

Graphics from
Field Manual 17-45:
Armored force field manual,
Armored engineer battalion,
November 13, 1942

Between May, 1942 and December, 1943 during World War II, [Felix A. Cizewski](#) trained at the Signal Corps Training Center at Camp Crowder, Neosho, Missouri where he may have been issued this manual.

About sixty-two of the 90 pages in this manual are graphics. Could this have been among the methods to quickly train obviously intelligent draftees like my father who had not finished high school but had basic literacy skills?

Was this among the military items illustrated by Disney? Credit to the artists are not included.

After training Felix was assigned to Company C, 3110th Signal Service Battalion, Army Service Forces, where he served in southern England preparing for the June 6, 1944 landings, and in the Normandy and Northern France Campaigns until in December, 1944, he suffered frostbite.

After recovering he was reassigned to the 45th Signal Company, 45th Infantry Division where he served in the Rhineland and Central Europe Campaigns including the liberation of Dachau.

After his death in 2004, this was found in his collection of artifacts from his service.

This edition was prepared by his son, Leonard H. Cizewski, and shared to preserve and honor his service and memory.

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October 20, 2009

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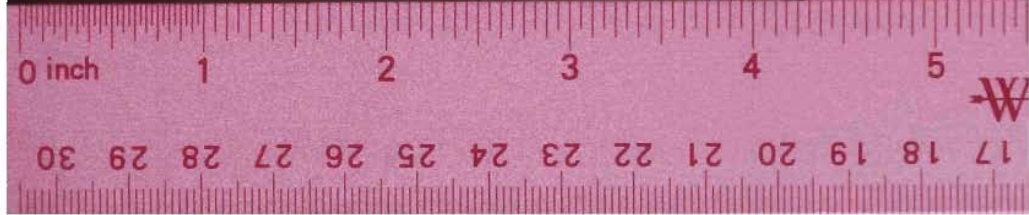
FM 17-45

WAR DEPARTMENT

ARMORED FORCE FIELD
MANUAL

ARMORED ENGINEER BATTALION

November 13, 1942



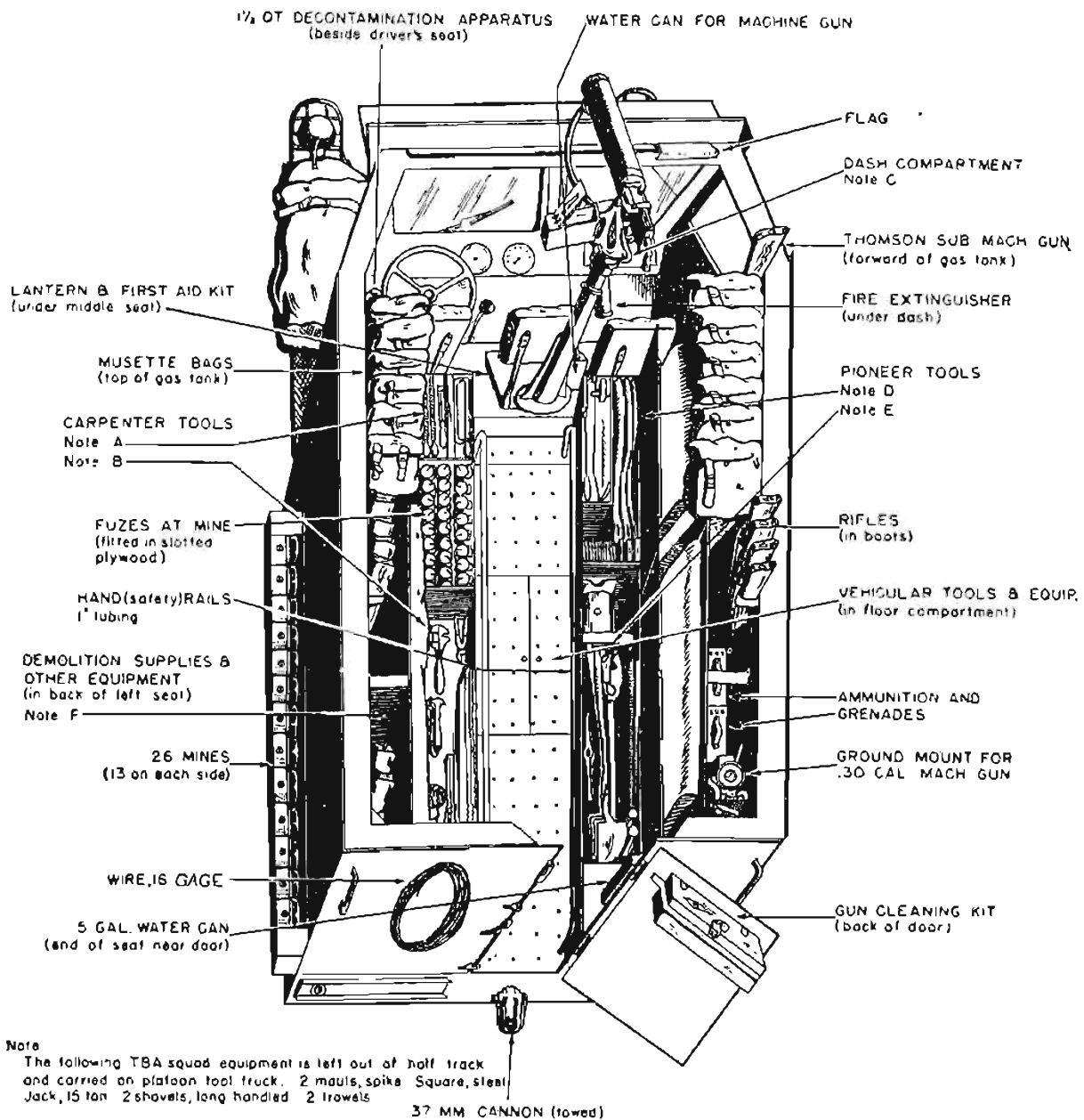


FIGURE 2.—Loading chart of personnel carrier, half-track M3, for engineer squad.

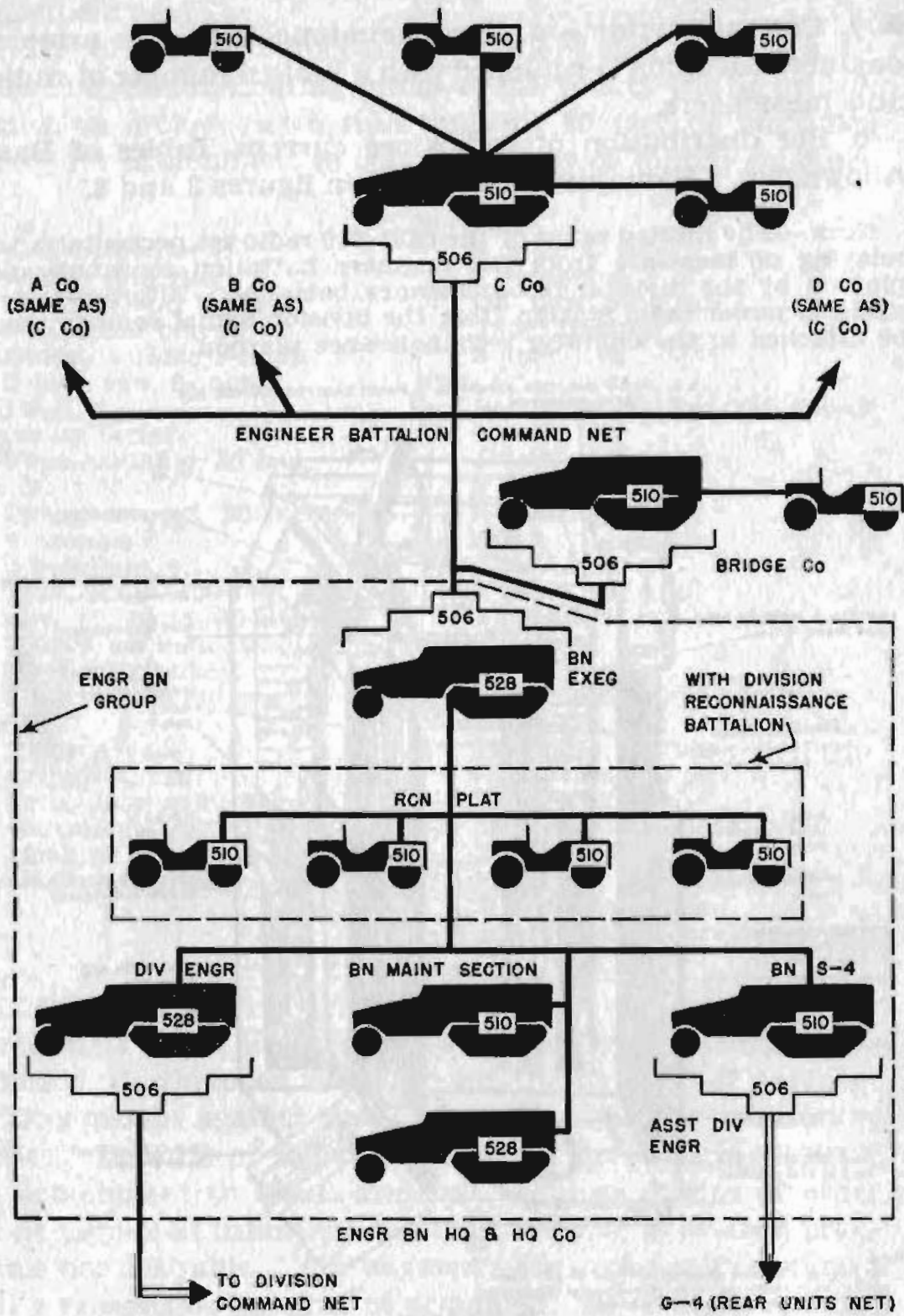


FIGURE 3.—Channels of radio communication.

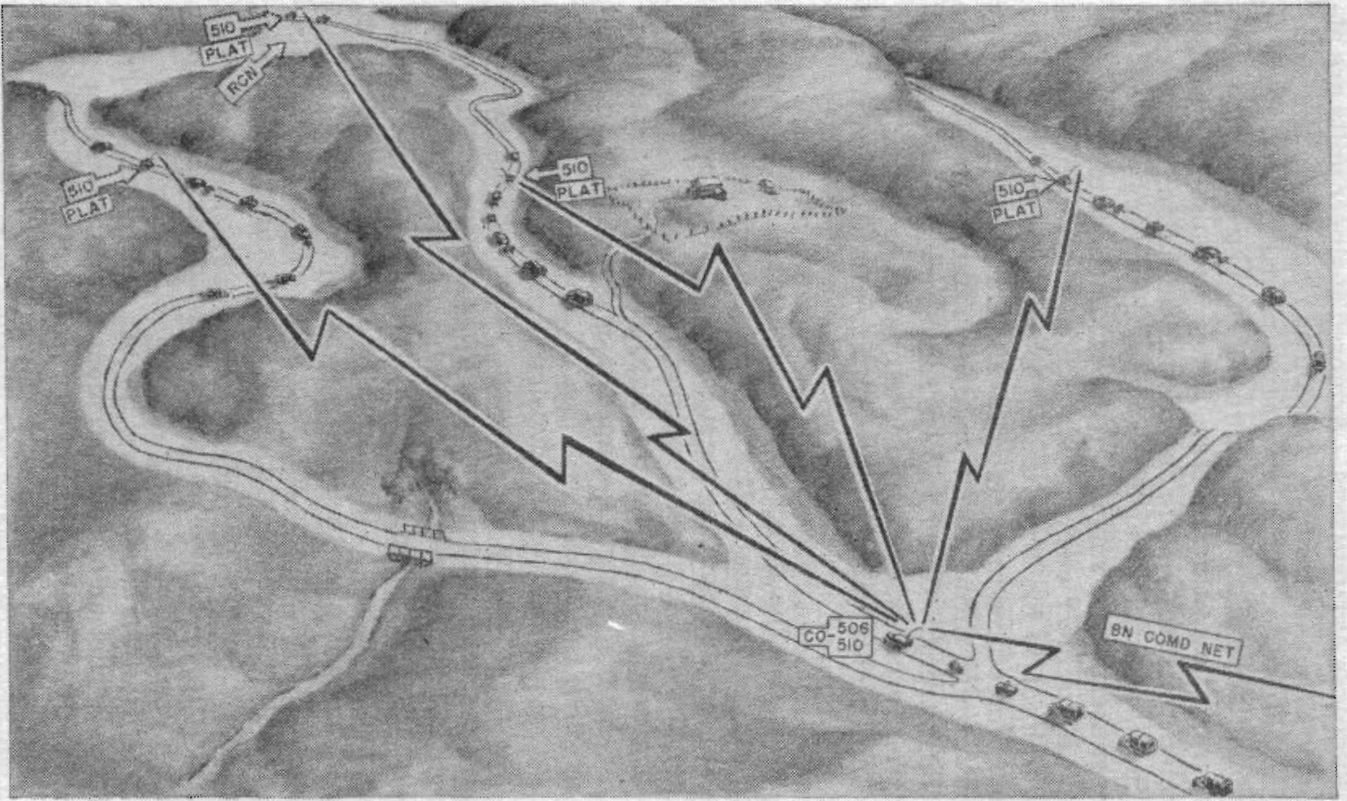
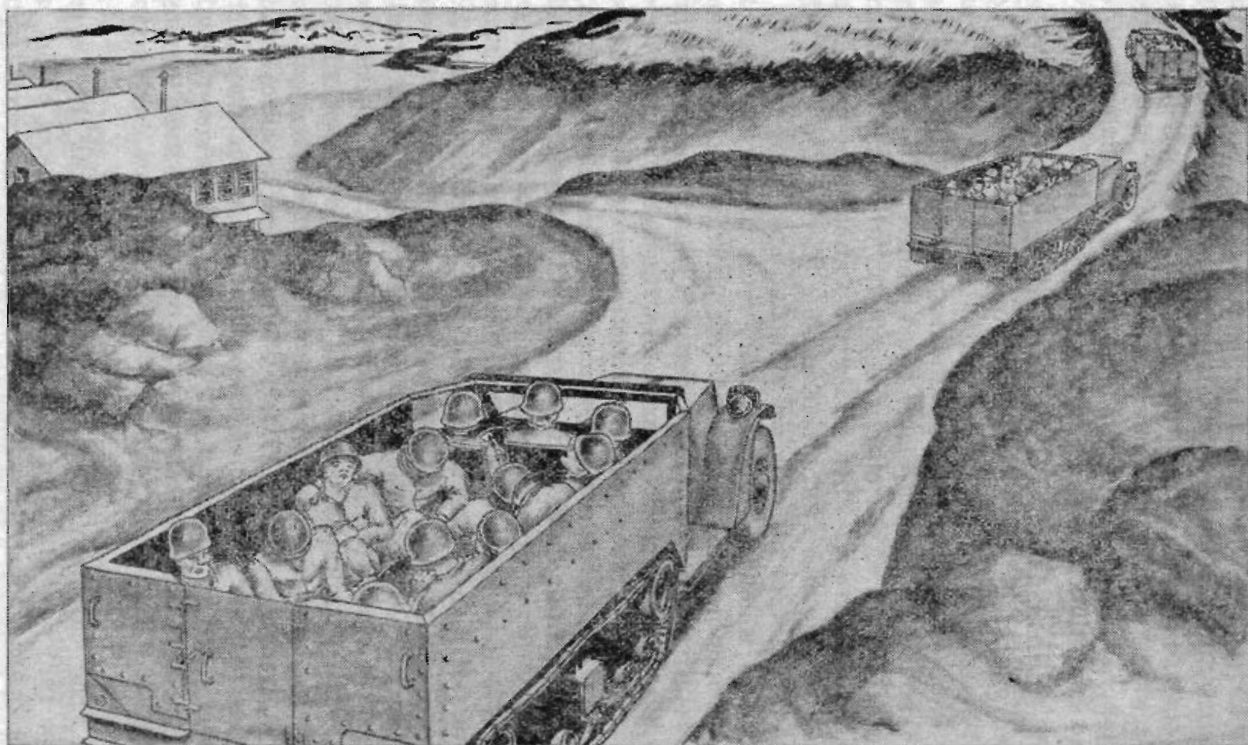
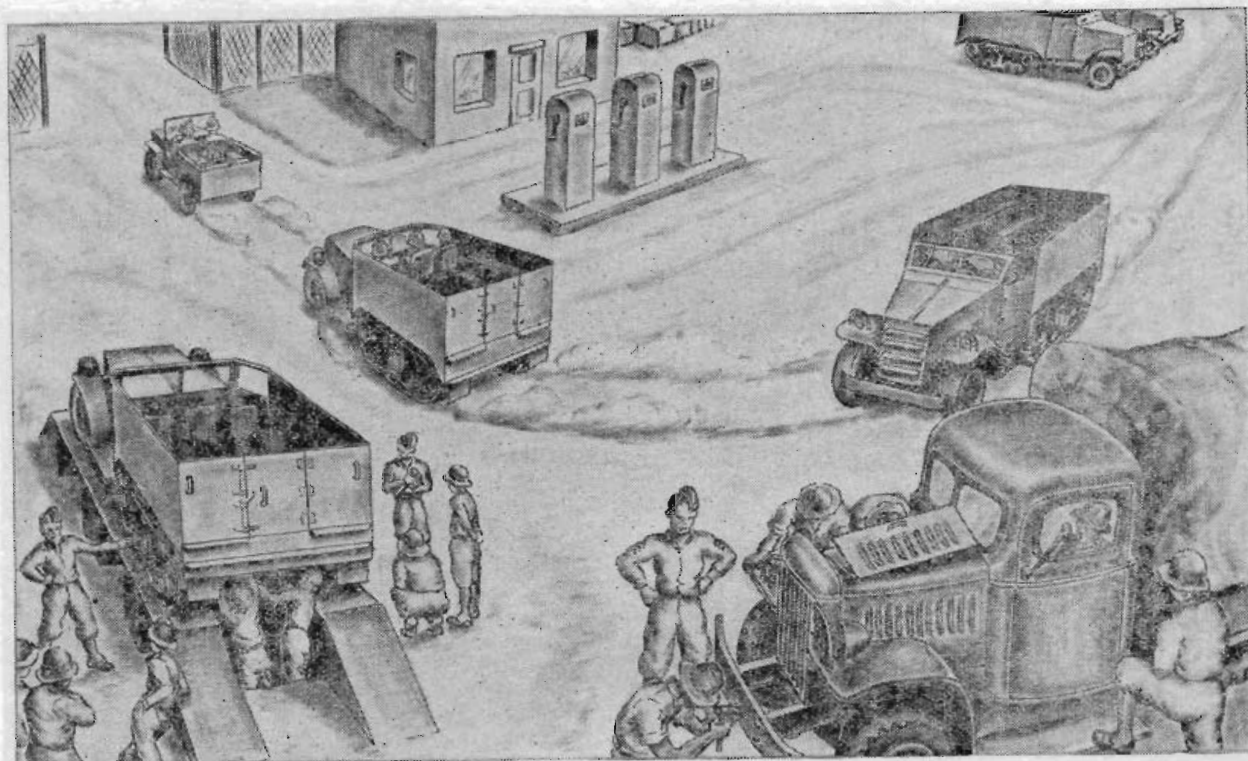


FIGURE 4.—Engineer company radio net.



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FIGURE 5.—Do not let the rest of the squad sleep while drivers are being trained.



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FIGURE 6.—Organize instruction so that all personnel participate.

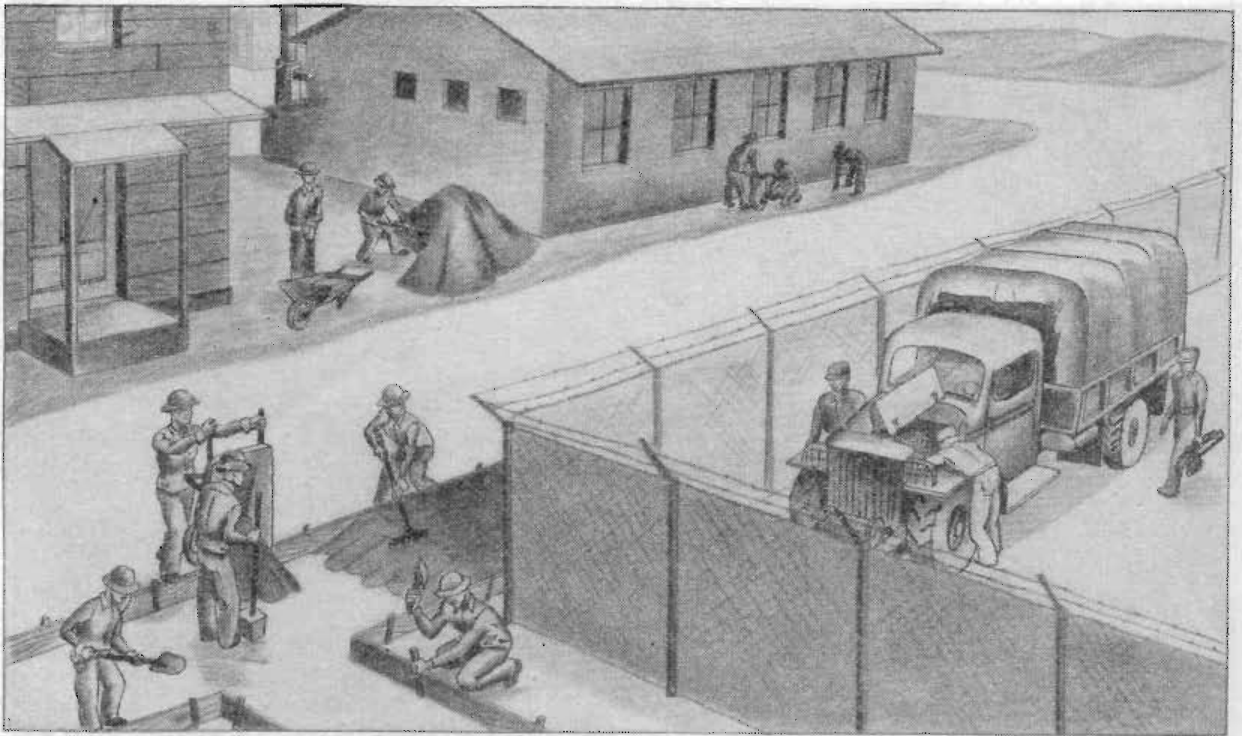


FIGURE 7.—Do not depend upon garrison duties to keep men in condition.

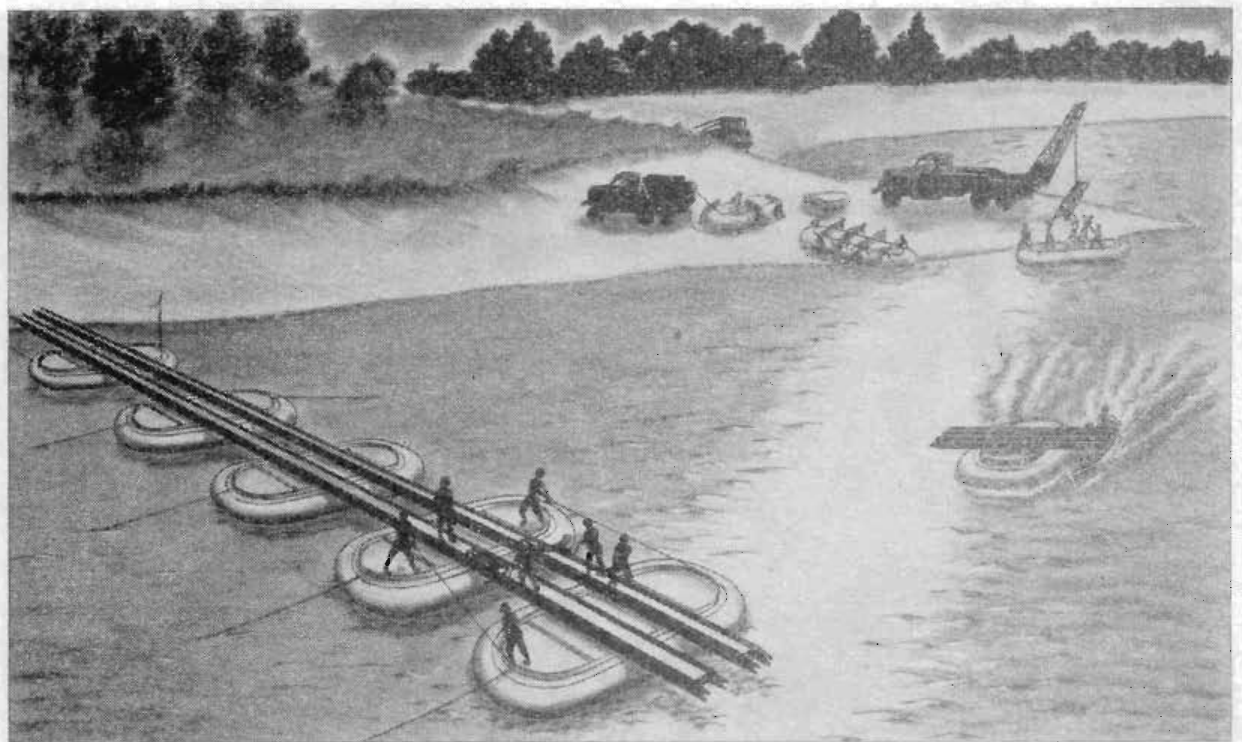


FIGURE 8.—Engineer training should be conducted under field conditions.



FIGURE 9.—Do not attempt to train *all* engineers to handle engineer *specialists'* work.

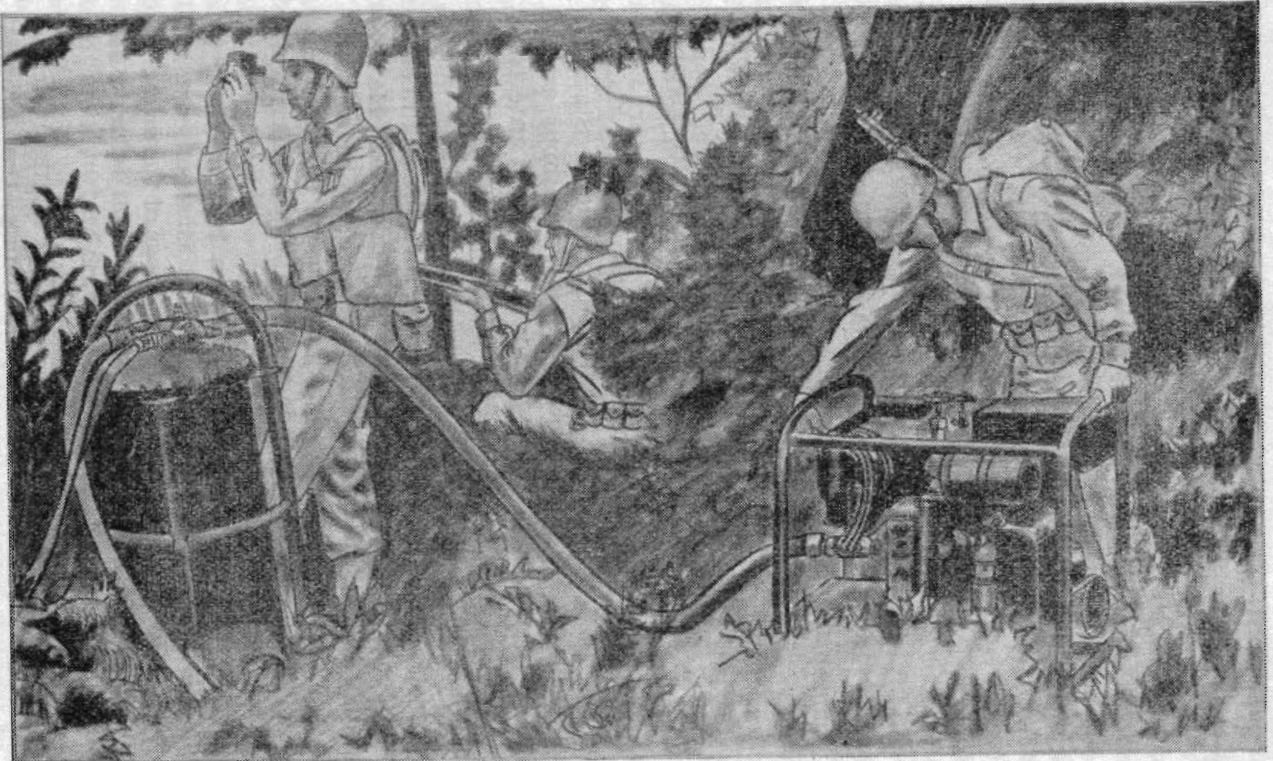


FIGURE 10.—Train *specialists* to handle special engineer work.

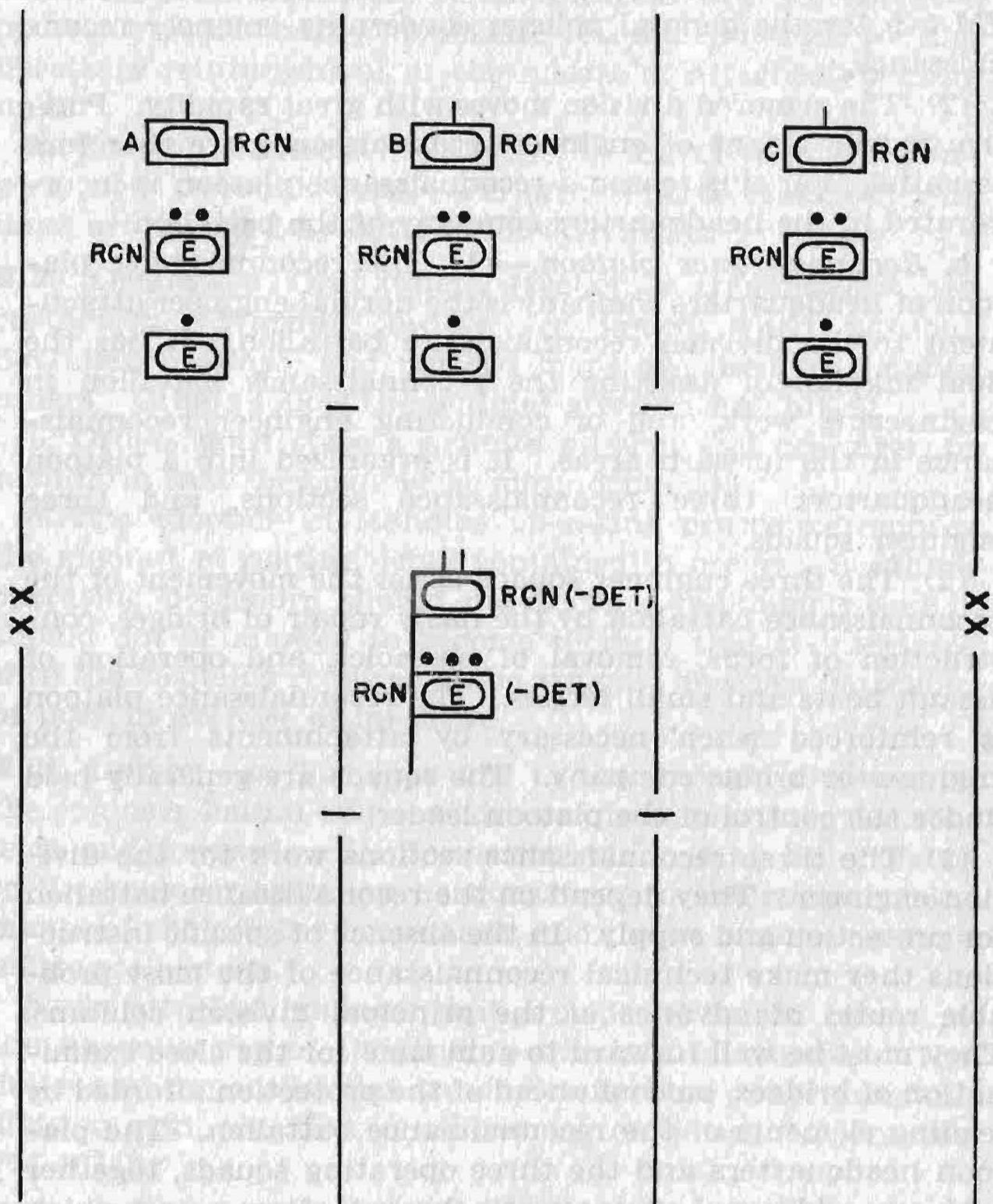


FIGURE 11.—Normal disposition of reconnaissance platoon when attached to the armored reconnaissance battalion.

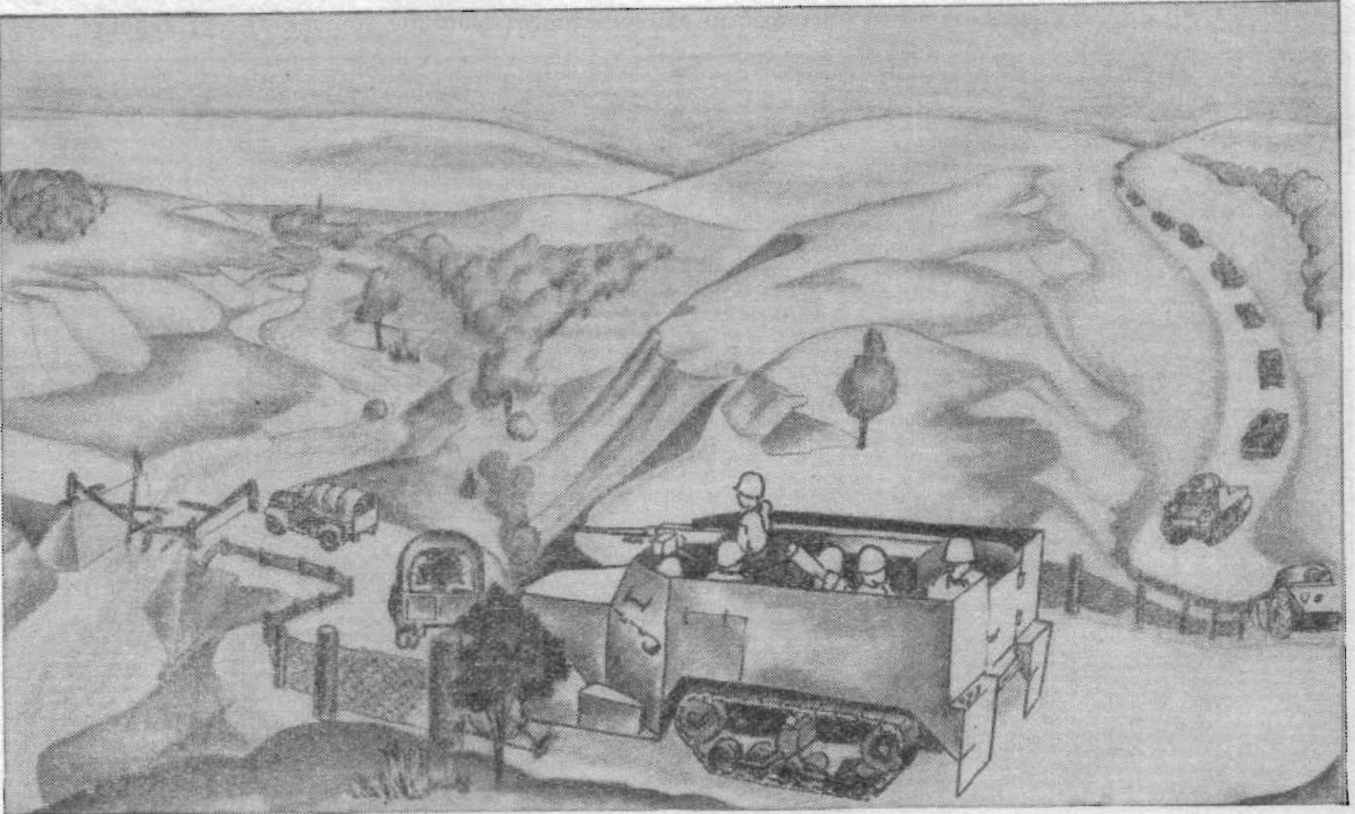


FIGURE 12.—Do not delay in reporting engineer reconnaissance information.

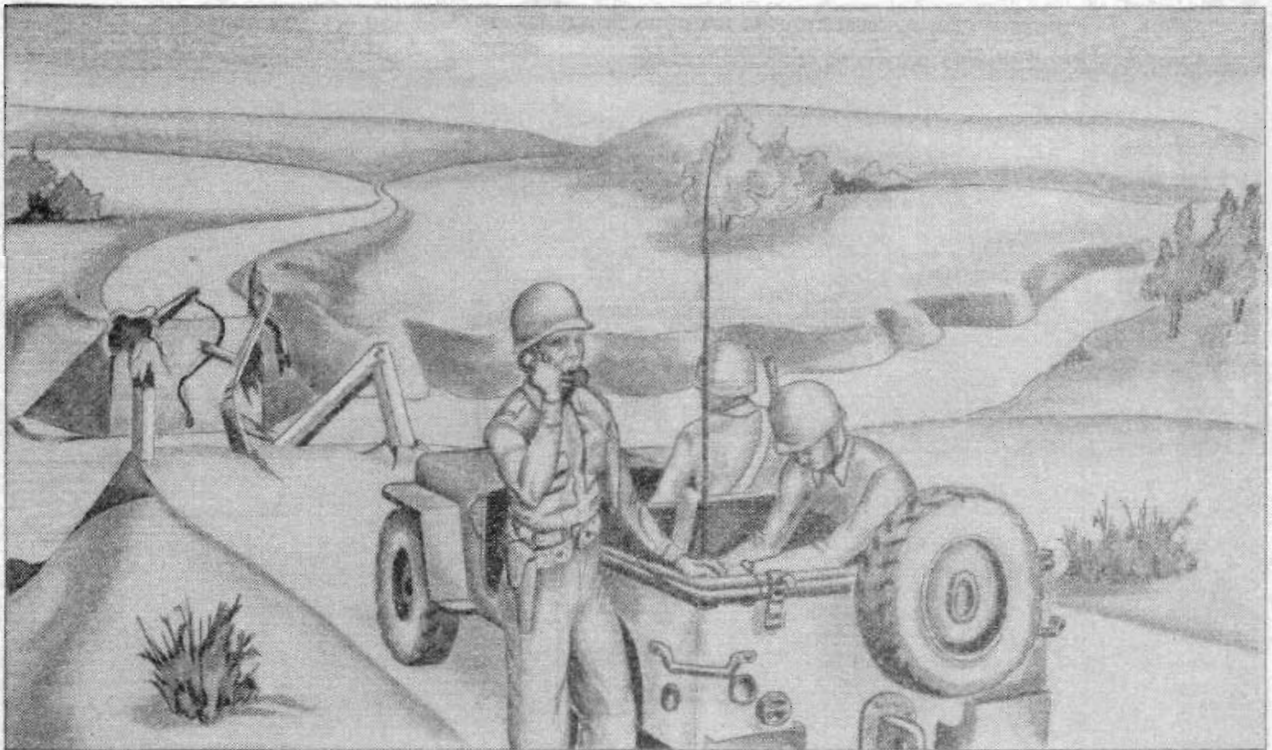


FIGURE 13.—Important engineer reconnaissance information must be reported immediately.

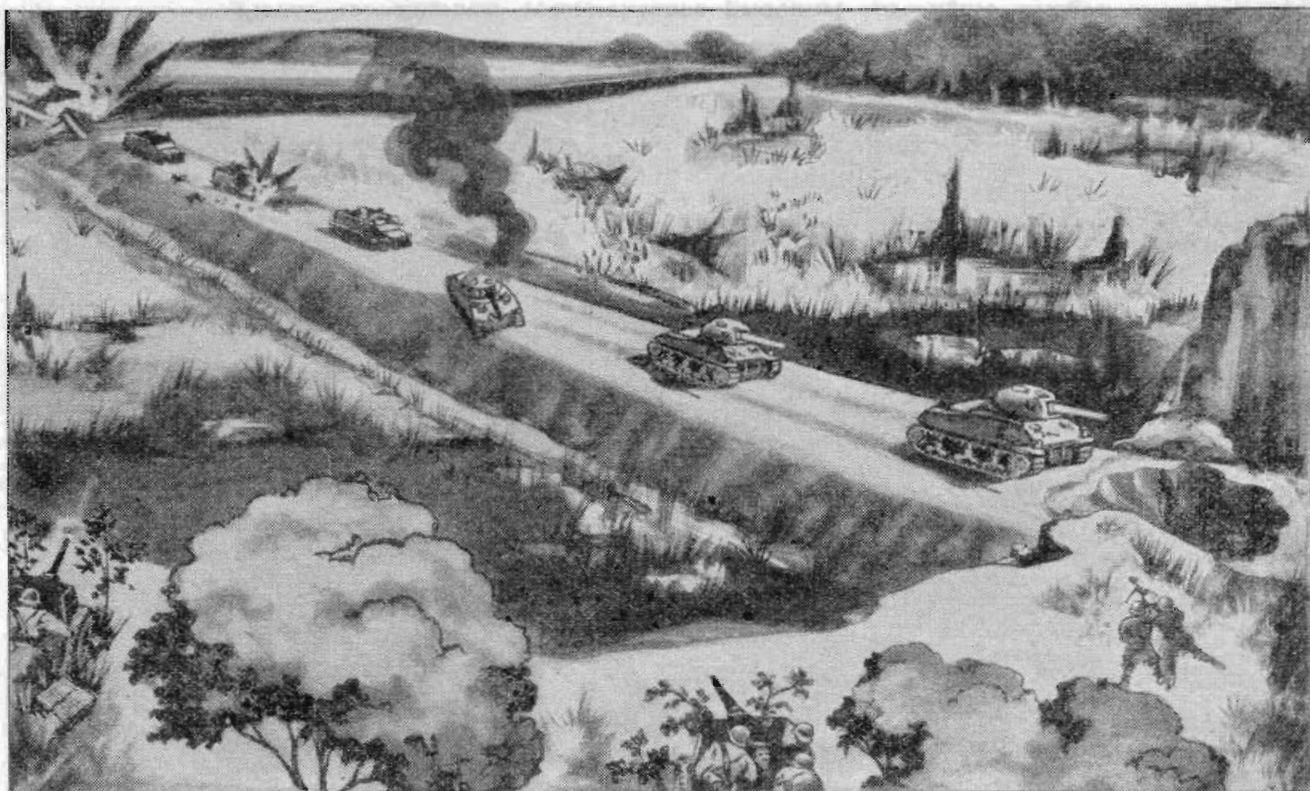


FIGURE 14.—Do not permit friendly troops to be held up by inadequate engineer reconnaissance.

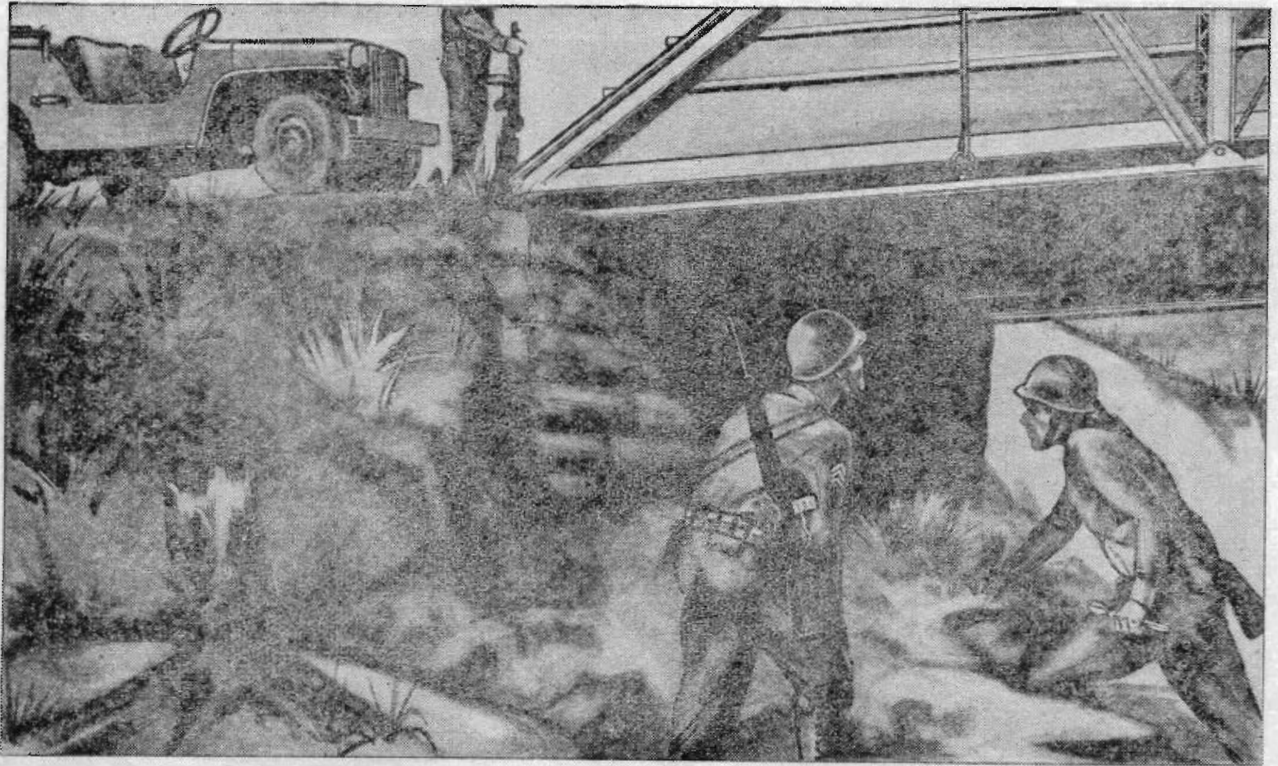


FIGURE 15.—Engineer reconnaissance personnel investigate bridges.

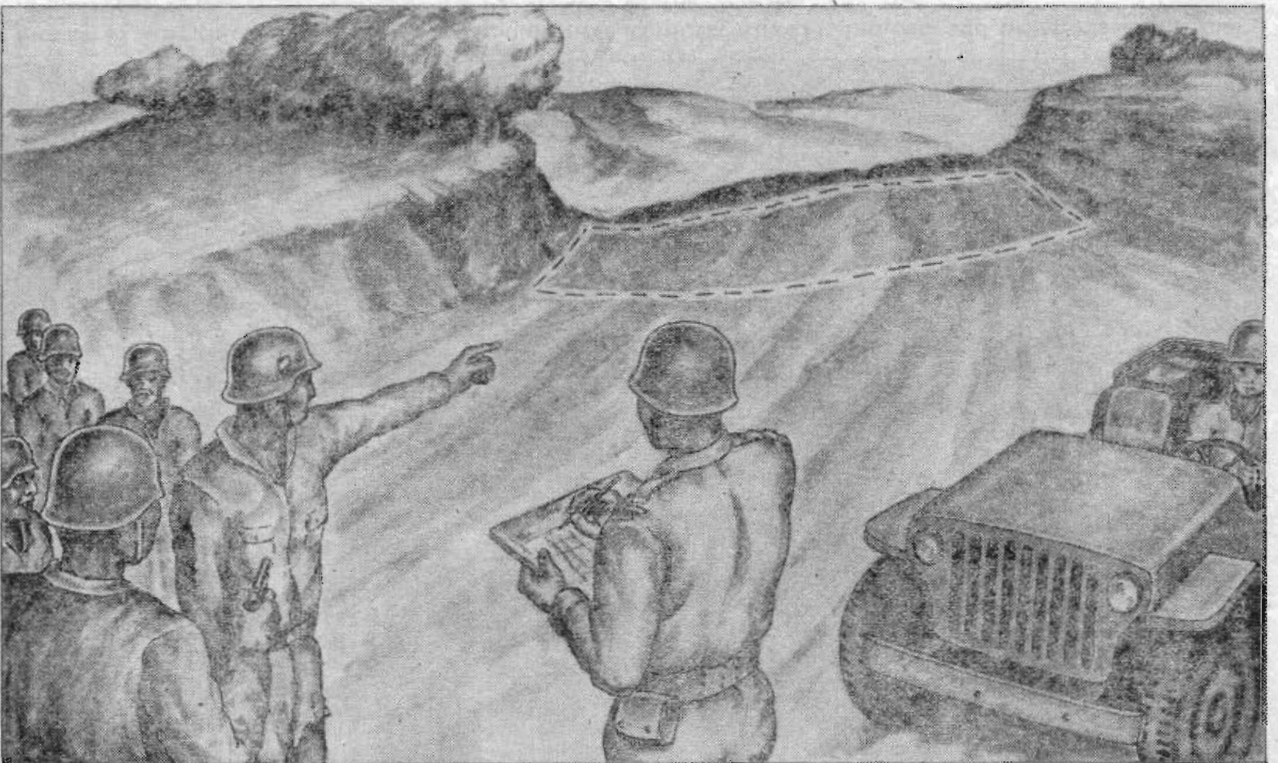


FIGURE 16.—Prisoners should be examined for knowledge of mine fields.



FIGURE 17.—Engineer reconnaissance should cover corduroy thicket, lumber, and other materials that may be used as expedients.

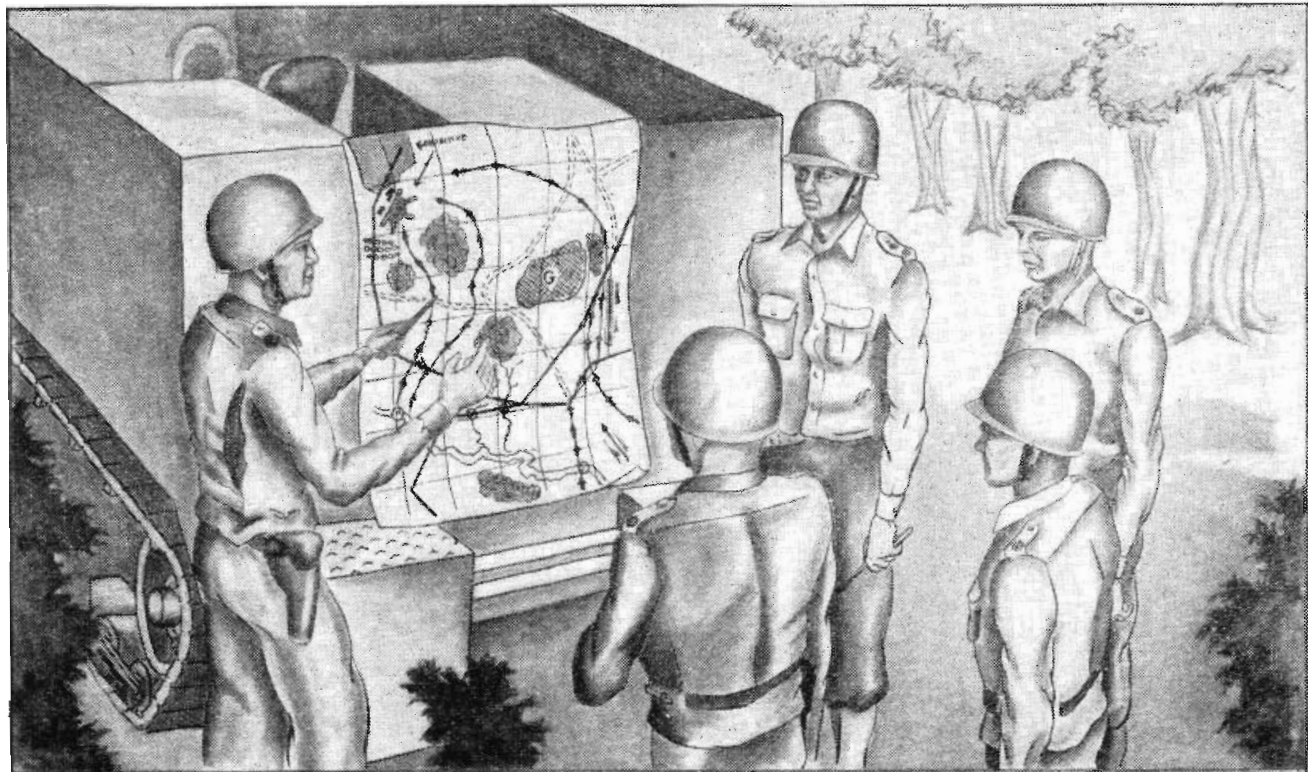


FIGURE 18.—Assistant division engineer always has a current engineer situation map.

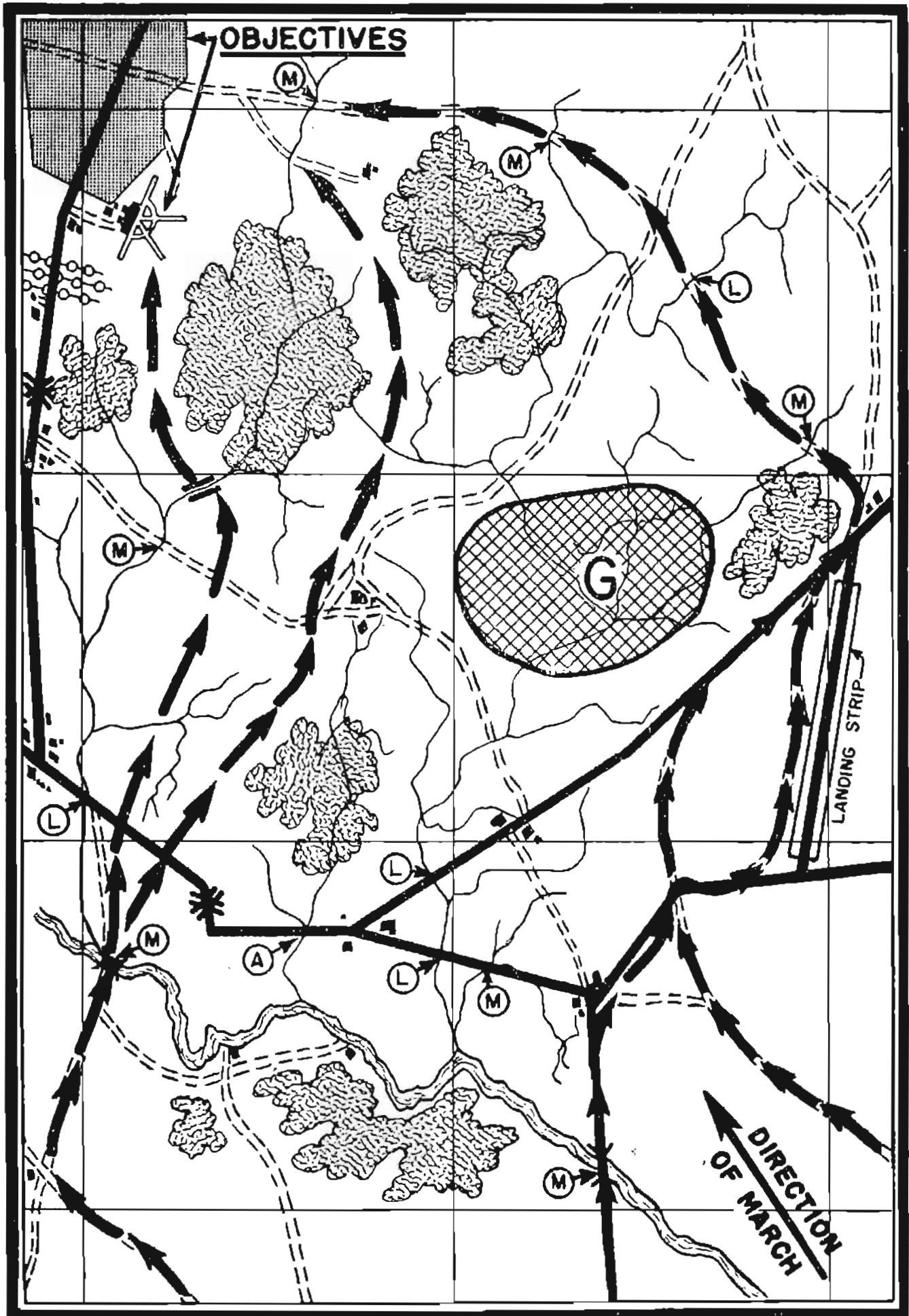


FIGURE 19.—Engineer situation map.

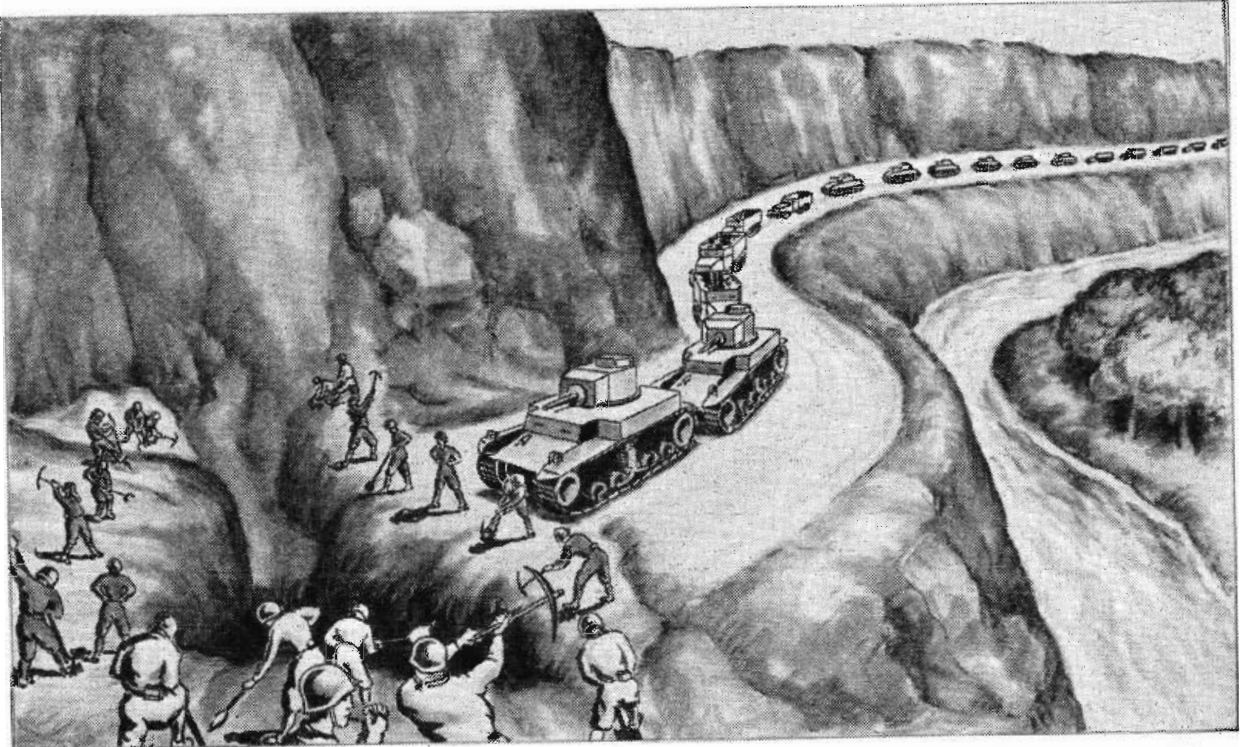
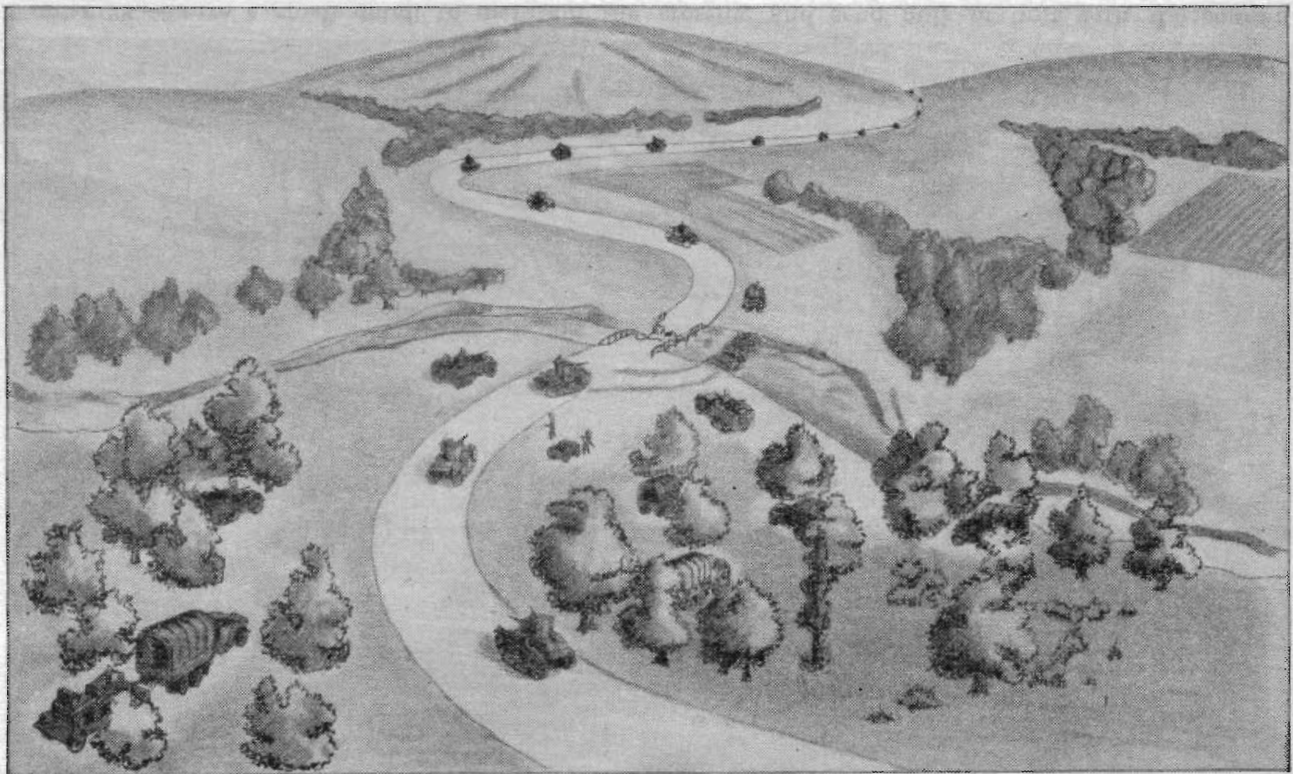


FIGURE 20.—Do not delay movement by doing heavy work by hand if faster means are available.



FIGURE 21.—Power equipment, if available, should be used to expedite movement of supported troops.
Post security detachment.

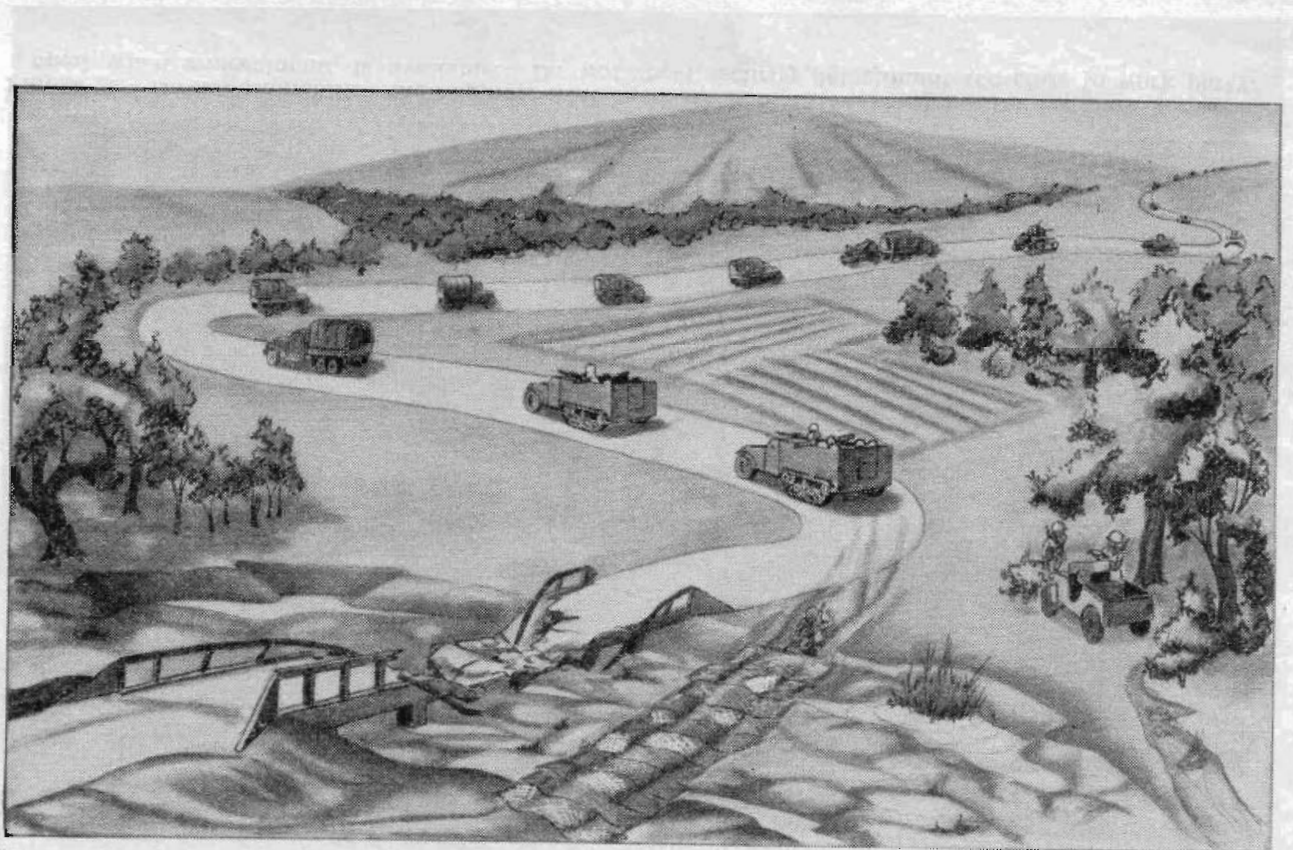
NOTE.—In addition to security measures shown here, a security detachment has been sent forward to prevent harassing small-arms fire on the working party.



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FIGURE 22.—Do *not* immobilize the engineer unit on a small maintenance job. Do *not* park vehicles in open when concealment is available. Do *not* post security detachment *too close* to work party.

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FIGURE 23.—Leave a small detail to maintain the crossing and send bulk of unit with the column.

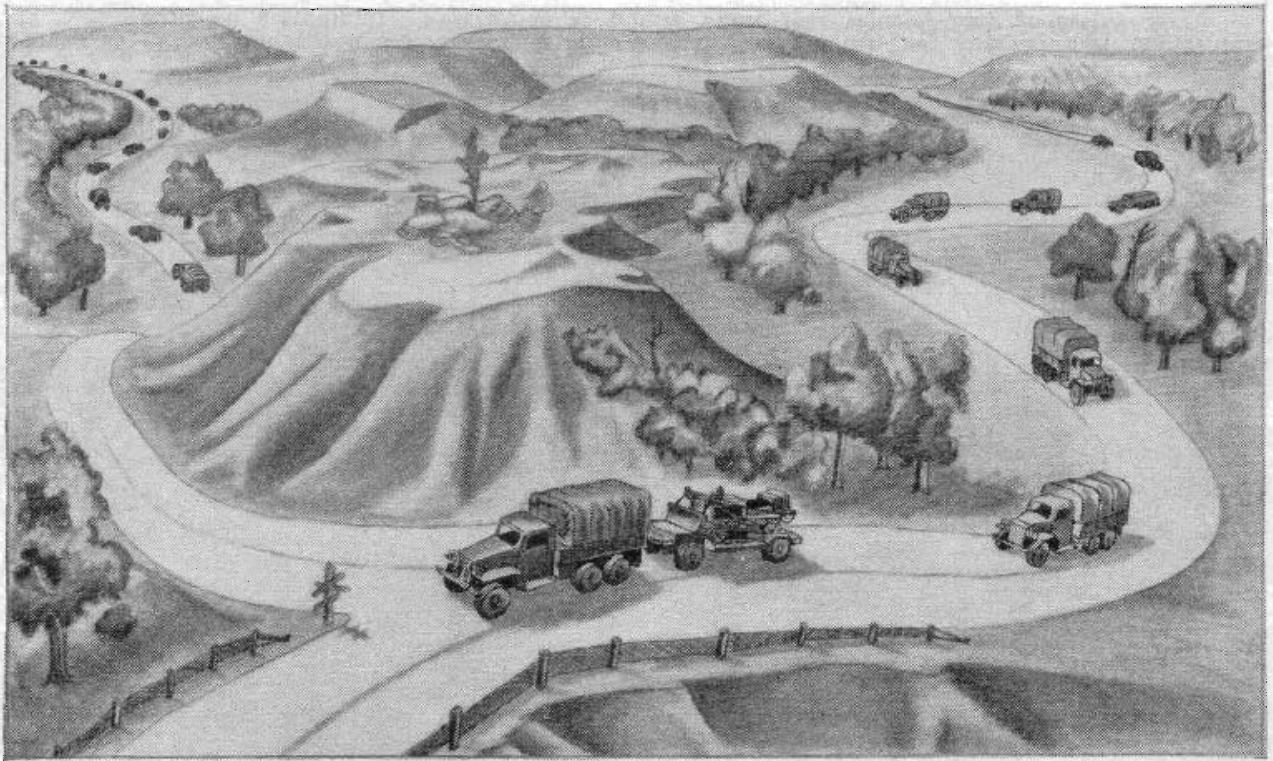


FIGURE 24.—Do *not* place heavy engineer vehicles at the rear of a march unit and permit them to drop behind. Post guide at road junction where rear vehicles may go astray.



FIGURE 25.—Place slower vehicles in column where their progress can be observed and march rate adjusted accordingly. Post guide at points where rear vehicles may go astray.

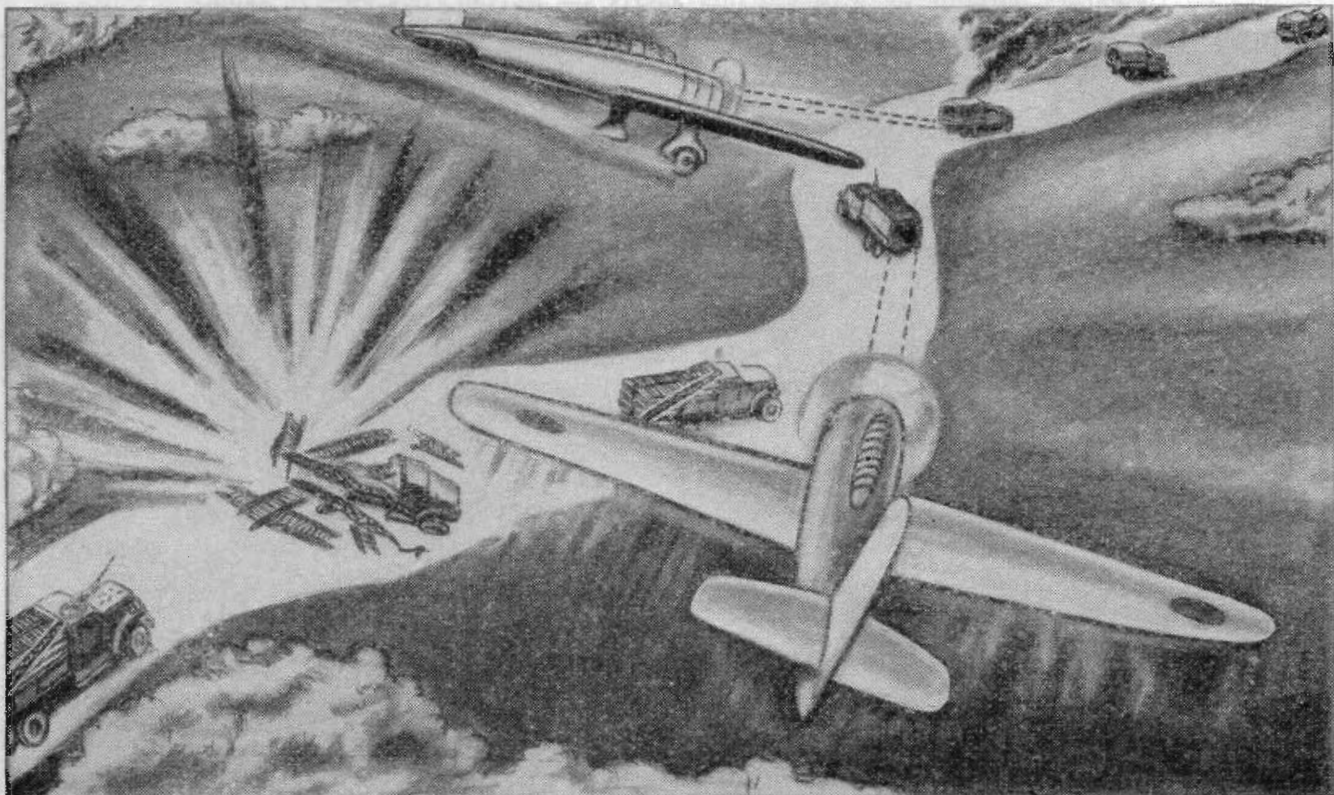


FIGURE 26.—Do not fail to provide air security for marching columns.

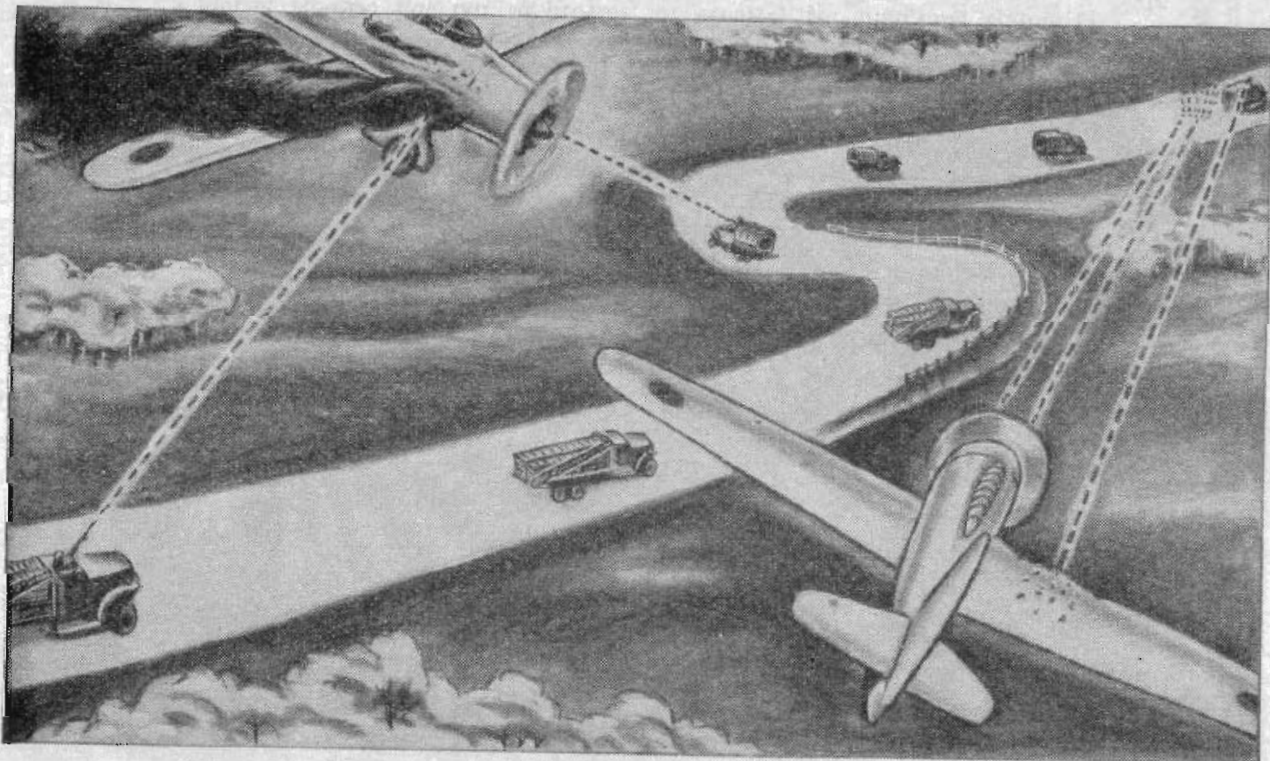


FIGURE 27.—Be alert against air attack and fire with all suitable weapons.

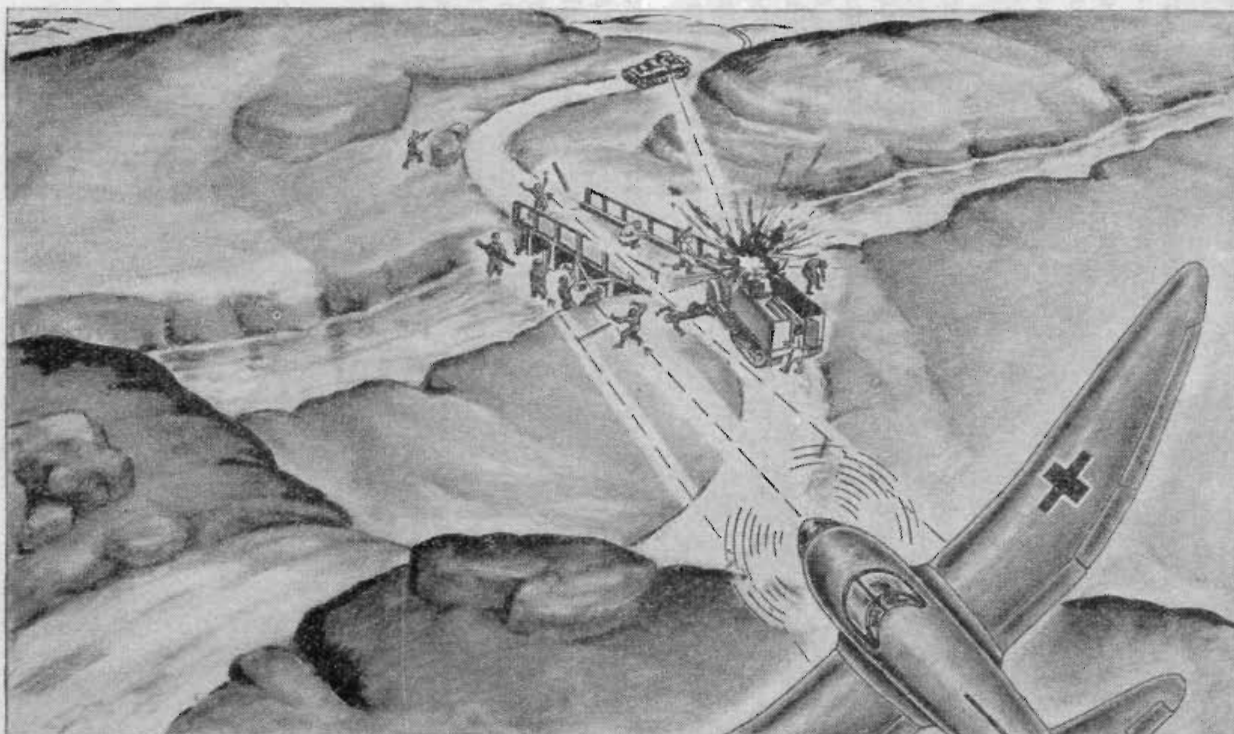


FIGURE 28.—Do not let a working party be surprised by sudden enemy attack.



FIGURE 29.—Always provide all around local security for working parties.

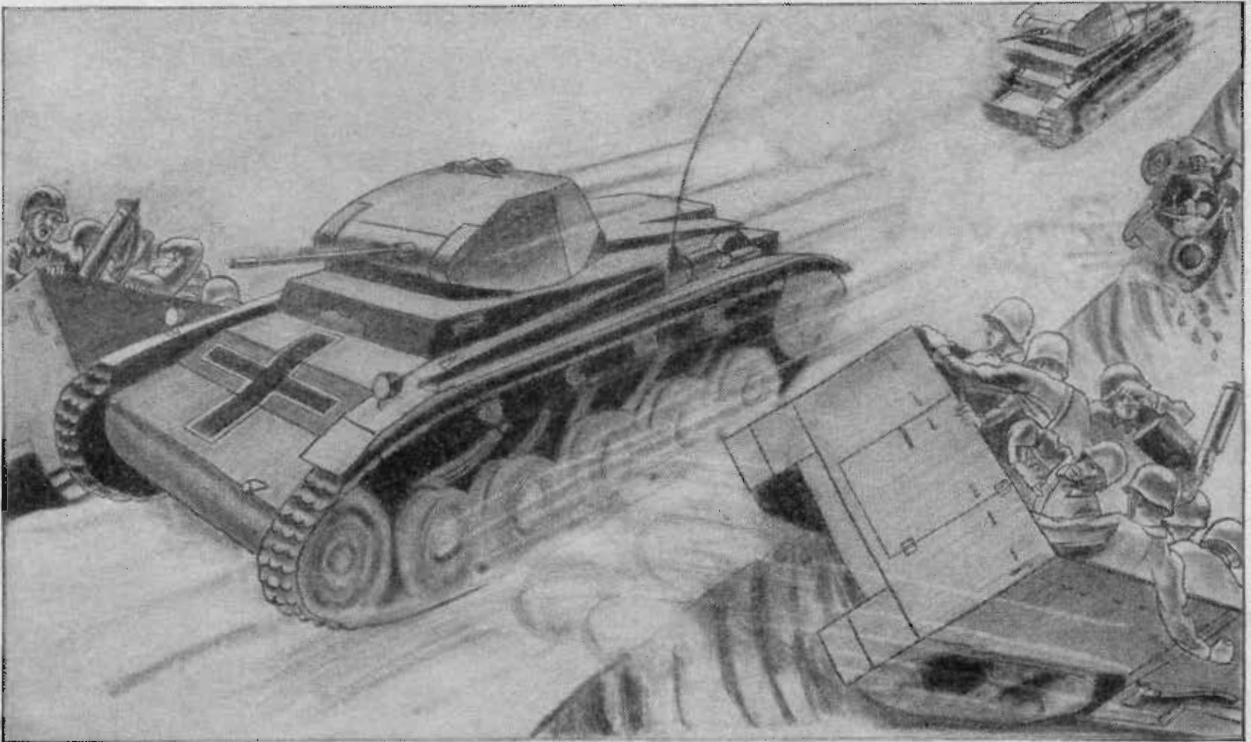


FIGURE 30.—Do not fail to provide security against enemy raids.

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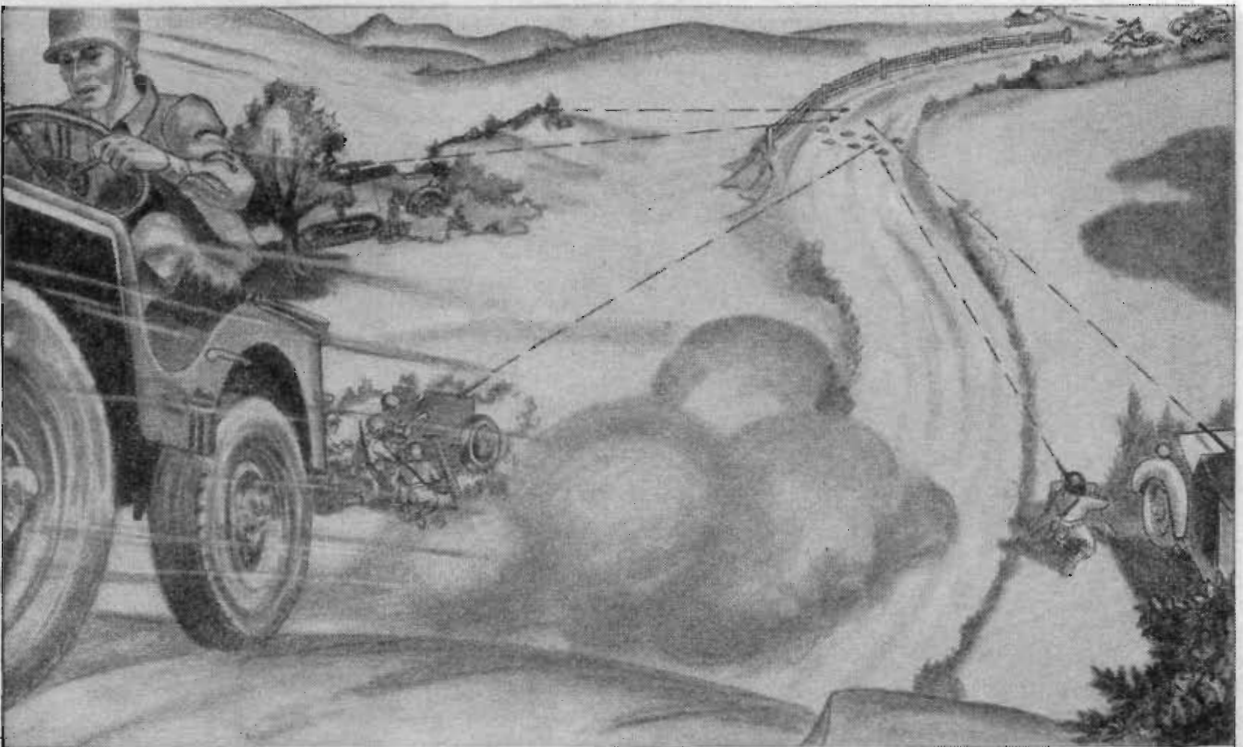


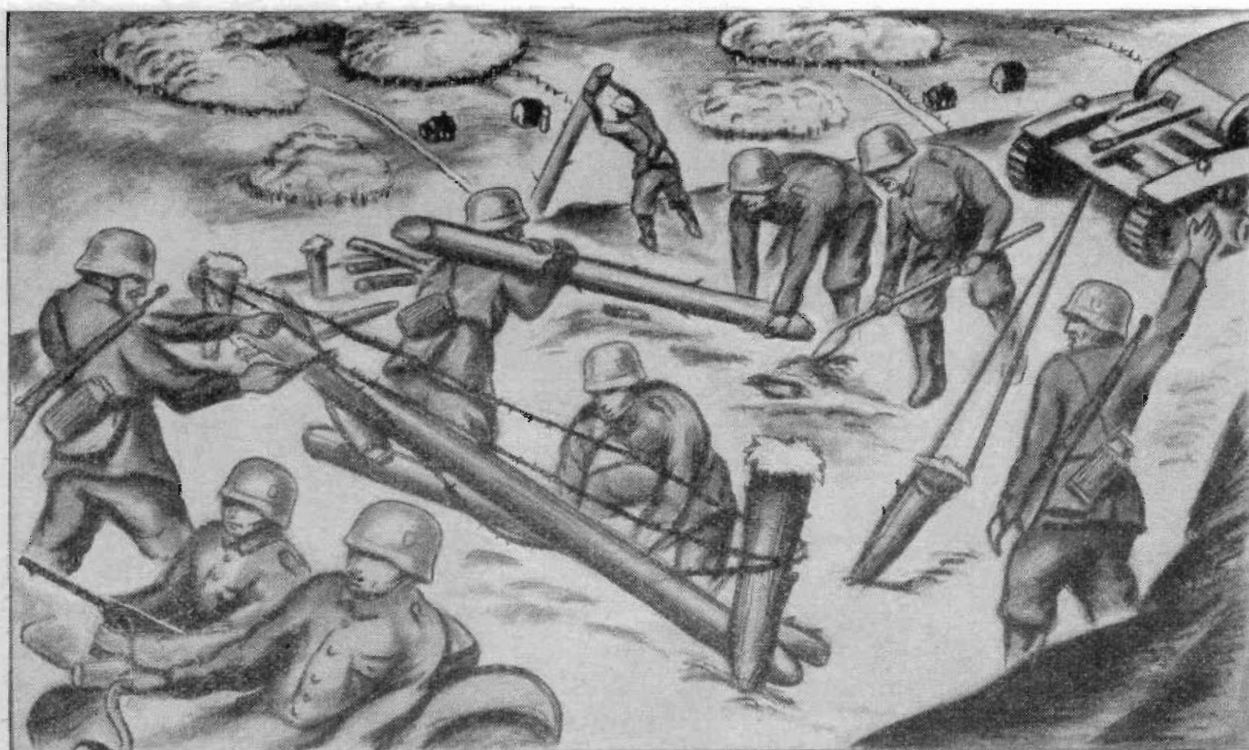
FIGURE 31.—Use antitank mines as a hasty obstacle to provide security from sudden attack.

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FIGURE 32.—Use booby traps on obstacles, especially on those obstacles that are difficult to cover with fire.



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FIGURE 33.—An undefended road block quickly becomes ineffective.

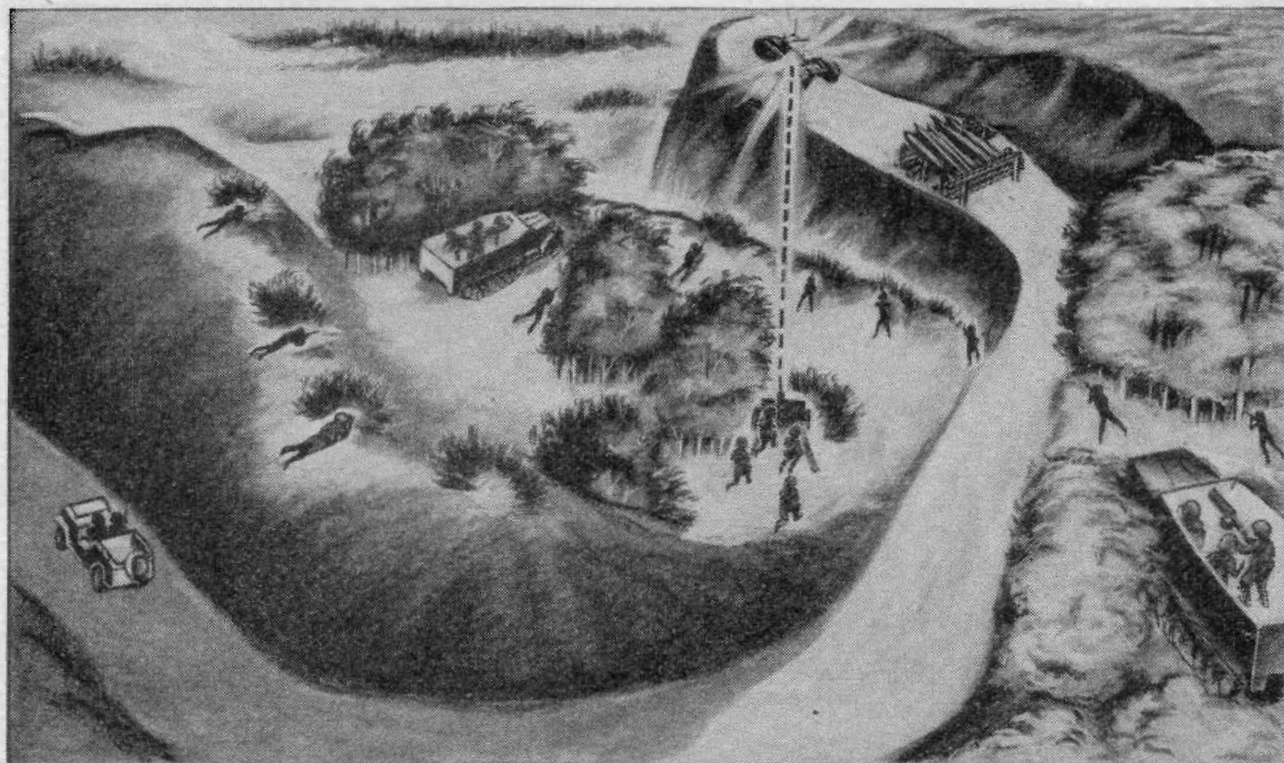


FIGURE 34.—Unless relieved by higher authority, engineer troops will defend barriers constructed by them. *Caution: No engineer skills are being used here.*

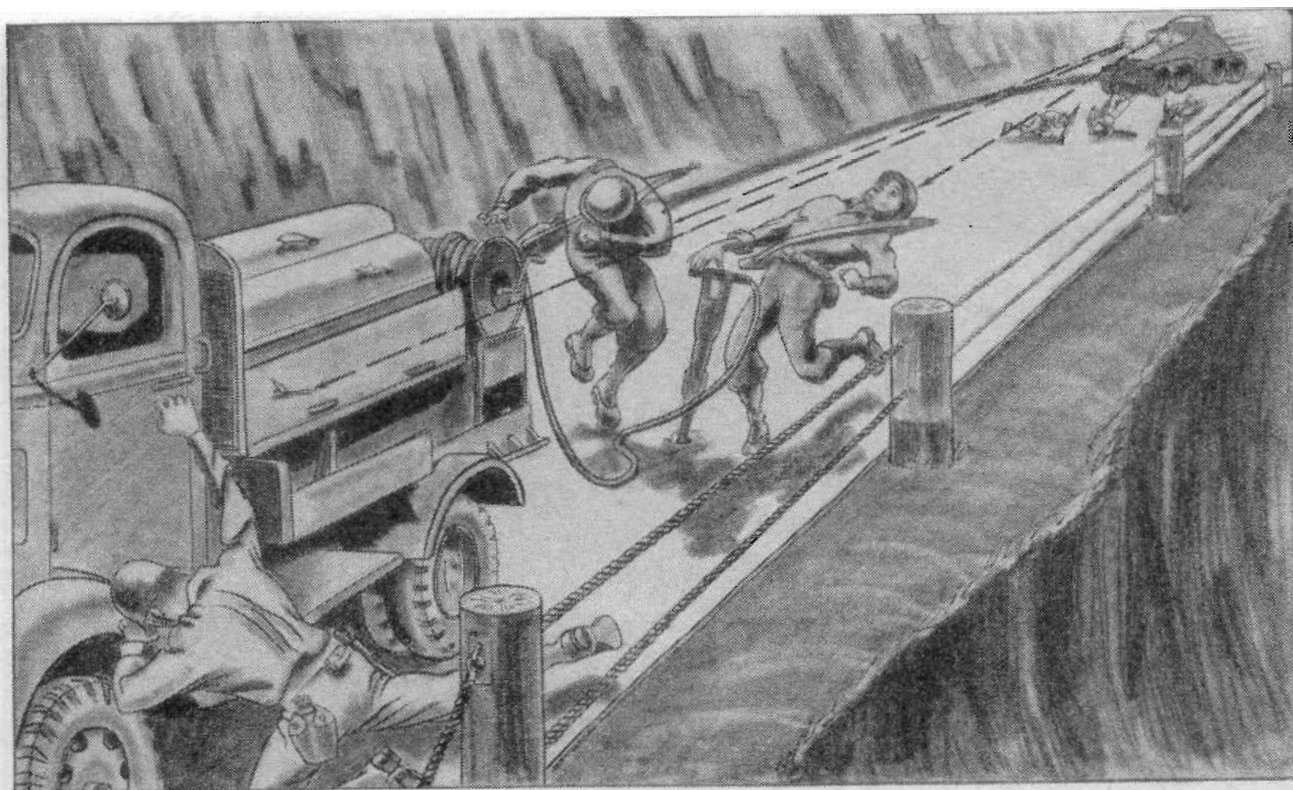


FIGURE 35.—Avoid the exposure of vulnerable engineer equipment to enemy fire.

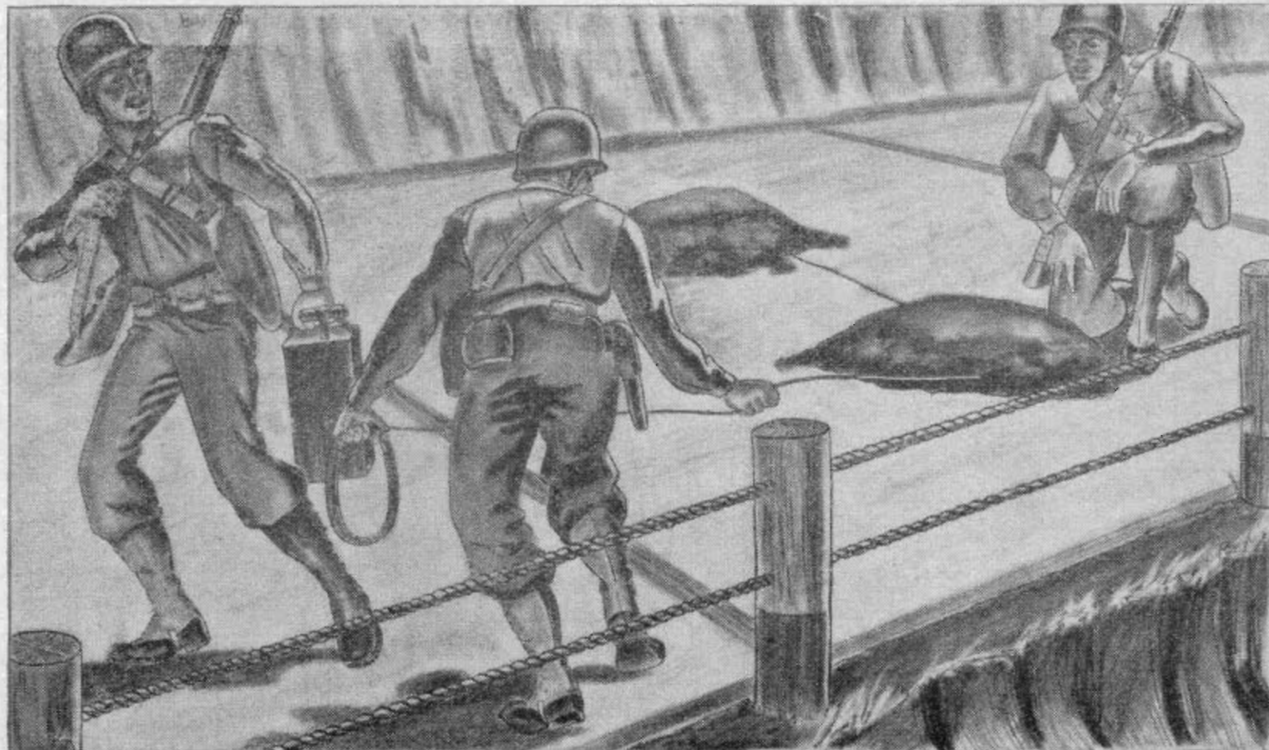


FIGURE 36.—When exposed to enemy raids, use time-saving expedients.

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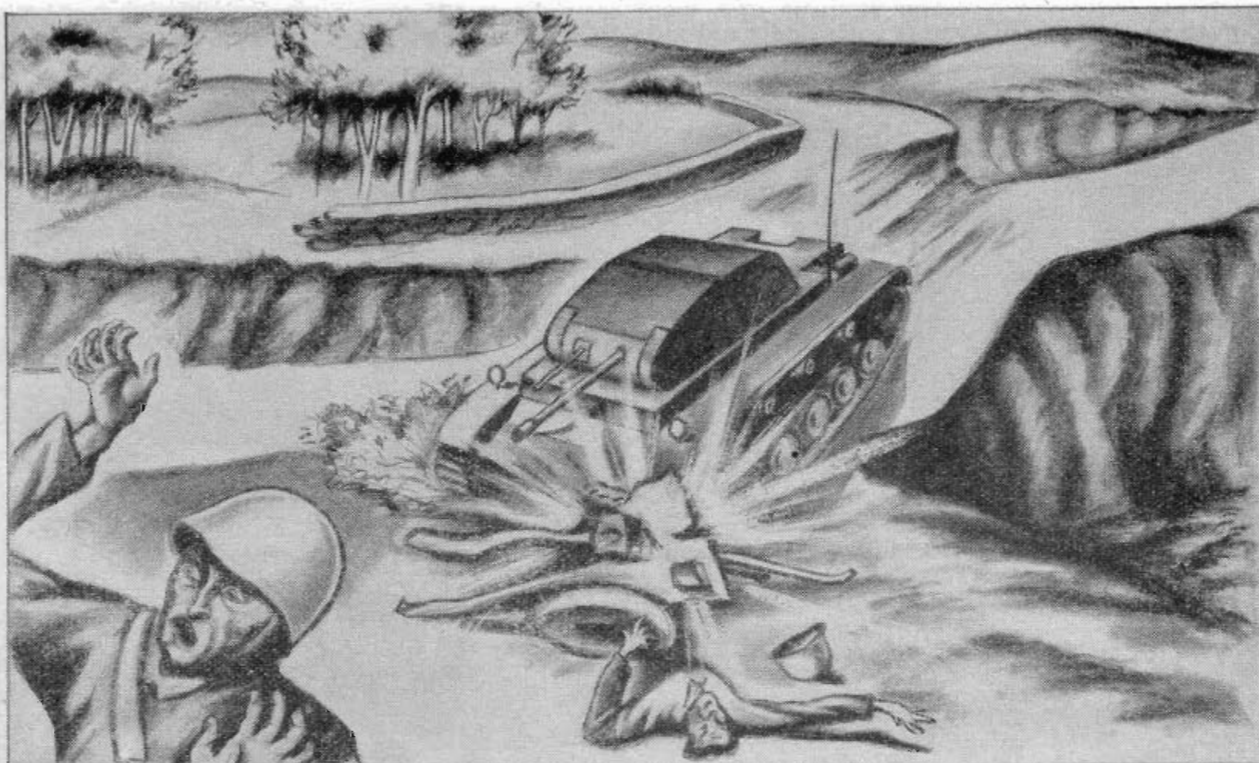


FIGURE 37.—Avoid locating antitank guns where they may be overrun by enemy tanks.

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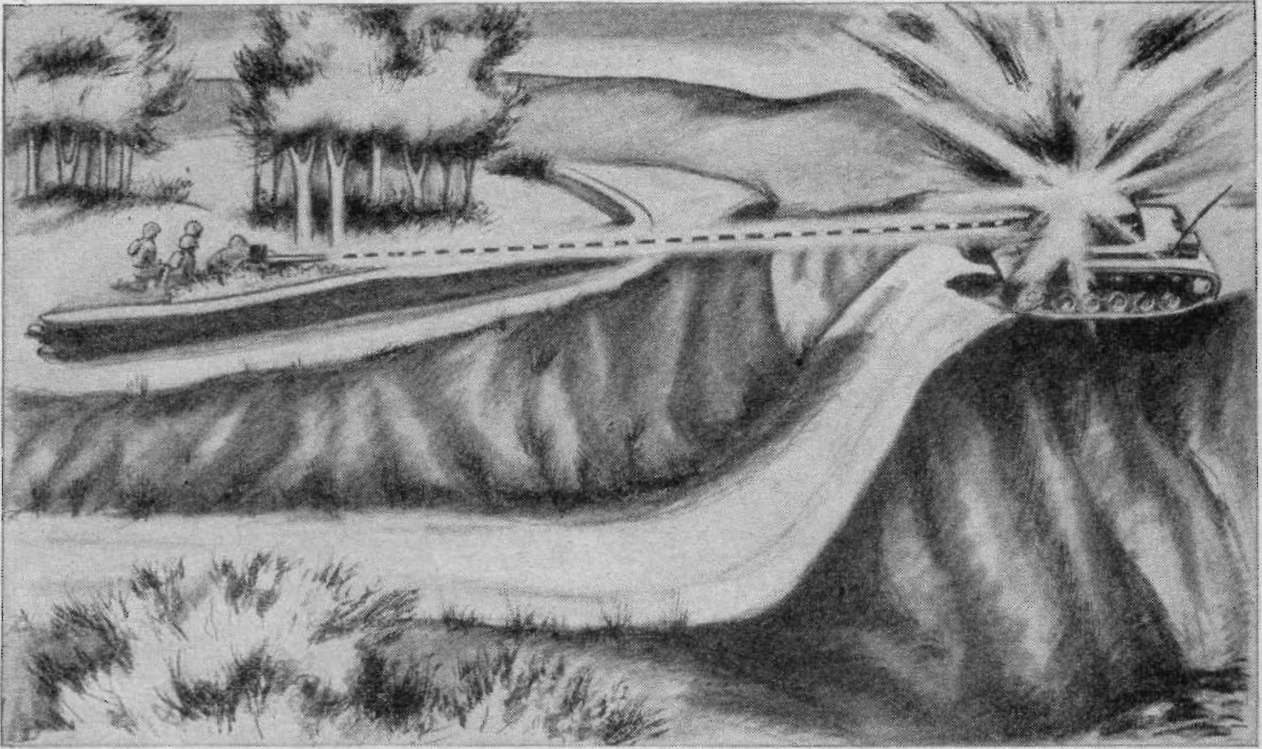


FIGURE 38.—When possible, locate antitank guns in tank-proof position. If such location is not available, camouflage and protect them with antitank mines.

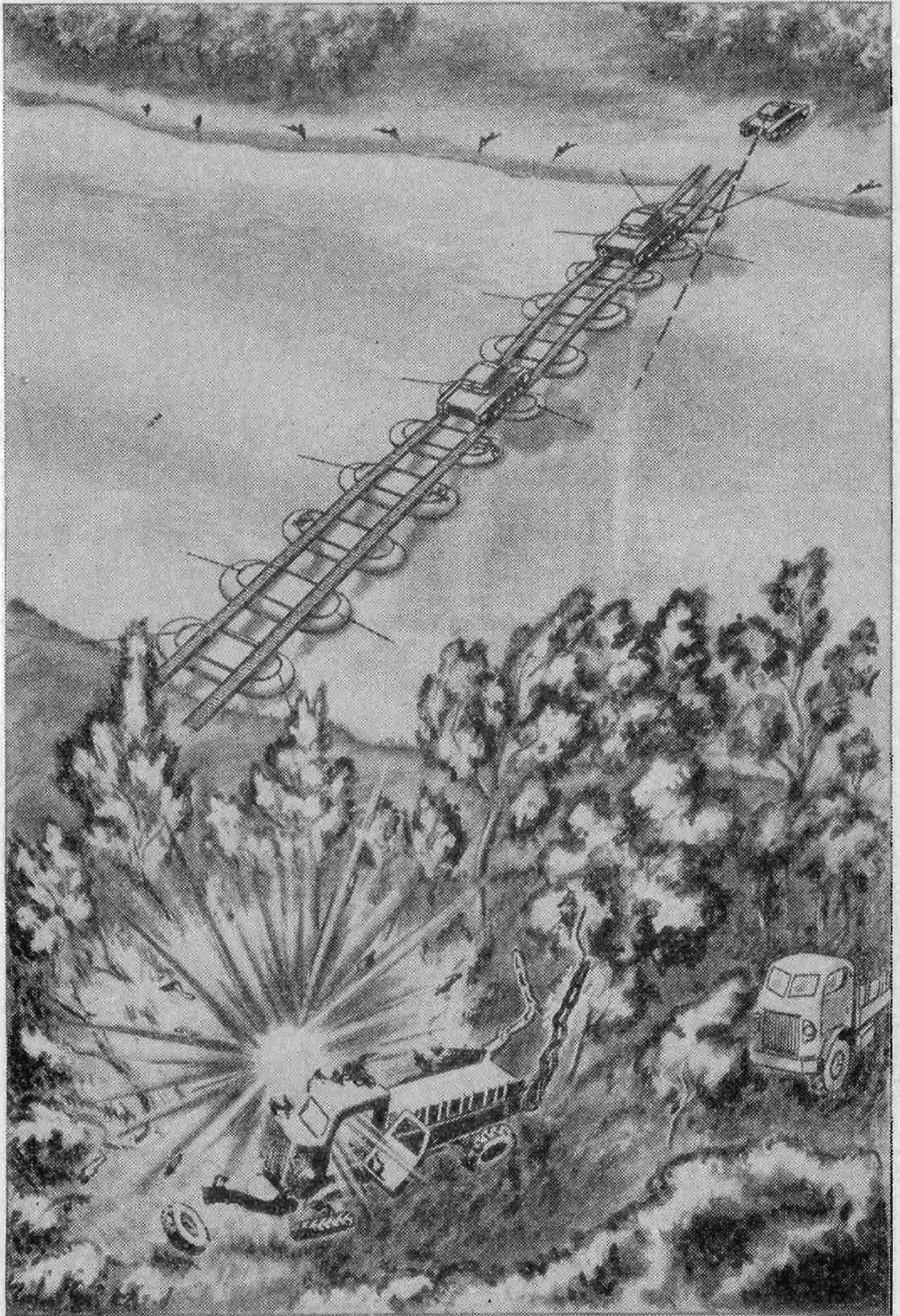


FIGURE 39.—Do *not* build a bridge without protecting it.

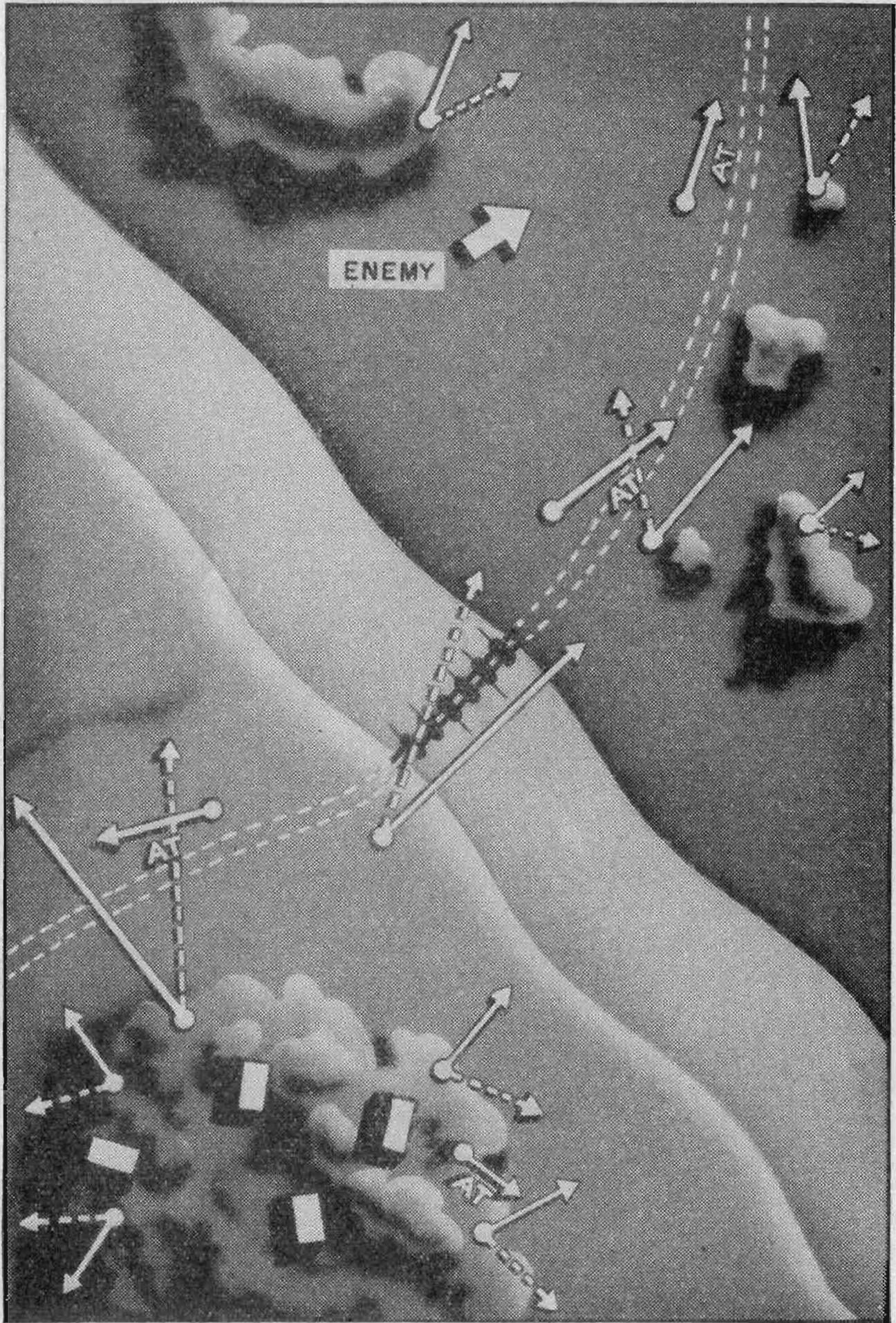


FIGURE 40.—A bridge worth building is worth defending.

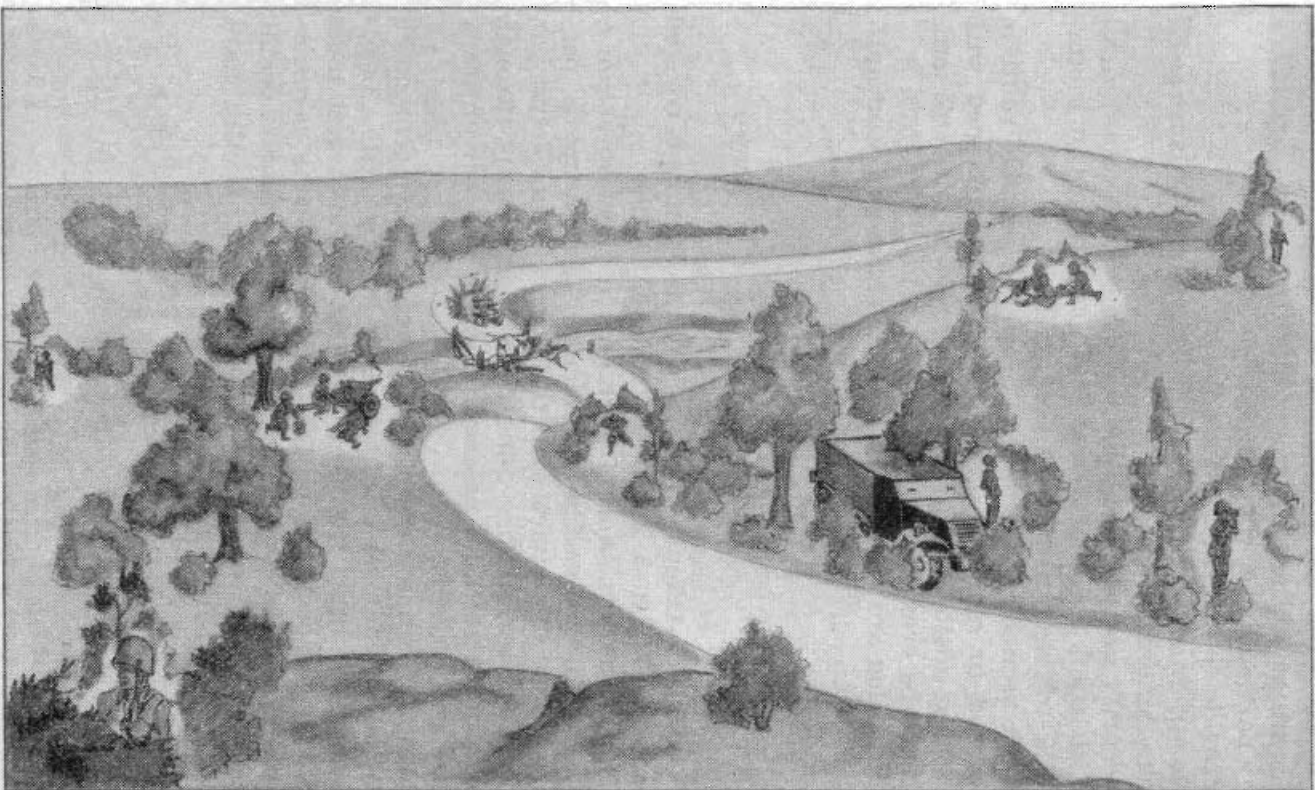


FIGURE 41.—Provide for defense for all obstacles.

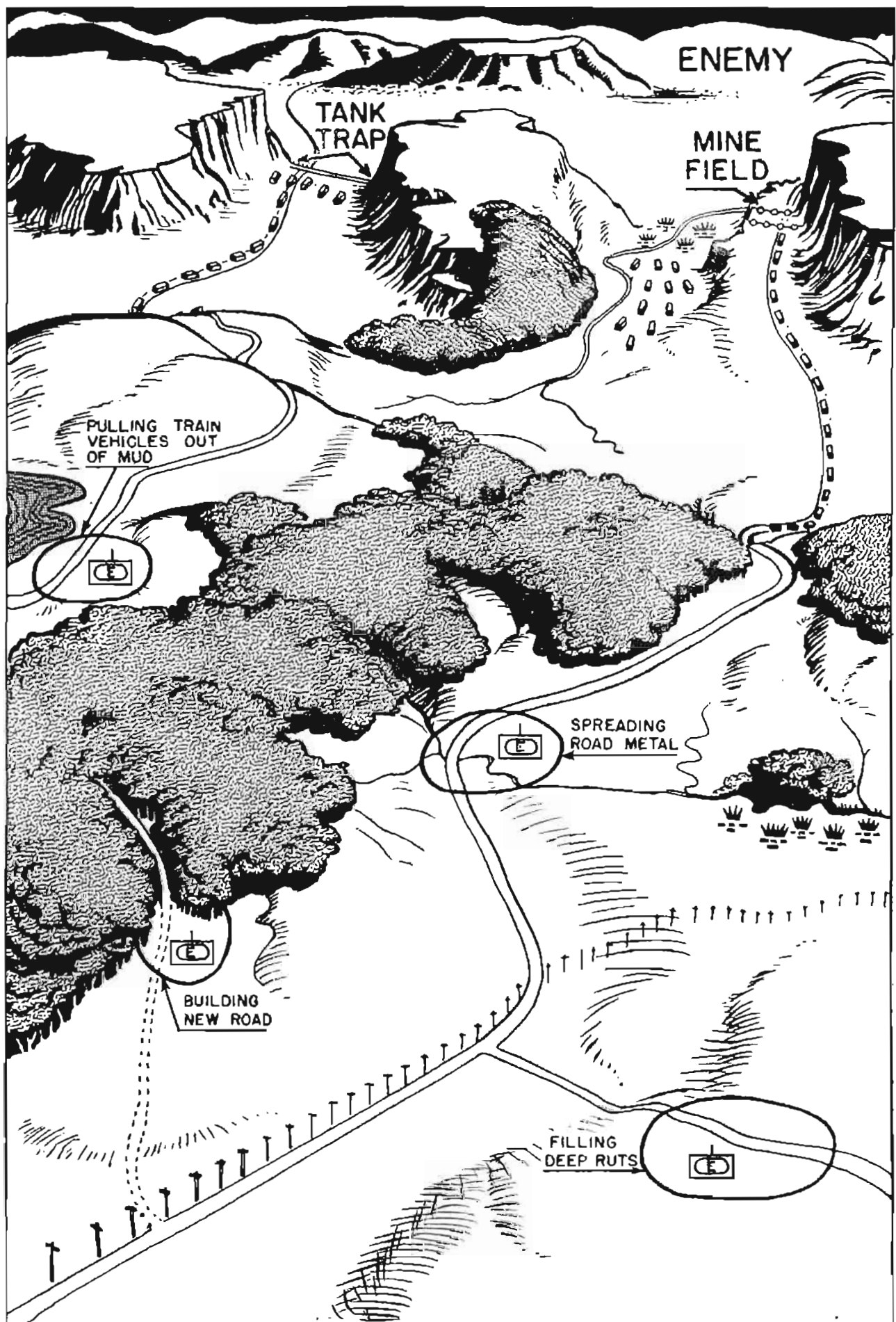


FIGURE 42.—Simple road maintenance that requires little technical skill should not consume the time of highly specialized armored engineers.

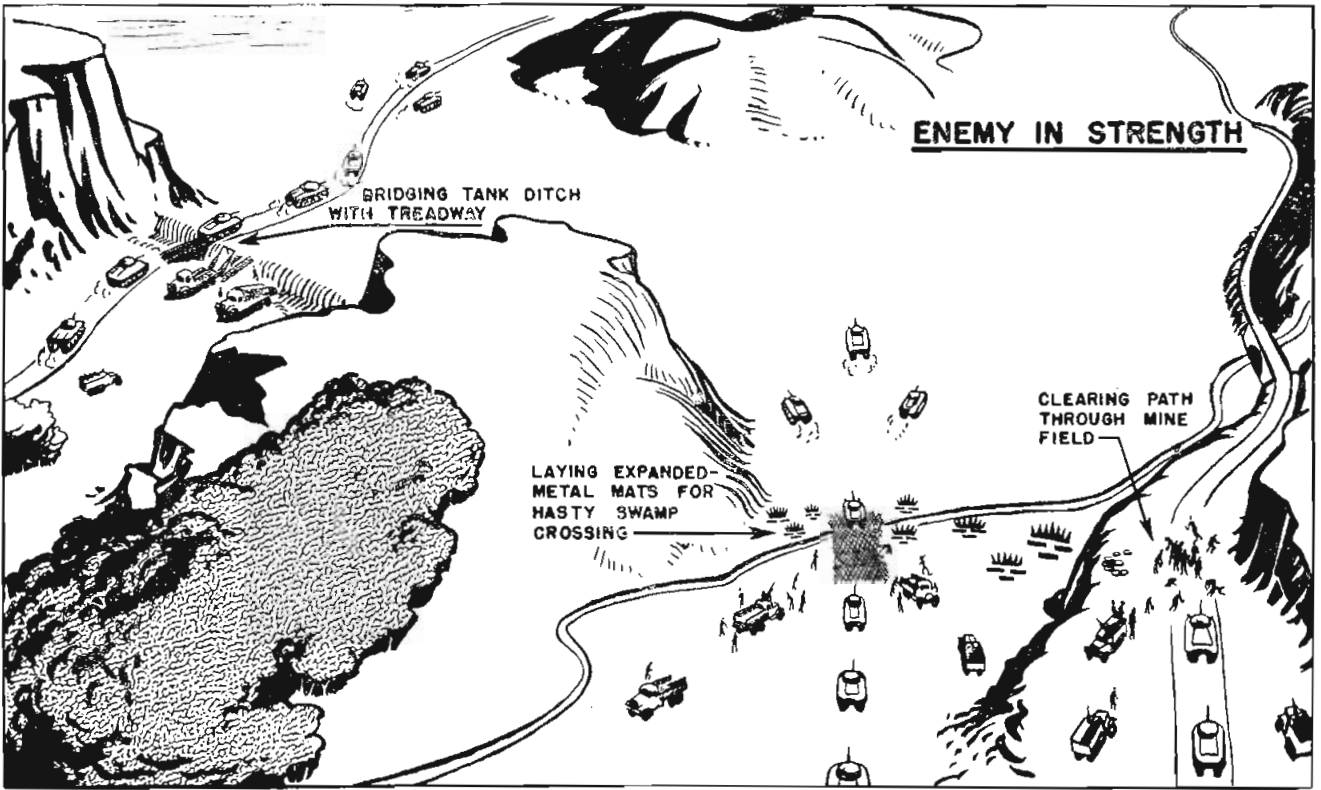


FIGURE 43.—The primary mission of facilitating the forward movement of armored units will usually require the entire strength of the engineer battalion.

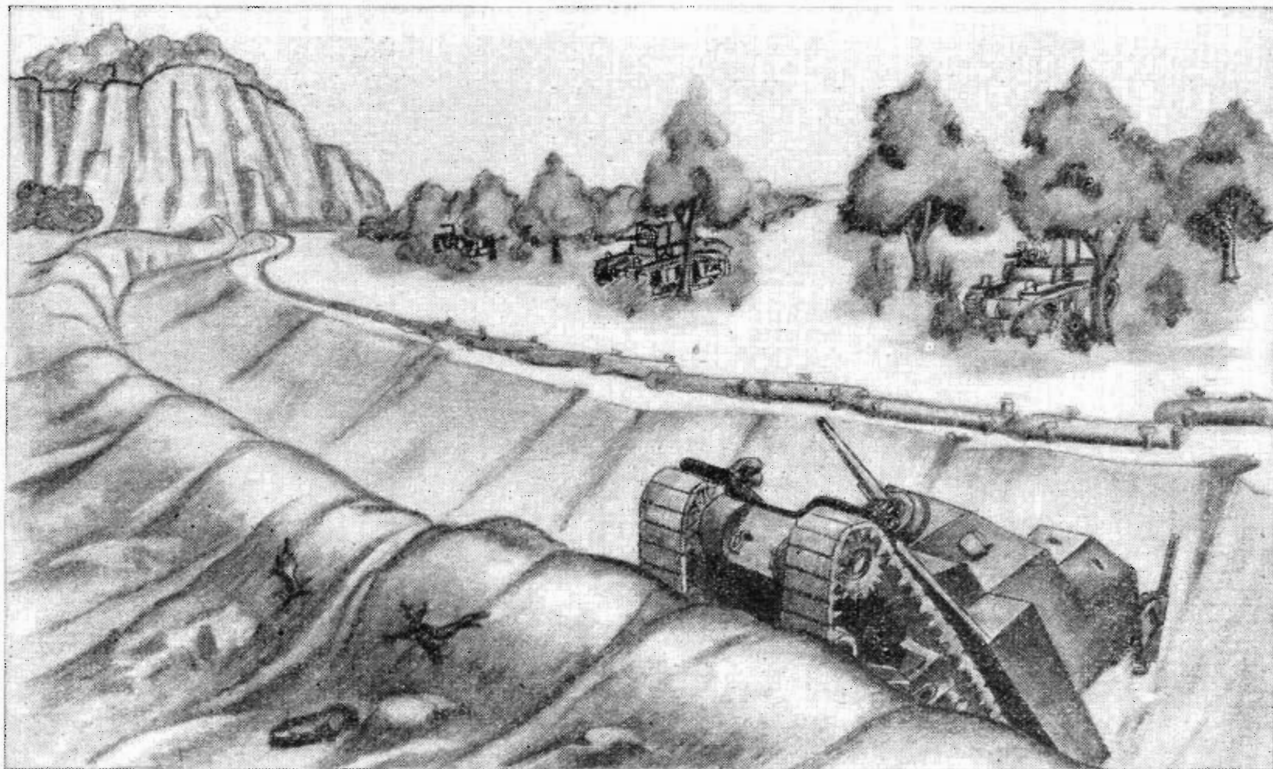


FIGURE 44.—Do not let obstacles hold up the movement of combat units.

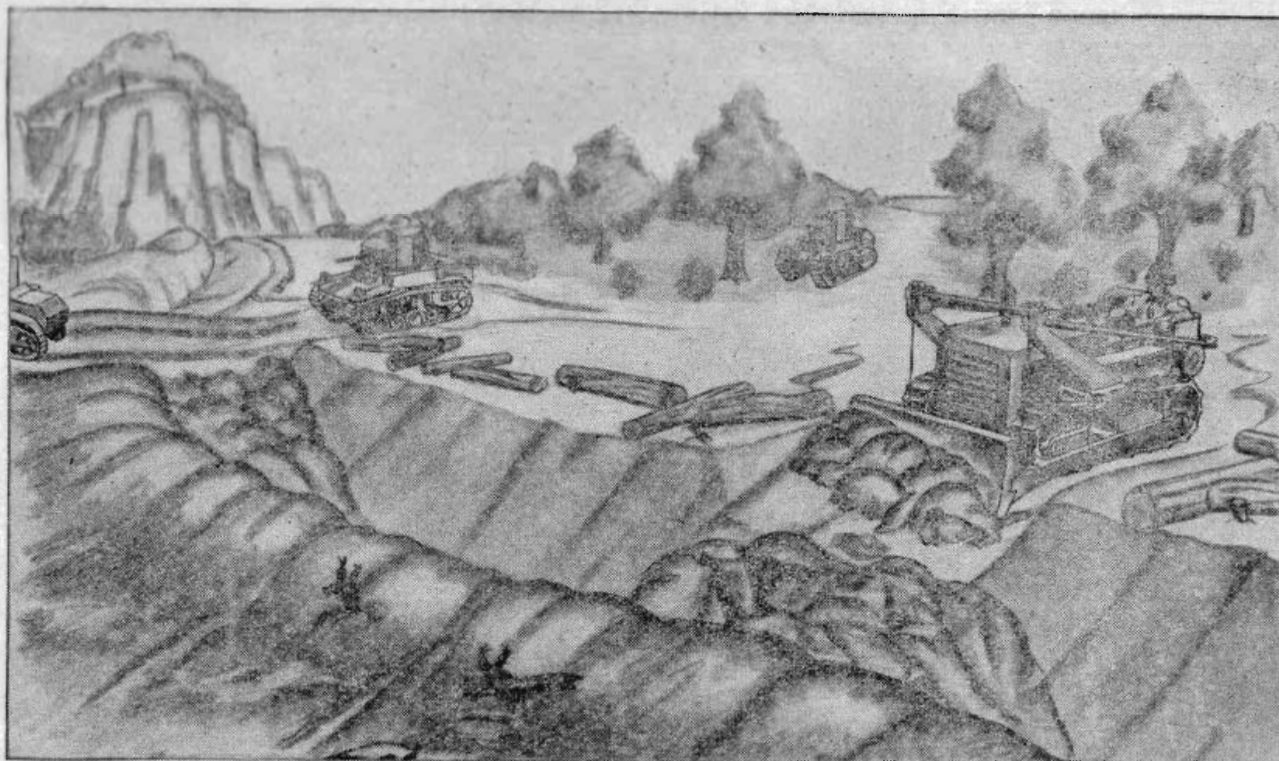


FIGURE 45.—Obstacles must be quickly removed, bypassed, or surmounted.

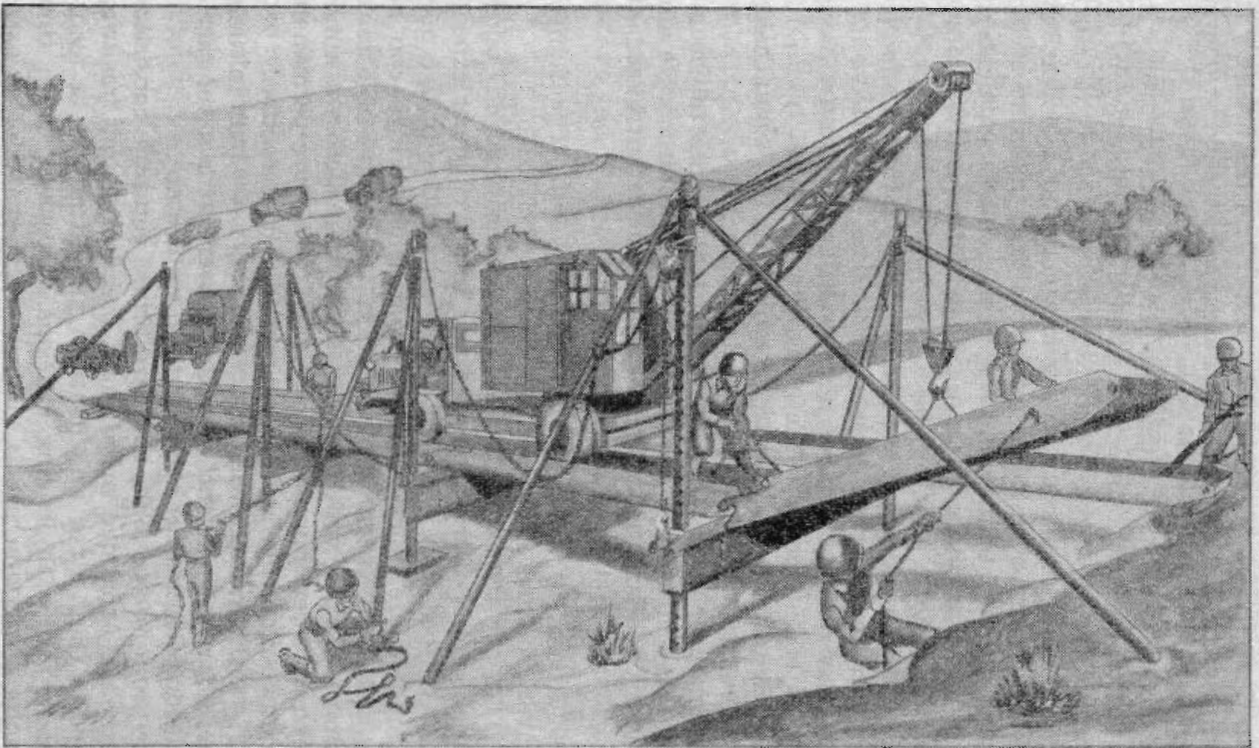


FIGURE 46.—Do not waste valuable time building unnecessary bridges.



FIGURE 47.—Utilize quick bridge expedients where possible.

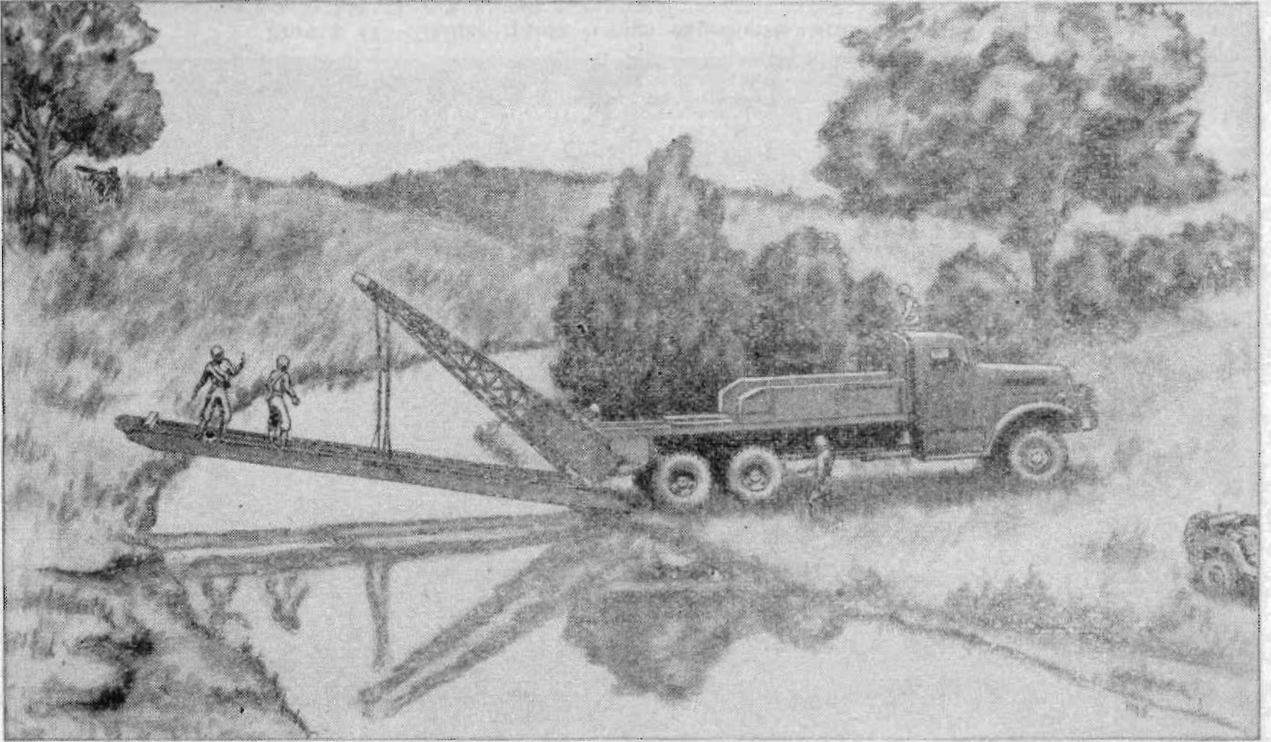


FIGURE 48.—Treadways may be placed to bridge a small stream quickly.

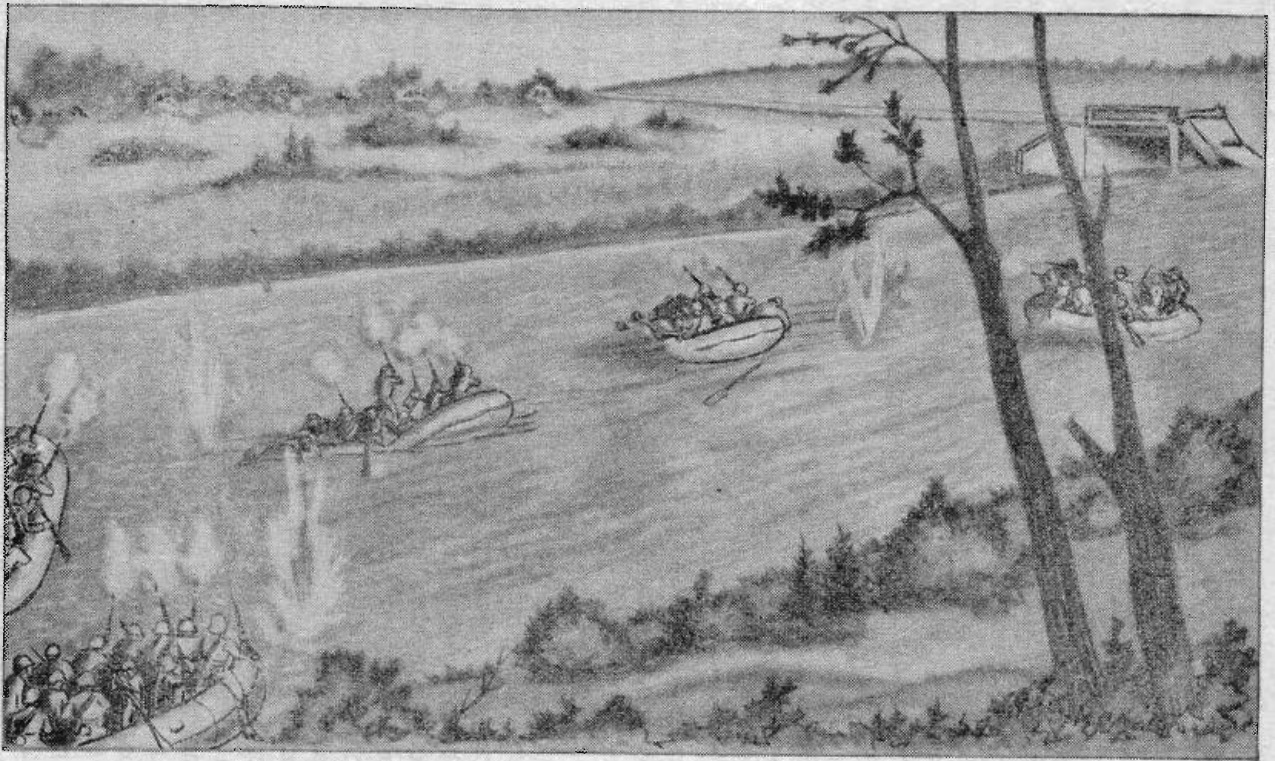


FIGURE 49.—Do not delay assault crossing by firing from boats.

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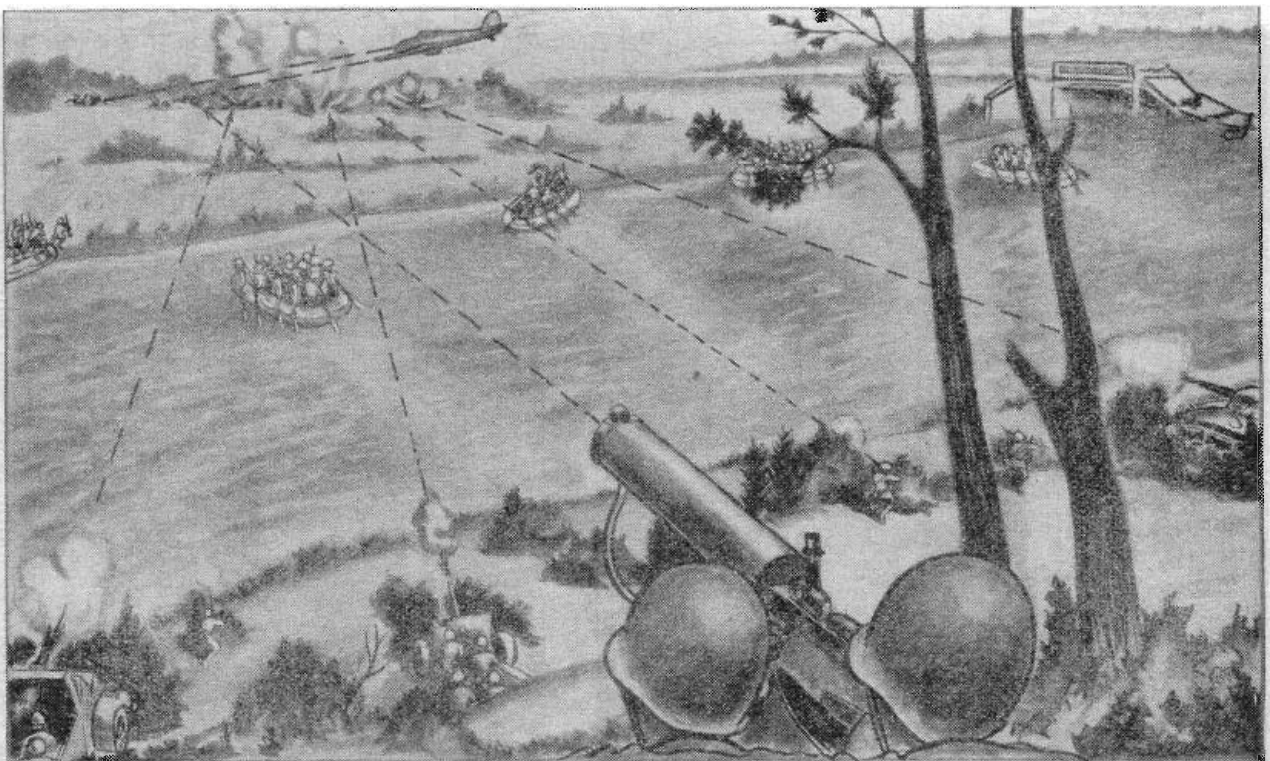
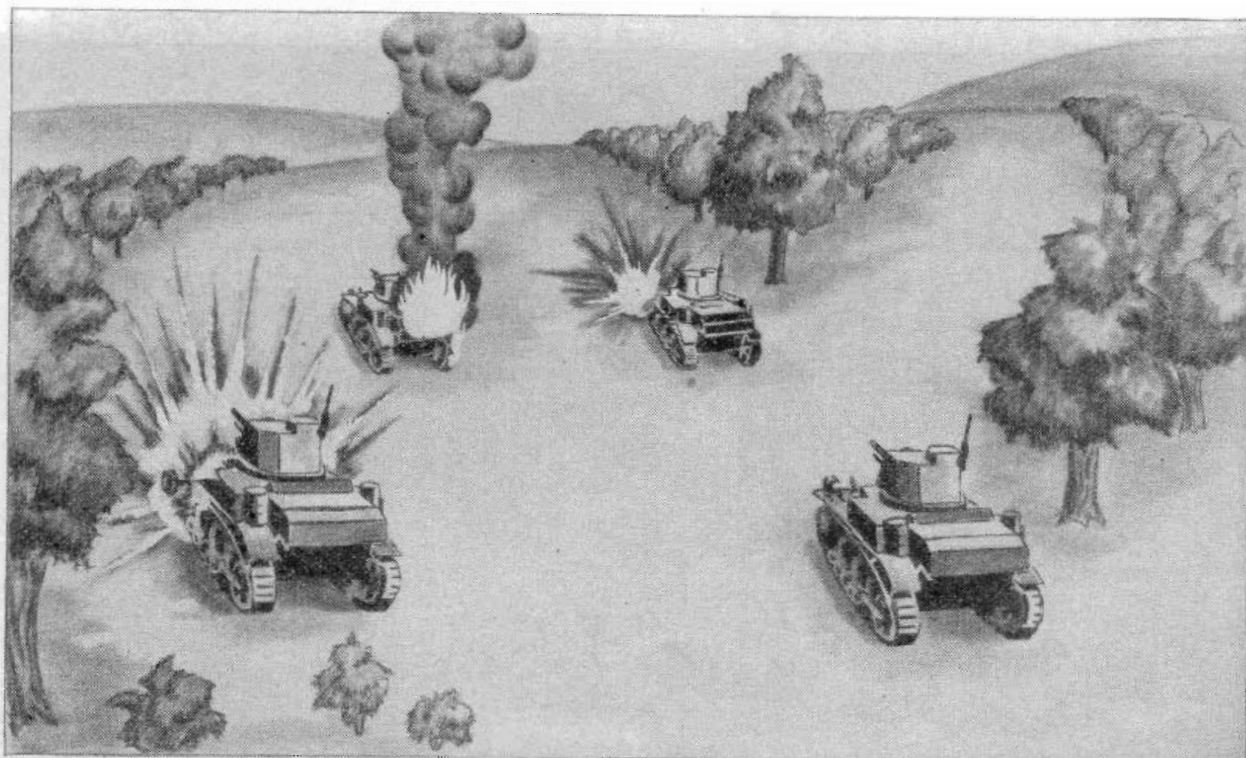


FIGURE 50.—Concentrate on getting troops across in a short time. Supporting units must furnish fire support.

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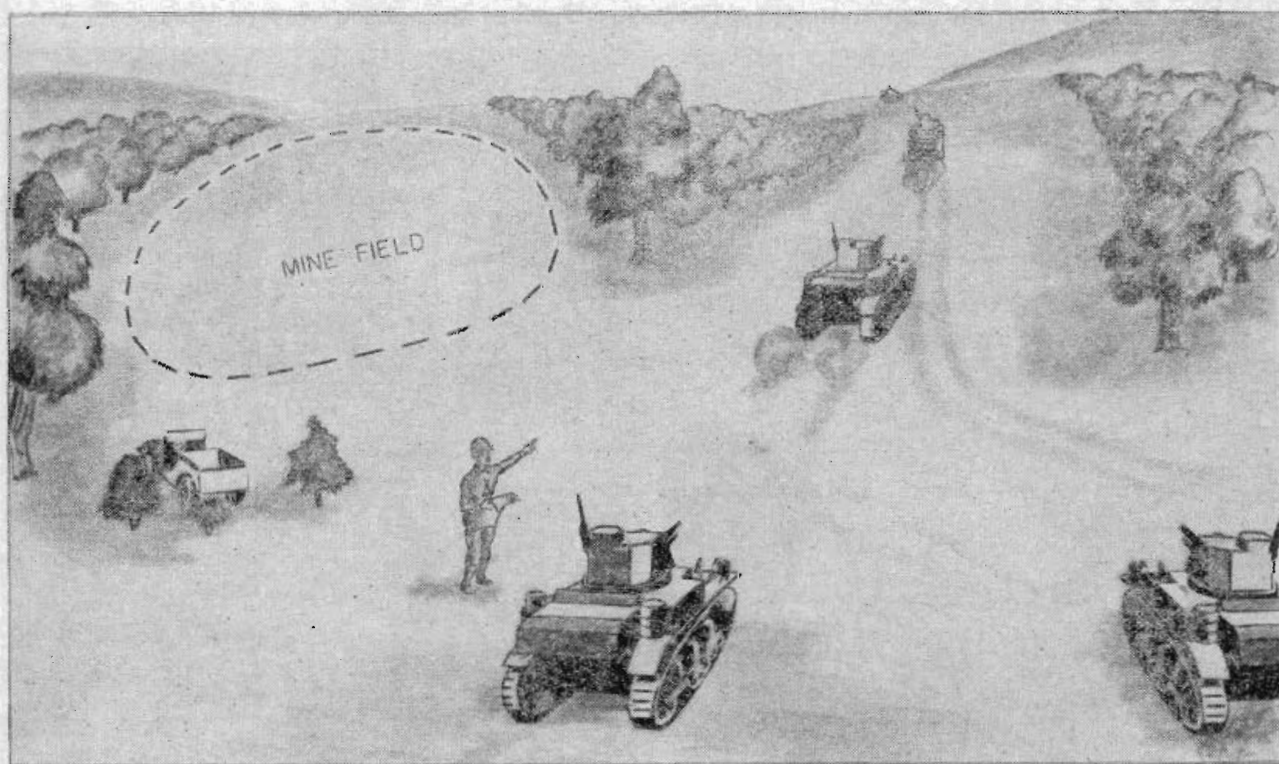


73

FIGURE 51.—Do not permit friendly tanks to run into your own antitank mines.

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FIGURE 52.—Engineers should provide guides and maps to assure passage through mined areas.

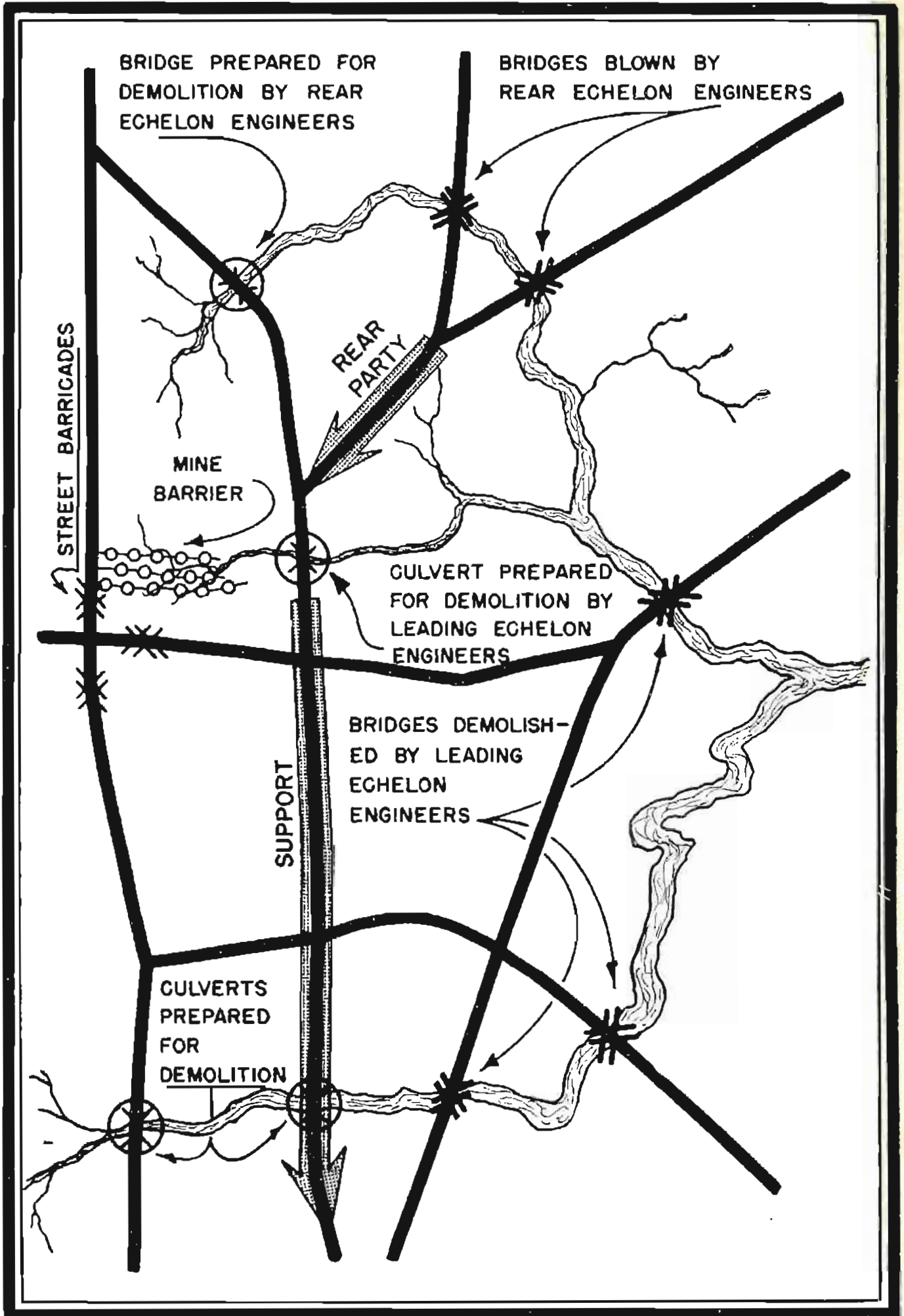
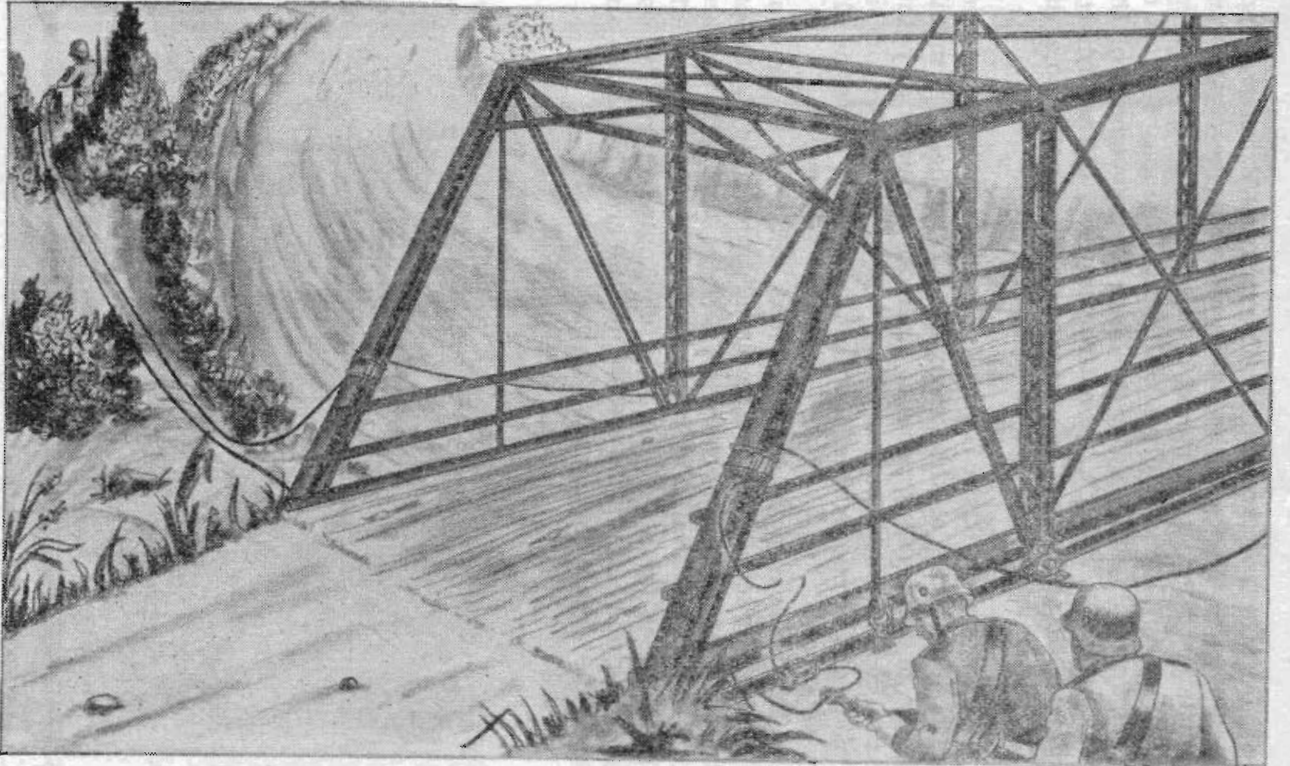
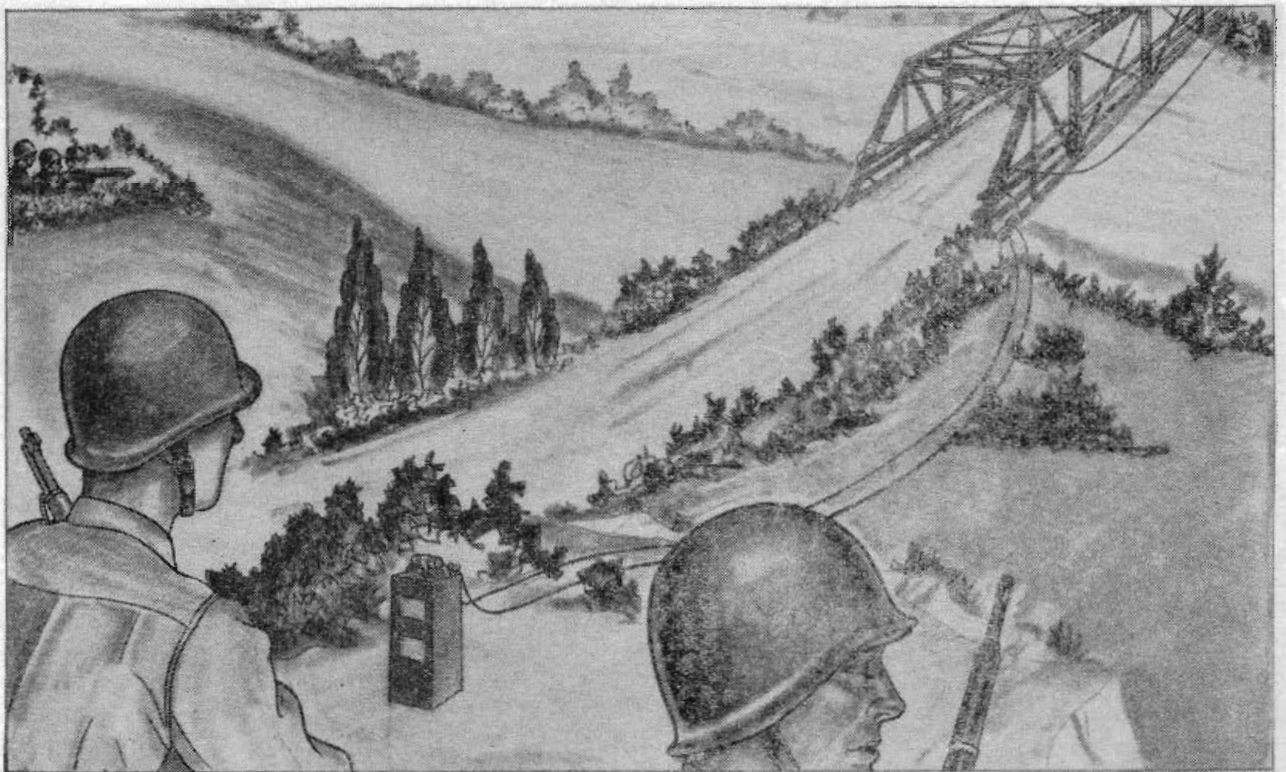


FIGURE 53.—Armored engineer action in the rear guard.



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FIGURE 54.—Do not let the enemy approach prepared demolitions unobserved.



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FIGURE 55.—Place guards where they can protect lead wires to detonator.

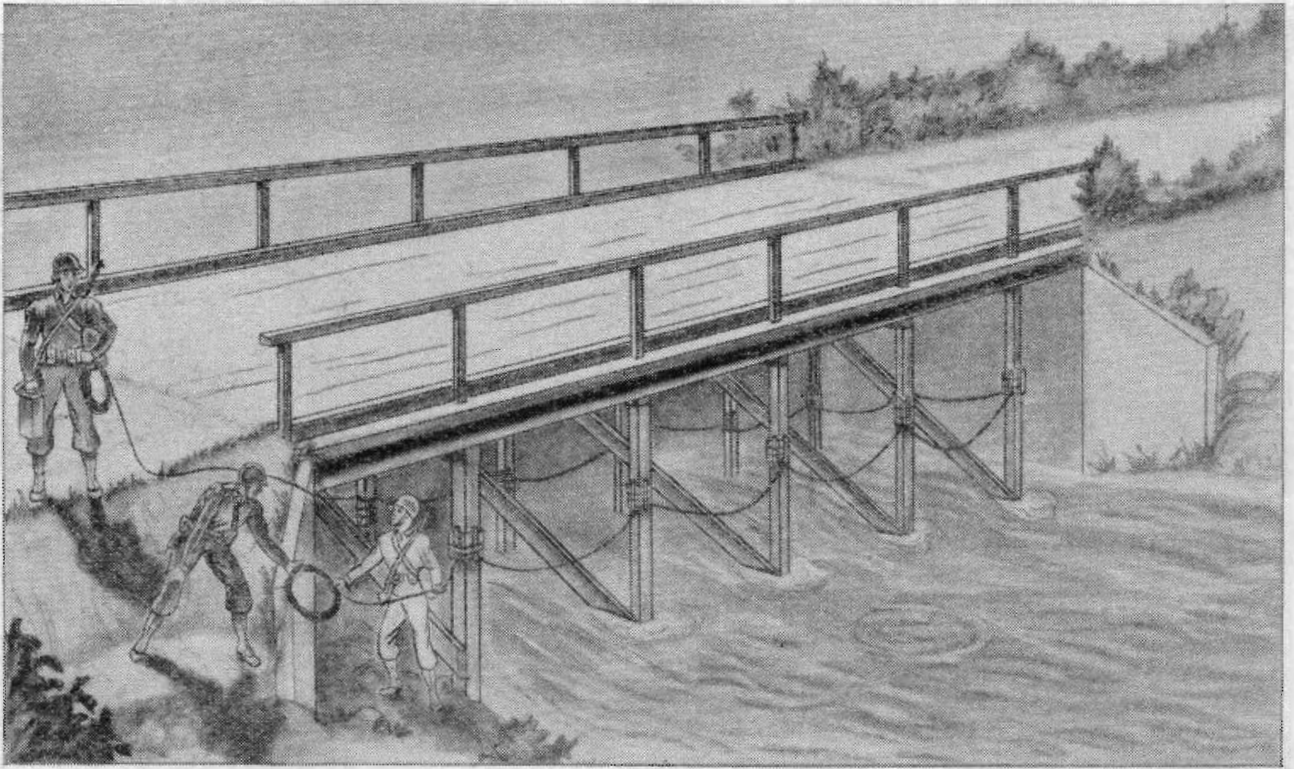


FIGURE 56.—Do not waste valuable explosives.

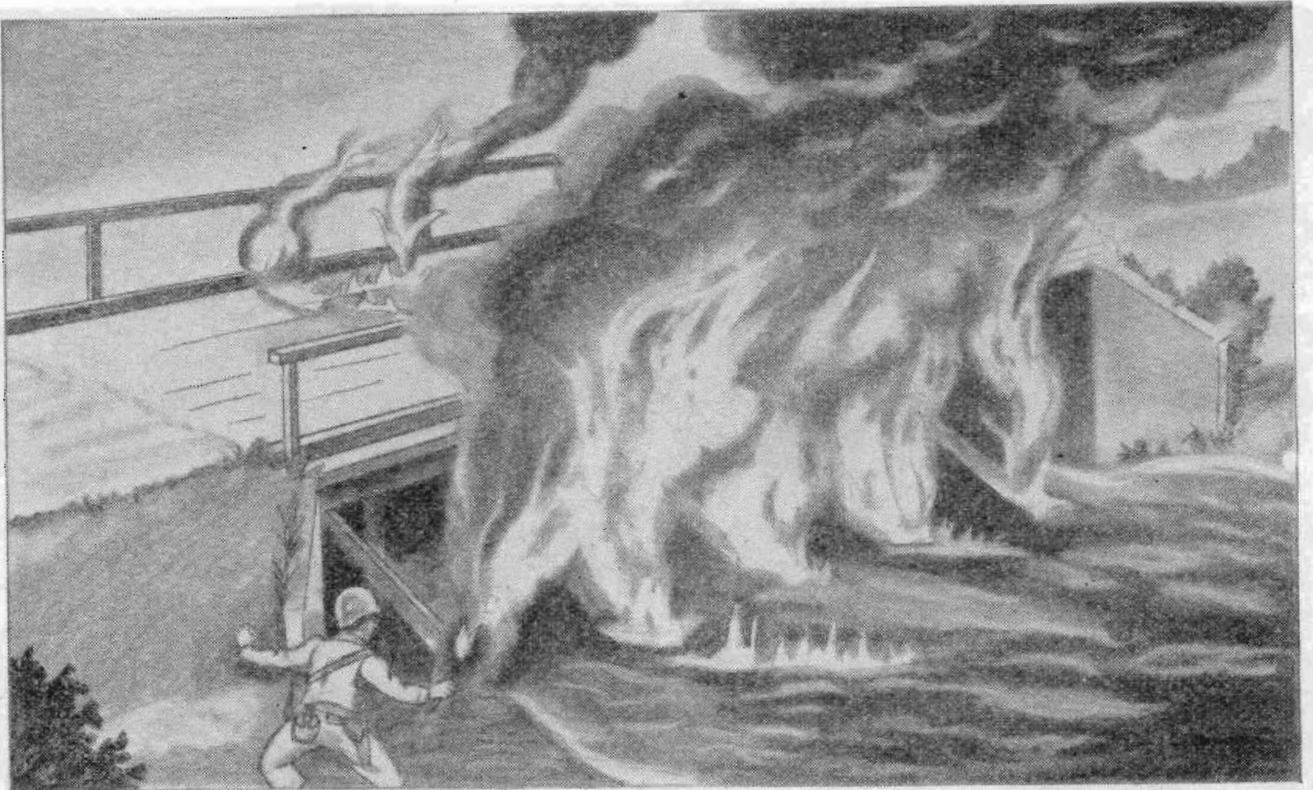


FIGURE 57.—Economize on explosives; use expedients when practicable.

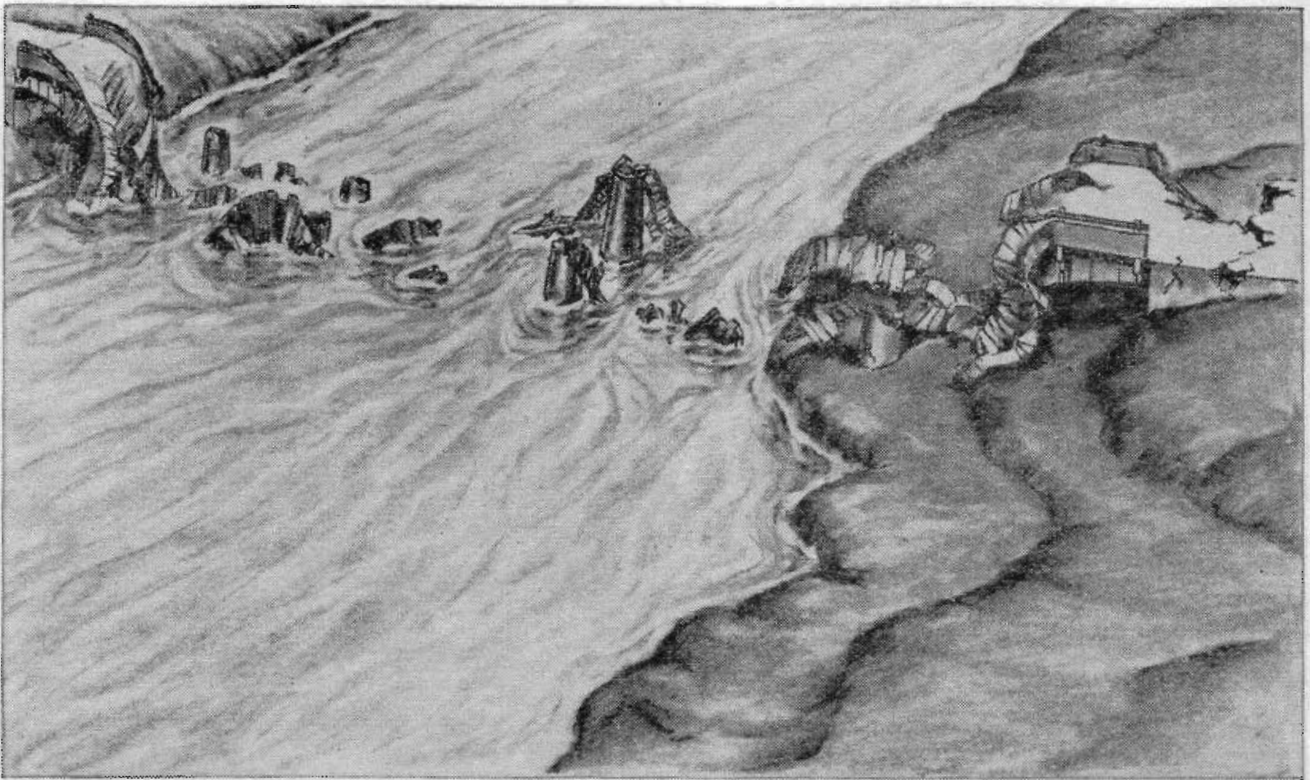


FIGURE 58.—Do not waste explosives by overdemolishing a bridge.

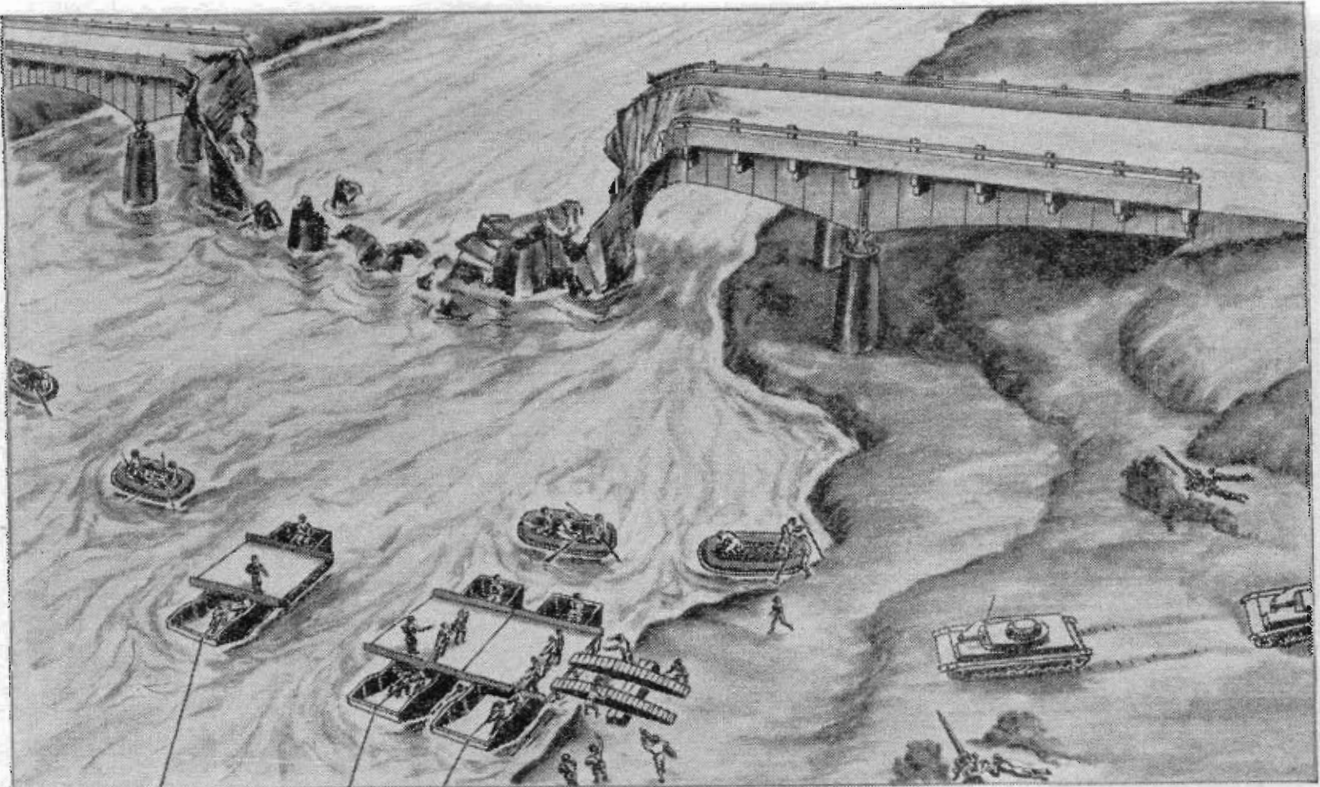
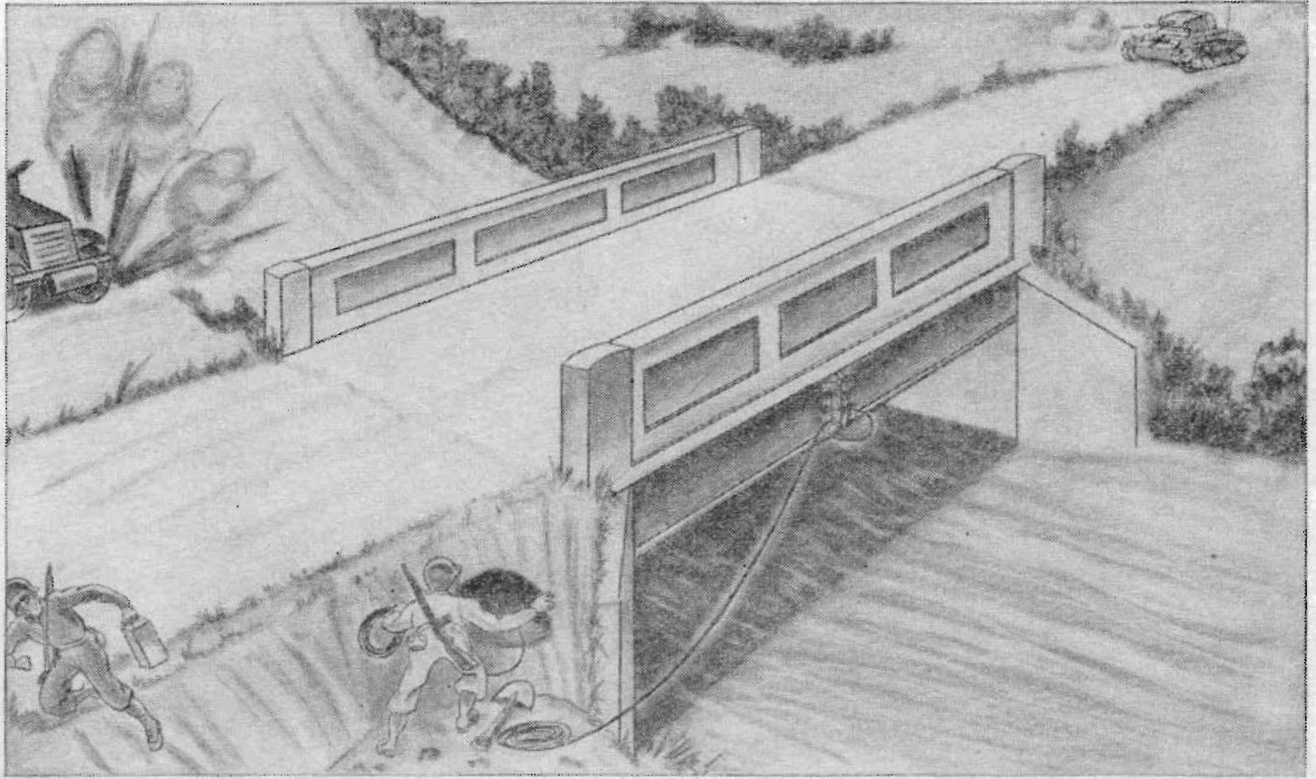
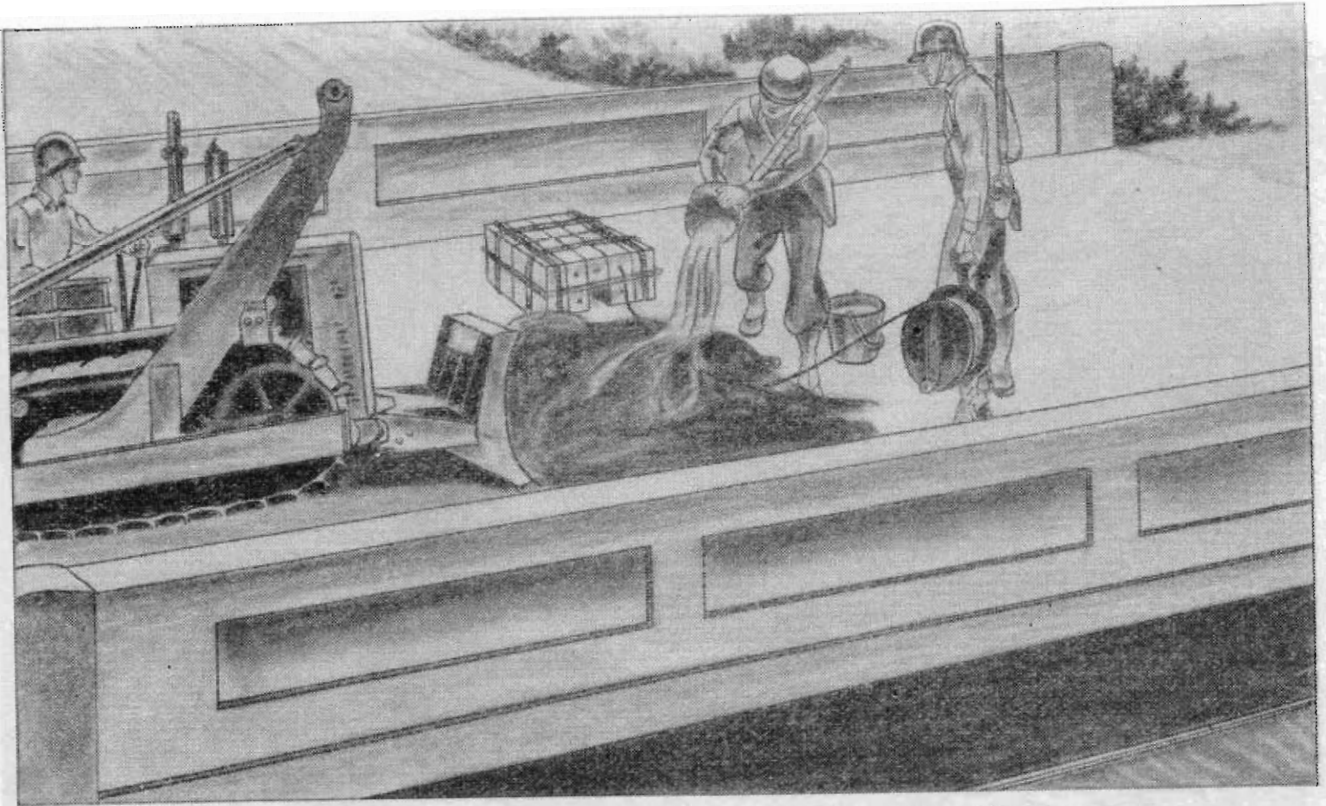


FIGURE 59.—Demolition should be of such extent that it will take the enemy longer to repair the bridge than to construct a new temporary bridge or ford.



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FIGURE 60.—Do not use slow methods if pressed for time.



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FIGURE 61.—Use quick methods when there is little time.

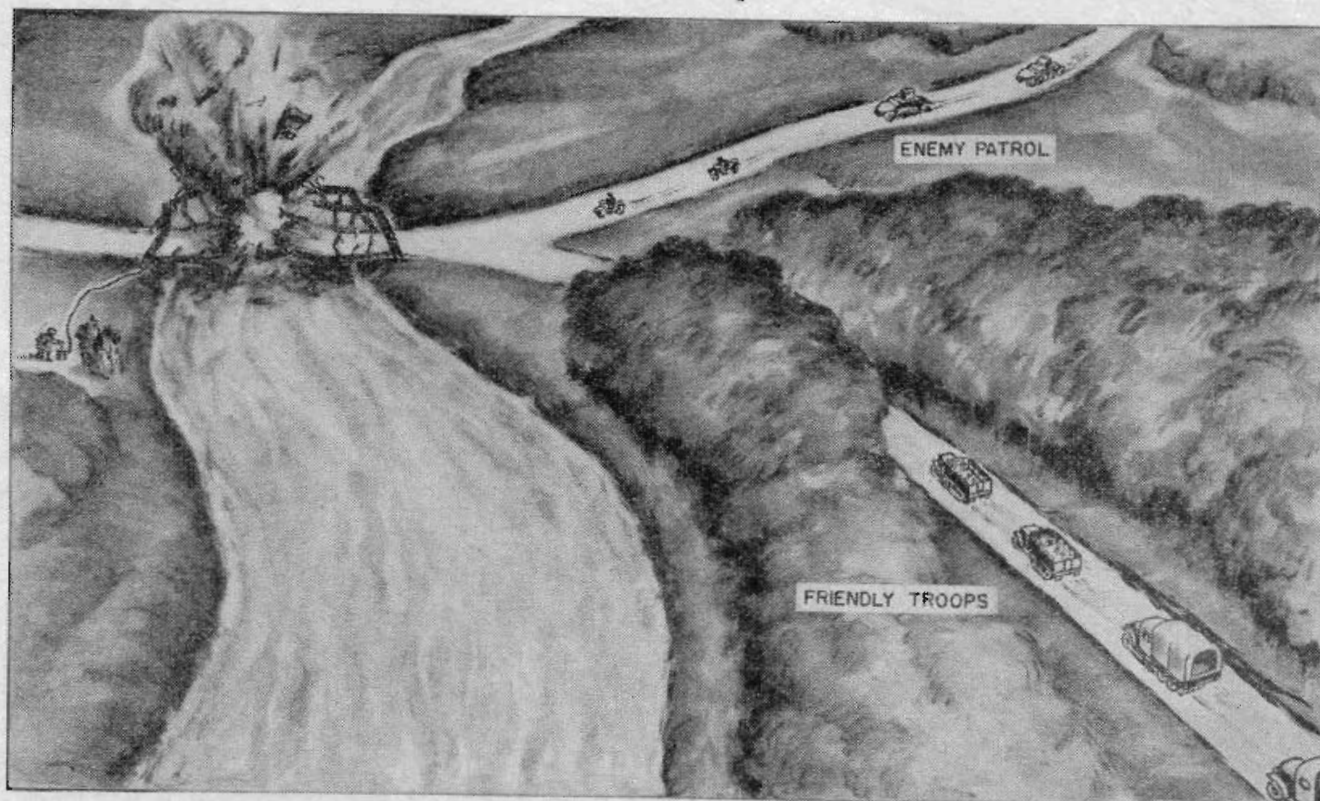


FIGURE 62.—Do not cut off friendly troops by demolishing a bridge too soon.

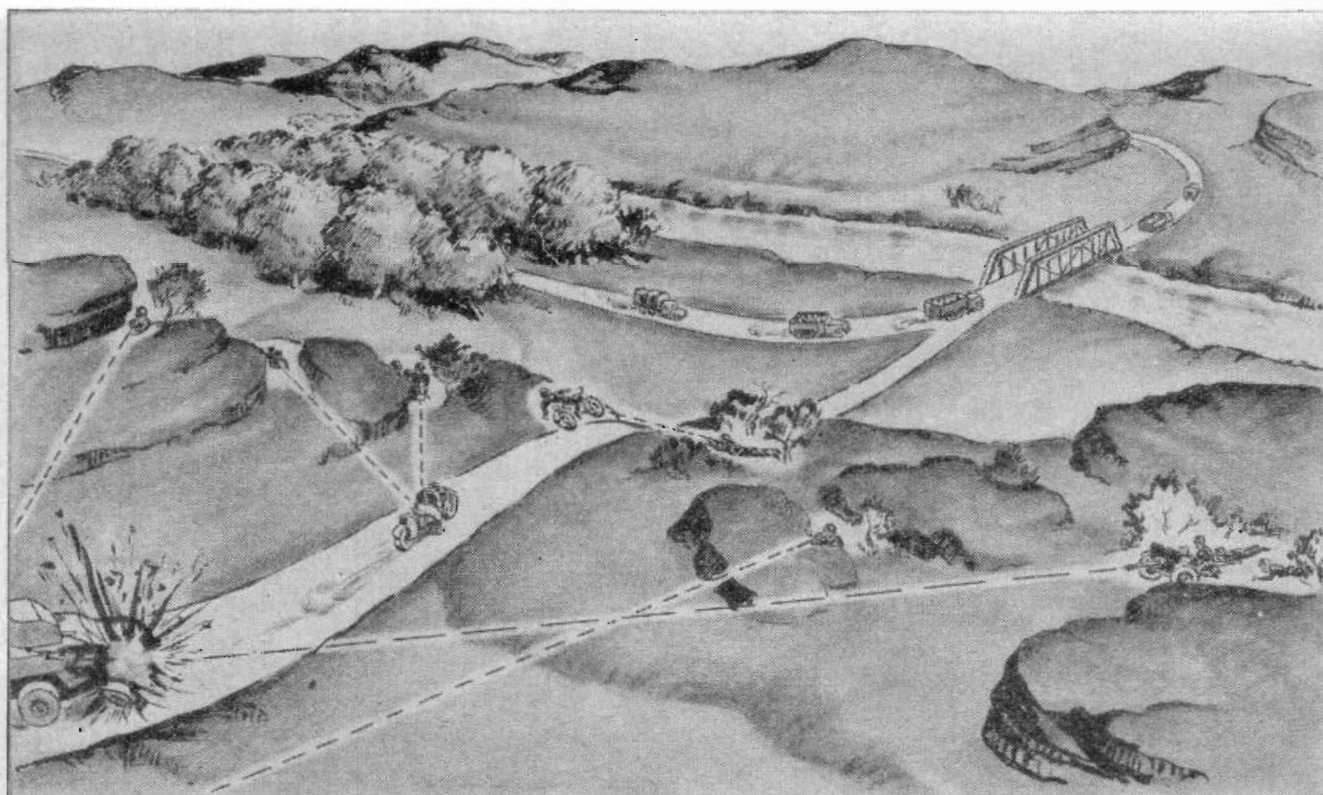


FIGURE 63.—Repel small enemy patrols and hold prepared bridges for friendly use as long as possible.