

MACHINES SOLVE HANDLING PROBLEMS IN OYSTER PLANTS

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INTRODUCTION

This article shows three handling machines: a shellstock stock conveyor, a bulk-handling conveyor, and a forklift.

SHELLSTOCK CONVEYOR

Anyone who visits a plant for shucking oysters soon realizes that to produce a substantial volume of oysters, an oysterman must unload and move to storage and then to shuckers' benches a large quantity of live oysters in the shell or "shellstock" as it is known to the oysterman. Depending on the yield and the amount of empty shell present, 1 to 2½ bushels of shellstock must be shucked to obtain 1 gallon of oysters.

Some of the largest oyster plants have traveling-crane hoists to carry shellstock to bins over the shucking benches. In smaller plants, the problem of getting an adequate supply of shellstock to each shucker when he wants it and where he wants it has not lent itself to ready solution by mechanization. Shuckers work at widely different rates and often are scattered randomly among the shucking stalls when, as is normal, the plant is operating at less than peak capacity. Thus most plants still use men working with a wheelbarrow and shovel, or carts with wire baskets also filled by shovel. In New Orleans, La., the shellstock comes into the plant in bags and the bags are emptied on the shucking bench. Each of these systems involves heavy manual labor.

One oysterman has found a novel solution to this problem. Figures 1 to 4 show how he does it.

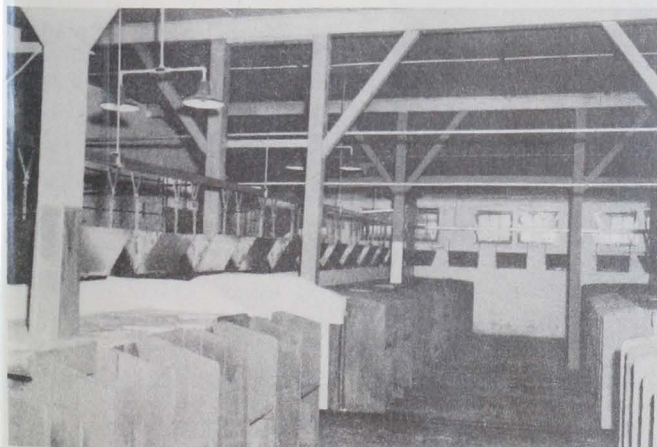


Fig. 1 - An overhead conveyor track carries the "cars," filled with shellstock, on an endless chain to the shuckers' tables.

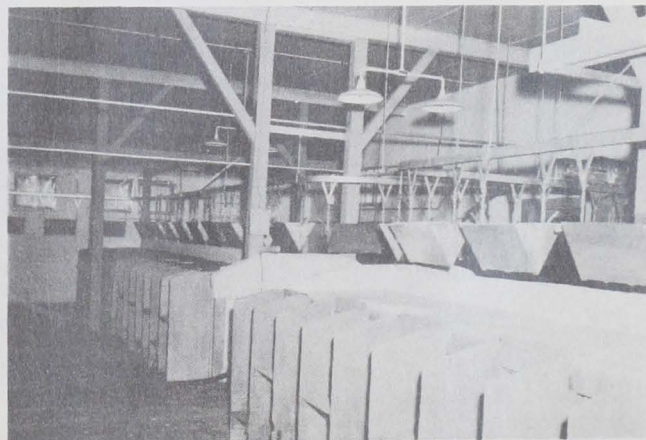


Fig. 2 - The V-shaped containers slowly pass in front of the shuckers. Whenever a shucker needs oysters, a light pull on the handle dumps the car contents on the bench.

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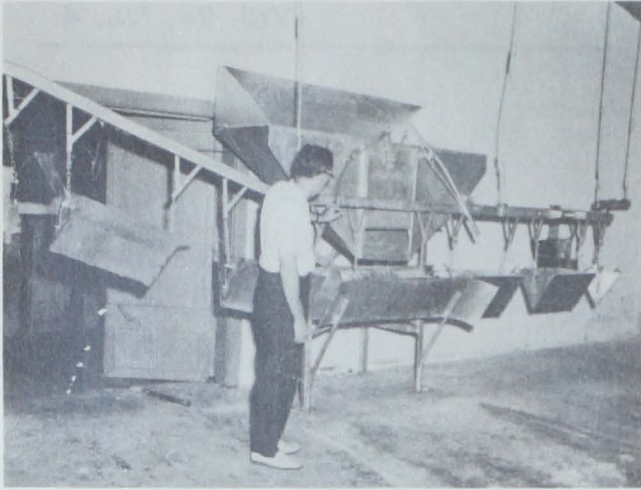


Fig. 3 - This is the device used for loading the cars. A tractor-mounted scoop fills the hopper, and the shell oysters drop by gravity into the trough when the operator pulls the lever.

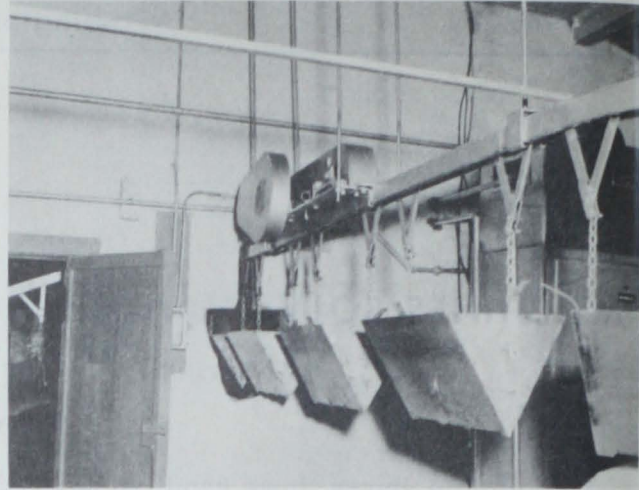


Fig. 4 - A small motor, mounted directly on the track, furnishes the driving power.

BULK-HANDLING CONVEYOR

Another conveyor that has proved useful in this plant is a self-propelled conveyor loader (fig. 5) for loading shellstock into trucks or for loading empty shell onto barges.



Fig. 5 - The bucket-loading conveyor is on a halftrack, is self-propelled, and includes a small lifting boom located on top. The commoner type of portable loader, seen in the right background, is mounted on large wheels and is moved by manpower.

FORKLIFT

The operator of this plant had another material-moving problem that he solved with ingenuity. The problem was to design a forklift that could be attached to a small tractor and powered by the hydraulic cylinders that normally lifted the scoop. One requirement was that the fork be maintained in a horizontal position, regardless of the height to which the fork was lifted. In solving this problem, he first made a small model with cardboard, matches, wire, and glue. After he worked out the required shape of lever and frame, he had a shop make the equipment in heavy steel. The trick was in getting the shape just right for the lever that slides over the "hump" (fig. 8) so that the load comes up evenly all the way and does not tip forward or slide backward at any point. Figures 6 to 11 show the detail.

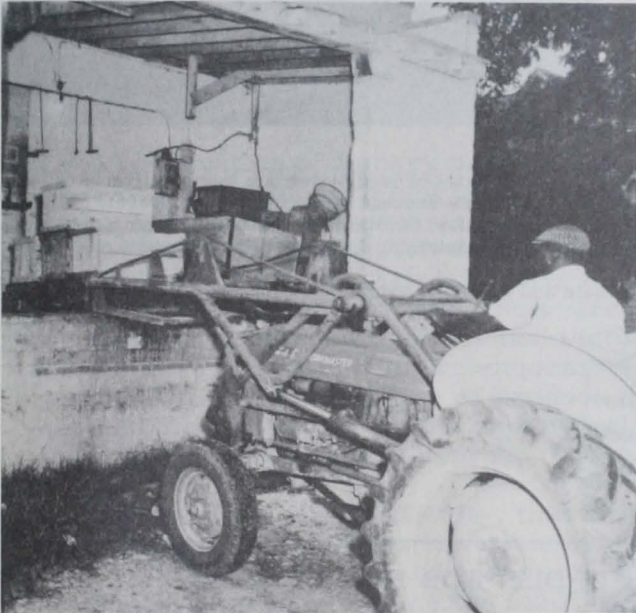


Fig. 6 - The tractor-mounted forklift will rise to a height adequate to place a load on the platform of the cold-storage building.



Fig. 8 - The lever (center) that positions the platform during the lift has a unique shape. This lever slides over the "nose" on the forward edge of the mounting frame.



Fig. 7 - The fork lies perfectly flat at floor level.



Fig. 9 - Shown from another angle is the relative position of the framework when the fork is raised.

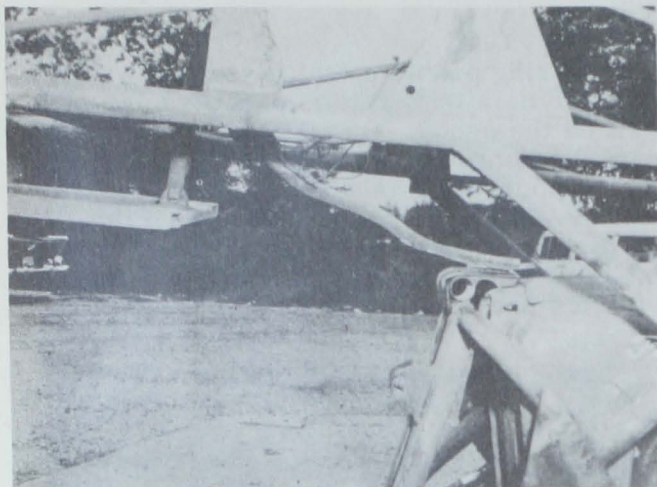


Fig. 10 - Here is seen the positioning lever in the elevated position. The shape, angle, and length were found by trial and error with models.

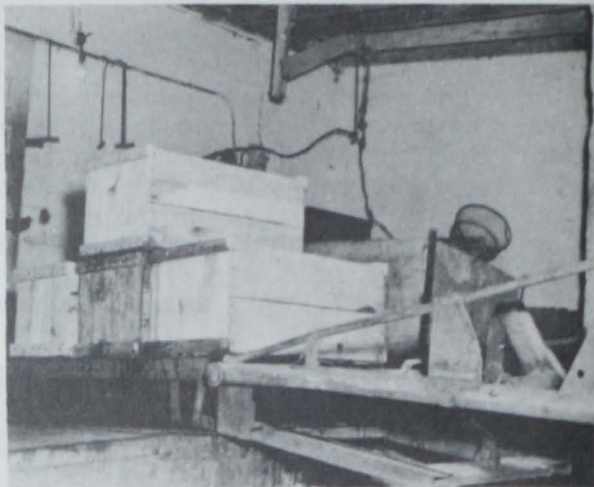


Fig. 11 - Four boxes of iced oysters are being delivered at the loading platform. Because of the unique design of the forklift, the fork can be lifted from ground level to maximum height while continuously maintaining the pallet in the horizontal position.

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SEAFOOD AND EGGS MAKE GOOD MAIN DISH FOR FAMILY MEAL

A combination of seafood and eggs will make a nutritious, delightful, and moderately-priced main dish for the family table. Both seafood and eggs are excellent sources of the protein so necessary for the repairing and rebuilding of body tissues.

The home economists of the Bureau of Commercial Fisheries suggest the following recipe containing seafood and eggs.

SCALLOPS LORRAINE

| | |
|-----------------------------------|------------------------------------|
| 1 pound scallops, fresh or frozen | 2 tablespoons sherry |
| 1 quart boiling water | 2 tablespoons chopped parsley |
| 2 tablespoons salt | 1 teaspoon salt |
| 1 cup pastry mix | $\frac{1}{2}$ teaspoon celery salt |
| 3 eggs, beaten | Dash pepper |
| $\frac{3}{4}$ cup coffee cream | Paprika |

Thaw frozen scallops. Remove any shell particles and wash. Place in boiling salted water. Cover and return to the boiling point. Simmer for 3 to 4 minutes, depending on size. Drain. Chop scallops. Prepare pastry mix as directed. Roll and line a 9-inch pie pan. Combine eggs and cream; add remaining ingredients except paprika. Place scallop mixture in pie shell. Sprinkle with paprika. Bake in a moderate oven, 350° F., for 35 to 40 minutes or until pie is firm in the center. Serves 6.