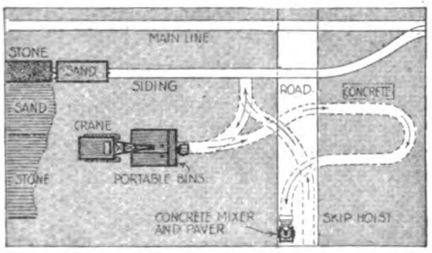
Portable Bin Speeds Up Roadbuilding

INTELLIGENT planning of a material yard and the use of a portable aggregate bin that saved the seconds in loading material recently enabled a crew of 53 green men to lay a mile of 18-foot concrete road in nine working days in the course of a state highway job in Wisconsin.

Nearly two months before the mixer was on the job, all the sand and stone that could be obtained was piled in the storage yard. The mechanical equipment here consisted of a crane with a 40-foot boom, which unloaded the sand into a pile about 20 feet wide at the base, and placed the stone in a parallel pile about 50 feet wide.



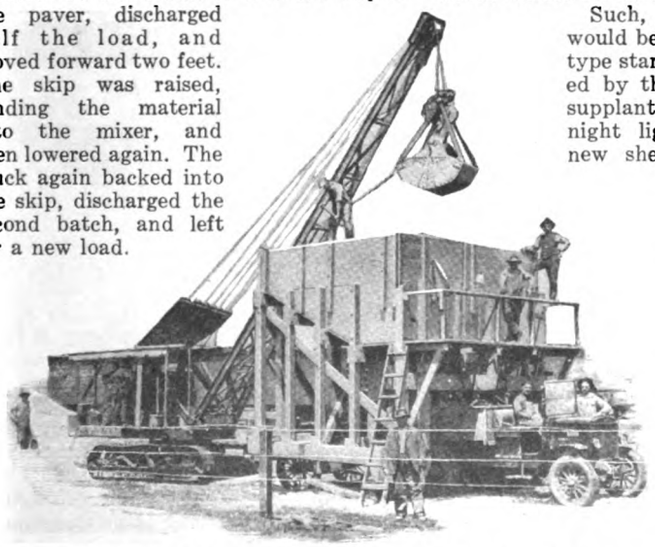
How the plant was laid out for rapid paving work is shown above

To obtain the greatest loading speed, a portable aggregate bin was built of white oak, about 14 feet square and 18 feet high, and mounted on road wheels. It was attached to the crane by a rigid 10-foot pole, so that it followed the movements of the crane and made it unnecessary to peak the boom at any time.

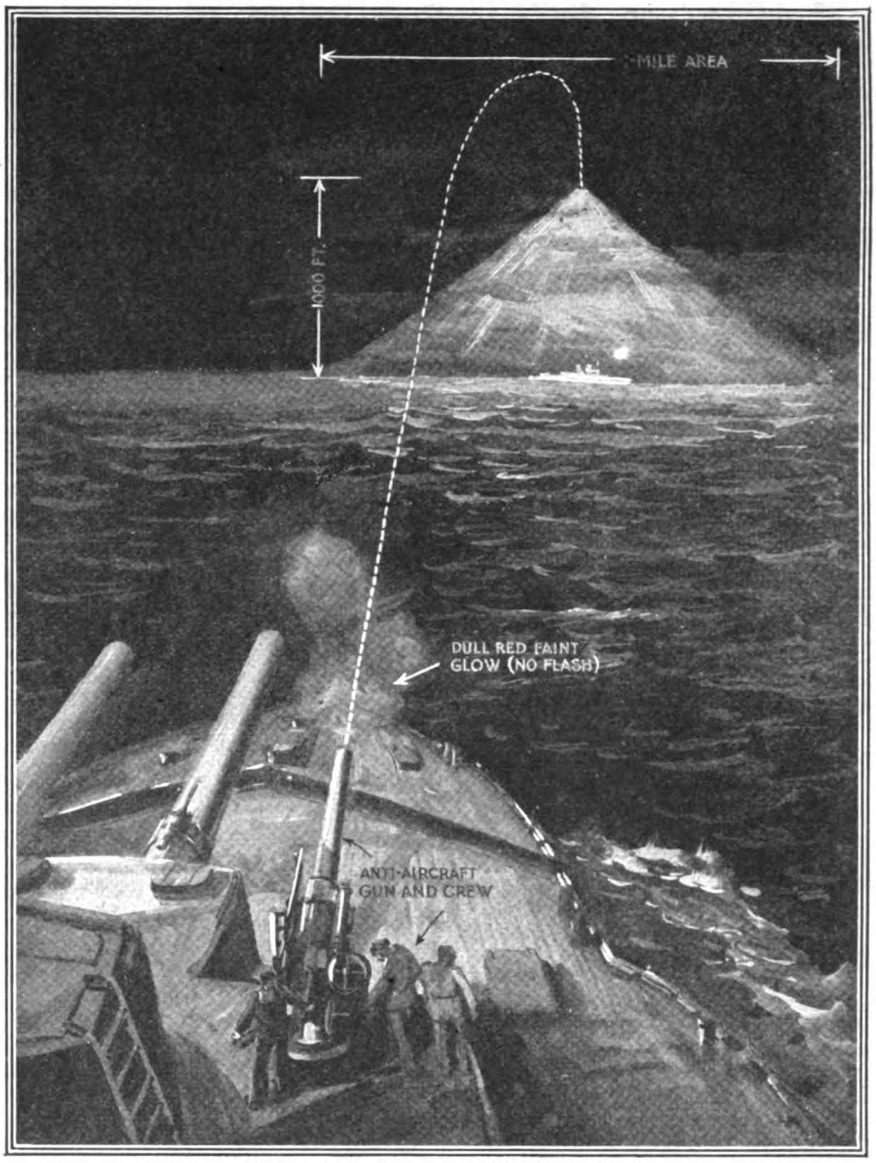
Forty yards of aggregate, 15 yards of sand, and 25 yards of stone were carried in the bin at all times. Two measuring hoppers were mounted below the bin floor, so designed that a mixture of any proportion could be delivered to the trucks by the manipulation of levers, controlled by one man from a platform, that operated the upper and lower cut-off gates.

Each truck after it had backed under the bin and received a carefully measured amount of aggregate in each of its two compartments, drove to the cement shed, where two and a half barrels of cement were dumped on top of the aggregate. Thence it proceeded to the site of the work.

Here the truck backed into the skip of the paver, discharged half the load, and moved forward two feet. The skip was raised, sending the material into the mixer, and then lowered again. The truck again backed into the skip, discharged the second batch, and left for a new load.



Each truck, as it backs under the portable bin, receives an accurately measured amount of aggregate; then drives to the cement shed



A moment after the shell bursts, an 800,000-candlepower light is suspended from a parachute 1000 feet high, illuminating the enemy battleship

Star Shell Replaces Navy Searchlight

A SHELL explodes 1000 feet above an enemy war-ship; immediately the vessel is flooded with dazzling beams from an 800,000-candlepower light that illuminates the sea for miles.

Such, in naval warfare, would be the effect of a special type star shell recently adopted by the American navy to supplant the searchlight for night lighting at sea. The new shell is a development from the trench star shell used during the war. It is fired from a three-, four-, or five-inch gun using a new flashless explosive. The timing fuse of the shell, after detonation, lights a powerful lamp and expels a parachute that keeps the light at a height for a full half minute. The advantage of the star shell is that there is no flash from the gun firing it.

The new shell is loaded into a gun and fired. It has a range of six miles. For the larger guns the shell does not work so well, because of the character of the new explosive; but with the three-inch and smaller guns, it functions almost perfectly.

When the shell is fired from the three-inch gun, only a ball of very white smoke issues from the muzzle. This ball of smoke is hardly visible at 500 yards from the ship. With the five-inch gun, however, there is a dull flash that might possibly be recognized by an enemy at long range.

Stained Glass Dies of Disease

GLASS seems to die of disease, like a living thing. An unknown malady is attacking the stained-glass panes of cathedral windows in Europe. The sickness makes the colors deepen, and the glass flakes off in small pieces until the panes are as thin as tissue-paper and will crumble at a touch.

The effect of rapid vibrations from the music of the organ is suggested as a cause, but it seems equally probable that the disease is a little-understood effect of the actinic rays of sunlight—comparable, perhaps, to the radium and X-ray emanations that turn clear glass a deep purple.