

THE AUSTRALIAN PEARLING INDUSTRY 1892

DIVER'S PARALYSIS

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While on board HMS PENGUIN, employed in surveying a part of the north-west coast of Australia, which was then an important centre of the pearl oyster fishery, several cases of this disease came under my notice now and then. The luggers contain about six men, mostly Japanese, occasionally Europeans, and are accompanied by a schooner which acts as a store ship and hospital ship. They are away many months at a time, sometimes a year; the food supplied was good. All the work was done in diving dress in depths from ten to twenty five fathoms, the period of submersion being often four or five hours. Cases of slight paralysis were common, coming on suddenly on removal of the dress but generally recovering completely. The following is the worst case I saw:-

Sept 5th. Japanese aged about thirty. Had been working in thirty two fathoms (by all considered to be a dangerous depth) about three weeks ago; immediately on removal of the dress he became suddenly paralysed, and has been so ever since. His condition was one of great emaciation, free from pain, but very apathetic. Temperature 103°F; pulse 120; tongue furred; complete paraplegia with loss of control of bladder and rectum, and loss of sensation to the level of the umbilicus. There was a large deep bedsore over the sacrum extending from the tuber ischii on either side to the crest of the ilium above, with a thick, black, extremely offensive slough partially detached; it had eaten through the skin, fascia, and gluteus maximus, and in places exposing the bone; there were also small sores over the ankles and knees. He had had a catheter passed twice a day, castor oil once a week, poultices and strong carbolic lotion to the sore, good diet, and port wine.

7th. No marked change. Temperature 103°F.

8th. Refusing food; diaphragmatic spasm; moribund; died at 4 p.m.

This was no doubt a case of severe haemorrhage into the lumbar centre of the cord, with subsequent myelitis, death being due to septic poisoning. The mate attending on him stated that he had been as bad himself with bedsores and paralysis for eight months; he now walks with a limp, but muscular power is fair and tissues firm, knee jerks increased. He said that a very bad sign is a localised swelling of the abdomen, from which, if allowed to get under the ribs, death is certain, and that they apply

any pressure to keep it down, even "sit on it", probably a paralysis of intestinal muscles and collection of flatus. Those in charge told me that they try to prevent men from going down over twenty fathoms, but as they are paid by results it is very little use.

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Modern measurements

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|---------------|----------------------|
| 10-25 fathoms | 18-45 m or 60-150 ft |
| 32 fathoms | 58 m or 192 ft |
| 20 fathoms | 36 m or 120 ft |
| 103°F | 39.4°C |

Key Words

Deaths, decompression illness, occupational diving.

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NOTES ON DIVER'S PARALYSIS

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From 1900 to 1908 I have had medical charge of probably the largest pearling centre in the world, including in its population upwards of 400 professional divers who are daily engaged gathering pearl shell at depths varying from 7 to 20 fathoms. I have myself seen a diver bring up shell from a depth of 25 fathoms (150 ft), but this was an exceptional feat. This means that these men are working under pressure, roughly, from 20 to 50 lb. per square inch above normal, the shifts varying in length inversely as the depth of working. In the lesser depth a diver will remain down one, two, or more hours, in the greater generally under half an hour. The ordinary rubber diving dress with metal helmet is the apparatus used, air being supplied by three barrelled pumps worked by hand wheels. The divers are of various nationality, whites, Japanese, Filipinos, Malays, etc., the majority being Japanese, the whites being the least numerous. They work from small schooners of 10 to 14 tons, and range over many hundred of miles off one of the most forlorn and desolate coasts in the world. Consequently, when an accident happens they may be several days' sail from port, and so have not the advantages of their colleagues the "caisson" workers, with their decompressing and recompressing chambers and