ON-TRACK brush cutter is used along lines where vegetation has grown up close to the track.

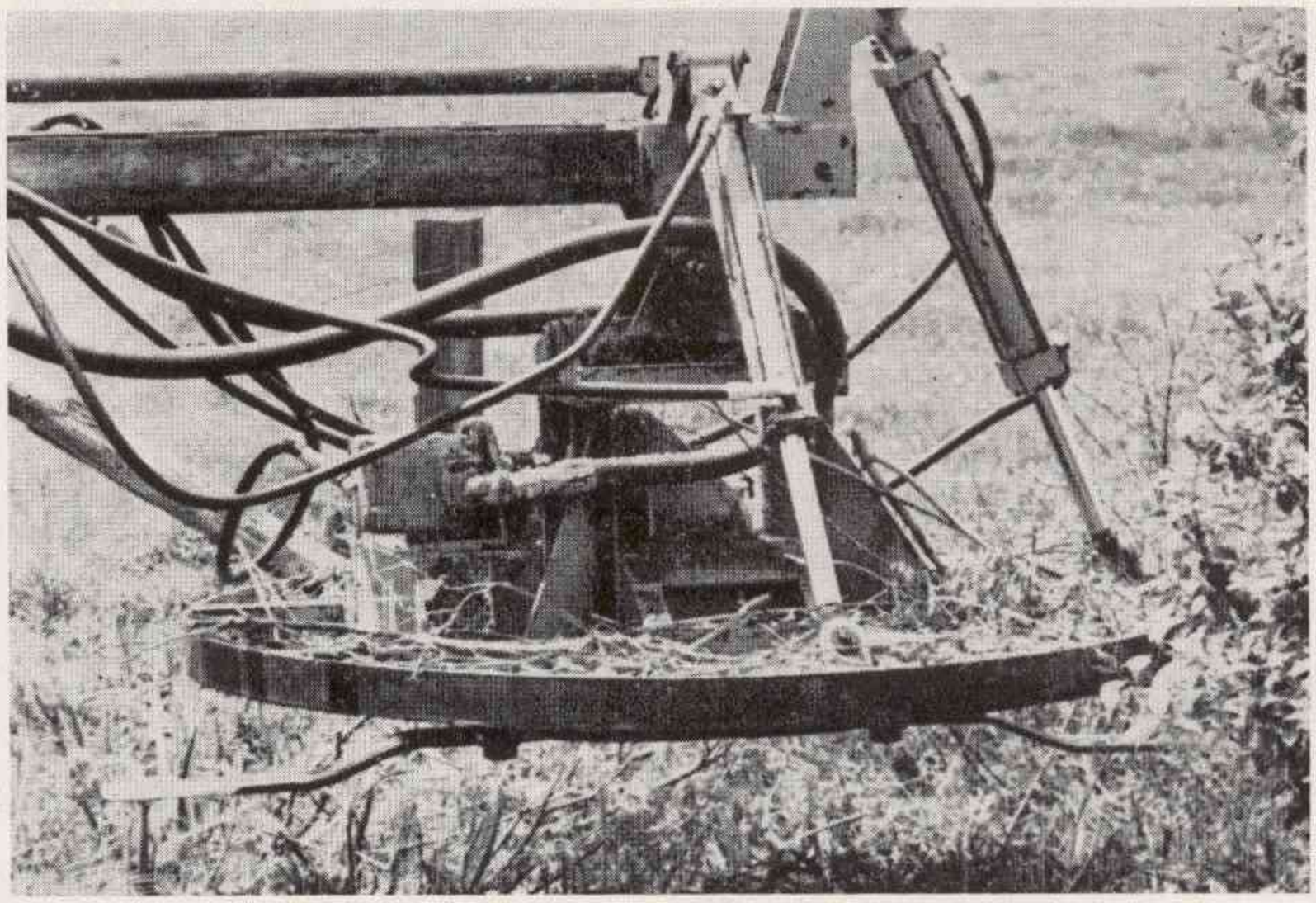
How EL wages war on brush

Two brush-cutting gangs, armed with on-track and off-track cutters, keep the right-of-way clean and clear

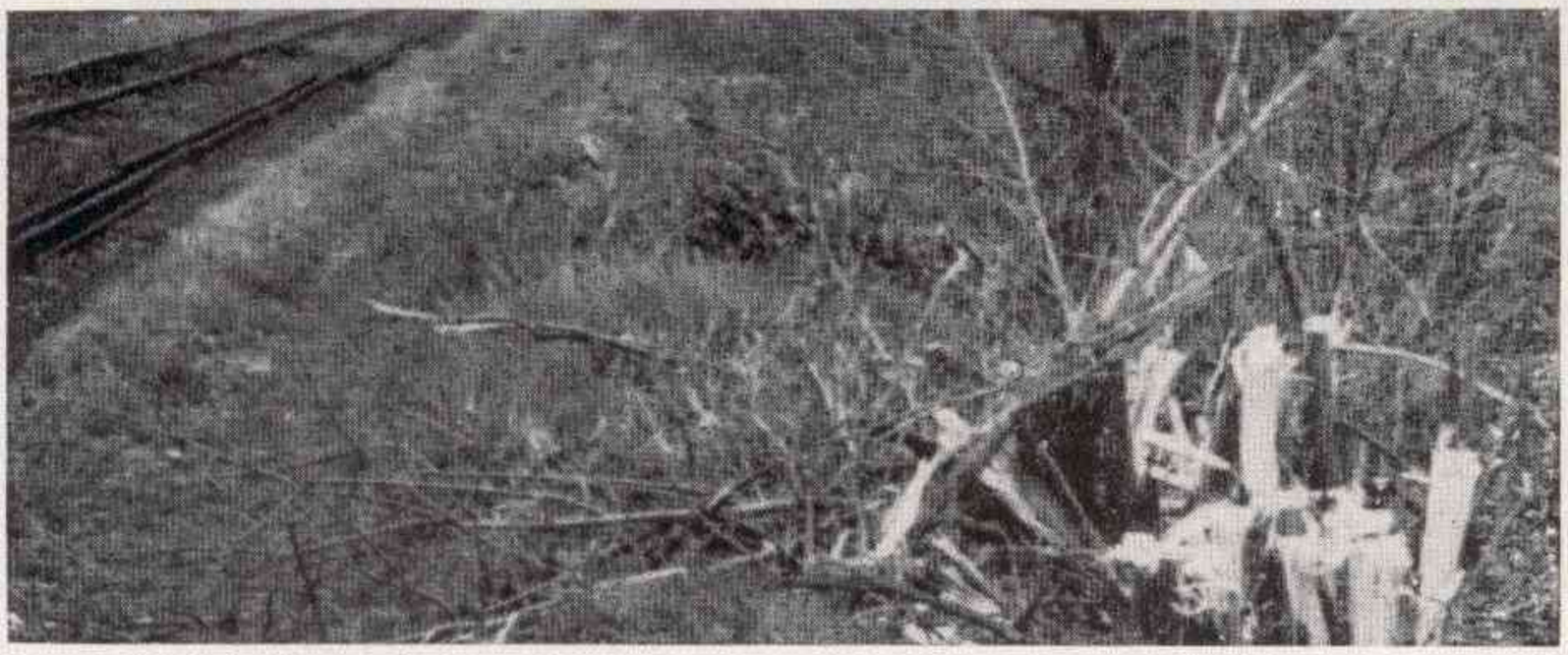
Brush can enhance the beauty of some scenes—but track-maintenance men don't like the view, when the brush is on the right-of-way. They know that if it's not kept under control, brush can well take over the entire right-of-way to the extent that, in time, it will be knocking on the windows of diesel locomotives.

Erie Lackawanna is getting good results in its battle against brush through use of two brush-cutting gangs.

Where brush and trees have encroached close to the tracks, as it often does on branch lines, EL uses an RMC on-track type of brush cutter, which has two cutting heads, one



CUTTING BLADES rotate on a head which is supported at the end of a telescoping boom. Head can be raised and lowered to fit ground contours.



CUT AND SHRED . . .

EL's on-track brush cutter clears an area 50 feet wide, cutting and shredding brush and thus eliminating a good part of the disposal problem.

for each side. Where the brush is not close to the tracks, the RMC off-track single-head cutter is used. Both units are manufactured by the Railway Maintenance Corp. They have been the prime means for controlling brush on the railroad for the past two years.

The cutting blades of the brush cutters rotate on the heads, cutting a circle seven feet in diameter. The cutting heads are at the ends of telescoping booms, which can be extended and swung outward from the machine to cut 25 feet from the center line of track. While the machine is working, the cutting heads can be raised and lowered to conform with the contours of the ground. They can also be angled to cut on slopes.

• **Flag at highway crossings.** The gangs are comprised of a foreman and five men. Two of the men are equipped with radios and serve as flagmen. A third man is the truck driver, who also serves as a flagman at highway grade crossings to protect pedestrians and vehicular traffic. The other two men are machine operators. For the on-track brush cutter, each operator handles one cutting head. For the off-track brush cutter, one operator handles the single cutting head and the other drives the machine.

The foreman rides the machine and watches for obstructions, such as whistle posts, mile posts or pole guy wires. He is responsible for the over-all supervision of the gang and decides when local conditions are such that the brush cutter can be worked safely up to and past highway crossings and through populated areas.

Because the cutting blades may fling wood chips for a considerable distance, the road has ruled that no one is to be permitted within 500 feet of the machines while they are working. At highway crossings, vehicular traffic and pedestrians are kept 500 feet from the track while the machine passes through the crossing area and until it is that distance beyond the crossing.

Where vehicular traffic is heavy, the brush cutter passes over the crossing without doing any cutting. In this event, the brush at the crossing is knocked down later and buried by a bulldozer. A bulldozer is also used for clearing brush in populated areas that are skipped by the brush cutter.

The truck driver is equipped with a portable Homelite chain saw, which he uses to improve visibility at highway and farm crossings and also to cut the larger trees on the right-of-way.

• **Continuous job.** Brush-cutting gangs work throughout the year. Although snow can pose a problem at times, EL finds that the gangs cut more efficiently in winter because of the dormant state of the woody plants and the lack of standing vegetation.

The brush-cutting machine is passed from one subdivision to another. When working, the machine generally is moved forward and stopped while the cutting heads are swung from that position to cut all brush within 25 feet of the center line of track. However, when clearing the track for trains, the cutter heads usually are used to cut a swath parallel to the track while it is moving toward a siding. On the return trip, the cutter heads are moved outward to cut another swath parallel to the first. The machines work at 3½ to 4 mph, a speed which allows the machine to shred the brush and eliminate the disposal problem.

For the on-track machine, production averages about two miles of right-of-way cut on both sides per day where there are few trains. Where considerable train traffic is encountered, production is somewhat less.

Presently, the two brush-cutting machines, working on a year-round basis, are taking care of a good portion of EL's brush-cutting needs. They are supplemented by hand-cutting with power tools in places inaccessible to the brush cutters. And EL is also using chemicals to assist in the control of brush. ■

Work begins on Chicago transit lines

Track-laying—continuous welded rail on concrete crossties—is scheduled to begin next week on the first of two median-strip rapid-transit extensions in Chicago.

RAMCO, contractor for both the Dan Ryan and Kennedy Expressway lines of Chicago Transit Authority, expects to begin the Ryan track installation about Aug. 19. Work on the Kennedy line will start up two months later. Current plans call for completion of the Ryan project by Dec. 31, and of the shorter Kennedy project by June 1, 1969.

Since mid-June, RAMCO forces have been welding and stockpiling rail for the Ryan line; since mid-July, crossties have been coming out of a specially-erected plant at McCook, Ill.

When the actual track-laying begins, the contractor will import a diesel-electric unit to power the rail train—which, RAMCO says, will consist of 23 sets of railway car trucks equipped with a loading rack and carrying four 858-foot lengths of welded rail. A tractor will extract and lay two sections of continuous rail simultaneously, ahead of the work train and locomotive. As each section is secured, the work train will advance over the new track, and the process will be repeated until the installation is complete.

• **The shopping list:** The $5.2-million project—10 route miles in the Ryan median strip and five route miles between the Kennedy's traffic lanes—will carry with it an impressive bill of materials.

By RAMCO estimates, the lines will require 10,000 tons of rail, 152,000 tons of ballast, 60,000 concrete crossties, 10,900 spikes, 10,000 rail anchors, 31,400 tie pads and 28,000 contact rail chairs.

To cut down on interruption of automobile and truck traffic, material deliveries are being made at night—a move which expressway users will appreciate, in view of the heavy traffic carried by the roadways and the limited access and storage space in the median strips.

The contractor's permanent project force will total about 50 men, with about 80 men on the job at its peak. A staggered work schedule will permit RAMCO to shift part of the force to the Kennedy site as each phase of work is completed on the Ryan line. ■