

Every Pile of Tin Cans Is an Iron Mine

THAT sorry procession of empty tin cans that passes continually through your back door to ignominious oblivion soon may be knocking at your front door in the form of brackets for your walls, sash weights for your windows, griddles for your kitchen stove, and grates for your furnace.

In a series of experiments recently concluded by the Northwest Experiment Station of the Bureau of Mines, Seattle, the Great American Can has been converted successfully into synthetic iron for any use to which ordinary pig iron can be put.

The millions of cans that are wasted each year (from 160 to 200 are used by each of the 25,000,000 families in the United States) contain very little tin. All but one per cent is iron. The problem of salvaging them heretofore has been the difficulty of separating the tin from the iron so that the latter might be used.

The melting temperature of tin is 232° C., while that of iron is 1500° C. Attempts to melt all the tin off proved unsuccessful. But the Seattle experimenters overcame this limitation by adding scrap iron to the metal obtained from melting the can scrap, thus reducing the proportion of tin by diluting it.

Heavy sections and thin ornamental

Small Tractor Converted into Power Shovel

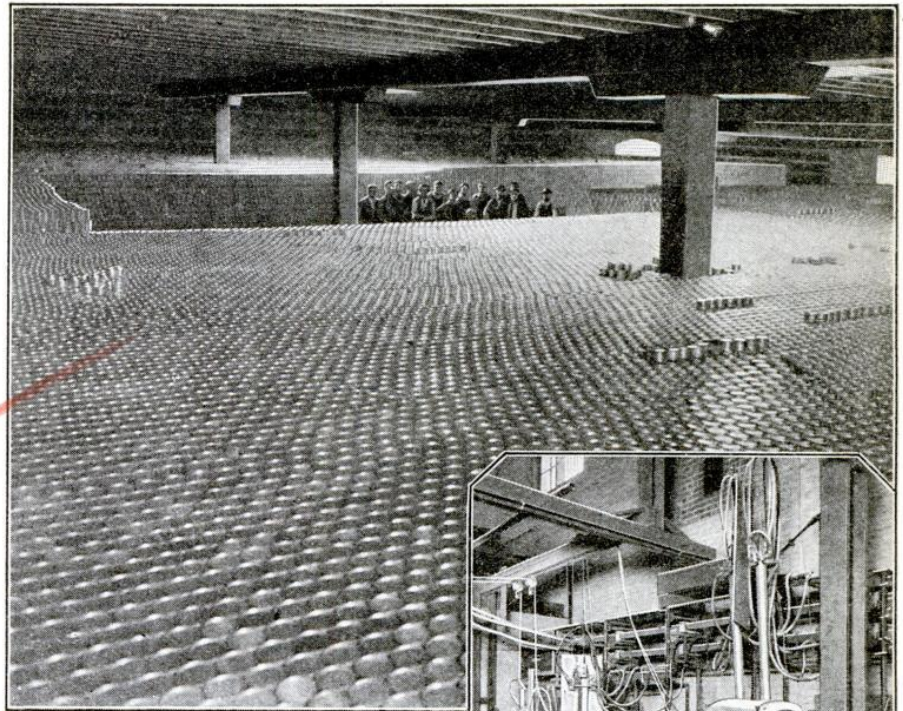
THE small tractor can be converted quickly into a diminutive and mobile power shovel when equipped with a recently patented attachment consisting of a broad shovel, holding half a cubic yard, and fastened to the front and rear axles of the tractor. The machine is especially useful on small jobs such as digging cellars, ditching, loading wagons or shoveling snow.

Power for raising and lowering the shovel is supplied by the tractor engine through a pulley attached to the right side of the tractor. A steel rope passing around a drum at the rear, operated by a trip lever beside the driver, manipulates the shovel.

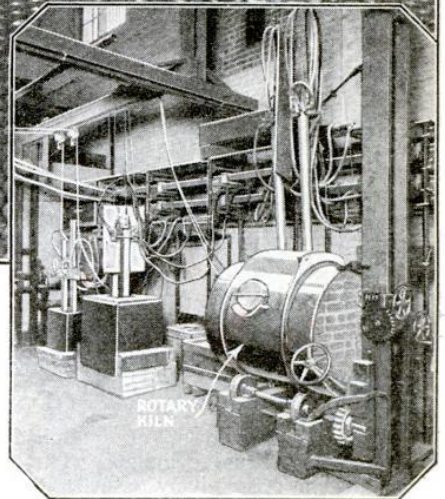
The driver sends the tractor forward in low gear. A lever lowers and raises the shovel as required.



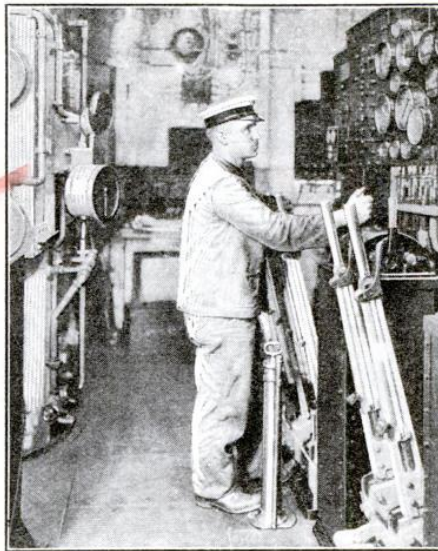
Power shovel used for excavating



Above: A sea of tin cans waiting to be used and thrown away. Right: The laboratory where cans are converted into usable iron



castings were made of the new metal. It was found to be amply soft, and to yield properly to a carbon drill or lathe.



One Man Controls Great U. S. Dreadnaught

THE brain of Uncle Sam's mighty dreadnaught *Colorado* is in the little room shown above. From it every movement of the great war-ship can be governed by one man through a marvelous electrical control system. The long levers control 30,000-horsepower electric propelling motors. The short handles control the throttle valves of giant steam turbines. These turbines drive electric generators that provide the power for the electric motors. The motors, in their turn, drive the great propeller shafts.

One-man control is the last word in the navigation of battle-ships. Heretofore six men have been required as a control-room crew.

Car-Drawn Mower Cuts Weeds along Tracks

WEEDS along the tracks of an inter-urban trolley company of Rockford, Ill., caused considerable trouble and expense every summer, until an employee of the company hit upon the idea of hitching a mowing machine, of the type commonly used on the small farm, to a trolley car and hauling it over the right of way.

By the new arrangement, the mowing machine is equipped with flanged wheels to fit the tracks and the tongue of the machine is attached to the rear of a car. As the mower is hauled along the tracks, the cutting blades can be raised or lowered.



Mowing weeds along the right of way