

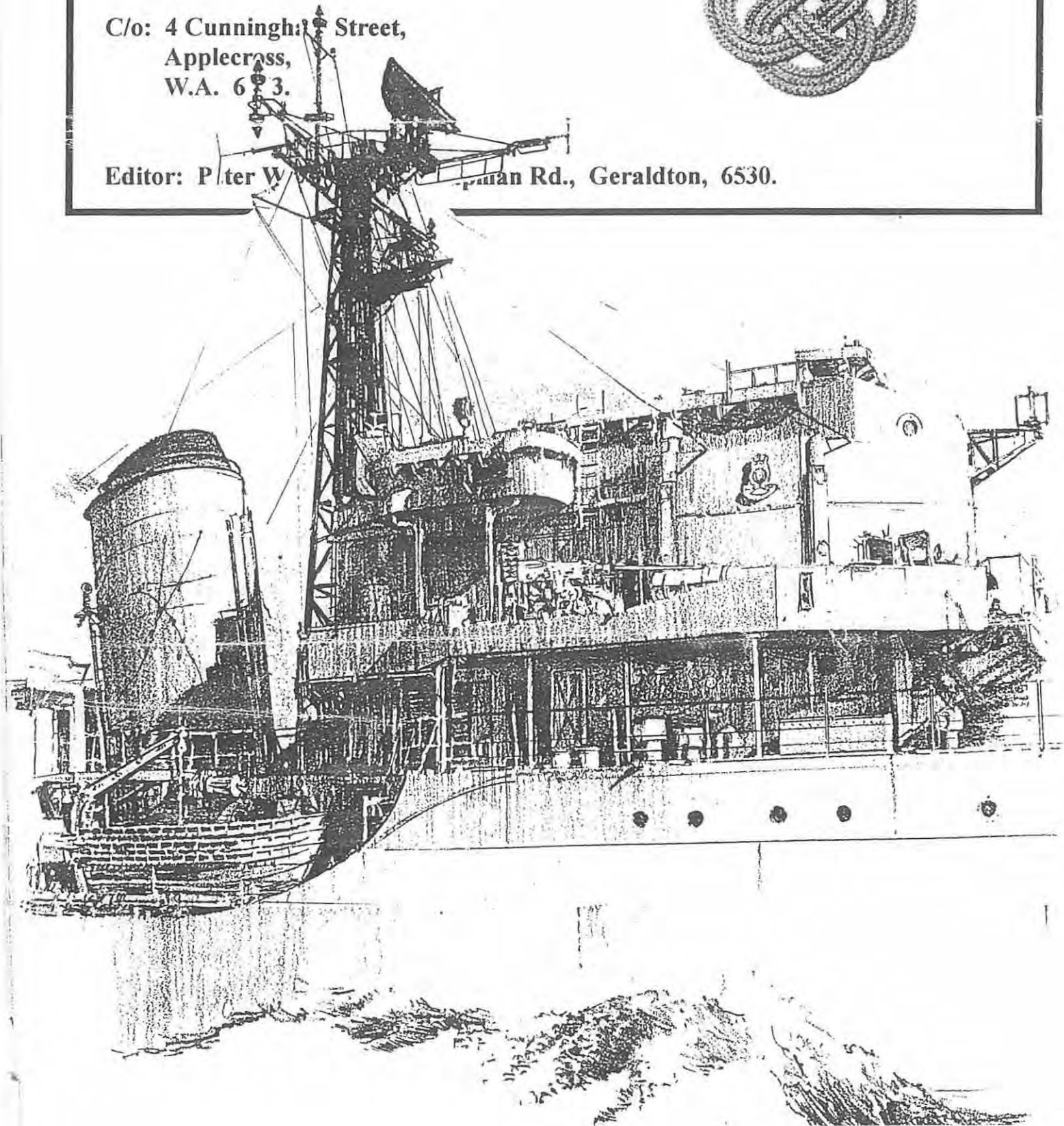
MARITIME HERITAGE ASSOCIATION JOURNAL

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(If you have an unwanted collection of magazines of a maritime nature, then perhaps its time to let others enjoy reading it. Contact the Association; we may be interested in archiving the collection.)

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EDITORIAL

The MHA first produced a newsletter in 1990. For some time these newsletters sent out to members were about four pages long. The newsletters gradually developed into the Journal which you have become used to over the last six years. I took over as editor in time to put together the June 1998 edition. I have endeavoured to maintain the Journal at twenty pages per quarter, featuring a variety of topics which have been kindly submitted by members and occasionally by invitation from others interested in maritime matters.

By the time you read this I will have left my books and other resources, including my wife (temporarily!), and moved from Geraldton to the cooler climate of Albany. For this academic year I will be attending as a student the Albany TAFE, as I have been accepted into their Wooden Boatbuilding course.

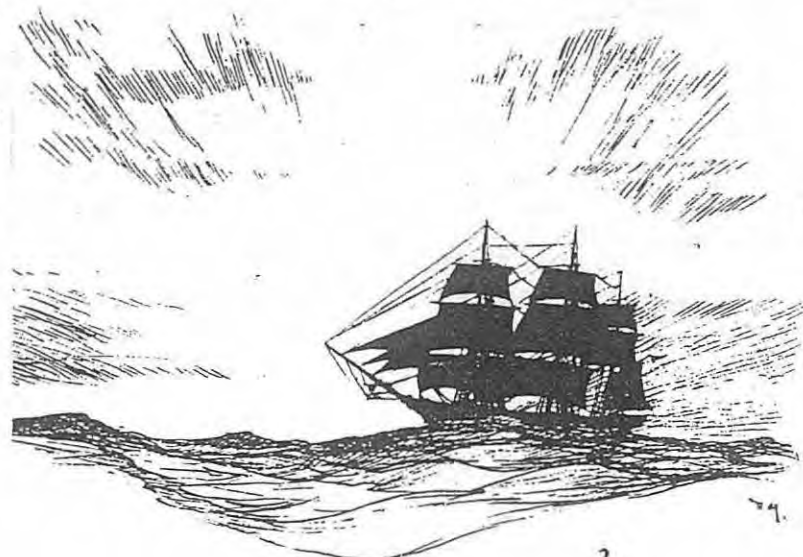
As this is a very intensive course I will find it very difficult to maintain the Journal in its present form without a great deal of input from all members in the form of items ranging from learned academic dissertations to small snippets for the Ditty Bag. It will be especially difficult as the computer work will be done in Albany but the actual Journal will be collated and printed in Geraldton. Jill has volunteered to handle this side of the production but you will understand that this system may have some problems.

One possible problem I can see is that if the pressure of work becomes too great during the year,

your magazine may occasionally be a few weeks late as I will need to work on it during TAFE holidays, ie the June edition may actually come out during the July semester break. There are two ways to overcome this problem. Firstly, somebody else could volunteer to become editor. Secondly, you could flood me with articles, large or small, so that getting each edition together takes me less time and effort, and it may therefore come out on time. If you have any comments or suggestions please let me know.

I would also be interested to hear from readers their opinions regarding the new quiz feature.

After eighteen months or so tilling the soil Chris Buhagiar has written an item for this edition. A Very Ordinary Seaman he may have been but he is far from being a very ordinary artist. The second part of Chris's article will be in the June journal with more of his outstanding drawings.





The Ship That Never Sailed

This article was first published in the Classic Boat magazine Number 46 of April 1992 and is reproduced by kind permission of the author, the noted Naval Architect, Historian and author of many books on maritime matters, JOHN LEATHER.

In 1935 the Naval Architects' Department of the British Admiralty received an unusual design brief that would put their ingenuity to the test. The requirement was for a small sailing ship to be used for the study of terrestrial magnetism and atmospheric electricity which was to be built entirely from non-magnetic materials.

The boat would continue the work of the American vessel *Carnegie*, owned by the Department of Terrestrial Magnetism of the Carnegie Institute, Washington DC. *Carnegie* made six ocean cruises between 1909 and 1921. Then she was laid up until 1927 when she was fitted out again for a three-year research cruise. She spent most of 1928 in the Atlantic and was in the Pacific the following year. The cruise came to a disastrous end when she was destroyed by an explosion and fire while refuelling at Apia, Samoa. Her Captain and a ship's boy were killed.

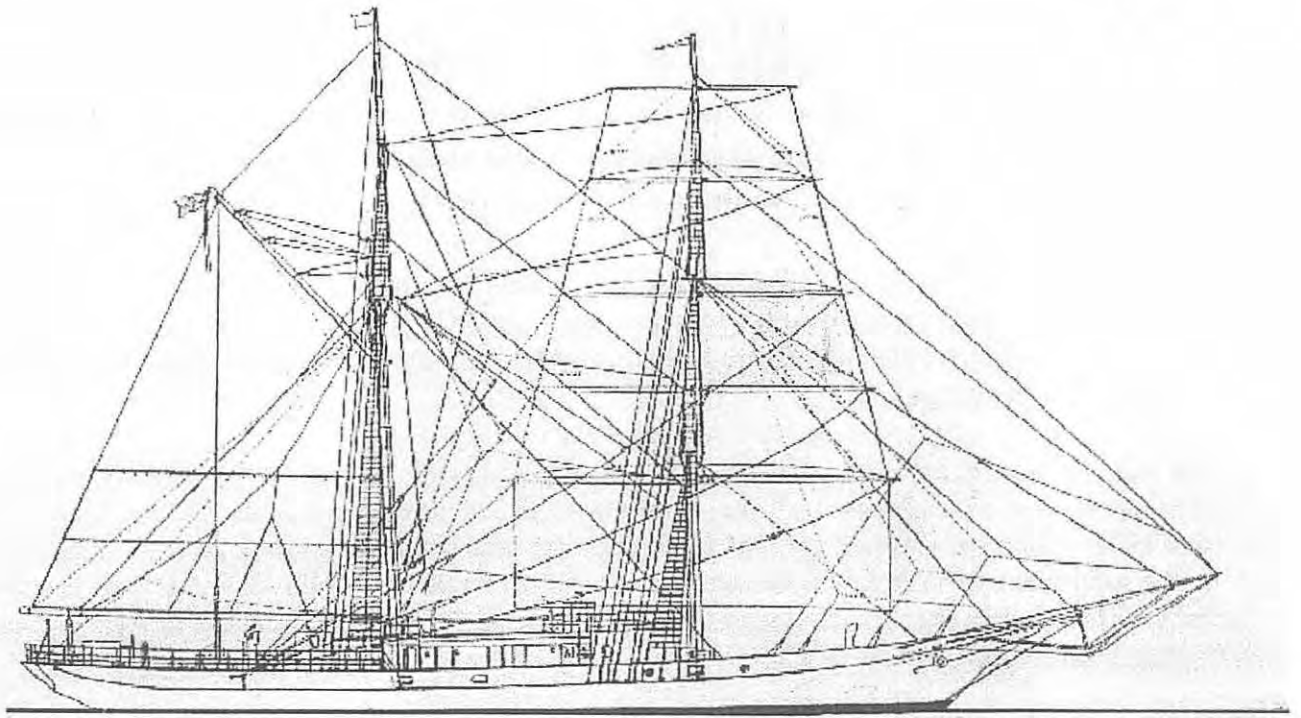
The British Admiralty, with the support of the American Geophysical Union, decided to continue the type of research the Americans had been doing. They still thought it necessary to use a sailing ship and decided to build an auxiliary brigantine, 142'6" (44.4m) on the waterline x 34' (10.4m) beam x 13'2" (4m) draught, displacing 770 tons.

The naval architects specified a composite hull planked in teak over frames of naval brass. Keel, stem and sternpost were also to be of teak, and the false keel of Canadian rock elm. Deck beams and the stringer and tie plates, knees and floors would be naval brass. The hull would be copper-sheathed below the waterline. The finished whole would be an attractive-looking little ship with a clipper bow and flush deck with bulwarks and a large deckhouse amidships on which the bridge was sited. The sail area of the brig rig was to be 12,000sq.ft (1,116 sq.m.).

The order was placed with Philip and Son Ltd, builders of small ships and yachts at Dartmouth, Devon. They had built a number of steel and wooden vessels, often of individual design, and had a reputation for good work. The builders took great care to avoid use of ferrous materials in every part of the vessel and the anchors, chain cables and most of the standing rigging were of aluminium bronze. The freshwater tanks posed a problem. They could not be made in naval brass or bronze because these metals would contaminate the water, nor in steel, which is magnetic, so eventually they were built in teak.

The problem of non-magnetic materials extended to many small items of equipment including cutlery, cooking utensils, medical instruments, containers for food and cigarettes, shipboard office equipment, including the typewriters, drums for paint and lubricating oils, even the crews' razor blades and nails in their shoes and boots. Even nails in packing cases had to be of non-ferrous metals.

But these problems paled into insignificance when it came to the construction of the main and auxiliary diesel engines. Petters Ltd at Loughborough designed a four-cylinder, direct-reversing engine based on their ATOMIC series to develop 160 bhp at 375 rpm. After much experimentation they managed to achieve a mechanically successful engine under the non-magnetic constraints, eliminating all but about 250 lbs (113kg) of magnetic metals. The bedplate and flywheel were made of bronze, the individual cylinders were cast in aluminium alloy with cast iron liners, cylinder heads and crankcase castings were of aluminium bronze and the crankshaft and layshafts were of austenitic nickel chrome steel. The three diesel auxiliary sets, two of 9 bhp and one of 18 bhp, were equally difficult to construct.



The drawing above shows the *Research*.

The picture below is the British Naval training brig *Martin* before the turn of the twentieth century.





The use of aluminium alloys in the engine room forced the use of a closed circuit freshwater cooling system to avoid corrosion from sea water. Fourteen tons of fuel oil were carried in tanks, giving a range of 3,000 miles under power alone. Maximum speed was 6½ knots under power and higher under sail in a fresh wind.

She was launched as the *Research* by the wife of the Astronomer Royal in April 1939 and was ready to have her masts stepped and rigging set up. By then the British Navy had no officers experienced in square-rigged seamanship, its last squadron for training brigs having been scrapped in 1905. The officer appointed to command the *Research*, Lt Commander Fryer was sent on a voyage to Australia on board one of the large Finnish square-rigged sailing ships belonging to Gustav Erikson of the Aland Islands in the Baltic. His was the last fleet of such craft still trading, carrying wheat from Australia to Europe.

The *Research* was to be lavishly manned in true British naval fashion. There were to be six officers, four scientists and 22 petty officers and ratings. A similar commercial vessel would have had a crew of six, at most. She was to be commissioned under the blue ensign and would go into service in October 1939.

She would sail to Washington DC to be inspected by the Carnegie Institute, then start work examining the area between Tristan Da Cunha and Cape Town, followed by several months in the Indian Ocean, making a circuit of the area from Perth in Western Australia, north to Colombo in Ceylon, then on to Durban, South Africa. The four laboratories in the ship were well equipped, one for magnetic work, one for atmospheric-electric, one for meteorology and one for oceanography.

In September 1939, just as the *Research* was completing, the Second World War started and this interesting little vessel was hurriedly laid up at Dartmouth, where I believe she was for a time used as an accommodation ship.

Events move swiftly during wars, which bring intense scientific effort and achievement. By its end in 1945 most of the physical problems and investigations which the *Research* was built to explore had been solved by other means. She continued to lie at Dartmouth but in the post-war world no one could foresee a useful role for a small brigantine. In 1952 she was towed to Plymouth and broken up. A sad end for a ship which a decade later would probably have been snapped up as a sail training vessel and might well have still been sailing today.

The British Navy only stopped using sail as auxiliary power in new ships as late as the 1880s, when steel and steam had for some time dominated Naval construction. However, some British Naval Officers thought young seamen should have some training in sailing and in 1890 two small training brigs were ordered – the *Pilot* and the *Mayflower* – which were built of wood at the Royal Naval Dockyard, Pembroke in South Wales. The *Mayflower*, later renamed *Martin*, was 105' (32m) long, 33'6" (10.2m) beam and 13'6" (4.1m) mean draft. She displaced 508 tons and was manned by a permanent crew of 27 (a similar sized merchant brig of the mid-Victorian era would have had a crew of 5 or 6) and could accommodate 100 boy seamen under training. The *Pilot* and the *Martin* were two of the three training brigs which served the British Navy till the turn of the century. The *Martin* was tender to the static 'wooden wall' training ship *St Vincent* moored on the Gosport side of Portsmouth Harbour. The *Pilot* was tender to the *Impregnable* and the older brig *Seaflower* to the training ship *Boscawne*. These were the last square-rigged sailing vessels in the British Navy and cruised the English Channel with boys in training, often in company as a squadron, installing rope and canvas seamanship in an age already totally committed to the mechanical warfare of steel and steam. They did not survive the swingeing reforms of Admiral of the Fleet Lord Fisher and were gone by 1905.



A Nit-Picking Curmudgeon Writes

Dear Sir,

Congratulations on another very fine edition of the Maritime Heritage Association Journal (and may I add how glad I am that it was not presented as a "Millennium Issue").

I hope you will not mind if I mention a few small points that I thought questionable or in error.

In respect of the five-masted barque FRANCE II, a 24 hour run of 420 miles is cited. I wonder, what is the source of that claim and how reliable is it? It would be about the best 24 run for a sailing ship, certainly the best for a post-clipper sailing ship. I was not aware that FRANCE II was noted for speed.

Another piece of information that did not accord with what I had previously understood was the assertion that the rate system (first-rate ship, second-rate, etc) of classifying RN ships was not introduced until the 1750s. I would suggest that the system had been in use for many decades by the 1750s, but that a new "Establishment" was introduced then. An establishment was the specifications that stated the number and caliber of guns carried by ships of each rate, and this was changed from time-to-time.

Certainly the records of the Board of Ordnance (which issued ordnance to both the Army and the Navy) show the rating system in use at an earlier date

A quick web search using the phrase "Establishment of rates" through the British Public Records Office shows the following document from the records of the Board of Ordnance:

WO 55/1650 Remains and Issues, Sea Service, 1662-4. Establishment of rates and auxiliaries, 1677.

And on the same web page one can find the following statement: "By Queen Anne's reign the establishment of guns and stores for each rate was becoming standardized, so that it was no longer necessary to note any more than that such a ship had shipped the establishment of her rate." In other words, if a particular ship was, for example, a third-rate ship it could be assumed that she had shipped a certain number of guns of the requisite size and the munitions to go with them. Back in the 17th century, although ships of the same rate carried approximately the same number and size of guns, the guns were not standardized and therefore shot and gear had to be issued to fit the particular guns on a ship.

The first "Establishment of Men and Guns to the Whole Royal Navy of England" appeared in 1677 and corresponds to the Ordnance Board document cited above. However, the six

rates were used and understood during the Commonwealth.

There was a set of standard hull dimensions introduced with the 1677 Establishment but apparently only with respect to a single building program. In 1706, the Navy Board made the mistake of having the Admiralty establish a set of dimensions to remain in force until further notice. There were a number of changes to this establishment up to the final establishments of hull dimensions in 1745 -- by which time Anson was becoming a force in the Admiralty. The idea of such standardization of details by policy direction was abandoned in 1755, largely because the French were so clearly building better ships by allowing their master shipwrights enough scope to develop new ideas. All of the establishments which specified dimensions for RN ships produced ships which were rather too small for the ordnance they carried.

A couple of the details given in the comparison of the tea clippers THERMOPYLAE and CUTTY SARK are questionable. THERMOPYLAE's quarter deck was not as much as 81ft long. It appears to be about 58 ft long in the plan published by David R. MacGregor. Also, CUTTY SARK's yards, like those of all Willis's ships at that time, were painted black, man-of-war fashion, not white.

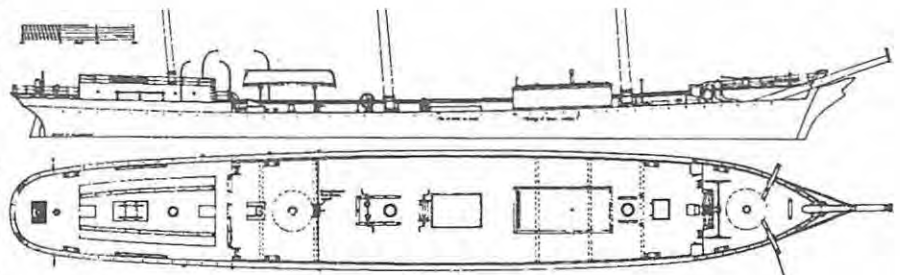
The piece by Nick Burningham about his first acquaintance with Bill Brown was, I suppose, a reminiscence rather than a researched article, so errors of fact might be excused. Burningham does not say when these events are supposed to have occurred. I can find no record of the ship SEREALITY making a voyage to any Yugoslavian port in any year when she was owned by Everards. She did take an unspecified cargo to Varna, Bulgaria in 1968, but surely Burningham was approaching middle-age by that date?

His statement that the "historical importance" of the cargo of powdered eggs has been forgotten is not quite true. In O'Rourke, P.J. 1988. "Holidays in Hell" page 83, one can find the following sentences:

"Commies love concrete, but they don't know how to make it. Concrete is a mixture of cement, gravel and straw? No? Gravel, water and wood pulp? Water potato and lard?"

It seems that O'Rourke nearly guessed the significance of that cargo.

N.P. Curmudgeon



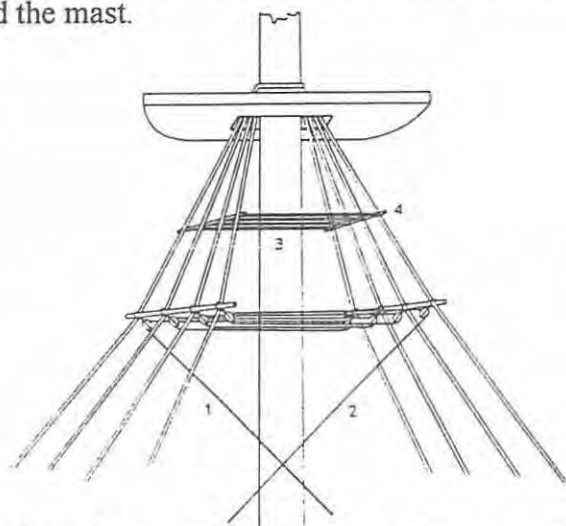
Thermopylae, general arrangement and deck plan



QUIZ

Answers to previous questions:

1. Catharpins (or catharpings) are ropes which join port and starboard lower shrouds at the level of the lower end of the futtock shrouds on ships with hemp standing rigging. They were used to help keep the shrouds taut and help them to resist the pull of the futtock shrouds. They also afforded more room for bracing the yards up sharply when sailing close-hauled. They were lashed to the shrouds after the shrouds were pulled inwards by catharpin legs or swiflers a little lower down the shrouds. They became obsolete around 1820 when the lower ends of the futtock shrouds began to be attached to a band around the mast.



1. & 2. are the swiflers for
bowsing in the shrouds.
3. are the catharpins.
4. the futtock staves which is
where both the futtock shrouds
and the catharpins were
attached to the shrouds.

2. *STS Leeuwin II* is a barquentine. A barquentine (also spelled barkentine) is a vessel with three or more masts, square rigged on the foremast and fore and aft rigged on the remaining masts.

3. Both spanker and spencer are four-sided fore and aft sails set on square rigged sailing ships. They both have a gaff at their head but differ in their placement. A spanker is set on the mizzen mast whereas a spencer is set on the fore or main mast.

Questions:

1. What is a yardarm ?
2. What is a Flemish horse ?
3. What were the names of the three vessels commanded by Willem de Vlamingh which were used to explore the Western Australian coast in 1696-97 ?

In fancy I listened – in fancy I could hear
The thrum of the shrouds and the creak of the gear,
The patter of reef points on the mainsail a-quiver,
The bow-wave that breaks with a gurgle like laughter
And the cry of the sea birds following after.
Over oceans of wonder, by headlands of gleam
To the harbours of fancy on the wind of a dream.

ANON



LLOYD'S

Here is a very brief summary of the history of Lloyd's of London, a well known name in the maritime scene for both insurance and shipbuilding standards.

Towards the end of the 17th century Edward Lloyd, a coffee house keeper in Tower Street, London, made it his business to furnish sailors' and merchants' interest in marine affairs with items of maritime news collected by him. In 1692 he moved to Lombard Street and four years later published a three-times weekly newspaper called *Lloyd's News*, which was discontinued after its seventy-sixth number. The newspaper and the general spread of information brought about by the coffee house frequenters established a reputation for the premises and it became a meeting place for people with maritime interests, including brokers and others.

From this has been built up the Lloyd's of today and which was founded primarily on the insuring of vessels and their contents and cargoes, but which today includes insurance of all kinds.

In 1729 the lease of Lloyd's Coffee House passed to Thos. Jemson who, in only five years, established the reputation of the Coffee House as the centre of marine intelligence. In 1734, *Lloyd's List*, now published daily, was first issued, placing in print for subscribers all information sent in by Lloyd's own correspondents in various ports.

A natural outcome was the compilation of a "Registry of Shipping" by a society of underwriting members in 1764 giving the conditions of the ship's hull – in letters, A, E, I, O and U – and her equipment G, M and B (good, middling and bad) – followed in the next issue by numerals for her equipment, and this has continued until the present day, hence the familiar A1, really to denote a ship of the highest class, but which has passed into common usage as describing something of a very high class or standard. Currently ships are classified 100A1 and A1 now refers only to those vessels trading within sheltered waters such as estuaries.

Ten years later, the association was removed to the Royal Exchange, where it remained until 1928. Although it had been only an association of underwriters until 1871, it had exerted a considerable influence on shipping, and in that year, Lloyd's was incorporated by Act of Parliament.

Reverting to the earlier days, during the Napoleonic Wars, the financial strength of its underwriters was subjected to great strain as shipping losses were numerous, mainly from French privateers. Its best known wartime loss during this period was the result of stress of weather. *HMS Lutine* was commissioned to carry gold and specie to Hamburg to sustain the credit of British merchants there, and, insured by Lloyd's, sailed on 9 October 1799, being lost with all hands off the island of Vlieland. Frequent attempts at salvage have been undertaken with indifferent success, the bell being one item retrieved and is now in Lloyd's and is used for important announcements – one stroke for bad and two for good news.

Lloyd's Patriotic Fund was officially founded in 1803 by the chairman of Lloyd's as a charity to "assuage the anguish of the wounded, to palliate in some degree the more weighty misfortune of the loss of limbs, to alleviate the distresses of the widows and orphans, and to soothe the brow of sorrow for the fall of dearest relatives, the props of unhappy indigence or helpless age, and to hand out every encouragement to our fellow subjects who may be in any way instrumental in repelling or annoying our implacable foe, and to prove to them that we are ready to drain both our purses and our veins in the great cause which imperiously calls on us to unite the duties of loyalty and patriotism with the strongest efforts of zealous exertion". The charity's origins actually date to 1782 when Lloyd's subscribers donated £6,000 for widows and orphans of seamen drowned in the sinking of the *Royal George*.

The Ditty Bag

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



The greatest single shipping casualty of the Second World War was the bombing and sinking of the Cunard liner *Lancastria* on 17 June 1940. The 16,243 ton vessel was evacuating troops from France when attacked by Dornier DO17 aircraft near Saint Nazaire. Within twenty minutes she sank and over 3,000 troops were killed as well as many of her crew.

The famous Second World War vessel *Krait* was originally the fish carrier *Kofuku Maru* (built in Nagahama, Japan, in 1934). The name was changed to *Suey Sin Fah* in March 1942, then to *Krait* in June the same year. After the war she was renamed *Pedang* in Borneo; reverting back to *Krait* after purchase and return to Australia in 1964 as deck cargo on the freighter *Nedlore*. She is now part of the Australian National Maritime Museum's collection.

In 1782 the Royal Navy had 100,000 seamen of whom at least 23,000 were on the sick list, mainly with scurvy. By 1805 the number of personnel had risen to 120,000 but, because of the introduction of lemon juice into the navy diet, there were only 8,000 on the sick list and hardly any had scurvy. However the lemon juice was replaced by lime juice which did not have the same anti-scorbutic properties. The French tried wine! Consequently scurvy remained a problem for many years in both the Royal Navy and the merchant navies. Even in 1901 the *Neuilly* arrived at Le Havre 148 days out from New Caledonia with half her crew down with scurvy. In 1915 the steel barque *Bidart* was lost at the Azores because most of her crew were down with scurvy and were too weak to work the sails and prevent her being driven ashore in a gale.

In the middle of the 19th century ambergris, a substance found in the stomach of sick whales, was worth US\$400 per pound.

Chance Brothers Limited of Birmingham, the main British manufacturer of lighthouse equipment in the second half of the nineteenth century, developed a system of 'orders' to enable a choice of range and characteristics of lights to be selected. These orders related to the focal distance of the optical panel from the light source. For the larger optical systems this meant that a larger light source and a higher proportion of the useful light could be directed as a beam. These orders were:-

Hyper-radial:	1330mm.
Meso-radial:	1125mm.
First order:	920mm.
Second order:	700mm.
Third order:	500mm.
Third order (small type):	375mm.
Fourth order:	250mm.
Fifth order:	187.5mm.
Sixth order:	150mm.

The lighthouse at Cape Don in the Northern Territory was built during the dry seasons in the three years 1915 to 1917. It is a concrete tower 28 metres high to the platform and everything to build it, including the gravel for the concrete, was shipped from Melbourne.

The clipper ship *Cutty Sark*, launched in 1869, as was normal then, had hen coops and pig houses on deck for the supply of fresh food. The four hen coops were each 8 feet long and, like the pig houses, were made of teak!



The Building of the *James Mathews*

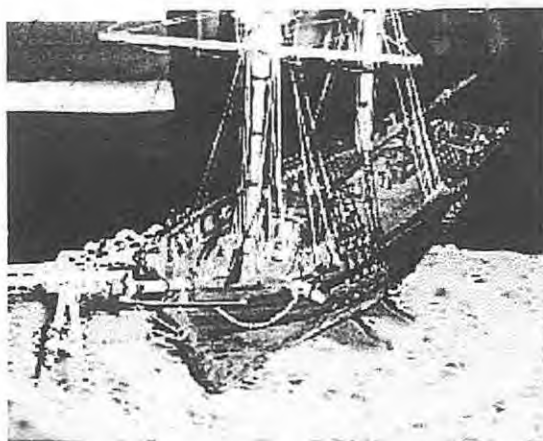
In the last edition of this Journal Rod MacKay tells of building his first ship model, that of the *Rockingham*. Here he briefly writes about the model of the *James Mathews*.

After building a representation of the ship *Rockingham* I was more than pleased at what I had achieved and having enjoyed the stresses and joys so much I decided I would try again. I was hooked (I also had some Valium left in the bottle). I could see quite a few areas I could improve on and certainly found my skills much better by the time I had finished. I started looking around for a different type of ship but still one with local history connections. While talking with a friend one day he suggested the *James Mathews* as he had a copy of a diary of John Wellard, one of his predecessors who came out on her as an apprentice seaman. This diary offered some useful information and along with other information available might be enough to build her.

This seemed a good idea to me as she was certainly different from *Rockingham*. She was a snow brig of 107 tons, 80 feet long. A fast sailer, she recorded an average of 9.7 knots over a 24 hour period carrying a cargo of 132 tons plus crew and passengers. French built which gave her different lines and rig. Being an ex-slave trader also added a bit of mystery. To get some idea on size take the *Amity* brig in Albany:- about the same length but a bulkier hull being 142 tons. Imagine her with 433 slaves, 34 crew and 4 passengers on board as the *James Mathews* had when captured by *HMS Griffon* after a chase lasting seven hours.

I eventually found a plan of an 80 foot snow brig, American, built as a slave trader. Seeing American ships of this period were similar to French in design and rig I settled on that. I won't bore you with the nitty gritty of building, suffice to say I'm learning fast and improving all the time. I did however do a bit of below deck work this time and the satisfaction was enough to make me put more and more time into this side of things with every model. I left the forward companion open and put a ladder into the forepeak but not much else. In the after companion I angled it a bit more making it more like a set of stairs into a central cabin with a table in it and a couple of open doors leading in to some cabins with bunks in. I left the doors of the caboose open and built a galley stove inside plus a stool for the cook just to make it a bit more authentic. After I had finished her I took her in to Mike McCarthy at the Maritime Museum and was more than pleased to see his model was almost identical.

I built this model at a scale of $3/16" = 1'$ and was so satisfied with it I'm contemplating building again at $1/4" = 1'$ to show more detail. I would like one day for the magic fairy to give the Maritime Museum enough money to salvage what is left of this wreck. It would make a wonderful exhibit.





AUSTRALIA'S FIRST SHIP AND A SCURVY LIFE AT SEA

Nick Burningham

The *Ditty Bag* section of the MHA Journal 10(4) contained some interesting observations on the terrible effects of scurvy and the treatment of that disease. It was noted that Anson's circumnavigation of 1740 to 1744 had been terribly afflicted by loss of life through scurvy, yet some earlier voyages (such as James Lancaster's noted in *Ditty Bag*) were much less severely afflicted. This is very much what I have learned in researching life at sea in *Duyfken's* time, and it has led me to a wider study of the question. The conclusion I have reached is that the control of scurvy was widely understood with impressive precision in the 16th century, but during the 17th century the development of medical science actually vanquished much of the "pre-scientific" knowledge with terrible consequences for the mariners of the 17th and 18th centuries. Mariners were not alone in suffering from that battle between competing epistemologies early in the "Age of Reason".

Life at sea during the 16th century was certainly not comfortable, especially in the spice trade from the Indies.

Francois Pyrard was describing a Portuguese ship returning from Goa when he wrote:

"The [weather] deck of our ship was so laden with goods that they reached halfway up the mast. Outboard as well — on the railings and the ledges on either side you could see nothing but goods, provisions and bunks, that is little cabins where the sailors and other people lie down, covered with ox or cow-hides. In short the whole deck was so arranged that you could hardly move around on it ..."

Even allowing for some literary license, we can see that sailors were living as if they were camping on board. They were allowed to build their own shelters out on the weather deck. The idea of the crew living in tiny leather boxes (like cubby houses made from cardboard boxes) is extraordinary! We might construct an example on *Duyfken* but cluttering all the decks like the most desperate kind of refugee camp is probably taking authenticity too far.

Raleigh and others wrote condemning this building of these "kennels" that bred vermin and disease, but did not propose how the crew could be more satisfactorily accommodated.

Another practice that Raleigh condemned was building the galley (without a chimney) down in the bottom of the hold. Apart from the smoke, it filled the bilge with spilled food-stuff which caused terrible stench and rotted the timbers of the ship. However, Dutch ships like *Duyfken* had their galley fire in a large box on deck.

These kinds of details are seldom recorded and rarely survive in the archaeological record. We learn that Dutch ships did not normally have their galleys in the hold because

when arctic explorer Willem Barentsz.' ship was trapped in the ice at Nova Zembla in 1597 his journal records that the men coming up on deck to aid their shipmates chased by a polar bear were blind from smoke because the galley fire had been moved down into the hold to counter the terrible cold.

Reading ships' journals to understand life on board reveals many fascinating details, not least in the area of shipboard health, scurvy and diet.

On 9th December, 1599, two Dutch ships, *Gelderlandt* and *Zeelandia*, returning from the East Indies reached the island of Saint Helena in the South Atlantic and quickly dispatched a landing party:

"... some of our people running up into the land to seeke after Cattell, brought some aboard our Shippes with them which made our mariners very gladde: but wee found no Orenge, whereof wee had most neede, for those that were trubled with the scurvie disease."

The following day they found a valley with orange trees and picked some 4000 fruit "which marvellous refreshed and cheered us all."

Contrary to popular belief, the value of citrus as a cure for scurvy was understood by those 16th century mariners and the planting of orange trees on St Helena attests Portuguese knowledge. Almost as soon as the Portuguese discovered the uninhabited island they stocked it with cattle and goats and planted citrus trees so that their ships on long voyages to and from the Indies could take provisions and refreshment there.

Other anti-scorbutics were widely known in the 16th century. The survivors of Willem Barentsz.' last attempt to sail north around Russia to the Indies spent a long autumn, winter, spring, and most of a summer, trapped by ice on the arctic island of Nova Zembla, living on ship's stores, arctic fox and the occasional polar bear. By the time summer's slight thaw allowed them escape in the ship's boats they were suffering from scurvy and their first concern on reaching vegetation was to search for "leple leaves".

"... we found great store of Leple leaves, which served us exceeding well, and it seemed that God had purposely sent us thither: for that as soons as we had eaten them, we were presently eased and healed... we eate them by whole handfuls together, *because in Holland wee had heard much spoken of their great force*, and as then found it to be much more than we expected." (emphasis added)
The next day they collected more leple leaves:

"... & still more recovered our healths, and in so short time, that we could not chose but wonder thereat, so that as then some of us could eate bisket againe, which not long before they could not do."



Lepel leaf, *lepelblad* in Dutch, is *Cochlearia*, probably *Cochlearia officianalis*, sub species *groenlandica* on Nova Zembla, also known as spoonwort and scurvy grass. The interesting thing is that these explorers had obviously been briefed in Holland about the most effective anti-scorbutic plant they could expect to find in arctic regions. This was not haphazard application of folk medicine; rather it was application of part of the knowledge that had been acquired before a well-planned voyage of Arctic exploration. Not only the Dutch had this knowledge.

Dr Woodall's "The Surgeon's Mate" published in 1617 described scurvy and listed "Lemmons, Limes, Tamarinds, [and] Oranges" as particularly efficacious cures. Woodall recommended the English East India Company provide lemon juice for their sailors. Although the chemistry of vitamin C would not be unravelled for another three hundred years, Dr Woodall was essentially right.

So, how have we come to the idea that the problem of scurvy was only solved in James Cook's time? James Cook was actually elected to membership of the prestigious Royal Society for his work in finding the cure for scurvy.

During the 17th and 18th centuries the formal study of science made huge advances. Scientists such as Newton and Huygens were famous and influential, admired and imitated. A certain amount of "hype" surrounded the practice of science and practitioners were sometimes tempted to make what they did seem even more complex than it really was (Sir Anthony Deane, the great naval architect of the late 17th century was certainly guilty of obfuscating pseudo-science at times). Along with other branches of science, medical science developed in complexity, enabling theorists to propose wonderfully unlikely experiments in a search for more arcane, poisonous and unpleasant-tasting cures.

Joseph Banks, sailing with Cook on *Endeavour*, recorded on his journal for 16 June 1770 that Tupaia the Tahitian chief who had sailed with them had "every symptom of inveterate scurvy notwithstanding acid, bark and every medicine our Surgeon would give him . . ."

Tupaia had his own cure, as Banks noted just two days later:

"Tupia who had employd himself since we were here angling & had livd intirely on what he Caught was surprizingly recovered."

Other crew members who remained under the surgeon's regime of acid and other medicines were not so healthy.

As noted in *Ditty Bag*, the terrible example of Anson's circumnavigation prompted the Royal Navy to look into the problem of scurvy.

In 1749 a long voyage provided Dr Lind, a Royal Navy surgeon, with a good sample of scurvy sufferers to experiment on. The following potential curatives were tried, each on two men: cider, seawater, vinegar, elixir vitriol, a concoction "of garlic, mustard seed, rad. raphan., balsam of Peru and gum myrrh", and two lucky men were treated with oranges. Lind reported unequivocally that nothing had any effect except the oranges which worked powerfully and almost immediately.

The problem with this simple observation, and many similar observations before and later, seems to be that it didn't adequately accord with current medical theory. Put very simply, oranges didn't make you vomit, micturate, squirt or perspire — so they couldn't get rid of the cause of the disease, and there fore would only make it worse on the long run. That is my analysis, anyway. Gideon Harvey, a physician, argued against the use of quinine containing bark for the treatment of fevers:

"Since *per se* it neither operates by Vomit, Stool, Urine, or Sweat, we may safely conclude its cheif Energy consists only in stopping the Ague fits, whereby worse Diseases are engendered". (Cited in Jarcho, S. 1993. *Quinine's Predecessor: Francesco Torti and the early History of Cinchona*. John Hopkins University Press, Baltimore. p.55)

In the 17th century, science was making great advances, and some of the most notable scientists, such as Robert Hooke, dabbled in medicine by experimenting on themselves. Part of the problem seems to be that they were seldom feeling well. Since they drank beer and wine at every meal, and never drank water, this is not surprising. Bladder stones were so prevalent that one might conclude that most people were suffering from dehydration. Hooke experimented on himself with substances we now know to be very poisonous, particularly antimony. He was pleased with the multiple purgative effects of the antimony, ascribed the other symptoms of poisoning such as migraine, dizziness and paralysis to other (pre-existing) health problems, and when the poison wore off and he felt better, he could then ascribe the recovery and unaccustomed clear-headedness to the antimony.

Most self-sacrificing amongst the scurvy theorists was William Stark (1741?–1770). Born in England of Scottish parents he studied medicine at Edinburgh, London and Leyden. Returning to London in 1769, Stark began dietary studies on himself that culminated in his death after seven months. He began with a diet of just bread and water for thirty-one days, he then added other foods one at a time: olive oil, milk, roast goose, boiled beef, fat, figs and veal. He recorded that after two-months the gums of both jaws were red and swollen and bled when pressed, this was undoubtedly the onset of scurvy.

Dr Lind had noted in his experiments that the men given oranges ate them "greedily". Their bodies were telling them what they needed. The hunger for vitamin C is equally evident in Richard Dana's "Two Years Before the Mast" when he describes how the scurvy afflicted men on the *Alert* ate raw onions acquired from a passing ship:

"And a glorious treat they were. The freshness and crispness of the raw onion, with the earthy taste, give it a great relish to one who has been a long time on salt provisions. We were perfectly ravenous after them. It was like a scent of blood to a hound. We ate them at every meal, by the dozen; and filled our pockets with them, to eat in our watch on deck . . ."



James Cook and his crew on *Endeavour* were keen on onions. For example: 17 September 1768 "Issued to the Whole Ships Company 20 Pounds of Onions per man" and only two days later "Issued to the Ships Compney 10 pounds of Onions pr Man".

Cook has been lauded as the discoverer of the cure for scurvy and sometimes discounted as the man who set back by twenty five years the implementation of the known cure by recommending malt (no vitamin C) and sauerkraut (little vitamin C) as particularly efficacious anti-scorbutics. Although it is true that Cook made those mistaken recommendations, his practice during *Endeavour's* voyage suggests greater insight or intuition. While on the coast of New Zealand Cook recorded on 27 October, 1769: "... the other place I landed . . . I got as much Sellery and Scurvy grass as loaded the boat." The wild celery was *Apium prostratum* or *A. filiforme* and the New Zealand species identified as scurvy grass was probably *Lepidium filiforme*. The following day Cook explains that:

"Sellery . . . boiled with Portable Soup and Oatmeal every morning for the Peoples breakfast . . . I looked upon it to be very wholesome and a great Antiscorbutick."

The cure for scurvy had long been obvious, the problem was acquiring and preserving adequate quantities of anti-scorbutics for very long voyages. James Lancaster, leading a fleet to the Indies in 1601, issued three spoonfuls of lemon juice to his men everyday until it ran out. But adequate quantities of lemon juice would have been hard to come by. And if the popular stereotype is correct, the sailors would have been much more concerned to see adequate quantities of beer and wine go aboard at the start of a voyage.

In fact the beer and wine were important to their health. Water stored in wooden barrels quickly became "blacke as kennel [sewer] water" as the journal of *Gelderlandt* notes on 20th September, 1598. It could be used for cooking but it was only regarded as a beverage in the most extreme circumstances. The *Gelderlandt* had been at sea for five months when the water was first sampled:

2nd August We dranke the last Beere, and we beganne our first allowance to drinke water, four mutskins or measures everie day, and three of wine. [Four mutskins were equal to one pint; a mutskin was about 150 mm or a standard drink of wine.]

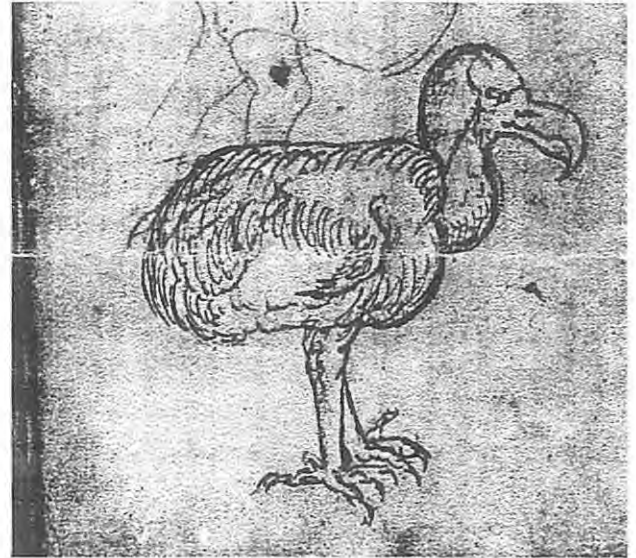
What was the diet of a seaman on a long voyage to or from the Indies at the beginning of the 17th century? The Age of Reason and the development of modern *Homo inventorensis* the compulsive listmaker were just beginning, so archived comprehensive lists of provisions are rare. The most complete list of foodstuffs can be compiled by noting everything that the ships ran out of according to their journal records.

The ships *Amsterdam* and *Utrecht* were running short of provisions when they reached the island of Ternate hoping to load a full cargo of cloves in May 1599. Negotiations to barter European goods such as woollen cloth for cloves proved difficult and perhaps too little effort was put into provisioning.

"The 10. day [June] our dyet was shortened, to wit, every day once flesh or fish, and the other three meales Ryce."

Four meals a day seems copious but only rice and meat or fish would be dull. I'm reminded of the head steward on Terry Southern's uproarious *S.S. Magic Christian* announcing after three days at sea that due to an oversight in the catering department there is nothing left except potatoes.

A few weeks later the journal records that there is nothing left except dried bread, yet between then and 16th November when fresh provisions were finally acquired,



Dodos, such as this were not good eating.

they also note that they finished their last supplies of fish, flesh, oil, cheese, honey and smoked meat.

Working back through the list of ration tightening we can see that the normal arrangement was four meals a day with meat or fish (which could be fresh, pickled, or smoked) in at least two meals — in other words, frequent meals, lots of protein, and plenty of drink, much like the majority of passengers on a modern cruise liner.

As I said at the beginning of this article, the development of medicine within the scientific epistemology seems to have had a retrogressive effect on the treatment of scurvy in the 17th and 18th century. Whether that has any message for us in the early 2000s is an open question.

Pathophysiology of scurvy

Humans share with other primates and with guinea pigs the inability to synthesis ascorbic acid (vitamin C) and therefore require it in their diet. The enzyme which in other species would catalyse the conversion of L-gluconogammalactone to L-ascorbic acid is defective due to a mutation.

Vitamin C is a redox agent, reducing metal ions in many enzymes and removing free radicals, in particular, the Fe² ions required for collagen synthesis change to the more stable Fe³ in the absence of vitamin C. Lack of collagen causes capillary fragility, poor wound healing and other symptoms of scurvy's onset.

Today, according to a medical text, scurvy is not much a problem for mariners but is mostly seen in elderly people "who may be on a tea and toast diet".



A Very Ordinary Seaman

We now join Chris Buhagiar, at the time with the Royal Australian Navy Reserve, on a two-week break from his first year of secondary school teaching, a break spent all-at-sea on board HMAS ANZAC, a 'Battle' class destroyer, by then reduced to a training role for the fleet.

April 14, 1973

The overnight train trip from Perth to Albany was uneventful, Petty Officer Jackson (Jacko), Ordinary Seaman John Stranger and myself first settling into our compartment, then proceeding to polish off some cans of bitter. This done, it was inevitable that we then sought out the buffet car and bought a few more – after all, what else was there to do? Jacko finished early he'd been on the stuff all day!

Next morning was miserable, a mid-April Albany day – wind, rain, and quite cold. The duty Navy driver met us at the station and drove us the short distance to the wharf. Clambering out of the car, we then made a mad dash to the ship – fortunately remembering to salute the quarterdeck as we rushed aboard. Then began the drawn-out process of officially joining ship visiting one department chief after another, who in turn would sign his respective part of our papers. Whilst all this was going on I noticed the entrance to the harbour slipping by – the ship was underway! Consumed with the nervous excitement of the moment, and taking advantage of an opportunity, I stepped briefly out on deck to enjoy the spectacle of clearing Princess Royal Harbour. Surprisingly, I appeared to be the only one doing so.

Once officially part of ship's company, I was taken below – to 2-Charlie Mess, immediately forward of and below A-gun turret, my home-to-be. For a messdeck it looked more akin to a garage workshop – generators humming, ventilation trunking running everywhere; valves, lockers, three large tables, benches, hatches, large bins for stowing hammocks, and so on ...

We then dropped in, literally, on the slops (clothing) store one deck below – down a near-vertical steel ladder through a deck hatch – where

we were issued with the parts of our hammocks and other items. Not having the faintest idea about how the hammock was put together – or should I say, tied together I had to call on a messmate to sort it out. Quite a rigmarole – but, on reflection later, well worth it, for my hammock would prove to be a real joy to climb into after four hours on watch! Stranger and myself then spent the rest of the day settling in – and, when able, sleeping! We were also given our ANZAC short leave cards, that gave our parts-of-ship, watches etc. I was second-port watch, there were three others.

It wasn't long before I was initiated into the romance and relative tedium of shipboard routine. When not duty watch, I was to spend subsequent mornings doing odd-jobs, usually cleaning Ship's Company Heads (an appalling task as it would turn out, the officers' heads in particular being indescribable to a sensitive character like myself, and making one wonder whether or not it was deliberate!); washing down the forward screen supporting the bridge structure (with soap and water, no less), or simply chipping and painting. The emphasis in washing down was on making the starboard side of the screen as spick-and-span as possible, as we would be berthing in Port Adelaide starboard-side-to. It was mooted that the officers would be holding a reception in the wardroom and, of course, the officers' wardroom was starboard side of the forward screen!

Free time would be spent mostly in our mess, playing monopoly, eating, chatting (mainly listening to the "permanents" woes at being in the Navy for so-and-so more years, and envying our freedom), watching TV if the reception from land was good enough, or just sleeping. Anzac's PA was always tuned in to a shore station, a constant reminder of home.

Duty watch meant doing either a "trick" on the ship's wheel, being on lookout on the bridge wings, acting as lifebuoy sentry, or simply doing nothing at all (to be recommended!) When given this latter job, which would of necessity be only for part of the watch (and usually in the dead of night), we would huddle on the deck, out of the wind, right up against the marvellously warm funnel – to idle away the available time.

A trick on the wheel was a nerve-racking experience for a green Ordinary Seaman such as myself who had to get his helmsman's certificate, but of course was inexperienced in judging just when to apply sufficient opposite wheel to correct the ship's



anticipated swing. The mark of a good helmsman is minimal use of the wheel while maintaining course. This naturally did not apply to me.

The wheelhouse was a very small compartment immediately forward and below the open bridge, and housed three men, the engine room telegraphs, voicepipes, and a maze of gadgetry. The only sound was the constant click-click-click of the gyro repeater as the ship swung first on, then off, course. Conversation was restricted to either listening to the leading hand's marital problems, or communicating with the officer-of-the-watch on the open bridge above:

"Bridge, wheelhouse" (the leading hand next to me).

"Bridge" (the officer of the watch, after an impressive pause).

"Permission for Ordinary Seaman Buhagiar to take the wheel, Sir?"

"Very Good."

Then, after an excessive number of twirls of the wheel, trying to keep the ship on course, and get a "feel" for her and the sea conditions:

"Bridge, wheelhouse" (me).

"Bridge."

"Ordinary Seaman Buhagiar on the wheel, Sir. Course 020 degrees; both engine room telegraphs showing half-ahead 2100 revolutions, rung on repeated, Sir."

"Very good."

Then followed an hour's constant twirling of the wheel, keeping the ship on 020 as best as possible, while wondering how erratic the ship's wake appeared to the officer-of-the-watch, or to any other onlooker – and all the while expecting a rocket from him woeful helmsmanship. (But, after all, we were a training ship!)

As the trick progressed, an unexpected but welcome alteration of course might come down the voicepipe:

"Starboard twenty."

"Starboard twenty"; then "Twenty of starboard wheel on, Sir."

"Very good."

Presently:

"Midships."

"Midships" ... a few now deft turns of the wheel, then: "wheels a-midships, Sir."

"Steady."

"Steady on 095 degrees, Sir."

"Very good, steer 095 degrees."

This change of course usually spelt an oncoming ship, and it was best to keep well clear. The leading hand then idly leant over and gaped out the scuttle, to confirm his guess, then settled back.

Eventually the relieving watch materialised, at least five minutes early if they knew what was good for them:

"Bridge?" (the leading hand again).

"Bridge."

"Blue watch closed up, Sir. Permission for Ordinary Seaman ... to take the wheel, Sir?"

"Very good". And so on ...

If it was still dark, I'd then be off back to my good old hammock for a bit more shuteye, after first being dismissed back on the quarterdeck.

The weather was generally pretty wild, at least from my perspective – large following seas, a lot of wind and rain, and great masses of impressive cumulus towering above. Running with the sea made for a comfortable run, with nobody being sick on day two except for two lowly Junior Recruits. Looming astern, large and ominous, successive waves would constantly overtake the ship then break over the quarterdeck, to dissipate in a swirling white maelstrom. Great just to watch. Periodically the rain would close in, and everything would turn a dull grey, the sea becoming barely discernible from the sky – creating a mood of isolation, as if we were in a world alone.

After three days of this, we arrived at the approaches to Port Adelaide, in the middle of blustery rain. The harbour was about two miles up river, so we utilised the time available by faking lines and getting the fo'c'sle tidily. I gradually got soaked – my beautifully pressed blues, too! A while into the transit, two tugs came alongside to manoeuvre us alongside the fuelling berth, where we spent two lazy hours (lazy for some, but not for the cable party – caught by the buffer idly chatting, we were sent off to polish brightwork!) The tugs then manoeuvred us to another berth a little further upriver, inside the harbour proper. This time the rain really let loose, and it was a mad dash to get everything done and the ship secured.

The watches then shifted from seagoing to harbour routine. Other than our day on watch, we were free to go ashore. Pity it was Easter, everything would be shut!

Easter Sunday afternoon, the ship was open



for public inspection, so we spent the morning clearing and cleaning the uppers, and preparing displays. I agreed to do another sailor's watch in addition to my own – he gave me \$5.00 for my trouble; I didn't know what his shore commitment was, I didn't ask. Frankly, Adelaide on Easter Sunday didn't attract me, and the city was a further seven miles inland.

That afternoon, the clouds dispersed, the sun came out, and the public started coming aboard – 2600 as it turned out! Quite impressive. My position was port 40/60 (Bofors gun), abreast the bridge; my function was to lift kids in and out of the driver's seat, and answer questions. Understandably, not too many technical questions materialised, otherwise it could have been embarrassing – how were they to know I hadn't yet done my Able Seaman Quartermaster Gunner's course!

All 2-Charlie mess knew of Easter itself was my packet of toasted hot-cross buns, which I passed round later, and which all enjoyed.

Next morning, I loaned my camera to a messmate, as he wanted to send a few snaps to his girlfriend; the morning was then spent touring the uppers, snapping shots of him in various seamanlike poses – sitting on the muzzle of a 4.5 in. gun barrel, or passing helm orders down the bridge voicepipe. I'm sure she would have been most impressed!

Back at sea, ship's standing orders deemed I was yet again responsible for the Ship's Company Heads and the washroom, ready for Captain's Rounds at 1930 hrs. It must have been a conspiracy or perhaps simply that I was the only one who would make a respectable job of it! I'll never know. Anyway, at about 1900 I set to do the deed with mop, bucket and some overpoweringly strong bleach. Quite frustrating too, as the heads and washrooms were being constantly used. The secret, ever-helpful sailors said, was to leave the cleaning to the last minute! You're kidding, I thought, and run the risk of the "rattle" for not doing it properly?

At 1925 precisely I'd make a dash back to 2-Charlie mess, get into rig-of-the-night blues, with negative collar then rush back to the heads, hoping against hope that nobody had meantime disgraced himself in my spotless heads, and to stand smartly at attention outside my post, to await the Captain's arrival, and report:

"Ship's Company Heads for inspection,

Sir."

At 1930, the shrill of the bosun's pipe was heard, heralding the approach of the Captain and escort, checking each department in turn. He could be counted on to glance behind the heads usually wet and dirty and the mess lockers, also usually dirty. After pointing out a lack of toilet paper, or a roll lying on the deck (yes, trust some wretch to mess it up while I was changing into my blues), the Captain moved on. (My Certificate of Service certifies me as having "achieved good results" during my time on ANZAC; perhaps this simply refers to the results of my labouring in and around the ship's company heads!)

Captain's Rounds had its funny side too, as all the sailors in the mess had also to be in correct rig-of-the-night. We rarely could be bothered dressing up for such a brief ritual, so as the official entourage entered 2-Charlie mess through the starboard hatch, we'd all troop out the port hatch, and into 2-Bravo mess. Here we'd cower until the dignitaries had satisfied themselves and had moved to exit through 2-Charlie's port hatch and at which point we'd all quietly rush over to the starboard hatch, and so back into our mess. Easy! I'm certain all this was an age-old practice and it was good for a laugh.

2000 hrs. was beer issue time, at 10c a can (it was 1973 after all!), but only when at sea, and certainly not on the first night out, when all were presumably still recovering from shore leave. Beer issue meant lining up and presenting our short leave cards to the duty PO who in turn gave us each our two opened cans (there'd be no storing away cans for a big booze-up later). Our cards would then be returned next day when we went on watch, very cunning, indeed! Non beer-drinkers had the option of "goffers", cool drinks to the uninitiated. At around 2130 or 2200 hammocks would be brought out and slung over and between the deckhead bars; then it was up and in to swing gently to the motion of the ship. At night the mess was lit by two red lights, for the benefit of the watches.

If I happened to have "the guts" the Middle Watch (12.00 pm to 4.00 am) I'd be woken at about 11.40 by my opposite number in the watch coming off. Then it would be a rapid change, with accompanying grumbling, into my "eights" (working uniform), and thence out into the cold, wet darkness, to an assembly point aft.



Here we'd be checked off and allocated duties. Here too it was very cosy, as we were standing next to two open engineroom hatches, up which a blast of hot air was constantly exhausting. If I was lucky, I'd be free for the first two hours (dozing, huddled by the warm funnel, of course), followed by two hour's lifebuoy sentry.

All too soon, I'd dozed away the first half of my time, and it was off to the quarterdeck, to stand and gaze at the following sea, keeping eyes peeled for a possible (though remote, I trusted) man overboard:

"Bridge?" (me)

"Bridge."

"Lifebuoy sentry, quarterdeck. Testing ..."

One raised the bridge by giving the bulkhead telephone handle a rapid twirl, causing the other end of the line to squeal on the bridge, and hopefully disturbing the officer of the watch's own discreet cat-napping. (Communication was, surprisingly, barely audible.) Then it was into a private dreamland, doing my best to keep a meaningful watch, while contemplating the romance of where I was at sea on a warship, alone at night, watching the ship's wake slipping away into the heaving darkness, the scene lit only by the ship's stern light. The majority of the ship's company were snug in their hammocks, their welfare entrusted to the duty watch.

So morning came:

"Wakey, wakey, wakey. Lash up and stow, lash up and stow, lash up and stow. Wakey, wakey, wakey. Lash up ...",

preceded and followed by three quadruple blasts of the boson's pipe guaranteed to put paid to any thoughts of a few extra moments shuteye! So back into eights, lash up and stow the hammock, wash, then back to the mess to collect fighting gear (knife and fork, etc.) for breakfast.

Then at 0800:

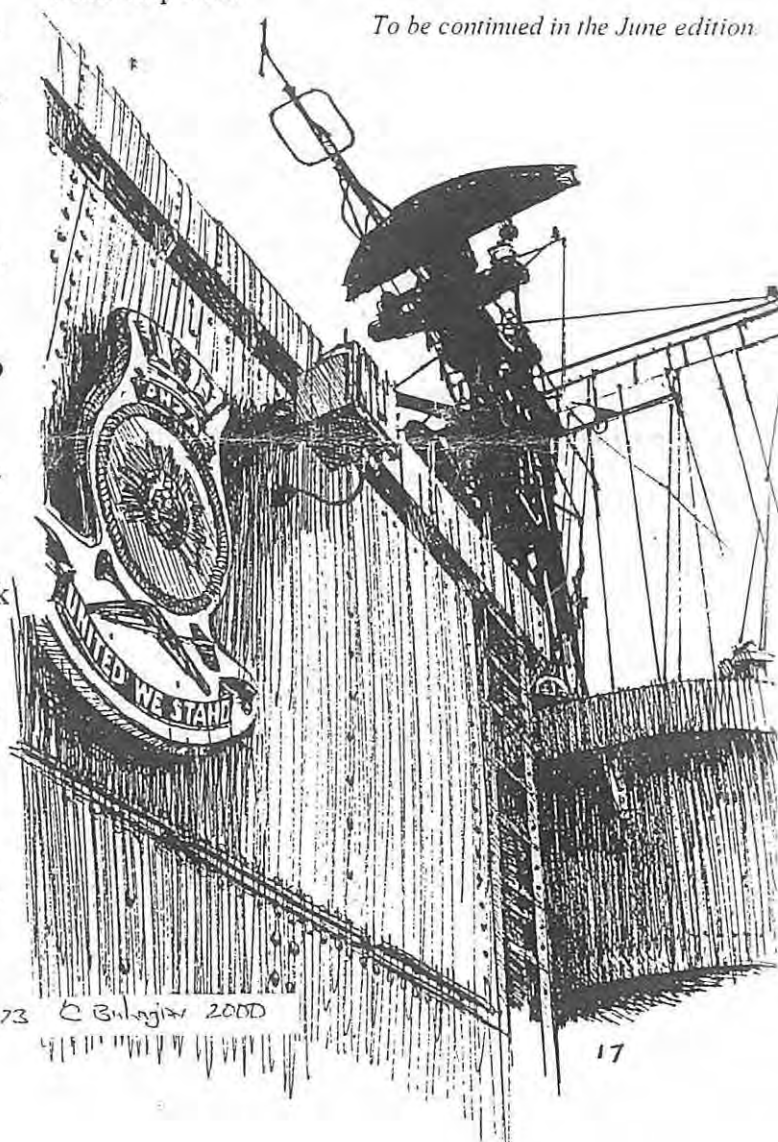
"Hands to part of ship ..." for the day's work allocation.

Being focsle, and maybe not standing a watch until "the dogs" (the two short watches after 1600), my day might again be washing the forward screen or scraping and painting fittings on or around the ship's cables quiet work, and quite pleasant and a good time to chat about all sorts of things, even the relative slackness of what we were doing! The particular fitting that I was chipping away at, was badly rusted internally, indicative of

prolonged neglect. What, I thought, was the point of making this thing look pretty on the outside, and giving it a coat of full gloss Navy Grey? I pointed this out to our PO, making a comparison with the similar state of the ship's sides in the Officers' Heads, as well as various other inaccessible locations around the ship where nature was being allowed to gradually dissolve steel. Refit time was supposed to take care of these details, I thought. As the PO took my well-intentioned observations in good heart, I also passed on my observation that the trainee midshipmen were quite slack in their approach to chipping and painting, being quite content to chip away, stand down at 1600, and leave bare steel exposed to the elements until some other bod may-or-may-not get round to recleaning and repainting. Oh well, it was all bigger than I was ...

1030 "Stand Easy" ten minutes of relaxation, even the canteen opened; 1040 "Pipes Out" back to work. Then "Stand Down" at 1600, a good time for a bit of photography before the sun got too low. Again, it seemed as if I was the only one on deck other than duty watchkeepers. Sailors it seemed lived below deck, only venturing topside when required.

To be continued in the June edition.





A LETTER FROM JAPAN

As promised here is the second of Rod Dickson's articles. This one tells of the history of Dejima Island, and was written on board *SS Northwest Stormpetrel*.

The ship is now in the drydock at Nagasaki, one of the most beautiful of the Japanese ports but unfortunately only known to the outside world for having had the second atomic bomb dropped on the city in 1945.

The city itself lies at the head of a narrow inlet approximately ten kilometres long and has a population of about 464,000 people most of whom are employed by Mitsubishi in one way or another at their shipbuilding and ship repair yards. The inlet is surrounded by hills and the houses and businesses creep up the steep hillsides creating a picturesque view.

Although known for the A-bomb the history of this city goes back much further in its links with the western world.

In 1550 the first foreign vessel arrived in Hirado, a small port just to the north of Nagasaki. She was Portuguese and had arrived to open up trade between Japan and the western world and also to bring religion to, as they called them, the heathens. From then until 1636 the Portuguese were constant visitors and their priests spread out across the land preaching Christianity. The Tokogawan Shogun wasn't too impressed with this spread of foreign learning and ordered a fan shaped man made island created in Nagasaki Harbour and named it Dejima.

All the Portuguese were rounded up and confined on the island of 15,000 square meters until 1639 when they were finally kicked out of the country for good. The Dutch who had moved into Hirado relocated to Dejima in 1641 and established their trading post on the fan shaped island. The only link with the mainland was a small bridge which was permanently guarded. Only traders with the correct documentation were allowed onto the island to deal with the Dutch, except for courtesans, who had free access.

The Dutch lived and traded on Dejima for 218 years until the island was closed through declining trade in 1859. For those of the Dutch that were sent there to man the station it must have been like a natural prison. During April to May the Dutch ships would arrive from Europe, via Batavia, generally only three or four per year. These ships would then stay at anchor until October when they would then retrace their voyages leaving the permanent staff of nine or ten behind. Of these one was always a surgeon and it was through the offices of these men that the Japanese learnt the Western methods of surgery. Japan's main exports throughout this period were gold, silver, copper and pottery and the country imported silks, sugar, spices, medicines and etc.

Since the late 1800's Nagasaki has expanded and with little flat land the obvious answer to expansion was to landfill the head of the harbour and gradually over the years Dejima Island became part of the land and is now some five hundred metres inland from the sea. In the 1950's scholars delineated the old boundaries of the island, when, during excavation work the old stone retaining walls were exposed. Since then the local authorities have set up a commission to rebuild Dejima as it was. Some of the old buildings still remain and they are now the two wings of the museum. By 2010 the island will be an island again as the plans call for the realigning of a major road so that a channel can be cut and the Nakashima River diverted.

One of the more interesting exhibits to be seen at the museum is a large bronze 12 pounder cannon.

continued on page 20



MARITIME HERITAGE ASSOCIATION

Our History

The Maritime Heritage Association was formed in 1989 to promote a living and working record of Western Australian maritime heritage, and to foster national and international interest in our maritime heritage for the benefit of the local community and visitors.

Aims

- ◆ To promote, encourage and support the preservation, restoration and knowledge of Western Australian maritime heritage by providing resources and facilities for employment, education and training in all aspects of maritime heritage.
- ◆ To invite and encourage public participation in all these activities.

Membership Entitlements

Ordinary Member

- ⇒ open to anyone
- ⇒ one vote on Annual General Meeting resolutions
- ⇒ open to stand for election to Committee
- ⇒ receive quarterly newsletters

Family Member

- ⇒ open to any two adults and dependent children under 18 years of age
- ⇒ one vote for each adult on Annual General Meeting resolutions
- ⇒ adults open to stand for election to Committee
- ⇒ receive quarterly newsletters

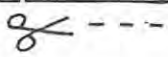
Institutional Member

- ⇒ open to any institution
- ⇒ one vote on Annual General Meeting resolutions
- ⇒ one representative open to stand for election to the committee
- ⇒ receive quarterly news letters

Associate Member

- ⇒ open to pensioners, students, children under 18, or unemployed persons
- ⇒ are not entitled to vote on Annual General Meeting resolutions
- ⇒ receive quarterly news letters

YOUR YEAR 2000 MEMBERSHIP IS NOW DUE



Maritime Heritage Association Inc. Membership Application Form

Tick the appropriate box

	<u>1 YEAR</u>	<u>3 YEARS</u>	<u>5 YEARS</u>	
INSTITUTIONAL	\$100 <input type="checkbox"/>	\$275 <input type="checkbox"/>	\$440 <input type="checkbox"/>	NAME.....
FAMILY (includes children under 18 years of age)	\$40 <input type="checkbox"/>	\$110 <input type="checkbox"/>	\$175 <input type="checkbox"/>	ADDRESS.....
ORDINARY	\$30 <input type="checkbox"/>	\$83 <input type="checkbox"/>	\$130 <input type="checkbox"/>	POSTCODE.....
ASSOCIATE (pensioners, students, children under 18, unemployed)	\$10 <input type="checkbox"/>	\$28 <input type="checkbox"/>	\$40 <input type="checkbox"/>	TELEPHONE (W).....(H).....

Please forward remittance to:-
Bob Johnson (Treasurer)
4 Cunningham Street
APPLECROSS WA 6153



This was dredged up from the mouth of the river in 1990 and because the workmen had no idea what it was, they carted it off to the local police station, from where it was quickly rescued to be studied by museum staff. The gun was owned by the Amsterdam Chamber of the VOC or Netherlands East India Company and was cast in 1640 by Assuerus Koster. He cast his name in the barrel as follows:- Assuerus Koster me fecit, Amstelredam. He came from a family of gun and bell casters. It is not entirely certain as to how the cannon fell overboard but it is believed that in the latter part of the seventeenth century as the Dutch ships lay at anchor a typhoon struck the port and the ships were damaged.

The Dejima Museum is not the only attraction in this lovely city, there are some splendid temples to visit, there are the nine stone arched bridges, dating from the 1500's over the Nakashima River, and still in use today. The Chinese Cultural Museum, the Dutch walk and of course Glover's Gardens are also interesting. Glover was the first British trader to arrive at Nagasaki in 1853 and lived the rest of his life there with his Japanese wife. He had a very eventful life importing the first steam engine, which he drove down the main street. He also founded the Kirin Brewery and was a major player in the founding of the Mitsubishi company.

Once again it will be a sad day for all on board and for our very good friends ashore when we make our departure from here as it will be another two and a half years before the ship returns.

