

INVENTION

G. I. Inventions

Machines that save valuable man-hours and eyesight have been contrived by soldiers overseas from scrap and junk piles.

► THREE SOLDIERS now serving in the European theater have proved, by their recent inventions, that one of the most deadly weapons in modern warfare is brainpower. Technical Sergeant Richard J. Schmieder, 26-year-old Ninth Air Force Service Command machinist, has developed new equipment that saves hundreds of man-hours in getting aircraft back into the air after suffering battle-damage. Master Sergeant Walter M. Bakula and Sergeant Everett R. Van Cleave, stationed in Italy, have designed and built efficient duplicating machines for cutting metal from plate steel and scrap metal, otherwise considered useless.

FLAK PATCHES—An electric drill points to two flak holes (left). The one to the lower left has already been drilled out with a soldier-invented 1¾-inch self-centering circular saw. A fly-cutter and jig (center) used for cutting out flak hole patches in standard sizes is another soldier-created time-saver in repairing B-26 Marauder medium bombers. Final step (right) is begun when the patch is held to the fuselage by retainers and the pattern of the patch is drilled into the aluminum. Rivets will be inserted, and a technically perfect job of mending will be completed. These are official Army Air Forces photographs.

Time is an essential commodity in getting flak-pocked, bullet-scarred, battle-damaged B-26 Marauders back into the sky, so that they can continue to hammer at Nazi installations along the Normandy invasion coast. Each plane must be mended, in conformation with rigid Army Air Force specifications, before it can again take to the sky.

Sgt. Schmieder developed a circular saw that is operated by a mechanical hand drill, which performs an inspection-proof job of patching a flak hole in five minutes. By hand, the job takes over an hour. He merely selects a self-centering saw of sufficient diameter to exceed each flak-hole's greatest extremity, inserts the tip in the puncture and cuts out a clean, round, even aperture, just as you might core an apple. From an assortment of prefabricated aluminum patches, in dimensions to fit every saw-cut, he chooses the proper size, and rivets it fast.

Recently, battle tests indicated that it was necessary to install grillework in the engine nacelle doors of the B-26 Marauders to allow air to circulate within the cowl and let toxic fumes escape. New planes coming from the factory were equipped with this modification, but it had to be made on those already in the field. By hand, the job took two full man-days to each plane. Sgt. Schmieder constructed a punch press from scrap materials that does the

job in 60 seconds—just one minute.

His other original developments include a long-handled torque wrench for dismounting and detaching engines from planes, a lord-mount jig, a broken spark plug remover, and a micromatic gun-sight hair scribe. For his job as a "fixer," Sgt. Schmieder received the Legion of Merit by order of Gen. Eisenhower.

The duplicating machines, developed by M. Sgt. Bakula and Sgt. Van Cleave, were constructed by them from a junk pile and a torch. One machine cuts a prescribed straight line, another cuts a circle, using an automatic cutting torch.

Their method saves the eyes of the operator from the constant strain of cutting with a hand torch, and speeds up the job, since the cutting is done at maximum speed throughout the operation. A job requiring 10 or 20 minutes of hard labor with a hand torch is accomplished by the new machine in five minutes. The smooth, even cut produced by the machine cannot be equalled by the steadiest hand.

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PUBLIC HEALTH

Sylvatic Plague Reaches As Far East as Oklahoma

► SYLVATIC PLAGUE, the form of this dreaded disease found in wild rodents, has penetrated to Oklahoma where plague germs were found in fleas from wood rats and mice, the U. S. Public Health Service in Washington reports.

Oklahoma is the farthest east this disease has travelled so far in its spread from the West Coast.

No human case has been reported so far this year.

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