

ENGINEERING

The Victory

THE STORY OF



THE CORPS OF ENGINEERS

Name JOHN J. LORENZEN, JR.

Date Enlisted 15 October 1942

Assigned to Engineers 12 March 1943

Training ERTC, Fort Leonard Wood, Mo.

12 March 1943 to 10 June 1943

Battle Actions Battle of Germany

Citations _____

This is one of a series of G. I. Stories of the Ground, Air and Service Forces, in the European Theater of Operations, issued by the State and Stripes, a publication of the Information and Education Division, Special and Information Services, G. I. C. S. Major General Cecil R. Moore, Chief Engineer, lent his cooperation to the preparation of the pamphlet, and basic material was supplied to the editors by his staff.

Photos: U. S. Army Signal Corps

Printed by Curial-Archereau.



THIS booklet records briefly the achievements of Engineer soldiers in the European Theater of Operations. It cannot possibly tell the complete story—a story of magnificent accomplishment and heroism by individuals and units of the Corps of Engineers in every element of our Army.

If it were possible to fittingly dedicate this book, I should like it to be to all who serve—at home and abroad—as an example of what citizens of the American Democracy can and have done to defeat a determined enemy whose aggressions threatened its very existence.

Every Engineer soldier can take pride in the work he has done to help write this brilliant record. I hope sincerely that we may all rededicate ourselves to the task of speeding victory over the Nazi enemy so that we can again turn our engineering talents to the works of peace.

Carl R. Moore

Major General, Chief Engineer

The Story OF THE CORPS OF ENGINEERS

ON the morning of June 6, 1944, Engineers carrying high explosives stormed ashore from small boats, and under withering artillery and machine gun fire from waiting Nazis, blasted gaps through heavy steel obstacles and anti-tank walls—first ramparts in Hitler's defense of Fortress Europe.

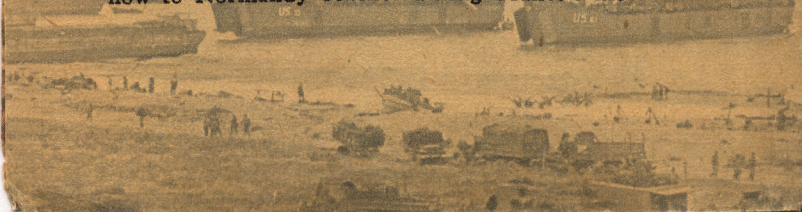
Through these gaps poured the Infantry in unending columns to come at last to grips with the enemy. The battle for the beachheads, soon to grow into the Battle for France, was begun.

Up and down the grim stretch of hostile Normandy coast, the traditional Engineer mission of clearing the way for the Armies again was being fulfilled—this time for keeps.

So well was their traditional mission accomplished that the 147th and 149th Engr. Combat Bns. were cited by the President for their excellence, courage and devotion to the cause for which they faced the grim unknown that day.

The return of Army Engineers to France was like adding another volume to a story that began many years ago. During the most trying days of the American Revolution, the friendly French had sent their most distinguished engineers to General Washington at Valley Forge to aid him in his battle. One of these men, Maj. Gen. Louis de Buge Duportail, became the first Chief of Engineers of the American Army. After Cornwallis' surrender at Yorktown this great engineer laid the groundwork upon which the Colonial Army was built, planned the first curriculum of the Military Academy at West Point which, until shortly before the Civil War, was primarily an Engineer School.

It seemed fitting that American Engineers should return now to Normandy beaches during France's most difficult



days. The first 48 hours would determine whether or not they could stay. Forty-eight hours and two years of back-breaking preparation and training would decide! Here was another Engineer mission.

Getting men on the beach was only one part of the invasion problem. Supplying them was the other. A modern army is no dainty nibbler: each day it consumes thousands



of tons of ammunition, gasoline, food, clothing, medical supplies and hundreds of other items, any one of which may spell the difference between defeat and victory.

As assault troops smashed inland, the Engineer Special Brigades began to organize the beaches to take up their task of feeding men the things they need for battle. Theirs was the job of putting supplies ashore and across open beaches without benefit of port facilities. Now that the fight had been joined, the decision largely rested on the shoulders of these men.

Engineers like Pvts. William J. Shoemaker, of Ebensburg, Pa., and Vinton W. Dove, of Washington, D. C., demonstrat-

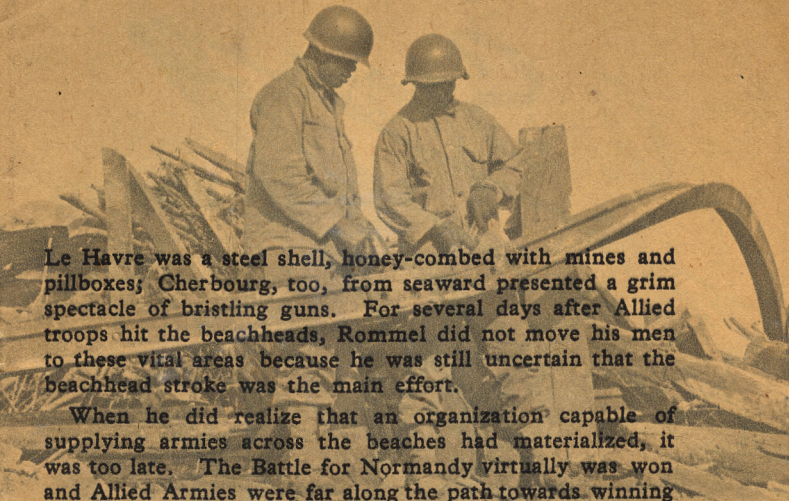
ed that. The bulldozer they alternately ran across the bloody beach was a perfect target for enemy artillery and mortar fire. Men and bulldozer showed no concern as great geysers of earth from bursting shells rained down. There was no protection atop the unarmored 'dozer. Yet, with the battle for the beachhead raging furiously, they calmly pushed aside capsized vehicles jamming exit roads from the beach and, when these roads were cleared, smashed farther in to batter roadblocks, to smother gaping anti-tank traps, to build roads for the Army. The citation for which they were awarded the Distinguished Service Cross put it simply:

"...Their courageous actions permitted vehicles and armor to move out in support of the infantry..."

These two men are not alone in their heroism. They typify the Engineers. There are thousands like them.

That the decision would be favorable was clear by D plus 3. The beaches proved it. All activity of a bustling port was there. Bulldozers chugged to cut new roads for movement of supplies in the wake of advancing armies and to bury enemy fortifications. They did whatever had to be done to ease the movement of men and supplies into the interior. Trucks rolled from the beaches in continuous convoys. In the war of logistics—of supply—the Engineer Special Brigades were making victory in the first battle a reality.

Military logic had assured the German High Command that any force large enough to land in Europe would require ports and port facilities to meet monumental supply problems. Rommel obviously had expected prime blows to hit the Normandy ports and had prepared accordingly.



Le Havre was a steel shell, honey-combed with mines and pillboxes; Cherbourg, too, from seaward presented a grim spectacle of bristling guns. For several days after Allied troops hit the beachheads, Rommel did not move his men to these vital areas because he was still uncertain that the beachhead stroke was the main effort.

When he did realize that an organization capable of supplying armies across the beaches had materialized, it was too late. The Battle for Normandy virtually was won and Allied Armies were far along the path towards winning the Battle for France.

A man-made magic made this possible. It was the same magic which had wrought miracles of American engineering—converted now from the ways of peace to the ways of war.

Three things took the beaches—air power, fire power and GI guts. But behind these was yet another power—American workpower. War is force: the side with greater force can impose its will upon the side with lesser force. American workpower—built up months ago in cities like Detroit, Philadelphia, Birmingham and Los Angeles—is the most overwhelming force in the world today. Engineers now were delivering this force to the continent and hurling it against the massed Nazi lines.



A Spear

BERLIN-BOUND

THE force that landed on the Normandy beaches can be compared to a spearhead. Pushing this spearhead was its shaft, reaching back across the Channel to the United Kingdom, and back still farther to production centers in the U.S.

But before the spearhead finally could be launched at the heart of the Reich, the shaft had to be prepared, the impelling force built up. Thus, the first two years in the European Theater were consumed largely in securing supply lines and converting the United Kingdom into an invasion springboard.

In the dramatic spotlight of combat, to lose sight of the huge and complex organization of a modern Army is easy. Actually, only part of a great Army ever comes to grips with



the enemy. Most of its energy is devoted simply to living and moving. Behind each yard of territory wrested from the enemy, behind each bombing raid over Berlin, are the months of preparation, often forgotten in the more dramatic climaxes of war.

Two years ago, the Engineers began to prepare a fighting base in the U. K. From this base, the air bombardment of Hitler's industrial backbone was launched. From this base, a substantial part of the African invasion was launched. And from this base—when chips really were down—the invasion of Europe was launched.

First action against Western Europe during the two years of invasion preparation was from the air. But airpower is earthbound. It is bound to airdromes for take-off and landing. Requirements for roads, runways, and hardstandings of the U. S. Army Air Forces airdromes in the European Theater of Operations alone are equivalent to construction of a 20-ft. concrete highway from New York to Moscow. And there is more to an airport than just runways and hardstandings—there are hangars, shops, operational quarters, fuel storage, billets.

While a great deal of this construction was done by the British, much still was to be done by Engineer troops. A full year elapsed between the arrival of the first U. S. troops and the first 300-bomber raid. Nineteen months passed before a 1000-plane raid could be staged.

Engineers do all Army construction work except signal installations, also provide all quartering of troops. With huge forces marshalled for invasion and with construction demands of a great army to be met, Engineers built or requisitioned more than 100,000 buildings in the U. K.—from small cottages to sprawling hangars. Construction on this island base by Engineer troops was equal to a lifetime of work for 15,000 men—eight hours a day, six days a week, no time out for training or vacation. Billets, workshops, training areas, storage depots: on these things are invasions built. These are the things Engineers build.

But while the base itself was being created, preparations for the reconstruction that would have to be done in Europe also were underway. Damage on the continent would be unprecedented as a result of Allied artillery and aircraft which would deliver mighty blows against bridges, marshalling yards, communications centers and supply depots. What didn't suffer from bombardment, Nazis would destroy by demolition. Not only did troops have to be trained for all tasks of reconstruction, but materials and supplies had to be on hand to make repairs quickly and efficiently. Heavy railway bridging had to be ordered two years in advance so that it could be fabricated and delivered in time for the invasion.





In the tense days preceding the actual take-off for Normandy, Engineers did all of the construction and much of the final preparation.

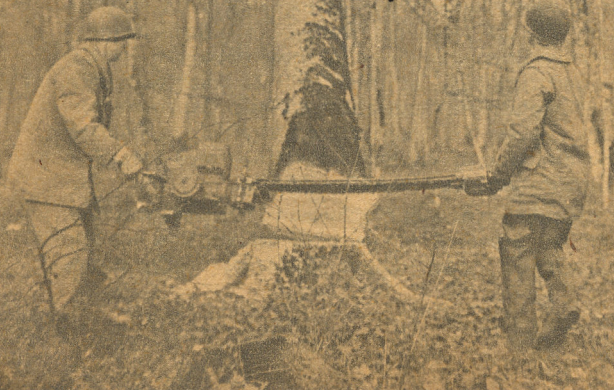
But there were other activities that also preluded the take-off. Many of the tasks confronting infantrymen today are essentially Engineer jobs—breaching obstacles, assaulting fixed fortifications, for instance. To teach doughfeet the uses of explosives, flame-throwers and Bangalore torpedoes, the Assault Training Center was set up in England under the direction of an Engineer officer well versed in enemy fortifications and assault doctrine.

When the time for assault on Normandy beaches was ripe, Engineers had provided a wealth of information to help GIs get their job done. Other Engineers taught troops

essentials of mines, booby traps and camouflage. Well in advance of D-Day, Engineers predicted where the tide would be on the beaches and the height of waves through which assault craft would have to pass. They provided large scale models and detailed maps of what assault troops would find when they hit the beaches, of the location of fortifications and obstacles, of roads vital for rapid movement, of airfield sites and potential water supply points.

All army maps are prepared, printed and distributed by Engineers. Not since Napoleon's day had military maps of northwestern France been revised. Yet in less than two years, Engineer topographers, working with the British, completely remapped France, Germany and the Low Countries. As a result Allied Armies invaded Western Europe with the most complete and accurate maps ever prepared for a military operation.

The quantity of maps consumed by U. S. field armies is no longer measured by pieces, but by tons. Thirty tons are an average daily requirement. Of 6000 tons used during the first 90 days of the operation in France, more than 500 tons were flown by air.



A sepia-toned photograph of a large construction crane, likely a derrick or gantry crane, with its complex metal framework and cables visible. The crane is positioned diagonally across the frame, with its base at the bottom left and its upper structure extending towards the top right. The background is a light, textured surface, possibly a wall or a large sheet of paper.

ENGINEERS

Can Do

ANYTHING

RACING ashore on beaches, American troops pushed westwards towards Cherbourg. This port was a necessary objective because autumn storms in the Channel would prevent continued use of beaches—necessary, too, because invading armies would grow and fan out, making captured port facilities essential in supplying them. Flooded areas, minefields, roadblocks, blown-out bridges which had spanned innumerable streams criss-crossing Normandy, emphasized the Engineer mission of keeping Armies moving.

Pointing the spearhead were Engineers who threw tactical bridging across the Taute, Vire and Douvre Rivers under devastating enemy artillery fire. Bridging was a repetitious job. The enemy knocked out bridges again and again with massed artillery. But as fast as he knocked them out, Engineer soldiers restored them. Engineers kept the Army moving!

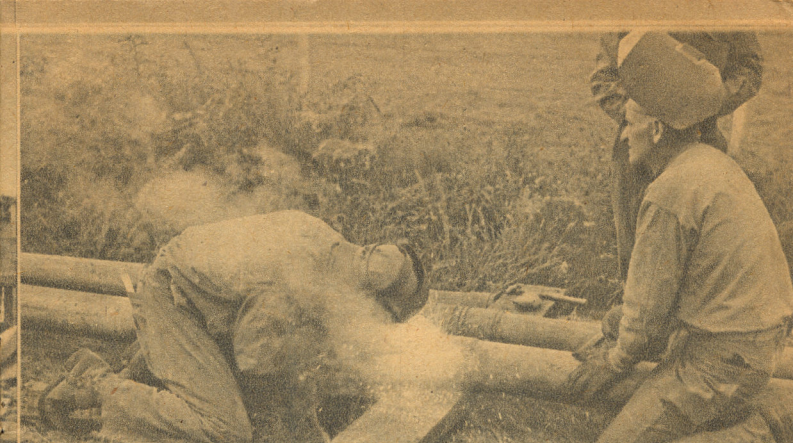
They were keeping the Army moving just as they always had done. It was no new mission, for instance, for Co. A, 1st Engr. of the 1st Inf. Div., when it hit the beach D-Day and kept its division streaming across France at top-speed. It was the same Co. A, when commanded by a young

Engineer Captain named Robert E. Lee in the Mexican War, that was largely responsible for the brilliant capture of Vera Cruz and Mexico City. It was the same Co. A that since its activation in 1846 had had on its staff at one time or another such future Civil War generals and Engineer officers as George B. McClellan, Pierre Beauregard, Joseph Johnston, Henry Halleck. Behind Co. A—as behind the whole Corps of Engineers—is a wealth of tradition. But ahead of it now was an immediate job to do; a job upon which future tradition would be built.

Other Engineers, too, were building future tradition. Men of the 2nd Engr. Combat Bn., 2nd Inf. Div.; of the 121st Engr. Combat Bn., 29th Inf. Div.; of the 315th Engr. Combat Bn., 90th Inf. Div., kept their divisions moving. Men of the 4th Engr. Combat Bn., 4th Inf. Div.; of the 15th Engr. Combat Bn., 9th Inf. Div., too, kept their divisions pushing up the Cotentin Peninsula toward Cherbourg.

They kept highways open, filled in shell craters, blew out enemy pillboxes to keep the Germans from sneaking back at night. They removed mines and booby traps.





When the hedgerow country was reached and bitter fighting began, the Engineer soldier with his bulldozers and demolitions helped breach tough, century-hardened hedgerows to keep the Army moving.

Behind the combat soldier other Engineers kept armies moving, too. They made the shaft of the spear keep pace with the spearhead, made sure no item essential to the fighting man's progress—food, ammunition, gasoline, spare parts—was lacking. With incredible speed Engineers laid pipelines from beaches to the fighting front to assure gasoline for tanks and trucks where it was needed, when it was needed, and at the same time to ease already choking traffic stretching as far as the eye could reach along the only Allied-held east-west highway in Normandy.

Pipe-laying Engineers followed the infantry so closely that they worked under enemy artillery fire. One afternoon, Maj. Gen. Manton S. Eddy, then commanding the 9th Inf. Div. pushing towards Cherbourg, arrived at a forward observation point to find a surveyor setting up his transit



500 yards in front of advance infantry troops. The General sent an aide to warn the Engineer that the area he was in had not yet been taken. The surveyor, Capt. Frederick J. Thompson, Hartford, Conn., of the 359th General Service Regt., answered:

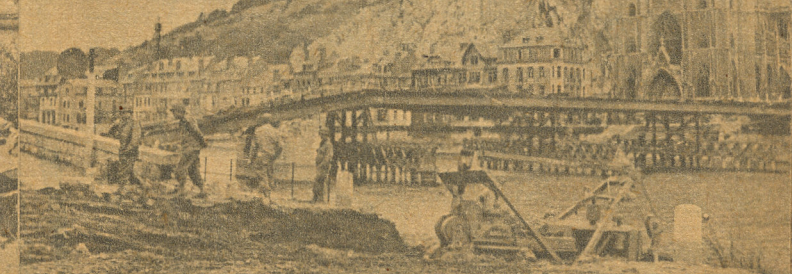
"I know it. But the troops laying the line are right on my tail, and I can't stop for Germans."

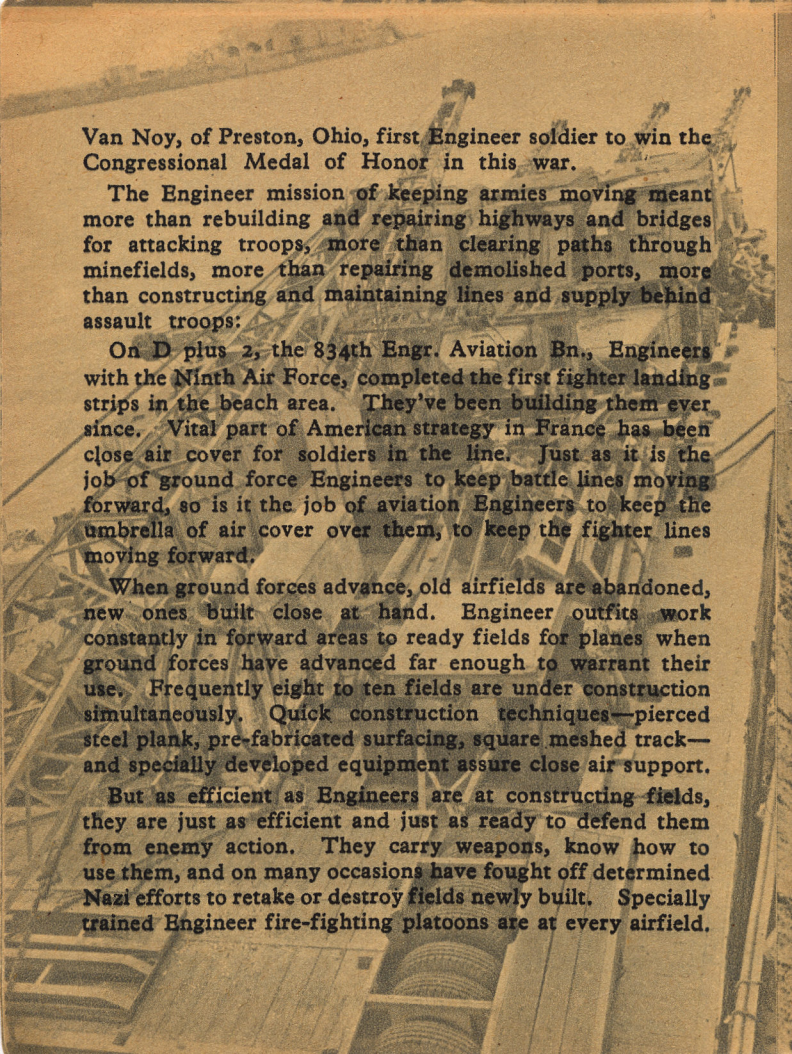
Engineers were piling up an impressive list of "firsts" in reoccupied France. At Isigny, divers of the 1055th Engineer Port Construction and Repair Group were the first to go below the surface in France to open canal locks and relieve the flooded countryside where American troops were fighting. They raised the first sunken ship there at Isigny, a German flak ship blocking a berth needed for unloading supplies. The same group built the first railroad bridge across the Taute River on the debris of the bridge demolished by retreating Nazis. They ran the first railroad train in reoccupied France, from Lison Junction to Isigny, when Lt. Gen. Omar N. Bradley needed locomotives ready for the movement of supplies.

The 1056th Engineer Port Construction and Repair Group, bolstered by the 342nd and 332nd General Service Regts., entered Cherbourg on its capture and set to work bringing order out of chaos. Debris littered the streets and dock areas. Ninety-five percent of all berthage for deep-draught vessels was unusable. Even if all of it had been usable, the port (never a great freight port) would have been inadequate. Engineers still would have to enlarge it beyond its normal peacetime capacity. Other regiments were rushed in: the 347th General Service and the 333rd Special Service. They got the job done.

Five hundred and fourteen pieces of heavy equipment were used in the city. Enough two-by-four lumber to stretch from New York to Wyoming was consumed in vital construction. Six thousand piles, each 75 feet long, were driven. The real story of Cherbourg is that starting with nothing the Engineers had built in an amazingly short time a huge port capable of receiving its highest peacetime cargo.

Into the harbor of Cherbourg steamed the *Junior Van Noy*, Engineer Port Construction and Repair ship, with its workshops, cranes, machine shops, divers' complement. This vessel was brand-new Engineer equipment—but behind it, too, lay tradition. It was named for Pfc Junior





Van Noy, of Preston, Ohio, first Engineer soldier to win the Congressional Medal of Honor in this war.

The Engineer mission of keeping armies moving meant more than rebuilding and repairing highways and bridges for attacking troops, more than clearing paths through minefields, more than repairing demolished ports, more than constructing and maintaining lines and supply behind assault troops:

On D plus 2, the 834th Engr. Aviation Bn., Engineers with the Ninth Air Force, completed the first fighter landing strips in the beach area. They've been building them ever since. Vital part of American strategy in France has been close air cover for soldiers in the line. Just as it is the job of ground force Engineers to keep battle lines moving forward, so is it the job of aviation Engineers to keep the umbrella of air cover over them, to keep the fighter lines moving forward.

When ground forces advance, old airfields are abandoned, new ones built close at hand. Engineer outfits work constantly in forward areas to ready fields for planes when ground forces have advanced far enough to warrant their use. Frequently eight to ten fields are under construction simultaneously. Quick construction techniques—pierced steel plank, pre-fabricated surfacing, square meshed track—and specially developed equipment assure close air support.

But as efficient as Engineers are at constructing fields, they are just as efficient and just as ready to defend them from enemy action. They carry weapons, know how to use them, and on many occasions have fought off determined Nazi efforts to retake or destroy fields newly built. Specially trained Engineer fire-fighting platoons are at every airfield.



PRIME MINISTER AND CHIEF ENGINEER



ENGINEERS DESTROY OR BUILD

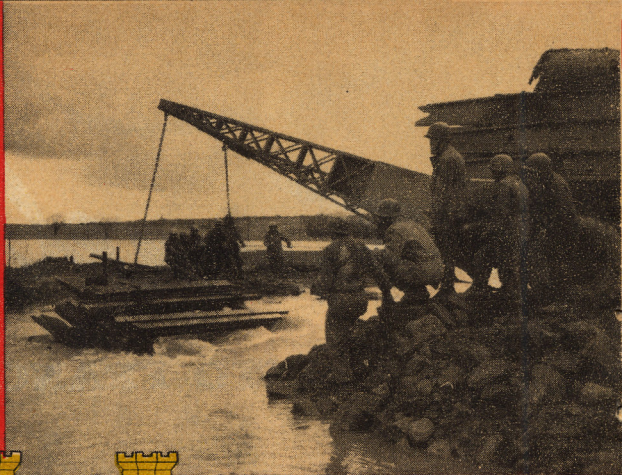




THE CORPS OF ENGINEERS

*KEEPS 'EM
MOVING!*


THE
ENGINEERS
CAN GO
UNDER,
OVER OR
THROUGH
ANYTHING,
OR GET IT
OUT OF
THE WAY



FIGHTING
THE
ENEMY,
SPACE
OR FIRE
—JUST
ANOTHER
JOB FOR
THE
ENGINEERS

A Funnel

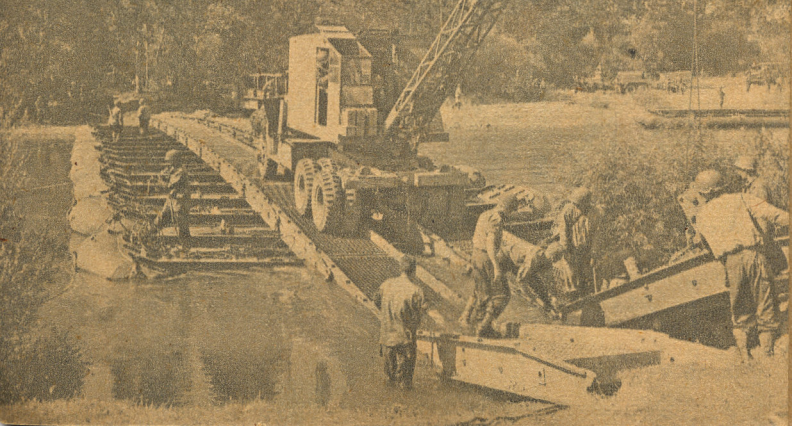
INTO FRANCE

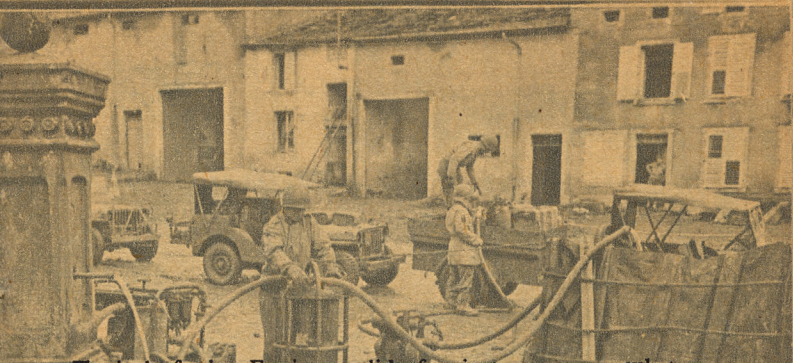


LATE in July, after sufficient reserves had been built up in the beachhead, the drive to break out of Normandy began. Assault infantry smashed at St. Lo and took it after some of the most bitter fighting of the war. Through La Haye du Puits and on the Periers-Lessay sector, infantry advanced slowly following heavy artillery preparation to open what might become the funnel into the continent's interior.

Success of the venture depended largely on whether armor following infantry could slip rapidly through Lessay to exploit the infantry's accomplishments. But both the 4th and 6th Armd. Divs. had first to move down the one highway leading through Lessay, and Lessay was the most mined and booby-trapped town in France. Where the German soldier had failed to stem the surging tide of the Allied assault, mines and booby traps promised to win time for the enemy until it could again mass its forces for advance.

Into this situation moved the 24th Engr. Armd. Bn., 4th Armd. Div., and the 25th Engr. Armd. Combat Bn., 6th Armd. Div., which removed hundreds of land mines, neutralized over 500 booby traps, all in a few hours time. Armored spearheads that might have been delayed for days then, were able now to roll in only a few hours. As the 4th and 6th Armd. Divs. turned westward, slicing the Breton Peninsula and enclosing German garrisons in escape-proof rings of steel, Gen. Patton was sending other Third Army armored units eastward. They reached the Siegfried Line.





Typical of what Engineers did, for instance, was what the 304th Engr. Combat Bn. of the 79th Inf. Div. accomplished. Two companies working in dark and driving rain moved infantry across the Seine northeast of Mantes-Gassicourt in assault boats and rafts. Following day the entire battalion worked under enemy artillery and aerial attack to ferry division vehicles across until Corps Engineers could install a treadway bridge.

Characteristic was the fighting at Fortress Montabarray, before Brest. For three days, this fortress, manned by fanatical paratroops, had held up the advance of the 29th Inf. Div. Whenever doughs gained a foothold, Nazis rallied to drive them off. The job was turned over to the 121st Engineers.

Capt. Sydney W. Smith, Co. B CO, led his men under cover of flame-throwing tanks to the fort's outer wall. A gaping hole was blasted in the wall by two tons of explosive. The 121st used scaling ladders to gain the top, passed ladders along and descended to the courtyard where the paratroops surrendered after a bitter hand-to-hand fight.

The unit was cited for its action. Capt. Smith received the Silver Star.



First and Third Armies now raced across France, far ahead of any pre-conceived timetable. The Seventh Army, having landed in southern France, pushed northward as Engineers repaired and put the port of Marseilles in operation behind them. Ahead of them, Engineers threw fixed and floating Bailey Bridges across streams for infantry and artillery, heavy steel treadway bridges for armored columns. But it was not the enemy force ahead of them which concerned Army commanders so much now. Supply lines had to be built at a swift, unbelievable pace.

But if armies were tied to supply lines, Army Engineers were determined to make the lines fluid and mobile as anything Army commanders could conceive. Ties would not bind if American manpower and workpower could not make miracles. But they could.

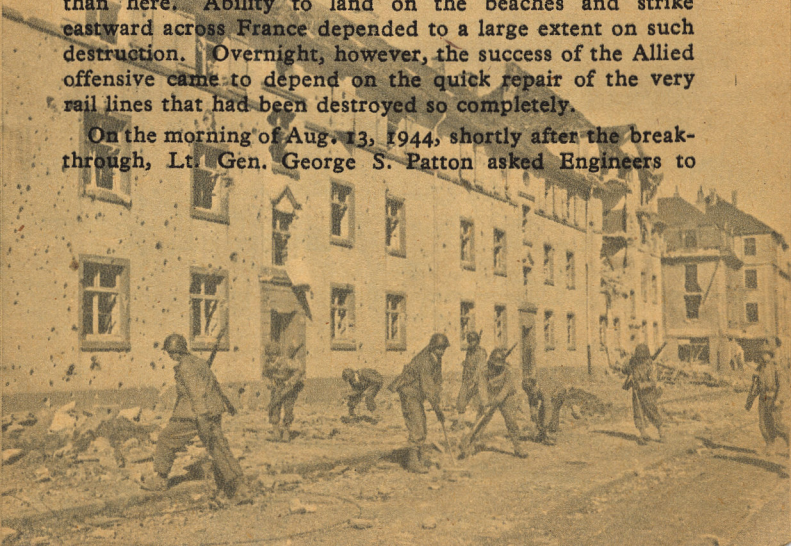
A network of one-way highways—the famed Red Ball Highways—was designated by the Transportation Corps as a prime source of supply for speeding armies. Heavily laden trucks would roll eastward along designated one-way

traffic roads, empty trucks would run back west along others. Across France, Engineers rolled up their sleeves and went to work, bridging, repairing highways, setting up depots and workshops and all the essential services for such a road system.

But no modern major military operation could be supplied without railways. Ahead of advancing armies the Air Force had pounded the continent's rail system to destroy this vital link in the Nazi supply system. Railway bridges were knocked out, marshalling yards bomb-plastered and made useless, long stretches of track laid waste. Even before D-Day, the Germans had given up as hopeless repair of much of the rail system.

Nowhere was the irony of modern war more apparent than here. Ability to land on the beaches and strike eastward across France depended to a large extent on such destruction. Overnight, however, the success of the Allied offensive came to depend on the quick repair of the very rail lines that had been destroyed so completely.

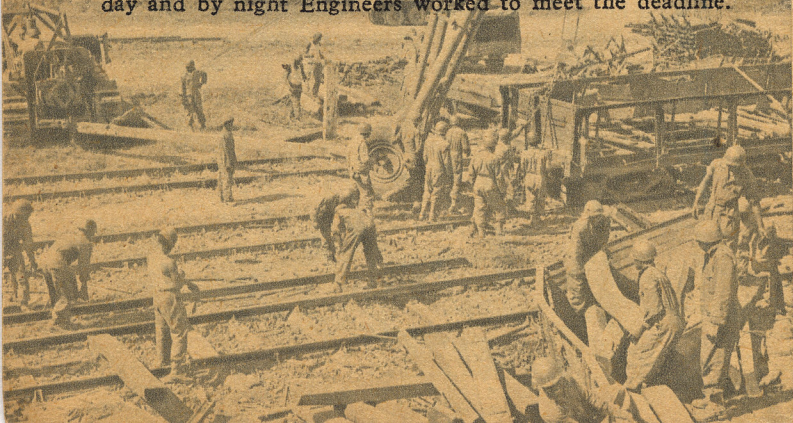
On the morning of Aug. 13, 1944, shortly after the breakthrough, Lt. Gen. George S. Patton asked Engineers to

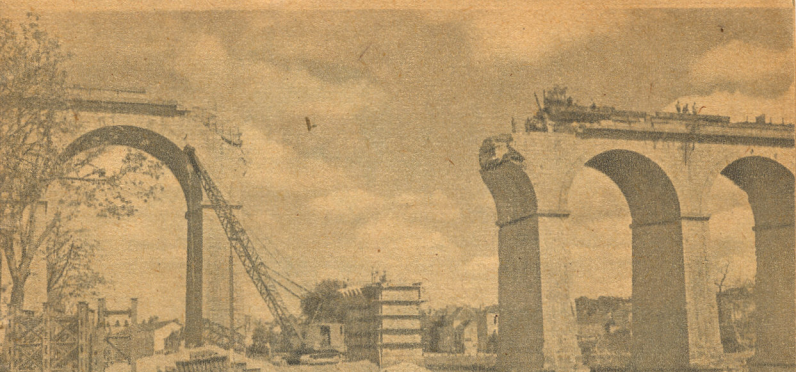


have the railroad, leading into Le Mans and Laval from St. Lo, ready to receive ammunition trains in 48 hours. Time allotted was notably short. It meant rebuilding seven railway bridges in various stages of demolition, repairing and laying new main lines in three marshalling yards, laying miles of track approaching bridges and yards, providing service and water facilities along the lines.

Two Engineer regiments, the 347th and 332nd with attached dump truck companies, were working on the stretch of road at the time. But if Gen. Patton wanted ammunition trains at Laval and Le Mans within 48 hours, Engineers were determined that no lack of railway line would prevent their being there.

Three additional regiments, the 392nd, 390th and 95th, were rushed to the area. All the heavy equipment that could possibly be spared from other equally pressing jobs was rushed to the bridge and yard sites. By day and by night highways from Cherbourg and the beaches were jammed with trucks dispatched for essential materials. By day and by night Engineers worked to meet the deadline.





As that deadline approached, trains, one after another, loaded with ammunition and gasoline, inched up the track past Coutances into Avranches. By midnight, Aug. 15, they passed St. Hilaire du Harcourt, across the last completed bridge, on to Laval and Le Mans and to Gen. Patton's fighting men—on time.

The spearheads—armored columns, followed closely by motorized infantry combat teams—now were moving faster than any armies had ever moved. Over them, like mother eagles, were Air Force fighter planes flying from fields Engineers had built close by.

Columns moved along highways repaired by Engineers, across bridges hastily constructed. In the south, Engineers who had bridged Italy's bitterly-defended Volturno now were bridging the Moselle and Meurthe to supply armies. Engineers who had wrestled with flood-control and navigation on U. S. inland waters as peacetime Engineer problems, now battled to repair the Albert Canal, the Oise Canal, the Seine River so that they, too, could carry materials of war to fighting men. All the way back to Cherbourg, Marseilles, Toulon and the beaches stretched the shaft to which the spearhead was attached.



THE ENGINEERS ARE

Tough

WHAT was the shaft of this spearhead? At Isigny, Grandcamp, Cherbourg, Brest, St. Malo, Roscoff, Morlaix, Marseilles, cargo vessels laden to the gunwales with supplies of war were moored to docks which, a few short months before, were only piles of rubble. Divers, pile-drivers, shovel and 'dozer operators, steel men, tophand construction men got the job done. These were Army Engineers. For modern construction, electricity, water supply and other utilities are essential. Expert utilities companies trained to put them to use were on the ground. These were Army Engineers.

Army Engineers kept equipment running—repairing, rebuilding, maintaining as it wore away under constant heavy duty. They set up huge supply depots of materials and tools necessary to get the job done. They camouflaged

installations, vehicles and bivouac areas from enemy in the air and from enemy in artillery observation posts.

Freight cars line docks, locomotives chug away from unloading areas with long trains of materials. Army Engineers built or repaired this track. Engineers rebuilt, repaired, maintained highways for the winding convoys of trucks rolling to the front.

Along supply lines from ports to the German border the same sort of work was in progress. Depots, shops, utilities, railways, bridges—all of the construction that a vast and complex Army requires—was being done by men who knew their jobs, by men who worked as a team, by men who were part of an even greater team.

One team in Cherbourg generated gas so welders could work. Another team in Germany chopped trees, milled them into timber. Another team stormed pillboxes in the Siegfried Line, skillfully extracting the Dragon's Teeth with which Hitler had hoped to chew up the Allied armored advance. Engineers frequently fought as infantry.

Capture of Metz by Third Army in November, 1944, is one of the war's outstanding accomplishments. Here, Engineers wrote another proud chapter.

The offensive got underway Nov. 7, when the Moselle had reach the crest of a major flood. For days, Engineers fought swift flood waters and enemy fire to bridge the swollen stream at Malling, Cattenam and Ukange.

With mule-like obstinacy, Engineers threw bridge after bridge across the river, enabling XX Corps infantry and armor to cross and join XII Corps for complete encirclement of the city.

In this undertaking, every type of Engineer unit with Third Army—combat battalions, Treadway Bridge Com-

panies, Heavy Ponton Battalions, and General Service Regiments—contributed to one of the most difficult tasks every undertaken by an American Army.

American Army tradition is *ATTACK!* Primary mission of Engineers is to keep Armies moving to attack. But when the enemy counter-attacks—or as one divisional commander puts it, becomes over-ambitious—Engineers have a secondary mission: to impede the enemy's movements.

In December, 1944, when the German counter-thrust hit Luxembourg and Belgium, Engineers in the threatened areas set up barrier zones of minefields, road blocks, and demolitions, then picked up weapons to help defend them.

Typical of their activities during this period was the performance of the 159th Engr. Combat Bn. In the path of the vicious Nazi thrust, they waited until they could see the whites of the enemy's eyes. Then, opening fire,





they stopped the Germans dead in their tracks — literally dropped them in the same formation in which they had attacked, a V, but not for German Victory.

As rampaging Panzers met successive barriers their drive was slowed, stopped, finally turned from a triumphant moment to a costly debacle.

Engineers batted von Rundstedt groggy. Should some German military apologist write the story of the Battle of the Bulge, he can blame the Wehrmacht's failure on U. S. Army Engineers.

East of Bastogne, the 158th Engr. Combat Bn. dug in the night of Dec. 17 as the German juggernaut came crashing forward. It met the attack head-on and for two days, by skillfull shifting of forces, hurled back every enemy attack, thereby allowing the 101st Airborne to move in for its famous defensive stand.

Typical of the 158th's heroes was Pvt. Bernard Michin, Providence, R. I. From his foxhole, Michin watched an enemy tank advance cautiously through the night, withheld his bazooka fire until the tank was only 10 yards away. Realizing the blast might wipe him out along with the target, he let go, completely destroying the tank and its crew.

Blinded and burned by the explosion, Michin crawled back to a covered position from his shallow foxhole, now raked by enemy fire. Infiltrating Germans were machine gunning his fellow Engineers. Still blinded, he located the machine gun by sound and, as the citation awarding him the Distinguished Service Cross reads, "with complete disregard for his own safety, he hurled a hand grenade which silenced the gun and killed the entire crew..."

Throughout the First Army area, as General Hodges' men fought to stave off the massive German blow, Engineers dropped shovels, grabbed rifles. With the enemy only a few miles east of Malmedy, the 291st Engr. Combat Bn., together with a few infantrymen, dug in for the defense of this vital road center.



They constructed and manned road blocks, evacuated civilians and wounded and held out against savage enemy attacks from Dec. 17 to Dec. 26. Battered by its own and enemy artillery and aerial bombardment, the 291st slugged it out 24 hours a day. Fighting fires and digging for wounded was a sideline.

Simultaneously, elements of the battalion set up and defended road blocks south of Stavelot and Trois-Ponts where the destruction of the lead vehicle in a German armored column southeast of Werbomont marked the halt of the German prong in this direction.

When Engineers at Malmedy finally were relieved by the 30th Inf. Div., Maj. Gen. L. S. Hobbs, Div. CG, promptly wrote a letter of commendation which won a unit citation for the 291st.

Gen. Hobbs wrote that not only did the Engineers hold out against continual enemy assault, but they "strengthened their position locally and in depth every day during their occupancy."

This was not the only Engineer unit to be cited during



the desperate action. The 51st Engr. Combat Bn., ordered to prevent Germans from crossing the Ambleve and Salin Rivers, held Trois-Ponts against artillery-supported enemy attacks for three days until the 82nd Div. arrived.

At Hotten, the 51st held the bridge against overwhelming German odds, using every available weapon to fight Nazi armor to a standstill. One private manned a 37mm gun while his CO passed the ammunition. In the face of such resistance, Germans moved away before it became necessary to blow the bridge.

All up and down the line it was the same. The 36th Engineers who had fought and built their way across Africa, Sicily, Italy, Southern France and who had taken their toll of the enemy at Anzio and along the bloody banks of the Volturno, celebrated New Year's Day, 1945, by taking up guns again to relieve an infantry regiment.

Earlier, as Seventh Army pushed north, two typical Engineer GIs, Sgt. Charles M. Schwartz, of Philadelphia, Pa., and Sgt. Charles B. Dombroskie, of Verbank, N. Y., completely confused an enemy company. When assigned to scout strongpoints behind German lines, they accomplished their mission by night. By day they harassed Nazis with hand grenades thrown from various positions reached by running at top speed. The enemy feared a counter-attack, assuming these two Engineers to be a large force.



ONE MORE

River

TO SPAN

TRADITION has the Engineers as bridge builders. In 1864, the Engineer Battalion of the Army of the Potomac threw a ponton bridge across the James River in seven hours. Although the river at this point was 2100 feet wide, the entire Army with its artillery and trains crossed without accident or delay in 48 hours. In World War I, General Pershing spoke of Engineer accomplishments:

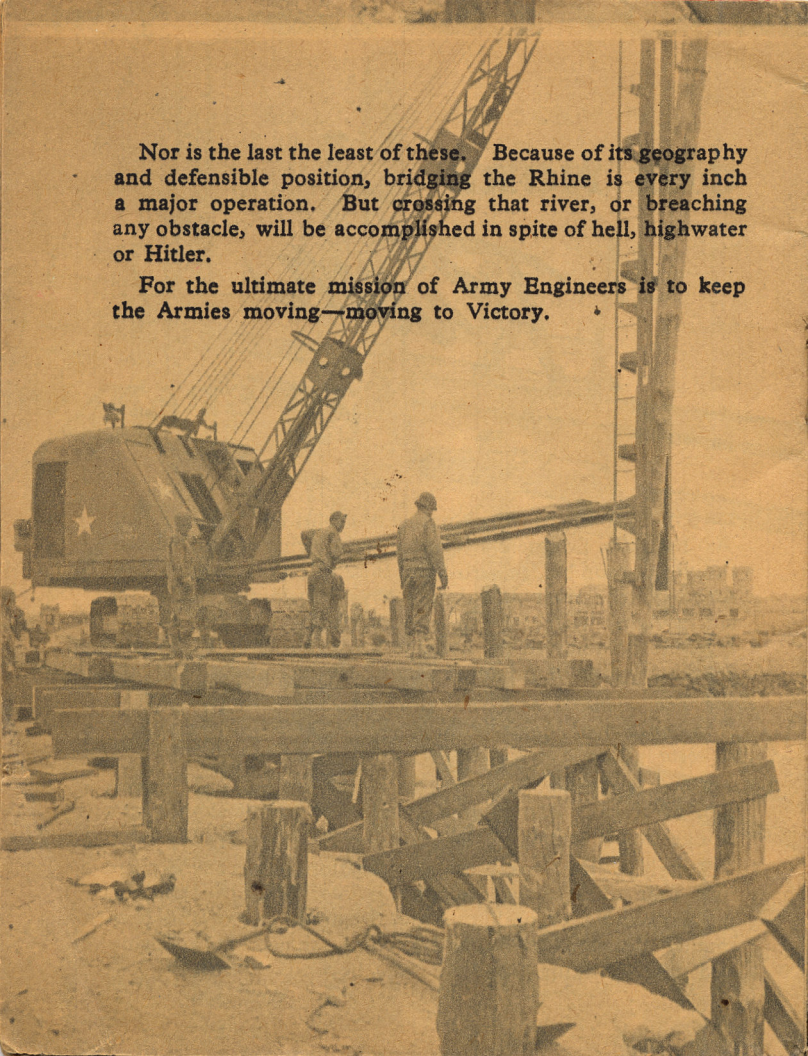
"The scientists said that it couldn't be done, but the damned fool Engineer didn't know that—so he just went ahead and did it!"

So, it is perhaps fitting that one of the last and biggest jobs of keeping Armies moving towards Berlin should be a bridge-building job.

Roughly, the continental operation can be divided into four phases, four turning points: first, the landings in Normandy; second, the breakthrough out of the Normandy beachhead; third, breaching the Siegfried Line, and now, bridging the Rhine and beyond.

Nor is the last the least of these. Because of its geography and defensible position, bridging the Rhine is every inch a major operation. But crossing that river, or breaching any obstacle, will be accomplished in spite of hell, highwater or Hitler.

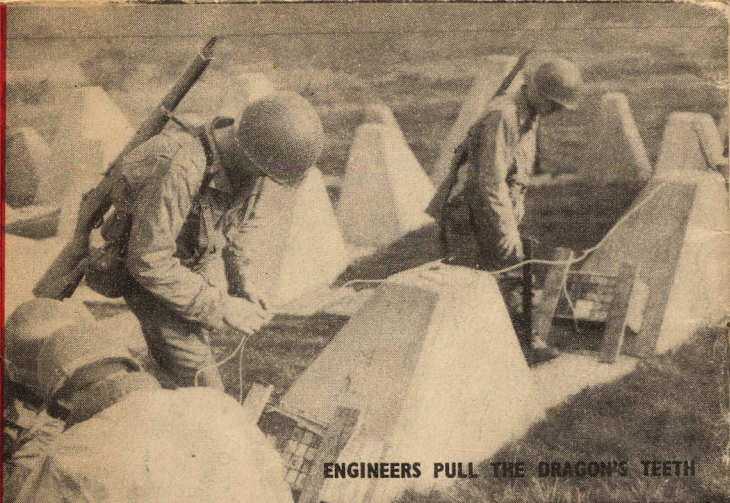
For the ultimate mission of Army Engineers is to keep the Armies moving—moving to Victory.



The Team —

ALL MY LOVE TO MY DEAREST,
Johnny

AUTOGRAPHS



ENGINEERS PULL THE DRAGON'S TEETH



ENGINEERS DESTROY OR BUILD

