Tractors stuck in mud holes are nonproductive, and the time required to get them out is costly. To overcome this problem, loggers in Wisconsin are using pull-out chains designed by the Wisconsin Conservation Department for use on fire-fighting equipment. These chains are simple to make and are effective for use on crawler tractors.

A set of pull-out chains consists of two identical units, one for use on each track of the tractor. The units consist of standard logging chain, rings, and hooks, except for the "lug" hooks (fig. 1), which are forged by local blacksmiths. The opening in the lug hook is just large enough to fit easily over the ends of the grousers or "track plates" on the tractor tracks. The chains are designed to fit track of any width.

When a tractor is stuck, one chain is attached to each track by hooking the lug hooks to the edges of the track. The free ends of the chains are then hooked around a pole or small log (fig. 2). The tractor driver then engages the clutch, and, as the tracks spin, the log is pulled under them. One or more poles are then placed under the protruding ends of the tracks to form a corduroy road across the mud hole.

The material required for each unit of the chain is as follows:

1. About 12 inches of 1/2-inch logging chain
2. About 44 inches of 7/16-inch logging chain
3. One 5/8-inch log-chain grab hook
4. One 1/2-inch log-chain round hook
5. Three 3/4-inch rings with an inside diameter of 2-1/2 inches
6. Two home-made lug hooks made of round mild steel, 1-1/2 inches in diameter, and shaped to have an opening 1 inch square.

E. W. Fobes
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Information furnished by Neil LeMay,
Chief Ranger, Wisconsin Conservation Department,
Madison, Wisconsin
Figure 1.—Pull-out chain for crawler tractor.

Figure 2.—Pull-out chains attached to tractor.