

# WHEN AMERICAN GENIUS GOES TO WAR



*Uncle Sam Takes Into Battle All The Fabulous Skills And Tricks He's Devised For Mass Production And Distribution. Supplies And Materials Are Handled On A Chain-Store Basis, Weapons And Machines Pour Off The Assembly Line. The Result: A New Kind Of Warfare That Amazes Our Allies And Overwhelms Our Enemies...*

**by  
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**AN ENGLISHMAN** stood watching GI engineers laying down a highway in France with their giant concrete mixers. Finally he exclaimed, "Why, they lay the concrete down like toothpaste!"

That Briton is only one of millions of people around the globe astounded by America's unorthodox method of waging war.

Americans themselves are so used to doing things on a fast and fabulous scale that they don't realize how completely this country has revolutionized warfare.

Just how have we changed war? No one has ever taken time out from running our war to explain what is happening. A few weeks ago I set out to find out, and I'm still shaking my head in wonder.

I was talking to a navy officer. "How is it," I asked, "that our fleets can range out thousands of miles farther from base than a fleet

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is supposed to be able to go—and farther than any other fleet can go?”

He answered, “Well, for one thing, the Navy has developed ‘sea trains’ that follow the fleets. They replenish and repair the warships at rendezvous on the ocean.”

Before we entered the war German and Japanese militarists snickered at our military dumbness. While they plotted strategies we went our sweet way, building up our business and industrial empire.

When they attacked us, however, they soon found that we had some amateur strategists who could make their brand of war look amateurish. These strategists were our “citizen soldiers” who had recently been busy building skyscrapers and superhighways, helping run giant department stores and assembly-line factories, and operating garages and refrigerator repair shops.

These new militarists of ours rose to meet the challenge in the grand, aggressive way that Americans have always met real challenges. And instinctively they applied to war-making the tricks, techniques, machines, and devices they had developed in making our economic system the greatest in the world. They put war on a business basis.

The Japs, who have depended primarily on fancy footwork, realize now that cunning is no match for American technique. The U. S. Army has compiled the opinions of Japanese fighting men regarding us. Here, in essence, are the Japs’ main observations:

“The Yank is not expert at deception, but he can change his plans rapidly. He is a wizard at handling machinery, and he can build airfields, roads, and advance bases with uncanny speed.”



**W**HEN our forces landed at Munda, New Georgia Island, they had an excellent chance to compare their own construction equipment with the Japs’. The enemy didn’t have a single dump truck. Strewn around were vast quantities of picks and shovels and baskets used by coolies to move dirt in leveling the airfield. When our troops came to this jungle isle (more than 5,000 miles from the U. S.) they brought boatloads of bulldozers and lumbering carry-all scrapers that could scoop up a 16-foot-square embankment in one mouthful, lug it a quarter-mile away, and spit it out in a hole that needed filling. The Americans also had graders, steam shovels, scoop loaders, motorized sprinklers, dump trucks, draglines, and sheep-foot rollers which pack down an airfield. Finally, they had vast crawler cranes that could set the steel framing for hangers, and magnetic cranes that could toss bales of barbed wire around.

All these devices, and the Seabees operating them, were recruited straight out of America’s construction industry. Experts agree that our military successes in the Pacific would have been virtually impossible without the advance

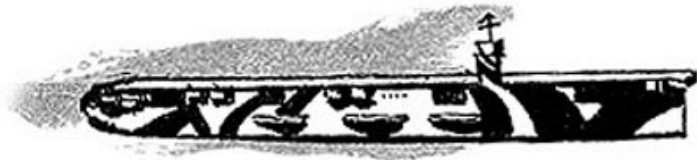


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bases which our Seabees built with such prodigious speed.

On one Pacific island we tore away the jungle and laid down an airstrip so fast that the Japanese announced we had discovered a new, secret method of building airfields.

Our "secret" primarily was the bulldozer, a distinctly American device which U. S. contractors have used for years. It is a caterpillar tractor with a curved steel cutting shovel on its snout, and it can do the work of 1,000 natives lugging baskets. On a beachhead it is like a rampaging bull. It fills in tank traps, uproots coconut trees, smashes in Jap pillboxes, tears holes in the jungle, levels ground for roads and airstrips, scoops up access ramps to the LSTs, and nudges off barges that happen to get stuck on the beach. Then, in tight situations, it lunges through the brush to flush out Jap snipers pinning our boys to the beaches. When an LST hits a beach the bulldozer is always the first piece of equipment ashore. For good reason it has been nicknamed the "Queen of the Atolls."



**O**UR Seabees, whose genius is outbuilding the Japs, can outfight them, at the same time. On Los Negros the schedule required that they build an airstrip in eight days after the landing. They were subjected to constant sniping, and several times had to throw back Jap suicide attacks. One awe-stricken GI soldier was heard to say, "Gosh, these Seabee guys are nuts. They are up there with tommy guns and grenades acting like commandos."

Yet the Seabee airstrip was ready for use in six days, two days ahead of schedule!

Though actually a military unit, the Seabees act and talk more like a construction gang back home. When a project is going badly you often hear them muttering, "We can't make any money doing it this way."



**I**N GETTING men and equipment ashore we have again drawn generously on ingenuity developed by American industry. Our "Duck," the only practical amphibious truck developed thus far by any nation, swims through the roughest surf and waddles ashore with its 2½-ton load of supplies. At first, it looks like a Buck Rogers creation, but I'm sure you would recognize it with its fancy pants off. What it is actually is a familiar 2½-ton American commercial truck sitting inside a waterproof hull! We were able to turn out thousands of Ducks in a few weeks because all the parts were already available and being mass-produced by assembly-line methods.

One of the most ingenious of our many ingenious innovations in amphibious warfare, however, is modeled after the metal construction set which every American boy has cut his engineering teeth on. It is a small, hollow steel box with great buoyancy. When you fit



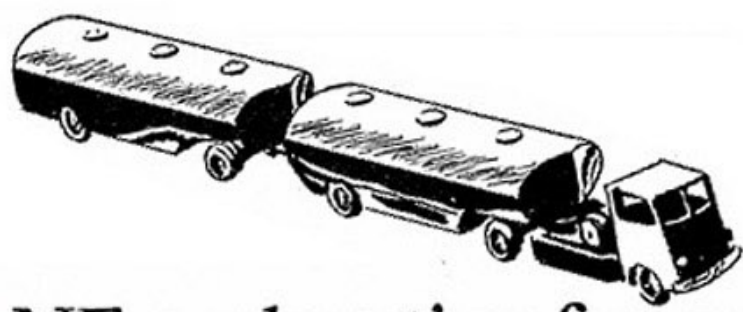
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hundreds of these pontoon boxes together you have a finger pier or a floating dry dock or a lighter. Or attach an outboard motor, and you have a huge, self-propelled steel raft. Hundreds of these "Rhino ferries"—with almost no draught—crossed the churning English Channel on D-Day and landed food and munitions high on the beaches.

Still another fantastic feature of the European invasion was the use of huge prefabricated ports. These ports, weighing a million tons, were towed across the Channel by a swarm of 100 Allied tugboats. And who, do you suppose, commanded these tugs? None other than Capt. Edmund J. Moran.

In peacetime, "COTUG" Moran operates the biggest fleet of (*Continued on page 142*) tugboats in the world, in New York Harbor.

At all beachheads the officers directing the unloading of our LSTs and Liberties have received special training under stevedores at the Port of New York. Whenever we use a foreign port we almost always break all existing records there for unloading. In Calcutta, by introducing huge, tower-mounted revolving cranes and 100-ton guy derricks that can pick up locomotives, we cut the time required to unload a transport from 21 days to 4½ days.



ONE explanation for our present success in getting supplies to the places where they are needed is that our armed forces have adopted the mass buying and distributing techniques perfected by our chain, department, and mail-order stores. No other nation has access to such knowledge. The top generals in the Quartermaster Corps "went to school" to chain-store experts at the outbreak of the war, and then commissioned many of the experts as fellow officers. Moreover, our armed forces picked up wholesale many techniques developed by our industries for moving things fast and with a minimum of fuss along our great highways, railways, seaways, and airways.

Take the "Red Ball Express" highway we established in France to rush food, munitions, and gasoline to the front. It was a one-way speedway running from the beachhead straight to Germany and back again by a parallel highway. America's leading trucking experts and traffic engineers helped set it up. At times, more than 400 trucks an hour streaked along the highway, in convoys.

Only trucks with a red ball on their windshields could get on this highway. Even the commanding general couldn't ride it without a red ball. Red Ball MPs, on motorcycles, hustled the trucks along. And who might these MPs be? A good many of them used to be American traffic cops! Furthermore, every 60 miles we set up an American-style garage and filling station.

We also set up U. S.-style railroads from beachhead to front. In fact, we sent the freight cars across the Channel already loaded



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and the locomotives with steam up. Rails were laid across the beaches and right down into the surf. Soon after D-Day we had 1,000 locomotives and 30,000 freight cars hauling supplies to the front!

In Sicily, likewise, our soldiers had trains in operation within four days after the first troops landed. And in India, Col. Jack Appleton, former Pennsylvania Railroad expert, imported American locomotives and refrigerator cars, and soon had trains whizzing across India, hell for leather, on a schedule that stupefied the leisurely Indians. The main hazard our boys had to cope with there was snagging Holy Cows in their cowcatchers. These beleaguered bovines produced no end of complications, because Yanks could not touch them without offending the local gods.

Many of the military railroad service battalions proudly hang onto their back-home identity. There is a "Santa Fe Battalion," a "Southern Pacific Battalion," a "New York Central Battalion," etc. In recognition of our railroading genius, our Allies have asked our railroaders to assume responsibility for all mutual war-zone roads.

In the air, too, we had a backlog of experience in our great air lines. When the Air Transport Command and the Naval Air Transport Service began trying to stretch air routes all around the globe they were able to call on an air line that had been ocean-hopping for years. Pan American Airways had pioneered the world in overseas flying, had the biggest global air network, and used the biggest planes that could fly the farthest.

The Navy's "mail order" system of supply operations is absolutely breath-taking. The Navy has a "Functional Component Catalog" which the admirals like to compare to a mail-order house catalog.



**H**ERE, roughly, is how the catalog works: Suppose you are an admiral and want to establish an advance air base, with all the trimmings, on Guam. Many thousands of items will be required—steel landing mats, air warning devices, medical facilities, typewriters for the yeomen, and screws for the screen doors of the huts. It would take a month just to place the orders if you had to procure each item individually.

So you turn to the catalog. There you find you can order an advance air base all in one lump. Do you want a big base, a little base, or a medium-sized base? You decide you would like to have the "Acorn" size, which will give you two airstrips. What you then do, in essence, is write an order for an Acorn to be delivered at such and such a day on such a spot on Guam.

If you go to Guam on the appointed day you will find your Acorn being unloaded. Packed for shipment, an Acorn weighs many thousand tons. It is accompanied by officers and men specifically trained to set it up and operate it as a base!

It is stunts like that which make the Japs turn from yellow to green.



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In sending delicate mechanisms and perishable food into the tropics and across beach-head surfs the problem of packaging is appalling. Our prewar ingenuity in packaging has again saved us. One company, for example, had a box that could be dropped from a third-story window and submerged in water for 30 days without injury. We were able to wrap airplane motors in cellophane just like a pack of cigarettes. And we could dip other delicate mechanisms into a plastic devised by the Hercules Powder Company. At the destination, the soft, leathery covering could be peeled off like the skin of a banana.

America's superiority in mechanical ingenuity is nowhere more conspicuous than in the way we service and repair our millions of ships, guns, planes, and tanks scattered about the globe.

A mechanized war travels on its spare parts. And in Europe or Asia, before the war, mechanical servicing was still a pretty strange concept. You were lucky if you could buy a car or refrigerator or corn harvester, let alone service it. If it broke down that was too bad. Possibly you could send it back to the factory.

In America, however, you knew that if you bought a car you could travel from Bangor to Albuquerque with the assurance that there would be filling stations every few miles, and that if the car broke down in Muskogee, Okla., you wouldn't be stranded there until someone towed you away. Muskogee would have a garage in town that would have spare parts for your car and a skilled mechanic to install them.

This experience in keeping things running has given us a big jump on our enemies. They have had to consider weapons "expendable." For example, when a Jap tank breaks down along the road it usually stays there. But you don't see a bogged-down American tank along the road, not for more than a few minutes, anyway. Our "tank recovery trucks," which look like the auto wreckers you would find in Muskogee, rush out and fix the tank on the spot, or pick it up and take it back to a depot for repair.

Likewise, the Army Air Forces have mobile repair units—huge truck trailers—that race to the site where a plane has crashed, patch her up, put in a new motor perhaps, and get her back into the air. And during an amphibious invasion the Navy has mobile repair ships moored just offshore which fix damaged landing craft while the assault is still actually in progress.

We even have mobile cobbler trucks that repair GI shoes within a few miles of the front lines. In the last war you probably heard many fabulous stories about boys with size 7 feet wearing size 11 shoes. But not in this war. The best designers in the American shoe business have pooled their lore and provided 239 different-sized shoes for our "foot soldiers." GI's learned to appreciate their American-built shoes when German prisoners began coming through the lines groaning and beg-



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ging for "Amerikanishen schoen."



**O**N THE actual battlefield, experts tour the lines regularly—just like electric-washer or refrigerator servicemen—to see that weapons and other equipment are in tiptop working order. Thus we greatly reduce the chance that the guns won't fire accurately or will bog down in a pinch. And regularly the GI's take their tanks and jeeps to big garages, where the vehicles are washed, overhauled, and even polished.

How war has changed from Napoleon's day!

Depots loaded with spare parts are found behind every battlefield. When an Air Force Group of 48 Flying Fortresses, for example, goes into a combat area, it takes along enough spare parts, packed up in streamlined "com-paks," to meet every possible need for 90 days. And, to simplify shipping problems, we have set up "Little Detroits" in places such as North Africa and England, where jeeps, planes, and tanks are put together in regular assembly plants.

Among all the other advantages we hold over our enemies is our genius for mass-producing weapons and ships via the assembly line. This is so obvious that most Americans don't appreciate our devastating superiority here.

**THE END**

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