



# MARITIME HERITAGE ASSOCIATION JOURNAL



*Giving a final polish to the replica Perth propeller*

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# **MHA End of Year Wind Up**

**When: 10:00am,  
17 November 2024**

**Where:  
33 Gosnells Road East,  
Orange Grove**

**It would be appreciated if you would bring a plate of nibblies  
or finger food to share**

**Robin and Pam will be supplying tea and coffee**

**If you have any books and magazines of a nautical nature to  
sell, please bring them along (proceeds to MHA)**

**This year there will not be a quilt raffle  
Instead, the quilt will be presented to our hosts  
Robin and Pam**

**Note:** As this is a workshop covered footwear must be worn



# The Ditty Bag

An occasional collection of nautical trivia to inform, astound, amuse and inspire.

*(The inspiration could take the form of contributions to this page!)*

The Fresnel lens used in lighthouses was invented by Augustin-Jean Fresnel (1788–1827), and was first installed in 1823 atop the Cordouan Lighthouse in France..

Between 1825 and 1872 there were 313 vessels built in Tasmania.

The lighthouses on Arthur Head and Rottnest were officially lit on 1 June 1851. On 28 June, the governor, Charles Fitzgerald, proclaimed that the following light dues be demanded from, and paid by, all vessels entering and leaving the port of Fremantle: coasters 1d per ton register in, and 1d out (or an annual payment of £1); all other vessels 2d per register ton in, and 2d out.

*Every ship shall, between sunrise and sunset, hoist and keep flying her national colours under the following circumstances:*

- (a) When entering any port*
- (b) On Sundays and public holidays, weather permitting*
- (c) On leaving any port.*

Extract from the Port Regulations for WA ports in force from 1 February 1899

At a meeting of the Fremantle Council in August 1926, Cr Grigg suggested the need for a distress signal on Carnac Island. He stated that several yachts had been wrecked off the island in recent years, and in two or three instances crew members had suffered 'severe privations until rescued'. It was resolved to send a letter to the harbour authorities. In November another party spent the night marooned on the island before being picked up by the Fisheries launch. Recognising the need for a distress signal, in December the Fremantle Harbour Trust erected day and night distress signals on the island. The day signal was a blue flag with a yellow cross to be flown from the top of a fifteen-foot steel mast. The night signal was a fire built in an iron pot, screened from the sea but visible to the mainland. A box containing the flag and instructions on how to use the signals was left in proximity to the mast and pot.

According to one reference there were 44 Allied merchantmen lost in Australian waters due to enemy action during World War II. The total tonnage

of these vessels was 196,073 tons. The largest was the US *Meigs* (12,568 tons) bombed in Darwin Harbour, the smallest the Australian *Dureenbee* (223 tons) sunk off the coast of NSW by a Japanese submarine. The list does not include accidental losses.

*The common cormorant, or shag,  
Lays its eggs in a paper bag.*

Ogden Nash, 1902–1971

Some old liquid measures:

1 tun = 2 pipes = 3 puncheons  
1 pipe or butt = 2 hogsheads = 4 barrels = 126 gallons  
1 puncheon = 2 tierces = 84 gallons  
1 hogshead = 2 barrels = 63 gallons  
1 tierce = 42 gallons  
1 barrel = 31½ gallons

HMS *Pioneer* was an iron 295 ton, 153ft iron stern-wheel paddle steamer built in 1863 in Sydney by the Australian Steam Navigation Company. It was armed with two 12-pounder guns, each in a separate turret, and saw service in the Maori Wars.

In 1916 the Royal Navy ordered the construction of 15 armed paddle steamers for use as mine-sweepers. The ships had a length of 246ft, displacement 810 ton and were powered by a compound steam engine of 1,500ihp.

Allied submarines operating out of Fremantle during World War II sank 377 enemy ships totaling 1,519,322 tons. Of those sunk 340 were sunk by American submarines.

The first Canning Bridge was designed in 1846 by Superintendent of Public Works Henry Trigg. It was badly damaged by floods in 1862 and a new bridge built in 1867.

Claise Brook was originally named Clause Brook after Frederick Rushbrook Clause, naval surgeon on HMS *Success* during James Stirling's visit to the Swan River in 1827.







# A Daring and Precarious Rescue

Ron Forsyth



The pearling industry in Western Australia's northwest region was known for its dangerous and treacherous conditions. This was evident in an incident in 1931 that occurred on Newman's Ledge in King's Sound, near Derby. It involved a pearling lugger bearing the same name as Dampier's\* ship that had visited the region some 230 years earlier – *Roebuck*. It became stranded on a submerged ledge at 6 a.m. on a calm and smooth sea. It was a drama that required all hands to come to the rescue.

The *Roebuck*, owned by Mr. S. J. Pryor, was manoeuvring for position to begin the day's work when a strong falling tide, running at six knots, forced the ship onto the submerged ledge. The tide then swung the ship around and it struck a second isolated rock, wedging it firmly aft of midships.

Captain L. J. Goldie and Capt. James Hay, whose fleets were preparing for work in the vicinity, noticed the incident and immediately entered a powered dinghy to come to the rescue. The crew of the *Roebuck* were frantically trying to free the

sails and running gear and to lower the ship's dinghy to make their escape.

Upon arriving at the stranded vessel, Goldie and Hay took charge of salvage operations and with the aid of the power dinghy, transferred over ten men from surrounding luggers to the *Roebuck*. Before the tide receded enough to make the risk to life too great, all of the stores, pearl shell, loose gear, ballast, and other items were removed to other boats. The water in the storage tanks was let go and the anchors, chains, and heavy gear were dropped overboard, with buoys attached, for later recovery.

The *Roebuck* began to lay over and it was expected that it would fall off the ledge into the deep water alongside. However, a third pinnacle, with a square flat top about two feet across, prevented further movement and supported the ship under the port shoulder. As the tide receded, it could be seen that the vessel was precariously balanced on three isolated slender columns of rock standing out from the seabed, and not more than six feet in diameter. The papers of the day, with some artis-

\*Although Dampier had noted rich beds of pearl oysters it wasn't until the 1860's that the pearling industry took off.





# WANTED !

The editor of YOUR journal is in urgent need of contributions to  
YOUR journal for the four 2025 editions.

This may take the form of a larger contribution to be spread over  
more than one issue, a shorter article or even an entertaining  
paragraph for the Ditty Bag.

Make it a New Year's Resolution to do your bit.

**Post early and post often !**

tic licence, gave the *Roebuck's* length at fifty feet. Even at her actual thirty-seven feet it would have been a frightening spectacle.

All hands stood by on the surrounding luggers, watching and waiting as the tide fell. The *Roebuck* was left balancing on the points of the three pinnacles, high and dry twenty feet out of water.

With the change of the tide at noon, a breeze sprang up and the boat swayed dangerously on the top of the rocks. Fears were held that the *Roebuck* would slightly shift its position in the wind and fall off its supporting columns, becoming a total wreck.

However, later in the day, as the tide rose and lapped the keel of the stranded vessel, Capt. Hay manoeuvred his lugger with the tide into a safe position and after taking extra precautions to ensure the safety of his own vessel, had hawsers placed aboard the stranded *Roebuck*. Capt. Goldie, in the meantime, had directed the placing of anchors and kedges with his power boat. To prevent damage to the *Roebuck's* timbers and planks, he had brought back her sails from the attendant luggers and, during the surges and lifts caused by the wind and racing tide, had made buffers of them between the port shoulder and the supporting rock.

After an anxious hour's struggle, the tide lifted the *Roebuck* clean off the rocks in one surge and Capt. Hay was able to use the gear he had in readiness to draw her into safe waters. With the assistance of men and other supporting luggers, Cap-

tains Goldie and Hay succeeded in towing the *Roebuck* into Lugger Cove, where it was found that no serious damage had been sustained by the hull and that, after repairs, she would be able to proceed to the grounds.

The *Roebuck* was one of some one hundred luggers operating in King Sound at that time. She was a two-masted schooner built by Japanese boatbuilder Hatchinosuke Yamashita at Broome in 1903. He was one of more than twenty Japanese carpenters and boatbuilders who operated in the northwest. Her dimensions were 36.3 x 12.2 x 5.75 feet and 12.47 tons. Her final owner was the West Australian Government who seem to have mislaid her and she was deregistered in 1986.

## Sources:

Trove Newspapers.

Rod Dickson, *They Kept This State Afloat*.

Editor's note: In February 1942 during World War II the Royal Australian Navy requisitioned all the luggers in the north of Western Australia under *Regulation 57 of the National Security (General) Regulations of the National Security Act 1939-40*, so as to prevent them falling into enemy hands. Twenty nine of the least seaworthy were destroyed and, apart from two used by the Army, the rest were sailed southwards by Navy personnel. A cyclone struck that part of the fleet which had called in at Port Hedland sinking fifteen. A further six sank when a severe storm struck Geraldton. At least two more were wrecked near Jurien Bay. A small number of all those wrecked were salvaged, but little information on the luggers lost is available, probably due to wartime censorship. Was *Roebuck* one of those lost?



# Sailing Cargo Ship

On 16 August 2024 a large sailing cargo ship belonging to the French company TransOceanic Wind Transport (TOWT) departed on its maiden voyage from Le Havre to New York. The *Anemos* (stemming from the Greek word for wind) is 265ft long with a beam of 45ft, making it the largest wind-powered cargo ship in use today. By using the wind the company hope to reduce greenhouse emissions by up to 96% compared to standard container ships. Propulsion is by sail alone (the masts tower 206ft above the

waterline) and energy recovered from the wake provides power for instrumentation.

Part of the cargo of *Anemos* consisted of 1,000 pallets of French wines, Cognac, whiskey and gin and luxury French swimwear.

A sister ship, *Artemis*, was due for completion about the time that *Anemos* sailed, and a further six vessels are on order to be completed by late 2027.



*Anemos under sail*

## Did You Know?

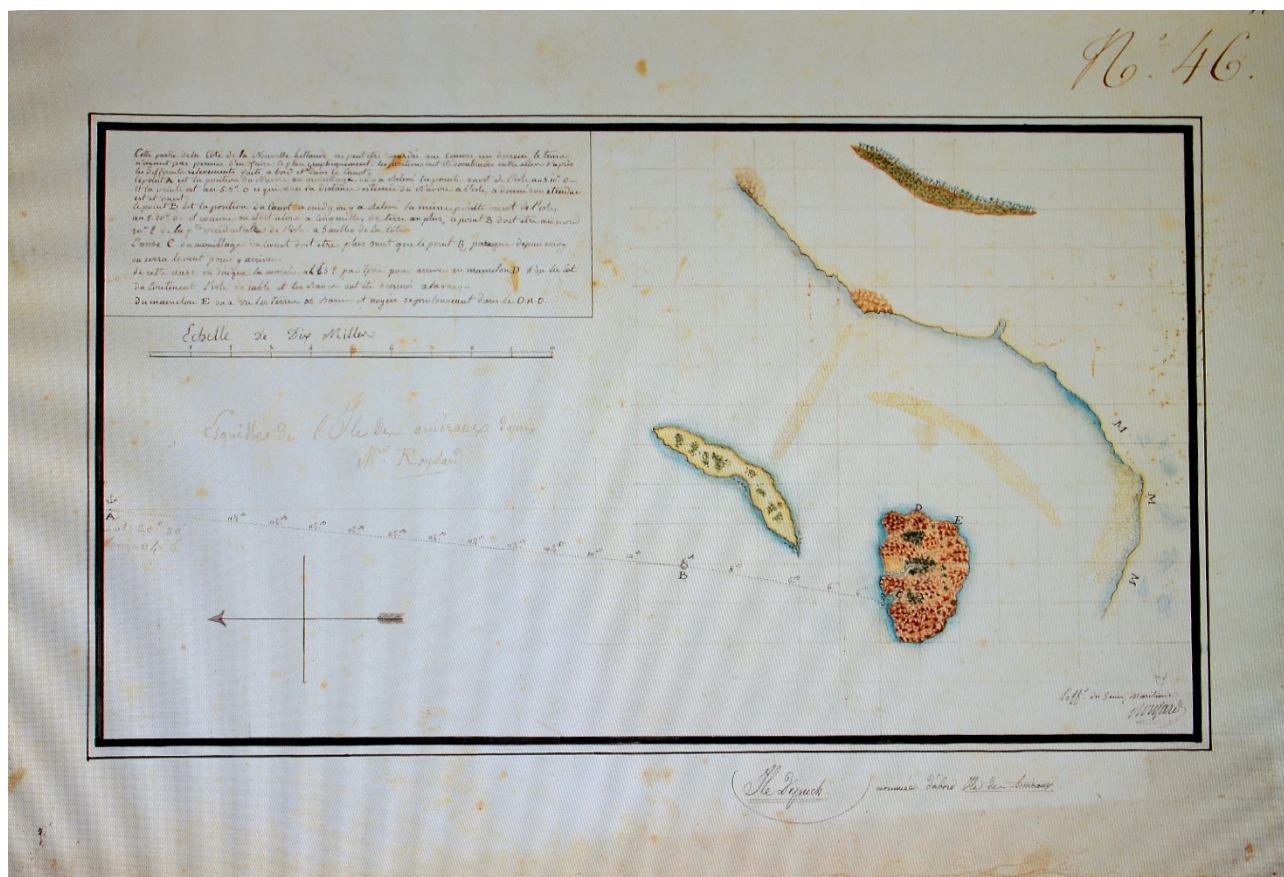
In the early 1800s when sending skins to China, sealers usually sent them dry. The blubber would have been scraped off, the flipper holes sewn up and the hide pegged out in the sun. If skins were to go to America or England, an inch of blubber was left on the washed hide which would then have been salted and folded into neat squares.





# The North-West Cyclone of March 1912

Peter Worsley



A map of Depuch Island by Francois-Michel Ronsard, cartographer on Nicolas Baudin's expedition, 27 July 1801

## INTRODUCTION

A severe cyclone struck the north-west coast of Western Australia in March 1912 and caused widespread damage and great loss of life. The cyclone's effects covered the coast as far north as Broome, as far south as Geraldton and inland to Mount Magnet, where the winds tore the roof off the police quarters. The eye of the cyclone crossed the coast west of Balla Balla and just south of Depuch Island. This area naturally suffered the strongest winds and considerable losses of both lives and vessels. However, the worst loss of life occurred north-east of Port Hedland when the steamer *Koombana* disappeared along with about one hundred and fifty passengers and crew. However, the greatest loss of shipping was close to Depuch Island between Port Hedland and Roebourne

Depuch Island is known as *Warmalana* by the Ngalmal people of that area. It is composed of a jumble of basalt boulders with pockets of soil where a little vegetation grows. The island is situated about one and a half nautical miles from the

mainland coast, has an area of about 1,200 hectares and a maximum height of 158.5m above sea level. The channel between the island and the mainland is shallow and most of this uncovers at low tide. Depuch Island is surrounded by rocks, reefs and drying sandbanks except to the north-east where a channel from the sea provides access to an anchorage having 14.6m of water at low tide. North-east of the entrance to the anchorage itself, and opposite Depuch Island, is Sable or West Forester Islet. Running into the anchorage from the south is Balla Balla Creek, inside which is the small harbour also called Balla Balla.

Depuch Island is noted for the hundreds of Aboriginal petroglyphs on the boulders, in many ways comparable to the vast number of them on similar rocks at Murujuga (Burrup Peninsula).

The first known European visitors to Depuch Island were the members of the French expedition led by Nicolas Baudin. He first named the island Ile des Amiraux, but this was later changed by Louis de Freycinet to Depuch after Louis De-





puch, the expedition's geologist. A party led by marine engineer François-Michel Ronsard had landed on the island at 9.00am. on 27 July 1801. They spent the day exploring, and the initial name of Ile des Amiraux was in recognition of a species of shell collected by Ronsard. Baudin also named Sable Islet, the island to the north-east of the entrance to the anchorage. Sable means sand in French, as this island is composed of sand with a covering of spinifex.

The next Europeans to see Depuch Island were Captain Wickham and Lieutenant John Lort Stokes and the crew of HMS *Beagle*. A party led by Stokes landed on the island on 9 June 1840 to search 'for the stream of fresh water reported to have been found by the French...' (Stokes (1969 (1846)), Vol. II: 166). They had little success until a supply was found well inland, 'although the labour of carrying it on the men's shoulders in seven-gallon barecas [barricoe, barrico or breaker] was very great...' (ibid.). Stokes described the Aboriginal petroglyphs he saw and illustrated some of them in his account of the voyage.

Copper was discovered in 1887 by Phillip Saunders at Whim Creek, but the first mine to open did not do so until 1891 when the Bate-man Syndicate and later Prell and Company mined the ore until 1901. Whim Well Copper Mines Limited operated from 1906 to 1924 extracting 67,177 tons of ore. The processed and

bagged ore was taken 22km to the jetty at Balla Balla by a narrow-gauge, single track railway. As large ships could not enter the shallow creek the ore was loaded onto lighters to be taken out to them, waiting in the Depuch Island anchorage. The company employed three lighters in this work and also had a launch for carrying passengers, mail and towing. This launch was powered with a 2/28 H.P. engine by the Invincible Motor



*Mine processing plant, Whim Creek*

Photo: Pinterest

Company of Sydney. The operation was run by the company's general manager H.R. Sleeman.

At the beginning of 1912 the Whim Well Copper Mines Limited was installing equipment for the Murex process of refining the ore. This plant was to consist of nine units with a capacity of 200 tons per day, power being supplied by two Campbell gas engines of 210 H.P. each running with producer gas. This I believe to be the biggest producer gas installation in Australia (Sun, 7 January 1912).

On 20 March 1912 there were a number of vessels anchored either in the anchorage at Depuch Island or in the creek at the Balla Balla anchorage. These included the ship *Crown of England*, barque *Concordia*, three lighters being employed by the Whim Well



*The mine at Whim Creek*

Photo: State Library of Western Australia





*The jetty at Balla Balla with the small train used to carry copper ore from Whim Creek. The vessel at the jetty is the lighter Enterprise*

Photo: State Library of Western Australia

Copper Mines *Enterprise*, *Clyo* and *Steady*, and the company's launch. Anchored south of the island were the pearling luggers *Clara* and *Karrakatta*

### THE CYCLONE

A cyclone had travelled south from the Kimberley region, impacting the coast south from Broome on 19 March 1912. A number of vessels were lost on the coast near La Grange and Condon. By the morning of Wednesday 20 March 1912 an easterly gale was blowing at Depuch Island, but during the night winds increased and by the following day the full force of the cyclone struck. At Balla Balla the resultant seas washed away part of the railway line and all of the ballasting. There was almost 5m of water over a 1.6km length of the railway line. Whim Creek, being surrounded by hills, was largely protected from the worst of the wind, although many of the miners' shacks were levelled.

**Note:** In mid-November 1911 the miners at the Whim Well Copper Mines had gone on strike. The company had brought in strike breakers, two of whom were Joseph Seleno and Joseph Catellini. On 23 December trouble had broken out at the Federal Hotel at Whim Creek when the miners started calling the strike breakers 'scabs' to goad them. A fight started between Thomas Darlington

and Josef Seleno, and as Seleno appeared to be receiving the worst of it his mate Catellini passed him a knife. Seleno stabbed Darlington in the thigh and then the neck. Darlington collapsed and died, and both Seleno and Catellini were arrested, Seleno charged with murder and Catellini with being an accessory. An inquest held at Whim Creek by Dr Shelmerdine acting as coroner committed the two for trial in the Supreme Court in Perth.

The authorities in Perth decided that instead of bringing the two men and all the witnesses to Perth, they would send Supreme Court Commissioner Norbert Keenan K.C. to conduct the trial at Roebourne. Keenan travelled north on the steamer *Koombana* which, after dropping him off at Point Samson continued on to Port Hedland. A few witnesses were taken from Balla Balla to Roebourne on the steamer *Paroo*, but there were others due to travel on the *Bullarra* (Official No. 89429) when the cyclone struck. The *Bullarra* had departed Port Hedland for Balla Balla to pick them up, but had been struck by heavy weather when 50 miles south and stood out to sea for 70 miles. The ship's funnel was blown off and in falling to the deck had smashed a lifeboat. The superstructure was damaged by a great sea which hit the ship's bridge, and over 40 of the cattle it was carrying from Hillside Station were lost over-



board. As a consequence of the damage the steamer did not arrive at Balla Balla when expected. This delay caused considerable anxiety among the witnesses, most of whom had travelled out from Balla Balla into the unprotected Depuch anchorage on board the lighters, and were waiting at anchor in the ever worsening weather. On 23 March *Bullarra* put into Cossack in distress, where a temporary funnel of corrugated iron and timber was fitted so that the ship could join the search for the missing *Koombana*.

Although many witnesses could not be present at the trial because of the cyclone and the damage to the *Bullarra*, the court brought down a verdict of three years hard labour for manslaughter against Seleno, and dismissed the charge of being an accessory against Catellini. Seleno had been sober, had not started the fight and had not gone to the hotel with the knife. Catellini could not be charged with just carrying a knife, and there was no indisputable evidence that he had given the knife to Seleno during the fight.

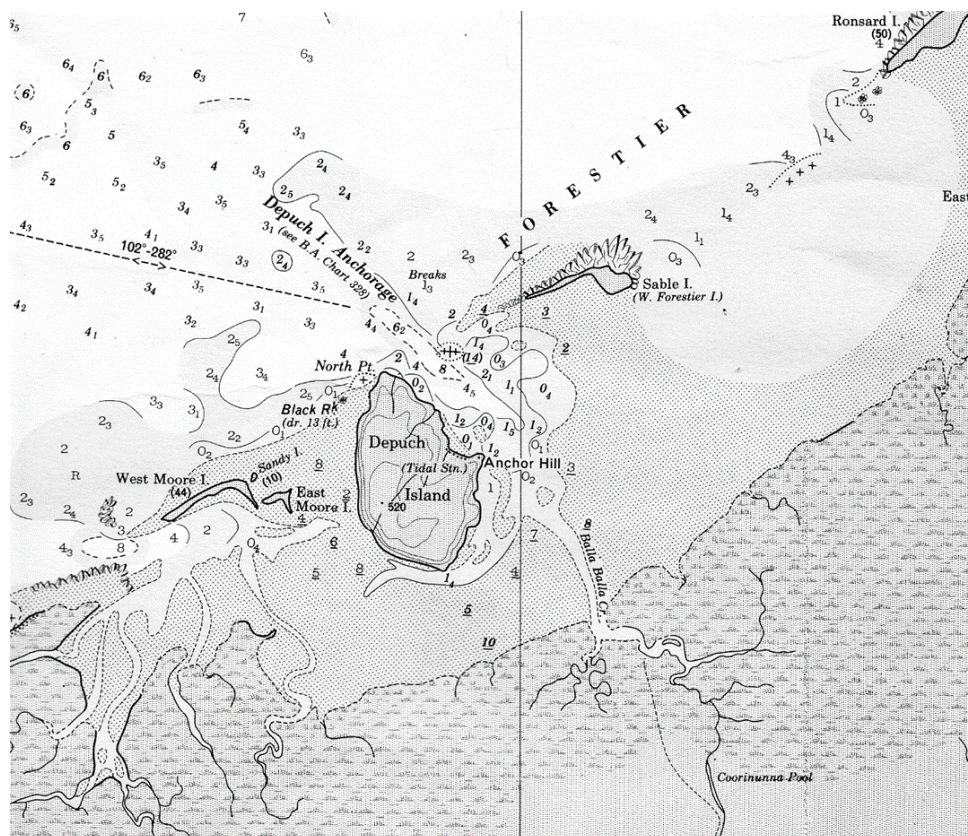
The *Koombana* (Official No. 122725), a 3.668-ton steamer owned by The Adelaide Steamship Company, under the command of Captain Thomas M. Allan with a crew of 74, departed Port Hedland on 20 March 1912 for Broome. On board were between 70 and 77 passengers, although the exact number of passengers has never been known. The ship was seen at 1.00pm on 20 March steaming towards the north-east by Cap-

tain Harry Upjohn of the *Bullarra*. This was the last sighting of the *Koombana*, which disappeared with the loss of all on board. A few pieces of floating wreckage were found near Bedout Island, but despite many searches the wreck has never been located. The Court of Inquiry held in Fremantle was subject to much criticism for its inadequacy in calling witnesses and the dismissive attitude of some of the members to sections of the evidence. The court concluded that there was no fault with the ship or crew, and came to the finding that:

*...without indulging in useless speculation, that the Stability and Seaworthiness of the s.s. Koombana were Unassailable, and the competency of her master, Capt. Allen, beyond question, and that after being lost sight of at sea on the 20<sup>th</sup> March, 1912, her fate passes beyond human knowledge and remains a mystery of the sea (West Australian, 11 May 1912).*

The loss of the *Koombana* has been extremely well covered in Annie Boyle's *Koombana Days* published in 2013 by Fremantle Press.

The next episode will relate the stories of some of the vessels lost or damaged during the cyclone other than the *Koombana* and *Bullarra* mentioned above. After the cyclone the police cutter from Cossack with Constable Frederick Henry Growden sailed to Depuch to report on the disaster. Much of the information in this report is taken from the report written by Constable Growden.



*Part of chart AUS 740 showing Depuch Island*





# Bully

By Ron Forsyth



*Reefing the sails on a square rigger in heavy seas, c. 1920*

Photo: Wikimedia

Robert H. 'Bully' Waterman first went to sea as cabin boy aged 12, aboard a China trader in 1820. He seemed to have had saltwater in his veins. His father, a whaling captain died when the lad was just eight years old. Promoted at the age of 21 years as first mate aboard the *Brittania* he was said to be the youngest first mate on record. He established a reputation as 'a desperate sail carrier and a still more merciless man driver.' His reputation extends to being the first man to padlock his sheets and put rackings on his halyards. This extreme measure was taken to prevent a terrified crew easing sail on a break neck run in the middle of the night when he was absent from the poop. He was able to boast, however, that of all the ships he had commanded, not once did he call upon the underwriters for a dollar of damage. The same could not be said of the carnage wreaked upon his crew.

Basil Lubbock in his book *The China Clippers*, described him as ... *a young dandy, who used to swagger down South Street in a Canton-made straw-coloured suit of raw silk and had his portrait painted by a fashionable artist, [and] had become nothing more or less than a human tiger if we are to believe any of the thousand and one*

*stories told of him.*

'Bully' Waterman had saltwater fever. A smooth-tongued hypocrite whilst ashore, his reputation was of a monster at sea. Feted by New York society, his brutality was legendary in the waterfront bars of the world. So bad was his reputation with men who sailed before the mast that the name of the mate would appear on the ship's articles rather than his. Too late for escape the crew would be greeted by him: 'Here's Bully Waterman again, you sons of Bitches.'

Renowned for fast runs, in 1849 he wrote his name indelibly into the record books in command of the opium/tea clipper *Sea Witch*. Loaded with tea at Hong Kong he sailed through the Sunda Straits, around the Cape of Good Hope reaching New York in 74 days. Covering up to 480 kilometres in one day he set a record that has not been surpassed by any other sail powered vessel.

After retiring from seafaring to a farm in California in 1850 he was lured back the next year. An offer of a \$10,000 bonus to deliver the new state of the art clipper *Challenge* from New York around the Horn to San Francisco in 90 days was too good to refuse. All was not to go to plan,



however. The Californian gold rushes had seen sailors desert their ships in droves. In haste a crew was shanghaied from the streets, lock-ups and water-front bars of New York. With a brutal first mate, James Black Douglas,' they set sail into a nightmare. The stories abound, and may have been embellished with the telling. If only half true it was still a hell ship. Among his many talents he was reputed to be a crack shot with a revolver and was said to have fired at sailors whilst they were aloft on the yards. It is alleged also that on one occasion he let go the lee main brace throwing to their death half a dozen men who were aloft. A pair of revolvers leveled from the poop and a belaying pin were his favoured instruments of discipline.

Of a crew of 56 men and eight boys on the *Challenger* that voyage a half had never sailed and only three were able seamen. Waterman and Douglas believed they could knock their ragtag crew into shape. Before the ship had left New York harbour Waterman is said to have laid open his steward's scalp with a carving knife. Mutiny threatened when Douglas started searching through the crews' sea chests. In the melee that ensued the first mate received twelve knife wounds. Waterman was on the poop and jumped down into the fray killing two seamen and knocking others senseless with a belaying pin. One sailor thought to have gone over the ship's side was actually hiding in fear of his life. When discovered 'Black Douglas' mercilessly attacked him, breaking his arm in two places. He was placed in irons and put on bread and water, his fractures untreated.

A fierce gale was encountered off Cape Horn and Waterman could see his bonus slipping through his fingers. The sick bay was filled with injured men and malingerers too afraid to scale the treacherous rigging. One greenhorn sailor, terrified to go aloft, claimed he had dysentery. Waterman decide to 'baptize' him and threw him into the freezing waters of the lee scuppers. A frenzied Douglas jumped on the man and held his head under water then tied him to the weather rail in the freezing wind for close to an hour. After this pointless sadistic assault the man crawled to his bunk where he died 12 days later.

The second mate Cole was as crazed as his two senior officers: One day, when off Cape Horn, Cole was aloft with the men, trying, to furl the mizzen-topsail in stormy weather. Flying into a sudden passion, Cole sprang on to the yard, and holding on by the tye, booted three men off the

weather foot ropes. Two of them fell into the sea and were callously allowed to perish. The third had a worse fate, for he fell on the poop deck, where he lay moaning with many bones smashed. The inhuman mate had him hurriedly stitched up in a blanket and thrown overboard, still, breathing.

Cole later turned on the captain and first mate in a violent altercation. He called on the crew, urging them to mutiny and take the ship. Whether they feared the berserk Cole more than Waterman and Douglas or the prospect of being hung for mutiny, the crew declined their support. Cole was placed in irons and put into one of the boats and put on bread and water for the rest of the voyage.

The depths of evil were said to have been sounded when Waterman killed an old Italian sailor.

After being headed for eighteen days by a storm he was becalmed, drifting for four days on an airless sea. Both extremes of weather maddened him in his pursuit of his bonus.

It had been a creditable voyage time wise, under the circumstances, of 108 days. Nine crewmen had died, however. Waterman and Douglas slipped ashore unnoticed before the ship had anchored. When news of the brutality emerged, outrage erupted on the waterfront in New York. What became known as the 'Hellship trials' began amid threats to lynch Waterman. Eight men were charged with mutiny but only one was tried and acquitted. Waterman and Douglas were also brought to trial but both escaped conviction. They were deemed to have dealt punishment required to guarantee the safety of the ship and cargo. Waterman is said to have been remorseless and retired again to his farm at Suisun Valley, California, with his wife Cordelia.

Mr Hyde became Mr Jekyll.

Appointed hull inspector in San Francisco, a position which he held until 1870, he became known in his new home as a public benefactor. He gave to the city of Fairfield, named after his former home, the land on which it stands, and donated also the land for the beautiful Armijo High School and the court house. He built near Fairfield a fine dwelling house, the front of which simulated the prow of a ship. He was interested in farming, and during his later years in the breeding of poultry and cattle. His character was firm and resolute, with a strong infusion of kindness.





The Dictionary of American Biography considered that *As a master mariner Waterman made a contribution to the world's sailing records which has probably never been surpassed, and he must be ranked as one of the greatest sea captains of America.*

James Baine of the famous Black Ball Line of Liverpool purchased the *Challenge* and renamed it *Golden City*. Reincarnated she made three voyages to Morton Bay in Queensland with emigrants. Towards the end of 1862 a run from Cork with 515 emigrants equalled a record of 75 days. Eleven years had passed since that fateful voyage and her passengers were hopefully blissfully unaware of the ship's grim and bloody past.

One of the most brutal and despotic captains to

sail under the Stars and Stripes, 'Bully' Waterman and his ilk did much to drive respectable young men away from the merchant marine.

#### Sources and End notes:

*The China Clippers*, Basil Lubbock, p77.

Donald Lines Jacobus (compiler) and Edgar Francis Waterman, *The Waterman Family, Volume I: Descendants of Robert Waterman of Marshfield, Massachusetts, through Seventh Generations*. 28 Oct 2002.

*The Dictionary of American Biography*

*Courier Mail*, 11 Nov 1933, p 18.

*Northern Champion*, 2 December 1933, p 1.

<https://www.maritimeheritage.org/captains/waterman>.



Robert H. 'Bully' Waterman

Photo: Wikipedia



# Bird's Mouth Spars

By Peter Worsley

This article describes how to build a bird's mouth spar. I built a mast using this method in 2000 during the Boatbuilding course at Albany TAFE. At that time this was a comparatively new method of construction and may be unfamiliar to some readers. I first read an article about the method some years ago in a *Classic Boat* magazine. It was invented and patented in Bristol, England, by a man named Barry Noble in the late 1970s.

The wooden Boatbuilding course at the Great Southern Regional College of TAFE in Albany had, as its major project, the building of a 28ft 6inch whale-boat of the type used during the heyday of whaling under sail. The boat had a beam of 6ft 5inches, a depth of 2ft 2inches and a sheer of 15inches. This particular plan comes from a boat constructed by Charles D. Beetle in 1933, the lines being taken off in 1973 by Willits Ansel and Robert Alyn. The boat was built for the sperm whale fishery and was the last to be built by Beetle. His father, James Beetle (born 1812), also built whale-boats and the firm was one of the best known in New Bedford. This boat is now located at the Mariner's Museum, Newport News, Virginia, although the plans for the boat built in Albany came from the Maritime Historical Association, Mystic Seaport, Connecticut.

The mast on the Beetle boat is solid spruce some 22ft (6.8 metres) long. This mast has to be raised and lowered by the crew at sea so that lightness is necessary but not at the expense of the strength required to carry the 294 square feet of sail (main – 242 square feet; jib – 52 square feet). As we were making the mast for the Albany boat out of Oregon pine, a heavier wood than spruce (33 lb/cu ft compared to 28 lb/cu ft), the problem of weight was increased. The mast is 4 $\frac{3}{8}$ inches (120 mm) in diameter at its widest point. Oregon timber of this size is not available in Australia so we had to laminate it. By building a properly constructed hollow mast a great deal of weight can be saved with no loss in strength compared with the solid mast.

One method used to build a strong hollow mast has been called the bird's mouth or Noble mast method. This consists of eight interlocking staves which when glued together form an eight-sided mast ready for final rounding. Each staff remains square on one side and has a right-angled

V or bird's mouth routed or cut in the opposite side. There is a simple formula to calculate the dimensions of the timber required for the staves.

For the width of the staff multiply the maximum mast diameter by 0.4.

For the thickness of the staff multiply the maximum mast diameter by 0.2.

As can be seen this gives a staff twice as wide as it is thick. The resultant mast when rounded off exactly complies with the recommendations as to wall thickness given in *Skene's Elements of Yacht Design* by Francis Kinney, an accepted standard on yacht and spar construction. Any taper in the mast is put into each separate staff on the side opposite to that in which the V is made and before cutting the V.

The procedure we adopted in Albany was as follows. Firstly the calculations gave a staff size of 48 mm wide by 24 mm thick. As we did not have any timber longer than a bit over 16 $\frac{1}{2}$ ft (5 metres) it was necessary to scarf together lengths to make up the required length of the mast, plus some trimming. It was essential that in the eight staves no two scarfs would be close together when the staves were assembled. The glue used was resorcinol formaldehyde, a very strong and waterproof glue whose one drawback in this case is the dark purple/red glue line which shows up on a varnished or oiled light coloured spar.

After the staves have been machined to the correct width and thickness the taper was marked on one edge of one staff. This was cut and planed then used as a pattern to mark the other seven. In our case this reduced the width from 48 mm to 30 mm at the top end, as the mast was only 75 mm in diameter at the top. The thickness of each staff remained the same throughout its length. The straight, un-tapered edge is the one on which the bird's mouth V is cut.

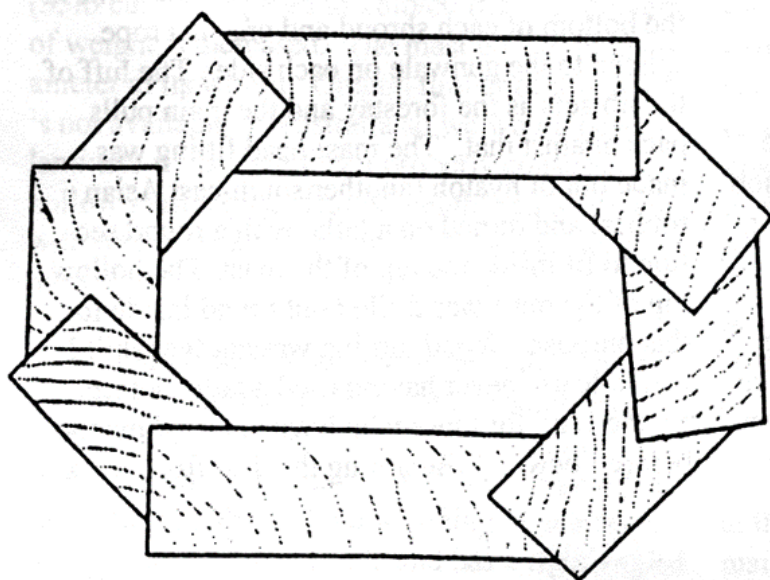
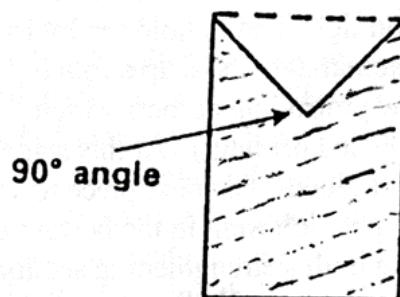
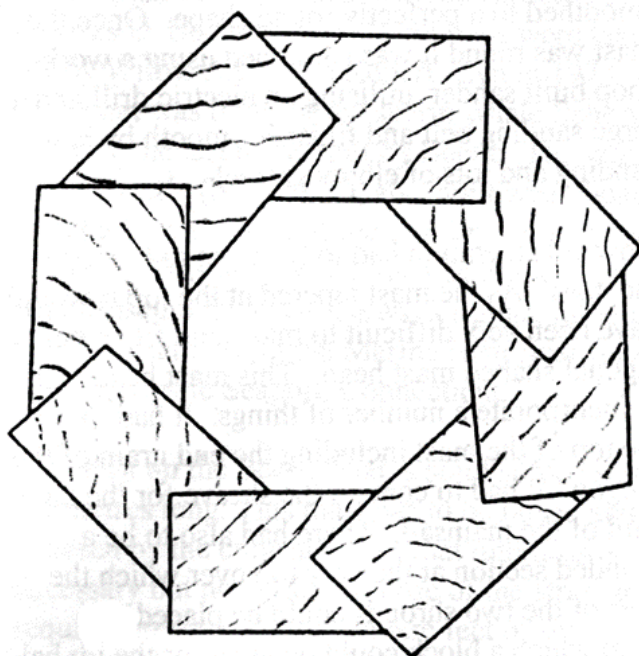
There are a couple of ways of cutting the bird's mouth. One is to run the timber twice over a table saw set at 45°, end for end the staff after the first pass. The other is to run the timber over a router with the appropriate sized 90° V bit. We chose the latter method and set up a router with the appropriate fences to guide the wood over the bit. Each staff was then passed over the router,





with the straight, un-tapered edge down, some four or five times, starting with a small cut and raising it 2 mm or 3 mm at each pass until the correct depth was reached. This required a team of three workers – one feeding the 23ft length in, one pulling the length from the other side and one pressing down over the router bit.

The next piece to make was the plug which went in the bottom end, and which formed both a strengthening section where the mast passes through the tabernacle strap and the mast heel to fit into the mast step. This was made of kapur, a tropical hardwood from South East Asia. It had to be octagonal to fit inside the mast and had to be



*To make an oval spar  
increase the width of  
two of the staves.*

The staves could now be placed with a square corner of one in the V of another and hose clamps put on and tightened to hold the lot together. They automatically take up a round shape (with a few protruding corners which could easily be planed off later). At this stage the 'mast' was not glued.

tapered hollow internally at its top to ensure that there was no hard spot inside the mast. A hard spot would occur if the plug was completely solid and finished abruptly, forming a stress area when the mast flexed.



The next task to be undertaken was to glue the eight staves into one mast. This was a messy job which required three people to cope with the long, very flexible lengths of glue covered timber. Resorcinol formaldehyde glue was used and this was put on the V cut and the back edge of the stave where it fitted into the V of the next stave. When all were glued and put together, the hose clamps were put on and tightened using a screw driver drill with an appropriate sized bit. Just before the lower clamps were tightened the mast heel fitting was coated in glue and slid up into the base of the mast.

The mast was carefully laid in previously made brackets which allowed for the taper, and held the centre of the mast in an exactly horizontal line above the spar bench. The straightness of the mast was again carefully checked and the whole lot left to cure for 24 hours.

The next day the hose clamps were removed and the glue lines inspected.

The mast had now to be planed round. The corners were taken off with an electric plane then, using a hand plane, the mast was gradually smoothed to a perfectly round shape. Once the mast was round it was smoothed using a workshop built sander utilising an electric drill and a large sanding belt, and finished smooth by hand sanding and lots of elbow grease!

Now consideration had to be given to the top of the mast. As the mast tapered at the top it would have been very difficult to make and fit an octagonal shaped mast head. This mast head had to incorporate a number of things. It had to seal the top of the mast including the end grain of the Oregon. It had to contain the sheave for the halyard of the mainsail. There had also to be a rounded section at the very top over which the eyes of the two shrouds could be placed and from which a

block could be hung for the jib halyard. The only standing rigging on a whale-boat are the two shrouds which are tightened at their bottom end by lanyards through thimbles, one at the bottom of each shroud and one in a rope spliced to the gunwale on each side. The luff of the jib acts as the forestay and the main pulls back against that. The masthead fitting was made out of nyatoh (another South East Asian timber) and turned on a lathe with a round section to fit inside the top of the mast. The hollow top of the mast was drilled out round inside for this purpose. Wood turning was another skill I had to learn, never having used a lathe before. By the way, for those who have not used nyatoh before – beware! Breathing the dust from working this timber causing all sorts of problems in noses, sinuses and throats – a dust mask is a necessity. The wider top of the nyatoh covered the Oregon end grain. This mast head fitting was glued into the top of the mast and the wider part planed to follow the taper of the mast. A slot was then cut in the mast head and a sheave fitted for the main halyard.

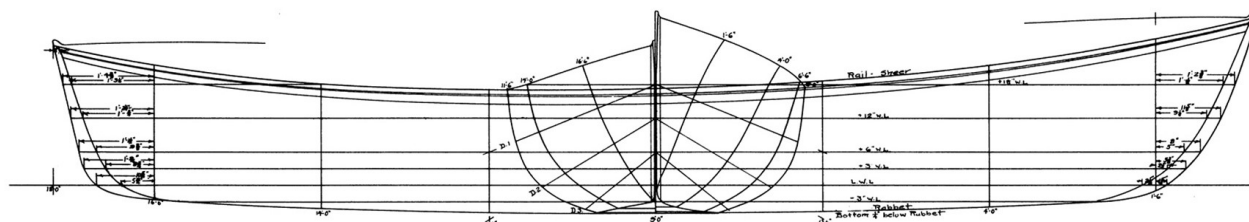
The final job was to oil the completed mast and lay it aside until the day when the whale-boat could be launched, rigged and sailed.

**Note:** A word of advice for those who might want to use this method at some time – check that the router bit you use is exactly 90 degrees! At TAFE we didn't, presuming it was correct. It was out just a fraction which caused the glue lines to be open a very small amount. Not significant as far as strength goes but requiring a little extra work to make the glue lines look neat.

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Whaleboat





## *Alecton* and the giant Squid



Until the mid 19th century the giant squid (*Architeuthis dux*) was considered to be a mythical beast like the Kraken of Norway. Sailors told stories of ships being overturned and the crew pulled into the sea to be devoured by the monsters.

But it does exist. The giant squid is the largest invertebrate, growing to a length of 60ft and weighing up to half a ton. The parrot-beak like mouth is 18 inches wide, they have eight long arms and two long tentacles (33 to 39ft long) and they normally live in deep water, below 1,600ft. They have the largest eyes of any animal that has ever lived, and are found in all the oceans round the world, more so in the cooler regions.

On November 30 1861 the 167ft, French paddle steamer corvette *Alecton* was, on its way to Cayenne, navigating near Tenerife, the largest and most populous island of the seven Canary Islands. As the ship neared the island the lookout on duty yelled to the crew below: “a large body, partly submerged, on the surface.” The captain, *commandeur* Bouguer, had heard reports of giant squid but the scientific community disputed their existence. Mutilated, decomposed pieces of giant squid had surfaced, most notably off Zealand, Denmark in 1847, and another at Skaw in 1854.

Yet no one had ever captured or even seen a live specimen. Seeing his chance to capture the rare species, the captain ordered the ship to attack and harpoon the squid.

Over the course of three hours the ship fired several shots, but the shells seemed to do little damage to the squid's rubbery body, estimated at five metres length. While it did react to the shots, it seemed undisturbed, diving and resurfacing close to the boat. Finally one of the crew was able to harpoon the squid and lasso a rope around its body. However, the weight was so great that when they tried to haul it aboard, the rope cut the body in two and they got only the tail end. Giant squid expert Clyde F. E. Roper says that *Alecton's* skipper then called the whole thing off ‘lest the creature damage or injure the ship and the crew’, but in an interview Roper laments ‘How dangerous is a giant squid full of cannon balls going to be?’

*Alecton's* encounter with the giant squid was the inspiration for the giant squid attacking Captain Nemo's submarine *Nautilus* in Jules Verne's famous novel *Twenty Thousand Leagues Under the Sea*, published in 1870.

Peter Worsley





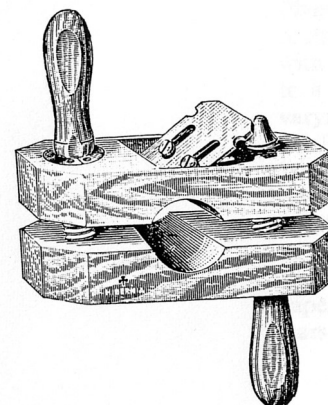
## QUIZ

### Answers to September

1. Stirrups are the short ropes which hang from the yards of square rigged vessels and support the foot rope.
2. Matilda Bay was named after Matilda Roe, wife of Western Australia's first Surveyor-General.
3. A moot is a hand tool used for making treenails (see drawing).

### Quiz

1. Who wrote the famous sailing novel *The Riddle of the Sands* first published in 1903?
2. What is dunnage?
3. In what year was the *Georgette* wrecked at Redgate Beach?



## Hard Work

**W**ick is a fishing port in north-east Scotland once famous for its fleet of sail powered herring fishing boats.

In the mid-nineteenth century there were about 1,000 boats based at the port, bringing in enormous quantities of fish. In 1867 in only one weekend 3,500 herring gutters (all women) cut and gutted no fewer than 50 million herring. These were then packed in salt in barrels for sale. A normal rate for one woman was to cut and gut 40 fish a minute, with the faster women exceeding this number.







# The HMAS *Perth* (I) Memorial nears Completion

By David Nicolson



**S**on the early hours of the 1st of March 1942, the light cruiser HMAS *Perth* (I) and the heavy cruiser USS *Houston* were sunk with great loss of life by an overwhelming Japanese fleet on their way to invade Indonesia. Those who survived became Japanese prisoners of war and went to Thailand to work on the notorious Burma Railway. As the war was coming to an end, many of the survivors were to be transported to Japan to work in the coal mines, however several of the transport ships were torpedoed by submarines from the United States Navy. Incredibly, the submarines managed to rescue some of the allied prisoners and bring them back to Australia.

names of all who served on *Perth* that fateful night. Also to be included was a half size replica of one of *Perth*'s propellers mounted in the middle of a compass rose. Plans for the Admiralty pattern were transformed into a propeller by Veem Ltd as part of their sponsorship of the memorial.

The second phase was the building of a glass clad structure representing the bow of the ship. The glass panels were to be printed with scenes of the ship and its crew from happier times. The United States cruiser *Houston* was also to be included. This structure would provide a unique internal

In 2019 the WA division of the Navy League of Australia resolved to build a Memorial to HMAS *Perth* (I) to honour all who sailed on her that fateful night. Noted sculptors, Joan and Charley Smith were engaged to design the structure. The Smiths designed the HMAS *Sydney* (II) memorial in Geraldton and have an impressive international reputation. A new organisation, the HMAS *Perth* (I) Memorial Foundation Inc., was created to organise the financing of the project with Cmdr. Jim O'Neill, (ANC Retd) appointed Project Manager. Capt. Angela Bond RAN was the inaugural President.

The site for the memorial is in front of the HMAS *Perth* Memorial Hall on Riverside Road East Fremantle, alongside the Swan Yacht Club.

The memorial was to be built in two phases; the first was a granite Wall of Remembrance with the



*The completed starboard side of the 'bow'*



space for future development and would be lit at night provide a spectacular sight for passing traffic.

Money for the project was secured from Lotterywest, Federal, State and local authorities. Donations in cash and in kind came from several companies plus numerous donations from individuals with a connection to the navy.

Work on phase one started in March 2022 with the pouring of footings for the Wall of Remembrance. The granite slabs were engraved and supplied from China with their installation completed in April that year. Five flag poles and concealed lighting completed this part of stage one. The replica propeller with its compass rose was installed on the 25<sup>th</sup> of October 2024 so finalising the first part of the memorial.

The second phase of the memorial, the glass bow, was significantly delayed due difficulties caused by Covid. The cost of the material increased significantly over this period and completion of the project was in doubt. The company BAE came to the rescue offering to do the design of the structure and provide and install the steelwork for free. This, together with the hard work done by the Foundation Chairman Micheal Bailey, project manager Jim Neill and committee members David Greene and Bob Mummery OAM, the second stage has nearly been completed. All that is left to do at the time of writing was the installation of another granite tablet with images of HMAS *Perth* (I) and USS *Houston* and the internal lighting of the panels. This should all be completed by the end of October this year with the official opening set for the 1<sup>st</sup> of March 2025, the 82<sup>nd</sup> anniversary of the sinking of the two gallant ships.



*A painting of HMAS Perth (I) in action in the battle of Sun's Strait, 1942.*

Illustration: Courtesy of the City of Perth collection