

New Ideas and Improved Methods

By D. J. McLELLAN

*O.S.H.D. Can Opener—Or,
"On The Barrel Head"*

The Highway Department uses a large quantity of 50 gallon steel barrels each year for barreling and storing road oil for patching roads. These barrels wear out in time due to unavoidable rough handling in transporting them to and from the job. And, as they have to be burned out at times, the life of the metal is not too long. The head of these barrels has to be removed to facilitate quick and easy filling from tank cars as well as ease of emptying them. In the past, many hours of hard labor have been required to remove the heads by special chisels, cutters, etc., used with hand hammers.

A while back the U.S. Army Engineers published an illustrated article of a machine for doing a job of this sort. At the instigation of the maintenance engineer, E. A. Collier, and with suggestions by E. F. Halik, equipment engineer, Johnny Harnsberger, blacksmith foreman and crew, redesigned and constructed a machine that we believe is A-1. It has been tried out with the report that it will cut 300 barrels in about 4½ hours with a three-man crew.

Johnny dug around and found an old hydraulic hoist with pump which was mounted on a vertical frame fabricated out of steel channel and plate. The hoist was mounted in a vertical position centering over the barrel position. A small air-cooled gas engine was then mounted on the base of the machine and connected to the hoist pump which is piped to the hoist cylinder. This is controlled by a hand valve which channels the oil to the proper pipe for lowering and raising the piston rod which has the cutter attached to it. The cutter is made of steel plate and is made

somewhat like a hole cutting saw used in cutting holes in sheet metal. It has teeth like a saw but is pressed into the barrel head instead of being rotated. A foot operated self-centering device was installed on the inside of the legs of the machine to center and grip the barrels so they would not be lifted off the bottom plate and stick to the cutter. This saved considerable time.

From all reports this machine is a great success.

Drafting During the War

During the war, drafting was not all in the hands of the Selective Service Boards. However it had the edge on various departments of the state which required the services of draftsmen they could not find.

The Hydroelectric Commission found itself confronted with necessity of preparing maps and no one to do the drafting. Goaded by the necessity, the best maps available from its own files, or any one's handy, were secured. Upon these maps were drawn the necessary additional lines, figures, etc. The title, some times printed, other times typed, was pasted over the title of the original map.

This was then photostated and then all the unnecessary lines, letters and figures of the original map was painted out of the photostat. The photostat was then used as a negative and after oiling it for the sake of better transparency, blue line prints were made.

At times the blacked out parts of the photostat showed up as a white blotch on the slightly blue-tinted background prints. In such case, everything between the border and the map proper was blocked out, making a pleasing contrast between the slightly blue cast of the map and the surrounding white.