

The Liverpool Nautical Research Society

(Founded in 1938)

THE BULLETIN

Volume 55 No.1, June 2011



The **Angerona**, c1880.
(Featured on page 30)

SLSA: PRG 1373/8/70 Courtesy State Library of South Australia

Stranded in the Bitter Lakes	<i>R W Short</i>	page	1
Remember those days...	<i>Bill Ogle</i>		3
Book Review			5
Society Visit	<i>Bill Ogle</i>		6
Highlights from the Archives	<i>Dawn Littler</i>		8
The Queen Mary -a guided tour	<i>Glynn L Evans</i>		9
The Monday Facility	<i>John Moore</i>		12
A Voyage Too Many?	<i>Alex Hampton</i>		13
Preserving a Great Maritime Epoch	<i>Colonel Vere Cotton</i>		21
The Swedish Connection	<i>Bill Ogle</i>		22
Moss Steamship Company	– Regulations		
	Part 2		26
A Voyage in the Angerona	<i>Michael Brocklebank</i>		30
Experiments with Carrier Pigeons	<i>MMSA Reporter</i>		37

These items feature in the 'Top Ten Treasures' at Merseyside Maritime Museum, and formed part of Dawn Littler's presentation to the Society, reported on page 26. Reproduced by Courtesy of National Museums Liverpool (Merseyside Maritime Museum)



A rare early view of the famous Liverpool waterfront, full of sailing ships and taken in 1860 by local photographer G. Berry of James Street. Hartley's 5-sided clock tower (1848) features in a forest of masts



This ticket belonged to Reverend Stuart Holden. His wife became ill the day before the Titanic sailed, forcing him to cancel his voyage. Reverend Holden had the ticket mounted and kept it above his desk until his death in 1934.

The Liverpool Nautical Research Society

President:

Mr. A.S.Davidson

Vice-Presidents:

Captain G.Cubbin, Mr. H.M.Hignett

Chairman:

Mr. D.C.White

Vice-Chairman:

Mr. W.A.Ogle

Council:

D.Eccles, D.Littler, Dr. E.S.Long, A.H.McClelland,
Captain R.Settle, G.F.Wright.

Honorary Officers:

Secretary: J.Stokoe

Treasurer: B.Groombridge

Web site: www.liverpoolnauticalresearchsociety.org

Contact details:

The Liverpool Nautical Research Society
Maritime Archives and Library
Merseyside Maritime Museum
Albert Dock
Liverpool L3 4AQ
United Kingdom.

info@liverpoolnauticalresearchsociety.org

STRANDED IN THE BITTER LAKES

By R W Short

From the Society archives

On 18 May 1967, **Scottish Star** set sail from Australia for Britain under the command of Captain F C T Wood, carrying a cargo of apples and pears, dried and canned fruit, and wool and on 4 June she joined a convoy for transit through the Suez Canal.

The convoy was approaching Bitter Lakes when, on 5 June, war broke out between Israel and Egypt. **Scottish Star** was one of 14 vessels to be detained in the Bitter Lakes, the other British ships being **Melampus**, **Agapenor** and **Port Invercargill**. It was not known at the time just how long **Scottish Star** was likely to be detained, so a full crew remained on board and the refrigeration was maintained to preserve the fruit.

The refrigeration was finally switched off after 18 months by which time the fruit had no further commercial value. The pears deteriorated quickly but the apples kept fairly well as shown by samples that were sent home from time to time. Although the fruit was lost, the achievement of the ship's personnel in maintaining it in good condition for such a long period was remarkable, especially when one considers the problems they faced in maintaining the refrigerating machinery. A major problem was the CO₂ machine—the condensers became blocked with mussels and coral formation. Early in 1968 considerable infestation was discovered in the dried fruit and sheepskins. Fumigation was found to be expensive, but the problem was overcome by the use of a Vapona Strip type of insecticide.

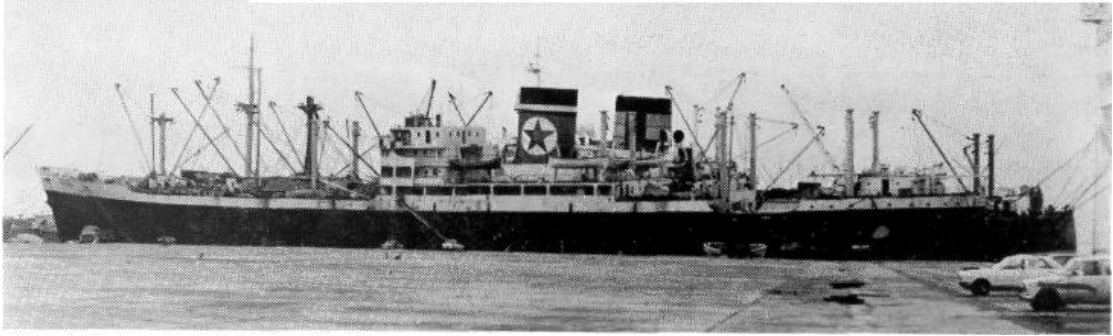
Remarkable cooperation

The original Master and crew were relieved after three months, and until 1969 crews were changed periodically. Boredom was the major problem, but this was alleviated by the remarkable cooperation between men on the stranded ships. They banded together to form the Great Bitter Lakes Association, and various functions were organised. Football and cricket matches, swimming races, table tennis and darts competitions were held, with trophies for the winners. A miniature United Nations arose, producing its own postage stamps (and ties!).

There were several outbreaks of fire on the deck of the **Scottish Star**, mainly caused by sparks from the funnel. Eventually a spark arrester was installed.

The Owners faced considerable legal argument over the question of when the vessel could be considered a constructive total loss. In September 1969, leading counsel gave an opinion that the time was now reached when the

insurers would find it difficult to refute a claim. The insurers then accepted Blue Star Line's claim and so became the owners of the **Scottish Star**. There was now no necessity for the maintenance of reefer cargo on board, so to reduce costs to a minimum, arrangements were made for the 14 stranded vessels to be maintained in small groups. **Scottish Star**, **Port Invercargill**, and two Polish vessels were grouped, and a Master and crew of 12 remained on one of the Polish ships to protect the interests of the group. This was later reduced to a Master and five crew.



Scottish Star in Piraeus after her release from the Canal

Release

During 1969, when further hostilities broke out between Israel and Egypt, there was considerable danger to the vessels from shelling and air bombardment; but fortunately no serious incident occurred. At last, in 1975, eight years after being stranded, the vessels were released and on 30 May **Scottish Star** was towed out to Port Said to be sold, with her cargo, to a Greek company and towed to Piraeus.

Eye witnesses have reported that on her arrival at Port Said her appearance was surprisingly good. But a subsequent survey showed that structurally **Scottish Star** was in poor condition; the hull plating around the water line was heavily corroded and much of the engine room machinery was in a sorry state. Steel decks were pitted and wooden decks needed complete replacement. The fruit, of course, was a complete write-off, but the wool, although slightly deteriorated, still had value.

Scottish Star has now been renamed **Kavo Yerakas**, and whether she will ever go into service again, or whether her detention in the Bitter Lakes marked the end of her career is unknown at present.

Editors note: Following her tow to Piraeus and re-naming, her cargo was discharged and she was laid up from 6 September, 1975 until 25 June 1979, when she was sold to Spanish shipbreakers.

REMEMBER THOSE DAYS

From 1970 and also 1990, these are a sample of events selected from the archives, and published by kind permission of Sea Breezes.

April to June, 1970

The paddle tug **Eppleton Hall** has arrived at San Francisco's Pier 45, at the end of a 6-month voyage from Newcastle-upon-Tyne. Built in 1914 by Hepple & Company, South Shields, she was rescued from a ship-breaking yard on the Tyne and fully restored and refitted before sailing to San Francisco.

For many years Cherbourg was a port of call for Atlantic liners, a feature being the tenders to carry passengers and their baggage to and from the ships, but none now remain in service. The service originated in 1891 when Holland America Line purchased the 2-year old **Ariadne** and later the **Bon Voyage** which had originated in 1900 as the **Southwold Belle**. When White Star moved their big ship service from Liverpool to Southampton in 1907 a tender for Cherbourg was urgently needed and the paddle ferry **Birkenhead** was purchased from Birkenhead Ferries, being renamed **Gallic** on transfer. Meanwhile Harland and Wolff had laid down two new tenders to be named **Nomadic** and **Traffic**; both being given twin screws driven by compound engines. Then there were the Cunard tenders; as the First World War ended in 1918 Cunard also transferred to Southampton and so needed tenders. Two twin-screw sisterships, **Lotharingia** and **Alsatia** were completed in 1923.

A salvage flotilla comprising the 724-gross ton tug **Varius 11** and a 2,667 ton pontoon the **Mulus 111** is due to leave for the Falkland Islands in a bid to return Brunel's **Great Britain**, the first iron, ocean-going propeller-driven ship, to the Bristol dock from which she was launched in 1843. In July, a triumphal procession up the River Avon is planned. The cost of the operation – estimated at about £150,000 – is being met by Mr Jack Hayward. Temporary repair work began immediately on the **Great Britain**, which has been beached in Sparrow Cove since 1937. The method is considered the safest way of bringing her home and has taken almost two years to arrange.

With the establishment of a Maritime Trust it is worth remembering that so far there is only one sail preservation society in Britain to actually own a craft. This is the Norfolk Wherry Trust; in 1949 they purchased the 60 ft. **Plane**, launched in 1898, restored her original name of **Albion** and for about the next decade she traded whenever cargoes were available. Until recently however she has been carrying holiday parties in the summer and for this had a cabin top with portholes in the hatch sides. Last year she received a government grant of £2,000 and this coupled with gifts from local companies has been enough to pay for the renewal of many planks, frames and a new mast so that her life is now considered indefinite.

April to June, 1990

The China Shipping Company (COSCO) has bought the container ship **Carmen**, 16,291 grt, from German owners. Her story goes back to 1960 and a German Government decision to build a nuclear-powered bulk carrier instead of the “atom-tanker” previously under consideration. Two years later the order was placed and the ship launched in June, 1964 and named **Otto Hahn** after the German scientist who split the atom and was present at the ceremony. Against an original cost estimate of DM40mn, the final figure was thought to be DM200mn. For the next two decades she was managed by a subsidiary of Hamburg America Line. Taken out of service in 1979 because of high operating costs she was laid up and offered for sale, having been stripped of her reactor and decontaminated. Bought by Rickmers of Bremerhaven she was rebuilt as a diesel-engined container ship. Sold again to Projex she was re-named **Trophy** and subsequently her name became **Norasia Susan** and in 1985 **Norasia Helga**. COSCO have now re-named her yet again as **Hua Kang He**.

Tragedy struck in home waters on the night of January 29/30 with the sinking off the Isle of Wight of the Greek-flag motorship **Flag Theofano**. She had been employed since last June carrying cement on a weekly run between Le Havre and Southampton. What turned out to be her last voyage was accompanied by bad weather and she was advised to take shelter off St Helen's, near Bembridge pending pilotage to Southampton the next day. No distress signal was received to indicate that she was in any sort of trouble although local residents claim to have seen distress flares.

In December, 1964, construction began on three loading berths on the south side of Birkenhead's Vittoria Dock, for use by the Ocean Steam Ship Company (Blue Funnel). The development included rebuilding the old transit sheds and a new administration block. As has been the case with other post war projects in the Port of Liverpool this one was overtaken by changed circumstances as the Far East trade was containerised and conventional cargo dwindled. In 1977 the last Blue Funnel Far East sailing was made from Birkenhead, leaving the almost brand new berths redundant until recently when warehousing and distribution company Stanton Grove Ltd. began operating from the transit sheds. In January, 1990, the quay came back into use when the **Abitibi Claiborne**, 7,580 grt, a sideport newsprint carrier, unloaded 5,000 tonnes of Canadian reels into the sheds.

The well-known Mersey ferry **Royal Iris**, 1,234 grt, is to be withdrawn from river cruising at the end of the year. The first **Royal Iris**, 465 grt, built on the Tyne in 1906 as the **Iris** was requisitioned, together with her sister the **Daffodil**, by the Royal Navy for the 1919 raid on Zeebrugge. In honour of this service they were granted the prefix “Royal”. This was continued for the 1932 built **Royal Iris** and again in 1951 for the current vessel.

*Editors Note: the **Royal Iris** still exists, but very dilapidated, and is lying on the Thames near Woolwich. There is an on-line petition to return her to Merseyside.*

BOOK REVIEW:

THE SCANDINAVIAN SEAMEN'S CHURCH LIVERPOOL

*Robert Lee, Chadwick Professor of Economic & Social History,
University of Liverpool.*

Many people, whether from Liverpool, Merseyside or further afield, will have driven along Park Lane and noticed a rather unusual building close to the city centre. The fact that the flags of five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) fly from flagpoles on the building may provide a clue to its identity, but its unusual octagonal shape, unlike that of most British churches, may make it difficult for many passers-by to recognise that they are looking at Gustaf Adolfs Kyrka (more commonly known as the Scandinavian Seamen's Church). In fact, relatively little is known about the origins of the Scandinavian Mission in Liverpool which was established in 1870 or the fact the Church which was built in 1883-84 was the first independent design of William Douglas Caröe (1857-1938).



This book discusses the background to the establishment of a Scandinavian Mission in Liverpool by the Swedish Evangelical Society (*Evangeliska Fosterlands Stiftelsen*), working together with a group of Liverpool merchants, many of whom had been born in Scandinavia, and review the nature of its activities and operation following the arrival of the first pastor, Per Gustaf Tegner. It focuses primarily on the Church, in particular the building with all its Scandinavian features which was designed by Caröe at the age of 25 and built by John Shillitoe and traces the subsequent history of the Church, in terms of its repair, renovation, demonstrating how it has been adapted to more modern use without ever compromising the quality and uniqueness of the original design.

The historic importance of the Church itself cannot be doubted, but it also contains works of art and other artefacts which testify to its special status. A church

does not only consist of brick and mortar, and Gustaf Adolfs Kyrka contains not only a fine Victorian organ, but an outstanding altar relief by Robert Anning Bell (1863-1933) and two unique statutes designed by Arthur Dooley (1929-1994) which were cast in Sweden and donated to the congregation. A final section will discuss the future of the Church and the plans of the congregation and the Liverpool International Nordic Community to extend its role as a centre for cultural and education exchange between Merseyside and Scandinavia while retaining its original function as a place of Lutheran worship and a meeting place for the Scandinavian community.

Editor's Note: in February 2008 the Church's owners, Swedish Church Abroad, took the decision that the church be closed at the end of that year. However in a Press Release dated 01 November, 2010 the Liverpool International Nordic Community (LiNC) announced that the management responsibility for the Gustaf Adolf church building in Liverpool had been handed over to them by Swedish Church Abroad. This will enable them to continue the activities of the church as they have been carried out in the historic Grade II listed building, since the church was built in Liverpool, by architect W.Caroe, 126 years ago.*

SOCIETY VISIT TO THE TUG-TENDER DANIEL ADAMSON

By Bill Ogle

On 5th May, 2011 a group of 17 Society members thoroughly enjoyed a visit to Sandon Dock in Liverpool where the historic steam powered, passenger carrying tug-tender **Daniel Adamson** is being fully restored on a largely voluntary basis. The visit was kindly arranged by Society Member John Huxley and, with help from two of his colleagues, it was possible to split into 3 small groups which greatly enhanced the experience and allowed us to learn so much about this fascinating ship.

Daniel Adamson was built in 1903 by the Tranmere Bay Development Company for the Shropshire Union Canal & Railway Company for their barge towing operation between Ellesmere Port and Liverpool; additionally she operated a cross-river passenger service with a full length upper-deck for that purpose

Originally called **Ralph Brocklebank**, she continued in that service until 1921 when she was acquired by the Manchester Ship Canal Company and primarily used for towage only; although in 1924 she was fitted with awnings to the upper deck and operated occasional cruises between Ellesmere Port and Manchester. However in 1936 she was given a major re-build which incorporated 3 decks of passenger accommodation – a promenade deck below the wheelhouse, an upper and a lower saloon, these being decorated in art deco style and incorporated much use of veneered timber panels. Following this she was re-named **Daniel Adamson** in honour of the Ship Canal Company's first Chairman.

Onwards until 1984 **Daniel Adamson** operated primarily as a tug but also served as the company directors' inspection vessel and as a venue for corporate hospitality functions, her two sister ships being disposed of in 1937 and 1946. Out of use for a further 2 years she was then, in 1984, laid up at the Ellesmere Port Boat Museum. Sadly this led into some 18 years of neglect and vandalism, by then almost unrecognisable and stripped of so much original equipment, such that in 2004 the Ship Canal Company concluded that scrapping her was their only option. Fortunately local tug boat man Dan Cross was able to intervene, the Preservation Society was rapidly established and the vessel purchased for £1.



Protected from Sandon Dock weather

The whole of the story which then unfolded cannot be told here but what we could see on the day clearly indicated the amount of work undertaken by the volunteers as well as the level of support and help from companies and organisations throughout the UK. Additionally there has already been significant Heritage Lottery funding and a further major application is now pending; this will cover the costs of re-tubing the boiler, dry-docking for hull repair work and other outstanding items. After this, with her main engines and auxiliaries re-fitted, she will again be able to steam her old 'stamping ground' and again be available for passenger carrying and educational purposes.

Whilst on board we were able to enjoy the hospitality of the promenade deck, look in awe at the upper and lower saloons which, although severely damaged by both vandalism and water ingress, clearly showed their art deco pedigree. For many the engine and boiler rooms were a treat to see, although all the auxiliaries have been moved for rebuilding. Nonetheless we could see that the two main engines are now being rebuilt with piston rods already in place as well as the crankshaft; similarly the coal-fired boiler room where the smoke boxes have been removed, much tubing extracted and a clean boiler shell ready for lifting out to facilitate re-tubing and repairs to the furnaces at an off-site location.

Returning ashore we visited the adjacent workshop which is fully kitted out with the necessary machine tools for the work being done by the volunteers; apparently all of the equipment has been donated freely. In the workshop we saw

the completed 'Sentinel' steam powered steering engine, which once again will be operating in the wheelhouse driving the chains and rods connecting it to the rudder quadrant. Also the main engine connecting rods and valve gear looking pristine once again, and the general service pump which is largely made up from a single brass casting. We tore ourselves away from the workshop to visit the adjacent storeroom where everything from the two newly refurbished 'Drysdale' condenser circulating pumps, to brass portholes and everything else are held ready to go back on board.

It is worth noting that one of the Society planned presentations, scheduled for 19th April, 2012, is to be given by Dan Cross who is now Chairman of the Daniel Adamson Preservation Society. It will be fascinating to hear of the outcome of the Lottery Bid and of all the re-assembly work which is now imminent.

HIGHLIGHTS FROM THE ARCHIVES

A summary of the presentation to the Society on 16th December, 2010

By Dawn Littler, Curator of Archives, Merseyside Maritime Museum

The Maritime Archives & Library collect original documents and books relating to the history of the port of Liverpool, its major shipping companies, port industries and trade.

The collections span three centuries from the 18th century to the present day, and the size of collections has been estimated at about one million items.

A very popular enquiry we receive is from people trying to trace ancestors who emigrated from Liverpool. Unfortunately, no official records have survived in Liverpool of their arrival or departure for the New World, but we do try to collect documents, some created by the emigrants themselves, such as their diaries and letters home. We also have documents such as the Practical Hints for Emigrants to our Australian Colonies, published in Liverpool in 1858, and passenger contract tickets for emigrants to America.

Some of our oldest documents are those we have collected relating to Liverpool's involvement in the slave trade. We have many small collections and individual items relating to slavery, and the Liverpool merchants and families involved in the trade or in its abolition.

One of our most important collections, and a personal favourite of mine, is the Davenport collection, which we acquired with Heritage Lottery Funding. William Davenport (1725-1797) was an important Liverpool merchant and shipowner involved in the slave trade, as well as a trader in beads, ivory, sugar, coffee and tobacco. This collection, and all of the other archives collections we hold, contain an untapped wealth of information waiting to be researched, perhaps by members of the Liverpool Nautical Research Society, when they next visit the Maritime Archives & Library.

QUEEN MARY – A GUIDED TOUR

A summary of the paper given to the Society on 17th March, 2011

By Glyn L Evans

At 11.30am on 9th December 1967, Captain John Treasure Jones rang down “Finished with Engines” on the engine room telegraphs and two days later officially handed **Queen Mary** over to the City of Long Beach, California.

After 31 years of service to Cunard during which she steamed over 3,795,000 miles and carried in excess of 2,115,000 passengers, **Queen Mary** was no longer paying her way. The trend towards transatlantic air travel meant that, by the mid 1960's, four million passengers chose to fly, contrasting with just 650,000 who travelled by sea. In 1967, with the old ship operating at a loss to Cunard of £8,000 each day, the decision was taken to put her up for sale. At a sealed bid auction in London on 24th July 1967 the City of Long Beach, California secured the purchase for a sum of US\$3.45million (£1.23 million) the sale contract being signed by Vice Mayor Robert Crow for the City of Long Beach, and by Sir Basil Smallpiece, Chairman of Cunard. The 31st October 1967 saw **Queen Mary** leave Southampton for the last time on a 14,000 mile voyage south round Cape Horn to head north up the West Coast of South America and the USA, arriving at Long Beach on 9th December 1967. Had the old lady been slimmer round the waist by 8 feet, the journey would have been so much shorter as she could have squeezed through the Panama Canal.

Stepping back in time to 27th December, 1930, at John Brown's shipyard on Clydeside, the keel was laid of a new transatlantic liner for the Cunard Steamship Company. One year later, on 11th December, 1931, due to the prevailing economic conditions, the work of construction was suspended. Yard No. 534 was to lie unattended, gathering 130 tons of rust until, on 3rd April 1934, work on her began again thanks to a loan from the British Government. On 26th September 1934, at a launching ceremony performed by King George V and Queen Mary, Yard No. 534 was named **Queen Mary** and, as a bottle of Australian wine crashed against her bow, she slid into the River Clyde to be towed to her fitting-out basin. Two years after her launch, on 24th March 1936, **Queen Mary** sailed down the Clyde for Southampton in readiness for her first Atlantic crossing to New York. Her length on the waterline was 1,004 feet, her beam 118 feet and her service speed 29 knots. She was designed to carry 2,139 passengers plus a crew of 1,101 and such was the quality of her build that she was in service for 31 years including demanding war service as a troopship. In this latter capacity, alterations to her accommodation saw her, on one voyage, carry a record 15,740 troops plus 943 crew, a total of 16,683 souls on board [July 1943]. Veterans of those crowded troop-carrying trips bear testament to the fact they were no pleasure cruise! Her drab wartime paint and submarine-defying turn of speed earned her the nickname “The Grey Ghost”. In general service, luxury was the keynote of the passengers' accommodation and

public areas, the grace of the ship's hull being matched by the elegance of her interior.



Kenneth D Shoesmith works in his studio on
Madonna of the Atlantic

amid all the polished brasswork, looking forward over the massive anchor chains and winches, gives the imagination opportunity to run riot and have, once again, grey Atlantic waves crashing upwards over the bows to obscure the view.

To decorate the large wall spaces of the public areas, Cunard's designers called on some of the most famous artists of the time and these included the great maritime artist, Kenneth D Shoesmith. To see these was the purpose of my visit and in this I was not disappointed. The fact they have survived 75 years is nothing short of a miracle. Works carried out by Shoesmith for **Queen Mary** and still on public view in her are:-

- "Madonna of the Atlantic." (The photograph above shows Shoesmith at work on this in his studio at Willifield Way, London.)
- "Madonna of the Tall Ships." This altar piece sat in the chapel situated in the Tourist Class Library and Smoking Room. These two Madonna paintings, in all their glory, are now on display in the ship's Art Gallery on "R" Deck. No words

Today, **Queen Mary** is a floating hotel, museum and conference centre. More than that, she is the one remaining example of the golden age of Atlantic travel where human endeavour brought together all the skills necessary to harness power and safety, speed and luxury, but most of all, style, into one mighty liner. It was a great thrill for me to visit **Queen Mary** in 2009 to spend a few days staying on board in one of the 1st Class cabins retaining the 1930s veneered décor. Visitors are able to stroll the boat deck and take in the size of the three funnels in their iconic Cunard "orange" colour. Whilst not the original funnels, great care has been taken to accurately replicate them to good effect. To stand on the bridge,



are adequate to describe their breath-taking beauty. To stand in front of them is a humbling experience and to any reader I would say, "If you go nowhere else, visit **Queen Mary** and see for yourself."

- "The Flower Market" panel, depicting a water-side scene in a Southern European port, was placed in the First Class Drawing Room above and around the fireplace. Being a wall mural it is still in situ, although the room is now a gift shop. Whilst not exactly hidden behind racks and shelves of souvenirs, the mural is, I am sure, often missed by visitors or not recognised and appreciated for the work of art it most definitely is.
- Two octagonal oil-painted panels, originally in the Tourist Writing Room, are now in the Chelsea Suite on the Promenade Deck. Richard Hakluyt (1552-1616) is pictured recording the voyages of the Elizabethan explorers, while Samuel Pepys (1633-1703) is depicted in his capacity as Secretary to the Admiralty, at Deptford dockyard.

Sadly, not on public view, being crated and stored on board, are the folding door screens which previously hid the "Madonna of the Atlantic" above the Roman Catholic Altar when the latter was not in use. The screen doors depict "A Busy Harbour Scene." I look forward to the day when funds are available to have them deservedly, once more, on public display.

All credit then to the **Queen Mary** owners, managers and enthusiasts who make all this possible.

Nautical Trivia Quiz

1. Name five Medway Ports.
2. What is the symbol of an Admiralty Court?
3. What do seahorses have to do with baldness?
4. In your Discharge Book on a right hand page, what entries should be shown before the signatures?
5. The name Red Sea has nothing to do with heat. How did it get its name?

....answers are on page 25

THE MONDAY FACILITY

Society Research Projects and Overview 2009 – 2011

By John Moore, Assistant Curator, Merseyside Maritime Museum

During this period the Society has successfully worked on several large collections:

The Bryson Collection

Monday facility members successfully completed the box listing of the Bryson Collection which has enabled the creation of some new shelf space due to the society's identification of any duplicate material and the reuniting of the Bryson PSNC material with the existing PSNC Collection.

Pacific Steam Navigation Company

The Society box listed, checked and re-boxed a major section of the PSNC Archive.

Mersey Docks & Harbour Board

The Society box listed the remaining boxes of the MDHB Miscellaneous Documents collection and several boxes of MDHB Pilotage material.

Marconi Radio Officers Examination Results

Willie Williamson worked on establishing a data base for the Marconi Radio Officers Examination Ledgers which is now being added to by student volunteers from Liverpool University. Willie also made a large contribution to the creation of a Radio Officers Information Sheet and will continue to work on the records of the Radio Officers Association, helping to transcribe diaries, identify photographic archival material whilst providing a unique insight in explaining technical references.

Ocean Group Archives - Financial Records OA/5002

Following on from their successful work on the Bryson, PSNC and MDHB Collections, members undertook their largest task to date, which was to check, identify and describe the various types of financial records contained in OA/5002, as well as providing crucial information on the company's complex financial structure. It was for these reasons that the collection had probably resisted previous attempts to provide an accurate picture of the company during what was an intense period of flux and diversification.

This work could not have been conducted without the first hand experience of two members in particular who worked for the Ocean Group at this time, namely, Barry Groombridge and Alex Hampson (ably assisted by Arthur Jennion and Joe Austin).

A VOYAGE TOO MANY?

The last voyage of a Blue Funnel ship

Presented to the Society on 17th February, 2011

By LNRS Member Alex Hampton

The elderly twin screw motor ship **Dymas** had arrived back in the UK mid March 1953, she had discharged and then eventually started loading in Glasgow. Now at the end of July she was at Birkenhead completing her UK cargo and was set to sail via the Continent for Indonesia on Saturday 1st August. I had joined the previous day, expecting to be home for Christmas!



Dymas at Malta

Only recently when I began my research on this period in the career of **Dymas** did I discover that during April, May, June and most of July, Lloyds referred to 'repairing' and noted an 'engine problem' during the previous voyage. With hindsight perhaps Holts should have already called in the breakers! However the fleet was not yet up to pre war strength so the **Dymas** was still needed.

That Bank Holiday Saturday was glorious, with high water around 3pm. Whilst we lay in North Alfred lock I was able to enjoy the bustle on the river...Cunard and CPR at the stage, flanked by the afternoon IOM vessel and my favourite, the **St Seriol**, all the long gone sights and sounds.

Dymas was built by Harland and Wolff on the Clyde entering service in April 1922, as Glen Line's **Glenbeg**, when that company was part of the Kysant Empire. She was of typical Kysant design, three island, with number three hatch abaft the bridge. The funnel and two tall masts were not raked and with her numerous Samson posts and derricks, she was at first glance not too out of keeping with Holt's ideas; apart from the small funnel and her not very elegant lines.

She was the last of four sister vessels, her completion having been delayed due to post WW1 shortage of materials. This quartet were the biggest motor ships in the world at the time and became the mainstay of Glen's China trade until the outbreak of WW2. In 1935 Glen was taken over by Alfred Holt and Co. Transferring of ships between the fleets was frequent, but **Glenbeg** and her sisters did not move to Liverpool until 1949.

The passage to Bremen was uneventful, made in a flat calm with mist and fog patches reducing the visibility. **Dymas** of course had no radar, nor for that matter did she have any other electronic navigational aids except DF. Fortunately it was Holt's practice to temporarily equip all ships coastwise in the North Sea with a Decca Navigator, invaluable in this instance.

After Bremen came Hamburg and then Amsterdam. The cargo reflected Indonesia's needs after ten years of strife; machinery, chemicals, building materials, paper, consumer goods, vehicles of all kinds, including a mobile crane which weighed in at 35 tons, of which more later. Very significantly, the loading progressed quickly, using the ports' excellent quayside cranes. Amsterdam was the home port of Dutch Blue Funnel 'NSM Oceaan', their shore engineers worked around the clock on our engines throughout our stay.

Heading down the Channel the weather was fine and clear and good progress was made. Five days out **Dymas** rounded Cape St. Vincent at sunset and was finally headed east. Shortly after, a series of loud bangs rose from below, subsiding only as the engines were stopped. Soon one engine was restarted. I learned later that 'a pin had fallen out' from the exhaust valve gear on one cylinder of the port engine, the exhaust gasses forcing their way out had produced the fireworks.

None of our engineers had been deep sea on the ship previously. Now they learned that they could never ignore the generators; two were required to provide power whilst the ship was underway and should one begin to fail, a frequent occurrence, the other would give up, resulting in complete loss of electrical power. There was no emergency generator so the main engines deprived of fuel also stopped. Another appealing quirk of **Dymas** was her steering. The electric steering gear was slow, my memory is, that if the wheel was put hard over quickly, the rudder would just begin to respond as the helmsman called out that he had completed the order. The port engine was eventually restarted with no doubt a measure of relief amongst the engineers. Then with no notice the ship blacked out. There were ships all around, most particularly a Hapag Lloyd ship overhauling fast on our starboard quarter. **Dymas** meanwhile carried on, with no lights, losing headway and under the helm she was carrying at the moment of power loss. One can only imagine the thoughts of the Hapag Mate when the ship ahead 'disappeared' followed by an aldis light flashing, as **Dymas** swung across his bows. Every night at sea thereafter the oil 'Not Under Command' lights were lit and ready for immediate use.

The main engines were eight cylinder 4 stroke single acting oil engines by Harland and Wolf. As built they were blast injection and gave 12.5 knots. Fitted with super chargers in 1929 speed became 14 knots, but fully laden 14 knots was now ambitious. There were four, three cylinder H&W diesel generators. Each of these had an integral air compressor to maintain starting air supplies. A big stand alone

compressor, a relic of the blast injection era, was redundant, as it required too much power. With the very fortunate exceptions of the galley stove and the drinking water pump, the ship was entirely electric.

Our passage through the Med was punctuated by frequent blackouts; we reached Port Said 12 days out from Amsterdam. **Dymas** and her sisters were well known to the Canal Authorities, their notoriously poor steering meant they could not maintain the required speed, so they were normally placed last in their convoy. Even so, before entering the canal, an extension to the rudder had to be shipped.

The extension was a crescent shaped plate some five feet fore and aft, about 20 feet deep and weighing about two tons. It had to be manhandled until it was suspended from a davit positioned amidships above the rudder. From here it was lowered and then manoeuvred into place by some of the crew working from a lifeboat. It was supported by various tackles and two pairs of angle bars, which were arranged to fit close on either side of the rudder. The upper pair was secured with bolts through the rudder.

The canal passage took 16 hours including one unscheduled stop, to allow northbound ships to pass. Whilst at Aden there was a torrential rain storm; as we left the 'barren rocks' were turning green.

Discharging began at Penang, after which, apart from a brief stop at Singapore, all ports were in Indonesia, a land still in turmoil after the Japanese occupation and the ensuing war of independence against the Dutch. None of **Dymas'** officers had experience of the conditions which awaited us. Lurid tales of corruption, civil unrest, thieving and even murder had been discussed increasingly on the outward run. A company officer had been murdered a few years earlier, by dock workers in the Celebes.

Dymas was at Belawan in north east Sumatera for eight day, at least half of this time at anchor waiting, for a berth. Eventually we moved alongside. The arrival formalities were protracted and at last we were cleared and advised that cargo work would start soon. In the interim we were treated to a display of small arms fire on the quayside, as the police endeavoured unsuccessfully, to apprehend a would-be thief who had been found on board by our crew. This fortunately was an isolated incident, the shooting, not the thieving.

From Singapore the passage south to Djakarta, where the bulk of our cargo was destined, was by way of the Rhio and Banka Straits, interesting but in such close waters the idea of a blackout did not appeal. Djakarta was the centre of Blue Funnel operations in Indonesia. The company still had its own berth so there was no delay, with discharge starting at once.

Now with maximum gangs discharging, the short comings of our winches became apparent. There were frequent mechanical or electrical faults; worse was that should the electrical load become excessive then there would be a blackout. On paper at least **Dymas'** cargo gear outfit compared very favourably with Holt ships

built twenty and thirty years late. Half the winches were similar to steam winches of the era but electrically powered and showing their age. At the other end of each hatch there were four derricks served by one 3-ton Macfarlane winch. Each winch had four independent barrels on one continuously revolving shaft; power for hoisting being transferred by a system of epicyclic gears. Lowering was by gravity. Control of both functions was by way of lever operated friction bands. The theory was that at maximum only two barrels were likely to be heaving under load at the same time and with a little cooperation between the drivers the hoisting could be alternated. By the early 50's, fifteen cwt. was about all they could comfortably lift and never did we exceed one gang.

Interestingly in order to maintain the gears an engine room greaser was employed to regularly pour into each set a liberal helping of one of Shell's less appealing products, thick and dark green. Meanwhile we Apprentices introduced copious quantities of cement on to the friction bands, to offset the effect of the oil which leaked out continuously. The mess on the decks defies description.

Dymas was a big carrier, having about 25% more bale space than Holt's post war 'A class' ships with very similar length and beam but much finer lines. Mainly due to the machinery problems the rate of discharge was very poor; daily the ship fell further adrift of schedule. The problems were highlighted on the second day at Djakarta when the large mobile crane was ready for unloading. All other cargo work was halted, all inessential electric equipment shut off and close supervision of the generators maintained. The crane was landed without a hitch.

After a week at Djakarta we moved on to the North Java anchorage ports of Tjirebon and Semarang spending a day in each, before Surabaya, the second city, for a further six days, by which time we had been on the coast over a month with five discharge ports to go. The first of these was Billiton Island off the east coast of Sumatra, with equipment for the tin mines. Next into the Banka Strait again and up the Musi River, to the oil refinery ports of Pladju and Sungei Gerong which lie fifty miles up stream. This long detour to the west was entirely due to draught restrictions, the ship had been too deep on her way south to Java. Next a four day run eastward through the Java Sea to Macassar in the Celebes, two days there, then one day north west across the Macassar Strait to Balikpapan, where discharging was at last completed. It was the 6th of November, no chance of Christmas at home now. By way of compensation I entered the second year of my Apprenticeship, my wage rose from £7 10s to £9 10s per month.

The mechanical problems had continued to plague our progress, particularly those with the generators, so it had been arranged to give us time out at Balikpapan for maintenance to take place. This dragged out to eleven days with complete shut down for extended periods; during which the coal-fired galley and hand-operated fresh water pump were fully appreciated.

Now six weeks out from Singapore we were running out of some stores. Help came in the shape of another 'Bluey'. Playing hide and seek with the local customs we ferried across by lifeboat quantities of beer and perishable stores. In the circumstances beer was almost as vital as fuel oil.

We now received our loading itinerary, first to Tawao, Bohihan and Sandakan in British North Borneo, now the Malaysian State of Sabah, and then round the north of Borneo and south west to the Rejang River in Sarawak, also now part of Malaysia. Cargo would be mainly logs.

Bohihan is a small island in Darvel Bay where log rafts were towed to await shipment. At the time there were no proper large scale charts, only a sketch plan with a bearing and distance from the agent's house indicating the anchorage. Easy, once the right island and then the right house, had been identified! It was a close thing as our approach was made shortly before dark and of course with no radar.

The North Borneo logs were hardwoods, in the 7 to 10 ton weight range and waterlogged, they stretched our cargo gear at no. 2 hatch to the limit, this being the only hold capable of taking big logs.

Our Chinese crews drew staples such as flour and rice from the ship but whilst in Eastern waters they received an allowance in order to shop at local markets for Asian delicacies. Pork was high on the list of desirables, thus whilst in North Borneo in addition to a dozen or so hens a large pig was brought aboard. A long redundant potato locker was requisitioned, with the fowls berthed in the top half and the pig in the 'steerage' below them, separated only by wooden slats, poor pig. The situation did not prevail for long as over the course of a few days the birds were used then just before reaching Rejang the pig met its maker. I will not dwell on process which began with the galley 'boy', an immense man of at least fifty, dragging the beast by one of its after legs along the boat deck and down two companion ways to the aft well deck. The sight and sounds of that episode remain with me, particularly the pig's screams with its front legs going full astern, as it tried to help itself. Spare ribs all round during the evening. I could not face them.

On the last day of November we reached the Rejang River, an anchorage port some 25 miles upstream, later known as Tanjong Mani. All the delights of tropical jungle were to hand. The limit of shore leave for the lucky ones was a trip to the nearest trees before sunset, to hang out oil lights for anchor bearings. More logs again, but this time smaller ones at around 2 tons and much quicker to work.

Next, **Dymas** was to return to Macassar and prepare the remaining cargo spaces for loading bulk copra, in the north Celebes. All the labour, known as Bajoes, would live on board until the ship returned to Macassar, hence everything would have to be under lock and key 24/7. For good measure we would spend Christmas and possibly New Year enjoying this! Just what we needed!

Reprieve was near but not apparent yet. During the run to Rejang an unwelcome vibration had been noted in the starboard engine. It was suspected to

be fatigue in one of the main holding down rods between cylinders 7 & 8. The units had been blanked off and we carried on. Once alongside at Macassar preparations for the copra were put in hand, but on about the third day, Liverpool intervened. Due to the engine problem the ship was to resume loading at Macassar and then return to Java and sail for home from Djakarta. A replacement rod was on its way and expected at Djakarta within ten days.

Suddenly the pace of things speeded up, Christmas at Surabaya, then Tegal and Semarang arriving Djakarta late on New Year's Eve. We were now loading bags and bales which the ship was designed for and the progress was good. Amongst the cargo loaded was the largest shipment to that time, of bagged tin ore, fifteen hundred tons, all tallied in by the officers, including the Doctor, Purser, R/O and the Chief Steward and us...

Meanwhile the engineers had had to cut away part of the deck in their washroom, which lay directly above the failed rod. The rod some 25 feet in length, had to be withdrawn vertically into this hole until clear of the engine, before it could be manhandled out of the engine room. The replacement had arrived safely and apart from it rolling on to and breaking the Bosun's big toe, it was fitted without incident.

On the morning of January 8th the engines were ready and cargo was finished. The ship was not quite full but we had shipped one of the most valuable freights out of Java since the war. We headed out for the Sunda Strait for Aden and London via Amsterdam.

Another problem shortly before Aden when a leak developed from the port stern tube and the shaft tunnel started to flood. At Aden, whilst a diver examined outside, the water was pumped out and the stern gland packing supplemented, we were eventually able to proceed with the pumps able to keep the tunnel dry.

The day after Aden, during dinner came the cry of 'Man Overboard'. The ship was in the Red Sea just north of Abu Ail Island. A strong breeze from the south was whipping up a steep breaking sea, the night was black, not a happy situation. Course was reversed and extra lookouts posted and preparations to launch the motor boat put in hand. It had quickly been established that the 'man' was one of four Distressed British Seamen who had rather reluctantly been accepted for passage home whilst at Aden. Two other vessels joined in the search which was in vain. About midnight the Old Man called it off and we proceeded.

This event had of course to be reported to Liverpool. It must have reminded someone of our existence, as a while later we were re-routed to Port Sudan in order to 'fill all remaining space with cotton'. **Dymas** herself now took a hand when a piston in the port engine fractured. We trundled along on one engine for about eight hours whilst repairs were completed. After a day in Port Sudan, Suez was reached on the morning of January 30th, too late for the morning convoy but in those days there was a second chance in the evening.

Our convoy was due at Port Said about midday next day, by which time **Dymas** was alone, with the buildings in Port Said just in sight, when instructions were received to tie up in order that the next southbound ships could pass. At this moment the starboard engine failed completely. Without steering, mooring immediately became imperative. Our situation was relayed to the authorities, and two canal company tugs were sent to tow us into Port Said.

The post mortem revealed that a large gear wheel, part of the drive for the cam shaft, had cracked and shed a number of teeth; there was no repair and no spare on board. Once again Liverpool reacted, such a part was available at Glasgow, it would be sent by road to Birkenhead and would be shipped on **Bellerophon** to Gibraltar, sailing February 3rd. During the afternoon of February 2nd, duly cleared by Lloyds we crept out to sea on one engine with the helm almost hard over to port, to make the rendezvous. During the night a southerly gale materialised. Now unable to keep her course **Dymas** spent most of two days hove to. Once the weather moderated, reasonable progress was made and the rendezvous was amended to Malta.

The approach to Valletta was by a narrow buoyed channel through a minefield, presumably a wartime relic. The channel was a good five miles long running south to the harbour entrance. I can only presume that our arrival and our problems had been signalled ahead. We entered the channel flying our numbers and signals to indicate our difficulties, which were exacerbated by a fairly strong breeze on our port side. Shortly after we entered the channel, the RN began to leave port and several cruisers, a carrier, a submarine and a selection of escorts appeared ahead coming at speed. As the gap between us decreased, the RAF arrived on the scene, making bombing runs, with the RN firing back, I presume with blanks. Our RNR Master was not amused. It was now February 8th, **Bellerophon** was due the next evening, but we were to spend ten days at Malta in very cold weather.

Dismantling the engine began immediately. I think that it was expected that the repairs would take about four days, however with the engineers preoccupied the generators began to fail, resulting in no power and eventually no starting air. We spent much of the time in the dark with no heat, the benefit of the coal fired galley and hand water supply again proved invaluable.

There were numerous attempts to start the generators, with some usually short lived success. With no starting air there could be no suggestion of testing the starboard engine, and because of the lighting problems work was well behind schedule. Fortunately we were berthed not far from a floating dock. With the aid of several tugs the completely dead ship was manoeuvred and tied up alongside the dock. Very quickly shore power was provided, to run the long unused main compressor which rapidly replenished the air supply. It was amazing how things looked up then; the repaired engine was successfully tested and generators came back to life. It was the eighth day at Malta. Sailing was arranged for 10 a.m. next

day. One of the remaining DBS then decided to jump ship. In the event our sailing was postponed twenty four hours by which time he was returned by the authorities.

In complete contrast to recent events the run back to Amsterdam was completely uneventful though it took ten days. It was rough in the Bay and thick fog in the channel caused a couple of extended periods at anchor but not a cough from the engines.

If Malta had been cold Amsterdam was colder. Tallying tin ore in the heat in Java was unpleasant but spending several nights in a barge surrounded by ice, counting bags was rotten.

Although I loathed docking in London with the need to hire taxis, bribe dock gate police and then suffer the four hour train journey; when Gladstone Dock is two miles from my home, I found the marine approach and the Thames itself fascinating. On this occasion, as usual in the small hours, all went well; it was murky but not impossible. The final twist to this voyage came off the lock entrance to the Royal Docks. The appropriate whistle signals having been given the pilot commenced swinging for the approach to the lock, when the ship was almost lined up, an urgent call came from the Second Mate down aft. He had become aware that a ship was coming down stream and another up stream and in his judgement what is now known as a 'close quarters situation' was brewing up. As this message was being relayed to the Old Man and the Pilot there was a cacophony of whistle signals. They had obviously come into view of each other around our stern. There was a period of suspense and then an almighty crash, some shouts and silence. Then the poop phone rang, I answered it ' Tell the Old Man they missed us and hit each other'.

So on March 9th most of us left the ship, after what was, for me the most remembered voyage of my time at sea. In spite of all the troubles and delays the ship was back with a big cargo and no mishaps or serious accidents. Over the years I came to realise what a burden the Master had carried but if one person had to be singled out for devotion to duty it was the Third Engineer who lead all the major works below and who rarely came out of the engine room much before breakfast time when at sea.

I heard later that there had been a serious fire on board whilst at Newcastle but at last via Avonmouth, she had arrived at her last port, Liverpool, nine months after starting to load outward! After completing cargo she went to the Dalmuir yard of Arnott Young being handed over at 11.15 a.m. on April 9th for breaking up.

On May 13th, now on board the cadet ship **Calchas** in Glasgow, I saw **Dymas** for the last time, and she was removed from the register on 11th September 1954.

Just over two years later I made the last voyage of my apprenticeship as 4th Mate in **Dardanus**. She had come into service two years before **Dymas** so was now effectively four years older. There were problems but insignificant by comparison. The voyage lasted just under five months.

PRESERVING A GREAT MARITIME EPOCH

From the inaugural meeting of the Liverpool Nautical Research Society

Sea Breezes No 223, Vol xxiii, June, 1938

Speaking at the inaugural meeting of the Liverpool Nautical Research Society, Colonel Vere Cotton expressed his regret he had no connection with shipowning other than those that sank, through the medium of insurance.

He stressed one or two points which, he said, were worth considering. The side of the work which had been sketched by the society was mainly, of course, in connection with records. Fortunately, they had not only a very fine collection of records in the public libraries, but also a magnificent collection of ships' models.

Obviously there was no more suitable place for records of the port to be deposited than in the libraries, and he hoped very much that they would get increasingly strong shipping records.

That largely depended on those present. One of the things which had struck him was the courage of those embarking on such a task. When one thought of the wealth of material available one might well be appalled at the amount of work that could be done in that particular branch of research.

He had mentioned the libraries. There were the records of the great shipowning companies; of mercantile companies, which were not necessarily shipowners now; and companies which used to own ships. His own firm, Rathbone Bros. & Co., were well-known shipowners at one time, and they still had a little material dealing with the days when they had ships. It was interesting to recall that his firm imported the first bale of American cotton that came into the port.

There was the Customs House, which he described as a perfect mine of information, the Mersey Docks and Harbour Board, marine insurance companies, which should also prove another gold mine, and last, but by no means the least, there was still a great deal of oral information which they could pick up if they were quick about it.

There were many, he continued, naturally more interested in sail than steam and there were still many people, who had served in the old sailing ships, to be found in the port, and he was quite certain that a systematic record of the oral information they could give would do very much to illuminate the documents.

For those who wanted to research further, he pointed out that they should not overlook the information which was obtainable on the monuments in their churches, on carved and stained glass. Research would show that there was quite a lot to be gained from medieval glass and sculpture.

He suggested that they should try to organise on the group principle and that they should have what one might call a director of studies who would allot tasks to those willing to undertake them. In that way they would be grouped rather than individually thereby maintaining the interest of those who were not out to write a book themselves.

A small body adequately organised for team-work would do far more than a large body content to say hear, hear, when others went over the top.

He would like to picture the future when they had a real shipping-gallery where their wonderful models could be exhibited and also the day when the Society might have a room of its own, in or near, the libraries and museums for its headquarters.

THE SWEDISH CONNECTION

This 1975 article gives some facts about Johnson Line of Sweden

When Axel Johnson, grandfather of the present chief executive officer of the Axel Johnson Group, first visited England as the head of his own firm one hundred years ago, he did not come on shipping business. His company, A Johnson & Co, which he had established some three years earlier, was already a large importer of Yorkshire coal, and Johnson was intent on cementing his relationships with members of the South Yorkshire Steam Coal Owners Association.

This concern with international trade, which has been a continuing theme during the Group's expansion into one of Scandinavia's largest enterprises, was to lead directly to the founding of the Johnson Line (Rederiaktiebolaget Nordstjernan). As his trading activities grew, and more and more vessels had to be chartered, Johnson became increasingly interested in the benefits of controlling his own transportation facilities.

His first venture into shipping, in 1885, was the acquisition of an 800 dwt wooden ship, the **W T Marshall**, which was operated by the trading company. In 1890 with the purchase of the **Annie Therese** (named after the Owner's wife), Johnson Line was established as an independent company.

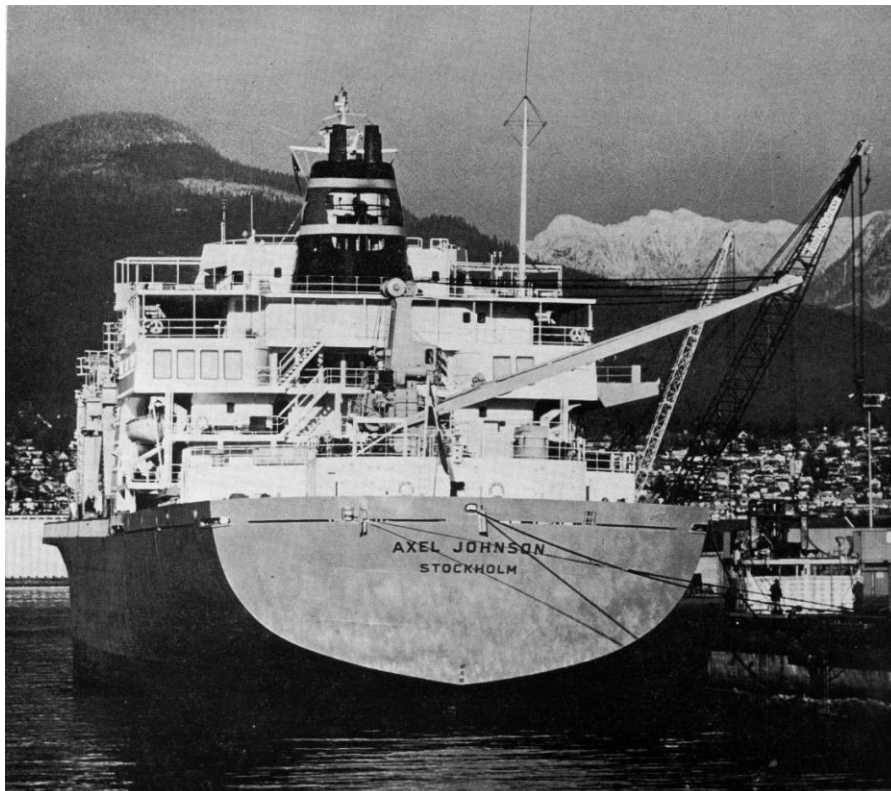
Today the Johnson Line fleet consists of 26 vessels, totalling nearly 450,000 tons dwt, with 3.3 million cubic feet of reefer space. Twelve of the ships have been built since 1968 and five of the newest—all fully containerised—share the Johnson ScanStar service with Blue Star Line and Danish East Asiatic.

In addition to its share of JSS, Johnson Line operates three principal services:

1. The Brazil and River Plate service. This is served twice monthly, linking Sweden with Brazil, Uruguay, Argentina, and Paraguay.
2. The South Pacific Service. Sailings on this route - between Scandinavian and Continental ports, and ports in the Caribbean and on the west coast of South America - are also offered twice monthly.
3. The Far East service. This is maintained between the Far East and the Middle East, via Hong Kong, Singapore, and ports in India and Pakistan.

Advanced technology

Besides the above services, Johnson Line operates two reefer vessels around 490,000 cu ft each, two car lumber carriers, two asphalt tankers, and a tanker of 133,000 dwt. Both the car lumber carriers and the asphalt tankers represent a significant advance in the technology of seaborne transportation. The former, specially designed by the Line in cooperation with major shippers to minimise damages to high quality cars and forest products, carry cars from Sweden, West Germany, and the UK to the West Coast of the US and Canada, returning to Europe with a cargo of packaged timber and plywood from the forests of the Pacific North West.



The **Axel Johnson**, the fourth Johnson Line vessel to bear the name of the Founder, loading in Vancouver

The asphalt tankers can carry asphalt at temperatures of up to 225° Centigrade which minimises the loss of heat and consequently the costs for the

shipper of reheating the asphalt. The use of advanced technology has always been a notable aspect of Johnson Line's business philosophy.

Johnson Line has continued to expand its shipping interests in recent years. In 1975 it acquired a majority interest in the Stockholm-based Svea Line, which operates passenger and freight services between Sweden and Finland, Denmark, West Germany, and Poland. The company also runs regular freight services on the North Sea to the UK, and between western Mediterranean and west African ports, as well as a tanker service. The Svea fleet consists of more than 20 vessels, of which over half are combined freight and passenger ferries.

Earlier this year, Johnson Line acquired an interest in the Norwegian South America Line, whose five vessels provide regular cargo service to and from the east coast of South America.



The **Pacific**, one of two Johnson car/ lumber vessels

These worldwide interests are supervised from the head office in Stockholm, where the central office of Johnson Scan-Star is located. There is an agency company in Gothenburg with a branch office in Stockholm. Outside Sweden the company is represented by Johnson offices in such major centres: London, Vancouver, Santos, Rio de Janeiro, Sao Paulo, Buenos Aires, New York, and San Francisco. All told, the Line is represented in more than 60 countries.

Johnson Line has been a pioneer on a number of routes which it continues to serve today. It was the first carrier to provide a regular freight service between Sweden and South America, an innovation which played a significant role in the development of trade between the two regions. When the Panama Canal was opened in 1914, Johnson Line vessels were among the first to make the passage, inaugurating regular services to North Pacific ports and to the West Coast of South America. More recently, the Line was the first to offer an express container service on the North Pacific route.

A family business

Johnson Line is one of the few international carriers that is still owned and run by the same family after nearly a century of operations. Each generation of Axel Johnson has made notable contributions. Axel Johnson, the founder, had the vision to see the need for a new shipping venture that would assist in the development of Swedish trade in many parts of the world. His daring made the regular routes to South America possible.

A generation later his son, Axel A Johnson, was equally bold when, in the 1920s, he replaced his entire fleet of steam-driven vessels with diesel-powered ships. In 1925 he also was the first to apply another new technology—reefer chambers in dry cargo vessels. From that year all Johnson liner vessels had reefer-carrying capacity. The third Axel Johnson, who is head of both the Line and the Group today was one of the first international ship-owners to appreciate the importance of containerisation and to build vessels specially designed to use the new transport technology.



While Johnson Line is a major shipping enterprise by international standards, with a total annual turnover of more than £150 millions, it represents a relatively small part of the large industrial and commercial complex that is the Axel Johnson Group today. The Group, which had a turnover of approximately £1.4 billion in 1975, has more than 28,000 employees in Sweden and abroad and is involved in many aspects of Swedish industry and trade, including stainless steel, engineering products, oil refining and distribution, contracting and building materials, and international trade.

Head Office of the Group, in central Stockholm

THE MONDAY FACILITY

Members' access to the Archives and Library at the Merseyside Maritime Museum on Mondays continues as follows:

June	Mondays	6 th , 13 th , 20 th , 27 th
July		4 th , 11 th , 18 th , 25 th
August		1 st , 8 th , 15 th , 22 nd

Nautical Trivia Quiz – Answers

1. Sheerness, Thamesport, Chatham, Rochester, Isle of Grain.
2. An Admiralty Oar. - A symbolic silver oar, engraved on the blade with the Imperial Crown, the Sovereigns' shield, two symbolic animals, the Naval Crown and a foul anchor with a rope.
3. Pliny the Great reported that the ashes of a seahorse mixed with soda and pigs lard cured baldness!!!
4. The stamp "VG" though it could be "GOOD" or even "DR"
5. Original name was 'Mare Rubrum' named by the Romans after a Semitic tribe of people living along its shores.

(Editor's note: part only of Regulations,
this extract covers part 2 of 3,
and lists only a sample of the requirements)

REGULATIONS

TO BE OBSERVED BY THE

CAPTAINS, OFFICERS

AND ENGINEERS

OF THE

STEAM SHIPS

OF THE

Moss Steam Ship Company, Limited

LIVERPOOL.

June, 1920.

Engine Department.

55. *On arrival at Liverpool the Chief Engineer will immediately deliver Log, Abstracts, Requisitions for Repairs and Stores, and any other documents he may have relating to the voyage to the Superintendent Engineer, and arrange for a Junior Engineer to remain on board until 5 p.m.*
56. *On arrival at Continental or Home ports from abroad, the Chief Engineer must forward immediately to the Superintendent Engineer his Log Book and all papers relating to the voyage, together with a letter reporting arrival, and under no circumstances must he put any repairs in hand without first receiving instructions from the Owners or Superintendent Engineer.*
58. *Strict economy in coal, stores, etc., is to be studied, and a written report on the quality of coal, stores, etc. is to be sent or handed to the Superintendent Engineer at the end of each voyage. No repairs, which can possibly be done on board, are to be sent on shore.*
60. *Chief Engineer to select his Crew, but the names must be submitted to the Company's Shipping Clerk before signing Articles in case the Company has anything against any of them. He must also be present when signing Articles and paying off.*
61. *When vessel is in Graving Dock, the Chief Engineer is to see that the plugs in vessel's bottom are taken out where necessary for examination and drainage, and replaced in a satisfactory manner; also see that all sea cocks and valves are in good working condition, plugs not to be taken out without Chief Engineer's knowledge.*
62. *When vessel is moving in Dock or River in charge of tugs. Chief Engineer to arrange that a Senior Engineer is on board.*
63. *Engineer before taking watch over, is to thoroughly satisfy himself that water gauges and water in boilers are in order, and examine everything from stokehold to stern gland, and note water in well, etc. Engineer going off watch to fully inform the Engineer relieving him of anything worthy of note that has taken place during his watch.*
65. *It must be understood that these rules do not in any way relieve each or any Engineer from responsibility in any respect for the efficient working and management of his Department. The Chief Engineer will be held responsible for all that takes place in Engine Room or Stokehold, and he must see that the Junior Engineers carry out his instructions correctly. In the event of anything happening during the watch of either the Second or Third Engineer they must call the Chief Engineer instantly, and be guided by his instructions.*

69. *During the cleaning of fires the Engineer on watch is to see that clinkers and ashes are removed from and water also kept off, boiler fronts. Engineers must avoid overtime when discharging ashes at sea.*
71. *All sluices, rose boxes, etc., to be examined, both at home and abroad, by the Chief Engineer, to see that they are in good working condition. Engineer to enter in Log Book all overhauling and repairs done abroad.*
73. *Chief Engineer must every Saturday examine and see that all watertight doors are in perfect working condition, and enter same in Log Book.*
74. *Ballast tanks must not be filled or pumped out without first consulting the Captain, and entries to be made in Log Book. The portable pipe or blind flange for filling deep tank must be kept in a prominent position in Engine Room after being used either for filling or emptying tank.*
76. *It is very necessary that in frosty weather the Chief Engineer should use every precaution to prevent winch and all other pipes in use from freezing, and see that they are properly drained, when not in use.*
77. *When receiving or discharging Pilot all Engineers must be on duty, and take up the positions allotted by Chief Engineer.*
78. *In the event of stoppage of engines at sea through breakdown of engines or boilers, etc., the Engineer must at once acquaint the Captain with the cause, and the probable length of time they may be so stopped.*
80. *It will be the Second Engineer's duty to see and insist that the Firemen's quarters are kept clean and in proper order and condition. The Captain will satisfy himself as to this also.*
81. *Leave of absence is not allowed under any circumstances the night prior to sailing from any foreign port. When in foreign ports, or any port other than Liverpool, the Chief Engineer must see that after 5 p.m. at least one Engineer and a proportion of Firemen remain on board. Application for leave to go on shore must be made to the Chief Engineer, and by him to the Captain.*
83. *When electric light is required for cargo purposes while vessel is in port, the Chief Engineer must arrange for one Engineer to attend during the time it is in use.*
84. *No work is to be done on board, on Sunday, either in home or foreign ports, unless absolutely necessary.*
85. *Engineers and Firemen are strictly forbidden to smoke while on duty at sea or in port at home or abroad.*
87. *The discipline in Engine Department must be kept, and seen to, by all Engineers, and any case of breach must be at once reported to the Chief Engineer, who will take the necessary steps for correction.*

88. *When sailing from any port the Chief Engineer must see that he has his correct complement of Firemen and Trimmers, and that they are put to their respective duties before sailing; and the Chief Engineer must be in a position to note all movements of the engines.*

Special Instructions Regarding Turbines.

90. *Extra care should be taken when any bearing covers, casings and other parts are removed for inspection, etc., that ample provision is made in covering up the vital parts whilst open; a Senior Engineer must be on duty to supervise things.*
Before closing up, all gear cases must be thoroughly examined by Chief or Second engineers, so as to ascertain that all is in order. A portable electric lamp must be used. When all closed up, and before applying main steam, the turbines and gearing must be turned round a complete turn by hand gear – this is advisable in case any tools, etc. may have been left in the casings or gearing.
91. *A careful record must be kept of temperatures of all bearings, records of steam pressures at nozzle, at least twice per watch.*
92. *Torsion meter readings should be taken at least daily and entered in Log Book, also a separate book of readings should be kept on board for reference.*
93. *Gearing must be examined whenever possible; this can be done by hand and sight holes; should necessity require it, the housings can be lifted,.*
94. *The Second Engineer must keep a careful account of the oils in stock, and also of the oil in circulation when turbines are running; a careful watch to be kept on drain tank by sounding at least every twelve hours.*
95. *When a main boiler is being used in port, care must be taken that a small amount of steam is passing through superheater elements in order to avoid any burning of them; drains on headers to be kept slightly open.*
96. *This book must not be removed, from vessel when Chief Engineer leaves.*

Oil Fuel.

97. *Great attention is to be paid to cleanliness; small leakages must be immediately, stopped. Sand must be used on spilt oil, then swept up and placed in bin to be sent ashore; when at sea it must be thrown overboard. Tank top must be frequently swept down. Oil must not be allowed to accumulate in bilges. Naked lights are forbidden in tanks or confined, spaces.*

VOYAGE IN THE FULL RIGGED SHIP **ANGERONA**

AUGUST 1899 to APRIL 1901

LNRS Member Michael Brocklebank,
Summarising his presentation to the Society on 20 January, 2011

The presentation was based on a journal, kept by the speaker's Grandfather, Thomas Brocklebank, who was first mate on Lowden's ship **Angerona** from mid-August 1899 to the end of April 1901. It reflects a textbook voyage of the latter-day sailing ship era, comprising four distinct passages and traversing key elements of the global wind system.

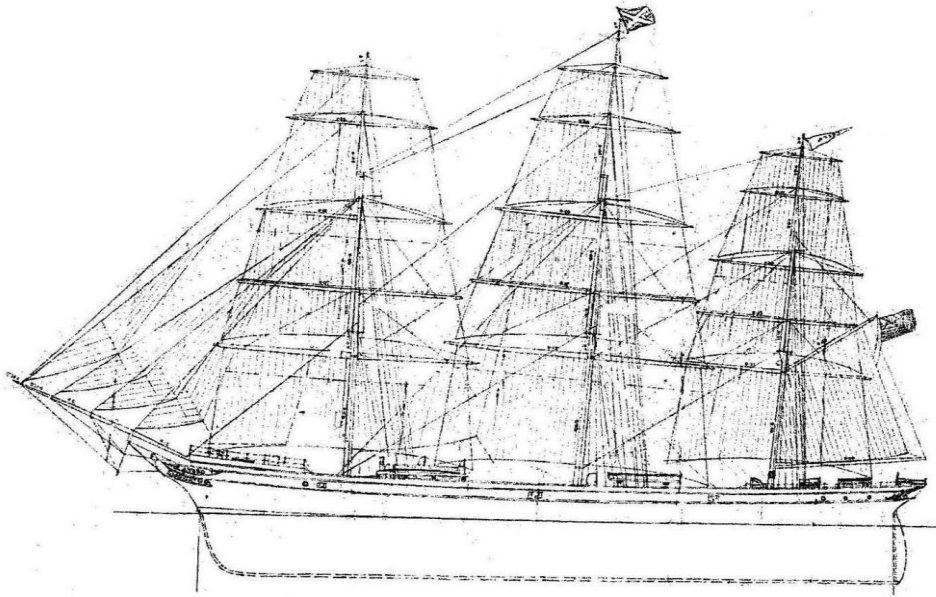


Thomas Brocklebank 1870 - 1945

Passage One – Liverpool to Vancouver. At Salthouse Dock, Liverpool, she loaded a general cargo for Canada including nearly 2,000 cases of tin plate, iron rails, and deck cargo of a steam pinnacle for the Government at Esquimalt. Case oil was probably being carried as the log entries for 21st September, and 19th October 1899 notes “oil found in pump well probably from leaking cargo”. After being towed out to the NW lightship by the tug **Wrestler**, on 27th August, 1899, she sailed for Cape Horn which was rounded on 9th November and on up the Pacific. Her course passed close to the Ville de Toulouse Rock, (11.27 deg N, 116.73 deg W) in the middle of a vast expanse of ocean, which may well have not

been charted at that time, to arrive at the entrance to the Strait of Juan de Fuca on 1st January, 1900. From the entrance to the Strait she was towed for about 61 miles by the tug **Richard Holyoke** to Victoria on Vancouver Island in British Columbia, later under tow of the tug **Mamie** to Esquimalt a few miles to the West, and then under tow of the tug **Lorne** for 54 miles to Vancouver on the mainland, by then with 90 tons of ballast.

From Vancouver, riding very high and stabilised with a further 200 tons of ballast, she was towed over the course of two days, with an overnight anchorage off Port Townsend, by the tug **Sea Lion** to Tacoma on Puget Sound in Washington State, where ballast was unloaded and wheat was taken on at Grain Elevators A and B and lumber at the Old Tacoma Saw Mill; a total of 16,014 large sacks of blue stem wheat and 3228 deals (lumber). Also in Tacoma purchases were rigged and a new topsail yard was taken aboard.



Sail plan of **Angerona**

Passage Two –Tacoma to Port Elizabeth. On 7th March 1900 after a 24 hour tow by the tug **Sea Lion** down Puget Sound and to the Strait of Juan de Fuca, she sailed down the Pacific, rounded Cape Horn on 21st May, and across the South Atlantic to Port Elizabeth, South Africa. The course took the ship a long way out into the Pacific, as far as Ducie Island , part of the Pitcairn group, nearly 3,000 miles off the coast of Chile. In the South Atlantic, Gough Island in the Tristan de Cunha group was passed.

On arrival in Algoa Bay on 13th June the ship was assisted by tug **James Searle** and as the South African War or Boer War was in full swing, South African ports were choked with shipping. Accordingly discharge of the grain cargo into lighters did not commence until 28th July, 41 days after anchoring; and of the timber until 1st August. This carried on spasmodically until 14th September, despite plaintive signals for more lighters. Towards the end, as cargo was discharged, sand ballast was taken on, also very spasmodically, the name/number/colour of the lighters delivering the same being dutifully noted, this continues until 18th September. A steam donkey engine was taken aboard to assist in handling cargo.

Passage Three – Port Elizabeth to Melbourne. On 22nd September, 1900 the **James Searle** towed the ship to an outer anchorage and the next day all sail was set as she made for Melbourne, riding fairly high with between 818 and 858 tons of ballast, to “run her Easting down” through the “Roaring Forties”. She passed 40 degrees South on 2nd October and returned North of 40 degrees South on 23rd October as she came up to Melbourne on 25th October. She was towed into port from Port Phillip Bay by tug **Racer**, where she unloaded 182 tons of ballast at Williamstown Railway Pier before undergoing repairs in Wright & Orr’s dry dock. After which she was taken back to the pier to unload the rest of the ballast; then to load wheat, 15,611 sacks in all.

Passage Four – Melbourne to Birkenhead. On Christmas Day 1900 she was towed from Williamstown, Melbourne to Port Phillip Heads by the tug **Racer**. Then set sail across the South Pacific round Cape Horn, sighted at 0330 hours 3rd February at a distance of 15 miles, and on to Falmouth for orders; arriving on 9th April, 1901.

After waiting 4 days she made the short tow out to sea from Falmouth by the tug **Triton**, then had to travel down to Ushant before she could at last make a Northing and safely pass Land's End on the way to Point Lynas, Anglesey, from whence she was towed by tug **Sea King** to anchorage off New Brighton. She was moved into Birkenhead docks by **Sea King** and **Mersey King**, being safely alongside the grain warehouse in the East Float by 1800 hours on 20th April, and the crew was paid off. Her cargo was unloaded and after taking on 200 tons of rubble ballast as stiffening she was moved into Wallasey Graving Dock and the Mate left the ship.

Between June 1871 and December 1875 nine sister ships were launched from the Whitehaven yard of which three, the **Greta**, **Angerona** and **Candida** were for Lowden, Edgar & Co. They had half poops 45 ft. long and according to Lubbock (The Last of the Windjammers) could lift 1800 tons of cargo.

Deep laden **Angerona's** draught was about 20 ft.; as when leaving Liverpool with general cargo, Tacoma with wheat, and Melbourne with wheat. Lloyd's Register gives her depth as 22.1 ft. Her freeboard would have been only about 66 inches, when down to her marks. When being towed with a minimum of ballast from Vancouver to Tacoma her draught was 11ft. 1½ in, and for her run through the Roaring Forties between South Africa and Melbourne it was 13ft. 4½ in. It is estimated that her loaded displacement was between 2300 and 2400 tons and light ship between 600 and 700 tons. When it was known that the ship was going to be 'light' i.e. high out of the water the royal yards and other top hamper was sent down to preserve stability. This was done in Falmouth at the end of the voyage, so the passage up the Irish Sea was under reduced rig. Once the ship was loaded the gear had to be sent aloft again, done by riggers prior to departure from Liverpool.

The **Angerona** set courses and double topsails, surmounted by single topgallants and royals, fifteen square sails in all. Considering the fore-and-aft sails, on the foremast she set flying jib, outer jib, inner jib and foretopmast staysail. Aft the mizzen she set the spanker. Only one other staysail, the middle staysail is mentioned in the log.

Square-riggers could sail with the wind six points or 67½ deg off the bow. For example, imagine the ship on a course due South on the starboard tack with the wind 67½ degrees on the starboard bow. The best that can be achieved on the port tack is 135 deg West of South or 315 degrees. To change tack the ship could tack through the wind, or wear ship by falling back before the wind. In the example she would fall back right round through 225 degrees. They wore, rather than tacked ship in bad weather. On Passage One, in 128 days under sail, the ship changed tack on only 22 of them, tacking through the wind 20 times and wearing ship 10 times. On

Passage Two in 97 days the ship tacked 13 times and wore ship 3 times. In 32 days on Passage Three the **Angerona** ship wore ship once. Finally in the 105 days of Passage Four to Falmouth they tacked once, and wore ship twice. In the 6 days sailing from Falmouth to Point Lynas the ship changed tack on three of them, tacking twice, and wearing ship once.

At latitudes higher than 40 degrees S, and North of Antarctica, Westerly winds blow virtually uninterrupted round the globe. As might be expected sailing ships performed best when the wind was on the quarter, so that in the prevailing Westerlies in the Southern hemisphere **Angerona's** average speed was 7.11 knots.

The wind/weather conditions on either side of Cape Horn presented a problem on Passage One when the noon position 8 miles off the Horn on 9th November was only 136 miles almost exactly due West of the noon position on 1st November, and on Passage Two (West to East), when West of the Cape, between 9th and 15th May 1900 the ship did a complete circuit and advanced Eastwards only 42 miles. On Passage Four (West to East) the rounding was uneventful.

At the completion of Passage Two a Log entry for 13 June 1900 states:

" Stood in for Algoa Bay at 5.30 a.m. and at 6.15 when Cape Recife was bearing by compass NW distance 3 miles, a fresh breeze and ship under topsails, she grazed over some obstruction under water, remaining stationary for a minute or two and thumped heavily. There was no appearance of broken water or anything to be seen. Sounded the pump immediately but found she was making no water, all hands in the meantime swinging the boats in the davits and lifebelts handy "

Clearly there must have been significant damage but it was not until the ship was dry docked in Melbourne, almost 5 months and 6,000 miles later that a further entry states:-

"We found the forefoot torn away and turned up about ten feet , exposing the cement which alone had kept the water out."

The **Angerona** was considered a fast and successful ship. Assuming a waterline length of about 205 feet, a powered hull of that size would have a maximum speed of 19 knots. Speed was recorded hourly, and the maximum achieved during the voyage was 11 knots and this for an hour or more on only 13 of the 368 days that the ship was under sail. Her best day's runs of 256 and 260 miles on 5th and 6th June 1900 respectively were achieved on Passage Two as she came up to the Cape of Good Hope.

Amounts of time spent in and around the ports visited is also worth noting.

Some 232 days of the 602 days taken up by the whole voyage were occupied thus, with 26 days 'swinging at a buoy'.

The Master, Richard Williams, from Barmouth, North Wales, is mentioned in Lubbock's book 'The Last of the Windjammers' where the careening of the

Angerona on her subsequent voyage is explained. He commanded the **Angerona** from 1894 until she was sold to the Norwegians in 1904.

The Second Mate, John Samuel James was born in Cardigan in 1879 and gained his Master's Certificate in London in 1902 and the Third Mate, John Gow, from Liverpool and also born in 1879, gained his Master's Certificate in Liverpool the following year. He paid off the **Angerona** in South Africa to take up the Second Mate's position in the barque **Earl Dunraven**.

The crew, which was nominally 24 in number were a cosmopolitan lot who signed on the evening before the ship sailed from Liverpool. Off Holyhead, when turning back was not an option, a stowaway was found. The log says he was willing to work his passage, so that when she sailed she had 25 souls on board. He was signed on as an Ordinary Seaman in Victoria. For the second, third and fourth passages of the voyage the ship had no Sailmaker, for the third and fourth legs, no 3rd Mate, and for the fourth leg no Boatswain, unless one of the ABs was promoted; all these being key personnel. In addition the ship lost ABs through sickness and desertion in the North American ports and Melbourne, who were replaced. Of the 25 men who started the voyage, 16 completed it 19½ months later

Once at sea only dates, and not days of the week, are noted in the log. Accordingly, at sea, Sundays were just another day. The ship was 32 Sundays in port (North America 9, Port Elizabeth 14, and Melbourne 9), Sunday service being conducted by visiting chaplains once in Tacoma, and three times in South Africa. During the **Angerona's** time in Melbourne there were three public holidays namely, 6th November, (Melbourne Cup)), 12th November (Prince of Wales' birthday), 4th December (half day) to welcome returning troops from the Boer War.

The Mate had charge of the fo'c'sle head under the Captain. All of the operations involved prior to anchoring, and weighing and 'putting the anchors and cables to bed' when setting sail are diligently recorded. When raising the anchor the cable was hauled in by the windlass and once the anchor was at the surface the cat fall was hooked on and it was raised up to the cathead by capstan. One fluke of the anchor was then caught by the hook of the fish tackle and hoisted inboard, the cable unshackled and sent down to the locker and the anchor moved to its stowage.

The carpenter was constantly occupied and his work varied from replacing deck planks, repairing storm damage, which over the whole period was considerable; also lining the hold, i.e. putting boards down so that the grain cargo did not sit directly on the ship's bottom between the frames. Soon after arrival in Melbourne he made a temporary gangway. Other tasks in Melbourne were:-

- Repairing fore sheet blocks
- Fixing stringers in the lazarette
- Removal of boat skid iron stanchions for examination
- Making a new main topgallant mast, the top section of a three-section mast
- Making new boats masts, chocks and boat covers

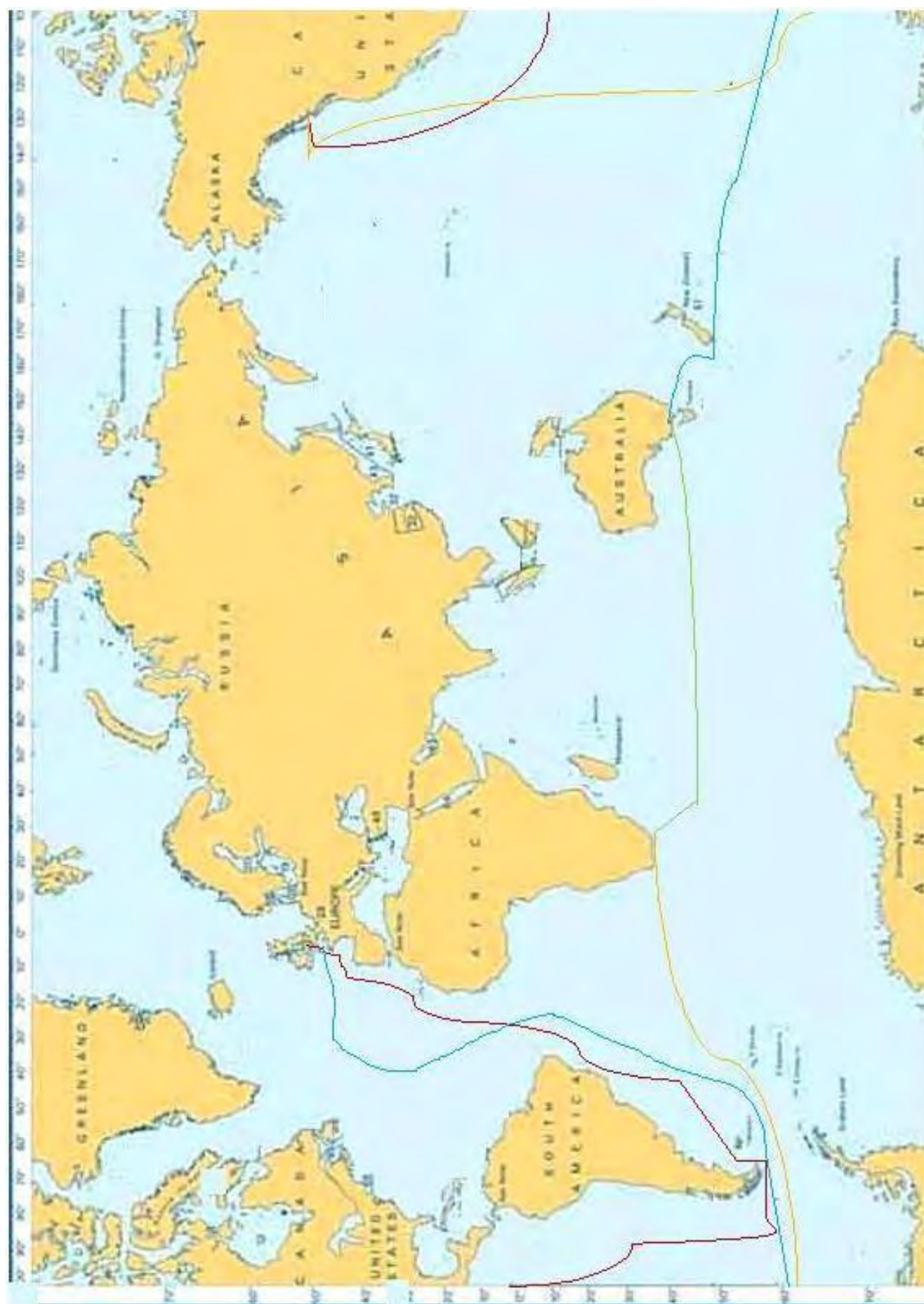
When not working the ship, the crew would be employed chipping and painting, assisting the carpenter, repairing, sending up and bending, unbending and sending down sails, repairing lanyards and setting up rigging. In harbour sending up and bringing down gear from aloft, cleaning out the hold when ballast had been carried, assisting in the installation of lining and dunnage and moving cargo around in the hold for accessibility (as in the ports around Puget Sound).

When considering a voyage in the sailing ship era bad weather and consequential damage went with the territory. On Passage One the ship ran into severe weather only 9 days out, off the North West coast of Spain. Sailing in a strong gale and into a dangerous head sea, the port main lower topsail sheet (these were chains) carried away and the weather side and middle of the sail went, so the remnant of the sail was lashed. The weather mizzen lower topsail sheet parted but they managed to secure the sail and furl it. The gale rose to hurricane force and with mountainous confused sea the ship was taking water over the bow and stern so as to completely overwhelm her so that at times they thought she would not come up again. With the main topsail sheet falling to the deck it had cut a hole in the mainmast coat which necessitated urgent repairs with tar and calico and a piece of canvas as a loose coat over the lot. The following day began with the same gale continuously filling the deck and everything moveable was washed from under the foc'sle. The galley filled and light screens washed inboard. At 3 pm a tremendous sea came over the stern and washed away the wheel box, gratings (There was no mention of the helmsman), stanchions, binnacle and compass stand (stand being picked up on main deck afterwards. A large quantity of water entered into cabin and lazarette. Cover of after hatch was torn badly by some wreckage and a patch put on and the hatch covered with a good main topgallant sail. Afterwards it was found that the sail locker was pretty well filled soaking the sails and the pig house, both heads and the paint locker were stove in.

There is an interesting pencil note in the journal on 15th November 1900 '*Ship's log book taken ashore*' Presumably there was an inquiry into the damage to the bow.

Editor's Notes:

1. The **Angerona** was an iron full-rigged ship built in 1874 by the Whitehaven Shipbuilding Company; sold to Norwegian owners in 1904 and renamed **Hippen**. In 1929 she was sent to a shipbreaking yard in Italy.
2. Shortly after completion of this voyage Thomas took his Master's Certificate and went on to join Clan Line as Third Mate; he was appointed Master in 1918 and served in that company until his retirement in 1935. He died in 1945 aged 75.
3. The content of the presentation has been abbreviated for publication. Please contact the Society at info@liverpoolnauticalresearchsociety.org for copies of the full text and the tabulated data.



These courses approximate to those made by Angerona
between August 1899 and April 1901

EXPERIMENTS WITH CARRIER PIGEONS

MMSA 'Reporter' 1898

Captain Renard, of the Compagnie Transatlantique, has reported to his company, and the French Minister for War, upon his experiments with carrier pigeons.

On the outward voyage from Havre to New York, four birds were released when the **Bretagne** was 32 miles from land, and all reached home with their messages in a few hours. Further out, the vessel fell in with the disabled **Bothnia** off the Scillys and seven birds were released with the news. Six of them have not been heard of, the bad weather then obtaining doubtless proving too much for them. The seventh, however, alighted the next day on a vessel in the Bay of Biscay, at a point 312 miles from where it was tossed. In mid Atlantic, half-way between Havre and New York, another bird was released and this succeeded in reaching a point on the American coast, 80 miles from New York. On the return voyage, birds were set free 250 miles, 187 miles and 125 miles respectively from Havre. Some reached home the same day, and all had arrived by the third day, not a single pigeon going astray.

This success has been deemed sufficient to warrant the continuance of the experiments, some 100 birds being carried on each round voyage, the three best being reserved to be despatched in case of any extraordinary emergency. It is quite evident that the establishment of a species of ocean pigeon service would be of great value, but it is too early as yet to assess with any degree of certainty the utility of the experiments in progress.

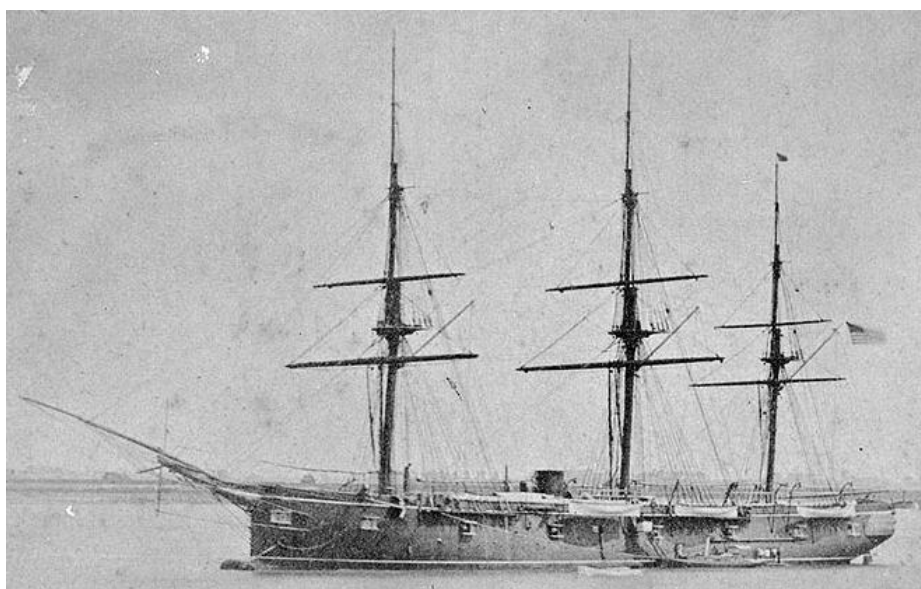
In the case of war vessels, pigeons would undoubtedly provide a means of communication with a home port at no great distance; but there is, of course, the contingency to be faced of the messages finding their way into the enemy's hands. It is quite possible too that this aerial post would prove of value in the case of breakdown at sea, and might be further utilized to apprise owners of the near arrival of their vessels. We have yet to learn, however, whether the carrier pigeon can, with any degree of sureness, find his way through a foggy atmosphere. If it can, then the despatch of a bird say when a vessel making Liverpool arrives off the Irish or English coast would answer the same purpose as being reported from some signal station, and as accidents have frequently happened through vessels standing close in to land to be reported, risks would be diminished. But this is a point on which existent knowledge is by no means complete, and it will be necessary to await the result of further trials before a definite opinion as the utility of ocean pigeon posts can be arrived at.

The Liverpool Nautical Research Society

(Founded in 1938)

THE BULLETIN

Volume 55 No.2, September, 2011



U.S.S. **Trenton** (1877-1889)
See story on page 33

Picture Ref. NH 97928 Courtesy N.H.H.C.

A Seaman and his Food	<i>Captain W A Sparks</i>	page 1
Anchor Memorial		4
Remember those days...	<i>Bill Ogle</i>	5
William Wilson of the "Emily St Pierre"	<i>Willie Williamson</i>	7
Book Review		9
Bell's Comet Part 1	<i>Gordon Bodey</i>	10
Arson Suspected in Ferry Fires	<i>Bill Ogle</i>	15
L.N.R.S. Programme for 2011 – 2012		17
Call the Watch	<i>James Pottinger</i>	18
Was That Really Fifty Years Ago	<i>John Stokoe</i>	19
Moss Steamship Company – Regulations		
Part 3		26
Life on the Old Bangers	<i>Captain R M Burns</i>	30
Great Hurricane of 1889	<i>Bill Ogle</i>	33
Ship Manager	<i>R. C. Lee</i>	37



Isle of Man Steam Packet Company's **Mona's Queen**, 1934. She features on Page 7. The "flush" foredeck was not repeated within the fleet and she boasts the pre-war white with green boot topping of the 1930's ships



Brocklebank's **Malancha**, built 1937. She features on Page 19.
Picture taken at Port Sudan in September, 1961

The Liverpool Nautical Research Society

President:

Mr. A.S.Davidson

Vice-Presidents:

Captain G.Cubbin, Mr. H.M.Hignett

Chairman:

Mr. D.C.White

Vice-Chairman:

Mr. W.A.Ogle

Council:

D.K.C. Eccles, D.Littler, Dr. E.S.Long,
A.H.McClelland, Captain R.Settle

Honorary Officers:

Secretary: J.Stokoe

Treasurer: B.Groombridge

Web site: www.liverpoolnauticalresearchsociety.org

Contact details:

The Liverpool Nautical Research Society
Maritime Archives and Library
Merseyside Maritime Museum
Albert Dock
Liverpool L3 4AQ
United Kingdom.

info@liverpoolnauticalresearchsociety.org

A SEAMAN AND FOOD

By Captain W A Sparks

From the Society archives

On his walk through the docks to join a ship a seaman's thoughts will be many and varied. But most will nurture some form of hope. As he shifts the weight of his seabag from one shoulder to the other and turns the corner of the cargo shed, the object of his hopes comes into view.

Rust streaked hull leaning over towards the quay; a tattered red ensign at the after end; steam rising from deck winches and leaking deck steam pipe flanges. The **SS Nonsuch** does nothing to encourage his aspirations.

Despite her disreputable appearance he goes on hoping. Hope there's some overtime in her. Hope the accommodation's OK. (Hope springs eternal in the seaman's heart.) Most of all, he hopes she's a *good feeder*.

On going aboard he will most likely stop at the galley door as he is passing, lower his seabag onto the steam casing and pass the time of day with the cook. 'Mornin' Doc,' he will say, whilst casting a critical eye over the state of the galley and the cook's apron — and a more critical nose at the pots boiling on the stove. Gauging the cook's ability and interest in his job is perhaps only second to finding out how mean or otherwise the chief steward is. 'Tis well known that the Good Lord sends the food — but the devil sends the cooks. Some will not agree with that, but all must surely agree that on any happy ship you will find a good cook.

A seaman's favourite dish is 'two drunken sailors on a raft' — steak with two fried eggs, and chips of course. Next to that it's bacon and eggs. Don't run away with the idea that these dishes were served very often in the fo'c'sle, but they were certainly first choice if eating ashore.

In my early days at sea it was customary to get only two eggs per week. These were served with a rather poor quality bacon, one egg on Sunday and the other on Thursday — 'Board of Trade days'. On the other five days breakfast was either curry and rice, sausage and mash, mutton chop, liver, saltfish or corned beef hash. Burgoo (oatmeal porridge) was also on the breakfast menu, but none of those fancy cereals that crackle and pop had yet found their way into the crew messroom.

The day of the week could at once be determined by what the peggy put on the messroom table. The peggy, I should explain, was the name given to the deck boy who carried the food from the galley and kept the messroom clean. Not designed to appeal to jaded appetites, these dishes were gazed upon with a baleful eye by the watch who had just turned out of their bunks at seven bells into a bat-tened down fo'c'sle full of stale air.

By contrast, the watch coming below at eight bells with four hours under

their belts were hungry — and hunger, after all, is the world's finest aperitif.

Eggs were so popular that anyone who didn't get up for breakfast, say on a Sunday morning in port when there was no work, would be woken up by a thoughtful shipmate who would ask 'Can I 'ave your egg mate?' Some shipmate! The refined way to do this, of course, was to ask the night before.

I have heard more than one chief steward say that bacon and egg (1) was one of the cheapest of meals, but catering superintendents, for reasons known only to themselves, would never admit that this was the case. It was therefore many years before B & E became the standard breakfast on most ships.

Very little thought was given to keeping food hot on older ships. Sailors and firemen had to carry their meals along the open deck from the galley to the sharp end or the blunt end, depending on whether the crew lived fore or aft. Separate messrooms were few in this type of ship and the crew ate in the fo'c'sle. On one tramp I sailed in, in 1939, the engineers had their own mess and did not eat in the saloon. Indeed, even their crockery was of a different colour.

The poorest arrangement I ever saw was on a British tanker during the war. The galley was right aft and the crew lived right for'd. The trek to the fo'c'sle carrying bits of food became difficult in bad weather and, on occasions, too dangerous to attempt. The saloon where mates and engineers dined was in the centre castle and the stewards had to carry food half the length of the ship. Engineers lived aft and often had to carry raincoats when going amidships for their meals.

Weevils and other pests, up to quite large eight-wheeled monsters, were drawn by the heat of the galley and the availability of food. They also infested the storerooms, which were often located close to bunker hatch or engine room bulkheads and had little ventilation.

The air-cooled storerooms found in many present day ships, along with modern pesticides, have deterred these unwanted passengers and greatly improved the safe storage of foodstuffs. There is now no likelihood of weevils in the flour, nor is it necessary to hold a slice of bread up to the light looking for the moribund ones. I would hope that observations such as 'Eat up mate, it's all good fresh meat' are by now unintelligible to seamen.

One day on ship inspection we found weevils in a large sack of coriander seed. The ship, of which I was mate, carried a Pakistani crew. We made this discovery in the storeroom and the "old man", fearing that the infestation might spread, ordered the contaminated sack be dumped over the side.

The sack was taken up on deck and later I saw a couple of stewards laying clean white sheets out on top of the hatch. The day was hot, with little wind, and the butler emptied the sack of seeds onto the sheets, spreading them out. (The butler was a Pakistani; the ship did not carry a chief steward.) I went over to him

and asked him what he was doing. 'No need to throw away. Sahib,' he replied. 'In a few hours all weevil will come from seeds and die in sun.'

And sure enough, that is what happened. The de-weeviled seeds were put into a clean sack and returned to the storeroom. Everyone was pleased, especially the "old man". He was responsible for keeping the victualling rate at a reasonable level and sacks of coriander seed are expensive.

Complaints about food at sea were not uncommon and in many cases the causes were lack of variety and unimaginative menus rather than actual bad fare. However, another reason was the difference in menus for ratings and officers. I clearly remember seeing items such as tea, coffee and tinned butter, obviously of different qualities, in tins marked *Cabin* and *Crew*. (This was on a tramp ship in 1939.) I'm glad this has changed.

Incidentally, I cannot claim that I noticed any exalted progression in my digestive system when, in 1947, I passed for second mate and moved out of the fo'c'sle into the third mate's cabin.

But some things never change and there is nothing new under the sun. In August 1990 an article in the holiday section of the *Daily Telegraph* caught my eye. It was by a fellow named Michael Gray, a member of the World Ship Society.

To quote Mr Gray, he 'embarked on a calm cruise on a cargo boat to Finland'. The ship was the **Baltic Eagle** and the writer's description of the food on board greatly interested me and I'm sure he would not mind if I repeat here what he says.

The first meal,' Mr Gray reports, 'was lunch served before the ship left Hull... It was mulligatawny soup, fish and chips with mushy peas, semolina and jam sauce, cheese and biscuits... The captain remarked it was the first meal he'd had in Hull which wasn't mince... This augured badly and indeed the boarding house food proved the bane of the trip ... Carnivores shuddered; vegetarians would have died ... As any traveller knows, it is hard to keep one's mind on higher things than meal times for long at sea, but the **Baltic Eagle** proved an exception to this rule.'

Now yarning is very popular at sea, and I cannot end without relating the tale of the **SS Humorist**. One of Harrisons, she was. At the start of another voyage, she was moving slowly through Brunswick Lock on her way out into the river. Among the people seeing the ship out was someone from the catering department.

This gentleman was slowly pacing along the lockside, matching the speed of the ship and threading his way past dock gatemen, fendermen, would-be pier head jumps and other hangers on. He was also shouting to the ship's steward who was leaning over the rail.

'Give them plenty of meat,' he shouted, at the same time markedly feeling the bone in one elbow with the fingers of his other hand. 'And potatoes too (two)' he added, pointing two exultant fingers skywards in a victory salute.

ANCHOR MEMORIAL TO BE SITED IN PORT ST MARY

By Bill Ogle

In the Bulletin for March, 2011 attention was drawn to plans for returning an historic anchor, and it is now understood that the restored anchor from **Mona's Queen** will be sited at Kallow Point in Port St Mary as a permanent memorial to all the Isle of Man Steam Packet Company crew who took part in World War Two.

The anchor was raised last year as part of the 70th anniversary commemoration of Operation Dynamo at Dunkirk. In May 1940, eight Steam Packet Company ships took part in the historic rescue of the British Expeditionary Force and brought 24,669 of them to safety. Of a total of 338,226 troops rescued, one in fourteen was brought out on a Steam Packet Company vessel.

In the space of 24 hours around the 29 May 1940, three Steam Packet Company ships - **Mona's Queen**, **King Orry** and **Fenella** - were lost to enemy action.

The initiative to raise the anchor of Mona's Queen was spearheaded by the late Captain Andrew Douglas and taken up after his untimely death by Captain Hamish Ross of *Sea Breezes* magazine. It could not have been achieved without the help of Isle of Man, UK and French naval and government representatives, whose combined efforts ensured that the initiative became a reality.

Since the raising of the anchor, the Steam Packet Company has sought public opinion on where a memorial should be sited. From the responses received, it was apparent that both the Port St Mary public and Port St Mary Commissioners had a strong desire that Kallow Point would be a fitting and tranquil place for reflection on, and remembrance of, all the Steam Packet Company crew who took part in Operation Dynamo, especially those who paid the ultimate sacrifice.

Captain Ross said: 'The successful recovery of the anchor owes so much to the help of our French friends in Dunkirk and I hope they will come to the Isle of Man when the dedication of the memorial takes place. At this time, I also remember the late Captain Andrew Douglas who did so much to make this project happen.'

THE MONDAY FACILITY

Members' access to the Archives and Library at the Merseyside Maritime Museum on Mondays continues as follows:

September	Mondays	5 th , 12 th , 19 th , 26 th
October		3 rd , 10 th , 17 th , 24 th , 31 st
November		7 th , 14 th , 21 st , 28 th

REMEMBER THOSE DAYS

From 1970 and also 1990, these are a sample of events selected from the archives, and published by kind permission of Sea Breezes.

July to September, 1970

Scuttling is not a very common end for a ship these days, but this is what has happened to the training ship **Glen Strathallan**, 330 gross tons. She was towed from the Thames to a position off Plymouth, and there scuttled. She will be used as an underwater practice target for diver training. Built in 1928 by Cochrane & Sons at Selby to their standard trawler design she was completed as a private yacht for Mr R. A. Colby Cubbin and was a familiar sight in Douglas harbour for many years. Requisitioned by the Admiralty for war service she was returned to her owner on completion of hostilities. He predeceased his mother in 1954, and upon her death a year later she stipulated the ship be used for training purposes, and then be sunk at the end of her useful life.

The Shell Sand Sink method for coping with oil spills completed a scale test off the Hook of Holland on April 8, clearing a 100 tons slick of Kuwait crude in less than 45 minutes. According to observations made at the site it was more than 95% effective. This method may prove a means of clearing oil in the open sea in areas where sand is accessible, provided the oil remains on the bottom and all tests indicate that it will. The method employs sand which has been treated with a chemical that makes oil cling to the individual grains. When sprayed on the oil, the sand with the oil adhering to it sinks to the bottom. For the trial the suction hopper dredger **Geopotes VII** was equipped with two-60 ft. booms amidships. Twenty nozzles were attached to each boom through which a slurry of treated sand and water was sprayed on the oil. **Geopotes VII** can carry enough sand to sink 2,500 tons of oil.

A ship to have six names to date is Ben line's **Benhiant** (9,902 gross tons), recently sold to Greek buyers. They have given the ship her sixth name, **Venus**, registered under the Greek flag. Completed in November 1943 by the Furness Shipbuilding Co. Ltd., Haverton Hill, she was originally the **Empire Regent**, one of the standard fast cargo liners ordered by the Ministry of War Transport. Single-screw turbine-driven ships, they were capable of 15 knots, and a number were built, both to Government and private owners' orders. Her wartime managers were T & J Brocklebank of Liverpool, but after the war she was bought by the Furness Group and renamed **Black Prince**. Then in 1949 she was transferred within the Group to Shaw Savill, adopting their colours and the name **Zealandic**. Subsequently bought by Canadian Pacific Steamships Ltd., and renamed **Beaverlodge**, joining two other similar ships in the fleet on the cargo service between Liverpool or London and the St Lawrence or St John, N.B. After six years she passed to Ben Line ownership. Now for the first time she hoists a foreign flag as the **Venus**, and will be engaged in general trading.

July to September, 1990

The **Mancunium** (1,334 grt) was built in 1946 by Ferguson Brothers, Port Glasgow Ltd. for Manchester Corporation, to take the city's sludge for dumping in the Irish Sea. A twin-screw steamer with triple-expansion engines she was practically a repeat of an earlier **Mancunium** (1,286 grt) from the same yard in 1933 which sank in January, 1941, after striking a mine near the Mersey Bar lightship. Whereas the funnel of **Mancunium 1** was completely black it is now painted buff with a black top. In 1961 the City Council accepted a tender for her conversion to diesel propulsion and general modernisation at a cost of nearly £100,000. Her outward appearance also altered; the "grained" painting of her bridge and superstructure gave place to white, she lost her mizzen mast and the tall funnel was replaced by a short streamlined stack bearing the city's arms. In 1972, sewage disposal for Greater Manchester became the responsibility of North West Water who gave the elderly **Mancunium** a second extensive refit. Bridge and superstructure were rebuilt to conform to modern practice and the fore and main masts made tripod-type. The City Arms on the funnel were replaced by N.W.W.'s logo. Subsequently a fleet of smart new vessels had been built for the water authority's sludge-disposal requirements and in 1986 the **Mancunium** was sold to Effluent Services Ltd. who have now disposed of her for scrapping at Newport.

Despite ever-improving methods for notifying distress, ships continue to disappear without trace. The Maltese-registered **Scantrader** (1,591 grt) sailed from Bilbao on February 11 for Sharpness with a cargo of bulk cement and has not been heard from since. She would be in an area of westerly gales and on February 13 an empty liferaft from her was found on the beach near Arcachon. The vessel is presumed to have sunk in the Bay of Biscay, taking her 12-man crew with her. She was built at Aukra, Norway, in 1964 for Icelandic owners as the **Maelifell** and in 1985 became the **Langeland** under the Honduran flag. Her last owners were noted as Helga Shipping Co Ltd.

Long term plans are now in place for the frigate H.M.S. **Plymouth**, now owned by the Warship Preservation Trust. Several alternative ports were short-listed and Glasgow has been selected; she now lies at the newly-dredged berth at Plantation Quay opposite the Scottish Exhibition Centre. The City of Glasgow has financed a major proportion of the move north, but funds are urgently required to cover the balance.

Ocean Transport & Trading plc celebrated the 125th birthday of the firm born as Alfred Holt by changing its name, in the interests of group corporate identity, to Ocean Group plc. The withdrawal from liner shipping on which the company was founded was completed last year and for the future, say the board, there will be a concentration on "worldwide freight, environmental and marine services".

WILLIAM WILSON of the “EMILY St PIERRE”

A Summary of the Presentation on 19th May, 2011
by LNRS Member Willie Williamson

Willie opened his remarks by relating that this story had quite a number of local connections with Liverpool. The story concerned blockade running during the American Civil War of December 1860 to April 1865.

Captain Wilson was born at East Barcloy Farm at Colvend, Dumfries and Galloway and although a “farm boy” went to sea aged 14 on the brig **Matthew**. Sailing to the southern states, Captain Wilson obviously grew to like the people of that region. Put in command of the **Emily St. Pierre** belonging to the Fraser Trenholm Company of Liverpool in June 1861, he regularly sailed to Charleston, South Carolina running the blockade imposed by the Federal Navy of the United States.

On the 11th March 1862 on a voyage from Calcutta he was intercepted at the Charleston bar by a flotilla of Federal ships. His papers were inspected and he was told that the crew would be taken off his ship and taken to New York. The ship would then be put under the control of a prize crew and sailed to Philadelphia for a hearing by the American District Court or Prize Commissioners. Captain Wilson, the cook and the steward would sail with the prize crew who were under the command of Lt. Josiah Stone of the USN.

Captain Wilson was very pleasant to Stone but after a couple of days with the help of cook and steward aimed to get his ship back. One night in the cabin while pretending to look at the chart Wilson threatened Stone with a belaying pin. The cook and steward also rushed him and Stone was disarmed, tied up and gagged. With a pistol now in their possession it was easy for the three men to overcome the helmsman and lookouts. The rest of the prize crew were also easily overcome and all put into a hold.

Wilson then sailed the ship back to Liverpool a distance of some 3,000 miles that took him 30 days. He had to do everything himself for the cook and steward couldn't steer the ship or work the sails, all of which had to be done by Wilson. They experienced a gale that lasted for three full days (60 other ships lost at this time). They arrived back in Liverpool on the 21st April 1862, where the public greeted them as heroes (this was three weeks before the **Alabama** was launched). The rich merchants presented the men with gifts and large sums of money. The Fraser Trenholm Company also rewarded the men. Wilson was feted in his hometown.

Later Wilson commanded the **Margaret and Jessie** an ex Isle of Man passenger ferry and very fast but was again intercepted by the Federal Navy. Unable to outrun the naval ships because her hull needed cleaning and having been damaged by shellfire the ship was run aground on Eleuthera Island in the Bahamas.

Nobody was killed or injured and the ship was salvaged. Much later it was bought by the US government and renamed the **Gettysburg** and used for surveying.

A long legal dispute began between the US government and the British government, the latter claiming that Wilson had not broken British law and also citing precedents from earlier conflicts. Pictures of Lord Russell the Foreign Secretary, William Henry Seward the US Secretary of State and John Francis Adams the US ambassador to the UK who carried out this diplomatic correspondence were shown.

The **Emily St Pierre** was sold nine days after arriving in Liverpool, becoming the **Windsor Castle** and was lost in 1869 in the Bay of Biscay. Only one man survived.

Lieutenant Josiah Stone was dismissed the service of the US Navy for "...your want of vigilance and neglect of duty while in charge of that vessel...." i.e. not putting up enough resistance to Captain Wilson. The steward, Slevin used his money to open a pub in Everton that he called "The Emily St Pierre Vaults," it was demolished in 1964. Wilson tried various business schemes that were unsuccessful as his business partner cheated him, so he returned to sea. He died at sea when in command of the **Glasgow** and was buried at sea. His death was logged and reported to the British Resident in Aden in August 1868. This was the sad end to a very determined man who was a fine seaman and truly a master mariner.

Nautical Trivia Quiz

1. Who is considered in the reference books as the "Father of Modern Navigation"?
2. Which large ocean liner, during its life, gained the "Blue Riband" from the **Rex** and spent the rest of remaining operational life swapping the trophy with the **Queen Mary**, and what happened to her?
3. Name two men who were involved in developing the gyro compass?
4. How many parts of water were added to rum to make the grog issue?
5. What is/was Donald Crowhurst remembered for?
6. What is a geep?

.....answers are on page 32

BOOK REVIEW:

FROM SCANDINAVIA TO LIVERPOOL

A history of Merseyside's Nordic community

By Robert Lee. Chadwick Professor of Economic & Social History,
University of Liverpool.

Like all major port-cities, Liverpool's growth and expansion from the late-seventeenth century onwards was fuelled by extensive in-migration. Indeed, a key feature of the population development of port-cities, particularly in the nineteenth-century was a disproportionate dependency on immigration. Moreover, because of their international, sea-born transport connections, they tended to attract human capital from relatively faraway regions, with a significant proportion of overseas, or non-national, immigrants. This was certainly true as far as Liverpool was concerned, with large-scale immigration and settlement by different ethnic groups and nationalities, ranging from the Irish, Scots and Welsh, to Kru (from West Africa), Lascar (from the Indian sub-continent), and Chinese. But whereas the Celtic immigrants have attracted a great deal of attention and there has been some useful work on the Chinese and West African communities, relatively little research has been undertaken on the 'ethnic' communities from continental Europe. This is specifically the case in relation to immigrants from Scandinavia and the history of Liverpool's Nordic community, which has suffered from the mistaken belief that institutional archives relating to the Scandinavian Mission and the Norwegian Seamen's Church were either never maintained or have simply disappeared with the passage of time.

This publication will, in part, examine the changing structure of the Nordic community in Liverpool and on Merseyside; assess the contribution of the Scandinavian Seamen's Church in providing welfare support and other forms of assistance to seafarers, emigrants, and resident members of the Nordic community in Liverpool; and analyse the extent to which this institutional framework enabled the in-migrant community to maintain traditional ceremonies and retain a sense of ethnic distinctiveness and identity. But it will also seek to place Scandinavian in-migrants within a broader community context, focusing on the development of wider networks within Liverpool and the changing interface with the city's population as a whole.

HENRY BELL's PIONEERING COMET STEAMBOATS

Part 1

By LNRS Member Gordon Bodey

In 1811 Henry Bell, then the chief partner in a Glasgow building firm, placed an order with the yard of John Wood of Port Glasgow on the Clyde for a steam-powered, wooden-hulled vessel that was to become the first commercial steamship in Europe.

Henry Bell was born at Torphichen Mill, some three miles south of Linlithgow, on 7th April, 1767, the fifth son of Patrick and Margaret Bell. After an initial and patchy period of formal education at the Torphichen village school he was sent to Falkirk at the age of nine to live with relatives, and to attend school there. At the age of thirteen, and still barely literate, he left school to become an apprentice stonemason. Three years later he became apprenticed as a millwright in the firm of an uncle.

Having completed his apprenticeship, he obtained work in 1786 in the shipyard of Shaw and Hart at Bo'ness on the Firth of Forth in order, as he said, to gain experience in ship-modelling i.e. ship design. After a year at the yard he went to work for a mechanical engineer, James Inglis, at Bellshill near Motherwell, purposefully to gain further engineering knowledge.

After one year with Inglis, Bell moved to London in 1788 to work in the firm of John Rennie (1761-1821) [himself a former millwright turned civil engineer], for some eighteen months to gain experience of that branch of engineering. However, it is not known how he came to work for Rennie, or in what capacity he was employed. Rennie's own papers make no mention of Bell's time there.

In 1790 Bell left Rennie's employ and moved to Glasgow, initially to the Gorbals area, where he set up as a builder, and over the next twenty years seems to have been well employed as a result of the city's rapid development and expansion during that time. He moved to other, and better, locations during this period, and married in 1794. In 1807 he built a hydropathic hostelry, Baths Inn, on the road between Dumbarton and the newly-established health resort of Helensburgh, directly north of Greenock across the Clyde. Bell was installed as Helensburgh's first provost in the same year, and he was to live there for the rest of his life.

Bell's interest in developing a steamship appears to have been kindled by the previous work done in the same pursuit by William Symington (1763-1831), a contemporary of Bell's. When aged about sixteen, Symington (who was born at Leadhills in Lanarkshire) went to work in the Wanlockhead mines as an assistant to his brother George, who was the mine engineer, and who was at that time installing a Boulton & Watt engine there to drain the Margaret mine.

There are varying accounts of Symington's work and his degree of success in his efforts to adapt steam propulsion to marine use. It is clear that by June 1787

he had perfected and patented (No.1610) a method to produce rotary motion using chains and ratchet wheels, which allowed for more economical running of the Watt engine, and its adaptation to turn a paddle wheel. His work in this direction attracted the attention and sponsorship of an Edinburgh banker, Patrick Miller, who asked Symington to design an engine for a small experimental paddle boat. This cooperation culminated in the trial, on Dalswinton Loch (on Miller's estate), five miles north of Dumfries, in October 1788, of a 25-ft, double-hulled boat that achieved a speed of 5mph.

The pair, however, fell out over the high cost and failure of a larger version, and Symington returned to mine engine work, installing some thirty engines between 1789 and 1806. During that period (in 1792) he had again taken up the concept of using a rotary engine for marine propulsion, and by 1801 he had designed and patented (No.2544) a completely new steam engine that transmitted its power via a connecting rod and a crank, and which proved very effective for the operation of a paddle wheel.

As a result of this advance in steam propulsion, Symington was commissioned by Lord Dundas, a governor of the Forth & Clyde Canal, to engine a steam vessel designed by a Captain John Schank, which would act as a towing vessel. The vessel, ***Charlotte Dundas***, was put to trial on the canal in 1802, but there are two conflicting accounts of its success. By one account it towed two 70-ton barges over a 19½-mile length of the canal in six hours against a head wind - a remarkable performance if true; by the other, that it was under-powered and only achieved about 2mph, and that it was very costly to operate.

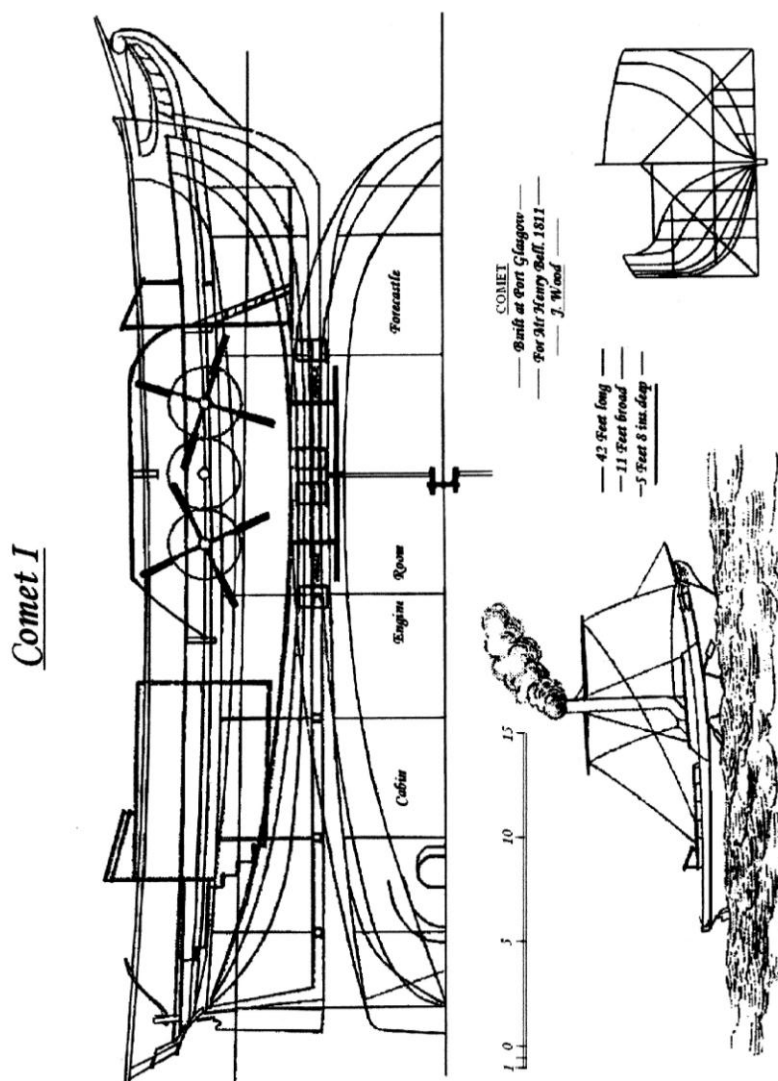
It seems that the second account may have been the more accurate since Symington immediately set about designing an improved version, ***Charlotte Dundas II***. This had the backing of the English canal promoter the Duke of Bridgewater, who was prepared to purchase eight of the boats if the improved version's trial proved successful. The trial took place on the Glasgow stretch of the canal on 4th January, 1803. Unfortunately, the duke died on 8th March, and the promised order was cancelled.

Whatever the performance of the ***Charlotte Dundas II*** at the trials, the canal's governing body, fearing that the force of the paddle wheels' motion on the water would cause erosion of the canal banks, decided not to use it. As a result of these blows, and Symington's difficulty in recovering the costs that he had already incurred, the project was abandoned, and the vessel left to moulder in a basin on the canal at Camelon, Falkirk.

From the time of Symington's abandonment of his prototype steam boat, Bell began to take an interest in the commercial possibilities of the concept of steam propulsion, and began practical experiments about 1810, which were reportedly financed by a mortgage of £2000 taken out on the Baths Inn. His experiments

culminated with him placing the above order for the hull with John Wood's yard in 1811. During 1811 he briefly had the cooperation of Glasgow blacksmith cum engineer, John Thompson.

The vessel, named **Comet**, was named for a comet that was first publicly reported in the skies to the NNW of Scotland on the evening of 27th August, 1811. She was launched in July 1812 in an all-but complete state, and in the form as shown in Fig. 1. There were two paddle wheels on either side of the vessel situated fore and aft of each other, and it would appear that the central disc represents a driving wheel geared to the paddle wheels to impart the engine's motion.

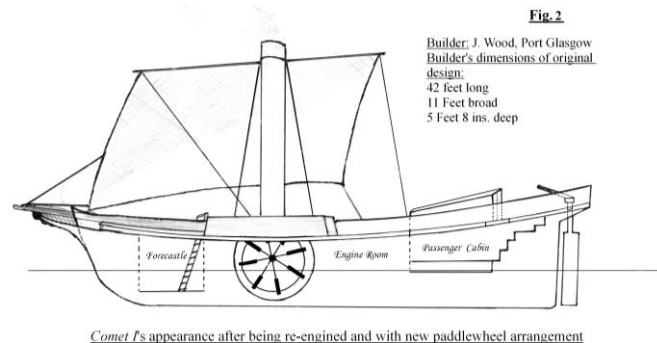


A reconstruction of John Wood's original draft plan by G. Badley from the facsimile held by the Mitchell Library, Glasgow, in the Wotherspoon Collection

Fig. 1

Bell was warned prior to the vessel's completion by John Wood, the boat's builder, and John Robertson, its engine builder, that it would be underpowered, and that the paddlewheel arrangement would be inefficient due to each wheel interfering with its companion. He chose to ignore both of them.

A single-deck vessel, **Comet's** dimensions were variously noted as: 43·5ft long x 11·25ft wide x 5·6ft deep, and some 24·5 tons burthen. Her draught was four feet. She was powered by a simple side-lever engine of 3hp. Two months after completion **Comet** was re-engined with a 6hp double-acting, jet-condensing engine with a single upright cylinder. At the same time the double paddle-wheels were replaced by a single wheel on each side. **Comet**, when re-engined was, reportedly, able to achieve a speed of 5mph under steam, but she also carried a large auxiliary square-cut sail on a yard attached to the single 25ft-tall funnel (Fig.2), which acted as a mast. In 1819 she was lengthened by some 32ft.



Comet's appearance after being re-engined and with new paddlewheel arrangement

Comet's original engine was to have cost £165, but with the re-build a new price of £365 was agreed with Bell for the cost of the original engine and that of its replacement (built by Thomas Hardie of Cartsdryke), and for the alteration of the paddle-wheels. In addition, the boiler, built and installed by David Napier (1790-1869) - who also built the funnel and made the castings for the engine - cost £52. However, it appears that Wood, Robertson, and Napier were never fully paid, and the above lengthening work was done on the beach at Helensburgh rather than at the builder's yard for the simple reason that by 1819 Wood had still not been fully paid for the original building work.

The following is part of an advertisement placed by Bell in the "*Glasgow Chronicle*" of 14th August, 1812 heralding the vessel's commencement of service:

STEAM PASSAGE BOAT,
'THE COMET'
Between Glasgow, Greenock, and Helensburgh,
FOR PASSENGERS ONLY
 The subscriber having, at much expense, fitted up
 a handsome VESSEL to ply upon the
RIVER CLYDE BETWEEN GLASGOW and GREENOCK
 - to sail by the Power of Wind, Air, and Steam - he
intends that the vessel shall leave the Broomielaw on
Tuesdays, Thursdays and Saturdays about mid-day, or
at such an hour thereafter as may answer from the state
of the Tide - and to leave Greenock on Mondays, Wednes-
days and Fridays, in the morning, to suit the tide. ...
...The terms are, for the present, fixed at 4s. for the best
cabin, and 3s. for the second ...
HENRY BELL.
Helensburgh Baths, 5th August, 1812

Comet left Port Glasgow on 6th August, 1812 to sail up the Clyde to the Broomielaw quay in the town centre, from where she was to sail on her maiden voyage. However, at that time the upper reaches of the Clyde were shallow and littered with sand banks, and even though only drawing four feet she managed to go aground *en route*, despite her passage taking place at the top of the tide. Oddly, she was easily pushed over the hurdle by men standing up to their waists in the water. A week later she set sail from the Broomielaw for her maiden voyage to Greenock.

She reportedly carried a crew of four: William MacKenzie as master (who was to relinquish command by the year's end); Robert Robertson (brother to John, builder of her original engine), engineer; Duncan McInnes, pilot - one of many Highland men who were to follow that profession on the Clyde; and a fireman - name unknown. From 1818 she was to carry two extra hands in the engine-room.

Her saloon was lavishly furnished and decorated, and accommodated eight passengers. Oddly, she was also fitted with two beds. Indeed, she was overly fitted out for a vessel whose voyage time was a little over four hours duration, and it seems that Bell had already intended to extend the service farther afield.

In February, 1813 a larger and faster competitor appeared on the route: another John Wood-built boat (and the first to have its engine specifically designed as a marine engine - by Bell's erstwhile partner, John Thomson, its original owner), the **Elizabeth**. It was this boat that was later to make its way down to the Mersey, and whose arrival was reported in the *Liverpool Mercury* of Friday, 30th June, 1815, and erroneously noted as being an iron-built vessel.

The **Elizabeth** offered a daily service to Greenock, and on three of the days proceeded on to Gourock, some three miles farther on. In addition, the second-class fare undercut **Comet's** by a shilling (5p) to two shillings (10p), although this was later revised upward to two shillings and sixpence (12½p). In the autumn two more rivals entered service, the **Clyde** and the **Glasgow**, and by the following year no fewer than nine boats were competing.

Editor's note: This article will be concluded in the next edition of the Bulletin.

References and Sources Consulted:

'*Clyde and Other Coastal Steamers*', Duckworth and Langmuir

'*Clyde Passenger Steamers From 1812 to 1891*', Captain James Williamson

'*Cross-Channel & Coastal Paddle Steamers*', F. Burr

'*Ingenious Mr Bell, The*', Brian D. Osborne

'*Henry Bell, The Life of*', Edward Morris

**Kelso Mail* report, 5-9-1811

'*Mercantile Navy List*' – various editions

'*Shipwrecks of Ireland*', Richard and Bridget Larn

Times: 1812 - 1825, The

ARSON SUSPECTED IN FERRY FIRES

by LNRS Member Bill Ogle

In the space of only three days during April, 1990 there were 3 major fires on European ferries. Of 10,513 grt, **Scandinavian Star** was bound from Oslo to Frederikshavn when, in the early morning of April 7, fire broke out, according to some reports, in two places. She was then 30 miles south of the mouth of Oslo Fjord and was soon attended by other vessels and helicopters. Still burning, she was towed into the port of Lysekil on Sweden's west coast where fire-fighting continued.

Two days later, 148 of the 493 passengers and crew were said to have died and there were stories of communication difficulties between the crew, mainly Portuguese and Filipino, that fire alarms did not sound and that lifeboats lacked equipment or could not be removed from their bindings.

The **Scandinavian Star** was built at Nantes in 1971 as the **Massalia** for Nouvelle Cie de Paquebots, Marseilles, one of a series of generally similar twin-funnelled ferries for various owners from the Dubigeon-Normandie yard. Her route was from Marseilles to Casablanca and on to the Canary Islands.

In December, 1983, she was sold to Stena Cargo Line Ltd. with management by Bahamian-flag Stena A/B and a month later renamed **Stena Baltica**. Towards the end of that year she was refitted for day-cruises from Tampa and renamed Island Venture but a month later became the **Scandinavian Star** under the management of Scandinavian World Cruises.

In 1988 she was cruising for Sea Escape Ltd., of Miami, and on March 16 of that year, when 60 miles NNE of Cancun, Mexico, with 1,000 passengers on board, fire broke out in her engine room. US Coast Guard cutters and the cruise ships **Canada Star**, 13,680 grt, and **Veracruz 1**, 6,193 grt, attended her. She was towed to Isla Mujeres Bay and arrived at Miami on March 23 for repairs. According to Lloyd's List, a result of the accident was a recommendation from the US National Transportation Safety Board for improvements to the ship

All this time she had continued to be registered under the name of Stena Cargo Line Ltd. but, according to the Sunday Telegraph, her ownership was "not yet clear" although she was still under the Bahamian flag. Charterers, they said, were the Danish Da-No Line who, this time quoting Lloyd's List, are a subsidiary of Vognmands Ruten whose cargo service connects the Danish ports of Korsör and Nyborg. It will be recalled that in 1987 they ordered 24 ferries – the "Superflex" fleet– from British Shipbuilders' Wearside subsidiary North East Shipbuilders Ltd., a deal which was to run into difficulties.

When the **Scandinavian Star** burned this second time she was reported to have been carrying the house colours of the former charterers Sea Escape but there followed a prompt disclaimer from the Miami firm of any continuing interest in her.

Many of the dead, according to the Daily Mail, are believed to have been sleeping in their vehicles on the car deck, a practice against any ferry company's fire safety provisions.



Scandinavian Star



Norröna was under charter to B & I

Twenty-four hours after the **Scandinavian Star** disaster there came a second ferry blaze. A crewman died when fire broke out and engulfed ten unused passenger cabins below the car deck of the Danish-flag **Norröna**, 7,838 grt, bound from Pembroke to Rosslare under charter to B & I Line. Firemen from the Dyfed brigade were airlifted to the ship and were able to deal with the situation but smoke had spread through the vessel and 25 passengers were treated in hospital for its effects and for cuts sustained in crawling beneath it to safety.

The **Norröna** returned to Pembroke where passengers and crew were interrogated by police behind the locked doors of the terminal, there apparently being the possibility of arson to cover the tracks of thieves.

The **Norröna** was built at Rendsburg in 1977 as the **Gustav Vasa** for Malmö-Travemünde Linjen-Svenska Rederi A/B, Öresund. In 1983 she was sold to Smyril Line, of Torshavn, and given her present name.

Another 24 hours went by and it was the turn of Brittany Ferries. Their **Reine Mathilde**, 5,465 grt, was heading for Portsmouth on her regular run from Caen when off the Isle of Wight fire broke out in the engine-room. The onboard fire drill was put into operation and assistance was soon on the scene. A British passenger died from a heart attack, a crew member suffering from the effects of smoke was taken to hospital and the **Reine Mathilde** was towed into Portsmouth by the Royal Navy tug **Powerful**.

The ship was built at Bremerhaven in 1970 as the **Prince of Fundy** for service between Portland, Maine and Yarmouth, Nova Scotia and in 1976 chartered to Lion Ferry A/B, Halmstad to sail on the Varberg - Grenå route. She was sold to Brittany Ferries in 1978 and renamed **Prince of Brittany**, taking her present name in 1989.

After a number of owners, and by now renamed **Beauport**, she completed her career on various Mediterranean routes before being scrapped at Alang in 2005.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

Programme for 2011 – 2012

*All presentations are scheduled to be held in the Education Suite at
Merseyside Maritime Museum commencing at 12.30 PM
Coffee and biscuits available from 1200 noon.*

15 September, 2011	The Stewart Bale Collection or “A Ships’ Progress” Ann Gleave
20 October, 2011	Ferries of British Columbia Dick Clague
17 November, 2011	The Marine Propeller Dr Graham Patience
15 December, 2011	The Thetis Disaster Derek Arnold
19 January, 2012	H.M.Y. Britannia Captain Hugh Daglish
16 February, 2012	Operation Postmaster David White
15 March, 2012	The Ocean Group and 'Confrontation' with Indonesia circa. 1958-1966 Nick White
19 April, 2012	The Daniel Adamson Dan Cross
17 May, 2012	AGM and: Thomas Brocklebank The first ten years of his seafaring career Michael Brocklebank

More detail of the content of these presentations is available on our web site:

www.liverpoolnauticalresearchsociety.org

CALL the WATCH

By LNRS Member James Pottinger

I am sure many seafarers have experienced varying reactions to the dreaded “one bell” summons at the start of a watch.

Some asked for a call well in advance and others were content to wait until the last possible moment before being awakened, a situation which was always fraught with the dread that the watch would not be relieved promptly, not such a chore in home waters, but a bit of a bind in the tropics in the engine room after a four hour stretch in steam bath conditions.

There was nothing worse than having a dilatory response and late appearance to the mandatory call, and this could create bad feeling all around.

My own preference was to have a call at quarter to the hour, and luckily I was able to rise pretty promptly if asleep, if be it known my inner clock had long conditioned my system to be just about awake before the dreaded call.

Within that timescale I was able to splash a quick douse on my face with cold water from the basin, and passing into the change room don my boiler suit and engine room boots, a perambulation which even afforded sufficient time to have a quick tour of the main elements of the engine room before start of watch proper. A more circumspect inspection would follow when my former watch keeper had departed.

It was an unwritten rule that they would appraise one of any significant or potential problems before disappearing.

In the tropics my routine was to place two cans of Tennant Export in the handling room on my way down to the engine room after calling the next watch, by the time we came up they would be just nicely chilled without being frozen, and be a welcome repast to my watch mate, if on a dual watch ship.

One second engineer I sailed with had an overriding aversion to having to start up the fresh water evaporator on his watch. In fairness it was a fairly temperamental and hit or miss job to run properly without an array of red flashing lights confirming less than pristine discharge. His comment on rousing was to exclaim “is the vap on”, if the answer was “no” he then fell back with a groan. Naturally any mean spirit would give the answer to his query with a “yes”, and gleefully note the consternation on his arrival on the engine room platform!

The 8-12 watch am and pm was known as the Chief Engineer’s watch as was normally taken by the most junior of the engineering staff and given the hours the Chief would normally be available for any consultation or supervision.

I have known only one Chief Engineer to actually check that his charges were up and about by making a tour of the engineer’s accommodation; the waft of his cigar long betrayed his passage through the accommodation.

In contrast, my first stint as sole watchkeeper coincided with the newly appointed Chief Engineer, also on his first in this elevated rank, and whether due to confidence in my vigilance or otherwise never came down to the engine room unless I had requested his presence. Oddly enough this was a format that was prevalent all through my experience at sea, I am not sure if I could have been so insouciant at that stage of development.

The last thing one wanted was to continually ring your superior with what would turn out to be trivial problems, a scenario which would inevitably result in his lack of confidence in your abilities.

Not having sailed with the modern arrangements of bridge engine controls, day watches in air conditioned control rooms and general service operatives the above may seem an anachronism today, but was an enduring tradition which served the Merchant Marine well for centuries.

WAS THAT REALLY FIFTY YEARS AGO?

By LNRS Secretary John Stokoe

I can only think that it was an inexhaustible urge to travel that attracted my yearning to go to sea and I was adamant that nothing would deflect me from this ambition. It certainly wasn't a case of being encouraged by someone else who was perhaps already at sea. No, it was all down to me. For many years beforehand I had whiled away many an hour, or for that matter whole days, watching ships pass through Eastham Locks either just before or after their transit along the Manchester Ship Canal. Occasionally I ventured off with a packed lunch cycling to Birkenhead and Liverpool and visiting every single dock within the Merseyside complex. I would then carefully mark up in my Ian Allen ship-sporters guide those vessels I had seen on my travels that day. Access to each dock had been relatively easy prior to the introduction of restrictive Health and Safety legislation. Birkenhead and Liverpool were bustling with shipping activity and hosted upwards of 100 vessels at any one time. They were arriving from, or departing for, every corner of the world with nearly every item of cargo being manually handled by dockers with their trusty bill-hooks.

There were so many shipping companies to choose from. I would think well in excess of a hundred that would be recruiting deck apprentices. To decide which one very much reminds me of going to a travel agent. It really all boiled down to which parts of the world I wanted to travel to? Companies printed their own elaborate recruitment brochures to attract interest in a similar vein to present day

tour operators the likes of Thomson or Thomas Cook. Join Blue Star, Port Line or even Federal Steam Navigation Company and be whisked off to such faraway places as Australia and New Zealand. Photos depicting Table Mountain would very likely be promoting Union Castle. Harrison Line could transport me to the West Indies and U.S. Gulf Ports as well as East Africa. Let us not forget Clan Line's world-wide interests although I don't recall the company trading in the United States. This list would not be complete without a mention of Blue Funnel which was so proud of its trading links with many Far Eastern Countries. However at the end of the day I honestly don't know why I chose the Brocklebank Line. In fact, I cannot even recall them publishing a brochure but joining this company would enable me to experience the exotic delights of India, Pakistan and Ceylon, as it was then named, and some voyages extended by a month or two to include the U. S. eastern seaboard and gulf ports before returning to the U.K.

The Crew Department Manager had stipulated that I would need good passes in four school-leaving exams. What an incentive this certainly was to study long and hard. When news of my exam success was eventually shared with the company the results were received with a smiling face and the unforgettable phrase that will always stay with me 'That's good enough for us!' So I was another step closer to achieving my all time goal.

Certain events in our lives remain indelibly printed in our minds. Those fuzzy black and white television pictures of the 1953 Coronation and ensuing street celebrations; what we were doing at that moment when the assassination of President Kennedy was announced and, of course, for those of us who have experienced a period of time at sea whether it be merely for a 'dog-watch' or for a life-long career, the day that we joined our first ship.

September 26th 1961 happened to be a Tuesday. It had been preceded by a particularly busy four-week spell since receiving confirmation of my school exam results. Indentures were signed and furnished and I discovered that during my first year I would be paid £180 which averaged out to approximately 50p per day –this would be a half of what I had earned delivering newspapers. There were medical and eyesight test appointments, more documentation and also being kitted out with uniform and working clothes to attend to whilst I waited impatiently for details of what would be my first trip to sea as a Navigating Apprentice. The letter, when it arrived, gave instructions for joining **s.s. Malancha** to which I recall a considerable degree of disappointment. I have mentioned that access to the docks had been relatively easy and I had seen most of the Brocklebank fleet of cargo ships in and around Liverpool and Birkenhead. I knew that many of the cowl-funnelled company vessels were really smart modern ships, but **Malancha**..... being built in 1937 and of 8,124 gross tons was their third eldest in the fleet. Sailing details reported in the

Journal of Commerce indicated a period of time would be spent around the UK coast before her next deep sea voyage to Red Sea and Indian ports.

With everything packed into an expandable suitcase and in full dress uniform I followed instructions and found the **Malancha** berthed in Canada Dock. The wide gangway was inviting me aboard and half way up an officer was passing in the opposite direction. I can clearly recall giving a rather hesitant salute, thinking that it would be the done thing. Well, being a first-tripper of the tender age of 16 years and just a few weeks, and with no pre-sea training under my belt apart from a dozen ferry crossings over the Mersey, I didn't know any better! Anyway, my salute was acknowledged with just a smile and I later discovered this first contact had been the Purser/Chief Steward but witnessed with much amusement by a covey of boiler-suited engineers taking a *smoko* break on the veranda which overlooked such comings and goings.



Brocklebank's **Malancha**. Built Wm. Hamilton, Port Glasgow in 1937.

We left Liverpool and our cargo discharge schedule took us first to Manchester, thence to Glasgow culminating in a return to the Mersey to load for Indian ports. There were no other apprentices during this initial period and I quite nervously had to feel my own way around taking careful note of what went on both in port and at sea. I was based in the wheelhouse doing what I felt was vitally important in handling the bridge telephone and completing the Movements Log Book whenever we were arriving at or leaving port. About one week before sailing deep-sea I was joined by a Senior Apprentice and at that time little did I know what he had in store for me in the coming months. I was soon to find out!

Malancha was capable of a rather sedate thirteen knots in fair weather. However this was quickly put to the test with a particularly rough spell and I have to admit to being green in more ways than one during this first encounter with the Bay of Biscay. I was nevertheless kept to task and my mind otherwise occupied in

tallying the paint stores and sprucing up the dozens of portable cargo lamps. Senior Apprentice Chris took me completely by surprise when he checked to see if I had written all my letters which would be picked up by helicopter at Gibraltar. I spent most of that evening steadying myself to counteract the ship's roll and pitch scribbling away with pen in hand only to discover that this was the first wind-up that I was to experience. Of course, no mail would be exchanged until we arrived at Port Said. It was round one to Chris!

Following the Suez Canal transit which offered an initial view of life in distant lands we steamed for Massawa and this would be my first experience of setting foot in a foreign country. I thought I would be in safe hands being accompanied by Mike the Radio Officer as he happened to be the son of a Somerset vicar. I couldn't have been more wrong. Whether I erred and strayed like a lost sheep - well that's another story.....

When we left Massawa, as Junior Apprentice I was on 'stations' aft with the Second Mate with responsibility for handling telephone contact with the bridge. Having let go fore and aft we were leaving the port in the late afternoon. The phone rang one last time and I was then to take one of the most memorable calls of my life. Apprentice Chris was on the bridge and his instruction was 'Tell the Second Mate to get the crew to bring the accommodation ladder right in'. 'OK' I said and to the Second Mate I said 'Get the crew to bring the accommodation ladder in.....Sir.' Stations was then stood down and the crew obviously turned their attention to the task in hand fixing a few lashings to secure the accommodation ladder sufficiently until we arrived in Aden which would be our next port of call a day or two later.

A short time later I was settling in the cabin shared with Chris when he barged in and said that the Mate was absolutely furious with me and that the accommodation ladder should have been brought right in and completely dismantled. The crew now had to turn to yet again to complete the job properly. He indicated that the Mate was so angry about me getting the message wrong that he has ordered me to run around the deck fifty times to let this be a real lesson and it was vital that I learn it without further delay. Chris added that I should not attempt to run fewer laps than the required fifty as the Mate is on watch on the bridge... and he will be counting!

Imagine how I felt at that moment. So on went my plimsolls and off I went running around the decks.....and counting very carefully. So let's get the true measure of this penalty. The **Malancha** is almost 500 feet in length so one lap is very nearly 1000 feet in distance. There were to be 50 of these and with the benefit of the modern day calculator 50,000 feet equates to 9 miles. But it does not end there. The **Malancha** was a four island ship so that, during one circuit there would also be 12 sets of steps to climb up or descend which in total becomes 600 sets of steps to

overcome. I kept a careful, in fact very careful, mental tally of the number of laps covered, as if the Mate wouldn't have better things to do than count these from his bridge position...but remember, I am still very green. During each lap I acknowledged the presence of a lascar seaman who was stationed on lookout in the ship's bow. Even he had probably never seen the likes of this before!

This punishment took the best part of three hours to complete which was shortly before the Mate finished his watch at 2000 hours. You can imagine the state I was in by this time. A little later in the evening I had a chance encounter with the now off-watch Mate and this caused him to comment as to whether I had suddenly decided to become a keep fit enthusiast as he had spotted me running round the decks so many times. Obviously he had absolutely no knowledge that I had been 'set up' by the Senior Apprentice. It was certainly a very hard earned lesson and from that day on I repeated every order verbatim and it's a habit that still held fast on many an occasion. Some years later when taking my driving test I carefully repeated every instruction given by the driving examiner so much so that given the way I was responding he actually enquired as to whether I was a river pilot or someone of that order. I did pass that test by the way.

Having bunkered at Aden we continued the voyage crossing the Indian Ocean bound for Calcutta. After locating the pilot boat we secured an experienced pilot who would guide **Malancha** for almost 100 miles up the treacherous River Hooghly. Exploring Calcutta proved to be an adventure in itself and during those first few days mostly undertaken on my own. Those familiar with this seaport city, do you really need a reminder of, for example, the continuous human tide of people loaded down with all their worldly possessions crossing the infamous Howrah Bridge. There will also be those who cannot fail to recall the sights and sounds and maybe conjure up the unique aromas associated with first light in Kidderpore Docks. It is hard to credit that the city's population has increased from its then 2 million to currently what is well in excess of 13 million people.

With discharge of cargo and loading for the homeward bound leg completed during our three weeks in port we sailed for Vishakhapatnam for further loading which was concluded on Christmas Day. We were scheduled to sail for Trincomalee that very afternoon.....but after the traditional Christmas Dinner had been served.

The richly wood panelled Officers' Saloon would be the scene for this next particularly memorable event. I was led to believe that there had always been a traditional expectation for junior apprentices.....or could this just be a further prank being played out by Senior Apprentice Chris? Surely not again! I was told that this tradition involved me having to eat through the complete Christmas menu twice over. That did not mean two soups which would be followed by two helpings of melon balls and then two plates of turkey and so on. Now I am sure that many of you will be aware that Brocklebanks were renowned as good feeders and obviously

they really pushed the boat out at Christmastime. No, this expectation was quite different. I was told that I had to work through or rather eat up the complete menu from start to finish and then, with spare plates of each and every course being kept warm I had to begin all over again. Upon completion, and as a reward, the Captain would offer an achievement prize of 10 rupees which I recall in was the equivalent of fifteen shillings, under present day decimalisation some 75 pence. I must admit that this did prove almost as challenging as my escapade had been on leaving Massawa but I made it through to what I recall was some well deserved applause from the ship's company. Just half an hour later we were mustered to stations for leaving the port and set a course for Ceylon.

On reflection and after a further examination of the sailing dates throughout the voyage it would seem that there had been a rush to return **Malancha** to UK waters. By 20th January we were back in the Mediterranean and beginning to experience 'the channels'. I would soon be sharing my first trip experiences with family and friends.

Despite my initial disappointment at having to sail on such an old vessel, some pride was gradually established as the voyage had progressed. **Malancha** had been a fine ship and was well thought of both by the company itself and most of those who sailed in her. She had featured in a post-war exhibition to illustrate the Brocklebank approach to ship development being some 6 per cent faster and using around 12 per cent less fuel than other company vessels. A metal plaque proudly displayed on the stairway of the mid-ships accommodation paid tribute to the assistance that she had rendered to a powerless and disabled destroyer **HMS Isis** in 1942 during WWII. This plaque commemorated their voyage together when **Malancha**, under the skilful command of Captain Eric Shore, towed the warship from Batavia to Bombay with a stop-over at Trincomalee covering a total distance of nearly 3,500 miles and completed at an average speed of almost 10 knots. It is also well worth noting that **Malancha** was delayed for no more than two hours at sea during her six years of arduous war service and this clearly highlights the dependability of her machinery and the skills of those who ran it.

Malancha's story was almost at an end. During her return passage to the UK it was learned that she would be sold for scrap when the discharge of her cargo was complete and as such all who had sailed on the deep sea voyage would remain until her final berthing at Bidston Dock, Birkenhead. A 'pool' crew were then signed on to take the vessel on her very final voyage to China. An extremely economical name change was applied and almost in an instant she became the **Malan**. It was 20th February 1962 when I recall watching as the final three letters of her name were blacked out on each side of her bow and across her stern. I remember those final moments some fifty years ago and in putting the final words to this piece I pause

and salute **Malancha** and remain proud to have shared just a small part of her distinguished life at sea.

There is a short post-script to this piece. In the late 1960s I made my final voyage to sea on board the Cunard freighter '**Alaunia**'. Within just a few months of me leaving this ship she was renamed..... perhaps some of you may have already guessed..... she became the **s.s. Malancha**.

I'll bet the Coast Guard loves this

French artist Julien Berthier has designed a fully functional boat to look as if it is sinking. Creating the floating installation in 2007, and named **Love Love**. The 21ft yacht was cut in half with a new keel and engine added so it remains in the sinking position while being fully functional. He describes it as "the permanent and mobile image of a wrecked ship that has become a functional and safe leisure object."



He has taken the boat (or should I say half-a-boat) across the English Channel to London and has toured around Europe, getting plenty of offers of assistance from unwitting good Samaritans, who would presumably be either very annoyed or rather bemused by the contraption.

(Editor's note: part only of Regulations, full text is on our web site
www.liverpoolnauticalresearchsociety.org

*This extract covers part 3 of 3,
and lists only a sample of the requirements)*

REGULATIONS

TO BE OBSERVED BY THE

CAPTAINS, OFFICERS

AND ENGINEERS

OF THE

STEAM SHIPS

OF THE

Moss Steam Ship Company, Limited

LIVERPOOL.

June, 1920.

REGULATIONS.

Captains, Officers, and Engineers are requested to make themselves thoroughly conversant with and comply strictly to the Regulations contained in this Book, which is the property of the Company, and GENERAL which is not on any account to be removed from the Steamer it is assigned to, unless called for by the Marine and Engineering Departments.

Each Captain, Chief Officer, and Chief Engineer will be provided with a copy and Junior Officers and Engineers are also to be made acquainted with the Regulations.

- 1. Officers, Engineers, and all members of the Crew must understand they are in all respects subject to the control of the Captain, or in his absence the Officer in charge.*
- 4. When in Port the Officer in charge and the Night Watchman are to visit all parts of the vessel when the day's working is over, as a safeguard against fire. Pump wells to be sounded every 6 hours whilst in Port, and everything unusual to be reported to the Marine Department.
Officers not to leave vessel until relieved.*

Marine Superintendent's address or telephone number can be obtained from the Shore Watchman at the appropriated berth. The hours of attendance of Captains and Officers can be ascertained from the Marine Superintendent.

- 7. Chief Officer is to select his men and attend personally when signing on or paying off.
Chief Officer's List of Crew to be submitted to Company's Shipping Clerk prior to signing, in case the Company has anything against any of them.*

From Outports Captains must forward to Company's Office a full list of Crew and also a list of all advances or monthly notes issued.

- 9. Captains are required at the end of each voyage to give a true and conscientious report on the qualification and conduct of Officers, Chief Engineer, Apprentices, Steward, and Petty Officers, on the private forms supplied by the Company. The information so given is treated privately by the Managers.*
- 19. Navigating inside of Skerries, Longships, Ushant. Saints, Burlings, Dog Rocks, or any places where navigation is intricate or dangerous, is to be strictly avoided. Straits of Belle Isle are not to be navigated without consent of Owners.
Captains are to leave a chart accessible to all the Officers,
Steamers passing Cape Finisterre. (Outward and Homeward) should pass that point at a distance not less than 16miles, also the Burlings (Outward and*

homeward) at a distance of not less than 8 miles. Homeward course for Scillys not to be set until ship has passed parallel of Villanos.

Outward course for 8 miles off Burlings not to be set until ship has passed parallel of Cape Finisterre.

Navigation of the St. Lawrence above Green Island is prohibited except in daylight

21. *In approaching the land in hazy weather, use of the soundings lead should be attended to and caution as to speed exercised.*

When using the Patent Sounding Machine (if installed aft). Captains are to notify Officers the depth of water expected and the Officer after each cast is to immediately signal to the Bridge, as follows :-

<i>One Whistle</i>	<i>NO BOTTOM</i>
<i>Two Whistles</i>	<i>BOTTOM</i>
<i>Three Whistles</i>	<i>SHALLOW</i>

27. *It is recommended to avoid detailed narrative in Log Book. There is not the least necessity to enter more than the fact, coupled with the time, place, and name of colliding vessel (if known). Entries in Official Log Book must be made as soon as possible after the event. Stick to facts and avoid impressions. In cases of stranding, fire or other accident, state facts briefly in Log Book.*

In case towage assistance is rendered, or required, the Captain must only make such an agreement as will leave the towage award to be decided by the respective Owners of the vessels. Should the other vessel insist upon a named sum, then the Captain must sign the agreement only when compelled, adding after his signature the words , "Signed under protest". Captains are referred to the "Merchant Shipping Act, 1894", Sections 422 and 423, re collisions, rendering assistance, &c.

In the event of any accident or casualty or of any claim or dispute by or against the Company, where litigation is pending or anticipated, Captains should, at the earliest opportunity, post to the Solicitors of the Company, Messrs. Hill, Dickinson & Company, 10, Water Street, Liverpool, a fully detailed report.

If instructions are required urgently, Captains should telegraph or cable to the Solicitors, addressing their message "Hilldick Liverpool," and commencing it with the words "Advise Moss."

29. *When anchored, the hand lead is to be kept on deck ready for immediate use, also when navigating rivers, entrances to harbours or ports, a leadsman is to be stationed in the chains.*
32. *When approaching a port at night time which cannot be entered before daybreak,*

it is recommended to slow down early if weather and circumstances permit and thereby save coal.

- 33.** *Wireless Telegraphy (subject to official regulations) are to be used for announcing expected time of arrival at various ports, &c. For Liverpool the expected time of arrival in river should be communicated as soon as possible and only repeated when there is any change in original message.*

On arrival in River Mersey, and on approaching tide time, attention must be paid to Morse or Semaphore signals from Pierhead for instructions for docking or otherwise; vessels to be under weigh as soon as there is sufficient water for docking. On receipt of orders to come into dock, two long blasts on the whistle are to be given when vessel is ready.

Signalling (Morse or otherwise) may only be carried on when circumstances permit, and must not interfere with the ordinary navigating duties of the Officer in charge of the Bridge.

- 45...** *The Chief Engineer is to obey and enforce as far as he can all orders issued by the Captain. He is also to keep the Captain fully advised as to what transpires in his department, and is to bring to the Captain at noon each day the report form supplied by the Company, filled up in every detail, in exchange for the form showing ship's position, etc., signed by the Captain.*

- 46.** *Hand steering gear to be used, when practicable, and is to be kept in thorough working order.*

- 49.** *Officers and other members of the Crew are strictly prohibited from smoking, whether at sea or in harbour, when on duty, except between the hours of sunset and sunrise.*

- 50.** *Captains and Officers are to frequently inspect Crew's quarters, and see that they are kept in proper order, clean and dry. Beds, cushions, and curtains are to be taken out, brushed and aired, at least once every passage.*

- 54.** *Captains are expected to take a lively interest in the material and moral welfare of their Apprentices, to see that they are instructed in the ordinary and navigational duties of their profession, also that they are cleanly in their habits and quarters; during the first three years of their apprenticeship they are to undertake all ordinary manual duties with the Crew under the supervision of the Officers; during the last year of their apprenticeship they should be employed on the Bridge in order to instruct and familiarize them in the duties of an Officer. A verbal report on their conduct is to be made to the Marine Superintendent on the termination of each voyage.*

LIFE ON THE OLD BANGERS

By Captain R M Burns

From the Society archives

The last of them have gone now, or if not quite gone then they're fast fading away. You know the ones I mean, most of us have sailed in them at one time or another. Wonderful boats to look back on, especially when you are sitting in the air-conditioned luxury of your next ship.

Welcome aboard

Towards the end of your leave Head Office springs into action—'*****' for you, next trip.' (oh no) 'Oh yes. Join in London during Thursday of next week'.

I climb up the gangway, wondering where we are bound this time. New Zealand with a load of general comes back the answer; twelve passengers, seventeen dogs, and three cats. (That lot should be good and cranky by Panama.) Was it last trip they had eleven chorus girls and a parson?

Having been all set to sail on Tuesday afternoon's tide, five lots of engine trials and a further seventy tons on deck bring us to a photo finish on Friday. The pilot is aboard, tugs are here, engines ready, gear tested—we're all set to go. But experience tells that it's pointless ordering stations until the pubs shut.

Twenty-four hours later, well into the Channel, with the engines pounding away happily, life isn't so bad after all. Now past the Azores and on the way down to the Canal, the weather gets warmer and the officers are into whites. Now to talk the Mate into getting the swimming pool rigged 'We know it will spoil your paintwork' 'The engineers have used the shores for chocking off that liner . . . Chippy has hurt his hand' 'Tell him to use his left.' No self-respecting Mate will ever put up with a swimming pool without a fight; if he does then watch out, he wants something.

Well on the way

We go alongside at Cristobal for bunkers ... Hell, it's hot. Those not on duty go ashore; out of the gate, up the road to where the main street crosses, at this intersection some turn left, others right. (If you have been to Cristobal you will know, if not then forget it.)

Come back to the ship, to find there is a six-hour delay: there's no pressure on the bunker line. Let's go ashore for a feed. Once back up the road, you can grab a cab to the 'Washington Hotel' where they serve an excellent steak, the beer is ice cold, and both may be enjoyed sitting on a delightful verandah overlooking the Bay. You can even watch the ships, big deal. With bunkers aboard—and not a drop spilt—we pass through the Canal and into the Pacific. Nineteen days later we arrive in New Zealand. We didn't even stop at Pitcairn—a certain gentleman wanted his

afternoon nap. We tie up at a lay-by as there's no working berth available; no labour either, it's raining too, so nothing to do

Panic

Three weeks later we're still discharging. The office ring the ship, 'The General Manager is out from London, expect him to visit your ship.' After the initial shock, we galvanise the ship into action, shift that dunnage, paint the funnel, scrub the wheelhouse. Soogie the onshore white paint ('What about offshore?' 'Forget that, He won't look?') Down aft even the Bunnies are turned to . . . this is an emergency.

The GM arrives aboard and is met at the gangway by the top brass with a round of handshakes. 'Did you have a good trip out?' (This question can be asked with impunity by either side.) He is in a hurry, but wishes to see the entire ship. Up the port side of the foredeck we go, like Halley's Comet, top brass leading while others of a lesser degree follow in diminishing order of splendour.

The comet head halts at the anchor stopper and the tail concertinas in the way of the windlass; everyone tries to look intelligent, wondering . . . Now what? He asks 'Why is the stopper on?' Now for some crafty footwork, in order to push the Mate to the front—he had forgotten there even was a damn stopper. He looks to the Chief Engineer for inspiration, in vain. Tries the Old Man, finds even less. Suddenly, in desperation: 'We take it off at sunset.' The GM seems happy with the answer, so why worry further.

On around the ship we go (will it never end?) and finally back to the gangway: is He going ashore? No way, He wants all the Officers in the smokeroom and spends some time explaining Company policy, buys us all a beer, and answers questions. When all is finished, it's back to the gangway again; He goes ashore and we can all relax.

A load off my mind

At the next port the frozen meat pours in under the mechanical loaders. Agents want space saved in Three Lower Hold for a special consignment. Out come the slide-rules and calculators, but it's a waste of time—we all get different answers. Meat pours in day after day; save that space; where's the special? More days, more meat, SAVE THAT SPACE, still more meat and no sign of the special . . . SAVE THAT. The office comes on the phone 'Forget the special, it was shipped in **Southland** at Lyttleton last week.' The Mate takes a running kick at the cat—he can't reach the agent. The cargo is all in, the hatches battened down, and the main engines put back together: all ashore who are going ashore— we are off on the long haul home.

Racing along

Ten days later we organise a race meeting. The boat deck is a hive of activity.

Flags are draped from awning spars, coloured lights are tested, the race track is dusted down and repainted. 'Shall we put the tote table next to the bar?' 'You must be joking, put it by the spud locker and make sure it is well lit.' At long last all is ready.

A wonderful evening is had by all: six races plus the final have been run, prizes are presented, fish and chips served, and the rude bits in the programme rehashed many times. Soon after midnight it is all over. The lights go out and everyone except the watchkeeper is asleep. Nothing disturbs the peace—except an empty beer can rolling gently to and fro, keeping time with the Pacific swell. Tomorrow is Sunday, perhaps it's just as well.

The Canal routine brings us out into the Carribean, with both engines still pounding away happily. What is this funny thing on the starboard bow? Quick it's one of our 'Box Boats'. Get the ensign up, call the Old Man, switch on the VHF, get the aldis out and give him a flash. No reply, try again, now they are nearly past and still no reply what a snooty shower.

Homecoming

Round past Ushant we know that we'll soon be home, and going up the Channel everybody starts packing. Even empty beer cases are pressed into use. After stopping for the pilot off Folkestone, we get under way again ('Every turn of the screw brings me nearer to you'). But then there's a change of orders; with no berth for seven days we have to anchor off Southend. The following week is the slowest and most dreary anyone has ever spent. . . will time never pass?

The seventh day arrives, at last we can weigh anchor and move alongside. With all fast and engines rung off we're down to the pay-off table, forgetting the last seven days on the way to the station, pockets full of money. A final quick drink for the road home with shipmates in the station bar can't be missed—unlike the train we meant to catch; so what, there are plenty of others.

Answers to quiz

1. Admiral of the Fleet Sir Henry Oliver (1865 - 1965)
2. The ss Normandie, who changed her name to Lafayette, caught fire and capsized in New York Harbour.
3. A German Herman Anschutz who patented his ideas in 1908, and Elmer Sperry who installed the first gyrocompass on a ship trading between New York and Hampton Roads, Virginia.
4. 2 parts water to one of rum to make the grog issue. Rum issues discontinued in 1970.
5. He tried to pull off one of the greatest hoaxes in sailing history. In 1968 he entered the trimaran ketch **Teignmouth Electron** in the first single handed non-stop round the world sailboat race. Although he radioed his position to indicate he was sailing around the world he never left the Atlantic. His boat was found eight months later after the start, structurally sound, but with no-one aboard.
6. The offspring of a sheep and a goat.

THE GREAT HURRICANE OF 1889

From the Archives

Submitted by Bill Ogle

Much has been written about the worst hurricane experienced since records have been kept that struck Western Samoa in 1889, a region that has had many such storms, though of less degree. It seems to have achieved one totally unforeseen result in preventing a serious international situation from becoming inflamed, between the United States, the United Kingdom and Germany due to the latter's desire to annex Samoa to its colonial empire.

The three great powers had warships in Apia Harbour to uphold their conflicting policies by force, if necessary, the German ships S.M.S. **Adler**, **Eber** and **Olga**; the United States Ships **Trenton**, **Nipsic** and **Vandalia**; and the British H.M.S. **Calliope**. The hurricane is commemorated in a set of four stamps issued by the Samoan Post Office.

On March 15, the weather deteriorated steadily, although no cause for alarm was felt at that time as the local inhabitants said that the conditions were normal for the time of the year. A sudden change in the wind direction, however, from north to north-east, coupled with worsening conditions completely exposed the warships to the full force of the elements.

The ships dragged their anchors throughout the night and by early morning of March 16, they were dangerously close to one another. At 5.00pm the **Eber** hit a reef and broke up.

Conditions worsened still further and at 7.30 am on March 17, the USS **Nipsic** was driven hard on to a sandbank near the shore, losing 5 hands when the order to abandon ship was being carried out. SMS **Adler** struck the reef half an hour later and was lifted straight up and dropped on to the reef itself by the force of the sea that was running.

Meanwhile the **Trenton** was in grave danger of colliding with the **Vandalia** whose anchors were failing to hold her steady in the high winds and turbulent seas. The **Olga** was bearing down on the **Calliope**, collision being averted by the daring decision of Captain Kane, of the **Calliope**, to try and reach the open sea against the full force of the hurricane, his only alternative being to beach his ship, with the certainty of her becoming a complete loss.

Captain Kane gives this account of the event: "I called on the Staff Engineer for every pound of speed he could give us, and slipped the remaining cable. The engines worked admirably; little by little we gathered way and went out, flooding the upper deck with green seas which came in over the bows which would have sunk many a ship. My fear was that she would not steer and would go on the reef in the passage out, especially as the **Trenton**, the American ship, was right in the fairway, but we went under her stern and came up head to wind most beautifully.

"Once outside her it was nothing but hard steaming. If the engines held out we were safe. If anything went wrong with them we were done for, but thanks to the admirable order in which the engines and boilers had been kept we steamed out into the Pacific.

"So splendid, so heart-stirring was the sight of the ship as she steamed out to safety that the brave men who were manning the drifting and sinking ships around her cheered as she passed, and the emotion of admiration in them was so strong that they lost the sense of their own danger and paid tribute to the finest piece of seamanship they had seen.

"I commend this little naval history, for such it will prove to be, to the British public, to the British workmen. I commend it to them that they may see that when we ask them for money, it is put into ships that are worthy of the traditions of the Navy. I say that if we can still secure such exploits the money is not wasted."

By the time the **Calliope** had only just scrapped past the reef, the **Vandalia** was sinking and the **Olga** and **Trenton** were to sustain further damage as the result of a collision before the hurricane abated. Of the seven naval vessels in the harbour before the storm only the **Calliope** survived in a seaworthy condition.

The captain of the **Nipsic** had not lost all control of his ship and he was able to run her ashore on a bank of sand. The boats were lowered and the whole of the ship's company reached the land in safety, except six men who were drowned through the capsizing of one of the boats.

The **Trenton** broke loose from her anchorage and was driven upon the sunken wreck of the **Vandalia**. Then she drifted ashore, with her bottom completely stove in and with her hold half full of water. Fortunately although the ship was lost, all aboard her were saved.

The death roll among the vessels was: **Eber**, 76; **Vandalia**, 43; **Adler**, 20; **Nipsic**, 6; **Trenton**, 1; **Olga** and **Calliope**, 0

Details of the ships are as follows:

H.M.S. Calliope listed as a steam corvette, 2,770 tons, built at Portsmouth Dockyard, 1884. She had a steel hull, wood/ copper sheathed, and displacement of 2,700 tons. With engines of 4,020 i.h.p. giving a speed of 13.7 knots, she had a cruising range of 4,000 miles at 10 knots. She was 235ft. long, with a beam of 44½ ft. and was armed with 4 6-in. 5-ton breech-loading rifled guns and 12 5-in. 38 cwt. breech-loading rifled guns. She was made into a R.N.V.R. drillship on October 29, 1907; was renamed **Helicon** in June 1915; and reverted to **Calliope** in October 1931. Sold on October 4, 1951, to Hughes, Bolckow, Blyth, and broken up.

S.M.S. Adler a gun vessel, was launched in 1883. She had a displacement of 884 tons, was 177ft. 2ins. in length with a 32ft 10in. beam, her draft being 11ft 6in. With a composite built hull and a single screw, her armament

consisted of two 15 cm. 3½ ton breech-loading rifled guns and two 12 cm. 27 cwt. similar type guns. Engines of 724 i.h.p. gave her a speed of 11 knots.

S.M.S. **Eber** a 760-ton iron-hulled gunboat, was also built at Kiel. She was 167ft. 4ins. long, 26ft. 3ins. breadth and 12ft. 6ins. draft. With 87 officers and crew and armed with 3 cannon, she was the smallest of the vessels involved. With a 760 i.h.p. engine she was capable of 11 knots.

S.M.S. **Olga** a 2,424-ton corvette, she was built at Stettin, Germany. Commissioned in September 1881, she served overseas during the rest of the decade. Her engines were reasonably powerful, capable of producing 2,200 h.p. and pushing the vessel along at over 13 knots.

U.S.S. **Trenton** the American flagship at Samoa, was of 3,900 tons displacement, a frigate-built cruiser, 252ft. 7ins. in length, beam of 49ft. 3in. and draft of 20ft 4in. with a wood and iron hull. Engines of 3,100 i.h.p. gave her a speed of 12.8 knots. She had bunkers for 342 tons of coal. Armament consisted of eleven 8-inch, 8-tons muzzle-loading guns (Pallisers) and six light guns. The cruiser was built in 1876.

U.S.S. **Nipsic** was a sloop of 1,375 tons displacement, her dimensions being 185ft 9ins. in length, beam 36ft. and draft 14ft. 2ins. She had a wooden hull with a single screw, and engines developing 1,375 i.h.p. Armament was four 9-inch 4-ton smooth bore guns and one 8-inch 8-ton smooth bore one 6-inch muzzle-loading rifled gun; two light guns, (under 15 cwt.) and one machine gun. Coal supply was 150 tons.

U.S.S. **Vandalia** was a 2,033-ton screw propelled sloop, built at the Boston Navy Yard, Charlestown, Massachusetts and commissioned on 10th January 1876. She was 260ft long, 30ft beam, 17ft 4ins draught. She was rated as a 12 knot ship and armed with 8 guns.

The author Robert Louis Stevenson was there at the time and recorded the event, concluding:

Thus, in what seemed the very article of war, and within the duration of a single day, the sword-arm of each of the two angry Powers was broken; their formidable ships reduced to junk; their disciplined hundreds to a horde of castaways, fed with difficulty, and the fear of whose misconduct marred the sleep of their commanders. Both paused aghast; both had time to recognise that not the whole Samoan Archipelago was worth the loss in men and costly ships already suffered.

In 1970 the Samoan Post Office issued a commemorative set of stamps. H.M.S. **Calliope** is seen on the 10 sene stamp passing U.S.S. **Trenton**. The 5 sene stamp shows S.M.S. **Adler** lying on the reef after the typhoon. This fine-looking U.S.S. **Nipsic** is shown on the 7 sene stamp. Finally “Apia after the hurricane” is shown on the 20 sene stamp, taken from a contemporary illustration.



On the centennial Samoa issued a strip of four stamps these depict S.M.S. **Eber** and **Olga**, H.M.S. **Calliope** and U.S.S. **Vandalia**.



THE SHIP MANAGER

R C Lee

From the Society archives

The swing door opens, and the Ship Manager strides into the office, clutching the dreaded sheet of paper. I see him immediately and the attack starts—the stomach churns, hands tremble, the heartbeat quickens, legs go weak, and sweat breaks out on my forehead. He continues his inexorable march towards me.

My mind races into overdrive—what has gone wrong now? Don't say those British ratings have commandeered the ship again and converted it into the only 10,000-ton floating nightclub and gambling casino in the Pacific. Or, even worse, are the Chinese still celebrating their New Year in the middle of June?

He strides on, coming nearer and nearer. There is hope—perhaps only a slight hope, but hope all the same—that if he turns sharp left it will mean Alan or Bill will receive the full weight of his wrath; if he swings across to the right, then Mike will be doing battle with him; either way I am off the hook. But no, he still comes on, clutching that piece of paper. Perhaps the phone will ring before he gets to me, or the ceiling fall in, or the world end. Every moment he gets closer and it is obvious that he is not going to turn left or swing right.

Again the mind races, dredging up all manner of total disasters, crisis and doom. My nerves are now at breaking point, I begin to curse all Masters and senior officers. Why don't they keep their problems to themselves? Why bother us . . . me? What are we supposed to do 5,000 miles away from the scene! Why can't they sort out their own shambles? Why bring us into it? More importantly, why involve me?

He arrives at last in front of my desk, towering over me as I quiver with fear. I slump in the chair waiting for the inevitable beginning to the conversation: 'I have had a letter from the Master of theI don't want to know! I don't want to hear! Why doesn't the floor open up beneath me or, even better, him? There is a dull thudding noise in my head and I am ready to believe anything. The hands are now uncontrollable, my stomach is in the back of my throat, the room is slowly beginning to revolve . . .

'He says that there are no problems on board. Everyone has settled in very well, and he hasn't sailed with a better bunch of ratings for a long time. Just thought I'd let you know'.

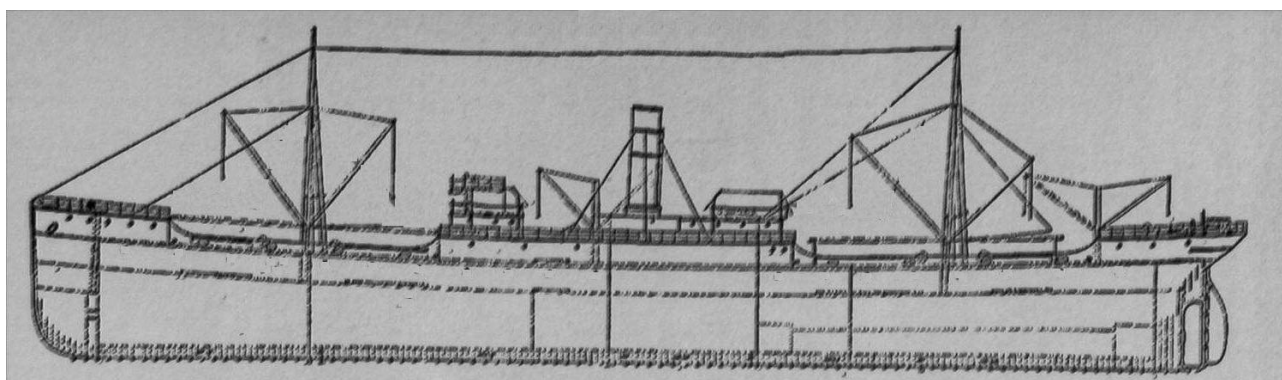
The room reverts to an even keel, the stomach settles down to where it should be, the legs feel as though they will now bear my weight. I can even pick up my biro and force a weak smile. I had got through the day without anything going wrong and without being hammered. Tomorrow is another day, but at least today is going to be fine, and perhaps Ship Managers are fine after all.

The Liverpool Nautical Research Society

(Founded in 1938)

THE BULLETIN

Volume 55, No.3, December, 2011



S.S. **Gleneden** see page 26

Captain Pape and the Maitland	<i>Gordon Bodey</i>	page 1
Engine Room Noise	<i>James Pottinger</i>	11
Remember those days...	<i>Bill Ogle</i>	13
S.S. Etrib	<i>John Cook</i>	15
Henry Bell's Comet Part 2	<i>Gordon Bodey</i>	19
The Marine Society	<i>The Editor</i>	24
Mr. Roper's Diary	<i>W.G. Williamson</i>	26
Maryport Maritime Museum	<i>The Editor</i>	32
The Kitchen Rudder	<i>Charles Dawson</i>	33
The Stewart Bale Archive	<i>Anne Gleave</i>	38
Liverpool Sailors' Home Gates	<i>The Editor</i>	41



The barque **Maitland** in 1901, by William Howard Yorke.

By kind permission of William James Page II

The Liverpool Nautical Research Society

President:
Mr. A.S.Davidson

Vice-Presidents:
Captain G.Cubbin, Mr. H.M.Hignett

Chairman:
Mr. D.C.White

Vice-Chairman:
Mr. W.A.Ogle

Council:
D.K.C. Eccles, D.Littler, Dr. E.S.Long, A.H.McClelland,
W.A. Ogle(Editor), Captain R.Settle

Honorary Officers:
Secretary: J.Stokoe Treasurer: B.Groombridge

Web site: www.liverpoolnauticalresearchsociety.org

Contact details:
The Liverpool Nautical Research Society
Maritime Archives and Library
Merseyside Maritime Museum
Albert Dock
Liverpool L3 4AQ
United Kingdom.

info@liverpoolnauticalresearchsociety.org

Captain Robert Pape and the Barque **Maitland** Revisited

By LNRS Member Gordon Bodey

Some ten years ago Mr William James Pape II made an enquiry of the Society for information regarding the barque **Maitland** of which his great-grandfather, Captain Robert Pape of Liverpool, had been one-time master. As a result of research carried out by the writer, an article appeared in *The Bulletin* (Vol. 45, Number 4, March 2002), which outlined some of the history of the vessel, and of Captain Pape's voyages on her: first as mate, then as master.

As a result of a recent singular turn of events (that could not have happened but for the now ubiquitous internet) initiated by Society member George F. Ralston of Plainville, Connecticut, a sequel that could not have been envisaged when the article was first published has occurred. The details are contained in the epilogue to this revised version of the article.

Some dates (and associated information) have been amended in the light of contemporary newspaper reports kindly supplied by George Ralston, who has also supplied items of information not previously known to the writer, and included in the account, and for which the writer is most grateful. Also, information has come to hand from other sources, and the text has been amended to take account of it.

Captain Robert Pape was the great-grandfather of Society member William James Pape II of Waterbury, Connecticut. In 1875 when Robert Pape joined the **Maitland** his son, William James I, was not yet two years old. In 1887, at the age of thirteen, William James Pape was to leave Liverpool - his birthplace and home - with relatives to settle in America. Here he succeeded greatly, and in doing so became the founding-father of the Pape family in New England. William James Pape II is now the head of the family in America.

This article is a brief outline of the **Maitland's** initial voyages and of those whilst Robert Pape served on her, and of some background to life at sea at that time.

The **Maitland**, official number 064846, call sign NWHV, registered at Halifax, N.S., was a single-deck, three-masted barque built by G. Smith & Son at Selmah Creek, nr. Maitland, Hant's County, Nova Scotia in 1871. Her length was 160ft, width 33.8ft., and depth 19.3ft. She was of 713 G.R.T., 653 N.R.T.

Maitland's first owner was John Edward Dewolf, merchant, of Halifax, N.S. (of a family that was to have long and close ties with Liverpool, as well as some of its members becoming resident there), and her first master was Alonzo Nickerson of Halifax, N.S.

The first recorded foreign-going trading voyage of the **Maitland** was from Savannah to Liverpool with a cargo of 2098 bales of cotton and 1124 bags (and 60 barrels) of oil cake. She is thought to have sailed from Savannah on 15th February, 1872. After arriving in the River Mersey on Monday, 18th March, the **Maitland** had to

wait until the afternoon tide of 20th March before being berthed at the West Quay of Brunswick dock to discharge her cargo. Unloading was completed by 26th March, but the **Maitland** remained on her berth until 29th March, and was then taken down-river and into Sandon No.6 graving dock, where she remained for five days. It is believed that the time spent in dry dock was in order to complete any fitting-out not done by the builder and to have the vessel's bottom coppered; these jobs were invariably carried out on Maritimes-built wooden vessels upon their first visit to Liverpool in readiness for the commencement of trading in tropical waters.

On leaving the dry dock, the **Maitland** was moved to the north side of Vittoria dock to load a general cargo for Baltimore which included drums of caustic soda, firearms, steel tyres (presumably for horse-drawn wagon wheels), chain, saddlery, cutlery, and 776 cases of 'tin' plates. The nature of much of the cargo loaded - apart from the caustic soda - would appear to have had a direct connection with the great opening up of the American West which was then taking place. Loading was completed by 1st May and the **Maitland** was cleared for sea. She sailed from the Mersey for Baltimore on Saturday 3rd May, duly arriving there on 9th June - a slow passage, averaging only about [†]three knots.

[†]*[The barque **Cyprus** (Troop & Son), 1119 G.R.T., under Captain Raymond Parker (of Tynemouth Creek, N.B. and aged 27) is credited with making eight transatlantic crossings during 1879 for a total sailing time of 193 days: an average of 24 days each - and an average daily run of about 125 miles, or more than 5 knots, which has been cited as the pinnacle of fast sailing for a barque.]*

Having discharged and reloaded, the **Maitland** sailed from Baltimore for Belfast on 17th July, 1872, where she arrived on 21st August, 1872 - another protracted crossing. Although her cargo is not noted it is thought that she would have carried bagged grain back from Baltimore; at this time it was common practise for Maritimes Sailors - often in ballast - to voyage from Liverpool to Baltimore in order to load grain (a lucrative cargo)¹ for the United Kingdom.

The crew of the **Maitland** that signed for this voyage to Belfast (all signed at Baltimore for the voyage, of whom five had re-signed after the voyage to Liverpool) comprised (besides the master): a first mate, a second mate, a cook/steward, eight able seamen and two ordinary seamen; one of the able seamen failed to join. The absence of both a carpenter and a bosun on the voyage may seem odd, but it was not uncommon for both to be thought unnecessary on these relatively small vessels on what was considered a short run. Four crew members were Canadian, four British, five from various European countries and one Barbadian - the cook/steward. On **Maitland's** arrival at Belfast five of the able seamen promptly deserted.

On this voyage the cook/steward was paid the same rate as the first mate, £7/5s/0d per month, the second mate £5/15s/0d and able seamen £4/10s/0d per month. One able seaman, aged 20, signed on for £3/12s/0d per month but, possibly dissatisfied by his lower rate of pay, he was the one who failed to join the ship. Of

the two ordinary seamen, one signed at £3/12s/0d and the other at £3/0s/0d.

By 1875 - the year Robert Pape joined her - the **Maitland**, having been owned successively by John William Dewolf and Jonathon McCully (both of Halifax, N.S.) - after the first owner - was now registered to the ownership of John Starr Dewolf of 'Elleslie', Aigburth Drive, Liverpool.

Robert Pape was born at Lowca nr. Workington on 9th August 1842. He passed as Master Mariner in 1871 at Liverpool (Certificate number 82317), and on Sunday, 15th January, 1871 married Martha Burnett at St John's Church, Old Haymarket, Liverpool (built 1775-1784, demolished 1899).

By 1875 they had two young children, and were living at 90, South Chester Street, Toxteth, Liverpool. This street of houses had been built on the site of what, less than 25 years previously, had been farmland adjoining Mather's Dam with its ancient working windmill known as Toxteth Park Mill.

On Thursday, 1st July, 1875, Robert Pape, aged 32, signed on as first mate of the **Maitland** at Middlesbrough (where she had loaded steel railway materials) for a voyage to Bluff, N.Z. However, this was an '*unrestricted voyage*', i.e. the master had *carte blanche* to trade *en route* should the opportunity offer, to the Indian Ocean region, and the duration of the voyage (within a three-year period) - as well as the ports of call - was indeterminate. The Master (Certificate number 13136), John Joseph Sowerby, aged 41, of Devonport, also signed on the vessel that day and this was also his first voyage on the **Maitland**.

In addition to the Master, the first mate and a second mate, the **Maitland** set sail from West Hartlepool (she had moved up to there the previous day to load the last of her cargo) on Wednesday, 7th July, 1875 with the following crew: a carpenter, eight able seamen, an ordinary seaman, a cook and a steward.

Wage rates were very variable and depended mainly on: the availability of suitable crew; the urgency of the need to complete a crew; and whether the crew were joining a ship returning to a home port, which often had the effect of depressing the wage rates offered. At the start of this voyage able seamen were paid £3/5s/0d. per month compared to the £4/10s/0d. per month on the voyage cited above and ordinary seamen £2/15s/0d. per month, again less than the above rates.

Besides the crew that actually sailed from West Hartlepool, three able seamen who had originally signed to do so did not sail. One had received an advance of £4/17s/6d. and another an advance of £3/5s/0d. An ordinary seaman also received a month's wages in advance and failed to sail. This practice is seen to have been widespread and was to be encountered with almost every new crew signed. Of the original crew of fifteen that set sail from West Hartlepool only the first mate, second mate and the ordinary seaman were to complete the round voyage.

Only scant information is known about **Maitland's** passage to Bluff where she arrived 30th October, 1875 after sailing for 115 days. This represents an average daily run of about 109 miles for a minimum passage of 12500 miles, but, as with all

sailing voyages, the effects of wind, tides, currents, and days when constant tacking was necessary, would have increased the total mileage run by a considerable and incalculable amount, prolonging the passage time and lowering the daily average run.



Captain Robert Pape of the Maitland

Bluff is the port for Invercargill (the most southerly city of New Zealand) about fifteen miles to the north which was then being established as the centre for the grain export trade - as well as other agricultural products - of the Southland region.

In common with all vessels trading to New Zealand at that time, the **Maitland**'s cargo would almost certainly have contained a range of manufactured goods, as well as the railway materials. It is now noted that when she sailed from Bluff she was in ballast.

The **Maitland** remained at Bluff until 29th December. It would appear that she was delayed due to crew problems. It is recorded that four crew members deserted at Bluff, and two were discharged on being jailed there. These included the cook who deserted, and the steward, Andrew Cox (variously Caye?), who was jailed on 24th

December. One of the deserters, James Wilson, an able seaman of Sunderland had signed on the day the vessel sailed from West Hartlepool, and deserted the day that she arrived at Bluff. It is reported that he was subsequently apprehended, tried on 13th January, and sentenced to three months hard labour.

In view of the exigency of the situation a steward was signed at £8/0s/0d. per month (10s/0d. more than the first mate), but this was probably because he also acted as cook (no replacement cook being recorded), able seamen at £6/0s/0d. per month, and ordinary seamen at £4/10s/0d. per month. Again there were non-joiners, one of whom had been given a £3/0s/0d. advance. Some of those signed at Bluff did so on short-term articles as they were released by mutual consent, and paid the balances of wages due, at subsequent ports.

Having finally mustered an adequate crew (manpower resources would have been very meagre at Bluff in those days), Captain Sowerby set sail from Bluff for Newcastle, NSW, on what was to be his final voyage: on Monday, 3rd January, 1876, *en route* across the Tasman Sea, Captain Sowerby died. Robert Pape immediately signed off as first mate and re-signed as Master. The second mate,

William Glover, aged 34, of Workington, likewise signed off and then re-signed as first mate. One oddity noted here is that two men (John Oldham of Derby, aged 27, and Thomas Mathews of Dublin, aged 36) given as able seamen, and not previously noted in the crew lists, are recorded as signing on in the Tasman Sea on the following day - at one shilling per month, a rate possibly identifying them as supernumeraries although not recorded as such; nor are they recorded as stowaways.

The **Maitland**, under Captain Pape's command, arrived at Newcastle, NSW, on or about Monday, 10th January, 1876. Four able seamen were promptly released by mutual consent, as noted above, as were the two shilling-a-month men signed in the Tasman Sea. In return five able seamen and two ordinary seamen were signed - again on short-term articles to be terminated by mutual consent at the next port of call, Bombay. The rates of pay were now almost back to the original rates.

It is worth noting here that although a hand might be listed as an able seaman he was not necessarily experienced to that level. It was frequently the case that men signed in foreign ports were landsmen trying to work their passage home (or trying to get to somewhere else to try their luck) having previously emigrated. In addition, their inexperience placed an extra burden on an already overburdened crew and, it was justifiably contended, often posed a threat to the safety of the ship; sometimes leading to violent reprisals against such men. It was a very harsh, unsympathetic, and unforgiving environment in which to be found wanting.

Many men who were signed in foreign ports, with or without the necessary experience, were often only trying to earn a sojourn at the nearest bar in the next port of call; the incidence rate for such cases was very high, and is indicated by the large number of men who were jailed as a result.

The day after **Maitland's** arrival at Newcastle an inquest was held at the *Albion* hotel into the death of Captain Sowerby. It was revealed that he was, in fact, an epileptic and on 1st January, having had a seizure, he was taken to his berth. It seems that he had an assortment of patent medicines of the day with him, with which he dosed himself, believing that they controlled the condition. These included tincture of henbane, laudanum, and chlorodyne. Having lapsed into unconsciousness some of the medicaments were administered to him as advised in the ship's medical book, and he came to. The following day he was taken ill again, but recovered sufficiently to walk about the poop in the afternoon, when he was heard to say "Goodbye, men". About midnight he had a third fit and lapsed into unconsciousness, and at 1.30 a.m. on 3rd January, 1876, attended by Robert Pape and William Glover, he died. They placed his body in a temporary coffin, which was stowed in a hold pending arrival at Newcastle. The inquest jury returned the somewhat singular verdict '*That the deceased caused his death while in an epileptic fit, accelerated by overuse of laudanum and chlorodyne*'.

Maitland left Newcastle, for Bombay on Tuesday, 25th January, 1876, carrying a cargo of 1125 tons of coal. Having made an excellent run averaging

something over 110 miles per day, she ran into a very severe hurricane on 29th February at position: latitude 25°S, longitude 89°E (some 1500 miles west of Cape Inscription, Western Australia), and suffered great damage: a full suit of sails was lost, the fore and top masts with the yards were carried away, and the main rudder head was sprung. A true baptism of fire for the new master.

How long the hurricane lasted is not known, but sufficient repairs were carried out after it had abated to enable the ship to continue to Bombay, albeit very slowly; it would be nine weeks later before she reached there, on Wednesday 3rd May, having averaged only about 45 miles per day for the remaining 2800 miles or so of the passage.

At Bombay the men signed at Newcastle were released and replacements signed, including a cook. Again problems arose with the crew. Six were discharged on being jailed (one having been given a £3/0s/0d. advance); the cook was removed by the Consul a week before the ship left Bombay (but a replacement was signed); and one able seaman, also with an advance of wages in his pocket, was not seen again.

The crew that finally sailed the **Maitland** from Bombay was composed of ten different nationalities. Rates of pay being offered to new signings had first dropped dramatically; an able seaman being worth only £3/0s/0d. per month, an ordinary seaman £1/10s/0d., a carpenter £4/5s/0d. - even the cook could only command £4/0s/0d per month. The fact that the ship was sailing for Europe may have given Captain Pape sufficient leverage to offer these rates, but it may also have been the case that because the most recent signings were mainly non-British, the rates would have been considered adequate. However, as crew members began to disappear and sailing day drew near the rates offered to replacements had to be adjusted upward regardless of nationality - six A.B.s being signed at £4/0s/0d per month. Ironically, the last signing (the day before sailing), a Dutch A.B., signed for £3/5s/0d., accepted a £2/0s/0d. advance, and vanished the same night.

Leaving Bombay on 16th June, 1876, the **Maitland** sailed for Antwerp via the Cape of Good Hope, passed to the west of the Cape Verde Islands, and was spoken on 22nd September at position 40°N, 28°W, just north of the Azores, by the ship **Alpha**. She was reported passing Deal on 9th October, being then 115 days out from Bombay, and arrived off Flushing on the 10th, and is recorded as docking at Antwerp on Saturday, 14th October, 1876, having taken 116 days on the approximately 11,200 mile passage from Bombay to Flushing: an average daily run of some ninety-six miles. No record of her cargo has been located.

From the first signing at Middlesbrough until her return to Antwerp sixteen months later a total of 56 men (excluding Captain Sowerby) signed articles on the **Maitland**. Of these, three of the original signings completed the voyage as noted. At the various ports of the voyage seventeen men signed off by mutual agreement; seven failed to join; five deserted; eight were jailed; three were removed by Consuls; and a further thirteen signings brought the vessel home. A total of £39/7s/6d.

(£39.37p) was lost in giving advances to men who did not join, were jailed after receiving an advance, or were removed from the vessel before it sailed. It is not known how much money was forfeited by men who deserted or were jailed, but on balance it would seem likely that some of the monies advanced to non-joiners, absconders and those detained had to be written off.

Captain Pape signed off with the rest of the crew, and promptly re-signed as master. The mate, William Glover also re-signed, along with eleven new crew members to sail her from Antwerp to Cardiff on Thursday, 2nd November, and where she arrived on Wednesday, 15th November, 1876. Her very slow passage was probably due to the seasonal contrary strong westerly winds blowing up channel. Captain Pape signed off on 16th November and returned to Liverpool on leave, where he saw his third, and youngest child, Amy, then seven months old, for the first time. He was back in Cardiff by the fourth week in November where he signed on as master (on sailing day) to take the **Maitland** to the Far East.

While at Cardiff the **Maitland** completed her loading for Yokohama (as her scheduled final port of call) with the stock cargo, between these ports, of coal, and sailed on Thursday, 30th November 1876; again on an unrestricted voyage. She was to return to Liverpool, as and when a full cargo had been loaded, from Japan.

It is known that Captain Pape was accompanied by his wife, Martha, and their three young children on this voyage. Owners of Maritimes vessels of this time actively encouraged masters to take their wives and children on voyages; their presence was rightly considered a civilising influence (not least, perhaps, on the masters themselves) in an otherwise unremittingly harsh existence. However, the families were not listed as passengers or crew, nor was their presence generally recorded in the ship's logbook (shipmasters were not noted for recording anything other than that which was required of them by law), and usually the only evidence for their presence on board is from diaries or personal letters to home.

On this voyage, beside the master and first mate, the **Maitland** carried the following crew : a bosun, a carpenter, a cook/steward, nine able seamen, two ordinary seamen, and a boy (Charles Thompson of Liverpool, aged 13). Rates of pay on this voyage were as at the start of the previous voyage, although one ordinary seamen was paid only £1/0s/0d. per month. The boy's rate of pay was ten shillings (£0.50p) per month and he must have been a very thrifty boy: after a 17-month trip, earning him £8/10s/0d. (£8.50p.), he paid off with £7/16s/2d. (£7.81p.). The carpenter, William Richard of Barmouth, must also have been a sober, thrifty man: out of his earnings of some £102 he paid off with £84/9s/3d.

Although this was a passage of some 14,500 miles (via Cape of Good Hope), in taking almost seven months to arrive at Yokohama (i.e. 72 miles per day) it must be assumed that Captain Pape had either traded or been delayed (a very common occurrence for a multitude of reasons) *en route*, although no details are available; the only known report of his vessel's progress states that she passed eastwards

through the Sunda Strait on 2nd May, 1877. The **Maitland** arrived at Yokohama on Wednesday, 20th June, 1877. On Tuesday, 3rd July, 1877, Captain Robert Pape died on board his vessel at Yokohama.

The cause of his death is not known, but considering the endemic nature of certain potentially fatal, insect-borne, diseases in the regions he voyaged in, it is more than likely that his death resulted from one such cause. A great number of Europeans succumbed to such diseases each year. The mate, David Davies, signed off as mate and re-signed as Master the same day, and the bosun, 28-year old ² William Furniss of Birkenhead, assumed the ³mate's duties (though not signing as such) in so far as he was able.

It speaks well of Captain Pape's command - and of his original choice of crew - that, in contrast to the previous voyage, out of the crew of sixteen (other than the Master) that set sail from Cardiff, thirteen members completed the round voyage, whilst the other three signed off by mutual agreement in Yokohama. None were recorded as having been jailed. Captain Pape had also shown foresight at the start by employing two extra hands.

Captain Davies signed three able seamen at Yokohama, one of whom, a German, was (for reasons not stated) removed by the Consul one week later.

Maitland remained at Yokohama until Thursday, 4th October (the extended stay is believed to have been due, in part, to administrative procedures in connection with the death of Captain Pape), when she sailed for Hiogo (the present-day prefecture of Hyogo); the port being Kobe. She did not arrive there until eighteen days later and may have called to load elsewhere along the way. While at Kobe she completed loading for her return to Liverpool; her main cargo was reported to be bagged rice (12,130 bags). One of the Yokohama signings deserted at Kobe and a replacement able seamen was signed - an American who worked as bosun in place of William Furniss, and who was paid the full rate of £6/0s/0d per month.

On Thursday, 2nd November the **Maitland** sailed from Kobe for Falmouth for orders, passing through the Sunda Strait on 24th December (her sailing time for this leg of the passage was comparable with that on the outward voyage). She was reported passing St. Helena on 24th February, and arrived off Falmouth on 22nd April, where she received orders to proceed to Liverpool. She arrived in the River Mersey on Sunday, 29th April, 1879 after a protracted passage of 178 days.

Soon after completion of the latter voyage the **Maitland** was sold to Charles Murdoch, another Halifax merchant, who did not trade with her but within a year sold her to Norwegian owners. It was common practise for vessels of the Maritimes, having completed their initial seven-year certification period, to be sold on to Norwegian owners who would then sheathe the hulls with two-inch thick planking giving the vessels many extra years of trading life. Unusually, after being sold, all the owners thereafter retained her original name. She was out of the Register from 1905.

On 19th August, 2011 it became known that an oil painting of the barque **Maitland** not only existed, but that it was due to be auctioned at a gallery in Fairfield, Maine on 25th August.

The painting of the **Maitland** is the work of William Howard Yorke (1848-1921). He was born in St John, New Brunswick in 1848, but his father, W.G. Yorke, also a marine artist, removed the family (which then included another son, Edward, aged three) to Liverpool in 1855. Although W.G. Yorke's wife was born in Bristol, England, the move was more likely due to the probability of a steadier stream of commissions being obtained working in Liverpool, then the premier trading port to the U.S.A. and many other places, than in St John.

Here the son, having learned his craft diligently under his father's tuition, was eventually able to ply his skill as a marine artist in his own right, and from about 1871 when his father, for reasons unknown, returned across the Atlantic to live and work in New York (where he was believed to have died about 1886), the son had the field to himself. His father's established reputation also devolved to him, and would have assured him of more numerous commissions.

By 1881 W.H. Yorke was married with a four-year old son, and living at 2, Isaac Street, Toxteth, Liverpool (the brother mentioned above was also living there, and at that time unemployed). Some twenty years later he had been sufficiently successful to be living at 91, Belgrave Road, Aigburth, Liverpool, and it was whilst he was at this address (in 1901) that the **Maitland** picture was painted. Two years later he resided at 87, Lark Lane, Sefton Park, Liverpool; a quite salubrious area at that time, reflecting his continuing success. Yorke continued to live and work in Liverpool until his death on 18th June, 1921.

When not working in the studio Yorke spent time at the docks, where he made very accurate sketches, and measurements of the dimensions, of vessels therein; possibly to hone his skills but also, having done the preliminary work on a subject, to be able to complete a work quickly should a commission be forthcoming for it. Such activity would, of course, have attracted the eye of ship masters, the very people most likely to commission a work. This apparently happened with the **Maitland**, which arrived at Liverpool on 20th January, 1884 and departed 26th February, and during which period the sketches of her would probably have been done as no other visit to Liverpool is recorded until her arrival there on 16th September, 1901 (sailed 28th October).

On the latter occasion, Captain Soren Gundersen of the **Maitland** (he had succeeded Captain John Paul Juell in the last quarter of 1900) commissioned the painting of the ship. When completed (signed by Yorke and dated 1901), the painting was forwarded to Christiania (present-day Oslo) for framing, and thereafter it remained with Captain Gundersen's family until sent for sale in August, 2011.

The owners of the vessel from autumn 1900 to 1905, were Rederis, Maitland (T. Lund), of Fredrikshald (now Halden), Norway, and the painting bears the legend "*Maitland af Fredriksjold*".

Captain Gundersen's home at that time was Christiana, but in 1906 he emigrated to America with a young family, taking the painting with him. He settled in Brooklyn, NY where he remained until his death in 1953. The painting then passed to his son, Herbert, at Thomaston, Connecticut, and upon his death in 1963, to Herbert's daughter. The painting then had spells at New Haven CT, again to Brooklyn, then at West Haven CT and finally at Plainville CT with Soren Gundersen's grand-daughter until travelling to Fairfield, Maine for sale.

George Ralston, having seen on the Society's website that an article on the vessel had appeared in the March 2002 edition of *The Bulletin*, contacted the Society's Honorary Secretary, John Stokoe, by e-mail, and informed him of the picture's impending sale. John promptly informed Mr Pape.

On hearing of the painting's availability, Mr Pape, with his son Andrew, proceeded some 200 miles to the saleroom with the intention of acquiring it, if possible. However, on the day he faced some very stiff competition, but eventually won out, and was able to return home with this most tangible conclusion to his original quest - a very fitting tribute to his great-grandfather, Captain Robert Pape. It now resides back in Connecticut albeit in another, but very appropriate, home.

Endnotes

¹Another sought-after and lucrative cargo from the Eastern Seaboard ports to the U.K. (and elsewhere) was 'case oil'. This was cans of naphtha (a mixture of volatile liquid petroleum fractions) which were pre-packed in wooden crates (tankers not then being available) for stowage and hence called 'case oil'.

²This man appears to be William H. Furniss, at home on leave with his parents at 9, Mill Lane, Liscard, Wallasey in April, 1881. His father (also William H. Furniss) was formerly a merchant ship owner.

³Whilst not invariably so, it was often the case at this time that navigation skills were the prerogative of the master, and that mates of Maritimes' Sailing ships were sometimes relatively unskilled (either by training or practise) in navigation; the mates often being employed for their ship- and crew-handling skills. It was found, therefore, when necessity demanded, that a suitable able seaman, or the bosun as here, would be called upon to carry out the mate's duties. However, it was also the case that many mates held a master's certificate and, therefore, the necessary navigation skills - but sailed as mates for years before acquiring their own command and could, again as in this case, assume the role of master when required.

Acknowledgements and Sources Consulted

LNRS member William J. Pape II whose great interest in its subject was the genesis of this article, and for his kind permission to reproduce the picture of the barque ***Maitland***;

LNRS member George F. Ralston by whose most fortunate and timely agency the trail to Captain Robert Pape's ***Maitland*** came to an initially unimaginable, but most satisfactory, conclusion after 134 years;

Memorial University of Newfoundland, St. John's, Newfoundland for its kind permission to use data obtained from '***Ships and Seafarers of Atlantic Canada***', a database produced jointly by the Maritime

History Archive and the Maritime Studies Research Unit;

Liverpool Telegraph and Shipping Gazette;

Lloyd's Lists and Lloyds Registers;

'*Riddle of the Yorkes, The*', published in the book, *Marine Art and Liverpool - Painters, Places and Flag Codes, 1760-1960*, by Mr A.S. Davidson, Liverpool Nautical Research Society President, by whose kind permission the material has been used;

St Catherine's Index of Births, Marriages and Deaths;

Various Local Directories, and the Census Returns for 1881 and 1891;

'*Wooden Ships and Iron Men*' - Frederick William Wallace.

Engine Room Noise

By LNRS Member James Pottinger

In these days when the dreaded impost of 'elf and safety' assumes an ever greater import in the scope of our daily lives and normal working conditions hitherto previously considered perfectly acceptable, it may be appropriate to recall some of the atmosphere of a ship's engine room in the 1960's.

I was fortunate never to have to serve on a diesel propelled ship, where I can well imagine that overall din would overshadow any other more minor assault on one's hearing.

Until their later years when they embraced grease driven engines Brocklebank stuck to steam turbines and reciprocating propulsion, not altogether silent, and the level of noise varied from ship to ship.

Steam turbine ships however were not immune from generating their own annoying assault on the eardrums. I well recall coasting on the SS **Matheran** where the whine from the single reduction gearcase was such that I took recourse to periodic visits to the stokehold for relief to my eardrums.

The SS **Manipur** had double reduction gearing, but surprisingly gave off what I can only describe as a mild, but not agonising, groan, and as such when at sea and full away gave a reassuring sense whilst on watch of everything was OK. However the noise and clatter of the diesel generators disturbed any sense of well being.

Lest I decry them too much I have to admit that their first cough when beginning to rotate after injecting the first starting blast of compressed air, and a more positive thump, thump when fuel was injected, then a short wait to see if running under its own efforts, gave one great satisfaction. I do have to give it a sneaking admiration however, after all, like a main diesel engine, it generated its own momentum, not fuelled by any outside source, fuel excepted.

Possibly the worst affected was the low decked space with three refrigeration compressors banging away in the Red Sea trying to maintain a temperature of minus 16 degrees in one of the refrigerated compartments.

Steam driven generators had a rhythm dependent on their size; the SS **Maihar** had three tiddly little compound toy units that gave off a fussy little tick-tick-tick. They needed a clout with a hammer whenever the radar was switched on to allow the governor to catch up otherwise all would be in darkness, a factor that required the bridge to give timely warning by telephone to the engine room.

Those on the SS **Matra** however were great beasts, whispering giants they were. One could normally generate the entire electrical load at sea.

Scotch boilers were relatively silent, with only the noise of the furnaces, but as they were normally separated from the engine room by a bulkhead little was heard on watch in the engine room, but with the water tube boilers on the SS **Manipur** the engine manoeuvring platform was hard up against the boiler front with the furnaces only a few feet away from earshot with the associated roar of the flames in the combustion chamber.

Most reassuring when in one's cabin or bunk was to hear the measured thump of the SS **Maihar's** reciprocating triple expansion engine. In the engine room it had its own measured rhythm which never assailed your eardrums, and on the contrary the visual impression of all the rotating links and cranks gave an almost narcotic effect. Any disturbance to this reverie could be ascribed to a variety of wheezes and sighs given by the various pumps.

Ear muffs? I cannot recall the subject ever being raised.
Eh, Eh, Eh Speak up, what did you say?

Better Health for ex Seafarers

Nautilus International are now offering free advice, help and support for ex-seafarers in all aspects of health, lifestyle, wellbeing and financial concerns.

For further information please contact Sylvia Cheater at Nautilus International, Mariner's Park, Wallasey, CH45 7PH;

Tele +44 (0)151 639 8454 or scheater@nautilusint.org

Remember those days

From 1970 and also 1990, these are a sample of events selected from the archives, and published by kind permission of Sea Breezes.

October to December, 1970

Having spent 20 months without funnels, the former Cunard liner **Queen Mary** berthed at Long Beach, California, is regaining her familiar three-stack silhouette. The one-ton base section of her centre funnel was lifted into place on June 24th, and four additional sections, 12 to 15 ft. high, were added at intervals of several days. Removal of her funnels facilitated the disposal of some 1,200 tons of engine room machinery. The new steel sections are painted before being bolted in position and are exactly the same size as her original funnels.

In mid-April, the Belgian Marine Administration oldest, and last pre-war ship, the **Prins Albert** was sold for breaking up in Belgium. A twin-screw motorship, she was launched in October 1937 by Cockerills and attained a speed of 25.5 knots on trials, making her the fastest oil-engined ship afloat at that time. During the war she served with the Royal Navy as **H.M.S. Prins Albert** as an armed auxiliary transport and took part in wide-spread operations, including Lofoten and Singapore,

The most powerful and spacious cargo-passenger liner to enter service for the Ben Line has been delivered by Upper Clyde Shipbuilders. Built at the Scotstoun Division, the **Benlawers**, 12,900 tons deadweight, has been designed to carry all types of cargo, particularly unitised cargo on pallets, flats or in containers. With an overall length of 600 ft. and a moulded breadth of 82 ft., the **Benlawers** is a fast ship, having a 9-cylinder Sulzer oil engine built under licence by Barclay, Curle and Co. Ltd. This is the most powerful propulsion installation ever fitted in a Ben Line vessel and is the first type RND90 engine to be built in the United Kingdom. The engine has a rated output of 26,100 b.h.p., at 122 r.p.m., giving the ship a service speed of 21.5 knots. The cargo capacity of the **Benlawers** is 1,019,772 cub. ft. bale. The dimensions of the main hatches are multiples of the container units. The ship can carry 135 standard 20ft. containers under deck and 57 such containers on deck, one tier high.

With the safe arrival at Bristol, on July 19, of Brunel's famous **Great Britain**, a major stage in the project to restore and preserve the old ship has been successfully passed. On that date, exactly 127 years after her official launching by Prince Albert, the **Great Britain**, watched by a large gathering of spectators, and with H.R.H. The Duke of Edinburgh on board, was gently eased into the dock where she was built and made secure. There, during the next two years, work will go ahead under the direction of the "SS Great Britain Project" to restore the great iron ship, once the largest in the world, and the first screw-propelled ocean-going vessel, to her former magnificence.

October to December, 1990

The British merchant shipping industry is lean and fit and well placed to take advantage of world trade growth in the right conditions, according to the joint working party which was established by the government and the shipping industry in May. It was chaired by Cecil Parkinson, Secretary of State for Transport, and Sir Jeffrey Stirling, President of the General Council of British Shipping. The Report contained recommendations to:- speed up and simplify technical procedures and regulations governing the Department of Transport's registration requirements; introduce more flexibility into the rules governing the nationality of officers on British ships; allow chartered-in vessels to be registered in the U.K., and vice versa; press ahead vigorously in Brussels to secure the liberalisation of cabotage (the transport of goods or passengers between two points in the same country) and a more competitive financial environment; and, raise the profile of marine training and urgently progress an action plan for change.

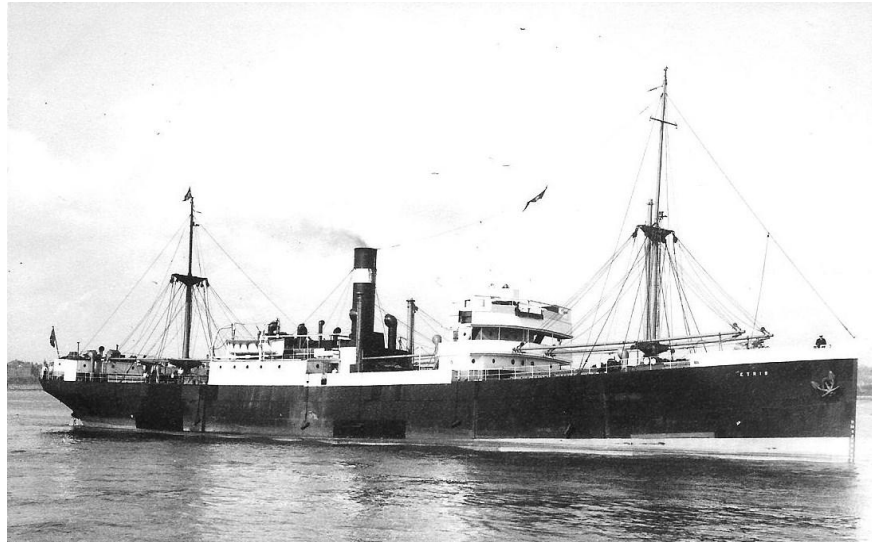
Yet another chapter in the story of the wreck of the **Politician**, 7,939 grt, appeared in September when the press reported that a search for thousands of cases of whisky believed to be still lying in her had yielded only 24 bottles. The Thos. & Jas. Harrison steamer, built at Haverton Hill-on-Tees in 1923 for the Neptune Steam Navigation Co Ltd (Furness Withy & Co Ltd), piled up on Eriskay in February, 1941. Highlight of a generally uninteresting cargo was a consignment of whisky, said to total over 200,000 bottles, which attracted local plunderers and, in turn, H.M.Customs. Those convicted of thus quenching their thirst went to prison. Also attracted by the story and the aura of mystery which surrounded certain features of the casualty were authors, journalists and a film company who exercised their respective branches of professionalism to practical effect. After all, the thieves had managed (as seldom before or since) to get up-wind of a bureaucracy which has always clung tenaciously to the business of distilling potable spirits. Half a century on, the fascination does not seem to have faded.

Under protest, the American Merchant Marine Museum has released the Hales Trophy, won in 1952 by the **United States** for the fastest North Atlantic crossing by a passenger ship, and in October it was despatched to Britain – by sea mail. The museum under its curator Frank Braynard had contended that the award was for passenger liners only in the strict sense of the term, that is, ships which have gained the record while regularly employed carrying fare-paying passengers between America and Europe. A one-off positioning trip without passengers by the catamaran **Hoverspeed Great Britain**, which was not intended to trade on the North Atlantic, could not be eligible, said the museum. The trustees of the Hales Trophy thought otherwise and declared that they would sue for the trophy in the American courts. Defending the action would have been a high-risk operation for which the museum did not have contingency funds, so they had to release the trophy.

S.S. Etrib

By LNRS Member John Cook

The March issue of The Bulletin contained a fine photograph of this vessel which served the Mediterranean routes of the Moss Line (Moss Hutchison Line, Ltd., from 1934) for twenty years, but the extended caption is not quite correct in that she was not purchased until 1922, two years after the 'Regulations' for officers were published.



A Mersey view of the Moss Hutchison Line's S.S. **Etrib**

She was laid down for The Shipping Controller (probably as a 'D' type cargo ship) and was to have been named **War Shannon**, but whilst on the stocks was purchased by Coast Lines, Ltd., and launched as **British Coast**. At nearly 2,000 tons gross and 300 ft. long she cannot have proved ideal for this company's trades which included many small ports and harbours so it was not surprising that she was sold in 1922 to a fellow member of the Royal Mail Group: What was surprising was the price that the Moss S.S. Co., Ltd., agreed to pay - £68,161 ! This worked out at nearly £21 per ton dwt; and this at a time when the freight market had collapsed and vessels were being laid up. Her sistership, the **Western Coast** (renamed **Esneh**) was also purchased (for a fraction more) at the same time so the pair cost the Moss Line over £136,000. In the open market it is doubtful if they would have fetched much over half of that figure so the transaction was more an example of the internal politics of the Royal Mail Group than an arm's length purchase. Moss, however managed to reduce the cost by transferring their **Limoges** (a C7 standard type which had been used on their Bordeaux service) to Coast Lines who promptly renamed her **Western Coast** – surely just to confuse shipping enthusiasts of a later generation!

Most of **Etrib's** career was trouble-free but at the beginning of November, 1929, she was unfortunate enough to be steaming up the Avon towards Bristol when a particularly thick fog descended on the river and caused chaos.

Eleven ships went aground within a 300 yard reach, some of them across the river completely blocking the channel. The damage caused by collisions was considerable although that to the **Etrib** was not too serious and it was possible to turn her the following day and dock her at Avonmouth until the Avon itself had been cleared.

Although Moss ships rarely called at Spanish ports, the **Etrib** found herself caught up in the Spanish Civil War, in December, 1936, when she was fired on by an insurgent armed trawler near Europa Point, Gibraltar, whilst on a voyage from Haifa for Liverpool with oranges. Although Capt. Morgan thought it prudent to stop, he refused to allow the ship's papers to be examined and the trawler commander eventually allowed the ship to proceed. This resulted in the despatch of the destroyer H.M.S. **Grafton** to Cadiz where a protest was made to Franco's naval authorities about the incident. Ten months later the **Etrib** was again returning to the U.K. when she came across the Spanish fishing vessel **El As** (F. 1587) which had been commandeered at gunpoint in Corcubion by thirteen Republicans who had managed to escape through the Fascist lines. They forced the skipper and his crew to leave the harbour and keep going until the fuel ran out which it did some 140 miles off the coast where the **Etrib** later found them. Despite the rough weather the drifter (described in newspaper reports as a trawler but her catch of herring suggests otherwise) was taken in tow and this unlikely pair shaped a course for Bristol, over 500 miles distant, which was safely reached three and a half days later. The Spaniards were repatriated to their respective areas of Spain but the **El As** was held for the settlement of a salvage claim. The owners were awarded £90; the master £25, and £75 was divided amongst the crew. **Etrib's** sister ship **Esneh** had also rescued drifting sailors; in June, 1935 she had rescued the crew of the yacht **Water Witch** in the Western Approaches.

Etrib's loss in 1942 had an interesting sequel and her crew were lucky compared to others whose ships were lost from the same convoy. HG.84 was being supported by 'Johnnie' Walker in HMS **Stork** but at one stage during the evening of June 14th it was down to just 25% of escort cover. Unfortunately it had been tracked by a Focke-Wulf Condor and a U-boat pack was closing undetected. Shortly after 01:00 U-552 (commanded by Erich Topp who, two months later, became only the second U-boat commander to be awarded the Knights Cross with Oak Leaves and Crossed Swords) torpedoed MacAndrews' **Pelayo**, the commodore's ship and he was lost with her together with seventeen of the crew. Within minutes the **Etrib** was hit and went down with the loss of two of the crew and two DEMS gunners although initially it was believed that six had been lost. At almost the same time the Norwegian tanker **Slemdal** was torpedoed but, thanks to only having a part cargo of dense fuel oil, the whole crew survived. The next attack on the convoy occurred three hours later, U-552 having reloaded and been repositioned, when Ellerman's **Thurso** was hit; the master, William Walker and thirteen members of his crew being lost. Although owned by Ellerman's Wilson Line, Ltd., of Hull, she was manned by a

Liverpool crew: Ironically her cargo included 1,500 bags of mail for German prisoners of war. Next to go, only moments later, having been hit by the same salvo, was Ellerman & Papayanni's **City of Oxford**; considering that she was carrying 2,000 tons of ore, the crew were extremely lucky, only one seaman being lost. The arrival of a flying boat helped to prevent any further losses. Thirty-seven men and boys (one as young as sixteen and a number under twenty) died that night, most of them from Merseyside.

The two missing members of the **Etrib's** crew, the bosun, G.W. Briscoe, and a fireman, Billy Swinchin, had both survived but were not sighted by either the convoy's rescue ship (Clyde Shipping's **Copeland**) or its escorts. The bosun had managed to get onto a liferaft and then found an empty lifeboat. A fortnight later he was discovered by a U-boat and spent the rest of the war in the PoW camp Milag Nord. Swinchin was less fortunate. Although he also found a raft (fortunately provisioned for twenty men), he spent the next 75 days drifting in the North Atlantic until, on August 29th he was spotted by **U-214** (one of the small number of type VIID minelaying boats), by which time he was near the end of his endurance, having had no food for three weeks. The Germans, of whom he later spoke very highly, nursed him back to condition before returning to their base at Brest on October 9th, nearly four months after the sinking. Like the bosun, he spent the rest of the war in Milag Nord. His 76 days on the raft is a record for a European seaman in World War II, only being exceeded by the 133 days of the Chinese steward, Poon Lim, the sole survivor of the sinking of Ben Line's **Benlomond** in November, 1942. It wasn't the first time Swinchin had lost his ship however; he spent 23 hours in the water after Harrison's **Diplomat** was torpedoed in November, 1940.



Billy Swinchin having just arrived at Brest in **U-214**, 9th October, 1942

At the time of her sinking, the **Etrib** had been written down to a nominal £500 in Moss Hutchison Line's accounts (depreciation policy was 5% of initial cost on

a straight line basis) but the company managed to obtain £45,000 from the underwriters, not that this went very far towards paying for her post-war replacement. The seven near-sisters that were completed for the company between 1947 and 1952 cost from £373,000 for the earliest to £573,000 for last one: Had it not been for the spectacular voyage results of the late 1940s and early 1950s, it is doubtful if the company could have afforded to renew its fleet without an injection of capital from its owners, the General Steam Navigation Co., Ltd.

Sources:

Fred Billingsley for the photograph of his grandfather, Billy Swinchin

The National Archives, BT110 files.

Moss Hutchison Line, Ltd., Accounts & Papers.

The Times, various issues 1929-1938

Lloyds List, 4 Nov, 1929

Liverpool Post, 24 Oct, 1945

Kenneth Langmaid, *The Blind Eye*, London, Jarrolds, 1972, pp.136-7.

Richard Parsons, *The Story of Kings*, Bristol, White Tree, 1988, p.56.

Peter C. Smith, *HMS 'Wild Swan'*, London, Wm. Kimber, 1985, p.192.

www.uboot.net

Nautical Trivia Quiz

1. Who is considered in the reference books as the "Father of Modern Navigation"?
2. Which large ocean liner, during its life, gained the "Blue Riband" from the **Rex** and spent the rest of her remaining operational life swapping the trophy with the **Queen Mary**, and what happened to her?
3. There were five "East India" companies, how many can you name?
4. What do the letters COSCO stand for?
5. The all time record for distance travelled in just under 24 hours, by sail, was made on 1st March 1854, by a Black Ball Line ship, on passage from Boston to Liverpool, of 436 nm. What was her name?
6. How did the expression a "square meal" come about?
7. What did the Chinese (Ming/Qing dynasty) grant the Portuguese and what for?
8. In which direction does the Mediterranean levanter blow from?

.....answers on page 37

Henry Bell's Pioneering **Comet** Steamboats

Part 2

By LNRS Member Gordon Bodey

The competition proved too much for the already dated **Comet** and in 1813/14 Bell made her '*a jaunting boat bout the coast*'. In this venture he took her to various nearby English, Scottish, and Irish ports to let people experience the new mode of travel, and to try to earn her keep, although in the latter respect she was no more successful than in her time on the Clyde.

It was during this 'jaunting' period that Bell took **Comet** to Bo'ness on the Forth, by way of the Forth & Clyde canal, although how the transit of the canal was made in view of the Company's previous aversion to having steamboats ply the canal is not known. About 23rd May, 1813 Bell ran an excursion from Bo'ness to Leith at the then hefty price of seven shillings and sixpence (37½p), one way.

By the autumn of 1814 **Comet** was running a shuttle service between Grangemouth (at the Forth end of the canal) and Newhaven (adjacent to Leith harbour), which connected with the passage boats using the canal. This venture proved moderately successful until 1818 when a much larger, and extremely powerful rival appeared on the scene, **Tug**. In addition to acting as a passenger carrier, this vessel could tow up to ten cargo-laden barges the twenty-five miles to or from the canal entrance and Leith. It was this vessel which was to give its name to all the vessels subsequently used for towing purposes the world over. Bell was again forced to withdraw in the face of the competition.

In 1818 Bell was inspired to open up a pioneering steamship service between Glasgow and the West Highlands as far as Fort William. However, **Comet** at that time was inadequate to operate such a service, which would entail navigating a good deal of open, and potentially very rough, water. He therefore decided to have her beached at Helensburgh in the first half of 1819, and lengthened considerably: to almost 74 feet from her original length of some 42 feet. Her engine was modified and refurbished as best it could be (some accounts say that she was also re-engined, although that would seem unlikely in view of Bell's straitened circumstances at that time). However, the quality of the work done on the hull was not considered of the highest standard by some observers of the time. But as stated above, Bell was unable to resort to her original builder because of his outstanding debt to him.

With **Comet** now enlarged and refurbished she commenced the service to Fort William from Glasgow on 2nd September, 1819. The passage from Glasgow to Fort William via the Crinan canal is about 120 miles. Along the way she was scheduled to call at nine places including Greenock, Gourock, and Oban, but the service soon became stop-on-request, with many diversions to out-of-the way ports of call, to drop off or pick up just one passenger, or a small item of cargo. Also, when

a livestock market was taking place at Fort William her schedule would be curtailed at Crinan to ferry farmers there, rather than return to her ports of call on the Clyde.

Despite this haphazard way of operating, and probably because she had the run to herself, **Comet** turned a good profit during 1820. However, during the course of the year Bell had disposed of all his shares in the vessel - mainly to people living in that part of the country. As a result of there now being a number of individual shareholders in the boat, a company, the Comet Steamboat Company, was formed to run her, with Bell now acting in the administrative capacity of Superintendent for the company.

On her trip to Fort William, and some few miles short of there on 6th December, 1820, she snagged a rock which resulted in a small leak at the after end of the hull. Instead of sailing to her schedule on the return trip she left three days early, on 8th December, for the Clyde, apparently to have repairs effected. Some ten miles outward from Fort William she was beached near Sallachan Point on the north shore of Loch Linnhe to effect repairs; whether to the above leak, or to a second piece of damage is uncertain.

She was able to proceed on 13th December, and made her way to Oban where she had to be pumped free of water before she was able to sail onward, which she did the following day. About 4.30p.m. on 15th December, 1820, whilst traversing the half-mile wide Dorus Mór passage, some 3½ miles NW of Crinan, **Comet** was caught by a combination of a strong tide and a fresh easterly wind and driven ashore on Craignish Point - the southern tip of a very isolated peninsula on the east side of the northern end of the Sound of Jura - becoming a total wreck, but without any reported casualties. Henry Bell was on board at the time and, with others, was able to escape via the bow to the shore. She was under the command of Captain Robert Bain, who had held the post since 1814.

Despite the site of the wreck being very isolated and without any shelter or facilities, or even settlements of any size, strenuous efforts were made at salvage, with hands being ferried from Crinan. The efforts continued over a period of ten days until the bow section slid off the rocks and disappeared. Soon after the grounding the stern section (reportedly at the point of lengthening) had broken off and, despite being pursued by some of the boatmen, was lost. Some of the fittings were salvaged, including some of the engine parts, but exactly what is not known. Something over £25 (a substantial sum in 1820) was spent on the salvage efforts.

Notwithstanding his lack of commercial success with **Comet**, it seems that Bell was already involved in the process of the building of an additional vessel before the latter's loss; not, however, in an ownership capacity. Although Bell was not financially committed in the enterprise, he was most active in enrolling subscribers to the project, as would be expected of him in his role as Superintendent of the Steamboat Company.

This second steam vessel was now to take over the name **Comet**, hereafter referred to as **Comet (II)**. She was wooden-hulled and, at 81ft long, almost double the original length of her predecessor. Built for the Comet Steamboat Co. by James Lang at Dumbarton in 1821, she had a copper boiler, and her 30hp engine was made by D. McArthur & Co. at the Greenhead foundry at Camlachie on the Clyde.

Comet (II) made her debut on the Fort William station 6th July, 1821, and was employed on the West Highland trade from Glasgow via Rothesay and the Crinan Canal. When the through route to Inverness on the Caledonian canal opened in 1822, **Comet (II)**'s operation was extended beyond Fort William. The 20th annual report of the canal's Commissioners shows that the Comet [II] Steam Packet was the first vessel to make a complete transit of the canal from west to east, on 28th November, 1822; making the return journey to Fort William the following day, Captain McBain commanding.

About midnight on 21st October, 1825, when she was homeward bound on the return voyage from Inverness to Glasgow, and off Gourock, **Comet (II)**, in charge of Captain Duncan McInnes [there is reason to believe that this is the man who originally served as pilot on **Comet (I)**], was run down and sunk by the paddle steamer **Ayr**, commanded by Captain Thomas McClelland. The **Ayr** was owned by Messrs. J&G Burns and had only a fortnight previously commenced on the service between Ayr and Glasgow. **Comet (II)** sank within three minutes in 17½ fathoms taking a reported 62 passengers with her, although it was thought the actual number was greater.

Captain McInnes and five of his crew, including the pilot, were saved by their own exertions, as were some of the passengers. The disaster was attributed to **Comet (II)** neither exhibiting a light, nor posting a lookout, whereas the **Ayr** did both, and it was said at the time, "*...the awful calamity might have been prevented by the placing of a penny candle in the bow of each steamer*".

It was widely believed that the loss of life would have been considerably less had the **Ayr** not steamed off without attempting to save the lives of people in the water. In mitigation of what was deemed an unpardonable offence, it was reported that Captain McClelland had believed that the **Ayr** herself was in danger of sinking, and so made for Greenock. However, the **Ayr** was little damaged and was able to sail from Greenock the following day.

The masters of both vessels, and the pilot of **Comet (II)**, were subsequently arrested. Captain McInnes and the pilot were sent for trial, and Captain McInnes was sentenced to three months imprisonment.

A letter from Henry Bell (dated 25th October, 1825) with regard to the disaster, and published in the *Glasgow Free Press*, suggested that a bill be brought before Parliament '*laying down a proper code of laws and regulations for the management*' of steam vessels, as the accidents to both **Comets** was entirely due to carelessness. It is not known why he included the original **Comet** in his statement.

The following is a summary of his suggestions:

- that each steamboat should be licensed annually and numbered, as stage coaches are;
- each license should state the tonnage and the horsepower of the engine;
- the cost of the license should not exceed one shilling per horsepower (on a stamp of 5% of the value of the license);
- all vessels at or under twenty horsepower not to be allowed to carry more than forty passengers (independent of the crew), and that each passenger be allowed to carry up to 56 lb of luggage;
- all vessels over twenty horsepower be allowed to carry one extra passenger per extra horsepower;
- that vessels be navigated by experienced seamen as captains, pilots and mates;
- only experienced engine-keepers be employed and whose names to be on the license, and for whom the proprietors must produce certificates;
- steam vessels to carry at least two lights, one at the bow and one at the masthead, to be put up one hour after sunset, and to be properly attended;
- an alarm bell be attached to the engine at night, and a proper watch be kept forward with the man on watch having a speaking trumpet to direct the helmsman [who would have been on the tiller at the stern];
- all steamboats meeting give way on the larboard (port) side; and when being overtaken by a faster boat do the same, and allow them to pass on their starboard side, stopping their engine as soon as the overtaking boat comes within thirty feet of the their stern;
- all sailing vessels to give sufficient berth to allow steam-boats to pass with freedom;
- a general inspector (and competent deputies at proper inspection stations) be appointed for examining all boats and their machinery and from whom a certificate would be required to obtain a license; the salaries to be paid from the license fees.

He suggested that other regulations regarding harbours, ferry points & etc. might also be included in the Bill, and thought that they should be adopted immediately. Although most of Bell's suggestions were eminently sensible, it was to be many years before some of them were adopted: e.g. that those in command, and the engineer, be certificated, was not enforced (for home-trade waters) until 1854 and 1862 respectively. The rule of the road that was eventually adopted was, of course, the precedence of sail over steam.

The wreck of **Comet** (II) was raised in July 1826 by the firm of Brown of Aberdeen. In 1828 she was converted into a schooner at Dumbarton becoming the

Ann, (33 nrt.), and sailed on in the coasting trade until 1903; mainly engaged in the coal trade between Larne and other Irish coastal ports and England.

During this phase of her life, in 1869, having loaded a cargo of lime in Larne Lough for London, some water entered the vessel and caused the lime to slake, and she was burned to the water's edge. The Belfast Custom Register of 1870 (Entry No. 60) says that she was rebuilt and restored at Larne.

On 25th July, 1903, in ballast and under tow by a tug *en route* from Larne to Kingstown, the **Ann** foundered in a SW force three, 4½ miles ENE of the North Rock, Cloghy Bay, Co. Down. She had a crew of two, the master being H. Watson, and her owner was W.O McCormick & Co., Kingstown. Her registration was closed on 30th July, 1903. The **Ayr** continued in the Burns' fleet until sold out in 1831.

Henry Bell had fully appreciated the potential of the new technology from its inception, believing that it would eventually become not only the universal form of marine propulsion, but also that of vehicles running on land, and would come to govern world-wide trade, and constantly voiced such beliefs.

He was unfortunate in that, having financed the original **Comet** from his own pocket, he had over-reached his financial resources even before his service was inaugurated. Others with more business acumen, technical skill, and financial backing, were on his heels from the start, and he was unable to reap the benefit of his pioneering work before others overtook him.

Bell was not a financially prudent man, a fact that would not have gone unnoticed by potential backers, and although he had managed to dispose of all his shares in **Comet** [I] during the year of her loss, the monies received were almost certainly owed elsewhere. He was also unfortunate in that he was never more than semi-literate, tactless to a degree, and did not have access to the social circles from which financial backing might have been forthcoming.

By the 1820s a host of imitators, including the above David Napier who was to become one of the foremost innovators of marine steam propulsion, were succeeding where Bell had failed, with steam-boats operating on every major river in the UK. The success of others he attributed (quite rightly) to the pioneering introduction of **Comet**, but failed to appreciate that others were better able to exploit the new technology in ways that would turn a profit consistently.

He also grandiosely (and falsely) claimed to have gone to America in 1807 to instruct Robert Fulton in the construction of his **North River Steamboat** [usually, and erroneously, nowadays called **Clermont**, which was actually the name of the house on the Hudson River of Robert Livingston, Fulton's wealthy partner and backer], the world's first commercially viable, and reliable, steamboat, which went into regular service on the Hudson river between New York and Albany (a distance of 150 miles) in September 1807.

However, Bell did meet Fulton when the latter visited Scotland in July 1805. Both were present when Symington gave Fulton a working demonstration of

the **Charlotte Dundas II** on the Forth-Clyde canal, and explained to Fulton the mechanical details and workings of the vessel. How much of this information, if any, was adopted by Fulton for use in his **North River Steamboat** cannot now be known.

By the mid-1820s Bell was suffering ill-health, and was in serious financial difficulties. Various bodies that had benefited from his pioneering work on steam vessels were petitioned for pensions for him: the Clyde Navigation Trustees granted him an annuity of £50, later raised to £100 which, after his death at the Baths Inn, Helensburgh, on Sunday, 14th November, 1830, they continued to his widow. In 1827 Canning, only recently appointed Prime Minister, and shortly before he died, made a Treasury grant of £200 to Bell in recognition of his pioneering introduction of the **Comet**. Although Henry Bell was unable to capitalise on his ingenuity, his visions of the future were abundantly realised, and both his name and achievement are secure in the annals of maritime history.

The Marine Society

By The Editor

For more than 200 years the Marine Society has promoted the welfare of British seafarers and shipping. The charity's origins date back to 1756 when Jonas Hanway and his associates in the Russia Company and the Society of Arts founded the Society in response to the



failure of the 17th and 18th century Acts of Parliament to provide the necessary volunteers and apprentices for the Royal Navy at the start of the Seven Years War.

The Society raised sufficient funds to recruit some 10,000 men and boys for the Navy, equipping them with the first blue and white naval uniform for ratings.

In 1786 the Society commissioned the first pre-sea training ship in the world and later the Admiralty lent a succession of six further ships for training purposes, the last one being handed over in 1918. In 1940 the last of the Society's ships (**Warspite**, ex-HMS **Hermione**) was decommissioned and sold for 'scrap for victory'. By that time the Marine Society had equipped and trained 36,047 boys for the Royal Navy and 34,776 for the merchant service. In the same period it had helped to found the Sea Cadet Corps, King George's Fund for Sailors and the Annual National Service for Seafarers.



*The training ship **Jonas Hanway***

In 1976 the Marine Society merged with the Seafarers Education Service and its wide ranging activities included promoting maritime awareness in schools; giving advice on careers at sea; maintaining the training ships **Jonas Hanway** and **Earl of Romney**; giving grants and scholarships; providing seafarers libraries and the 'College of the Sea' education advice and tutorial service; making grants to maritime youth organisations; and providing financial support for seafarers and their dependants in need. ('Seafarers' include those intending to serve, serving or who have served in the Royal Navy, Merchant Navy, fishing and offshore fleets.)

The **Jonas Hanway** was originally laid down as **HMS Egeria** in 1957. Her hull was based on the Ham Class minesweepers and she formed part of the Inshore Survey Squadron with her sister ships **Echo** and **Enterprise**. She was withdrawn from service in January 1985 and loaned to the Marine Society where she was renamed. Soon afterwards the Society bought **Echo** which they similarly refitted and renamed as **Earl of Romney** in June 1988. **Enterprise** was then also purchased to be retained for later use as spare parts. However high running costs had forced the Society to take the **Jonas Hanway** out of service in 1998 for return to the Royal Navy; subsequently the former **Enterprise** was sold and finally in 2004 **Earl of Romney** was sold to Egypt.

In 2004 the Sea Cadets merged with the Marine Society, bringing together two organisations which cherish their role in promoting the sea as a career to young people. This major organisation is now styled the MSSC denoting The Marine Society and Sea Cadets; the latter now owning and operating a fleet of six vessels including 3 yachts, 2 power vessels; TS **Jack Petchey**, TS **John Jerwood**, and the flag ship TS **Royalist**, a 29 metre brig.

The Marine Society is a dynamic force in championing the cause of seafarers and providing for them a range of appropriate and supportive services that would otherwise be denied them.

Mr. W. S. Roper's Diary Of a Memorable Voyage

Contributed by LNRS Member W.G.Williamson

*The diary is a wartime account of a passage on the **ss Gleneden** from Avonmouth to Salonika. W.S. Roper was obviously an army officer with a medical transport unit but efforts to obtain further information on him have failed.*

Gleneden details

4735 gross registered tons. Owners. Gleneden Steamship Co. Ltd, Glasgow. Built in 1909 by Scotts Shipbuilding & Engineering Co. Ltd, Greenock and Registered in Glasgow. Whilst in St. Georges Channel on 12th February 1917, **Gleneden** was attacked by gunfire from a U-boat but was able to escape by running at maximum speed. In Mediterranean on 24th February 1917 she was attacked by torpedo from a U-boat but torpedo missed. On July 28th, 1917 the **Gleneden** collided in the Gulf of Lyons, with the Italian steamship **Giuseppe Verdi**. On November 7th, 1918 the owners of the **Gleneden** commenced a lawsuit against the **Giuseppe Verdi** in the District Court of New Jersey to recover damages occasioned by the collision, and a few days later the Italian owner reciprocated in the District Court for the Eastern District of New York. When the suits were begun, both vessels were within the waters of the United States, and each was within the particular district where libelled. On 25th January, 1940 she struck a rock ½ mile S.E. of Puffin Island, Anglesey, becoming a total loss. An R.N.L.I. Silver Medal was awarded to Coxswain John Matthews and a Bronze Medal to Motor Mechanic Robert Williams for rescuing all 60 crew.

Although the Imperial German Navy had only 25 U-boats operational at the outbreak of the First World War, their exploits quickly caused anxiety and fear among merchant seamen. At first they operated under the Prize Rules implemented at the Hague Conventions of 1899 and 1907. The early U-boats had a top speed of about 15 knots on the surface and 5 knots submerged with a range of 6700 nm surfaced and 75 nm submerged. A typical crew would be four officers and 25 - 30 crew. They were therefore well able to stalk and overtake a typical tramp ship with a top speed of about 10 knots.

However by 1916 with complete stalemate on the western front the German high command concluded that starving the UK of vital supplies was the only way to win the war. Thus in January 1917 they declared unrestricted warfare against all allied shipping and the Prize Rules were ignored. The Germans issued a "Forbidden Zone" including the Mediterranean in which ships could be sunk with no warning and the slaughter of merchant ships began in earnest.

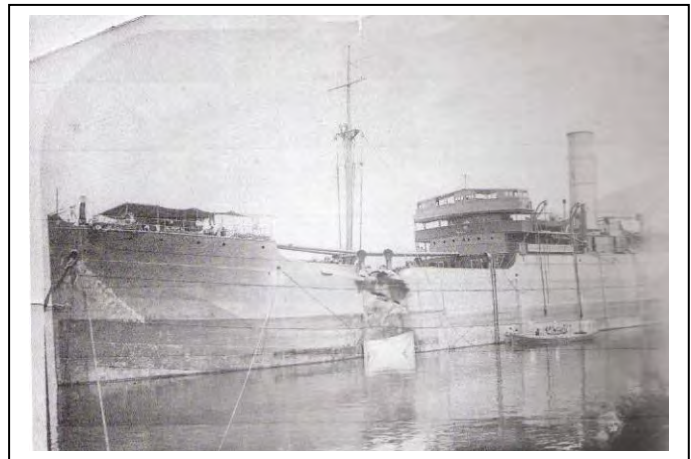
From January to March 1917, a total of 520,000 tons of Allied shipping were lost of which 256,394 tons were British registered. Given these figures it seems

incredible that the British Admiralty still refused to introduce convoying of merchant shipping. When convoys were finally introduced in May 1917 they were an immediate success and shipping losses fell dramatically.

It is with this general situation in mind that the diary of Mr. Roper should be read as it gives an insight into why the people on the **Gleneden** were deeply worried by the U-boat threat. The diary also reveals the efforts taken to route individual ships in such a way as to avoid U-boat hot spots. There are also indications in the diary that the Germans were beginning to develop wolf pack tactics that were so effective in World War Two. During the period covered by the diary, seven U-boats were sunk with a loss of 173 men with only 4 survivors.



On board **Gleneden**, figure on right is thought to be W. S. Roper



Gleneden, with collision damage probably sustained in July, 1917

The diary (Feb 11th to March 19th 1917)

Ship H.M.T. **Gleneden**, 3,000 tons, carrying 1100 tons of ammunition, including T.N.T. and explosives of a very dangerous kind, 16 railway trucks and a battery of guns, also our own ambulances and stores.

Feb 11th Left Avonmouth at 8.30 a.m. proceeding to Barry Roads, arrived there 11 a.m. and anchored. Weather fine but cold.

Feb 12th Left Barry 3 a.m. Were due out at midnight but owing to fog dared not proceed, however were ordered out at 3 and passed through two of our own minefields, narrowly escaping destruction. When we woke up at 8.30 a.m. we were proceeding along Welsh coast, passing Pembrokeshire about midday. At 4 p.m. found a fleet of trawlers who signalled submarines about "keep good look out". At 5.30 p.m. during tea, our gun went off and we were up on deck in a moment, thinking that we had been hit. Follows comes the narrative of chief gunner. "Suddenly I saw the periscope of a submarine on the beam, when I let off one shot in order to get the range, the shot fell short, the distance of the sub was about 400 yards and was just coming up from behind us in order to fire a torpedo into us

amidships. My second shot hit supposedly somewhere below the conning tower and the submarine exploded. I put in a third shot to ensure destruction. Meanwhile we donned lifebelts and we were ordered to the lifeboats, where we waited for 1½ hours, very cold. Our wireless operator had sent out the “*SOS chased*” immediately the first shot had been fired and it was answered by a Torpedo Boat Destroyer in an hour. The action took place 10 miles east of Tuskar Rock on S.E. coast of Ireland. We were dismissed at 7 p.m. and had a service concluded by the padre. We also congratulated the gunner who unfortunately got rather drunk. At 8 p.m. we are being followed by two cruisers and at 9 p.m. we went to bed feeling that we had been very near death and never wish to go through a similar experience.

13th 7.30 a.m. passing the Fastnet lighthouse. We’re stopped by a Torpedo Boat Destroyer who said there were no submarines in the vicinity and asked if we had seen any suspicious craft. Arrived in Dingle Bay on W. coast of Ireland 1.30 p.m. where we were ordered to stay till dark. Left at 6 p.m. in company with another mysterious ship.

14th Woke up with very heavy seas running all over the decks, two railway trucks and a barrel of tar broke loose, the latter all over the place and everything one fell against was covered with tar. Steering SW course going 400 miles out into the Atlantic.

20th Dinner went overboard due to difficulty of carrying the food from galley in heavy seas. Boat drills daily. Land first seen 7 a.m. which the officers in charge took for the African coast and did not realise till we reached Cadiz at 11.30 a.m. that we were going away from Gibraltar. (Cadiz and its environs were given as special points to avoid as several steamers had been torpedoed there of late). Turned round and entered the straights at 3 p.m. and anchored at Gibraltar at 5.30 p.m.

22nd Still at Gib. The Captain and eight members of our convoy allowed ashore. We bought supplies of oranges, bananas etc for ourselves which were most welcome. Later we were told by the Naval authorities that the Mediterranean was very nasty and that the submarines were working in fours.

23rd Left Gibraltar at 1.30 a.m. Woke up to find ourselves hugging the Spanish coast passing Malaga at 8.15 a.m. Coastal scenery beautiful with its white villages and high mountains. Orange and date groves very abundant.

24th Coast scenery very much like Scottish moors. At 10.30 a.m. we were in for yet another experience, which was a much luckier escape than the last. Mitchell who was on watch at the time saw something in the water about ¾ mile away, which at first he took for a porpoise but the object was still coming quickly towards the ship. In a moment he recognised it as a torpedo and yelled to the man at the wheel who turned the helm “*hard a port*”. The torpedo which was wasted, then passed 16 feet behind us after apparently coming straight for the engine room and burst on shore

½ mile away. We were all ordered to the boats in case of another torpedo being fired but after waiting two hours were dismissed. Nobody saw the submarine which must have been 2 or 3 miles away as the torpedo was getting very erratic and was seen to leave the water once or twice. Topham who was the second to see it thought it was a shark gone mad and was watching it with great amusement, another said it was a whale. The SOS was sent out for ½ hour but was never answered. Eventually it was sent to Algiers and from there back to Gibraltar. This event took place 10 miles west of Ténès and apart from this the day passed off uneventfully. We only spotted two little patrol boats to whom we hoisted the submarine signal. In the evening we heard by wireless that “our friend” of the morning had sunk one boat the evening before and had missed another just two hours after we had passed. Passed Algiers 9.30 p.m. where a large hospital ship was just going into the harbour.

25th Still hugging the African coast from 9 a.m. till 10 a.m. Received messages that S.S. **City of Glasgow** and two other steamers had been attacked by submarines not 20 miles distant from us, so we steamed backwards and forwards up and down 5 miles off the coast till dusk. At 5 p.m. the second mate thought he saw submarine through telescope on the surface at point indicated to us in the morning. At dusk we proceeded fearing all the time the submarine might see us in the dark, however we got through. During the day we passed several dead bodies and a lot of wreckage.

26th Still going along the coast and arrived off Bizerta at 11 a.m. where we repeated the same tactics as the day before. We were warned by two destroyers to keep well out of the harbour owing to a French minefield. Passed Cape Bon about 10.30 p.m.

27th No land in sight. Steering S.E. Wireless message from Malta to say that we must alter our course as two submarines are reported as converging so as to meet us 1 pm tomorrow. Passed 60 miles S. of Malta. Weather still bright.

2nd Passed Crete 2.30 a.m. where we lost our bearings. Found ourselves within ½ mile of the most rocky part of the coast. Sea very rough during the night but calmed down towards noon. Sunshine again. French destroyer escorted us for about two miles. Passing different islands all day. Hospital ship passed 3 p.m. going home. Just after dusk the man on watch sighted a dark object in the water which he took for a submarine. Everyone donned their lifebelts waiting for a shot, but eventually turned out to be another tramp and as we were circling around trying to get away from her, she was doing the same thing. Thus both parties were scared of each other.

3rd Weather fine, entered the Gulf of Salonika about 2 p.m. several times signalled to by patrol boats and destroyers. Passed Mount Olympus 5.30 p.m. and were over the boom in Salonika harbour. Anchored about a mile away from the town at 8.30 p.m. Thus ended a journey built up of scares and very narrow escapes. Everybody is very relieved to have arrived.

4th Still on board. Awakened by gunfire at 7 a.m. Three Taubes bombing the town and the rest camps nearby. It is a wonderful sight seeing all the shells bursting round them. They got away safely after destroying a hospital kitchen four miles out of town. Ordered ashore at 10 a.m. but at 8 p.m. we are still here.

5th Dull day. A British submarine **E21** passed close by us at 8.30 a.m. going out to sea, a French monitor came in and anchored 200 yards from us. Started to unload the railway trucks into lighters at 10.30 a.m. but by 6 p.m. they had only removed six. The major and Robertson went ashore to HQ where people were very surprised to see them. We are a week overdue and they had given us up. Have to go ashore tomorrow to be examined by army base doctor. A German aeroplane passed over about 3 p.m.

6th Still on board. Went with doctor to have my medical exam where I was declared unfit to proceed with the convoy. Had the first decent meal since leaving Bristol. Returned to the **Gleneden** where they were unloading the ambulances and stores.

7th Everybody goes ashore 9.30 a.m. Cars were now all ashore and filled with petrol and water and driven to the barracks two miles east of Salonika arriving 1.30 p.m. Lunch consisted of meat, fried potatoes and a ½ bottle of red wine. This was luxury compared with food on board, which is best forgotten. Afterwards unpacked and settled down into a large hut with no floor, so rats were very plentiful at night.

8th Nothing to report, except that the convoy people were taken sightseeing. I was left to look after kits and personnel. The town is absolutely filthy, no drainage and the dust and roads don't bear talking about. Every nationality under the sun seems to be crowded into the streets.

9th Convoy received their orders to be ready to proceed on Sunday to their base in Sarajavo. From there they are to carry wounded to the railway station at Florina. Got my orders from Mr. Carr of the British Red Cross at 5 p.m. that I am to be on the French quay at 8 a.m. the next day to depart on a French hospital ship for Toulon.

10th Up at 6 a.m. and had a tremendous send off from the convoy whom I was very sorry to leave. At 7.30 a.m. was driven to the quay by "Baby Bartlett". There I was met by Mr. Carr who saw me safely on to the tender. This was full of wounded French colonials. Said goodbye to "Baby" whom I was especially sorry to leave. Arrived at French hospital ship the **Sphinx** and sailed at 11.30 a.m. I was given a cabin with two other French officers. We passed British hospital ships **Llandoverly Castle**, **Dover Castle** and **Herefordshire** on leaving the harbour.

11th Went on deck took several photographs. Passed Cape Matapan 1 p.m. Found an English book in the library, so passed the afternoon reading. Sea smooth.

12th After petit dejeuner Captain brought me British communiqué from Malta giving the fall of Baghdad. Great excitement ensued on board. At 10 a.m. two Russian

officers and myself were taken on a tour of inspection by the Captain. The ship has accommodation for 1,000 men. Saw the charts which were very interesting. Entered the Straights of Messina at 11.30 p.m. and had a very good view of Messina and could clearly see the ruins caused by the last earthquake. Passed the island of Stromboli at 7 p.m. It was in state of eruption and a river of fire was pouring down the mountain.

13th Beautiful day. Was very glad to find a hairdresser on board who did the necessary. At 4 p.m. we were passing to the north of Sardinia.

14th Arrived Toulon and landed at 11 a.m. I was taken to the station in Red Cross motor. No train to Paris till 1.30 p.m. I had some trouble getting my free pass and just caught the train. Had lunch at the Grand Hotel with two French medical officers. Arrived Marseilles 4.30. No trains until 11.35 p.m. so I accompanied the above two officers round the town. Dinner at Pascals and got onto the crowded train at 10 p.m.

15th Arrived Lyon 6.30 a.m. where train stopped for two hours. Snowing hard at Chalon. Arrived in Paris 6.45 p.m. Great difficulty in getting taxi, but got one to British Red Cross HQ in the Hotel d'Lena. Was billeted in this comfortable hotel and was told that my next two days would be occupied in getting my passport visa.

16th Occupied the day in going to the Prefecteur of police and British Consul. Police kept my passport and told me to come back next day. Zeppelin alarms at night.

17th Got my passport back. Leaving Paris for Havre 7.30 a.m. tomorrow morning.

18th Arrived Havre midday, lunch at hotel Moderne which was full of British officers. Later went down to the docks and saw whole crowd of German prisoners working there. At 8.30 p.m. boarded **ss Normannia** which was due to sail at midnight. Shared cabin with Sir Drummond Hay who had come from Biarritz.

19th Arrived Southampton 7.30 a.m. and after a look at passports and an examination of baggage by Customs left by train at 9 a.m. Arrived London 11.45 a.m.

General information

Number of merchant ships sunk in WWI numbered 6,394.

5,249 U-boat men died in the conflict, about 50% of the force.

References

Lloyds List

Encyclopaedia of U-boats by Möller and Brack

War Under the Red Ensign 1914 – 1918 by Bernard Edwards

The Royal Navy by A.J. Watts

British Vessels lost at sea 1914 -1918

www.uboot.net/WWI

Maryport Maritime Museum

The Editor

Positioned on Cumbria's northwest coast, the small town of Maryport has a maritime history that is unexpectedly rich.

Coal, and the export of it lay behind the founding of the town by Act of Parliament in 1749, and a prosperous shipbuilding industry grew up. During the nineteenth century trade through Maryport boomed. In 1857 the Elizabeth Dock was built, followed in 1884 by the Senhouse Dock.

The town enjoys a close connection with the White Star Line and the Titanic. Thomas Henry Ismay, founder of the line, was born and raised in Maryport.

Unfortunately, from being the busiest port along the Cumberland Coast, by 1914 Maryport was in a decline from which it has never fully recovered.

In the late 1970s it was the dream of Annie Robinson, a local schoolteacher with strong seafaring connections, to establish a Maritime Museum in Maryport and a working party was set up to try to achieve this aim. With the help of Allerdale Council the old Queens Head Pub on the harbourside was purchased, and in 1976 the new museum was opened by Sir Mark Henig, Chairman of the English Tourist Board.

Sadly in 2008 Allerdale Borough Council announced that it was no longer going to run museums. A number of meetings were held in the town and a group of volunteers formed Maryport Maritime Heritage Society to lobby and later negotiate with the Borough Council. The Council went ahead with the closure in April 2010, but negotiations continued, a business plan was drawn up and eventually Allerdale decided to retain the building but contracted the Museum Group to manage it.

Since then volunteers have been hard at work carrying out renovations and refreshing the displays and collections. The Museum finally reopened in 2011

There is still much work to be done - the whole collection needs to be recatalogued; and to try to become sustainable a lot of outreach work with local schools etc. is required. At the moment events are being planned around the 100th anniversary of the sinking of the Titanic; and the services of the Curator of the local Senhouse Roman Museum will assist in gaining Museums Accreditation.

All visitors are welcome. Details may be found on the website at www.maryportmaritimemuseum.btck.co.uk

The Kitchen Rudder

By LNRS Member Charles Dawson

One of England's most prolific inventors was John George Aulsebrook Kitchen. He was born at 54 Cropper's Hill, Eccleston, St. Helens, in Lancashire, on November 4, 1869. Altogether, he lodged 175 'Provisional Patent Applications' between 1891 and 1936 and carried 118 of them through to completion. The most successful of his inventions was the boat rudder which came to be named after him.

The Kitchen rudder consists of two curved metal "clamshells" which are pivoted to shroud the boat's propeller, Fig.1. A system of levers can impart various forms of motion to these so as to deflect the water stream in the required direction, and thus steer the boat, Fig. 2.

Kitchen's father was William Henry Aulsebrook Kitchen, described as an 'agent', and his Portuguese mother was Ellen Teresa Francisca Kitchen (née Joza). Kitchen moved from his parents to 28 Rose Grove, Manchester, when he was serving his time with an unidentified engineering firm there. Although the inventor of the rudder which bears his name, he is still occasionally confused with Horatio Herbert Kitchener, 1st Earl Kitchener KG, KP, GCB, OM, GCSI, GCMG, GCIE, ADC, PC.

Kitchener was lost at sea on June 5, 1916 whilst en route to the Russian port of Arkhangelsk aboard HMS **Hampshire**, she striking a mine laid by the newly-launched German U-boat **U-75**, commanded by Curt Beitzen and sinking west of the Orkney Islands. Kitchener, his staff and 643 of the crew of 655 drowned or died of exposure and Kitchener's body was never found.

In January 1897, Kitchen married Sarah Isobel Garnett (1876-1969) in Windermere's Carver Memorial (Congregational) Church. Sarah's father was a florist and nurseryman with gardens at Rayrigg Road, Bowness-on-Windermere. The Kitchens lived initially in Manchester's Alexandra Park but soon moved to Heathwaite, Windermere but, when Kitchen started The Lune Valley Motor Carriage Works in 1903, together with one Ludlow Patton Perkins, they moved to Lancaster, first to Aldcliffe Road and then, in 1906, to 7 Rose Bank, Scotforth. In 1921 by which time the now renamed Lune Valley Engineering Company was running down, the Kitchens moved to Storrs Park, Bowness-on-Windermere. They later built 'Brookfield', near the Ferry Nab, with a separate garage, and a workshop above to satisfy Kitchen's interests. In 1924 a liquidator was appointed to the Lune Valley company and the company was finally dissolved in 1929.

Perkins had an interesting ancestry, for his great-grandfather, Jacob Perkins, born in 1776 in Newburyport, Massachussets, had returned to England in 1819 and had worked on a high pressure steam engine in 1822, a steam device for projecting musket balls in 1825 and then, in 1834, had made a working model and patented a refrigerating machine based on that invented by Dr Cullen in 1755. Jacob Perkins

was also credited with making the first 'vapour-compression freezing machine'. He died in 1928 at the age of 56.

The Kitchens had no children and were described as being both slightly below medium height. He, with moustache, smoked a pipe or occasional cigar and did not drink, was a man of warmth and charm, a man with a sense of humour and a liking for the odd practical joke, a friendly man and good employer who was liked by everyone, even by those who had lost money investing in some of his failed ideas.

Whilst Kitchen had taken out some patents for 'motor and steam vehicle products', twenty of these patents were concerned with tyres, others were for fluid pressure brakes, air and fluid pumps, acetylene-powered vehicle lamps, steam-powered bicycles and tricycles and motor car radiators, 'The Lune Valley' companies were firmly focused on the design and production of steam boilers and 'portable field cookers', Kitchen patenting a self-heating can for preserved foods in 1914 and although the War Office was disinterested – 'the war over by Christmas' - the idea was pursued by the Americans, 'self-heating cans' becoming part of the standard emergency rations issue in WWII, though the principle not necessarily by then was credited to Kitchen.

Able to raise steam very quickly, the Lune Valley and other similar boilers soon became standard in the steam pinnacles of the British and other 'Commonwealth' navies. The manufacture of the 'Lune Valley' boilers was licensed to Simpson Strickland and Company of Dartmouth in 1906, Kitchen's own interest in cooking leading him to cook grilled food underneath his steam launch's boiler burner flame while steaming round Lake Windermere perhaps giving him the idea for a 'portable field cooker' using an adaptation of the boat's 'Lune Valley' burner.

With the Lune Valley company established in 1903, Kitchen had begun testing boilers on Lake Windermere and Bowness-on-Windermere boatbuilders Borwick Brothers were early involved in Kitchen's experiments, these watched with interest by Isaac Henry Storey (1854 - 1925), a director of Storey Bros. & Co., a well-known firm of printed linoleum manufacturers in Lancaster.

Storey, reportedly a quiet man, quite like Kitchen in character, who lived at Loughrigg Brow, Ambleside and had similar interests to Kitchen's, was also particularly interested in wireless telegraphy and carried out experiments on controlling boats by radio, some experiments being carried out on his Windermere sailing yacht, the **Electra**, named before Marconi gave that name to his own 1904-built yacht.

In 1904, Kitchen and Storey joined forces and fitted radio controls to a 30-foot long launch, the **Bat**, on Lake Windermere and also that same year, following successful demonstrations at Morecambe, Kitchen offered the Admiralty a 'steerable' radio-controlled torpedo, but his offer was rejected. This, controlled by a shore-based, spark transmitter, was 'surface running', its short aerial on top acting as a 'visual locator' and guidable by an operator with a telescope 'for at least a mile',

and was some fifty years ahead of its time; only the 'mid- century' development of ultra short waves, highly sensitive acoustics systems and reliable tracking devices would be able to realise Kitchen's concept in practical terms. Storey, with his own company prospering, went into official partnership with Kitchen around 1910.

After his forays on Lake Windermere with the **Bat**, his enthusiasm for all things 'watery' undampened by The Admiralty's rejection of his torpedo, Kitchen, who came to develop a very high capacity steam boiler, focused his attention on the need to develop a lightweight 'reversing gear' for motor boats. This led to his magnum opus, the Kitchen reversing rudder.

In the early 1900s, reversing gearboxes for vessels propelled by internal combustion engines were as notoriously unreliable as well as bulky and the majority of the British Admiralty's 'picket' and 'liberty' boats continued to be fitted with steam engines, they requiring no gearboxes, which reversed by changing the engine's valve timings. The Admiralty reasoned that while small motor engines might be lighter and less bulky than their steam counterparts, any savings that might be made would be offset by the need to fit them with gearboxes, the combined weight of motor engine and gearbox being little different from the weight of the proven steam plants of their launches.

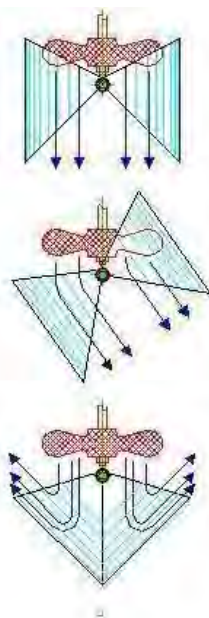
One day, clearing weeds away from his boat's propeller while it was tied up at a jetty, Kitchen noticed the force of the propeller's slipstream when it was running 'full ahead' and, when he placed a wooden board in the water, astern of the propeller, the boat then too appeared to move astern, so giving him the idea of his 'reversing rudder'.

Kitchen's Reversing Rudder Company was formed after The Great War, on June 5, 1919, with its office in Liverpool's Royal Liver Building. Kitchen and two others, Gordon Henry Fraser and James Ryder O'Halon, who are named in two later rudder gear patents and presumably also came forward with funds, were named as the company's directors but sadly, being a small private company, little information about its affairs is on record. Kitchen's own notes and drawings were apparently destroyed by an over-enthusiastic niece, who was living with the Kitchens at the time, on a spring-cleaning spree.

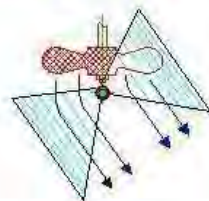
Kitchen played his 'party trick' when he took some apprentices out on trials in Glasson Dock and, trying to sell the idea to Vickers, got little reaction about the boat's performance from their man sent to investigate until, getting fed up, Kitchen headed for Bowness' landing stage at full speed. With the terrified Vickers' man holding on to the boat's thwart with both hands, Kitchen 'put on the brakes', lifting up the pivoted lever on the tiller and stopping the boat dead and then spinning it round in its own length to face the other way. It is claimed that a Kitchen rudder provides exceptional manoeuvrability even better than twin screws, providing very fast stopping, right angle turning, very slow speed, reverse, stern thrust, all accomplished without changing engine RPM, direction or engine load.

In his original British patent application, 3249/1914, and US application, 1186210/1916, Kitchen separated the control rods for each of the twin 'half-cylinder-shaped' rudders to allow them to be partially rotated either separately or together, the 'uni-directional' propeller itself rotating within the 'clam shells' to contain its slipstream. But for general ease of operation, the concentric control rods were linked to a screwed rod, controlled by a hand wheel, the boat's tiller swung to steer the boat, the arrangement adopted as standard by the Admiralty. Kitchen's first demonstration boats too were fitted with a mechanism whereby the rudders were opened and closed simply by raising and lowering a lever pivoted to the tiller, at which the boat, regardless of its ahead speed, stopped almost dead in its tracks. The USA continued to develop it, the latest patent application 4895093 being made as recently as 1990, mirroring the fact that small boat owners in the USA are still enthusiastic about it.

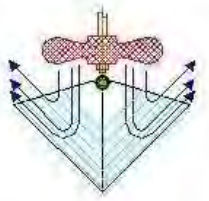
How the Kitchen Rudder works:



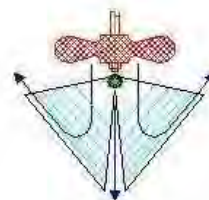
1 - Clamshells are midships and full open. Vessel proceeds forward at full speed.



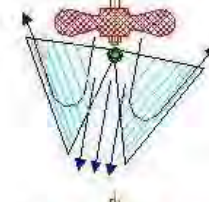
2 - Clamshells are full open but turned to deflect propeller stream to starboard. Vessel proceeds forward at full speed turning to starboard.



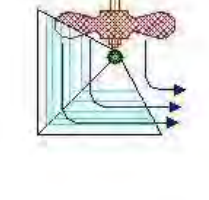
3 - Clamshells are midships and closed. Propeller stream is reversed and deflected outwards and forward. Vessel moves backwards at slow speed. Closing clamshells when moving forward acts as a brake.



4 - Clamshells are midships and slightly open so that forward thrust is same as backward thrust. Vessel is stopped.



5 - Clamshells are turned to port and adjusted so that thrust to move vessel forward is greater than reverse thrust. Vessel proceeds forward at slow speed turning to port.



6 - Clamshells are closed and turned to deflect propeller stream sideways to starboard. This acts as a stern thruster causing the vessel to swivel rapidly in clockwise direction.

The Kitchen rudder is essentially suitable only for small boats. The solution to the problem of taking way off for large tankers and bulk cargo vessels remains and, despite numerous proposals and trials, there has been little success mainly because of the huge pressures that would be placed on the rudder of super-ships were they to be reversed suddenly, these liable to twist and shear from their mountings and render ships unmanageable in confined seaways.

Though supplied to the British, Canadian, Australian and American navies, the popularity of "Kitchen Rudders" gradually declined in the 1920's as marine engines, with built-in reversing gear, though essentially expensive to manufacture and fit, became increasingly cheaper and more reliable and Kitchen's Reversing Rudder Company went into liquidation on August 1, 1929. Forward thinking as he

was, Kitchen by then had been looking at the potential for adapting the rudders for aircraft use, to cut down landing distances. The idea, though never patented by Kitchen, later came to fruition in the aircraft jet engine -



see illustration of [KLM Fokker 70](#) with reverse thrust applied. The two “clamshell” surfaces behind the engine can be seen in the deployed position, diverting the engine exhaust gases (hence thrust) forward. This is similar to the Kitchen rudder in "Full astern" position.

Despite the small man’s commercial cash flow problems, Kitchen kept on inventing until his death on March 27, 1940, which was sadly due to a freak accident; at home in his workshop, while drilling a hole with a hand-drill and, leaning on the drill's handle to increase pressure, he unfortunately ruptured an internal blood vessel, the consequences being fatal.

Answers to quiz

1. Admiral of the Fleet Sir Henry Oliver (1865 - 1965)
2. The ss **Normandie**, who changed her name to **Lafayette**, caught fire and capsized in New York Harbour.
3. English, Danish, Dutch, Swedish and Portuguese, all had “East India” in their names- in their respective languages.
4. Chinese Overseas Shipping Company, the largest shipping group in the world with 650 vessels.
5. The clipper ship **Lightning** at just over 18.17 knots, she eventually caught fire and was destroyed while loading wool in Geelong.
6. In Nelson’s days meals were served on square wooden platters – easier stowing in bad weather – on especially hard work periods, the platters were fully laden as a reward, hence a square meal.
7. The Port of Macao, for the suppression of gangs of pirates in the Pearl River Delta.
8. From the east or north east.

The Stewart Bale Photographic Archive

A Summary of the Presentation made to the Society on 15th September, 2011

By The Editor

The presentation was made by Ms Anne Gleave, Curator of Photographic Archives at National Museums Liverpool, and outlined the work of Edward Stewart Bale FIBP, FRPS (1889-1944) by illustrating "A Ships' Progress" – and focused on a selection of photographs from the Bale archives held in the Merseyside Maritime Museum highlighting images from construction to launch, fitting-out and underway

Stewart Bale Ltd. was a family run photographic practice specializing in commercial, architectural and industrial photography and based in Liverpool from c.1911 until the early 1980s, with an additional studio in London from 1949 to 1970.

The company originated with Herbert Stewart Bale, an advertising agent who emigrated from Australia to Britain and is first referenced in Liverpool directories in 1899. Initially the business offered advertising and printing services but as it was difficult to commission the high quality illustrative photography this required, Edward Stewart Bale, one of Herbert's sons, was brought into the firm and trained as a photographer. The firm began to offer a photography service and eventually, due to their high quality standards, it became an exclusive commercial photographic practice.

The company occupied various premises, the principal locations as a photographic firm were 53 Lord Street (1905 - 1931) and 13 Union Court, off Cook Street (1932 - early 1980s), both in the city centre. The company remained within the Bale family until it ceased to trade in the early 1980s.

The firm's reputation ensured that it secured significant commissions and as a result has left a visual legacy of Liverpool's built environment and industrial, commercial history during a major period of social change and development. This legacy is extended nationally, with particular emphasis across the North West, due to Stewart Bale's wide geographic client base. The range of subject matter is varied but particularly well represented is shipping (including shipbuilding, launches and fitting-out); docks and cargo handling; engineering, including the construction of both the Queensway and Kingsway Mersey tunnels; architecture, including the construction of Liverpool Anglican Cathedral; industry, including factory interiors; transport; commerce, including shop windows and interiors; social history and World War II bomb damage.

Most of the images were commissioned by businesses, often aiming to record their advancement towards what was then modern and new, reflecting new ideas and their realisation. Stewart Bale undertook aerial photography from c.1948 to 1980 and some colour photography from the 1960s onwards. The company used

large format cameras for most of their existence creating photographs of stunning clarity and detail.

In an obituary of Edward Stewart Bale, the standing of the firm is underlined: 'His photographs have been exhibited all over the world and no industrial photographer was better known or more highly respected.' The British Journal of Photography, 1944.

National Museums Liverpool acquired the Stewart Bale Ltd. photographic archive in 1986. The collection consists of 195,445 negatives, predominately black and white; approximately one third of which are large glass plate negatives (12"x10") and two thirds film negatives (12"x10" and 10"x8"). There is a small quantity of smaller formats, some colour film and 4,000 mostly black and white prints. The collection dates from c. 1924 to the very early 1980s.

The original documentation consists of negative registers, 1913-1972 for Liverpool and 1949-1970 for London. There is also a set of client registers for both studios indexed alphabetically. The documentation lists: date, negative number, client and brief job description; the number of exposures taken are noted in the client registers only. There is no original subject index.

On acquisition the collection required proper storage, and cataloguing to create a subject index. Over 26,000 negatives have been cleaned and placed into conservation quality storage. The entire film collection has been placed into frozen storage to preserve it and slow down its natural deterioration.

More than 15,000 images have been catalogued and a programme is currently underway to input the information from the client registers into an electronic database, the long term aim being to digitize the collection to make it more accessible. The collection is stored in off site storage and can be viewed by appointment only.

The following images, published by the Courtesy of National Museums Liverpool (Merseyside Maritime Museum), are from the Stewart Bale Collection and depict the launch and transfer to the fitting out basin of Cunard's RMS **Mauretania**, on 28 July, 1938.

THE MONDAY FACILITY

Members' access to the Archives and Library at the Merseyside Maritime Museum on Mondays continues as follows:

December	Mondays	5 th , 12 th , 19 th .
January		23 rd , 30 th .
February		6 th , 13 th , 20 th , 27 th .



Launch of RMS **Mauretania**, on 28 July, 1938



Liverpool Sailors' Home Gates

By The Editor

Many will remember the magnificent Liverpool Sailors Home building which occupied a prime site on Canning Place. The foundation stone was laid by Prince Albert in 1846 and it opened in 1850. Designed to resemble shipboard accommodation some 200 sailors could reside in individual cabins accessed from 5 tiers of galleried landings, much use being made of cast iron in the construction.

Many other facilities were provided such as a Savings Bank and Post Office, also leisure facilities such as billiards and concerts. In 1883 a Temperance Society was established and later other charities were incorporated; the Mersey Mission to Seaman provided religious services at the Home, the agent of the Shipwrecked Mariners Society was based there and from 1923 the Catholic Sailors' Club met.

The cast ironwork was sourced from the local Henry Pooley & Son's Albion Foundry, located where the Birkenhead tunnel entrance is now found, and the magnificent entrance gates were designed by architect John Cunningham and foundry owner Henry Pooley Junior, and installed in 1852; and the over-throw was installed shortly afterwards to prevent sailors climbing into the Home after curfew!



In 1951, following damage during the Liverpool Blitz, it was decided to remove the gates. Pooley and Sons had by now been taken into the giant W & T Avery Group who purchased them to feature in their Historical Museum in Birmingham. By 2010 the gates required considerable restoration, which was funded by Avery's. Subsequently it was agreed that the gates' rightful home was Liverpool and they were purchased by Liverpool City Council. These iconic gates were re-installed in August 2011 as "The Sailors' Home Gateway" and located on Paradise

Street adjacent to the retail development which now occupies their original site.

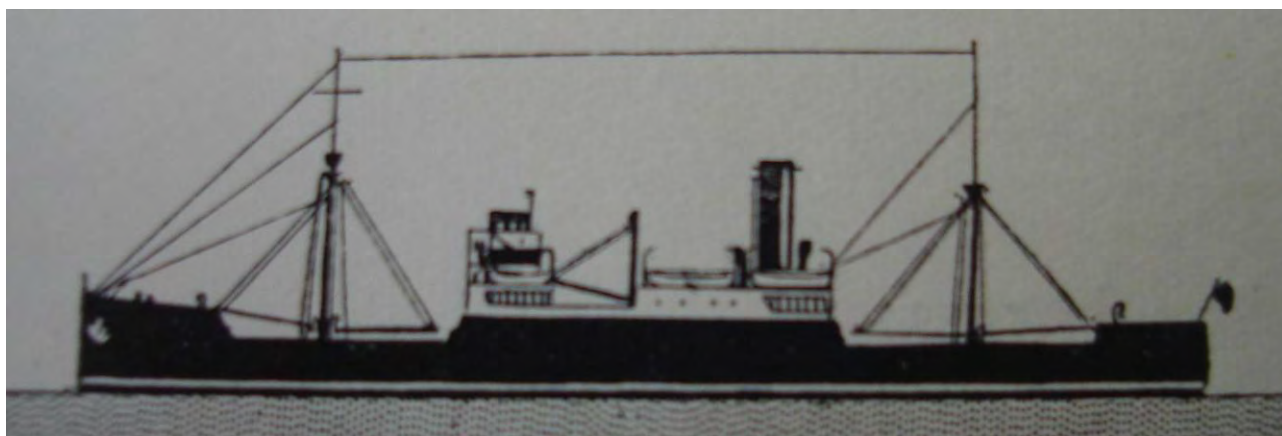
Due to excessive costs for upgrading, the Home was closed in 1969 and soon demolished, although the site was left derelict until construction of the Liverpool One project began in 2004.

The Liverpool Nautical Research Society

(Founded in 1938)

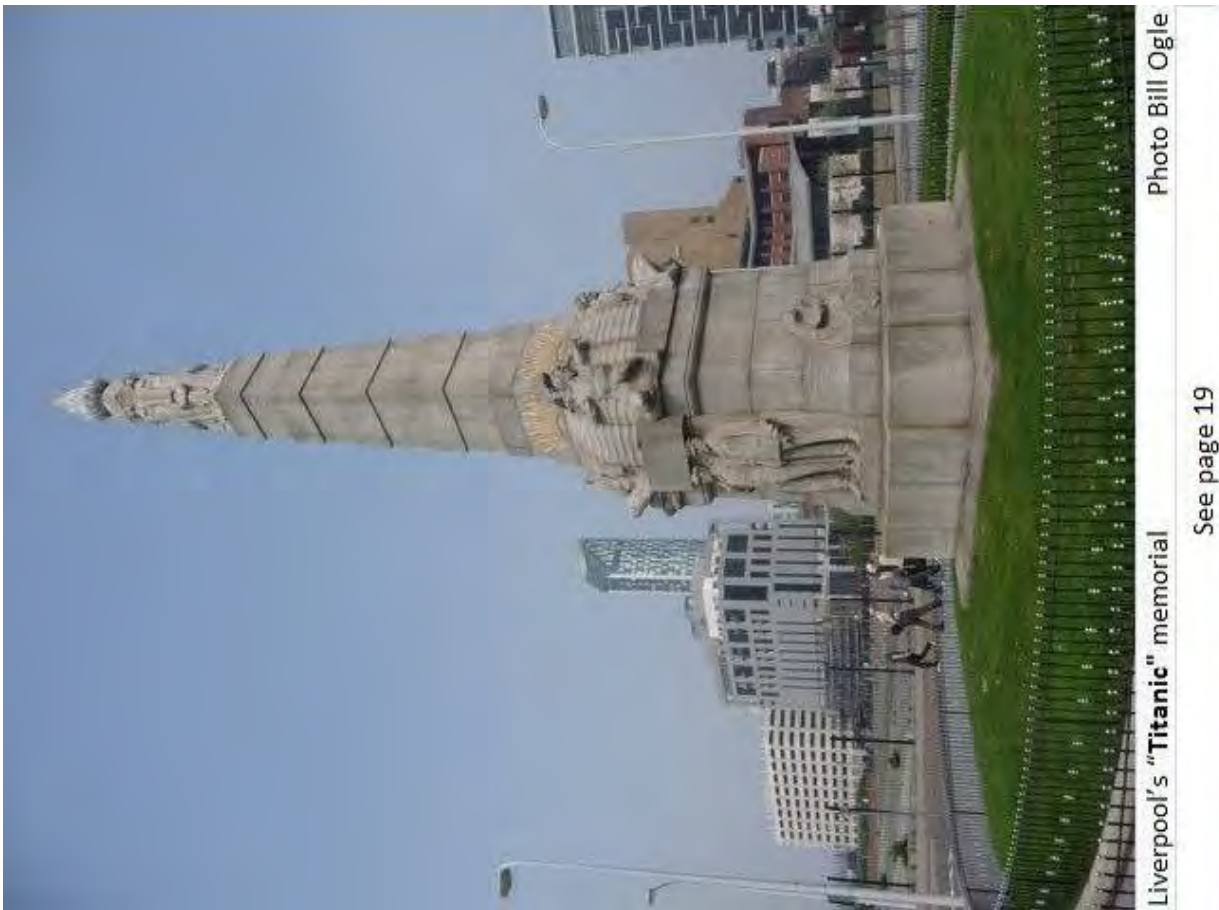
THE BULLETIN

Volume 55 No.4, March, 2012



P. Henderson's distinctive **Daga** was built in 1921 as Brocklebank's **Malia** (see page 12)

An Austrian Steamboat Pioneer	<i>Charles Dawson</i>	page	1
Remember those days...	<i>Bill Ogle</i>		3
Ferries of British Columbia	<i>Dick Clague</i>		5
End of the Line	<i>Bill Ogle</i>		11
The Fullagar Engine	<i>David Eccles & Gordon Bodey</i>		12
Titanic on the Mersey	<i>G. McRobert</i>		19
Resurgam – Part 1	<i>Dr. Eric Long</i>		22
Wireless Operator Balfour	<i>Willie Williamson</i>		27
The Marine Propellor	<i>Dr. Graham Patience</i>		32
An Unusual Trawler Loss	<i>Lloyd's Weekly Casualty Report</i>		37



Manxman at Pallion Engineering, Sunderland, August 2011



See page 11

(Bill Ogle)

These pictures show her in the covered shipbuilding hall. That to the right shows how the port side shell plating and frames have been removed adjacent to the engine room; and forward of this how an "air lock" has been constructed adjacent to the boiler room to permit removal of asbestos.

The Liverpool Nautical Research Society



President:

Mr. A.S.Davidson

Vice-Presidents:

Captain G.Cubbin,
Mr. H.M.Hignett

Chairman:

Mr. D.C.White

Vice-Chairman:

Mr. W.A.Ogle

Council:

D.Eccles, D.Littler, Dr. E.S.Long, A.H.McClelland,
W.A.Ogle(Editor), Captain R.Settle, G.F.Wright.

Honorary Officers:

Secretary: J.Stokoe

Treasurer: B.Groombridge

Web site: www.liverpoolnauticalresearchsociety.org

Contact details:

The Liverpool Nautical Research Society
Maritime Archives and Library
Merseyside Maritime Museum
Albert Dock
Liverpool L3 4AQ
United Kingdom.

info@liverpoolnauticalresearchsociety.org

An Austrian Steamboat Pioneer

By LNRS Member Charles Dawson

There is a tendency to give recognition for the discovery of many of the great advances of industrial society to sole inventors, which is just another facet of what has been called "The Great Man Syndrome"; for example, how many times can one read "James Watt, inventor of the steam engine". This is of course a convenient way of paying due homage to those who brought about the crucial breakthroughs at the various stages of development of a new product or system.

Unfortunately, a result of this simplification is that many of the contributions along the way are forgotten and, worse still, knowledge of the most daring experiments aimed at pushing technology forward is often banished to almost complete obscurity.

This is a great pity, for a study of the intricate, intertwining history of the process of development, being of intense interest to technically-minded enthusiasts, can often pin-point the way to further advances. What is more, there is a tremendous scope there for the student of human nature to attempt to get an insight into the personalities behind their work. One of the results of the belief in the concept of "original invention" is what the writer calls technical chauvinism, when the deviser's nationality also comes in for adulation.

There is no better example of this than Joseph Ludvig Ressel, born at Chrudim (now in the Czech Republic), in 1793, and died at Ljubljana, Slovenia (then Laibach), in 1857. Following studies at the University of Vienna and at the School of Forestry in Mariabrunn, from 1817 he worked as a forestry official, based in Trieste from 1821-1835. From 1839 he served in the navy in Venice, then from 1852 as Naval Forestry official. Beside his career as a civil servant he worked on several inventions including presses, steam machines, pneumatic post, a steam mill and a method for the production of soap. The one considered his most important is the ship's propeller.

He is said to have, in 1812, sketched an Archimedean screw propeller having two blades of half a turn each. As a forestry official, Ressel was officially reprimanded for his early experiments but continued to work with screw propellers. After trying a small screw propelled boat worked by two men, in 1826, he obtained an Austrian patent in 1827. Later he ran some experiments on the Seine but failed to sign the necessary papers giving him operating rights.

In 1829, with support from Ottavia Montana, a merchant in Trieste, he built the steamship **Civetta** (Owl), 64ft x 13ft x 7ft., 33 tons, with the aim of carrying passengers between Trieste and Venice. Her fine lined wooden hull was built by Vincenzo Zanon at the Panfitti Yard, Trieste, and her 6 H.P. Watt type engine came from Prince Schwarzenburg's Machine Works in St Stephan, Styria. Through gearing this engine drove an 18 inch propeller at about 4.5 times the rpm of the engine.

At 11.00am on a July day in 1829 the ship was given her trial trip. It lasted five minutes. Soft solder used to connect sections of the main steam pipe from the boiler to the engine melted and allowed the steam to escape. Fearing an explosion, the police forbade any further experiments.



Ressel was the author of more than 30 technical inventions. It was not this activity, however, that marks his role in the Austrian navy, but his professional service as a forester. After 1838 he was in charge of growing and collecting the wood for the shipbuilding industry, and his reforestation programmes were an early stage of modern regional planning. They are the first systematic professional approach to re-establishing the woods and improving the landscape of Istria and the Kras with local participation. So he now appears to have been recognised as an environmentalist.

There is said to be evidence that an Englishman took **Civetta** to Sibenik, on the Dalmatia coast, and operated her successfully. A statue in a park in Vienna commemorates Ressel's

achievement, chauvinistically and preposterously, as "the one and only inventor of the screw propeller and steam shipping" and even more preposterously as "the Austrian inventor of steam shipping". In Ressel's birthplace Chrudim, in the Czech Republic, there is also a monument to him, but it is not known how exaggerated the claims for him are made there.

Charles Cummerow in 1828 was the first British patentee to make a *definite* proposal to place the screw in the "deadwood" forward of the rudder, which of course later proved the most efficient and became the standard.

Nothing more surprised the writer recently to see a TV play attempting to perpetuate the Austrian version of Ressel's life.

Remember Those Days.....

*From 1971 and also 1991, these are a sample of events selected from the archives,
and published by kind permission of Sea Breezes.*

January to March, 1971

Rapid change is not uncommon and Furness Withy Group recently announced they are to withdraw no fewer than 23 ships. The passenger ships will be withdrawn on completion of current voyages, and will make their way to the River Fal while buyers are found for them. The total gross tonnage involved is 218,000. Within weeks came the announcement of the first disposals, prominent among which is the Royal Mail Lines' cruising liner **Andes** (26,435 grt), Belgian shipbreakers have bought this well-known ship for £300,000. The **Andes** was built by Harland & Wolff Ltd., Belfast and completed in 1939 and it had been intended that her maiden voyage would be timed to mark the centenary of the Royal Charter being granted by Queen Victoria, but war intervened and the celebration never took place.

The Maldivian Islands has, in recent years, steadily built up a significant merchant fleet by the acquisition of second-hand tonnage which now comprises 12 ships. Among them are a number of former British vessels, including the **Maldivian Express**, which until 1966 was the British & Continental Steamship Company's **Bittern**, and the **Maldivian Transport**, originally Metcalf's **Dunelmia**. Also the **Maldivian Sailor** which had sailed as the **Bramber** for Stephenson Clarke and Brocklebank's **Maturata** is now the **Maldivian Explorer**. Latest to join the Maldivian fleet is the former Currie Line motorship **Zealand**; she has been renamed **Maldivian Envoy**. There are at least three former ships of Ellerman's Wilson Line; **Maldivian Builder**, ex **Cicero**, **Maldivian Exporter**, ex **Angelo** and the **Maldivian Importer**, ex **Ariosto**.

Recent sale of the Indo-China Steam Navigation Company's vessel **Eastern Muse** (3,602 grt., completed in October 1955 by the Kawasaki Dockyard, Kobe) marks a further decline in their Bay of Bengal service which is now maintained by only one ship, the **Eastern Moon**.

Recently sold to shipbreakers at Split, was the Yugoslav motor tanker **Progress** (8,318 grt., built for the Ministry of War Transport in 1944 by Harland & Wolff Ltd., Glasgow). Originally the **Empire Jupiter**, she was one of a group of 18 similar ships which formed a portion of a class of standard tanker known as the "Ocean" type. They were based on a pre-war Shell design known as the "Three Twelves Type"; since they were of 12,000 tons deadweight and had a speed of 12 knots with a fuel consumption of 12 tons per day. **Empire Jupiter** was managed by the British Tanker Co. Ltd. until 1946 when sold to French owners, becoming the **Saint Guadens** under the management of Soc. Anon. Les Petroles d'Outre Mer. In 1958, she was sold and hoisted the Yugoslav flag as **Progres** under the ownership of Jugoslavenska Tankerska Plovidba and registered at Split.

January to March, 1991

The Bahamian flag ferry **Scandinavian Star**, badly damaged in a fire which killed more than 160 people, arrived at Southampton in August for repairs. Investigations to date into the tragedy, according to the October issue of the NUMAST journal *Telegraph*, have confirmed evidence of communication difficulties between members of her multi-lingual crew and a lack of safety training. Ownership of the vessel at the date of the tragedy was not clear but is given in the 1990/91 edition of *Lloyds Register of Ships* as K/S Scandinavian Star. Again this tells us nothing but apparently she has been sold again. According to *Telegraph* she is now the **Candi**, another flick-of-the-brush name change but this time a large one.

We record with regret the death of Captain James Kelly MBE, of Carnlough, Northern Ireland. He was 84. In January, 1953, Captain Kelly was in command of the coastal tanker **Pass of Drumochter** and sheltering in Belfast Lough while on passage from Belfast to Stanlow when he received a distress message from the Stranraer – Larne ferry **Princess Victoria**. Despite the appalling weather, Captain Kelly immediately put to sea to render assistance. He eventually located the wreckage, and **Pass of Drumochter** poured oil on the water and sheltered the **Princess Victoria's** lifeboats and rafts until the Donaghadee lifeboat arrived and picked up the survivors. Captain Kelly was awarded the MBE for his part in the rescue. He later worked for Sealink until his retirement in 1976

Last year, three bulkers, all carrying iron ore, were recorded by the Institute of London Underwriters as having disappeared at sea with their entire crews. The Panamanian-flag **Alexandre P**, 54,566grt, sailed from Dampier for Gijon, Spain, and was last reported on March 14. An air-sea search found nothing and she was presumed to have sunk with her crew of 25 off the north coast of Western Australia. She was built at Hiroshima in 1967 for Nippon Yusen Kaisha as the **Tsurusaki Maru**. In December, 1980, she was sold, but later appeared as the **Acacia** of Korea Line Corporation, Seoul. She had not long been the **Alexandre P** when she was lost.

On August 4 the Greek-flag **Pasithea**, 80,225 grt, was at Kashima, Japan, when typhoon *Vernon* struck. She was moved to the outer port and subsequently reported missing. An empty lifeboat from her and oil pollution were reported off Inuba Saki lighthouse but of the ship and her 31-strong crew there was no trace, notwithstanding an air-sea search. Built as the **Pasithea** at Hitachi in 1971, latterly she was registered under the ownership of Sao Financing & Trading SA, Chios.

The **Algarrobo**, 88,178 grt, was last reported on September 18 in the Pacific soon after leaving Huasco, Chile, for Kawasaki. After an air-sea search she was presumed to have sunk with her crew of 32. As the **Bunga Mawar** she was built at Yokohama in 1973 for the Malaysian International Shipping Corporation, Kuala Lumpur. In December, 1986 she was reported sold and renamed **Aquamarine**; becoming the **Algarrobo** of Liberian-flag Moorleigh Navigation Co. Inc. last year.

Ferries of British Columbia

by LNRS member Dick Clague

A summary of the presentation made to the Society on 20th October, 2011

Shipping services on the West Coast of North America can be traced back to 1827 when the Hudson's Bay Company put the schooner **Cadboro** into service. She had been built in Rye the previous year and sailed via Cape Horn to take up service. The first steamship on the Pacific NW coast was the **Beaver**, built at Blackwall in 1835, but for her delivery voyage she was rigged as a brig, with her paddle wheels being carried on board as cargo.

All this was before the Canadian Federation was formed in 1867 and British Columbia's decision to join Canada rather than USA in 1871. During this period the Hudson's Bay Company (HBC) enjoyed a virtual monopoly on the coast, but in 1877 the Pioneer Line opened passenger services between Victoria (located on Vancouver Island and capital of BC) and New Westminster (south of Vancouver) and in 1880 were awarded a contract by the Canadian Pacific Railway to carry passengers and freight. In 1883 HBC merged its West Coast passenger shipping operations with those of Pioneer Line into a new company Canadian Pacific Navigation Company Limited (CPN), which was managed by Captain John Irving who had been responsible for the growth of Pioneer Line.

Although the Canadian Pacific Railway finally opened its route across the Rockies in 1885, it did not start its own shipping services between Vancouver and Victoria until 1897. Four years later Canadian Pacific Railway bought a controlling interest in Canadian Pacific Navigation, consolidating its interest in the formation of BC Coast Steamship Co (BC SSC) in 1903. One of the reasons which persuaded BC to become part of Canada was the Federal Government's promise to link BC by rail with the rest of Canada. It appears the local politicians expected the railway to reach the provincial capital, even though it was located on an island some distance from the mainland coast! Canadian Pacific Railway prevaricated and the outcome was that the Esquimalt and Nanaimo Railway was built as a separate company to link suburban Victoria with Nanaimo, from whence the railway ran its own ship to Vancouver. This company was taken over by CPR in 1905.

BC Coast Steamships ran an extensive fleet of "Princess" ships many of which were Clyde-built and between the wars most were three-funnelled. One of the strangest though was the world's first purpose built car ferry – the **Motor Princess**, locally built in 1923 which could carry 45 cars and 250 passengers, and was nicknamed the "Gallopig Dishpan". She was steel framed, but timber clad and remained in service until 1950. In 1955 her superstructure was removed and she then sailed for another 25 years as the **Pender Queen**. Even then she saw further service as a barge – finally sinking in 2003.



The **Motor Princess** (1923) was the world's first purpose-built car ferry

Photo: Bruce Peter Collection.

After WW2 CPR returned to the Clyde for a further series of two funnelled ships – amongst them being the **Princess Patricia** (2) and **Princess Marguerite** (2) which emerged from Fairfield at Govan in 1949, followed by the **Princess of Nanaimo** in 1951. However in 1955 Alexander Stephen built the **Princess Victoria** as a combined rail, freight, vehicle and passenger ferry.

During the first 60 years of the 20th century services were provided entirely by private companies offering services in a free market. Although founded in 1899 Union Steamship (Company of British Columbia) did not develop passenger services until J H Welsford (a Liverpool cargo-only company) took a controlling interest in 1911. Not only did the company develop passenger and excursion traffic, it also bought and developed resorts on the Gulf Coast (north of Vancouver) as well as operating services as far north as Prince Rupert and into SE Alaska – its crack vessel being the **Catala** built at Montrose in 1925. Although J H Welsford sold out to local interests in 1937 there was further expansion after WW2 when they moved into shorter routes purchasing Sannie Transportation Company in 1944 and establishing the Howe Sound Ferry Company, merging the two in 1950. Thereafter they seemed to lose their way, losing their key Bowen Island business to Black Ball Line in 1956 and by 1959 had pulled out of shipping entirely.

Black Ball Line had started the first scheduled transatlantic passenger service between Liverpool and New York in 1816 using a fleet of clipper ships, one of which was commanded by Captain Alexander Marshall, brother of the line's founder. That service continued for about 60 years. However Captain Alexander Marshall Peabody, great grandson of the clipper ship captain, took control of the Puget Sound Navigation Company in 1928, and thereafter this company traded as the Black Ball Line, at one time becoming the largest privately owned ferry system in USA. As well

as its US domestic operations it held rights to the routes to Victoria from Seattle and Port Angeles.

In 1951, following major union problems, Black Ball's US domestic operation was sold to the state and became Washington State Ferries. They retained the international routes to Victoria and established a Canadian company Black Ball Ferries Ltd, providing services between Vancouver and Nanaimo, Howe Sound and Jervis Inlet. Their main vessels at this time were the 1928-built vehicle ferry **Bainbridge** and the **Iriquois** (1901) which was rebuilt in 1954 as a particularly ugly motor ship. However by 1958/9 strike action crippled the Canadian company, resulting in the BC Government invoking the Civil Defence Act to order strikers back to work. By then ferry services in British Columbia were in a sorry state, with Union Steamship having dropped out and the other two operators crippled by strikes and losing money. Today all that remains is Black Ball Ferry Lines' Victoria – Port Angeles service, operated by the 1959-built **Coho**, the Canadian operation's assets having been absorbed into BC Ferries.

It was time for political intervention. The Prime Minister of BC stated “The government of British Columbia is determined that, in the future, ferry connections between Vancouver Island and the mainland shall not be subject either to the whim of union policy or the indifference of federal agencies”. This led to the foundation of BC Ferries in 1960. Commercial operators had previously served not only the Canadian ports but also reached south into Washington State and north into SE Alaska. The new BC Ferries only operated within British Columbia so in 1963 the Alaska Marine Highway System (AMHS) was established which today serves 31 communities in Alaska.



The **Queen of New Westminster** (1964), in the Active Pass September 2009.

photo: Dick Clague

Despite the establishment of BC Ferries, a rump of CPR shipping operations continued, being re-branded as Coastal Marine Operations (CMO) in 1977 before finally withdrawing from passenger operations in 1981. Freight and rail-ferry operations continue to this day although sold in 1998 and now operating as Seaspan Ferries Corporation. Their railfreight ferries **Carrier Princess** (1973) and **Princess Superior** (1974) were built for CPR. The Seaspan Marine Corporation are also substantial tug and barge operators on the BC coast as well as owning shipyards in Vancouver and Victoria.

In 1960 BC Ferries commissioned two new 17 knot locally built ferries named **Queen of Sidney** and **Queen of Tsawwassen**. With a LOA of 102.5 metres, they carried 640 passengers, 16 crew and 128 cars. By 1974 BC Ferries were operating 24 vessels on 12 routes and now use 35 ships on 25 routes, employ around 4,700 staff and carry approx 20 million passengers. By way of comparison the David MacBrayne group (Calmac / Northlink / Argyll Ferries) carry 5.6 million passengers with a similar number of ships on 30 routes in the Clyde, Hebrides and Northern Isles. Both operators are state owned and received large subsidies! BC Ferries are however required to evaluate whether costs can be saved by subcontracting out some of the smaller routes.

Today's BC Ferries fleet consists of three classes of ship and a large number of one off vessels of varying sizes. Largest are the S-class **Spirit of British Columbia** (1993) and **Spirit of Vancouver Island** (1994) built by the Victoria Shipyard, LOA 167 metres. They carry over 2000 passengers and 470 vehicles with a max speed of 19.5 knots. The most modern are referred to as the Super C class, **Coastal Celebration** (2008), **Coastal Inspiration** (2007) and **Coastal Renaissance** (2007) and at 160 metres LOA are claimed to be the largest double-ended ferries in the world. They were built by VFW at Flensburg, carry 1,604 passengers and crew plus 370 cars and have a maximum speed of 23 knots.

The use of "Queen" names was prevalent, but not universal, across the fleet until the S class was introduced. The oldest major units of the fleet are the **Queens of Nanaimo, New Westminster** (both 1964) and the **Queen of Burnaby** (1965) which started life as sister ships, although the **Queen of New Westminster** has had an extra car deck added, raising her whole superstructure. The **Queens of Coquitlam** and **Cowichan** were built in Victoria in 1976, followed by the similar **Queens of Oak Bay** and **Surrey** in 1981, the last being built in Vancouver. Another pair of "Queens" was built in Vancouver **Copilano** (1991) and **Cumberland**. The 1976 **Queen of Alberni** seems to have been a one off, although of similar size. The odd one out is the **Queen of Chilliwak** which started life in 1978 as the **Basto 1**, on the 30 minute run across Oslo Fjord but in Summer now serves remote communities south of Prince Rupert involving round trips of up to 46 hours! She is likely to remain in service until at least 2017.

Perhaps the best known “Queen” – but for all the wrong reasons – is the **Queen of the North** which sank on passage between Port Hardy and Prince Rupert in the early hours of 22 March 2006 after running onto a well-charted rocky island at full speed. Fortunately 99 of the 101 on board were rescued. The 1969-built vessel was originally the **Stena Danica**, being bought by BC Ferries in 1974 and re-named **Queen of Surrey**. She operated on the Inside Passage under the name **Queen of the North** from 1980 until her sinking. Her immediate replacement was the **Sonia**, purchased from Balearia, and renamed **Northern Adventure** which today mainly serves the Queen Charlotte Islands from Prince Rupert. However for a permanent replacement BC Ferries returned to VFW at Flensburg from whence the **Northern Expedition** was delivered for the 2009 season.



In April 2009 the 1964-built **Queen of Prince Rupert** (foreground) was replaced on the Queen Charlotte Islands route by the **Northern Adventure** (middle). This was made possible by the arrival of the new **Northern Expedition** (back) to take over the Inside Passage service from Port Hardy.

The hand-over took place at Prince Rupert where this photo was taken by Bruce Rempel.

The decision by a BC Government-owned corporation to have ships built outside Canada was politically controversial – but resulted in four high quality ships being built on time and under budget – something outside BC Ferries previous recent experience. In the late 1990s the BC Government encouraged BC Ferries to invest in locally-built fast craft, the project being seen as a way to revive the local ship-building industry – which had no expertise in this type of ship construction. No evaluation of existing fast craft suitability was undertaken so the three “Pacifcats” were built to an untried design by builders learning about fast craft construction “on the job”. Not surprisingly the project over-ran by about 3 years, by which time it was well over budget. There was a change of Government before the final vessel was delivered and the project was cancelled in 2000. The two craft which had been delivered ran between Horseshoe Bay and Nanaimo, opening up the possibility of regular commuting between Vancouver Island and Metro Vancouver, so their demise was a disappointment to many, but the craft never met their 37 knot design

speed, couldn't carry the expected payloads and were slow to load because of trim problems. After being laid up for several years they were auctioned off in 2003 and re-sold in 2009 to Abu Dhabi MAR shipyard for conversion – since when nothing more has been heard.

BC Ferries today faces an uncertain future, the recession is taking its toll on passenger numbers and the company is seeking BC Government consent to reduce some of its services as a cost-saving measure. Like many ferry companies it has an ageing fleet and needs funding to replace 18 of its ships over the next 15 years. The future looks challenging.

Nautical Trivia Quiz

1. Who was the famous American seafarer, who died in Paris, and many years later was exhumed and the remains reburied in Annapolis?
2. Which piece of territory in India, now the site of a major city, was given as part of the dowry of Catherine of Braganza, Charles II's queen?
3. Alfred Holt, the locomotive engineer, who headed up the Blue Funnel Line, had an elder brother George, who also was in shipping, in what company?
4. In the days before steam ships, how were ships financed ?
5. Which merchant ships had the radio room, Sparks' cabin, Captains Bedroom in the funnel?
6. What are the names of the two ports that effectively are the port of Bristol?

.....answers on page 18

The Institute of Marine Engineering, Science & Technology

Lloyd's Register has announced that it has taken delivery of the Institute of Marine Engineering, Science and Technology's (IMarEST) library, comprising more than 390 linear metres of material, at its offices on Fenchurch Street, London. Richard Sadler, Lloyd's Register's Chief Executive Officer, said that the "...IMarEST library is one of the greatest resources still available for current and historic information concerning maritime history, marine engineering, naval architecture, offshore engineering and ocean technology". The library will be open to members of the public. It has been moved to Lloyd's Register's offices on Fenchurch Street due to IMarEST's recent relocation to smaller premises

End of the Line

Bill Ogle

It really is “Finished with engines” for the former Isle of Man passenger steamer **Manxman** (2,495 grt as built 1955), because the charitable trust set up in 2002 to seek her restoration and return to Merseyside has now been wound up. Amazingly she is the sole remaining example of the purpose built Steam Packet fleet. The last operational vessel was the mv **Lady of Mann** (2,990 grt as built 1976); following an unsuccessful conversion to stern loading in Greece, she was towed to Turkey in August 2011 for demolition.

Manxman was the final example of a group of six similar vessels built by Cammell Laird at Birkenhead between 1945 and 1955 to serve the then booming Manx holiday traffic, and remained in that service until 1982.

Then began her sad and gradual decline. On October 3rd, 1982 she sailed under her own steam from Liverpool to Preston where she was to become a centre piece of a new waterfront development. However this was not a financial success and she was again sold for conversion to a restaurant and nightclub, with much of her interior stripped out to create larger spaces; surprisingly perhaps the next years were perhaps her most successful financially. But in 1990 her berth was required for development and she was towed to Waterloo Dock in Liverpool; not being the most attractive location meant that the venture failed and in 1994 she was again towed, this time to Hull. Again the venture failed and in 1997 she was towed to her final destination at the Pallion Engineering yard at Sunderland.

In 2002 the Manxman Steamship Company was formed, becoming a Registered Charity. Despite many successes and having raised enough finance to cover the cost of numerous independent studies, which did demonstrate her financial viability at an appropriate Merseyside location, all seemed set fair. However the arrangements for a berth were cancelled due to planned developments; and with no suitable alternative the Trust was obliged to withdraw. After a protracted period it has now been wound up with funds being shared between the paddle steamer **Waverley** and the tug **Brocklebank** based in Liverpool

Despite every effort Pallion and her owners have been unable to make any alternative arrangements and so, having secured the necessary licences, asbestos removal is well advanced and she is to be dismantled in-situ.

The records of the Manxman Steamship Company have been deposited in the archives of the Merseyside Maritime Museum. Additionally many are available on line at the Yahoo Group called *ssmanxman*. This is free to join. Meanwhile Pallion are keen to supply artefacts to interested parties and have created a web site at www.ssmnxman.co.uk

The Fullagar Engine and the **Fullagar**, The World's First All-Welded Steel Ship.

By LNRS Members David Eccles and Gordon Bodey

Introduction

Diesel-engined marine propulsion was introduced on the continent in 1897; with its use in small coasting vessels and canal craft becoming common there by 1912. However, the technology did not find favour in Britain until somewhat later due to the ready availability of cheap coal, which favoured the continued use of steam engines. But when, in 1912, the Danish twin-screw **Selandia** (4950grt), powered by two eight-cylinder B&W, four-stroke diesel engines, became the first ocean-going ship to be diesel driven, a wider interest began to develop. [**Selandia** became **Norseman** in November 1936, then **Tornator** in October 1940. On 26th January, 1942 she was stranded at Omaisaki carrying a cargo of salt from China to Japan. She broke her back four days later, becoming a total loss.] As the new technology became more widely used and appreciated, various other types of diesel engines began to appear.

This article outlines one of the early types of British designed diesel engines, and the innovative, first all electrically-welded steel ship, in which it was first installed.

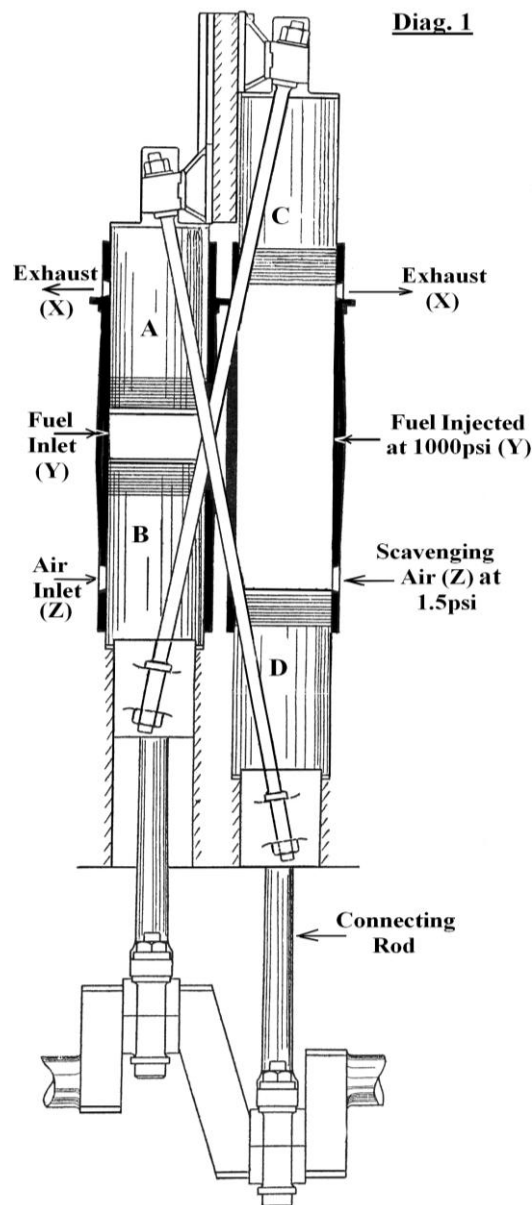
The Fullagar Engine

This type of engine (patented 13th October, 1909), a vertical, opposed-piston, two-stroke internal combustion engine, was originally designed to run on coal-gas, and its original intended use was for the generation of electricity. It was invented by Hugh Francis Fullagar, a mechanical engineer, then of Jesmond Dene, Newcastle-on-Tyne. He was born in 1872 at Meriden in Warwickshire, the son of a clergyman, and graduated from Cambridge.

Cammell-Laird of Birkenhead, which had already built two diesel-powered submarines for the Admiralty [**E41**(used as a minelayer), and **E42**, 22-10-1915], but with Vickers engines, was seeking to develop its own diesel engine for submarine propulsion in order to gain a larger share of the orders placed by the Admiralty. The company, therefore, came to an agreement with Fullagar in 1915 for the rights to develop his engine as an oil-fuelled marine engine, i.e. a diesel engine, and to this end brought in Mr. Donald M. Shannon, a Scottish engine designer of wide experience, to oversee the project. Unfortunately, H.F. Fullagar died (31-12-1916) before that development was realised. Subsequently, the company built a two-cylinder diesel version of the Fullagar engine, which it hoped would interest the Admiralty, and which was presented for its Board's consideration in March 1917. Their Lordships were not enthusiastic.

However, Cammell-Laird was told that if it could build, and satisfactorily

test, a dedicated two-cylinder experimental submarine engine, the Admiralty would order at least two 420hp units for evaluation. The company went ahead and built, and successfully tested, two engines to the Admiralty's requirements just as WWI ended; the Admiralty's interest also ended then. Despite this setback, Cammell-Laird decided to carry on and develop the engine for the propulsion of merchant ships.



**Simplified Diagram of the Cammell Laird-Fullagar
Two-Stroke Opposed Piston Engine**

In the 1920s other engine builders also built, under license, a limited number of Cammell-Laird Fullagar engines: D. Rowan of Glasgow did so for the **Baron Dalmeny** (1924); whilst Palmers of Jarrow both built and engined the **British Aviator** (1924), and the **British Chemist** (1925); and John Brown of Clydebank built and sent to the Kawasaki Dockyard Co. in Kobe, Japan, Fullagar engines for installing in the **Florida Maru** and the **Cuba Maru**, built in 1925 and 1926 respectively.

The Cammell-Laird Fullagar Engine

This comprised two double units (a simplified version of one unit is shown on previous page to illustrate its working principles) i.e. a four-cylinder engine, with each double unit enclosed in its own case forming the cylinder jacket. The units differed from Fullagar's original design in that:

- the fuel used was light oil as opposed to coal-gas
- the pressure at ignition was 600psi compared to 70psi, necessitating considerable strengthening of the cylinder casings
- it was designed to be reversible

The original design was otherwise largely unchanged, and in operation the engine worked as follows:

It was started by compressed air supplied by a dedicated three-stage unit. The space between the two pistons in each unit formed the compression chamber, and on switching to its operating mode, fuel was injected with an air blast at 1000psi, at point **Y**, during the compression stroke. As the compression reached its maximum value, the ensuing explosive ignition caused the pistons to move apart i.e. the expansion stroke. Near the end of the expansion stroke, openings at points **X** and **Z** were uncovered. At the bottom opening, **Z**, scavenging air at 1½psi was admitted to remove any un-combusted fuel (which would otherwise reduce the engine's efficiency, and cause excessive engine wear), and this was then exhausted from the top opening, **X**.

With regard to the oblique rods cross-connected to the cross-heads (at right angles to the plane of the paper; and with a corresponding pair likewise connected to the far sides of the crossheads) of diagonally opposite pistons as shown, the purpose was as follows:

As explosive expansion occurred in the right-hand cylinder it initiated the compression stroke in the left-hand cylinder by drawing pistons **A** and **B** together; the reverse action then occurred, initiating the compression stroke in the right-hand cylinder by drawing pistons **C** and **D** together. The pistons (each of 14in. diameter, and with a combined stroke of 40in.) were oil cooled, and the jacket water cooled.

The advantages claimed for the engine were that:

- there were no cylinder covers
- there were no high pressure joints in the engine
- there were no vertical stresses on the framing
- for a given size of engine, the power output was two to three times that of an equivalent-sized conventional diesel engine

Also, that the pressure in each cylinder acted at all times equally on the cranks, thus relieving the main bearings of load except for that of the weight of the parts; and that the reciprocating parts, being cushioned at the end of each stroke, made the crank effort uniform, and that engine vibration was almost non-existent.

However, there were drawbacks in the design, the principal one being the cooling of the engine, mainly by water. When trading in cold waters problems were minimal e.g. the two Japanese ships largely traded across the cool north Pacific. On the other hand, Brocklebank traded to India, and P. Henderson (see below) traded to Burma, and for their ships most of the voyage would be spent in warm sea; problems were inevitable

A Ship Called Fullagar and T & J Brocklebank

In 1920, a coasting vessel, which was the world's first all [†]electrically-welded steel ship [a steel barge had been built previously by this method to evaluate its effectiveness], was built at Cammell-Laird, Birkenhead. The vessel was called the **Fullagar**, and was named for the inventor of the new type of engine with which she was fitted. The engine, which had been run on a test bed for 600 hours before being installed, was of 500bhp, and situated aft. **Fullagar** was registered to T&J Brocklebank of Liverpool on 2nd July, 1920.

The **Fullagar**, Off. N^o. 143649, and call sign, KDGQ, was 150ft o.a. x 23.7ft x 10.1ft, with a freeboard amidships, when fully loaded, of 4ft 3½in. Her registered tonnage was 398g; 181nett (450dw). Her speed on trials was 10.5 knots, attained at 93% (112 r.p.m.) of the engine's maximum revolutions. **Fullagar** had one hold that was loaded via two hatches: one occupied the raised quarter-deck (on the for'ard end of which was situated the bridge housing), and one the well-deck, for'ard of the bridge housing. Two winches and two derricks served each hatch. She was not a handsome vessel.



M.V. FULLAGAR (launched 5th February, 1920) on Trials in the Mersey, 29th June, 1920, Flying the House Flag of Cammell, Laird & Co., her Builder

In the register she was listed as electrically* welded and, because of her unique construction, required by Lloyds to be, '*Subject to annual surveys - experimental*'. **Fullagar** was launched 5th February, 1920, underwent trials on the Mersey on 29th June, then on the Clyde on 2nd July, and was delivered to the owners on 22nd July, 1920.

The initiative to have **Fullagar's** hull fabricated using a then unproven technology, and also to install an innovative engine technology that had no previous operating history, emanated from the firm of consulting engineers, G.S. Goodwin of Liverpool, acting on behalf of Brocklebank.

The owners used the vessel to transship cargo to and from nearby coastal ports, particularly along the Mersey, to or from the company's ocean-going ships berthed in Liverpool. Likewise, to take part cargoes destined for Manchester from Liverpool up the Ship Canal. However, her main purpose whilst owned by Brocklebank was to allow the company to assess the value of the engine for its future use in their ocean-going vessels, and to this end, the ship acted on her voyages as a training ground for Brocklebank's marine engineers. Mr. Kelso of the builders remained with the ship during the first six months of her operation to assist in the training programme.

After one year's service, Brocklebank sold **Fullagar** to the Manx Isles S.S. Co. (Managers, Lowden, Connell & Co., Water St., Liverpool). As originally intended, the Fullagar engine was removed before sale, and this engine and another identical one, were installed in the twin-screw **Malia**, then under construction for T&J Brocklebank at Wm. Hamilton's Glen yard (yard No. 377) at Port Glasgow. Completed in September 1921, **Malia** was 3872 grt.; 2337 nett; 1100bhp; and had a speed of 9.5 knots.

In May 1923, **Malia** was re-engined with two larger Fullagar engines, by Cammel-Laird, which gave her an operating speed of 11 knots. **Malia** traded for Brocklebank until 1927, when she was sold to P. Henderson of Glasgow (who re-named her **Daga** in 1928). This ended Brocklebank's use of this engine type. Her new owners persevered with her Fullagar engines until 1930, then had her refitted with Denny Sulzer engines.

The new owners of the **Fullagar** (Manx Isles S.S. Co.) had a '*reciprocating, internal combustion, vertical, semi-diesel*' engine of 91hp (as registered 21/11/1921), installed by Wm. Beardmore of Coatbridge, Glasgow. She was renamed **Caria** (now 420grt.), and was employed in general coasting work for the following three years.

On 30/7/1924, **Caria** was sold to John Fletcher (Shipowner) of Kinghorn, Fife, who held her until 27/12/1924, when she passed to James A. White, a London merchant, who immediately sold her on to the British Columbia Cement Co. Ltd. of Victoria, B.C. On 2nd February, 1925 she was re-registered at Victoria, her now home port, as the **Shean**.

After an uneventful five years service, and whilst running at full speed off

Victoria, B.C., on 23/10/1930, carrying 10,000 bags of cement, she hit a submerged rock head on. However, she did not sink, and was towed into port and repaired. Her survival was attributed to her having an all-welded hull. Prior to this mishap Lloyds had, in 1929, relaxed its annual survey requirement to a biennial one.

During the economic depression of the 1930s, **Shean** was laid up for some time before being sold to Señor O.L. Rodriguez in 1936, and registered at Ensenada (70 miles south of the U.S. border), Mexico, on the west coast of Baja California. Her name was changed to **Cedros** - possibly for the Isla Cedros some 100 miles lower down the coast - and she spent her time thereafter trading the length of the Pacific coast of Mexico.

On 31st August, 1937, the **Cedros** put out from Ensenada bound for Manzanillo, some 1250 miles away on the central west mainland coast of Mexico, with a cargo of canned fish and flour. When about 30 miles south of Ensenada she was in collision with the much larger M.V. **Hidalgo** (also of Ensenada), as a result of which the **Cedros** sank within minutes, but the **Hidalgo** reached port, albeit in a leaking condition.

In passing it is worth noting that the **Hidalgo** had also reflected the changing face of marine propulsion. She was built in 1900 at the Dumbarton yard of A. McMillan as the four-masted, single-deck, steel barquentine **Hawaii** for the Bkn. Hawaii Co. (Hind, Rolph & Co.) of San Francisco. As such she traded for the same owners for the following twenty-five years. In July 1926, **Hawaii** emerged from the Seattle yard of Fairbanks Morse Co. Inc., as the diesel-engined (1100bhp), twin-screw, **Ethel M. Sterling**, owned by the Sterling S.S. Co. of Seattle. She became **Hidalgo** in 1934.

Conclusion

Within a generation of the **Fullagar's** delivery, electrically-welded construction had become the shipbuilding future, and although the Cammell-Laird Fullagar marine engine was to be abandoned soon after its introduction, it was another step on the path of what was to become the almost universal method of marine propulsion. The engine did, however, live on in another guise: the English Electric Co. manufactured a version at its Rugby plant, and which was produced until 1955. It was widely used for electricity generation in power stations, which was its original intended purpose.

Notes

[†] This process was named for the company which pioneered it: the Quasi-Arc system.

*The now universally-used full head cover and visor welding mask was designed at Cammell-Laird specifically for the building of the **Fullagar**, and for which information - and other items - the authors are most grateful to LNRS member Mr W. Ogle.

Sources consulted:

British Shipping and the Diesel Engine: the Early Years, Dennis Griffiths,
Mariners' Mirror, Vol. 81, P 315

Customs Register of Liverpool Ships

Database of Clyde-built Ships, A, Glasgow Central Libraries

History of Motor Shipping, The, A.L Hardy (1955)

Jane's Fighting Ships of WW1

Lloyd's Registers: 1900-1938

Lloyd's Returns of Ships Totally Lost, Broken up & etc. (1938)

Marine Engineer and Naval Architect, The, March 1920

Motor Ship, The, August 1920

Shipping World, The, 15th July, 1914

World's Merchant Fleets, 1939, The, Roger W. Jordan

THE MONDAY FACILITY

Members' access to the Archives and Library at the
Merseyside Maritime Museum on Mondays continues as follows:

March	Mondays	5 th , 12 th , 19 th , 26 th
April		2 nd , 16 th , 23 rd , 30 th
May		14 th , 21 st , 28 th .

Answers to Quiz

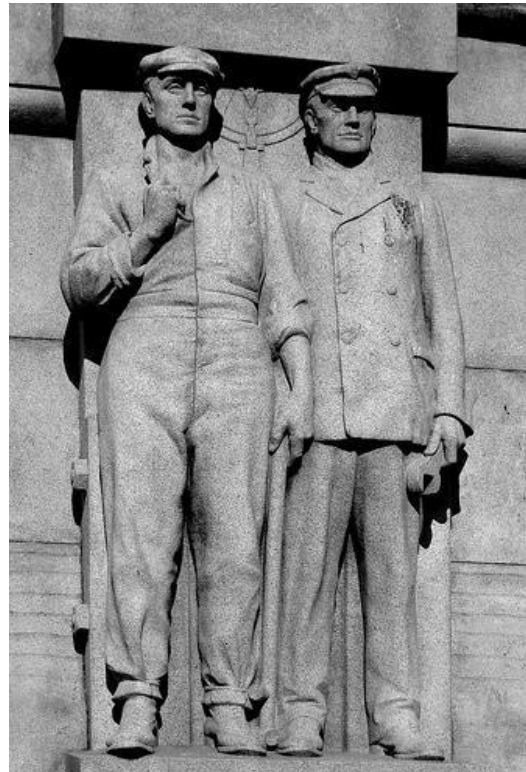
1. John Paul Jones.
2. Bombay (Mumbai)
3. Lamport and Holt.
4. In 64ths by dividing up the value of the ship into 64 shares, which could be purchased.
5. The "D" class of Lamport and Holt e.g. Delius, Delane, etc.
6. Avonmouth and Portbury

Titanic on the Mersey

By G. McRobert

I studied the monument on Liverpool Pierhead carefully. Depicted on one side were two men, fully clothed, and on the other two more, stripped to the waist, holding shovels. On a third side an inscription saying that it had been erected by international subscription and there was something about the men in the engine-room on the fourth:

“IN HONOUR OF ALL HEROES OF THE
MARINE ENGINE-ROOM THIS MEMORIAL
WAS ERECTED BY INTERNATIONAL SUBSCRIPTION
MCMXVI
THE BRAVE DO NOT DIE
THEIR DEEDS LIVE FOREVERAND CALL UPON
US TO EMULATE THEIR COURAGE AND
DEVOTION TO DUTY”



But not a clue about why it had been put up.

So I asked a bus-driver coming out of the Information Office nearby. He fancied it was to do with a ship sinking, but didn't know which one. He said he thought the ship had been torpedoed during the Second World War and it had helped to bring the Americans in on our side. I said there must be some other reason. I could remember the monument being there long before the Second World War as I used to see it from the tops of tramcars when I was a child. He said he was only there to give advice on buses (and drive them) and wasn't paid to be an expert on monuments as well

I left him telling two schoolgirls how to get to Garston and asked a man gazing fixedly out into Liverpool Bay, who looked like a sailor. He said if it had been San Francisco he could have told me anything I wanted to know. Unfortunately, he wasn't familiar with the Liverpool scene, having only arrived two days before.

I moved on to an old man sitting on a concrete bollard eating sandwiches. He was the oldest man I'd seen for a very long time and could easily have been around when the monument was built, I thought. It seems I was wrong because, when I pointed it out to him, he was surprised and said he'd never noticed it before. He got off his bollard and wandered off to have a closer look, and I followed him to see if he'd forgotten and it would all come back to him suddenly. We walked right round the monument and then he stopped and pondered.

"No," he decided, "they must have put it up since I was last here. It's most likely to do with the ferry-boats. I had a brother who was on one of them and she went down at Zeebrugge in the Great War. He finished up with his own farm in Canada."

"He survived then?" I said, showing a polite interest. The old man stared at me as though I'd lost my marbles. "If he hadn't survived he wouldn't have been able to run this farm in Canada, would he?" Then he went back to the bollard to finish his sandwiches.

I stopped a man wearing a tracksuit in mid-jog and asked him, "I've often wondered," he panted, "Maybe it's in memory of the ships of the Cunard Line, or it might be White Star. They used to sail from here to America in the old days."

"They wouldn't bother to raise an international subscription for that," I said.

And why would they want to single out the men in the engine-room? He wiped the sweat off his brow and thought for a while. "Well, it may have been the **Titanic**," he said. "She struck an iceberg on her maiden voyage, you know."

I said I'd heard something of the sort.

I canvassed a few more people, attempting to find a consensus. One said he thought it would mark the sinking of a lifeboat which went down in a storm in the Irish Sea some years ago. "That can't be right," I said. "They don't have stokers with shovels on lifeboats."

Another told me it was to do with a troopship, bombed by the Luftwaffe in 1943. He remembered the date because an aunt of his had been engaged to one of the officers. Somebody else said it was to commemorate the **Lusitania**.

I'd had enough of wild guesses so went home and telephoned Liverpool Corporation. After being shunted round several departments I got through to one of their experts who said if I was making enquiries about features on the Liverpool waterfront then things were a bit chaotic as they were currently working on a scheme costing millions.

"I'm only interested in this monument," I said, and described it.

"Well, we'll make sure to mark it properly, along with the others, when we get round to it," he said.

"But I want to know what it's for," I said.

There was a pause, as though he was shocked at my ignorance. "It commemorates the sinking of the **Titanic**," he said. "She struck an iceberg..."

I said I'd heard about the iceberg. "Then it had nothing to do with troopships, or the **Lusitania**?" I had to be certain.

"Nothing at all," he said. I was glad to have the matter cleared up, officially.

Research subsequently uncovered very little about the monument, apart from the fact that it was completed in May, 1916. No record was found of it ever being the subject of a formal unveiling ceremony. It does not specifically commemorate the engineers of the **Titanic**, every one of whom were lost, although its origin would seem to stem from that tragedy. On May 18, 1912, the *Journal of Commerce* proclaimed in a leading article:

*"The proposal – put forward by a committee of engineers of Liverpool with Mr Maginnis as their chairman – to erect a memorial to the heroic engineers of the **Titanic**, appears to be one which must commend itself to the whole of the travelling public. What place is more suitable than the Pierhead of the principal port of the greatest maritime country the world has yet seen?"*

There is no known link between this proposal and the monument which was eventually erected but the memorial's embrace was clearly extended at some point.

Editor's note: the story as given to me was that, at the time of the Titanic disaster, Liverpool, together with many ports and cities opened a commemorative appeal. However the First World War intervened and it was 1916 before the memorial was placed. By this time there had been many horrific sinkings and the organising committee decided to extend the dedication to "honour all heroes....."

Resurgam – Part 1

By LNRS Member Dr. Eur-Ing E. S. Long Professor, Chartered Consulting Engineer
A summary of the presentation to the Society on April 14th 2011

George William Littler Garrett was a Curate, Engineer and latterly Honorary Lieutenant in the Turkish Navy. In 1878 he designed one of the first submarines to be constructed in Great Britain, some 35 miles from the sea in the centre of Manchester! The submarine was constructed at Messrs Cochran & Company Limited in Birkenhead, and the name of the vessel was **Resurgam**, Latin for 'I shall rise again'.

George was born in London on the 4th July, 1852, and had a privileged education in the sciences, including: attendance at The Rossall School on the Fylde Coast, Manchester Grammar School (which in those days occupied a site next to the Blue Coat School – now part of Chethams School of Music – prior to occupying its present site in the district of Rusholme), Trinity College at the University of Dublin, and Owens College on Quay Street in Manchester (the forerunner of the Victoria University of Manchester), and latterly studying at the South Kensington Museum in London. He also lectured for a short period at the Mechanics Institute on Princess Street in Manchester, which eventually became the University of Manchester – Institute of Science and Technology (UMIST), and travelled extensively, as far as New Zealand, studying and teaching navigation.

The family home was at Greenheys Hall, situated on Greenheys Lane in Hulme, and George later resided with his family at 82 Chorlton Road, again in Hulme, Manchester. The district of Hulme, like a number of others in Manchester, was raised to the ground during the slum clearances in the 1960s, and unfortunately there is very little Victorian property remaining on Greenheys Lane or Chorlton Road.

On returning to Europe, he married Jane Parker of Waterford in Ireland, the daughter of a local solicitor. After which, he returned to Manchester and was ordained as Deacon by the Bishop of Manchester, following in his father's footsteps – the Reverend Dr. John Garrett – and became Curate at Christ Church in Moss Side, Manchester in 1877 at the age of twenty five. It is something of a mystery how George obtained his theological qualifications, given his seemingly total commitment to studying the sciences. However, the church was not for George and he allowed his ministry to lapse some years later in 1884.

In 1878 George formed the Submarine Navigation & Pneumatophore Company Limited at 56 Deansgate, Manchester. The building is still in existence, some fifty yards from the corner of Blackfriars Street, on the right hand side, travelling towards Deansgate Station. The aim of the Company was to raise

sufficient funding to build the **Resurgam**. The chairman of the Company was George's father – the Rev. Dr. John Garrett.

The Victorians were creative, innovative and industrious. Manchester is often referred to as the 'first industrial city in the world' and consequently there was a great deal of scientific and industrial activity going on in the region, which attracted many eminent scientists and engineers to Manchester. The 1870s was at the height of the Industrial Revolution and there was estimated to be around 100,000 steam boilers operating within a 10-mile radius of Manchester during this period. This meant that there was an abundance of scientific and technical knowledge on boiler design and operation, and it is not known whether or not George took any advantage of this at the time.

There was also a great deal of public interest expressed in engineering designs of the period – such as the launching of a ship, the erection of a bridge or the opening of a railway line. These events were advertised and became spectacles in their own right, where huge crowds would gather, out of interest in engineering feats of achievement, morbid curiosity, public entertainment, or to revel in some display of mechanical failure. George would no doubt have become swept up in such events of the period.

It was a strange occupation for a Curate to want to design an instrument of war, and many thought that it was not in keeping with a clergyman. However, George was extremely patriotic, in keeping with the Victorians, and his father supported his seemingly unusual venture, quoting many grand humanitarian aims and military objectives for such a humble vessel.

Many engineers or 'men of science' had contributed to the development of the submarine between the 16th and 19th centuries, too numerous to mention here. During the American Civil War in the 1860s there was also some considerable development on semi submersible boats driven by steam power. However, from a local perspective, one interesting name appears – that of James Naysmyth. James lived in Eccles to the west of Manchester and proposed the development of a steam driven semi submersible boat in the 1850s; James was of course famous for his development of the steam driven forging hammer, and as such was well versed in boiler designs of the period.

Most of the pioneering work thus far had been in other countries. Engineers of the period were very reluctant to document their developments and inventions, preferring to move onto the next project, and of course much of the previous work was for governments and so designs were treated as restricted documents. In addition to this, there were a number of professional bodies in existence at the time, including the Manchester Literary and Philosophical Society (1781), the Institution of Civil Engineers (1818), the Institution of Mechanical Engineers and the Institute of Marine Engineers (1840s), and the Royal Institution of Naval Architecture (1860). Whilst George was obsessed with mechanical engineering, he

had no training in marine science or naval architecture, and was not a member of any of the above institutions. As a consequence it would be extremely doubtful whether he would have been privy to past designs and developments that had taken place abroad, and any published articles by the many technical institutions of the period would not be readily available to him. It could be said, therefore, that much of George's work was innovative and 'cutting edge technology' for the period.

George lodged his Provisional Patent Specification in May 1878, at the Patenting Agent of W. P. Thompson & Co. – presumably at their Liverpool office. It was to have a gas or vapour engine, or alternatively it was to be manually powered by means of foot treadle arrangement. The design was also to incorporate hydroplanes and a rudder straddling the propeller, a ballast cylinder regulated by a screwed piston arrangement, chemical apparatus for purifying the air – presumably George's pneumatophore system, and a telegraphic communication system! The full Patent Specification was lodged with the office in November 1878, along with a drawing. Additional design features to the Provisional Specification included the possibility of incorporating a compressed air engine, electric searchlights and luminous gauge dials. George was very forward thinking in his ideas, including that of a 'spark ignition' engine!

George, together with the technical department at Cochran's, developed a number of design configurations or prototypes that I will collectively refer to under **Resurgam 1** before he arrived at the final design configuration which I will later refer to as **Resurgam 2** in a subsequent article.

Resurgam 1 – Conceptual Design Configuration: Structural design features comprised an 8.5 ft long hull, with a conning tower with portholes and hatch cover, along with internal structural supports including transverse hoop frames and longitudinal members, presumably fabricated from right-angled wrought iron. Mechanical design features comprised a foot treadle and cranked linkage arrangement, driving a propeller shaft (incorporating a flywheel to maintain rotational momentum), supported in pedestal bearings, and turning a 2-bladed propeller. The stern comprised a rudder and horizontal hydroplanes – no indication at this stage how these were to be controlled. A seat was provided for the occupant operating the foot treadle arrangement.

From a detailed study of the geometry of the foot treadle arrangement, particularly plotting the loci of one of the treadle linkages, it would appear that the path of movement of the each treadle would be in 3-dimensions, and therefore in my opinion it would be extremely tiring for the occupant to sustain such operation for any length of time.

No vessel was constructed to this design.

Resurgam 1 – Design Configuration 1: Whilst there was no drawing submitted with the Provisional Patent Specification, the design configuration is thought to comprise structurally of a hull some 14 ft long, a conning tower with

portholes and protruding rubber gauntlets in order to handle tools, otherwise located in a toolbox mounted on the hull, and internal transverse hoop frames. The internal longitudinal members were now omitted as structurally superfluous. Mechanically, it was hand-driven through a combined handwheel/flywheel mounted directly onto the propeller shaft and supported on pedestal bearings, with a cylinder-plunger ballasting arrangement – hand operated through a simple gear train, and complete with an adjustable seating arrangement. This vessel could be thought of as Prototype 1 and was constructed by Cochran in 1878.

There are seemingly no details or measurements of the gear train mechanism, but reviewing descriptively the force required to move the ballasting plunger (dependent upon the pressure at submarine depth and the area of the piston) and taking account of (1) the lateral movement of the plunger in one revolution (dependent upon the gear train [re velocity ratio and mechanical advantage]), and (2) the torque/turning moment applied (dependent upon the radius of the handwheel), then in my opinion the efficiency in terms of the effort/load of such a simple machine would be extremely low.

Due to the cramped space, it would also be difficult to propel the vessel and adjust the ballast mechanism at the same time. Ballasting of the vessel at the stern would also affect the stability along the longitudinal axis.

Resurgam 1 – Design Configuration 2: Structurally the vessel was designed and constructed as per Configuration 1, with the exception that the internal transverse hoop frames have been omitted, which does seem rather strange given the additional strength these would have provided against external pressure. Again mechanically, the vessel was designed and constructed as per Configuration 1. However, an additional feature comprised six internal ballast tanks, integral with the hull, together with a ballasting pump – these lowered the centre of gravity of the vessel, so reducing the freeboard and improving stability, and provided a platform on which to mount the machinery. The ballasting system could possibly have comprised a lift pump, incorporating a bucket valve with opening and closing valves. Obviously, the ballasting plunger arrangement was deemed to be insufficient in itself. In my opinion, internal baffles ought to have been incorporated in the tanks in order to reduce the amount of free-surface water movement, possibly giving rise to the vessel's instability. It is understandable that engineers of the period were very secretive of their designs, and the drawing submitted with the Patent Specification that was lodged on 5th November 1878 does not illustrate the final as-built construction. This vessel could be deemed to be Prototype 2 and was constructed by Cochran, perhaps even before the Patent was registered.

Human factors engineering would not be a consideration in those days, but in my opinion, poor ergonomic design meant that the helmsman now had to drive, steer, ballast and trim the vessel – sometimes simultaneously, and the helmsman's physical movement would have led to instability of such a small vessel. Also the

motive power available from the hand-driven two bladed propeller in an on-coming current or tide would have been questionable.

Resurgam 1 – Design Configuration 3: I have referred to this as the final Prototype 3 under **Resurgam 1**, and which was built by Cochran at a total cost of £231.19s.3d. The submarine was tested in the Great Float at Birkenhead, but unfortunately one of the rubber gauntlets ruptured and as a consequence there was an inrush of water and Garrett had to be rescued with all haste. Structurally, the vessel was 10 ft long, again with transverse hoop frames, conning tower and portholes. Mechanically, the vessel comprised a foot treadle, operated from a sedentary position, which provided physical power to the propeller shaft via a bevel gearing arrangement, with the propeller shaft that incorporated a flywheel and supported by pedestal bearings. The ballasting tank arrangement comprised a ballasting pump and associated pipework, with six ballasting tanks that were now not integral with the hull; two were located forward, two aft and two midships on either side of the helmsman for greater stability. From the author's proposed schedule of valve operation, any pair of the ballast tanks could have been filled or emptied, providing various modes of operating depth control and/or trim of the vessel. A hand control mechanism actuated the rudder and hydroplanes via the author's proposed system of gearing and pulley arrangement. The cylinder and plunger ballasting arrangement was finally omitted at this stage, obviously insufficient to ballast or even trim the vessel, and George finally abandoned the concept of the vessel being powered by a gas engine.

To be concluded in the June edition.

Wirral History & Heritage Association

The historic former Birkenhead Town Hall is opening its doors on Saturday 3rd March 2011 for the Wirral History & Heritage Association's annual Fair.

There will be representatives from most of Wirral's Local History and Family History Societies, Research and Friends Groups, Archaeology groups, plus Conservation, Preservation and Civic Societies.

The Research Society will also be exhibiting at the Fair. So if you are unable to attend our presentations at the Maritime Museum, please come and meet us.

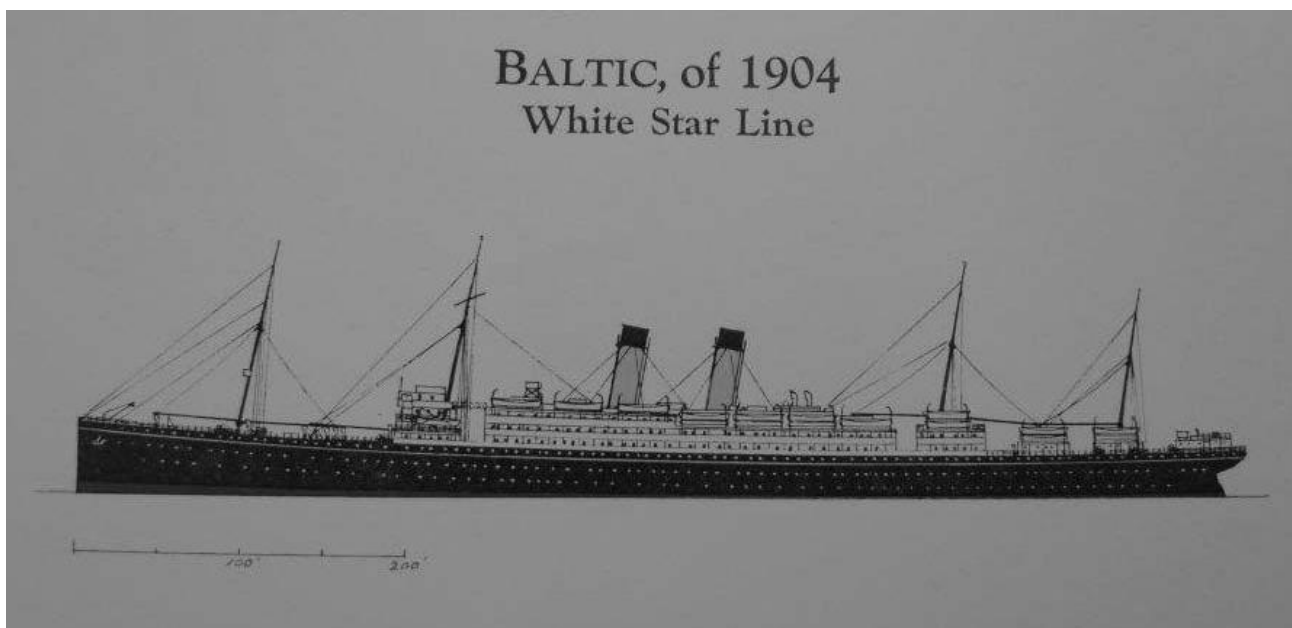
Wireless Operator Balfour of the RMS Baltic

By LNRS member W.G. Williamson

For most radio officers taking part in communications during a distress incident would be a rare event. However in the early part of the 20th century, Wireless Operator Gilbert William Balfour was serving on RMS **Baltic** and took part in two of the most famous maritime events. The first was the rescue of passengers and crew of the RMS **Republic** and the second was the loss of the **Titanic**. The White Star Line owned all three ships and all were equipped with wireless.

Gilbert Balfour was born in Liverpool on the 23rd May 1875. Although there is no information about his early life or schooling, it is known that he joined the GPO as a telegraphist in 1894 when he was aged 19. He was obviously happy and competent in the position for he stayed with the GPO for fifteen years.

However a comment in the Radio Officer exam records has a stark remark written by the examiner that reads “Dismissed from Post Office.” No further details are available but it appears that Balfour had “blotted his copybook” and decided to use his telegraphy experience by pursuing a career at sea. He joined the Marconi Company in October 1908 and went to the Seaforth School where he undertook some additional training for his new career. Balfour took his exam at Seaforth on the 5th November 1908. His sending and receiving speeds were recorded as a commendable 30 and 31 wpm respectively. (The official sending and receiving speed was 20 wpm). It is also recorded that he had a good knowledge of rules but under “Technical,” the examiner has written “no experience”.



The ss **Baltic** became Balfour's first ship where he was appointed as second wireless operator. His chief was Henry James Tattersall an experienced operator although only 22 years of age. During Balfour's time on the **Baltic**, wireless played an

important part in the successful rescue of passengers and crew of the **Republic**. On his third trip to New York, the ss **Republic** had been in collision with the Italian liner **Florida** in dense fog in January 1909. As a result of the telegraphy skills of Tattersall and Balfour, and the fine seamanship displayed by **Baltic**'s crew, nearly 2000 people were saved. The wireless operator on the **Republic** was Jack Binns. It is interesting to note that all three operators Balfour, Binns and Tattersall were in a group of twelve Marconi operators examined at the Seaforth School the previous November.

The 14th of April 1912 was the date that the **Titanic** had her fateful collision with the iceberg. Balfour was again serving on the **Baltic**, this time as the sole operator. He was a man with just over three years sea experience in addition to his fifteen years as a land based telegraphist. Balfour reported **Titanic**'s plight to the bridge and the crew of the **Baltic** made a significant effort to go to her aid despite being 243 miles east of the stricken ship. Therefore, he was a man whose experience and knowledge of wireless procedures made him a valuable witness at the US Senate Enquiry into the **Titanic** tragedy.

It is his statements to the enquiry's Senator Smith that make for interesting reading on a number of points. They shed light on some of the disadvantages and problems associated with the early days of radio communication. It was after all, only twelve years since the very first merchant ship had been fitted with wireless. Seagoing operators had largely evolved their own method of working although the 1906 Telegraphic Conference in Berlin had produced some international standardisation of procedure.

Balfour's opening remarks shed some light on his duties with the Marconi Company, and gives some insight into his previous career as the following extract shows, "I am what we call a travelling supervisor; I do shore duty, and I am sent to fit out ships at any place when that service is required. Travelling inspectors at times take charge of inspections. We are attached to particular ships. For instance, I am now attached to the **Baltic**. It is a part of our duty to fit up stations and to control traffic on the ocean".

Secondly he appears to be quite vehement in his evidence about "jamming" or as we now call it "interference". His main target for criticism about unnecessary signalling was the operator on the **Californian**, one Cyril Furmstone Evans. He also has a go at the coast station operator at Eastport, Maine (call sign WQ) whom he claims was causing interference all night. This is his comment, "At 3.05 the station at Eastport, Me., call letters W.Q., was asking the **Frankfurt** in re C.Q.D. calls. This station had been jamming all the night. Jamming is a term we use to indicate interferences; trying to get in; trying to get the way through. They were talking about things not really having to do with the rescue."

Balfour quoted directly from his log or process verbal and shows that his reception was badly jammed at 11.10 pm when **Titanic**'s signals were very weak. At 5.05 a.m on the 15th April 1912 he logged:

*"Signals **Carpathia**. Unable to work owing to persistent jamming by **Californian** who is talking all the time."*

Other scathing extracts from his log continue,

*5.30 a.m. **Californian** persists in talking to steamship **Birma** such remarks as "Do you see a four-master salmon, pink smoke-stack, steamer around," etc. Impossible for us to work.*

*6.55 a.m. Signals **Carpathia** but can do nothing for jamming by **Californian** and **Birma**, who are carrying on long, irrelevant conversations.*

Two more log entries 1030 and 1100 am also relate to interference from the **Californian**. In his evidence Balfour specifically cited the regulations operators were obliged to follow.

The regulations under which we work distinctly state, as follows:

AVOIDANCE OF INTERFERENCE.

8. Another general obligation which is imposed on all stations alike, and which is regarded as of the highest importance, is that they shall interfere as little as possible with the working of other stations. The rules of working are largely designed to prevent such interference.

That was the regulations in 1912. The current ITU (2008) Radio Regulations state:

All stations are forbidden to carry out:

- (a) unnecessary transmissions ;*
- (b) the transmission of superfluous signals and correspondence ;*
- (c) the transmission of false or misleading signals ;*
- (d) the transmission of signals without identification.*

Balfour's exasperation with Furmstone Evans appears to be justified. Evans was only 20 at the time of the incident and had only six months sea going experience. After spending seven months at the British School of Telegraphy in Clapham he passed his PMG in July 1911. According to his testimony he did one trip in the **Cedric** and three in the **Californian**. Perhaps this inexperience linked with the fact that it was only early on the morning of the 15th April that he discovered that the **Titanic** had sunk that made him overenthusiastic in his response.

During the London Wireless Telegraphy Convention of 1912 the authorities introduced two measures to improve communication during a distress and reduce the problem of jamming. The first was to standardise the distress frequency used by all stations as being 500 kc/s or 600 metres. The second measure was to ban the transmission of all commercial traffic during the period of the distress working or search and rescue communication as it is now called.

Another innovation introduced by this convention was the establishment of fixed wireless watch-keeping hours for different classes of ship. Different time zones were introduced dependant on longitude so that ships in the immediate neighbourhood would be on watch at the same time and would therefore hear any SOS. Greenwich Mean Time became the standard time used in radio watch-keeping. Prior to 1912 ships had used New York time, ship time or GMT. The convention also introduced silence periods where all operators kept quiet on the distress frequency for three minutes every half hour. This was from 15 to 18 minutes and 45 to 48 minutes past the hour, and this came into effect from 27th July 1914.



Among the other points considered during his evidence, Balfour gives Senator Smith an insight into "secrecy of correspondence." The senator was anxious to find out if it was common for operators to sell information they had received during the course of their wireless duties. Balfour is unequivocal in his reply, saying "Before I came into the Marconi service I was for 15 years in the British post office telegraph service, and I consider that the selling of information as a violation of the oath of secrecy. It most certainly is, according to the law." Balfour, as a long serving telegraphist at the GPO, was probably referring to the Post Office (Protection) Act of 1884. The crux of Section II of this act is clear,

"If any person, being in the employ of a telegraph company as defined by this section – Improperly divulges to any person the purport of any telegram; such person shall be guilty of a misdemeanour and be liable on summary conviction to a fine not exceeding twenty pounds, and on conviction on indictment to imprisonment, with or without hard labour, for a term not exceeding one year, or to a fine not exceeding two hundred pounds."

Ex-radio officers will be aware of this act for it was a requirement that a copy of Section II of this act was one of the official documents to be carried on board ship. This requirement came into force sometime in 1957. A final point relating to secrecy is the wording relating to this topic in the "Handbook for Radio Operators." These were quite explicit, and said,

"Such operators and persons must preserve secrecy in regard to the contents of, or even the existence of, correspondence which may be intercepted....."

Balfour continued his evidence about secrecy by stating, "At the time of the **Republic** disaster, the only message we sent ashore was by the authority and with the full permission of the commander of the **Baltic**, Captain Ranson. We were offered from one to five dollars per word if we would send an exclusive story

ashore. Even after receiving permission from the shore to send it, we would not do so without the authority of the captain. That is the strict regulation. No Marconi operator is supposed to sell anything ashore referring to the ship, or anything like that, without the permission of his commander.”

Senator SMITH. “I suppose that is done notwithstanding the injunction?”

Mr. BALFOUR. “I am afraid it is. What I have stated has been the principle on which I have acted throughout. I have been fighting for the position of the Marconi operators. We have got a very tough fight on with the shipping officials, and I believe you cannot put up a proper fight unless you have your hands absolutely clean. We have a very, very, uphill fight. I do not suppose anybody has any more experience in the telegraph service than I have, and I rather resent this thing of being put down as a junior or petty officer on the ship. You can not possibly have the confidence of your captain if you are going to do things behind his back.”

This latter statement is fascinating as it suggests that the redoubtable Balfour was a member of The Association of Wireless and Cable Telegraphists or AWCT. The AWCT was established in 1912 and it is known that by the 31st December 1912 it had 55 members. From their inception the Association fought for better recognition for their members. Although no early membership lists exist it is likely that the pugnacious Balfour would have been a member given the tone of his statement to the enquiry. It is also known that the AWCT had strong following in Liverpool because of the many liners that sailed from the port. Balfour lived in the Stonycroft area of Liverpool. It is also possible that the reason he was dismissed from the GPO may have been due to union activity. We will never know.

RMS **Baltic**

Harland and Wolff 1903 for the White Star Line. 23,876 tons.

Length 710 ft beam 76 ft top speed 17 knots.

Capacity: 425 First Class, 450 Second Class and 2000 Third Class passengers.

References: Radio Officer Exam Records

“The Signal” Journal of the Radio Officers Union

Handbook for Radio Operators.

Mortality of Cattle

from *The Times*, 19th January, 1888

“The **Lake Huron**, steamer, from New York at Liverpool, reports having experienced very heavy weather on the passage, and lost 256 head of cattle out of 462 shipped.”

The Marine Propellor

By Dr. Graham Patience

A summary of the presentation made to the Society on 17th November, 2011

In 1835 Francis Pettit Smith, an English farmer, applied the Archimedes screw to a boat and demonstrated the principle of mechanical screw propulsion. On his first trial, in a canal, the screw struck an object and was broken, losing almost half of its blade. This however was not a disaster as the boat increased speed as a consequence thereby demonstrating the relationship between blade area and efficiency. Over the next 10 years Smith developed the device to a propeller of two blades having a shape similar to that employed today. See Fig 1

Smith is generally recognised as the first but this is disputable. John Patch in Newfoundland, Canada, claims to have preceded Smith by 3 years; Ericsson in the USA also developed a similar propeller – his starting point being two ring propellers turning in opposite directions – at about the same time as Smith and there is evidence that Josef Ressel demonstrated the workability of the marine screw in Austria some 5 years earlier. To complicate the matter further, a Scotsman by the name of Wilson claims that he proved the principle 20 years earlier still, using as his starting point the two bladed propeller eventually arrived at by Smith after 10 years work.

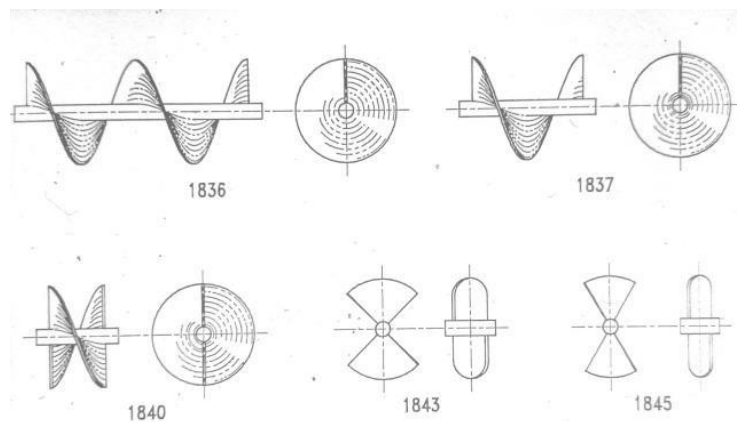


Fig. 2

From these beginnings the screw has developed into large single castings of up to 100 tonnes weight commonly employed today for the propulsion of containerships. See Fig 2.

In the UK, two companies, J Stone of Deptford and Manganese Bronze and Brass of Millwall, were involved from the very beginning, readily adopting the application of Bronzes to the manufacture of marine propellers, Fig 3, and then both independently developing hydrodynamic design methods, improved materials and casting technology for the production of the more

efficient and reliable monobloc (single casting) propellers to meet the needs of the shipbuilding industry in the UK and Europe.

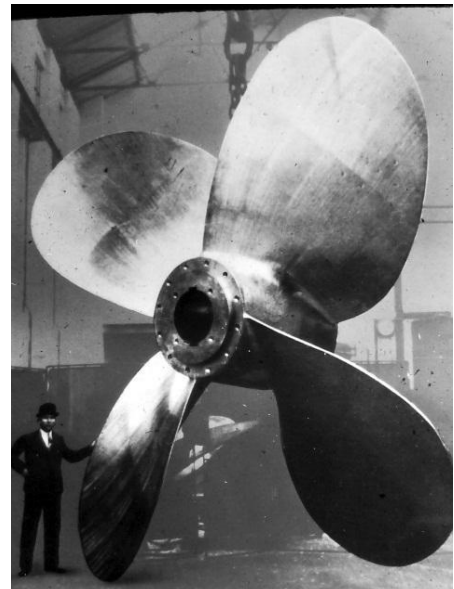
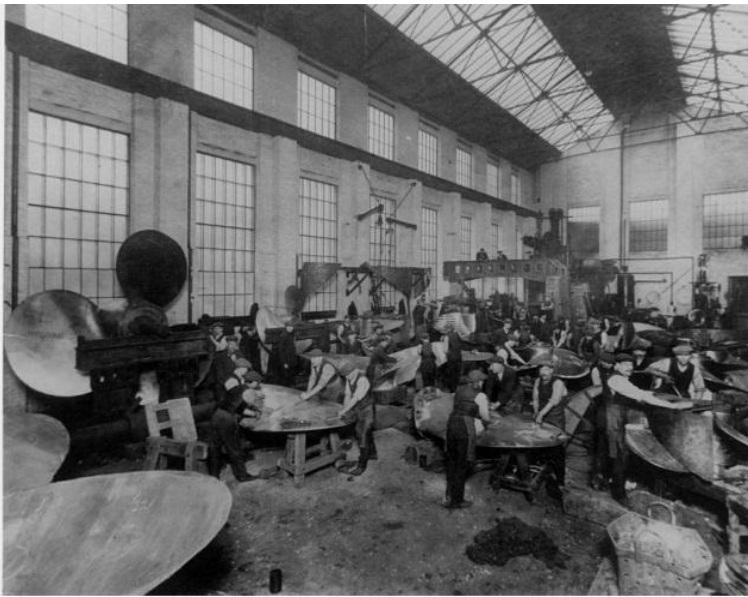


Fig. 4

Propellers from Stone and MB&B were utilised for the propulsion of many famous and well known ships – as an example the **Mauretania** propeller manufactured by MB&B in 1938 is shown in Fig 4. Of interest is that when the ship was scrapped in 1965, the twin propellers were sold back to the company at a higher price than their sale price some 27 years earlier – the metal being re-used in the manufacture of new propellers.

In 1942, the close proximity of these two major propeller makers in the UK was recognised as a presenting a high strategic risk from German bombers and, as a consequence, MB&B was relocated to a new facility at Birkenhead, where it has remained until the present time.



Fig. 5

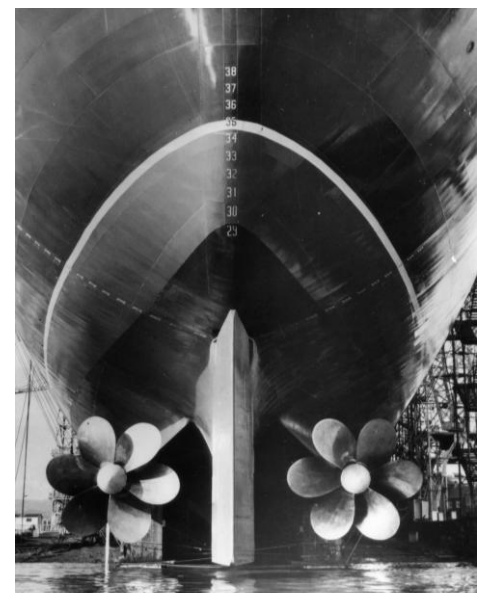


Fig.6

In 1963, the two companies, together with a smaller propeller maker, Bulls Metal and Marine of Glasgow, merged to form Stone Manganese Marine and the benefits of rationalisation and collaboration placed the company at the forefront of the European and World propeller industry, assisted by the expansion of Shipbuilding during the boom of 1960s and 70s.

This is exemplified by the expansion of the foundry at Birkenhead, Fig 5, which was developed into the largest dedicated propeller foundry in the world, its production of propellers peaking at nearly 400 units amounting to 5000 tonnes annually. Using this facility the company registered a string of notable propeller achievements. A small selection of propellers supplied by the company are shown in Figs 6 through 10 which show:

Fig 6: The propellers of the QE2, seen just before launch, which were designed for 40MW per shaft – at that time the highest ever power to be transmitted through a single shaft. These units weighed 34 tonnes in Superston 70 – the Company's high tensile Mn-Al-Bronze - and, following the ships re-engining to diesel electric in 1985, were melted down for the manufacture of a limited edition of golf clubs.

Fig 7 shows the propeller of a ULCC tanker with a diameter of 11 metres. This is the largest known diameter of propeller ever manufactured for the marine market and as a retrofit contributed to fuel efficiency savings in excess of 10% during the oil crisis of the 1980's.

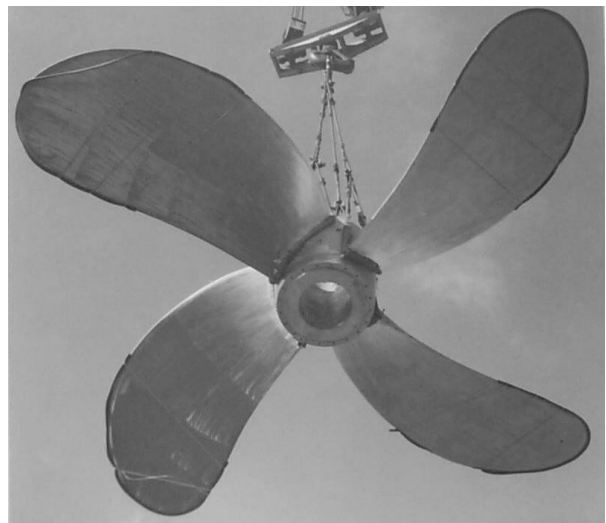


Fig. 7

The transfer of shipbuilding technology and its industry to the Far East – driven mainly by lower labour rates – began the end of the dominance of the European marine equipment suppliers, which over the last 30 years have been eroded to just a handful of suppliers.

In 2002, unable to compete with its heavily subsidised competitor in Germany, Stone Manganese Marine was sadly forced to close down its Birkenhead manufacturing facility and today, re-branded as Stone Marine Propulsion within the Langham Industries Group, still supplies propellers but mainly to the Far East, utilising the new propeller manufacturing factories in China.

The talk then went on to illustrate two modern developments of marine propellers

Fig 8: A typical modern 3rd generation containership propeller. This particular unit had a diameter of 9 metres and weighed 86 tonnes in Nikalium – the company's proprietary Ni-Al Bronze material. 15 of these units were supplied to the Odense shipyard in Denmark for the AP Moller R Class – designed by the Company to absorb 65 MW, these propellers were the highest powered and heaviest propellers in the world.

Fig 9: The starboard propeller of the “Invincible” Class of carriers. The propellers were manufactured to the design of DERA for the MoD. Until the 1980's SMM were the sole and single source supplier of propellers to the British Navy, from the corvettes to the largest capital ships.

Fig 10: The port propeller of the RFA ship “Fort Victoria”. These propellers were also manufactured to a DERA design and have a distinctive highly skewed geometry, which was successfully utilised to minimise the vibration properties generated by the propellers in operation.

A significant part of the Company's trading is now supplying state-of-the-art propeller designs for the Chinese market, which is exemplified by Fig 11 – at 98 tonnes the largest propeller ever made in China and to SMM's Meridian design.

These were the Kappel propeller, Fig 12, which, like the aircraft industry, is an application of non-planar lift technology characterised by the up-turn of the blade tips. Its application provides improved efficiency and cavitation properties albeit at higher cost from design and manufacture due to its more complex shape.

And, finally, the NPT propeller, Fig 13, which utilises recent developments in profile technology to exploit its pressure characteristics and cavitation properties to produce a more efficient, cavitation improved design. A particular feature of this type of development is a small but significant reduction in the optimum diameter of the propeller, leading to lower weight and inertia which can be further exploited in the design of the shaft train. Unlike the Kappel propeller, these benefits are achieved without additional cost and, as a consequence, is viewed as the propeller for the future.



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13

An Unusual Trawler Loss

Lloyd's Weekly Casualty Report for July 25th, 1921 contained the following paragraph:

'**Keelby**. - Grimsby, July 16. - The master [sic] of the steam trawler **Keelby** reports that on July 7, owing to shortage of bunkers, it was decided to make for Geestemuende [now part of Bremerhaven].

On mooring at the quay there on July 9 a large crowd collected and stoned the vessel, breaking every piece of glass on board and injuring one of the crew. The master cast the moorings and navigated the vessel stern first up the harbour. Off the entrance she struck what was thought to be a stone or gravel ridge, doing damage to the bottom under the port bunker, but the pumps were able to control the water. Having only two or three tons of coal on board, the master decided to make for Heligoland.

About 8 p.m. a heavy ground swell developed and at midnight the vessel made water rapidly. The crew took to their boat and at about 1.30 a.m. on July 10 the **Keelby** settled down by the stern and sank in deep water 8 to 9 miles S. by W. of Heligoland. After being in the boat about 8 hours the crew landed at Heligoland.'

Had the skipper paid more attention to the builder's nameplate on the **Keelby** (GY1161) he would have realized that a call at Geestemuende (then as now, one of Germany's principal fishing ports) was hardly the most diplomatic choice to have made since she had been built there in 1894 and had fished out of the port for over twenty years as the **Burgermeister Smidt**, named after the founder of Bremerhaven and perhaps Bremen's most famous son. In October 1915 she was one of a couple of dozen German trawlers captured during one of the many sweeps of the North Sea carried out by the Royal Navy which were part of the strategy of blockade; a strategy which eventually resulted in food riots. The poorer classes suffered badly from malnourishment and the lack of fish contributed towards this. When rationing was introduced it allowed for just 1,000 calories a day, not enough to adequately feed a child. Whilst the era of hyper-inflation had not quite arrived, inflation itself had been severe ever since 1914 and, again, it was the poorer families who were affected most. Politicians pandered to the masses by blaming it on the terms imposed by the Allies in the Treaty of Versailles; so the **Keelby** sailed into a cauldron of political, social and economic discontent. Her well-known profile was the match that lit the powder-keg of resentment.