. That lets the engineers check on reactions of different parts of the body. And the Copper Man can be in the cold chamber while the engineers who are testing his reactions are in a comfortable room.

FUSE NEWS

Meet the M-52 mortar fuse! This little fellow was one of the most difficult mass production jobs the plastics industry ever tackled. G.E. overcame the first obstacle—shortage of metal at the beginning of the war—by applying a plastic nose that saved a pound of aluminum per shell.

But that wasn't all. From the development of raw material to the finished product there was a whole new set of techniques to learn in the making of intricate plastic molding... like new methods of measuring compound characteristics, the exacting control of dimensions, and refinement of mass production facilities. In spite of all that, G.E. has sent 23 million to play a leading role wherever we meet the enemy.

SHOOTING STAR

The fastest plane in the world is the Lockheed P-80 Shooting Star. Installed in the fuselage—between the tail and the cockpit—is a new jet propulsion engine designed and built by General Electric. And in front of the wings, almost flush with the fuselage, are two large air vents, through which air passes into the engine.

The plane is expected to have an edge over other fighter planes of the A.A.F. in its quick warm-up and maneuverability in flight. And upkeep is easy because of the simplicity of the engine—only one main moving part. G.E.'s experience with jet propulsion began with developing a model based on British design.

General Electric Company, Schenectady, N.Y.

Hear the G-E radio programs: "The G-E All-girl Orchestra," Sunday 10:00 p.m. EWT, NBC—"The World Today" news, Monday through Friday 6:45 p.m. EWT, CBS—"The G-E House Party," Monday through Friday 4:00 p.m. EWT, CBS.

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