


SULPHIDE



ITS WORK AND ITS WORKERS

DREDGING FOR SHELL

(Continued from No. 24, March Number).

In operation, the Dredge literally walks along by pivoting itself alternately on two spuds or legs, mounted near the stern at 14ft. centres. These spuds are steel shafts 30ft. in length and 10 inches in diameter. By lowering a spud into the bed of the river, the aft end of the dredge is anchored whilst the suction mouth at the forward end can be pivoted on an approx. 130ft. radius. Anchors are placed to port and starboard at angles of 110° and 200ft. from the dredge side. The anchors are connected to a ladder through a lead-block and onto a winch operated from the central cabin. The distance travelled forward per day is between 25 to 30 feet, cutting a channel 250 to 275 ft. wide.

When the cutter is lowered into a bank of shell, the cutter breaks up the silt, sand and shell, allowing it to pass into the suction mouth as a slurry.

My first introduction to the Dredge was when the cutter needed attention, the drive not being satisfactory. The late Mr. Harry Lamb was called in, and he designed a drive from the main pump shaft consisting of a chain and bevel wheel drive. I had the job of fitting and assembling this item, and it proved most satisfactory, thanks to Mr. Lamb. Next, the trommels and scraper conveyor were replaced in favour of shaker screens and conveyor belt — also carried out under Mr. Lamb's supervision.

Efficient washing of the shell was our next difficulty, and became quite a headache. During our trials and tribulations, Mr. Williams, then Manager of dredging operations, decided he had had enough and retired. Mr. J. T. Crozier was appointed Dredge Manager, with Mr. J. Coulson foreman and myself Engineer-in-charge of all plant. After various adjustments and an additional washing pump, things went along smoothly for a while, with satisfactory results both in tonnage and quality.

The hull of Dredge "Fullerton" was of wood and had been in the water for several years with little or no attention under water. What with "white ants" on the inside and cobra on the outside, the hull was in pretty poor shape.

The present Dredge was salvaged from Throsby Creek near Carrington Bridge, where it had been more or less submerged for eight years. The work of salvaging and refitting was mainly carried out by Penguin Ltd. for H. P. Stacey. After several attempts the hull was floated, sealed, and towed to Sydney for fitting out. On completion, the dredge — "Groper" by name — was towed back to Newcastle; and after installing additional machinery, was commissioned in October, 1942.

The set-up was a little different to Dredge "Fullerton," there being two trommels and two shaker screens. The operation was similar — discharge from the main pump is direct into de-watering boxes, the shell discharging onto the shaker screens where it gets its first screening and washing, then into trommels where it receives a second screening and washing, and finally by conveyor belt into a lighter. The lighter, when loaded, is towed to Carrington, where the shell is loaded into trucks and taken to Cockle Creek Works. The average output of shell per annum is approx. 50,000 tons.

In March, 1944, Sulphide Corporation Ltd. took over from H. P. Stacey, who became a subsidiary of Sulphide. In January, 1950, H. P. Stacey Pty. Ltd. went into liquidation, and Dredge "Groper," all floating craft and the wharf crane became part and parcel of Sulphide Corporation Pty. Limited.

—J. H. DAGWELL.

(Mr. Dagwell was appointed Dredge Manager on Mr. Crozier's retirement in February, 1948).