

## PROTECTION TO LIFE AND SAFETY OF WORKMEN ON DREDGES.

The newer dredges, as a rule, are complete in their equipment of appliances and fencing in respect to compliance with Regulation 83.

The machinery and belting are compactly placed and spaced, and good roomy travelling- and passage-ways are provided on the decks, thus minimising the risk of accident. Ample freeboard, ranging from 2 ft. 6 in. to 3 ft. 6 in., is also provided.

The majority of dredge-masters, many of whom now have their first charge, are making earnest endeavours to comply with the special rules, and provide for the safety and comfort of their crews. The decks and machinery are now so fully housed-in that the men on shift, even in the roughest weather, work under comparatively comfortable conditions.

The boats in general use on the rivers, for communication between the shore and the dredges, range from 18 ft. to 21 ft. in length by from 8 ft. to 10 ft. beam, have bluff high bows, and are found to be useful and safe, and easily handled by the steer-oarsmen in the river-currents. The boats are run on the bow side lines, each having a painter made fast to a traveller on the line, and in the boat to a runner—an iron ring and crossbar in the bows. A post is generally erected in the bows, also a light chain fitted, which is used as a stopper when running a line. With boats equipped with all these appliances, the regulations observed, and care exercised, there is little risk of accident when shifting or running lines, as becomes necessary, as the dredges work up or down the rivers.

All the dredges stop for oiling-up once or twice during each shift, or at the change of shift; and enginemen breaking this rule have met with very severe injuries.

The use of hand-winches on dredges is confined to the older and smaller type of dredge, steam-winches being invariably used on the modern machine. The Rolling Stone dredge, Cardrona, was provided with hand-winches at the outset, but after their early experience—three men injured within five weeks by the winch-handles reversing—the dredge was closed down until steam-winches were fitted.

Five other accidents on dredges have been reported to me during the year, the most serious being that of William B. Morgan, one of the crew of the Central Electric dredge, Cromwell, who was drowned while running a line in a boat from the dredge to the shore. Three accidents occurred to men oiling or working about the top tumbler and the main spur-gearing while the machinery was in motion.

## ACCIDENTS ON DREDGES.

*Fatal Accident.*

16/10/1900.—William B. Morgan, one of the crew of the Central Electric dredge, Cromwell, was upset from a boat while paying out a line being run from the dredge to the shore. There was neither bow-post nor light chain-stopper at the bows of the boat, and deceased was paying out the line hand over hand when a bight of the rope fouled his foot and he was dragged overboard. There was no life-buoy, light-line, or boat-hook in the boat, and the men did not wear life-belts, all of which conditions are required by the regulations. I reported specially on this accident on the 25th October, 1900. The dredge-master, J. Ledingham, was subsequently prosecuted for breach of Regulation 83, in that the boat was not properly equipped. The case was dismissed on the ground that the plaintiff had not proved service of notice in regard to "swift-flowing rivers" after the dredge had started work. As a matter of fact, the notice was served ten days prior to the dredge starting work. This difficulty is now overcome by the aid of the local police officers, who serve the final notices (as forwarded by me) when the dredge has started work.

*Non-fatal Accidents.*

13/4/1900.—Rolling Stone dredge, Cardrona: Philip Duffy, winchman, had his arm broken by handle of winch striking him.

20/4/1900.—Rolling Stone dredge, Cardrona: J. Robinson, dredge-master, had his arm caught and crushed between pinion and spur-wheel, through his foot slipping while oiling or examining friction-strap and inner bearing of the top tumbler-shaft. Amputation at the shoulder was necessary, and this was performed at Arrow Hospital.

26/4/1900.—Rolling Stone dredge, Cardrona: William Baird, winchman, received a blow on the face by the winch-handle reversing through the dredge surging while he was lifting the "pawl." The accident, not being of a serious nature, did not cause him to stop work.

17/5/1900.—Rolling Stone dredge, Cardrona: J. von Haast, the newly appointed dredge-master, received a nasty blow on the back of his hand, caused by the winch-handle reversing suddenly owing to the surging of the dredge.

18/12/1900.—Waipori Consolidated dredge, Waipori: Alexander Davidson, winchman, was lighting up the dredge in the morning, preparatory to starting work, when he tripped over a stern-line fair-lead on the deck, and, falling, fractured right arm.

## LIST OF DREDGES BUILDING, WORKING, UNDER REMOVAL, AND STANDING.

The following is a list of the dredges in the Southern Mining District, and the locality where the dredge is situated:—

*Dredges Working—Otago.*

*On the Clutha River.*—Below Beaumont: Paul's Beach. At Miller's Flat: Golden Run, Pringle and party, Golden Gate, Otago, Golden Treasure, Miller's Flat Electric, Majestic. At Ettrick: Golden Bed. At Moa Flat: Moa Flat. At Dumbarton (below Roxburgh): Gold Queen. In the Coal Creek—Alexandra Gorge: Golden Falls (current-wheel). Near Bald Hill Flat: Fourteen-mile (electric). At Alexandra: Sailor's Bend, Manuherikia, Moa (Clyde Gold-dredging Company), Molyneux Hydraulic, Golden Beach, Eureka, Golden Point, Earnsclough No. 1, Earnsclough No. 2, Ngapara, Enterprise, Chicago, Perseverance, Glasgow (Sandy Point Gold-dredging