LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

Vol 35 No 1

Summer 1991

BULLETIN

Formby Old Lighthouse (built 1719)

CONTENTS

Liverpool Nautical Research Society

President

M.K. Stammers

Vice-Presidents

Mrs. E.M. Summerfield N.R. Pugh

Chairman: Jas. E. Cowden *Vice-Chairman:* A.H. McClelland

Council

J.E. Lingwood J.O.C. Duffy G. Cubbin (Meetings Sec.)
A.S. Davidson, ... (ex officio)

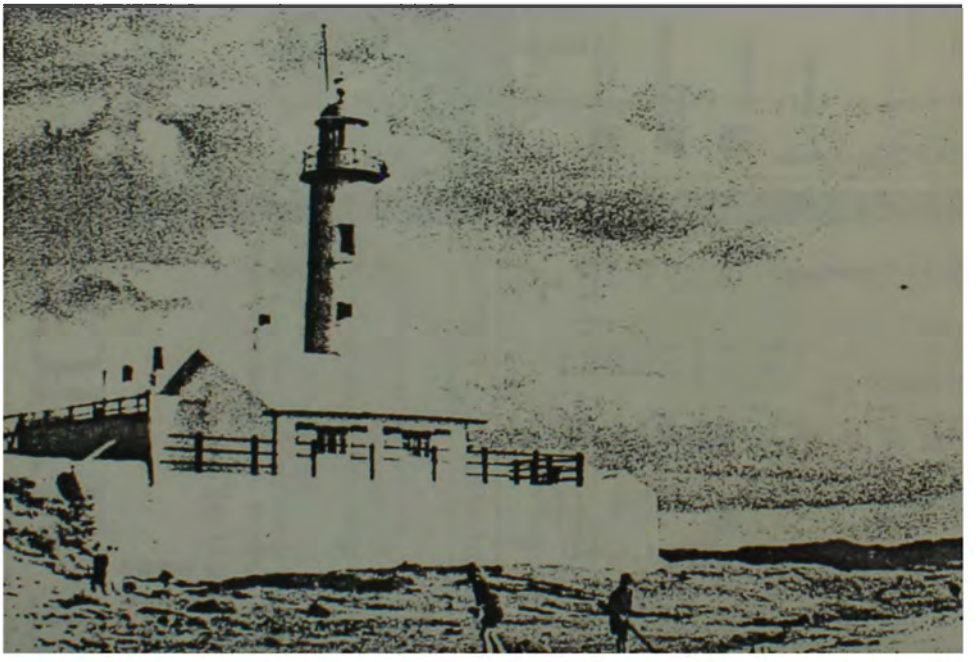
Hon Secretary: P.J. Tebay *Hon Treasurer:* K. W. Witter
Hon Archivist: A.H. Rowson *Hon Editor:* H.M. Hignett

Annual Subscriptions

Local: £5 *Country:* £4 *Senior Citizen:* £4 *Family:* £7

Application forms for membership and any other correspondence to:-

Hon Secretary, L.N.R.S.
Maritime Records Centre
Merseyside Maritime Museum
Albert Dock Liverpool L3 4AA



Hale Head Lighthouse 1949

Reminiscences

The Start of a Career in Liverpool - 1927

by N.R. Pugh

A MORE RESPECTABLE name for what we then knew as "a slump" is now called a "recession", and in the 1920's made a considerable impact on school leavers searching for a job. After staying on at Wallasey Grammar School for an extra year in 1926, I had gained a School Certificate which proved of no value at all.

I sat for a clerkship with the Mersey Docks & Harbour Board, in their magnificent boardroom, with many other hopeful lads but failed. My most promising interview was with the Canadian Pacific Express co - a subsidiary of C.P. S.S. Co - which had its office in the basement of Royal Liver Buildings. My hopes were high, but I had to wait final confirmation, as I thought, for the day of starting. All the wind was taken out of my sails, however, when I learned the job would go to another applicant whose father had been lost in the *EMPRESS OF IRELAND* collision in the St. Lawrence. After writing to one firm of Portuguese produce importers I had yet another interview, but was told sympathetically "We are sacking people - not taking any on !"

Then at last, in May 1927, through the good offices of a family friend - the Lord Mayor of Liverpool's coachman (Ted Elson), I was introduced to a young man from Sunderland, who, unable to find work in the Northeast, succeeded in Liverpool. However he now had a job to go to in his home town. After a chat with him I managed to obtain an interview with Mr. George Eyre, of William Eyre & Nephew Ltd, 30 Exchange St. east, Metal Brokers, Shipping & Forwarding Agents. The principal of the firm, Albert Eyre (George's father) was not very active in the business. He was over 70, always dressed in black with a Homburg hat and bore a resemblance to King George V. He was to be found every afternoon on Exchange Flags where he was known as the "Father of the Exchange".

With a starting wage of fifteen shilling per week I joined a staff of seven and came under the control of the shipping clerk, William E. Lloyd, who was soon to change my life. He was a man of the very best character, and I soon learned the work.

At that time, in spite of the talk of a slump, Britain was doing a large trade with South American countries. Most of my work was in compiling bills of lading, certificates of origin etc. These were written - not typed - in duplicate, triplicate and more. The firm for whom we acted as Liverpool shipping agents was G. Gottschalck & Co of Manchester. Most of the cases and bales of cotton goods arrived at our docks by rail haulage and dumped in the dock sheds. Motor haulage was seldom used. Items of cargo would leave Manchester one day and be alongside the steamer the next. Shipping notices would be lodged with the L.M.S. in Victoria Street. The wharfinger would measure the packages as they were slung aboard and send "returns" up to the town office which was our duty to collect. Usually on flimsy paper, the "returns" showed the dimensions of each package, and this class of cargo usually went as "measurement" for freight (charging) purposes, not "weight" and always in the shipowner's favour. I seem to remember that 40 cu ft equalled one ton measurement.

The Certificates of Origin were always written in Spanish, a subject I had done rather well at in school.

There was a great deal of walking to do in the town (commercial) centre, to lodge instructions with the L.M.S. Railway in Victoria Street, to the various shipping offices, the consuls etc. And then when the ship had sailed, dock dues were to be paid at the Treasurer's Dept at the Dock Board Offices, immediately followed by a walk beneath the Overhead Railway to pass Custom's entries.

Every time I passed the gap beneath James St. Overhead Station I lingered a moment or two on the cobblestones noting what vessels were in Canning Dock; maybe the Harley & Miller steam trawlers *CELTIA* & *GOOSANDER*, with their smoke- and brine-besmirched funnels. Probably the Blue Funnel steam barges *XANTHUS* or *XENOPHON* would be loading cargo for overside delivery to the "China boats" over in Birkenhead. Brocklebanks also had an immaculate steam barge for similar work to the "Calcutta boats" - with brasses all agleam.

The Treasurer's Dept of the Mersey Docks was an awsome, austere experience: they were the big noises of the Mersey, allowing nobody to forget it ! The staff of the Long Room of the Custom House in Canning Place were no less austere and also very strict. If a declaration was at fault in any way the documents would be thrust back for correction. Once, I remember, I was pulled up for spelling "woollens" with only one "l"; but I got away with it, admitting my slip.

The old Custom house was monstrous building with bare flag-stone floors and green-painted walls. The air always hung heavy with the smell of tobacco and rum stored in the vaults. A very grand commissionaire hovered around the entrance and passageways. The stone stairs to the Long Room were well worn by the feet of such as me. To me there was one exciting thing about the place: the large notice board carrying the Notices to Mariners which also included the news of fresh installations of radio beacons on the various lighthouses and lightships around the coast.

A large covered Dome covered the central Customs House, but there were other glass smaller glass domes, not easily visible from the street. One very hot Summer day. I walked through the Long Room to lodge my papers, and a pane of glass from one of these fell quite near me to smash into splinters on the stone floor. I was not harmed, but it was a lucky escape.

Strange then, that as my ship lay in Wallasey Dock in 1940, I watched the Custom House burn, leaving nothing of that huge dome when daylight came after that bombing raid. It was grim grey-black building and I shed no tears.

Those days there was, on the rear of the Dock Board Offices, another notice board giving much marine information on Liverpool Bay, the weather reports from Point Lynas and the Bar. This board also gave the names and times of the vessels passing Point Lynas inward-bound. A uniformed officer would emerge from the building and chalk up the latest information. As they passed Point Lynas coasters would signal by flag requesting a report be made to their owners. They did not all carry wireless in those days and vhf radio had not been developed. In 1928 whilst on holiday, I made a visit to Point Lynas and saw Zillah's coaster "*BEECHFIELD*" ask to be reported, which was done immediately on the antiquated telegraph gear of the time.

The bombers did not destroy the beautiful Dock Board Office building, yet dislodged its dome by an inch or two in a fierce raid which our late member Stuart Mountfield described in the "*BULLETIN*" some years ago. (Stuart was General Manager and Secretary of the M.D. & H.B. from 1957 to 1962. He wrote "Western Gateway" a book covering the first 100 years of the Port of Liverpool).

Now to return to shipping and Liverpool exports between 1927 and 1939. The goods we shipped to South America were almost entirely "cotton piece goods" (shirtings etc) declared as "Tejidos de algodon".

There were six lines running to the River Plate with sailings almost entirely on Saturdays. Nelson Line, as a subsidiary of Royal Mail Lines, had pleasant office accommodation in Colonial House, Water Street, which was bombed (on this site now stands Reliance House). The ships on this service were *DEMERARA*, *DARRO*, *DESNA* and *DESEADO*, which carried passengers and departed from Princes Stage, when a berth was possible. Sometimes purely cargo steamers were used, like *NATIA*, *NAVASOTA* etc and on rare occasions a real Nelson ship such as *HIGHLAND ROVER*. All the "D" class vessels were sent to Japan in 1934 for scrapping. The steel probably used against us in the future conflict !

Houlder Brothers offices were on the 3rd floor of the Royal Liver Buildings facing the Mersey. Their line had first stop Montevideo then Buenos Aires. They claimed to be the fastest line, taking 19 days to Montevideo direct, with such ships as *LA ROSARINA*, EL PARAGUAYO, *EL URUGUAYO*, *MARQUESA*, *DUQUESA*, *BARONESA* etc. The word Houlder could always be spelt by the first letter of the names of the individual ships - *HORNBY GRANGE*, *OSWESTRY GRANGE*, *UPWEY GRANGE*, *LA ROSARINA*, *DUQUESA*, *ELSTREE GRANGE* and *ROYSTON GRANGE*. That intriguing idea was soon to be fouled as enemy torpedoes found their mark.

Donaldson South America Line, under the aegis of the Anchor Line of Glasgow, had an office in Cunard Building, and although smaller, could equal the Houlder vessels for speed. These ships were *CORTONA*, *CORDILLERA*, *CORACERO*, *CORRIENTES* and CORINALDO (black funnels with a broad white band).

Here I might interject a note about the loss of the *CORTONA* which was torpedoed west of Madeira on 11th July 1942. On 26th July my ship HMS *HINIESTA* was heading down the River Foyle to calibrate HMS *EGRET* in the sea berth west of Portrush when our orders were cancelled by radio and we were to proceed to meet the Fleet destroyer HMS *PATHFINDER* and take aboard about thirty survivors of *CORTONA* and return with them to Londonderry. The destroyer went alongside the oiler off Morville where we took off the survivors. It seemed that the *CORTONA*, as unit of a River Plate convoy, had been escorted to the south of the Azores and left to proceed on her own. A U-boat had been shadowing the convoy and later was able to sink several of the ships. The *CORTONA* survivors had been in open boats for several days.

Houston Line had an office facing Dale Street at the far end of Queen Insurance Buildings. They had been taken over by the London firm of Kaye, Son & Co Ltd. Their ships used to the River Plate were *MARSLAND*, *MARCELLA*, *MARSLEW*, *MARINA*, *MARGALAU*, & *MARGOT* - not reputed to be fliers. Occasionally one of the remaining Houston ships such as a *HESPERIUS* or *HALESIUS* would appear on the run.

Lamport & Holt had a large fleet and their office was on the 1st floor of the Royal Liver Buildings, above Furness Withy & Co Ltd. Lamport's had ships with names such as *BALFE*, *BRONTE*, *THESPIS*, *LASSELL*, *LALANDE* and soon would have the motor vessels *DELIUS*, *DEBRETT*, *DEVIS* etc.

If I had a favourite line to deal with it was undoubtedly David MacIver & Co. with an office in James Street, just below Leyland Line, and probably on the site of what was to become the residential wing of the Seamens' Mission later converted into an hotel. Their ships *GASCONY*, *BRITTANY*, *THESSALY*, *TUSCANY* & *SICILY*, reached Montevideo in 21 days and went on to Buenos Aires and Rosario direct. The quality of their staff did much to lighten the burden of staying back till 8 pm on Fridays and earning the two shilling "tea money". Their canvasser was a portly gentleman named Tom Owen whom I was always pleased to see at our reception window. He would "talk ships" and I know that he suggested *PICARDY* for their next new-building. But this did not happen for they were absorbed into the Royal Mail group in 1933.

There was often a joint sailing of three or even four ships from Liverpool to the Plate in those days. Trade to the Argentine was on a large scale and we were supplying great quantities of steel rails for their expanding rail system.

Visits to the consulates were not altogether pleasant occasions: they were mostly in dingy offices in the town centre, but the legalization of documents was a neccessity. The Argentine Consulate was housed in a Lord Street building which seemed a maze of corridors. The Paraguayan Consul was a Miss Bullock; doing this as part-time work in a Brunswick Street office, which meant climbing a narrow, dimly-lit stairway or daring to take a ramshackle lift holding some two passengers !

The Uruguayan Consul was Senor Martinez, who had his rather surly son to assist him. The old man was a kindly figure with a decrepit office in South Castle Street, entered through a sort of patio, with shrubs, and a strong smell of tea. Papa Martinez was said to have financial interests in Spanish sardine fisheries. For legalizing documents there was a fee payable, and one day the

transaction being complete, he was putting the change into my hand. I was not a forward person, but this time I ventured to say "Dos Libros, ocho peniques". He beamed "You speak Spanish ?" We were then friends, and no more did I have to stand at the counter for attention, but was invited to take an armchair until legalization of papers was completed.

I always thought of that Canning Place as of different odours - the tea merchants, the rum & tobacco of the Custom House, the fish of Hartley & Miller's Quay.

Having dealt with the River Plate trade, may I now turn to our other shipping and forwarding activity: the West Coast of South America. As the Plate sailings were on Saturdays, it was fortunate that the sailings to Ecuador, Peru and Chile were mostly on Thursdays, which was the day the beautiful PSNC Liners departed from Princes Landing stage at the Pier Head. The PSNC had offices covering all the rear half of the ground floor of Cunard Building (now occupied by HM Customs). The passenger and cargo ships were *ORCOMA, ORITA, ORDUNA, ORBITA, OROYA, OROPESA, REINA DEL PACIFICO* and later *REINA DEL MAR*.

As shipping documents to consignees had to be posted in the ship's "bag" which closed about two hours before sailing time, I often purposely missed the "bag" and obtained a permit to go on board and deliver my mail to the purser. I boarded every ship except *ORITA*. How grand was the foyer, with the Captain in full-dress uniform welcoming the 1st class passengers aboard. I would have a quick look around these palatial ships and be ready for the "visitors ashore" call, or I might have found myself in La Rochelle, the first stop. I remember the lofty three-decks-high saloon in *ORCOMA* and the beautiful furnishings and stained glass in *OROYA*. They were times of maritime affluence, soon to disappear.

The bills of lading for the cargo were purchased from stationers such as Turner & Dunnett Ltd. in Castle St. or Rockliffs. Mawdsleys in Chapel St. had a bill of lading counter. For each consignee 3 stamped (legal) and up to 7 plain copies were written in longhand. Duplicating with carbon papers was permissible: typewriting was not used. My firm earned sixpence for every bale or case, with account made up on Saturday mornings. Indelible ink was used, and press copies made in a book of tissue paper leaves. A moleskin brush was used to dampen the paper and when the book was removed from the hand-press we had sometimes very smudged accounts. It was argued that this form of copying would stand up better in any law case than carbon copying. I wonder if the soggy invoices dried out on their way to the destination.

The large PSNC ships usually called at the major ports of Callao, Mollendo, Talcahuano etc, but, because of their tight schedules, missed out the minor ports. PSNC would send us a sailing card, announcing sailings to minor ports by their cargo vessels such as *LAUTARO, LORIGA, LA PAZ*, and *LOBOS*. I remember that at least one of these sailings went rather unexpectedly via the Magellan Straits and not the Panama Canal.

The port of Guayaquil was, for us, best served by Gulf Line vessels, otherwise known as the Nautilus Shipping Co of the N.E. coast. Ships with a black funnel, with four white bands, black hull and grey superstructure. They had names like *APPLE BRANCH, PEAR BRANCH, MAPLE BRANCH* etc. The Liverpool agents were William Nichol & Co having very unattractive office accommodation in a building, since demolished, above James St. Underground Station.

The Chilean Consulate was in Tower Building and the Peruvian in South Castle St. where I once saw a shipping clerk thrown out by an irate Peruvian official named Fernando Davila - a bad tempered young man, using his territorial rights.

Although it did not affect me, I felt sorry for certain office boys who were prohibited from using the two main lifts in Tower Building and had to use a goods lift at the rear (Chapel St.) entrance.

The office of William Eyre & Nephew was on the 2nd floor of 30 Exchange St. East, with Ralli Brothers, cotton merchants on the 1st floor. We were served with one of these open lifts, with wire netting encirclement. One could fell dizzy as one rose to the heights. In our office the windows rattled in the wind; the

floors were of stone slabs. We had a small coal fire in each of the two large lofty rooms. In Winter it was very cold: when the boss went out we would gather round the fire and try to put warmth into numbed fingers. There were two telephone boxes in the outer office, made soundproof with doors about 6 inches thick, and with a porthole. There was a tiny shelf and pad on which every outward call had to be booked: no private calls - not officially anyway.

The desks were high with tall stools and surmounted by brass rails holding ledgers. There was always a copying press, blotting paper, water and a moleskin brush. All so elementary - and now we have the computer age.

I arrived in the office after a ferry crossing from Wallasey at 8.55 am. George Eyre would take his seat at a large desk in the private office and slit the envelopes of the mail. I sat opposite and entered the sender's name in the "diary".

Back in May 1927 my first day did not start very well. I was walking through the office with a pencil in my hand when the top of it caught in a chest of drawers and forced the point into my thigh; the graphite breaking off in the skin. That evening the doctor gauged it out.

Seven years was a long time, the shipping boom, which was never hailed as such, declined. MacIver ships left the docks with far too much red boot-topping showing, looking as if they were almost in a ballast condition. Perhaps for Britain, the South American market was almost fulfilled before WW2 started. Additional to what I have written about the West Coast trade, it sometimes happened that there was a gap in PSNC and Gulf Line sailings. Our principals in Manchester took advantage of transhipment by using Cunard or White Star sailings to New York and thence by Grace Line with *SANTA BARBARA* type vessels. Also occasionally, we had small consignments to Pointe au Pitre in the Caribbean. These were three-legged iron pots much favoured by the natives in preparing their dinner. Cunard Line used to run a coaster to Le Havre (the *WESTON*, in my time, loaded in Canning Dock at the cross-berth under James St. Station) where there was a direct French sailing to Pointe au Pitre.

Edward Bates & Co was a well-known firm of Liverpool shippers and merchants in the pre-WW2 years. One item I remember Eyres supplying them with, was galvanised water tanks for West Africa. Calculating the freight would be a serious factor, taking weight and cubic space into account. I must say I was surprised at how the freight was made economic. The tanks were crammed full of bread, and they went "weight" not "measurement". It was said that the bread was still edible on the Coast.

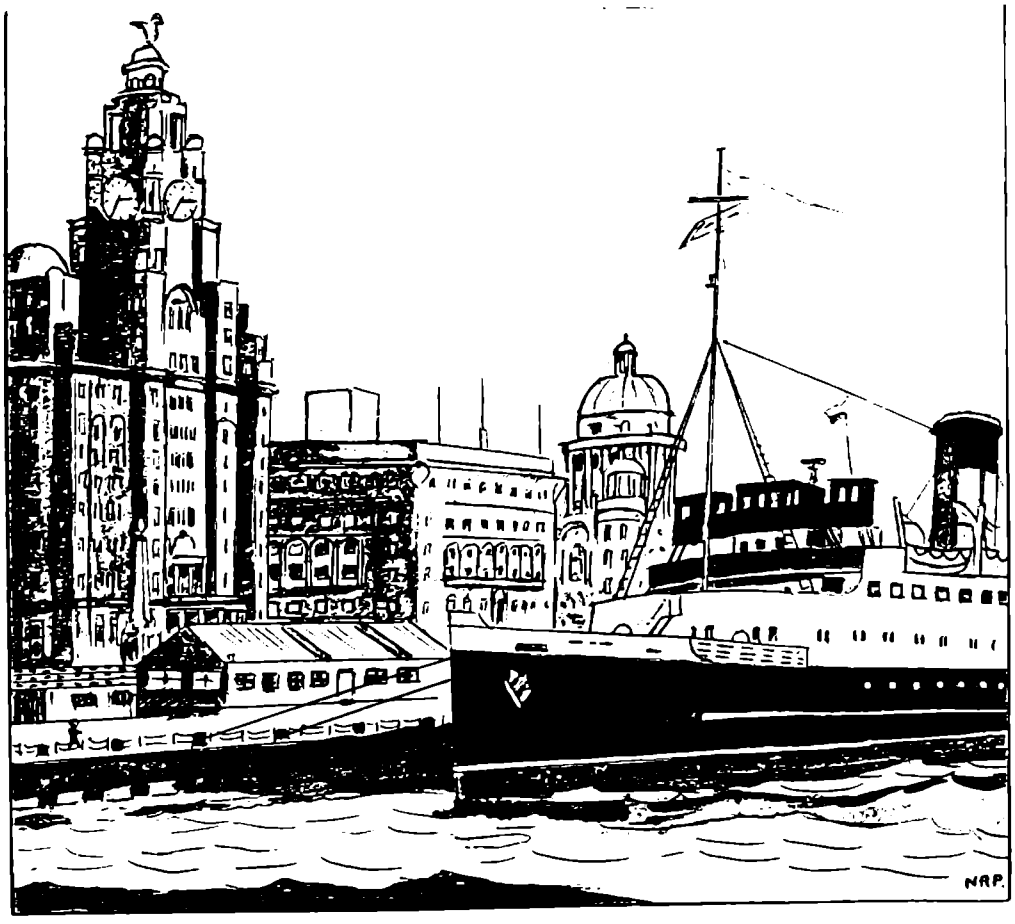
Then, in 1934 the recession struck hard. Our staff of seven was already reduced to four. Albert Eyre 'the grand old man of the Exchange' had died. And so one day I was climbing the stairs and met George Eyre on his way down. I could tell that he did not want to tell me, but he had to - I was to leave the firm that Friday after seven years. He kept Will Lloyd to manage the office and, I think, a boy. George Eyre had a son working in Czarnikows, the sugar importers, and on the retirement of George, the son took over the failing business for a time.

I said earlier that Will Lloyd changed my life. It was in 1932 that Will took a stroll through the Lord Street Arcade - now the site of British Home Stores. It was a pleasant arcade of shops rather similar to "Wayfarers Arcade" in Southport today. On a floor above were the studios and offices of the BBC and Liverpool's own radio station 6LV. In the entrance to W.H. Smiths shop there was always a chair with outdated magazines, perhaps a *"John 'o London's Weekly"* or a *"John Bull"* for sixpence. Returning to the office, and knowing my interest in shipping and wireless, Will intrigued me by pointing out a tiny advertisement at the bottom of a page of *"Wireless World"*. The Admiralty were to form a new civilian reserve of wireless enthusiasts for mobilization in time of war. I applied and was accepted as a "Watcher 1st Class" and being the first to join on Merseyside, I soon became Unit Petty Officer. Liverpool was allowed eight members. All my spare time went into this new pursuit, loving the Navy as I do, but that is a separate story. We were known as the R.N. Wireless Auxiliary

Reserve. The RNVR had a very active wireless unit in HMS *EAGLET* under the late CPO Bowie of Stoneycroft. But we were two entirely separate reserves; for Capt. Elgood would not permit training to be carried out in his ship by people not in uniform ! Ultimately the two bodies were amalgamated in 1938, and *EAGLET* and the Whitechapel training centres were used prior to hostilities.

In 1934 I went straight from William Eyres office to the Liverpool Clerks' Association for help. They gave me an introduction to William Heap & Partners Ltd (India Buildings) where I started the following Monday, without a break in employment. But now I was a storekeeper in engineering fittings and thus ended my involvement with the South American trade. In the course of it I had to visit dock sheds on several occasions to view damage to packages caused by pilferage on the railway. Wharfingers would retain damaged cases on the quay pending instructions. A common practice was for a knot in the wood to be cracked with a jemmy, making it possible to thrust a hand through the hole and extract the cotton goods inside. In all instances the packages had to be returned to Manchester for repacking. William Heap is a company still thriving in Hoylake. In those days Heaps exported to their house in St. John, Newfoundland, and I assisted with the documents for cargo shipped in Furness Withy's *NOVA SCOTIA* and *NEWFOUNDLAND*. Both those vessel were lost in the War and their successors have been discontinued.

Memories on memories, a treasure-trove of experiences from a life of four score years and two.



The following is a document found in our archives. It written in 1939 by Arthur C. Wardle a founder member

Formby Old Lighthouse

PERHAPS one of the most interesting Lighthouses in the neighbourhood of Liverpool is that known as the Formby Old Lighthouse. It stands inshore of the sandhills on the south side of the river Alt, just before this tortuous river empties itself into the sea. To travellers on the Liverpool to Southport line, it is an object of much interest as the train follows the track between Hightown and Formby stations.

When and how did this tower play its part in the scheme of local navig-ation, are questions often asked. Surrounded by fields of cabbages and potatoes it seems to have lost touch with its natural element, the sea. Still this age-worn structure may claim special distinction. It is the giant of a local lighthouse, with its elevation of 120ft., and its nearest rival was the first Leasowe Lighthouse built in 1763, which registered 118ft.

Further, it is the Methuselah of local nautical structures and boasts 220 years of existence. According to the printed diary of Nicholas Blundell of Crosby, it was building in the year 1719, for he states that on September 17th of that year he and his wife rode out to see his landmark building at the Grange.

In 1737, when Fearon and Eyes made their survey of the sea coast from Chester Bar to Formby Point, the chart showed this landmark working in con-junction with a lower mark, a perch, to guide those tiny brigs and barques between Mad Wharf and Burbo Flats into Formby Channel, as they sailed into the Port of Liverpool, but John Eyes chart of 1767 revealed that the landmark was working with a lower mark also a tower which had superceded the perch, on an east-south-easterly course.

Burdett's Chart of 1771 gives the upper mark as 120ft and the lower mark as 90ft high, and describes the upper tower as the South East Landmark.

==========

LOCAL NOTES

An Oil drilling rig is still operating west of the Bar. There have been reports in the press that there have been significant finds of gas. Occasionally there are large clouds of dark almost black smoke emanating from the rig which have been noted by people along the coast and local papers and the Coast Guard have had reports that ships were on fire in Liverpool Bay. Additionally, there are specialist vessels still moving in and out of the river. The field is being explored by the Aberdeen-based Hamilton Bros.

Will we see more vessel movements in the area? We shall learn in due course. There are hopes that any such traffic will make Lairds, our local shipbuilders, more attractive to buyers.

Early June a vessel arrived in Liverpool Docks with a hovercraft as deck cargo. It is thought a trial of the Hovecraft on the Ship Canal is planned.

Ten years ago local operators were buying tugs and barges built on the Humber. Recently McTay marine of Bromborough have completed a tug for Humber Tugs.

4th June 2000hrs saw an unusual vessel passed Crosby inward bound. Explor-ation/ drilling vessel, about 350 ft long with a 70ft drilling tower on the foredeck. The red-painted hull had an ancient motto emblazoned thereon "COE METCALF" !

The Port of Frodsham & the Weaver Navigation

by William R. Hawkin

A FIXED BRIDGE at the seaward end of a river produces an "Estuary Port" and the Port of Frodsham owed its establishment to the presence of the bridge carrying the Chester Road over the River Weaver. The low arches prevented the passage upstream of sea-going vessels, and cargoes had to be unloaded into flats or barges which sailed upstream from below the bridge or which were capable of passing under it.

According to Dodgson's "Place Names in Cheshire", in 1283 there was a piece of land in Frodsham called "Schiplendinggis" - the ship landings. It must have been beside the Weaver, and may well have been the reason for the name "Ship Street". Certainly there is a record that in 1280 Irish merchants were importing grain into Frodsham and ship tolls for that year were no less than £10. It is interesting to compare that figure with Domesday, which valued the whole of Frodsham at £4 a couple of centuries earlier. In 1696 the "Mary" of Laghall near Dumfries called at Liverpool and took aboard a pilot for Frodsham who charged 10sh 6d

As well as waterborne traffic, the Chester Road also brought trade to the port. Warehouses for salt and cheese were built, a cornmill specialising in the production of oatmeal was erected by the Aston family and a salt works came into being to process the rock salt from central Cheshire. In fact the carriage of salt was always the most important function of the Weaver Navigation, it was for this reason that it was originally created. There is good reason for believing that salt was produced in mid-Cheshire in Roman times, but the present salt industry dates from 1670 when a miner, digging for coal, found rock salt in the area between Northwich and Great Budworth. The Ashton mine, near Marbury, worked for many years until one dark night it collapsed entombing the miners and leaving nothing but a sheet of water now called Ashton Mere.

By then other mines had been established, output increased so that by 1710 over 5,000 tons per annum was being produced. Supplies of wood for firing the salt pans were becoming scarce and coal was needed but the cost of transport from the coal pits of Stafford and Lancashire was not economic. Pack horses could carry 200lbs a barge holding 100 tons could be towed easily by the same horse. Between 1711 and 1720 petitions to make the Weaver navigable to Northwich were presented to Parliament. Ultimately the Weaver was made navigable from Frodsham bridge to Winsford by 1732 and a Customs Officer was appointed to levy the standard salt tax. After a new Act in 1760 traffic increased to 77,000 tons per annum of which 70% was salt: ten years later total traffic on the Weaver was over 118,000 tons - salt 70% coal 24%.

79% of the cargoes carried downstream were of salt. Cargoes going upstream were coal, paving stones, limestone, flintstone, china clay for the Potteries (from Cornwall), timber and "Merchants goods". The Weaver carried 19,000 tons in the first year. A decade later this figure was 31,483 tons the greatest increase being in respect of "crated ware" from the Potteries.

In 1756 a consignment of 2,750 bushells of white salt belonging to Isaac Wood of Winsford was carried down to Frodsham Bridge in three flat, "Blakeney", "Duke of Cumberland" and "True Blue", where it was transhipped to a sea-going vessel the "Margaretta" of London, master William Handley. Unfortunately she was seized by a French privateer off the Isle of Wight.

At this time a small ship-building yard was building vessels on the northeast side of the river just beyond the line where the railway viaduct now runs. The earliest record of a Frodsham-built vessel is the "Armitage", a 40-tons sloop built in 1728 but this would not have been the first vessel to be built at Frodsham. Between 1728 and 1865 at least 60 craft of all sizes were built at Frodsham, the majority by William Hayes, most of them flats 60 to 80 tons displacement: but two 100 ton ships were constructed, the galliot "Kent" in 1816 and

the schooner "Mary Bollind" in 1858. The latter was lost two years later off the Norfolk coast. In fact, at this period, much coastal maritime trade was carried in similar vessels, and as lighthouses and buoy-marked channels were few, coastwise navigation could be a hazardous enterprize with the added danger of privateers.

As late as 1865 no less than 2,607 British seamen died in one year. An astounding number of vessels were lost, mostly sailing craft. In common with other ports the following Frodsham vessels were lost:-

"Navigator"	"True Love" in the Irish Sea 1710
"Dolphin" in 1783	"Friends" off the Welsh coast 1806
"Mary" in 1807	"Pattice" off the Welsh coast
"John" off Point of Ayr	"Amity" off Redland Bar (with all hands)
"Runcorn" (56 tons)	"Sly" (with all hands)
"John & Nancy" (50 tons)	"Lydia" sank near Mostyn in 1898

And the list is not exhaustive. The "Ann", built at Frodsham by Isaac White in 1799 was wrecked off St. Tudwald's Island near Abersoch in October 1858. At the height of his ordeal the master cried out for divine assistance and the story is remembered still in a folk song which is sung in Welsh schools to this day.

There was a regular communication by boat with Liverpool in the 18th century. On 3rd May 1793 the Frodsham Market Boat - the "William Kitchen" was "overset in a gale off Stanlow and 17 persons perished".

Generations of the Abram family lived at Frodsham Bridge and were much concerned in the Weaver trade; two of their ships "Hannah" 195 tons, master James Good, and "Hughes" 241 tons, master James Bell werre base at Liverpool and occupied in the slave trades from Angola and Gold Coast to the West Indies. The larger ship could carry up to 275 slaves. Other local owners were William Crosby and James Gregson of Frodsham and Henry Clare of Bellemonte who may have had interests in slaving.

In the late 18th century there were numerous complaints about flats being delayed due to tides. In 1775 it was suggested that a lock should be built on Sutton Marsh to maintain water levels upstream towards Northwich. Work began on a weir to hold back the water with a new cut across a bend in the river to by-pass the weir but also effecting the flow of water to Frodsham Mill. The lock was known as "Boden's Lock" after the family who looked after it and lived in "Frodsham's Locks House" for over a century. A further improvement was to make a towpath suitable for the use of horses to tow the flats between Frodsham and Acton Bridges. In those days it was more common to use men called "bow hauliers". Despite the horses it seems that men may still have towed the vessels up-stream for there is a small brick building beside the Sutton Weaver Swing Bridge on the NE side of the Weaver Canal listed as a "19th century boatmen's shelter" which may well have sheltered "bow hauliers" between jobs.

Following an Act of 1807 the Weaver Canal extended the Weaver Navigation from above Frodsham Weir to the deep water at Weston Point. With swing bridges at Sutton Weaver and Clifton, it enabled flats to sail direct to Liverpool with their cargoes of salt and return with coal from the South Lancashire coal pits of St. Helens on the Sankey Canal and completely by-passing the Port of Frodsham. This drastically reduced the number of vessels using Frodsham and was the start of its long slow decline. Of course there still remained the traffic to and from the warehouses, the mills and the salt and chemical works which had grown up on the western side of the lower Weaver. Although Ormerod in 1819 described the port area as "crowded with vessels which unloaded there" gradually the port declined as did the economic viability of the various enterprises. They closed one by one and the port fell almost into disuse.

An advertisement appeared in the *WARRINGTON GUARDIAN* in 1860 by Edward Jones then owner of the shipyard at Frodsham, offering for sale oak trees, ash and deal planks, steam tank and boiler, lathes, drilling machines, a crane and the smithy bellows due to "declining ship-building". The last vessel built and launched in 1862, at Frodsham, was the flat "Fanny" 40 tons displacement. Repairs to vessels however may have continued for a time. To add to the port's difficul-

ties the navigable channel along the southern Mersey shore migrated northwards in the 1870's and 80's making problems for vessels seeking to enter the mouth of the Weaver. A lighthouse built at Weston Point docks assisted vessels to enter the Weaver Canal but no guidance for the River.

During the 19th century there was fall in the consumption of oatmeal, upon which the mills at Frodsham Bridge had always depended, and they went through a difficult phase until they was purchased by Thomas Rigby, who installed "modern roller" equipment instead of the "primitive and now nearly obsolete process of grinding by means of stones". In 1885 having taken his son Arthur into partnership, a large modern steam engine was installed to drive the new plant. They did not, however, abandon the free power available from the river Weaver and fitted a large "Hercules" turbine nearly 5' in diameter to make the most efficient use of the water power available. electric lighting was installed - a novel departure in those days and they even, it is said, "connected the mills to the National Telephone System." Thus they were in good shape to meet the challenge of the 20th century. Wheat arrived by barges alongside the mill, where it was discharged by means of a mechanical elevator capable of lifting 60 tons per hour. The flour produced was at first distributed by means of carts pulled by "teams of splendid horses", then later by "Sentinel" steam wagons.

Operations continued until after the 2nd World War. The building was then used intermittently for storage purposes, but lacking proper maintenance became dangerous. Part of the main building collapsed into the river during high winds in the late 1970's and the remainder was demolished.

The salt works near Sevenhouses (adjoining the present Salt Works Farm) had developed into the WEAVER CHEMICAL WORKS owned by Messrs Heywood & Massie by the end of the 19th century. They described themselves as 'Manufacturers of Boiled Boes & Special Manures for all Crops, Horse, Cattle & Poultry Spice, Calf Meal &c', but they did not survive long in the more competitive 20th century. Perhaps their demise was partly due to competition from upstream where a factory specialising in the production of artificial manures of fertilizers. Their demise was mostly due to a factory specialising in the production of "artificial manures or fertilisers" established, further upstream, in 1851 by A.J. Ashworth. The use of large quantities of superphosphates was neccesary for the process, imported by ship direct to Ashworth's Quay at Frodsham Bridge. Steamed bones were another ingredient – no less than 20 tons per week were used at one time. They had a healthy trade by ship with the Channel Islands and proudly claimed that they were "the first to send a vessel loaded with manure down the Manchester Ship Canal!" The fact remains they too stayed in business employing local labour until well in to the 2nd half of the 20th century, but eventually closed down and the site is now derelict.

That, it seemed, was the end of the Port. But in the late 1970's Liverpool businessman, W.L. Crampton, took over the old mill site for warehousing and light industry and had the River Weaver channel dredged between the Mill and the Ship Canal. Today one can see larger motorised barges delivering grain to a newly fitted mill.

On often hears the saying "history repeats itself", but if we go back to 1773, two earlier Liverpool businessmen - Wiiliam Crosby and John Urmson - leased the "building or warehouse called the Old Cheese Warehouse" on the west bank of the River Weaver at Frodsham Bridge from the Marquess of Cholmondeley and the area experienced a century of commercial activity. Now 200 years or so later a similar thing has happened. Is it a real resurrection of the ancient Port of Frodsham or merely a final twitch from an already deceased corpse ?

Only time - and history - will tell !

ANNUAL GENERAL MEETING

The Museum, William Brown Street. 18th April 1991 at 1990hrs

Present: 24 members.

Apologies for absence: M.K. Stammers, A.J. Scarth, A.S. Davidson, N.R. Pugh

Minutes of last A.G.M. 19th April 1990: Taken as printed in BUYLLETIN. Proposed by AA.H. McClelland. Seconded by J.O.C. Duffy

Chairman's Report:
James Cowden spoke of the satisfactory growth of the Society over recent years and named a number of contributory factors which he thought had helped. Amongst these was the publciation of "Transactions" which had a wide circulation at home and abroad. The Chairman referred to the successful meetings covering a range of subjects and reminded members that thanks for this were due to the late Ken Stuttard, who we would all miss. Graeme Cubbin would be recommended by the Council to replace him as Speaker's Secretary and it was pointed out that it is open to any member to recommend a speaker to him. Suggestions would be very welcome. A good programme had been laid out for next year. Due to a business meeting Capt L. A. Holder would be giving his contribution at a later date than the May meeting when Mr. S. Wrigley, a senior member of the London & Liverpool P & I Club had agreed at short notice to stand in. (Capt Holder will speak in his place next September)

Hon. Secretary's Report:
The Secretary was able to report that the venues for the above meetings had been booked on the usual basis of the 3rd Thursday of the month. A number of new applications for membership had been received during the year and correspondence with member of the public had increased. In part this was due to the decision to create a Fleet History & List of H.E. Moss & Co vessels and in response to our letter(s) in SEA BREEZES replies had been received from as fcar afield as Australia and South Africa. On more general matters the Society would seem to be in a healthy state.

Hon. Treasurer's Report:
The financial situation of the Society was reported to be well in hand. The figures of the Balance sheet appear below. It was noted that a contribution of £500 towards the cost of producing the new "Transactions" had ben received from the Maritime Museum's Educational Fund.
The report was accepted by the meeting.

Election of Officers:
The Chairman announced that the existing incumbents would be prepared to continue in their present honorary capacities and this was accepted by a show of hands from those present. He reported that council recommended that G. Cubbin replace the late K. Stuttard. The members agreed unanimously.

"Transactions":
The new book would be a better production than the last. A publishers advice had been taken to seek more advertisements and whilst this had been done it would not generate enough to cover production costs. It had been suggested to leave publication until next year to co-incide with the visit of the "Tall Ships", but this was not possible as monies were already committted on the existing time scale. Copy should go to the printers mid-May and be published mid-June. More BULLETINs were to be printed in future to cater for demand.

A.O.B.:

It was suggested from the floor that the Society should seek more self-advertisement. The chairman, whilst agreeing, pointed out that this was already being done in a number of ways and did bring in new members.

Replying to a question, it was stated that membership now stood at 91 individual and 12 corporate memberships.

The Meeting closed at 2000hrs.

o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-

Review

THE JAPANESE SHIPPING & SHIPBUILDING INDUSTRIES

A History of their Modern Growth

Tomohei Chida
and
Peter N. Davies

THE TRANSFORMATION of the Japanese economy from something akin to that of a medieval European country to that of a superpower, third only to the USA and the USSR, staggered and amazed the rest of the World. Admiral Perry's arrival in Japan in 1853 triggered an immense change in Japan's attitude to to the rest of the World. 15 years later the country was fully committted to a policy of modernization. A century later Japan had, in spite of a disastrous war, more than made up for the earlier two centuries of isolation. It's GNP and standard of living of a vastly improved populationsoared to previously undreamt-of heights.

In this book the readers gains some idea as to how this modern achievement was attained, albeit using a maritime setting. With clear lucid language we learn the reasons for the successes and why Japan continues to progress.

Peter Davies, former Chairman of this Society, and now a Visiting Professor at a Japanese University, has colaborated with a Japanese scholar to produce a very readable book. It is almost distressing to compare British shipping and shipbuilding with their Japanese counterparts especially when one notes the encouragement given to all sectors of the industries in both countries.

Worth reading.

Published 1990 by the Athlone Press London No price stated

H.M.H.

LIVERPOOL NAUTICAL RESEARCH SOCIETY
ACCOUNTS FOR THE YEAR ENDED 31st MARCH 1991

INCOME & EXPENDITURE ACCOUNT

1989/90	EXPENDITURE	1990/91	1989/90	INCOME	1909/91
53.25	"THE BULLETIN"	57.00	423.93	SUBSCRIPTIONS	382.96
28.75	SUNDRY PRINTING	47.32	30.95	XMAS SOCIAL	- -
88.52	POSTAGES	97.09	22.77	COFFEE/REFRESHT's	17.70
22.64	XMAS SOCIAL	- -	273.48	SALE OF 50th Ann	
32.08	TRANSACTIONS 1988			TRANSACTIONS	84.08
4.70	SPEAKERS' EXPENSES	---	- -	ADV. REVENUE	150.00
35.99	MISCELLANEOUS	30.36	108.50	MISCELLANEOUS•	87.46
- -	ST. JOHN's HOSPICE	50.00			- -
593.70	BALANCE	940.43		Maritime Museum••	500.00
859.63		1222.20	859.63		1222.20

• Joint venture with "Sea Breezes"
•• From Educational Fund

BALANCE SHEET

1989/90		1991/91	1989/90		1991/91
£		£	£		£
187.19	CURRENT A/C BALANCE 31/3/91	127.62	193.49	CURRENT A/C BALANCE 30/4/90	187.19
1570.42	DEPOSIT A/C BALANCE 31/3/91	2638.37	933.92	DEPOSIT A/C BALANCE 30/4/90	1570.42
			36.50	DEPOSIT A/C INTEREST	68.35
			593.70	BALANCE INCOME/EXPEND	940.43
1757.61		2766.39	1757.61		2766.39

Hon Treasurer

31st March 1991

EARLY SUBMARINE TELEGRAPH CABLES by Charles Dawson

I became interested in the history of early submarine telegraph cables when I was researching the life history of one of my forebears. It seems that he was quite possibly involved in one of these projects. He was my great grand-uncle Archibald Kennedy, born Greenock, Scotland 1815, died Charlottetown, Prince Edward Island, (PEI), Canada, 1903. His younger brother was my great grandfather Captain William Kennedy about whom I have written previously. Archibald went to sea as a boy and quickly reached captain's rank in the merchant service. He emigrated while still a young man to PEI, Canada's smallest and probably least well-known province and there established a sail-making business in Charlottetown the capital. In 1864, he was also listed as "Harbour and Ballast Master" there. About 1865, he added shipschandlery to his activities, and the business became very prosperous.

When we examine the beginnings of submarine cables, we find that experiments to insulate cables in water and across the beds of rivers had been made at the start of the 18th century, but in 1840 Sir Charles Wheatstone, the electrical pioneer, put forward a plan for a submarine telegraph cable across the English Channel. Five years later the brothers Jacob and John Watkins Brett were apparently proposing uniting England and America, but the practical attempts they organised were made to fulfil Wheatstone's vision. Their first cable across the Straits of Dover between South Foreland and Sangatte was laid by the chartered paddle steamer tug GOLIATH on 28 August 1850.

The inevitable teething troubles were experienced such as raising further capital and obtaining really efficient insulating materials; the development of the application of gutta percha, the first important breakthrough in this field, was still being perfected at the time. After some further delay due to patent infringement problems, renewed attempts were carried out during 1851, one by the pontoon hulk BLAZER and later that year by the paddle tug RED ROVER which on 19 October laid the first successful submarine cable in the world.

The second of the pioneers of the submarine cable was Frederick Newton Gisborne, born 1824, in Broughton, Lancashire, England, died 1892 in Ottawa. He had arrived in Canada in 1845 and by 1847 had become established as an expert in the telegraphic field, helping late that year to found the British North American Electric Telegraph Association.

In Halifax when on service with them, he started to investigate the possibility of a connection with Newfoundland, and even proposed an extension to Ireland, an idea which was rejected out of hand by his company. In 1852 he was granted funds by the Newfoundland Assembly to form the Newfoundland Electric Telegraph Co. (NETC) with the idea of passing shipping information quickly to Halifax and New York. The scheme interested the Post Office and Samuel Cunard, who no doubt saw advantages in this for his shipping interests in Halifax. Gisborne was to survey a land line from St. John's to Cape Ray, which he intended to connect with Cape North, across Cabot Strait, at first via carrier pigeon and/or steamer, but eventually by submarine cable.

Gisborne next travelled to Boston, New York and England to obtain support for his idea of a transatlantic cable. In London he met J.W. Brett and from him obtained an initial financial contribution. Gisborne now found that the Nova Scotia Electric Telegraph Company (NSETC) had set such exorbitant royalties for the use of its lines in any Newfoundland connection, that he decided to by-pass them with a route via Prince Edward Island and New Brunswick and ordered the cable there and then while he was in London.

Upon his return he arranged, with new capital, the reconstitution of the NETC, which gave him exclusive rights for land cables in Newfoundland for 30 years. It was however with the stretch between New Brunswick and PEI that he succeeded in becoming the first ever to lay a submarine telegraph cable on the

continent of America. For use in the laying of the cable, Gisborne had bought a small paddle steamship, 81'x14', rigged as a two-masted schooner, from the New York & Galway Steamship Company and renamed her ELLEN GISBORNE after his wife.

On 22 and 23 November 1852, the laying of the cable from Cape Tormentine, New Brunswick, to Carleton Head (now called Borden Point), PEI, was accomplished by Gisborne's team. Gisborne was later to pay tribute to a Captain Kennedy of Charlottetown for his very valuable assistance. Gisborne added that without Captain Kennedy, the laying of the cable would have had to be postponed. It seems likely that Captain Kennedy was in command of the brigantine ELIZA which helped in the operations. Although this Captain Kennedy's first name is not mentioned in the references to him so far studied, it is reasonable to assume that he was in fact my great grand-uncle Archibald.

In the spring of 1853 Gisborne, now concentrating on the transatlantic project, renewed his attempts to raise new capital in New York and also in England, where Brett was once again willing to cooperate. Gisborne continued on the St. John's to Cape Ray land-line but his backers renegued on their agreement and left Gisborne with enormous debts. Brett however induced Gisborne once again to seek aid in New York.

There in January 1854 Gisborne met Cyrus West Field (1819- 1892), a still young paper manufacturer who had retired with a fortune, had been captured by the idea of the transatlantic scheme and was eager to invest in it. Field succeeded in gathering a consortium and obtaining the necessary additional financial backing; Brett purchased the assets of the now insolvent NETC, and in April a new company called the New York, Newfoundland and London Electric Telegraph Company (NYNLETC) was formed by the consortium which included Samuel Morse, of Morse Code fame. Morse, incidentally, was originally a painter and professor of art who, tiring of slow recognition, had surprisingly turned to invention. Signs of the first attempts to oust Gisborne appeared at this stage when Field's brother was brought in as chief engineer to replace Gisborne.

The land line from St. John's to Cape Ray was first completed, and plans made to lay the submarine cable across Cabot Strait from Cape Ray to Cape North. Cyrus Field was in England in 1854 to order the cable required and in 1855 cable-laying began. The barque SARAH BRYANT, which had brought the cable from England was to be towed over the course by p.s. JAMES ADGER, but bad weather caused the tow line to part and the cable to be lost.

Gisborne was surprisingly invited back as chief engineer, and on 2 June 1856, s.s. PROPONTIS of the General Screw S.S. Co. sailed from London for St. John's carrying the submarine cable which, under Gisborne's direction, was subsequently laid in July 1856 from Cape Ray to Cape North. After final tests, the Newfoundland - Nova Scotia connection was completed by October.

Shortly after, Gisborne was in London with Field, en route to Bombay and already looking ahead to the next ambitious project, when he discovered that his partners were about to cheat him in the transatlantic cable operations and there and then he abandoned everything to do with the scheme.

His efforts had however mainly contributed to the completion of the first connection between New York and Newfoundland. Cyrus Field's capacity to organise more capital had led in 1856 to the formation, together with Charles T. Bright of the Magnetic Company, of a new company, the Atlantic Telegraph Company, which had some partial successes in 1857 and 1858; the latter cable was successfully laid but failed after a month and 723 messages. Field next interested the Telegraph Construction & Maintenance Company in cooperation, and together they made the next, again unsuccessful, attempt in 1865. After this, yet another company was formed called the Anglo-American Telegraph

Company which took over the NYNLETC and in 1866 the first really successful transatlantic cable was finally laid by p.s. GREAT EASTERN on 27 July.

The pioneering efforts of Gisborne had been duly recognised at a dinner in Newfoundland in May 1857, when he was presented with a silver statuette, but by then his contribution had already been overshadowed by Cyrus Field's involvement. It took over 40 years after Gisborne's death before outward signs of public recognition were finally given him, when a bronze tablet honouring his cable was fixed on 21 September 1933 to the Provincial Building in Charlottetown.

The Dictionary of Canadian Biography, Volume XII, 1990, presents an extensive treatment of the amazingly wide-ranging life of Gisborne, and concludes the entry on him as follows:

"Despite his key role in engineering and promoting the transatlantic and other cables and discovering and developing the Cape Breton coalfields, Frederic Newton Gisborne died in obscurity. His partners had repeatedly tried to steal his inventions, enterprises and reputation, and in several cases succeeded. However, 'the indomitable Electrician' as one of his English friends called him, is a landmark figure in the history of science and technology in Canada, as well as a picturesque examplar of the Victorian scientist-adventurer".

Main Sources: Charlottetown, PEI:
ISLANDER newspaper, 19 & 26.11.1852
Hutchison's Business Directory, 1864
Lovell's Province of PEI Directory, 1871

Oxford History of Technology, Vol 4
OLD WIRES & NEW WAVES, by Alvin F. Harlow, N.Y. & London, 1936
NORTH ATLANTIC SEAWAY by N.R.P.Bonsor, Jersey, 1975
CABLESHIPS & SUBMARINE CABLES by K.R.Haigh, London, 1978
Dictionary of Canadian National Biography, Vol XII, 1990

Research Notes

Douglas Head has produced a Fleet List and brief history of W. Savage & Co - The Zillah Shipping Co. Brief remarks on the careers are included. Copies can be seen in the Maritime Records Centre.

Also in the M.R.C. there are brief lists of the sailing vessels owned and operated by local and otherwise important shipping companies. These have been compiled by member Capt. Greg Caldecott. He has some way to go with this project.

Aspects of the Indian Troop Service 1866-1896 (continued)

by N.F. Jones

H.M.S. *EUPHRATES* - *Engines & Boilers*

EUPHRATES and her sister ships had varied configurations of horizontal compound or single-expansion engines. For the *EUPHRATES*, engine, engine-room and shaft arrangement plans survive. The engine-shop no. was 165, Engines were 2 cyl. single expansion, 94⅛ins diam. 54in stroke, with double piston rods and return connecting rods. The cylinders were steam jacketed the steam passing through on the way to the double-ported slide valves. These were worked in conjunction with grid-iron expansion valves, worked from separate eccentrics and so arranged that the steam could be cut off at from $^{2}/_{10}$ to $^{6}/_{10}$ of the stroke. There was a starting engine of 26" diam. to operate weighshaft. Two surface condensers were fitted, having horizontal tubes secured in the tube-plate with a sheet of india-rubber and a brass guard plate. Steam was condensed on the outside of the tubes.

The engines of the *EUPHRATES* were the largest built on the Mersey up to this time: both engines and boilers were designed by R.B. Bevis, managing engineer at Laird Brothers. No boiler plans for the vessel are to hand, therefore a description of the boilers of the *JUMNA* must serve. In *JUMNA* there were four square boilers, two at each side of the stokehold which ran fore and aft, containing a total of 20 furnaces each 7'6" long x 3'4" wide. The boilers contained 2780 brass tubes 2½" outside diam. and 6' 6" long. Each boiler was fitted with a superheater of flattened tubes in the uptake on Field's principle. It is known that in *EUPHRATES* the tubes were in fact 2¾" x 6' and that the designed working pressure (guage) was 30lbs/sq.". This was eventually reduced to 15lbs in later service.

There was a steam bleed off the boilers to work a system of ventilation devised by Henry Edmonds M.D., Staff-surgeon, R.N. This worked on much the same principle as the blast pipe in a railway locomotive. Jets were located in several strategic extractor vents and a regime of intermittent blowing cleared the foul air from the troopdecks and other accommodation etc. The regime was varied according to the weather. There were arrangements and standing instructions for blowing off the condensate. The system augmented the considerable natural draft ventilation built into the ship and was particularly relevant when the vessel was closed down in heavy weather or was steaming in the tropics. At this stage there is no information as to the effectiveness of the system.

The ventilation system was apparently the only demand made upon the boilers outside the machinery spaces. Deck machinery and steering gear was manually operated at the time, with the exception of the self-contained steam baggage crane. At the time of her original undocking, the Particulars Book shows and allowance of 5 tons for "steam winches". These may possibly have been shipyard auxiliaries for warping etc. There is no information to suggest they were part of the permanent deck machinery.

As was the practice of the day, seawater was used for boiler feed in all five vessels. Drinking water was distilled from the main boilers to satisfy the heavy demand when troops were carried. This meant a constant rate of change of water in the boilers. Because of this constant change of water, a dynamic chemical equilibrium precipitated scaling to a degree that protected the metal surfaces from corrosion, but with the layer of scale never getting so think as to impede the transmission of heat. Fresh water feed was first tried in the *JUMNA* during the 1874-75 trooping season.

A two-bladed Griffiths-pattern screw propeller was fitted, 21ft diam. x 26ft pitch. The weight allowance for shafting and screw was 90 tons.

Indicator diagrams survive, dating to about 1874 when *EUPHRATES* still retained her original engines and boilers. Referring to these the journal "Engineering" states:

> "At the usual working speed the steam is cut off at 2½ins or about 1/21 of the stroke; but owing to the fact that the expansion valve is at a great distance from the slide valve, the whole ratio of expansion is probably not more than 5. Our set of diagrams, taken at a speed and pressure somewhat above the present working speed and pressure, are fairly representative of the ordinary figures. They illustrate what we have said with reference to the low ratio of expansion and the excessive clearance. We do not know what the clearance actually is; but, calculated from the diagram, it appears to be not less than one-fourth the volume swept through by the piston".

A 2½ins cut-off subtends a theoretical mean effective pressure of 3.72lb/sq.in. which seems absurdly low. The "Engineer" opines that the ratio of expansion was 'probably not more than 5' (the equivalent of a 10.8 inch cut-off) implying that the greater part of the expansion was taking place in the cylinder clearance volume. This revised ratio of 1:5 gives a more realstic theorsetical mean effective pressure of 13.95lbs/sq.in. The calculation assumes perfect conditions: in practice the actual mean pressure developed in an engine will invariably be lower than the theoretical.

The diagrams were taken with a boiler guage pressure of 16lbs/sq.in. and condenser vacuum of 25.26 inches Hg representing a nett back-pressure of 2.07lbs. From this it can be calculated that an absolute pressure gradient of 28.63lbs per square inch was available to work the vessel.

Of the diagrams themselves, it is logical to assume that the right-to-left pressure gradients represent the outward stroke (corresponding to the upward stroke in a vertical engine), the cylinders being to the starboard of the shaft, the following is an attempt - with reservations! - at analysis:-

FWD. CYLINDER OUTWARD STROKE (right to left in the diagram):

Admission line:	clean
Steam Line:	falls away quickly - wiredrawing ?
Expansion Line:	lesser concavity than return stroke
Exhaust Line:	clean
Back-pressure Line:	clean
Compression Line:	earlier than return stroke.

FWD. CYLINDER RETURN STROKE (left-to right in the diagram)

Admission Line:	v. slight insufficiency of lead
Steam Line:	worse than outward stroke
Expansion Line:	greater concavity than outward stroke
Exhaust Line:	early release
Back-pressure Line:	clean
Compression Line:	later than outward stroke

AFTER CYLINDER OUTWARD STROKE:

Admission Line:	clean
Steam Line:	falls away very quickly - wiredrawing ?
Expansion Line:	much greater concavity than forward outward stroke
Exhaust Line:	slight early release
Back-pressure Line:	higher than forward cylinder
Compression Line:	earliest point on the cylinder

AFTER CYLINDER RETURN STROKE:

Admission Line:	v. slight insufficiency of lead with slightly lower initial pressure on the forward cylinder
Steam Line:	mirrors that of forward return stroke
Expansion Line:	slightly more concavity than forward return stroke
Exhaust Line:	early release, slightly better than forward stroke
Back-pressure Line:	not quite so late as forward return stroke

Ordinates have not been taken but the forward outward stroke displays most power. The after cylinder is the less efficient, due to uniform greater back-pressure and a poor expansion gradient on the outward stroke. There are no axial piston rods in these engines: the in-board cylinder ends were pierced by three rods, each of unique diameter and eccentricity. Because of this, leaking glands may have been a problem in service. The balancing of the piston thrust in the design stage must also have been made complicated by this arrangement. All the steam lines are very short, seeming to confirm most of the expansion is taking place in the clearance volume. The diagrams have a very angular periphery, possibly reflecting low piston speed (555ft/min.).

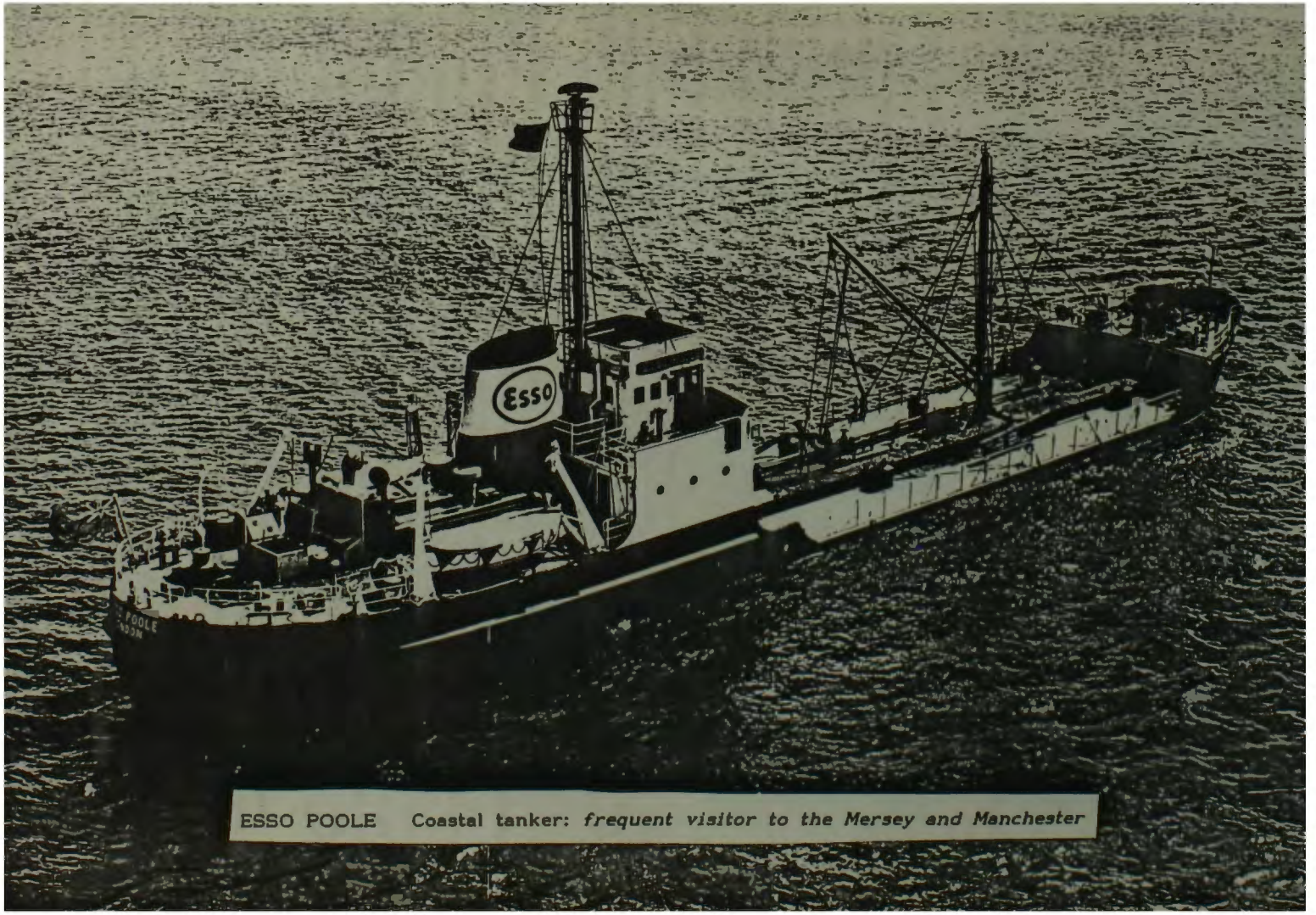
The ***EUPHRATES*** retained her original engines and boilers later than any of her sisters, yet these indicator diagrams still bear favourable comparison with those of the compound engines in the other vessels, some of which look decidedly shaky.

These ships were largely idle during the off-season, therefore the Admiralty used them for various experimentations. As for performance in actual service, some comparative data exists but its compilation and evaluation must have been a complex task with so many variables. These were coal-fired, sail assisted vessels. On trials, coal had to be weighed in buckets between bunkers and furnaces. On passage there would inevitably be a complex shifting interaction between prevailing weather, the professionalism of the officers, the skills of the sailors in adjusting the sails, and the skill of the firemen in managing the furnaces. Furthermore, modifications in propelling machinery etc., before representative periods had elapsed, tended to disqualify data already gathered.

Staffing: The engine and boiler-room complement was augmented during the trooping season, as in all departments. Rates of pay are representative and could be varied by service and qualifications, particularly in the case of the more senior officers. During the trooping season the engine-room manning was as follows and at the daily rates shown:-

Chief Engineer			16s	0d	per day
Engineers and Assistant Engineers	8	at	8s	0d	" "
E.R. Artificers	3	at	5s	0d	" "
Blacksmith	1	at	2s	8d	" "
Leading Stokers	8	at	2s	5d	" "
Plumbers	2	at	3s	0d	" "
Stokers and Trimmers	32	at	2	0d	" "
" " " 2nd class	8	at	1s	8d	" "
Supernumary Stokers & Trimmers	20	at	1s	8d	" "

(A report in the "TIMES" of 10th June 1867 criticises the washing and sleeping accommodation provided for the engineers as most inadequate)



ESSO POOLE Coastal tanker: *frequent visitor to the Mersey and Manchester*

LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

Vol. 35 No. 2 Autumn 1991

BULLETIN

s.s. Lochmonar on revetment 1927
(A similar grounding occurred in 1923)

CONTENTS

Liverpool Nautical Research Society

Annual Subscriptions
Local: £5 *Country:* £4 *Senior Citizen:* £4 *Family:* £7

Application forms for membership and any other correspondence to:-
Hon Secretary, L.N.R.S.
Maritime Records Centre
Merseyside Maritime Museum
Albert Dock Liverpool L3 4AA

SUBS DUE

Please Note that the normal notice requesting payment of subscriptions did not appear in the June issue of BULLETIN. The amount required has been held to a minimum

The Treasurer thanks all those who have paid to date and requests all those who have not yet paid to send their subs as soon as possible.

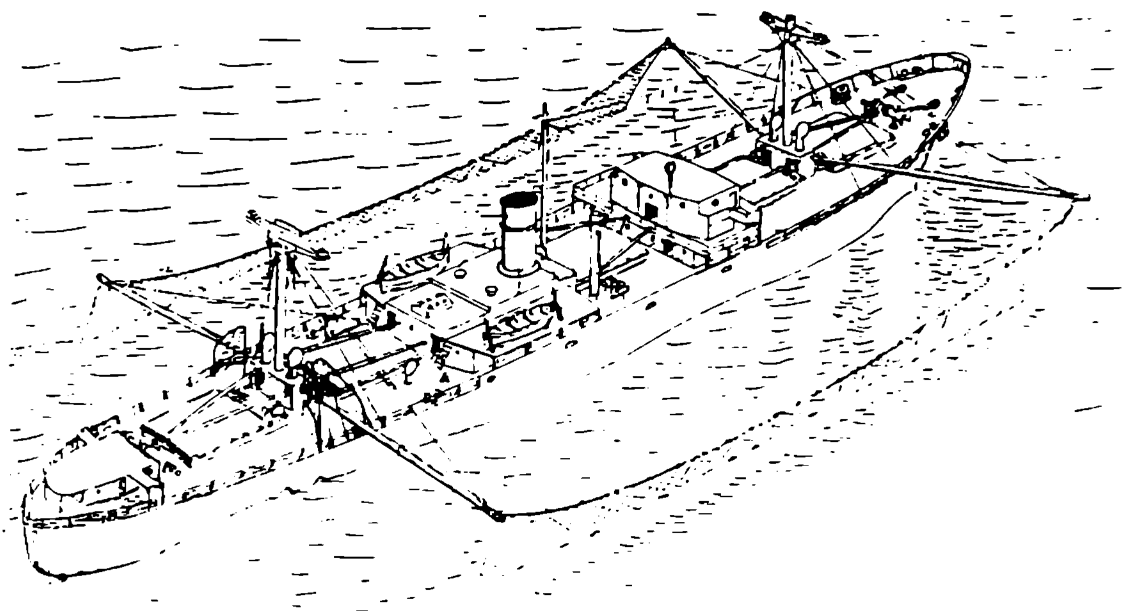
Editorial Note

The article on Frodsham in the Spring issue was re-printed by error in the Summer issue. Another article on Frodsham which should have appeared in the last issue is printed herein. The editor humbly apologises !

October Meeting **Thursday 17th: 7 pm at the Museum, William Brown St**

SHIPS WITH STEEL SKIRTS

THE DEVELOPMENT AND USE OF NET DEFENCE FOR MERCHANT SHIPS IN TWO WORLD WARS



c. Lawrence Norbury-Williams

o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o

STOP-PRESS

TRANSACTIONS is at the printers. Details of price to members, etc, will be available soon.

Local Notes

Recently a car was 'parked' on the beach at Birkdale near Southport overnight. The driver had been surprised by the tide. The car was washed into the wreck of the Chrysopolis. This wreck occurred in 1918. How and why was the vessel wrecked?

In was announced in July that the Ince power station, near Stanlow, Cheshire is to burn *orimulsion* ferried from storage tanks at Bootle. Up to the present the station has used heavy fuel oil supplied by Shell (UK) Ltd from the Stanlow refinery. *Orimulsion*, a bitumen-based emulsion from Venzuela, is now available at prices competitive with world coal: Richborough (Kent) Power Station has been using the new type fuel successfully for about two years.

Edward Bates - Merchant & Shipowner

EDWARD BATES was the third son of Joseph Bates, a clothdresser of Skircoat, Halifax. In 1833, aged 16 years he was sent to Calcutta to assist his older brother, Joseph, who was setting up a trading business in woolen cloth and other manufactured goods from Halifax and returning cargoes of hides, dyes, saltpetre and other raw materials. The letters between Joseph and his father show that Edward was a difficult young man with a fierce temper and relations over the next few years between himself and the other partners continued to cause severe problems until he married at the age of 20 years.

While on a voyage home his wife died and, in 1844, he married Ellen, the second daughter of Alderman Thomas Thompson, a businessman from Hull. He returned to India and began trading from Bombay. In 1848 he left India for the last time and set up as a merchant in Liverpool.

During the next twenty-six years he built a successful business, not only as a merchant but also as a shipowner and almost 100 vessels were owned or partly owned and managed by him. Known as 'Bully Bates' he was not a popular figure in Liverpool due to his overbearing nature and his failure to become associated with any of the numerous charitable enterprises which were such a feature of the period. There were also allegations that he was not too particular about the conditions of the ships owned by him.

In an attack on 'villainous' shipowners by Samuel Plimsoll in the House of Commons he was named as an owner who, in 1874, had lost six vessels and 87 lives. Edward Bates was, however, able to show that certainly five of the vessels were recently surveyed and that they were not over-insured.

He handed over control of his business to his sons in 1870 and after buying the estate of Manydown Park in Hampshire he became M.P. for Plymouth. He was expelled from the House of Commons as a result of the bribery by his agent of some trawlermen to vote for Bates. He was held to be responsible for the acts of his agent, but in spite of this judgement he was made a Baronet on the recommendation of Disraeli and shortly afterwards he was elected to Parliament with an increased majority.

He had three daughters by his first marriage and five sons by his second. His eldest son, Edward Percy, married Constance, the daughter of S.R. Graves MP and sometime Mayor of Liverpool. He died at his home in Hampshire in 1896 at the age of 80.

The speaker concluded by saying:

There are no statues to Sir Edward Bates, no memorials, no plaques. He wrote no autobiography and left no volumes of personal letters. If there are is a biography I have yet to find it. Indeed, it is remarkable that there is almost no reference to him in the standard works on Liverpool's maritime history and personalities. Orchard says, 'Business apart, he did not care for Liverpool, nor did Liverpool care for him. He was not one of us'. This may well represent the judgement of the contemporary Liverpool. But a shipowner and merchant who, from a base in Liverpool over a period of almost thirty years, built up a fleet of around 100 ships, whose sons carried on the business and whose grandsons directed (in fact took over) Brocklebanks, became managers of Cunard and much besides, cannot be ignored. I think Liverpool will have to accept this forthright Yorkshireman as a significant part of 19th century maritime and mercanttile Merseyside.

It is hoped that a full text of the talk with details of the vessels owned by Edward Bates will appear in a future volume of Transactions.

In December (1990) the editor, as master of the 'retired' estuarial vessel CUDDINGTON, preserved at the Boat Museum, Ellesmere Port, was asked to assist a local lighterage transport concern in delivering 25 tons of ship's stores from Frodsham Quay to the ONABC a large tanker at Tranmere oil jetties. PANARY, a similar craft, would normaliy have undertaken this work: but the mill at Frodsham Quay had its silo full and was not able to take the 300 tons of grain already in PANARY's hold.

The cargo of stores sent from Bremen included engine parts & stores; crates of beer and other drinks, paint etc. There were also a couple of wire hawsers weighing three tons each which could not be taken along fragile gangways from the shore to the jetties at Tranmere.

CUDDINGTON, (102'x 22' 295gr 115net) also with a 'retired' crew, left the Museum, went up to Frodsham loaded the stores and, after a couple of nights out returned, having completed the task successfully. The Boat Museum volunteers were rewarded with a donation to the funds used for the maintenance of their 42 year old vessel. This operation made several people enquire further into the water transport to Frodsham. Nigel Bowker of Frodsham Lighterage has kindly produced an excellent article, which, considerably shortened is printed below it is hoped to publish the full article in the not too distant future.

RECENT TRADE TO FRODSHAM QUAY

by Nigel F. Bowker

AS W.R. HAWKIN stated in a previous *BULLETIN* (Vol 38 No.1) Mr. Les Crampton operated the greater part of the Bridgewater Dept of the MSC's fleet of steel barges from 1971, under the name Weaver Storage. Most of the trade was based on Frodsham Quay; however this became dormant with the craft laid up alongside the former Mill.

In 1979, Apollo Carriers of Yorkshire made determined efforts to revive inland water transport on and around the Mersey. They sent their steel Yorkshire motor keel *CHARLES WILLIAM*, 57.2ft x 14.5ft (capacity 100 tonnes) to the Mersey via the Leeds & Liverpool Canal in which many obstacles were encountered and height restrictions were overcome by part flooding the hold with water. Apollo were successful in gaining orders to carry Canadian wheat from the Seaforth Grain Terminal, Liverpool to Frodsham Quay for onward transport to northwest mills, in competition with the more popular road vehicles. The success was in no small measure due to the flexibility of the barge crews who naturally enough werew all advocates of water transport.

Then, with even more cargo of this type on offer, an existing barge crew formed Parbella Ltd to purchase the former MSC Bridgewater Dept.'s motor barge *PARBELLA* 70.2ft x 14.5ft (52gr 28net capacity 80 tonnes). She entered the Seaforth/Frodsham grain traffic alongside *CHARLES WILLIAM*. In 1981 the steel dumb barge *SARAH ABBOTT* was acquired from the National Dock Labour Board, Manchester where she had been a dockers' training vessel in No.2 Dock, Pomona. She was built in 1948 for the MSC Bridgewater Dept. for towage by motor barges such as the *PARBELLA* and proved a useful addition to that vessel's carrying capacity.

In 1981 two other motor barges obtained spot charters from Seaforth to Frodsham: *SPURN LIGHT* (400 tonnes) and *HUMBER TRADER* (280 tonnes). These vessels were owned by Liverpool Grain Storage Ltd and James Fairclough of Warrington respectively.

In 1982 competition appeared when an individual from Runcorn arranged a charter for the *PARCASTLE* (sister of *PANARY* but one year younger). The same year saw the *CHARLES WILLIAM* leave the trade after sinking in heavy weather between Dingle and Bromborough, fortunately without loss of life. Raised and repaired she never again traded on the Mersey being sold to East Coast owners.

Parbella Ltd then bought another barge, this time from the Bristol Channel area *CS9* (capacity 160 tonnes). In 1984 *PARBELLA* suffered a serious machinery breakdown and unwent major repairs.

Fortunately a similar, slightly larger vessel *PANARY* (built 1937, 96.7ft x 21.4ft) was about to come on the market. James Fairclough & Sons Ltd., (part of the Allied Mills Group) withdrew from barging operations in 1984 and disposed of their two motor barges, *PANARY* and *SPURN LIGHT*. *PANARY* able to carry up to 260 tonnes was sufficient for the traffic available and was even able to tow the *SARAH ABBOTT* and *CS9* although both dumb craft were never towed together. A new company Frodsham Lighterage Company was formed to take over the vessel.

At the same time the owner of the *PARCASTLE* bought the *SPURN LIGHT* to compete on the run. This vessel had been built in 1968 by Harkers of Knottingley 137.75ft long x 17.55ft beam with a capacity of 400 tonnes in two holds with two hatches. Although *SPURN LIGHT* was suitable she was mechanically unreliable and sold to East Coast owners.

In 1985 the *HUMBER TRADER* (121.5ft long x 17.5 ft beam 166 grt) was bought by her former master who formed Humber Trader Carriers Ltd to operate the craft. To Frodsham she could carry up to 290 tonnes.

About this time it was found that *SPURN LIGHT* was laid up in Liverpool Docks. She was chartered by Frodsham Lighterage. Then her former owners unexpectedly returned to the scene, buying the *GOOLE STAR* (233grt, 450 tonnes capacity) from Bulk Cargo Handling Services (BCHS — part of the Alexandra Towing Group) and looking for work on the Seaforth-Frodsham trade. There was too much capacity on this run so *GOOLE STAR* turned to cargoes of bagged salt from Anderton, on the Weaver Navigation, for export from Liverpool Docks.

Problems with the *SPURN LIGHT* in 1987 caused the owners to dispose of her to Humber owners for use in their gravel trade.

With competition in the traffic to Frodsham Quay, Frodsham Lighterage purchased the motor estuarial vessel *DAVENHAM* from BCHS whose fleet of such craft had ceased operating in 1986. She was one of three built in 1946, by Yarwoods of Northwich, as steam derrick vessels for ICI (Alkali Division) and the last steam powered dry-cargo barge for the Mersey service. Initially with a capacity of 275 tonnes, the steam engines were replaced with diesel engines in 1972 and the capacity increased to 300 tonnes (she was 98.3ft long x 23.1ft beam). However due to the state of the Weaver river her carrying capacity to Frodsham Quay was barely 260 tonnes. She was also used to carry the bags of salt from Anderton when she would often have the bags as deck cargo too. Because of her size, she was also used as a relief vessel and at times as a floating grainstore.

In 1988 the *GOOLE STAR* was taken off the run and sold to London owners.

The *DAVENHAM* was disposed of to a private buyer for non-trading purposes.

In later years there has been an increased use of wheat from the EEC, shipped via the smaller east coast ports for Frodsham experienced a decline in the need for shipping. Accordingly in 1990 the *HUMBER TRADER* was also sold to east coast buyers.

Thus the Port of Frodsham entered the 1990's with one vessel *PANARY* trading there. How long the trade will continue depends on a number of commercial factors affected mainly on the political and world trading situations.

Waterborne Transport

A few thoughts on contemporary issues by A.H. McClelland

IT IS A MATTER of great regret that water transport in all its forms continues to escape the British political mind - be it of right, left or centre. The present Government in its latest pronouncements on transport at the end of May expends all its concern on the desirability of promoting the railways and the need to ameliorate the many problems thrown up by the explosive expansion of road haulage in the era of motorways. So far as the writer is aware little, if any, thought has been given to the considerable benefits to be derived from encouraging greater use of integrated inland waterways, coastal and short-sea systems. At present Britain derives only limited profit from the massive continuing improvements to Continental waterways.

Apart from provision under the Transport Act 1981 to give companies locating alongside existing waterways 60 per cent grants towards the building of new quays, no new major construction projects are envisaged. Imporvements to the South Yorkshire Navigation, completed in 1983, have proved to be on too small a scale, permitting only the passage of vessels of 700 tonnes capacity. The Severn Corridor Scheme has been abandoned by the British Waterways Board, according to Lord Brabazon of Tara (Minister responsible for shipping in October 1990) in a letter to David Alton M.P.*, because it "found insufficient support from riparian local authorities for all the major investment required and for the designation of areas along the waterway for industrial development". In the Northwest, in his view, the Weaver is "not a viable project economically, neither does the navigation connect with a major inland industrial area. Moreover we understand there are plans to develop new industry within existing complexes mainly along the Manchester Ship Canal". All this in a context in which as recently as May 1989 in the White Paper "Roads for Prosperity" the Government proposed to double spending on roads for the next decade at an estimated cost of some £5 billion, a prominent feature being the full extension and enlargement of motorways — — — early in June of that year it was announced that £700mn was to be spent on strengthening bridges to allow fully loaded 40-tonne juggernaut lorries to use British roads by 1999.

As for the encouragement of a widespread growth of ownership of coasters or short-sea traders, and in particular, of low-profile vessels capable both of putting to sea and penetrating far inland, the Business Expansion Scheme has had little effect. Germany and Holland have to all intents and purposes susidised the building up of large fleets of "Rhine Sea Ships", and thus dominate the trade. Incidentally one should not be deceived by the long, barge-like appearance of these craft. They are extremely versatile, some with special arrangements for particular cargoes, and their propulsion, navigational and control systems are sophisticated. To take one example to be seen locally in recent times, the low, air-draft *LAILA* of Emden, taken on charter by Coastwise container was launched in 1983 by C. Luhring Schiffswerft, of Brake. She is a roll-on roll-off vessel, reall capable of being employed on a lift-on lift-off service, originally operated by RMS to run between Duisburg and east coast ports of the UK. Her engines and loading ramp are at the stern whilst her bridge and accommodation are right forward. She is of 997 tons gross, 2,352 dwt, with a length of 91.1m, a water draught of 4.6m and an air draught of 10.27m.

Granted the UK's geography and residual maritime expertise, the present situation with regard to waterborne transport is most unsatisfactory, the more so because the mode is the most fuel efficient and, when properly regulated, the safest and most environmentally friendly means of conveying all the items of commerce - from raw materials to containers loaded with finished goods.

* Letter dated 10th Oct 1990 in response to correspondence generated by the writer

Further reading:

i) Publications of the Inland Waterways Association, including its fact sheets

ii) Lavery, Irvine. "Integration: the way ahead for Britain's inland waterways?" *SEAWAYS* Feb. 1986 pp3-6

iii) Heinemann Max. & Cheetham, Chris. "Modern Rhine Sea Ships", 1987 and new ed. 1990

iv) McClelland.A.H. "Thought provoking casualties" LRNS *BULLETIN* vol 34 No1 Summer 1990

The Strange Story of the Submarine *FENIAN ARM*

by Charles Dawson

The British Navy's first submarine, launched on 2nd November 1901 from Vickers Sons and Maxim's yard at Barrow, was built under licence from a design (HOLLAND VI) by the American submarine designer John Philip Holland. Its design had rather strange origins which we can, in a sense, trace back as far as the American Civil War. It was to play an ironical part in the history of underwater craft, perhaps unique in the history of naval architecture.

In the aftermath of the American Civil War, the reputation of the British Government the eyes of the North was still at a low ebb after the thinly veiled help given by British private enterpise in supplying blockade runners to the Confederate side. That this was done with the connivance or at least the blind eye of the British Government is hard to refute when it is realised that 225 or more British-built vessels were supplied to the Confederacy. Merseyside alone contributed some 44 of these.

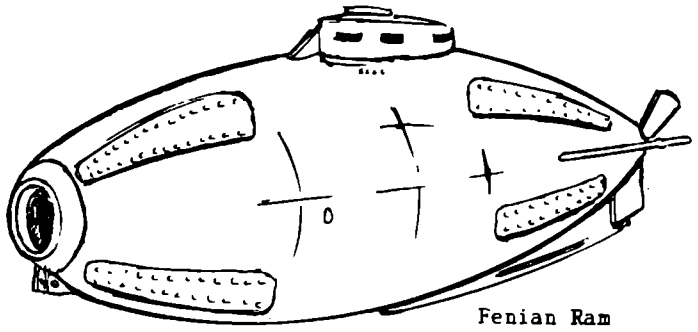
Britain's enemies were quick to take advantage of the situation during the War; with the British and French Governments giving tacit support to the South, Russia had gone out of its way to foster friendly relations with the North. The censure by Britain and France of Russia's inhumane treament of the Poles during their uprising of 1863-4 had even raised the possiblity of another war with Russia, only seven years after the end of the Crimean War. The situation prompted the Russian Government to send two naval squadrons into American territorial waters; in the event of war with Britain and France, the squadrons were under orders to "strike the colonies and communications of the enemy".

The first squadron, with three frigates, two corvettes and three clippers was under Commander Rear Admiral S.S. Lesovsky, the second, with five corvettes and four clippers was under Commander Rear Admiral A.A. Popov, (in 1875 famous for his circular battleship). Lesovsky arrived in New York and Popov in San Francisco in September 1863. The Russian ships were met with enthusiasm by the North and their arrival provided significant moral and political support to Abraham Lincoln's Government. When it became clear that Britain and France would not initiate a war in support of Poland, the two Russian squadrons which had rendezvoused in New York in April 1964 were recalled and left American waters in July 1864. (Alaska, which the USA purchased from Russia in 1867, was, at the time, considered to be a 'white elephant' foisted upon them ostensibly as a gesture to the Russians for their offer of help during the Civil War.)

Just after the end of the War, the ranch of a now mainly forgotten organisation in the USA also tried to take advantage of the situation and repeat the Russian strategy. It was the IRISH FENIAN BROTHERHOOD (IFB) which was founded in Dublin in 1858, and had as its main aim the overthrow of the British Government in Ireland. In 1866, the Canadian village of Fort Erie was invaded by a token force of what the Fenians - apparently for the first time - called the IRA and this threat to Canada's exposed frontiers was taken seriously enough by the British Admiralty for several gunboats to be ordered from England for service on the Great Lakes. In addition, other naval units were sent to patrol the St. Lawrence River. The gunboats supplied by Britain to Canada served for a number of years, but were eventually phased out of service, partly because the Fenian scare diminished and ultimately disappeared from the North American scene, only to take on new and more menacing forms and under new and now more familiar initials on Britain's own doorstep.

The Admiralty may well have had to renew its efforts if a later Fenian plan had matured. In 1879, construction work had been commenced at the Delamater Iron works, New York, on a new design of submarine by John Philip Holland, an American submarine designer. It appears to have been the first mechanically-driven craft of its kind in the World, having a 15hp petrol engine as its motive power. From experience gained with his earlier designs, he had for this his third design, developed an entirely new hull form which later submarine

designers have said was fifty years before its time. In the works, the vessel was given the cover name HOLLAND III but it was later named FENIAN ARM to reveal its real purpose: its construction had been financed by the IRB expressly "to attack British merchant vessels". It was 31' long with a breadth 6',and was 19 tons dsiplacement, It had a crew of three and was eventually launched in 1881. Its armament was a forward-firing 8" calibre with a range about the twice the length of a cricket pitch.



Fenian Ram

It is perhaps fortunate for all concerned that it never went into service - after a number of years experiment it was gutted in 1884 - but the experience which Holland had gained from its design, construction and experimentation led him to develop his ideas further. His HOLLAND VI design came to be used under licence by Vickers, as we have seen, for Britain's first submarine.

FENIAN RAM did not disappear, but returned in both body and spirit. After its gutting in 1884 the hull was stored away until it was exhibited in 1916 at Madison Square Gardens in New York in connection with a special collection for the Irish victims of the "Easter Rising". Suggestions made during the exhibition lead to the submarine being transferred at the end of 1916 to the New York State Marine School at Cleson Point. The Paterson Museum in Paterson N.J. because of its specialised interest in Holland's work, managed to have the submarine transferred to the town of Paterson, where it was exhibited in West Side Park. Neglect and vandalism there led to its no longer being regarded as the monument which it was originally intended to represent. In 1982 it was therefore subjected to an extensive renovation and brought indoors to become an exhibit in the Museum's Holland collection.

A strange, twisted variant of the *FENIAN ARM* story, hardly recognisable except to those who are aware of its real history, appears unbelievably, in an American Western film comedy called "No Man's Land"

Main sources:

"All Varldens Museiubater" (All the World's Museum Submarines) by Hans Ellerstrom, Karlskrona, Sweden, 1985.
"Lifeline of the Confederacy" by Stephen R. Wise, University of South Carolina Press, Columbia, 1988/9.
"The Bold Fenian Men" by Robert Kee, London, 1976
Penguin Encylcopaedia of World History

Shipbuilding on the Mersey 1990's

Alan Rowson, our archivist, has for several years been talking about looking into the shipyard across the river from his home in Grassendale Park. He complained that he could see ships under construction but never being launched. Recently member Gordon Wright remedied that problem and Alan had a chance to look round the yard McTay Marine of Bromborough with a few others.

It was learned that spectacular launches are no longer the norm. The vessels built at McTay Marine's Bromborough yard are eased very gently into the water, with-out the slightest hint of a splash. They are built under cover and raised on speciallly designed hydraulically inflated rubber pads enabling them to be pulled riverwards by a winch; the process taking up to 12 hours taking thousands of gallons of water an hour, provided from their own wells by the nearby Unilever Ltd. After the top-works are fitted the vessels are then moved to the slipway and and eased slowly to the water again taking up to half a day. Alan realises why he has not seen a launch: it would be like watching paint dry and probably a longer period!

It seems amusing to not a few of our members that, for over a decade in the 1970's, Alexandra Towing bought tugs and estuary grain carriers from a Humber shipyard. Now we have a shipyard on the Mersey building tugs for Humber owners in addition to Mersey owners!

McTay Marine, established in 1975, has built up a reputation as a specialist builder of small vessel with a wide range of activities: tugs, coasters, supply vessels, roll-on roll-off ferries, passenger ferries, pilot craft, personnel carriers, survey vessels, trawlers, fishery patrol vessels and etc. Deliveries have been to Orkneys, Shetlands, Channel Islands, Canada, Guyana, Yemen, Persian Gulf, Africa, Falkland Islands and the Antarctic. There have been landing craft for the Ministry of Defence and the tugs delivered can be seen in and around the Forth, Thames, Mersey, Humber, Dover, Solent, and Dublin.

The yard, built on a greenfield site of 9.000 sq.m., was designed and built by the parent company Mowlem. The building hall, 70m by 20m, has a working height of up to 11m; maximum size of vessel handled is 80 metres. The yard is equipped with one 25 tonne and two 5 tonne cranes, together with the usual shipyard equipment ie. rolls, flanges, shears drilling machines, cold plate mangles etc. The maximum beam which can be accommodated in the hall is 14m.

McTay also own the yard of James N. Miller & Sons at St. Monans, Fife (established 1747). The building hall here is 40m by 19m with a working height of 7.6m. The maximum size of vessel which can be built at St. Monans is 39m by 9m with launch direct from the building hall. St. Monans yard has the facility of a slipway capable of taking two 32m vessels simultaneously and all types of repair are undertaken including engine repairs; a covered dock facility for fitting out etc after launch is now available, with dimensions of 29.36m by 23m with working height of 14m.

In 16 years of existence the Bromborough yard has constructed 94 vessels and will deliver the 95th later this year.

More about the yard in the Spring issue of BULLETIN

The yard seems to have been built on the site of a former explosives store owned by Nobel Industries before the 1st WW and later taken over by ICI. There may have been a connection with the floating powder magazines which were anchored off the site until the 1950's. Anyone have further information on this arrangement for a powder magazine ? ?

McTay Marine Building List

Yard No	Type	Name	Owners
1	26' fisherman	--	Tarbert Boatyard
2	Workboat	QUINTAIL	Timbacraft Ltd
3	Survey launch	- -	- -
4	Motor yacht	STERLING STEEL	Mr R. Talbot Smith
5	Workboat	SUE ANNE	Mr.H. Jones
6	Fishing vessel	SHARON VALE	Mr. G. Moodie
7	Workboat	--	Grangemouth Boatmen
8	Auxilary ketch	JESSDA	Mr. J.R. Cox
9	Patrol vessel	SAMUEL BAXTER	Lancs & Western Sea Fisheries
10	Trawler	OCEAN HERALD	Mr. McBain
11	"	FISHER ROSE	Mr. R. Clark
12	"	ADELPHI	Mr. P. Murray
15	Workboat	HOUND POINT	Grangemouth Boatmen
16	Personnel carrier	HOUND FERRY	" "
17	Scow	--	British Antarctic Survey
19	Personnel carrier	CATRIONA OF KINSHORN	Howard Doris Ltd
20	" "	SHONAG OF KISHORN	Howard Doris Ltd
21	Auxilary sketch	SEEKER OF FIFE	Mr. J. McBurney
22	Shrimp trawler	SOLBRUN	P/R Solbrun
23	Self Propelled Pontoon	VOE IV	Kilroot, Christiani & Nielsen
24	Personnel carrier	SINE OF KINSHORN	Howard Doris Ltd
25	Grain carrier	MERSEY TRADER	Alexandra Towing Co Ltd
26	Trawler	OCEAN TRIUMPH	Mr. I Murray
27	Pilot vessel	LAHOOT	Port Qasim Authority
28	" "	YAQOOT	" " "
29	Trawler	GIRL PAT	Mr. Thomas
30	Seiner/trawler	LOTHIAN ROSE	Mr. CLark
31	Stern trawler	BEN LAYAL	Richard Irvin Ltd
32	" "	BEN ROY	" " "
33	Multi-purpose trawler	GLENUGIE V	Mr. D. Anderson
34	Pilot vessel	N.B.FRASER	Crown Agents - Guyana
35	" "	ALLAN YOUNG	" " - "
36	Stern trawler	HARVEST VENTURE	Mr. H. Maginnis
37	" "	SEA HARVESTER M	Mr. A. Maginnis
38	Twin-Voith tug	CANADA	Alexandra Towing Co
39	Trawler	TRAVELLER III	Mr. W. Reid
40	Z-peller tug	ELDERGARTH	Cory Towage Ltd
41	" " "	ROWANGARTH	" " "
42	Survey catamaran	H.M. DENHAM	Mersey Docks & H Co
43	Twin-Voith tug	SUN THAMES	Alexandra Towing Co
44	Trawler	M.D.B.	Mr. R Bond
45	Twin-screw Car Ferry	HENRA	Shetland Island Council

46	Passenger Ferry	BON MARIN DE SERK	Isle of Sark Shipping co
47	Voith Fire-fighting tractor tug	SEAL CARR	Forth Estuary Towage
48	" " " " " "	BEAMER	" " "
49	Rig Supply vessel	STIRLING ELF	Stirling Shipping co Ltd
52	Voith water tractor	DEFT	Dover Harbour Board
53	" " "	DEXTROUS	" " "
54	" " "	BRAMLEY MOORE	Alexandra Towing Co
55	Z-peller tug	OAKGARTH	Cory Towage Ltd
56	" " "	YEWGARTH	" " "
57	Schottell tug	HAMTUN	Red Funnel Group
58	" "	SIR BEVOIS	" " "
59	Voith water tractor	SUN ANGLIA	Alexandra Towing Co
60	Survey launch	MERIDIAN	United Nations
61	Landing craft	8415	Ministry of Defence
62	" "	8416	" " "
63	" "	8417	" " "
64	" "	8418	" " "
65	" "	713	" " "
66	" "	714	" " "
67	" "	715	" " "
68	Z-peller tug	POINT HALIFAX	Eastern Canada Towing
69	Voith water tractor	SHABWAH	Yemen Port Authority
70	" " "	ALMAHRAH	" " "
71	Twin-screw tug	OIL HANDLER II	O.I.L. Ltd
72	" " "	OIL LOADER II	" "
73	" " "	OIL MOORER II	" "
74	Towed Array vessel	8611	Ministry of Defence
75	" " "	8612	" " "
76	" " "	8613	" " "
77	Voith water tractor	WATERLOO	" " "
78	Stern trawler	DOROTHY GRAY	Mr. T. Taylor
79	Oxygenation vessel	THAMES BUBBLER	Thames Water Authority
80	Beam trawler	LIVINEA	Bankstar Ltd
81	Beam trawler	SEAFALKE	Mr. K. Schofield
82	Powered mooring lighter	MOORHEN	Ministry of Defence
83	" " "	MOORFOWL	" " "
84	Hydrographic Survey Vessel	CHARTWELL	Port of London Authority
85	Twin azimuthing unit tug	EINAR	Orkney Towing Ltd
86	" " " "	ERLEND	" " "
87	Twin-screw ro-ro passenger ferry	EARL SIGURD	Orkney Isles Shipping Co
88	" " " " " "	EARL THORFIN	" " " "
89	Twin-unit Voith tractor tug	SUN MERCIA	Alexandra Towing Co
90	" " " " " " "	LADY ANYA	Humber tugs Ltd
91	" " " " " " "	LADY KATHLEEN	" " "
92	" " " " " " "	LADY SARAH	" " "
93	" " " " " " "	LADY CECILIA	" " "
94	" " " " " " "	LADY	" " ""
95	" " " " " " "	Under completion	Dublin Port & Dock Board

Three Men Against Fifteen
the capture and escape of the *Emily St. Pierre*

Taken from material of A.C. Wardle

IN 1862, in the early days of the American Civil War the following paragraph appeared on the front page of a British national Newspaper:

> "At an early hour of the morning of the 21st April, the people of Liverpool were surprised by the entry into their port of the ship *"Emily St. Pierre"*, a fine vessel of 984 tons, in such a condition as showed that her crew could scarcely navigate her".

The ship had been sailed across the Atlantic by the master and his cook and steward and two 'somewhat unwilling' volunteers and an even greater number of unwilling passengers.

The vessel, built of pitch-pine and elm in 1854 at Bath, Naine, was 179ft long 33.3ft beam and 22ft depth of hold. Part-owned by Liverpool merchants and a merchant of Canada, she was probably registered in a Canadian port.

After discharging a cargo of general manufactures at Calcutta she began loading a cargo of gunny cloths there in October 1861, completing on 25th November. Capt William Wilson had orders to make for South Carolina "to ascertain whether it was peace or war: if peace I was to take a pilot and enter the port of Charleston; if blockaded, I was to proceed to St.John's N.B." They cleared the Hooghly two days later.

Wilson, the son of a Dumfriesshire farmer, was about to be confronted with a situation that most men would have said was impossible: but not William Wilson.

The vessel's passage took her round the Cape of Good Hope and north to make the coast of Carolina on 18th Ma 1862. The ship, according to Wilson, was 12 miles off the coast when stopped by a Federal warship the paddle steamer "James Adger" whose captain asserted they were only three miles off the coast and claiming that when the ship loaded in Calcutta she flew a Confederate flag at the masthead. Accordingly he arrested the "Emily St. Pierre" as a lawful prize and dispatched her 800 nautical miles north for adjudication in the American Admiralty Court at Phildelphia.

The prize crew consisted of Lt. Josiah Stone, a master's mate (assistant navigator), twelve men and a ship's engineer as passenger. All the crew with the exception of Capt Wilson, the cook and the steward were taken aboard the "James Adger".

Wilson, although extremely angry, kept his head and remained reasonably friendly with his captors and was permitted to retain the use of his own cabin. Two days later, at 4.30 in the morning, he called the cook and steward into his room and told them that he would either lose his life or lose his ship. He asked them to assist in recovering the ship and sail for friendly waters. When they agreed, from a locker in the cabin he handed them a pair of irons - used for pinning down recalcitrant seamen and others - and a sheet. They followed him to the berth where the master's mate slept, lifted his revolver and sword away, then pinned and gagged the unwary man. The passenger sleeping nearby was secured by the same means.

In Wilsons's own words "I next went on deck as if I had just turned out and walked the deck for about ten minutes alongside Lt. Stone, talking about the weather and so on. Then I asked him down to the cabin to look at the chart, saying that coffee would soon be ready. He started from the poop: and as I followed, I was able to lay hold of an iron belaying pin. When he approached the chart in the after cabin, I held the belaying pin over his head and called "Stone!" The cook and steward rushed in and before he could utter a word the gag was in his mouth and the iron on his wrists. We tipped him into a berth and tied him down. I told him that my ship should never go to Philadelphia.

I then left the cabin. Three men were walking the deck, one man at the helm and one on the lookout. I called the three men aft, and pointing to the hatchway of the storeroom near the helm, said that a coil of rope was wanted on deck. I shoved off the hatch and pointed to where it was; they all three jumped down. I immediately closed the hatch and warned the man at the helm of the danger if he moved or spoke. The lookout was then called aft and when asked whether he would help to work the ship to a British port, he said 'No!' Therefore I put him down the hatch with the others.

The watch was then called and, as sailors do not all come on deck all together, we got two of them aft and secured before suspicion was aroused. But due to a slip, the third man noticed and threatened the steward with his knife. The latter holding a gun fired, wounding the man in the shoulder.

The remainder of the crew were similarly dealt with. In the space of a morning's watch I was again in charge of my ship and soon came down and announce the pleasing fact to Lt. Stone."

Stone was offered the chance to take a passage to England, free of his gag and irons, but locked in his cabin: the dejected Lieutenant had no option but to agree. The other members of the prize crew were all similarly treated.

Three of the Americans volunteered to work the ship if required and this they did. One nevertheless gave every appearance of changing his mind and was confined with the others. With a "jury" crew of four, Wilson began the long, 2,700 nautical miles passage to Britain. Three of the four were landsmen and the other had little experience of steering.

At one time there was a very severe storm lasting three days, during whcih it took half a day to repair a broken tiller. If he wanted to reef the topsails Capt Wilson did is himself: "I had to pass the earrings and tie-points alone, at the same time keeping my eye upon the ship's head and waving to the cook or steward below how to move the helm".

During the passage one of the American seamen fell from the deck to the deck and died from his injuries.

Thus the "Emily St. Pierre" arrived off the Great Ormes Head on 20th April, 32 days after arriving off South Carolina. The report of her arrival bewildered the merchants at the Exchange: they had learned of her capture from the mails carried by Cunard mail steamer from New York.

The following day, with six Liverpool pilots and apprentices assisting, the sailed triumphantly into the Mersey. A day later the crew arrived home by steamer from New York.

Lt. Stone and his prize crew were handed to the care of the American Consul.

Capt Wilson achieved national fame, his story printed in the national newspapers of the day. He was presented with 2,000 guineas, a magnificent gold pocket chronometer and a complete silver coffe and tea service of an elaborately chased design. The Mercantile Marine Service Association, (not those days a master mariners' professional association) gave a gold medal and to the cook and steward each a silver medal and 20 guineas. Wilson also received a new sextant from his crew in recognition of his resourcefulness and for his kindness during the voyage.

The US Naval authorities demanded the return of the ship. The unfortunate Stone claimed that he understood that Capt Wilson was under parole. His Naval superiors were furious with him and he did not last long in the Service. Outraged Washington oficials however, did indeed make strenuous legal efforts to have the ship returned.

It was June 1863 before the matter was settled. The *TIMES* of 2nd July commented:

> "The grounds on which Lord Russell, of behalf of the British Government, has refused to restore this vessel to the U.S Government are fully stated in the diplomatic correspondence which has been laid before Parliament. After consulting the law officers of the Crown, His Lordship held that, although the act of rescue by the captain, steward and cook, when the ship was being

conducted to Philadelphia for adjudication, was punishable in the Prize Court of America, it was no offence against the municipal law of England. A neutral country has no obligation to aid in enforcing the right of a belligerent to a capture. The law of war confers upon the belligerent alone the power of enforcing its right. The Government of this country could no more seize and surrender this vessel in its ports than it could surrender a foreign criminal. The law of England, as well as the law of nations, forbids the executive government from taking away the ship frpom its legal owners".

"The stand of the British Government was in conformity with the legal principles of internationl law, established and confirmed by the unanimous consent and uniform practice of all civilised nations, but more expecially of the United States of America".

Capt. Wilson used his £2,200 to finance a couple of voyages to the Mediterranean. Fourteen months later, when master of another ship, he was washed overboard and drowned off Cape Finisterre.

Was the voyage as innocent as Capt. Wilson and his owners had protested ? What happened to the ship ?

The *"Emily St. Pierre"* was registered at Liverpool six days after arrival and sold foreign nine days later: the owners were taking no chances.

The owners, by the way, were not unknown to Fraser Trenholm, the main shipping agents of the Confederate Government!)

Capt Jack Beard DSC

Visitors to the Maritime Records Centre often use the 'Beard' List of sailing vessels; an extensive list compiled by Capt Beard one of our founder members. He spent years listing, with essential details, sailing vessels of all seas and all nations, using a card index system. He presented the List to the LNRS who in turn passed them to the Museum. The cards were photocopied and available in book form. And very useful for the staff and researchers the list is.

The present LNRS members know very little about Capt Beard and it was pleasing to find a little about him recently. Capt Harry Littler, retired Liverpool Pilot-boat master, set down a few notes on his life and career and also something of his family background: we find that he was a nephew of Capt Beard.

Jack Beard was born in Ipswich, (near Brisbane) Queensland in 1888. He first went to sea 15 years later on the barque *Kynance* serving from 1903 to 1910 when he obtained his 2nd Mate's ticket. He then joined the sailing ship *Comet* leaving in 1915 to join the R.N.R. with a commission. As a Lieutenant he served with the Dover Patrol where he was awarded the DSC. He left the RNR in 1918 to sit for his mates ticket joining the *Jacob Sverdlov* in 1920. A couple of years later he was mate of the steamer *Arcos*. After he passed for master (in sail) he became master of s.s. *Lees* in 1926.

The remainder of his career was as follows:-

1926 - 1929	mate of s.s. "Ledbury"
1929 - 1945	master of s.s. "Ariadne", "Alexander", "Eastbury", "Shaftesbury" and "Empire Glen" all of Alexander Shipping Co Ltd
1945 - 1947	on 'loan' as master of s.s. "Ger-y-bryn" torpedoed and sunk in 1943. Then master of s.s. "Fort Lajoie".
1949	master of m.v. "Barrule"
1953	Entered R.N. Minewatching Service, Liverpool
1959	Port Minewatching Service Officer, Liverpool

He ended his seafaring life as owner of the 25-ton Morecambe Bay auxilary gaff cutter "Capella", taking up commercial fishing for a time.

Serving on the "Shaftesbury" in 1935-6, Capt Littler states that Jack Beard was a hard but fair master.

Stanlow Oil Dock closes 26th August 1991

STANLOW POINT, an outcrop of rock on the north (river) bank of the Manchester Ship Canal, was, in 1922, the site of the area's first oil dock. Six years later a second oil dock was built alongside the first. The oil to and from the ships passed through a tunnel under the Canal, the Canal Company levying a charge on every ton of oil passing through the valves, thus generating considerable and steady income.

For the ensuing four decades the Docks were in full use with ships queueing at the Bar waiting for berths. In 1954 the Queen Elizabeth II Dock at Eastham came into operation (was planned to accommodate the largest tankers in the World - 30,000 tonnes !) and relieved the pressure somewhat when a pipeline was laid from Eastham to Stanlow. In 1970 Tranmere Oil Terminal came into operation and Stanlow docks were no longer used for the import of crude oil from overseas. Partially refined products continued to be passed through Stanlow imported or exported by Shell and other companies less important in the area.

Since 1980 it has been evident that with changes in the movement of oil and the development of highly refined petro-chemicals, Shell would use its own berths along the Canal for safer and more convenient operation. There is also a greatly expanded use of overland pipelines for distribution of fuels for transport and heating, reducing the use of coastal tankers etc.

The last tanker to sail out of the Stanlow Oil Docks left at 2000 on 26th August 1991. Unless there are major industrial developments, the Docks will remain closed to traffic for the foreseeable future.

In 1938 Trinity House began an eight-years programme to substitute steel vessels for twenty-three wooden light-ships around the coasts of the UK. It is worth recalling that the Mersey had the first iron lightship in the World. That was the *Prince* built in 1842 by Messrs Laird Bros at Birkenhead. Stationed in Liverpool Bay, she remained in service as a lightship for fifty-seven years and in 1899 was converted into a wreck-watching vessel.

The following from member Douglas Head

Extract from the Minute Book of the Upper Mersey Navigation Commissioners

Monday 25th June 1892

Letter from Co. Robinson respecting the lightship "Shamrock" being in the way of target practice.

The Clerk read a communication from Col. Robinson of the 6th Lancs Artillery Volunteers asking for the removal of the lightship "Shamrock" from her present position as she was in the way of their target practice.

Resolved: that a reply be sent stating that the lightship is placed in her present position for the safety of vessels navigating the channels of the mersey and that she cannot be removed, but that the targets must be removed if the safety of the craft navigating the Mersey require it.

April Meeting

P & I Associations

A talk by Stephen Wrigley

P&I ASSOCIATIONS, or clubs as they are known, are mutual associations of shipowners insuring liablities which arise during the course of a vessel's operation. The policy of insurance is known as the Rules, and is subject to the Marine Insurance Act 1906. (MIA). The subject matter insured is the entered ship and the cover is the liability the ship might face. Section S.1 of the MIA 1906 encompasses the business of P&I insurance i.e. insurance against liability to third parties.

We all know the losses or risks in marine adventure: hull, cargo, freight, life. Centuries ago those risks were borne by the owners, who also sailed their own vessels. Later, masters and mates were employed to sail on behalf of the owners, complicating matters somewhat. In the British experience of mercantile expansion over the past three centuries insurance was developed as a vehicle to minimise risk. Traditionally the London market, with its roots in London's coffee houses and the early insurance companies, provided cover for hull and cargo.

Up to the 19th century much of British shipowning was, in fact, localised and sail based. Local owners, known to each other and sailing similar ships banded together to insure their vessels on a mutual basis. In the North of England, for example, such ships were in the coal trade. When London had an almost virtual monopoly there were attractions in managing a mutual insurance "club" on a non-profit basis: local knowledge was pooled; owners who knew each others' worth were prepared to agree the 'credit' of staggered premiums.

Mutual hull clubs which expanded and admitted strangers ran into difficulties. A common rating system subsidised the bad at the expense of the good. Mutual knowledge was lost and some clubs failed to collect sufficient early premium. As the pure hull monopolies ended, London's underwriters became more competitive and mutal hull clubs declined. Yet while that decline proceeded in the 19th century there was a time of great economic, social and technological change. Ship size increased, steam arrived and cargo variety increased, emigrant trade flourished. A series of events led shipowners to club together to insure their liabilities rather than their hulls.

Because:

1) in 1836 it was held that liability for collision damage to another ship was not covered by the standard marine hull policy at Lloyd's, hull & machinery underwriters agreed to provide ¾ collision cover, leaving owners with ¼ exposure; an early example of insurers placing part of the risk with the insured, thereby inducing care.
2) the 1846 Fatal Accidents Act enabled dependants to sue for damages for the death of relatives caused by negligence of shipowners: the hull policies provided no such cover.
3) the Harbours Act 1847 imposed strict liablity on shipowners for damages to port works and installations.
4) the Employers Liability Act provided for payment by employers to workmen, including crew members, injured in the course of their employment.

In the face of increased potential liability shipowners looked to the hull clubs and in the late 19th century protection clubs developed; some - amongst them the Liverpool & London - are still in existence. The indemnity part of the association, was not contemplated until after the case of the *Westenhope* which was lost on the coast of S. Africa in 1870. Despite exceptions in the contract of carriage, she had deviated and the court held the shipowner liable. The P&I association concerned did not cover this type of loss. Another case, the *Emily*, where loss resulted from negligent navigation, the owner was found liable -

exceptions could not be relied upon and no cover existed. Shipowners decided, in their clubs, to create an "Indemnity" class to cover loss, shortage or damage to cargo carried on board a member's vessel. Thus the basic P&I club developed to indemnify the assured to the extent agreed.

It should be emphasised that it is an "indemnity" policy. P&I policies reimburse: it being a condition precedent to cover, that the shipowner settle the claim against him first.

The P&I market is dominated by the fifteen clubs of the International Group, so called as it comprises clubs in Scandinavia, UK, Japan and USA, who have organised for themselves a pooling reinsurance agreement. In October 1990 approximately 90% of the World's 400 million grt ocean-going vessels were entered in International Group clubs :-

	grt		grt
U.K. Club	101,500,000	Skuld	38,136,000
Gard	56,417,000	London	32,280,000
Steamship Mutual	49,417,000	Liverpool & London	8,334,000
Britannia	47,000,000	North of England	6,951,000
West of England	46,000,000	Newcastle	4,966,000
Standard	38,589,000		

Other International Group Clubs are the Japan, Shipowners, Swedish and the American Club.

A smaller group of clubs exists which have their own reinsurance agreements: British Marine Mutual, Ocean Marine Mutual and North Nederland. Specialist clubs are Through Transport (container risks), the Strike Club, Transmarine Mutual (loss of hire), Charterers P&I, War Risks Mutuals and Cisbaclub (shipbrokers). One independent club, the Oceanus, ceased operating in 1982, largely because reinsurance recoveries failed. There is only a limited competition for the clubs - in the Lloyds and companies market where P&I can be added to a hull policy, and some fixed premium companies e.g. Sphere Drake, and Parr Underwriting.

Functions of the International Group:

1) members participate in the reinsurance pooling agreement.
2) it acts as a representative body offering a voice in government and political affairs.
3) it controls, through the International Group Agreement, competition between member clubs.

It has all the hallmarks of a cartel.

Reinsurance:

1) Member clubs bear own losses from zero, or above the entered ship's deductible, up to $1.6m. (individual clubs may have their own re-insurance arrangements within this band).
2) Between $1.6m and $12m, member clubs contribute a percentage of another club's 'pool' claim by reference to tonnage entered, premium income and 'pool' record over a number of years.
3) Excess of $12m, the International Group has purchased a collective reinsurance contract for catastrophe loss protection, up to $1,250m
4) Excess of $1,250m cover reverts to the clubs as in 2.

A Club is controlled and run by its members: a board of shipowner-directors is appointed who determine the scope and extent of cover to be provided, decide on rule changes and at, typically, quarterly or half-yearly meetings, pass or decline claims which might be contentious, do not fit into any precise rule, or are above a certain monetary level. In the Liverpool & London the latter is US$250,000. The day to day running of a Club is either invested in a management company, as is the L & L, or in a private company which holds the management contract. Example of the latter are the Britannia (Tindall Riley), the London (A. Bilborough) and the Standard Club (Charles Taylor). The management

companies have a board of directors overseeing underwriting, claims, investment, reinsurance, accounts, computing/entries and secretarial and will often refer to their respective clubs.

1) Underwriters

They quote, or decline to quote, on proposed vessels and hence determine the call level, and pursue new business through brokers or on trips abroad. The call is really an agreement by a member to become liable to contribute to the losses of the other club members, taking into account his loss record, type of vessel he trades and in which trade and cover he requires. Calls arrive as an advance call on 20th February (the beginning of the P&I year)* with a further part six months later. In the L & L an areas calling system operates; the members pay 20% of the advance call for each year of membership therefore the cost of the call is spread over five years. When the claims experience of a particular year becomes established, a supplementary call may be made, expressed as a percentage of the initial advance call. In recent years these have been as high as 120% reflecting bad claims experience. However if experience is good, a return call may be made. To protect future exposure remaining with the club when a member leaves, he must pay a release call. Lay-up returns are also made.

2) Cover

Different clubs offer different types of cover. The following are typical:
Protection and Indemnity (owned vessels)
Time Charterers Liability. Hull Liability
Freight Demurrage & Defence. Strike Cover. Mutual Hull cover.

L & L offers P&I, TCL and FD&D. The club rules indicate P&I and FD&D from the owner's/operators' viewpoint. TCL is similar to P&I but from a charterer's viewpoint. Freight Demurrage & Defence is cover for legal costs in contract disputes which a member may be incurre

The means of entry into a club is the vessel itself, from a party which has an insurable interest - owner, charterer, mortgagee etc. A certificate of entry is issued to each ship giving ownership details, extent of cover, deductibles, assignments.

3) Claims

The engine-room of a P&I club is its claims department. In large clubs, claims are syndicated into teams of adjusters, often based on members from one part of the World, eg Germany, South America: there may also be separate personal injury and collision sections. L & L is non-syndicated and FD&D aside, everyone handles everything.

Claims departments handle, settle, reimburse and advise members on claims covered by the rules. Lawyers and mariners are typical adjusters but non-professionals often succeed. The claims adjuster's right-hand man is the correspondent without whom clubs could not function. These are world-wide representatives in major and minor ports and they arrange for surveyors and lawyers to attend on board, investigate, defend and settle claims. Their local knowledge and 24-hour availability is essential; they too are often lawyers or mariners, but are always commercial men. Claims adjusters handle claims and also protect members. This comprises daily advice on members' questions: the avoidance and minimisation of risks - IMDG, cargo compatability, tally costs, coverage etc. At the International Group level, adjusters sit on various sub-committees, eg personal injury. Here common experience is shared and disseminated. In a recent meeting, I attended, we discussed, amongst other subjects, stevedores' indemnities in Australia, demise of an air ambulance firm, Philippine crewing agents and stowaways.

* The traditional date of resuming navigation in the Baltic when ice reduces

In addition to underwriting and claims departments, the club will have computing, accounts and emtries and secretarial facilities. While an adjuster will have a desk-top screen providing:

Ship details (members, brokers, size etc)
Cover - deductibles, exclusions
Claims files - reserves and payments
Correspondent details

Each claim is a paper affair. The conduct of a large claim is conducted by letter, telex, fax, phone and file note. Larger P&I clubs have transferred claim records to microfiche. L & L have not yet done so.

The Work of a Claims Adjuster

Rather than list the cover rule by rule, it is best here to describe my day as a claims adjuster.

Initially along with the other adjusters I read through the overnight telexes, faxes and mail.

Via his broker, a Hong Kong member advises that his ship is to load steel in Japan - separate parcels at four ports. I telex instructions to our Tokyo correspondents, Dodwell, to appoint a surveyor to attend to conduct a pre-loading survey, assist the master as neccessary at each port, clausing mate's receipts and bills of lading. Pre-shipment rusting must be accurately described Receivers will ascribe all rusty condition of their steel to lack of care on the part of the carrier, our member. All P&I clubs arrange such surveys; L & L pay for them. We will receive the reports direct at the Association, together with comments on the state of the vessel's hatches. Rule 26(12)

A Customs rummage gang at Dublin has discovered 40kg of cannabis behind wood panelling in a ship's room. A fine of IR£50,000 is imposed and the vessel detained. Can we assist? Two rules are involved here: 26.11(iv) and 28 - fines for smuggling and guarantees. I instruct Dublin correspondents to see the master, obtain his statement and speak to the Customs. During the day, the vessel's local embassy interferes, is requested to desist (and does so), and the fine is reduced to £IR35,000 reflecting the master's co-operation. However the Customs insist on a cash payment prior to the vessel leaving and will not accept a club letter of undertaking. Whilst the club is in a position to post security (the members' calls are up to date) it cannot directly fund a cash payment. Members are advised. The cash demand will be interpreted as a fine and reimbursed subject to deductible when the members so request. Interestingly, had Customs taken security, it might have been possible to challenge their action in the courts. Who was to say the drugs were destined for Dublin? A payment in cash, however, can only be appealed against the Customs themselves, who can increase, decrease or maintain the fine. 2-1 against. A waste of legal fees.

The same day, another member's ship is arrested in Genoa when the 2nd engineer is stopped at the dock gate with 2 kg of cocaine and imprisoned. Members ring to ask what they should do. We discuss it and conclude that the engineer appears to have acted criminally and our cover reflects civil liability. Further the ship was not directly involved. I advise the members not to assist the man: the Italian law system will provide a defence. However if they feel they do need to intervene (to prove his innocence) they can approach the Association at a later date and make their case for a return of costs.

Between telephone calls I process reimbursement requests for medical claims checking all supportive documents which must be complete, pay legal fees, correspondents fees and surveyors' fees on various files.

A German member rings to advise their ship has polluted San Francisco Harbour. It is midday here; 0400hrs there, I call our correspondent's 24-hour no. He get on to it. I hand the matter to a colleague. The spill involves 4 barrels; costs $130,000 to clean up and involves a fine Rule 26(7)

A telex arrives advising that a member's vessel with a pilot on board and tugs assisting has struck the berth while docking, damaging fenders. The Port Authority has demanded security. I instruct local correspondents to appoint a surveyor to ascertain extent and quantum of damage. It will not be possible to blame either pilot or tugs. Both are either servant of or under contract to the shipowners. The member owes calls and while this risk is covered - fixed and floating objects - it will not be possible to place security if the member so requests, until the outstanding calls are paid. I telex/phone the broker with details. It turns out that they already have the money and agree to a telegraghic transfer that day and provide an official request for the Association to post security. I telex the correspondents instructing them to offer security to the Port Authority on the Association's behalf so as to allow the vessel to sail. Rule 26(6)

A fax from Seattle advises that, during rough weather, a crewman landing a catch has had his arm broken when struck by a large crab-pot and has been landed ashore. I intruct local adjusters to monitor the man's recovery. Rule 26(2). The crewman is a Jones Act Seaman (US Act which affords protection should his employer be in the slightest degree negligent). Should the man have been protected against the swinging crab pot? Was the deck a safe workplace? He will be due maintenance ($25 per day when ashore recovering), medical cure costs and his unearned wages. Later, though liability on members will probably be slight, a small settlement may be neccessary so as to obtain a release from the crewman.

There is correspondence with a London firm of cargo claimants' lawyers: subrogated underwriters have instructed them to recover a payment they have made under a cargo policy to consignees who received damaged sugar-beet pulp. The claim is for $63,500; port of discharge Damman. The bill-of-lading incorporates the Hague Rules. Heavy weather is involved, some contamination on board. Port Authority refused to land the contaminated goods. Consignees took delivery and then stored the goods in the summer sunlight which resulted in the large polythene packing bags deteriorating. My first offer to settle is $5,000. Throughout, I liaise with Members, obtaining their approval in the negotiation steps. It takes six months, Members granting two consecutive 3-month time extensions beyond the anniversary of the discharge date and is finally concluded at $25,000.

Other rules which arise are: Stowaways (very common), container cover, sue & labour (rare), wreck removal (rare) and the Omnibus Rule. The latter symbolises the Club's attitude that if possible a member's claim should be brought within cover even though it does not fall neatly into a specifically listed risk. This is in direct contrast to a commercial insurance policy, and one which echoes the 1870 (*Westenhope*) case, when a cargo claim was denied but gave birth in burgeoning P&I associations to a new indemnity class of cover.

P&I associations are about mutual insurance, mutual assistance and sharing of experience, and keeping pace with a changing shipping world.

Liverpool & London Protection & Indemnity Association Ltd

THE LIVERPOOL & LONDON Steamship Protection Association was founded in November/December1881 and began writing business on 20th February 1882. It was preceded by the Liverpool Sailing Shipowners Mutual Indemnity Association, founded in 1873. Among the founder members from Liverpool were the Oceanic S.S. Co. Ltd. (White Star Line), Hall Line and T&J Harrisons, and from London, the Ducal Line, Glen Line and Orient Steam. In all five members were from London, one from Aberdeen and the remainder from Liverpool. The founding tonnage was 472,428 grt entered by 44 members operating mainly in the passenger and liner trades.

From its foundation, Mr. Gray Hill of the Liverpool law firm Duncan, Squarey, Blackmore, Pearson and Hill, was manager, the appointee of the Committee. Its offices were in Water Street, Liverpool, as were those of the White Star and Cunard Lines, which joined in 1913. Committee members, who met every week, were paid £75 per annum, the Chairman and Vice-Chairman received £100 and £50 extra respectively. In 1906 Mr. Gray Hill received $3,000 per annum to cover all administration costs. The Chairman at that time was Sir Alfred Jones of Elder Dempster, who received £445 per annum

Calls were made as losses occurred: a practise actually continuing until the mid-1970's, and on an areas basis. To fund administration costs initially, subscriptions were 1 penny per ton, and, in 1904, reduced to a halfpenny per ton. The Association was not a member of the first pooling arrangement of 1899 possibly because an indemnity class was not written. Entered tonnage by 1903 exceeded 3 million grt and in 1906, 5 million grt. The Association was then the largest in existence.

Among shipping companies and lines who have had ships entered in the Association are Anchor, B.I., Bibby, Booth, Brocklebank, C.P.R., City, Clan, Elder Dempster, Ellerman, Henderson, Lamport & Holt, Shaw, Savill, Shell, Wilson. Claims of note include:

1) *Titanic* - entered two months prior to sinking. £326,960 re-imbursed, with no reinsurance available.
2) In 1914, the *Empress of Ireland* sank in the St. Lawrence, with a large loss of life.
3) In World War II, the *Queen Mary* collided with the cruiser *Curacao*, killing 480 seamen.

In 1923 indemnity risks were added, and with the management operating from the offices of Hill Dickinson, the Club became as it is known today. Managers continue to be personal appointees, the post most recently held by Mr. David Gregson from 1969-87. In 1982 Hill Dickinson formed the precursor to the present management company Grayhill, as a wholly-owned subsidiary of the law firm. By change of name in 1985, Grayhill became the Liverpool & London P & I Management Company Ltd. and left the offices of Hill Dickinson to new accommodetion in the Royal Liver Building, where we are currently situated. At that time, the present managers joined and the Association purchased the Hill Dickinson shares existing on the old Grayhill company. Since then, the Management Company has been directly overseen by the Committtee of the Association.

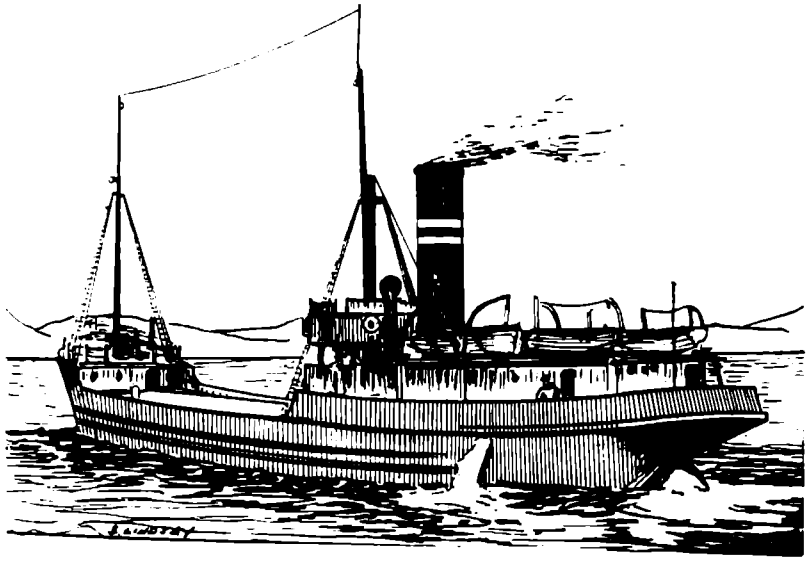
The writer of the Article, *Stephen E.H. Wrigley*, is a claims manager in the above company.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

Vol 35, No 3 Winter 1991

BULLETIN



I.C.I.'s Coastal Steamer *"Sodium"*

CONTENTS

Liverpool Nautical Research Society

Annual Subscriptions

Local: £5 *Country:* £4 *Senior Citizen:* £4 *Family:* £7

Application forms for membership and any other correspondence to:-

Hon Secretary, L.N.R.S.
Maritime Records Centre
Merseyside Maritime Museum
Pier Head Liverpool L3 4AA

SOCIETY NOTES

[illegible] EXHIBITION to mark the August) 1992 Tall ships event, photographs taken [illegible] the 1920's & 30's of sailing vessels in the Mersey by the late David E. Smith, former member, will form the centrepiece. The negatives were [illegible] to the LNRS and we are delighted to see that the Museum has been able [illegible] use them to the maximum effect.

D.L. Sattin, member, recently had notices in **MARINERS MIRROR** of two books written by him and published in 1990 and 1991. A former shipwright who has worked on barges sailing around the Thames Estuary, he is also an expert model maker specialising in producing model of barges to order.

The books are:

"Barge Building & Barge Builders of the Swale".
"Just off the Swale"
Publ by Meresborough Books, Station Rd, Rainham, Gillingham, Kent.

THE LOSS OF THE CALCIUM

by Syd Lindsay

IN A LITTLE churchyard in the village of Belmont, some five miles northwest of Bolton, Lancs, there is just one War Graves Commission-type headstone among the family graves of the village. It was placed on the grave of a young man of Belmont who lost his life in the 1939 - 1945 conflict.

James Morris was 27 years old when he died; no bold heroics on the field of battle, nor combat in the air, nor was he engaged in stirring actions on the high seas. He died doing his job ad a concientious employee of the great Imperial Chemical Industries Ltd.

On leaving school James was destined, like so many of his mates, to take employment in the local bleachworks, the main source of work in the area. Despite the fluctuations affecting the textile industry over many years the family expectations were in general, concerned mostly with the hope of regular employment provided by the local works. It was a friendly place to live and work, and the bleachworks owner, together with his family, were very much a part of the village community, a situation that had existed for many years. Factory life, however, was not to his liking and his elder brother who worked for I.C.I. at Thornton (north of Blackpool) had little difficulty in persuading him to take job with the Company which operated a fleet of coasters carrying chemicals and raw materials. When he became a fireman on one of the ships he found a job he relished, for he was not afraid of hard work. Although the job required him to fire the boilers and trim the coal in the bunkers, he was quite happy and applied himself in a dedicated way. There were compensations: it was a small crew; they got along with each other and worked well together - just the life he wanted.

As war commenced, life on the coasters changed dramatically, for the role of these little vessels was fraught with great danger as they plied their trade in their own determined way. They did not travel in convoy, nor was there escort protection: they were slow and particularly vulnerable to attack from the air, submarines and mines. The vessels were armed with one Lewis gun and fitted with degaussing gear as protection again magnetic mines. Sailing in daylight required a constant vigil even though they were comparatively close to the shore: sailing at night created much greater problems of navigation and although the routes were regularly sailed, there could be no let up in terms of watchfulness. Coaster crews played a vital role throughout the War in maintaining essential materials and did so in a quiet and unpublicised fashion. They were proud to be an integral part of the Merchant Navy.

James sailed on the *"Calcium"* a steamer 613grt built 1913 to carry over 520 tons of limestone from Llanddulas, North Wales to Fleetwood. One of three sister ships all about 180ft long, the others were *"Barium"* (b1913) and *"Sodium"* (b1924) all intended to transport raw materials from North Wales to the factory upstream from Fleetwood. As occasion demanded they also carried cargoes of chemicals into the Mersey and the Weaver Navigation. Together with the fleet of river craft they were managed by the Alkali Division of I.C.I.

On Sunday evening 29th December 1940, the *"Calcium"* accompanied by the *"Sodium"*, both in ballast left Fleetwood as 2115 hours for Llanddulas. The second Christmas of the War had passed and their return trip would see them home in time to celebrate the New Year. Although it was dark the weather for the time of year could be described as fine with occasional heavy showers, visibility and the state of the sea was moderate with winds Force 4.

The passage from Fleetwood was uneventful with *"Calcium"* making a steady six knots with *"Sodium"* running slightly ahead, when at 0430 hours 30th there was a violent, dull explosion on the starboard side aft - under the stokehold.

In his report the master, Captain J.R. Atkinson stated:

> The explosion occurred about 15 ft abaft of where I stood on the bridge, but I saw no water, flame or smoke, although there was a very strong smell similar to that associated with an acetylene lamp.
>
> The engines stopped immediately and I am of the opinion that it burst either the boiler or the steam pipes; the steam was so thick for about ten minutes that we couldn't see or hear a thing. all thelight went out and when I tried the whistle to attract the attention of *"Sodium"* it wouldn't work. I left the bridge to investigate the damage and while groping my way aft fell with my right leg down the bunker manhole on the deck, the cover of which had been blown off by the force of the explosion. My Chief Officer came along and helped me up and I found that the fall had caused abrasions and strained muscles of the right leg. I asked the Chief Officer who had just come from the engine-room, what damage there was below, but he said he could see nothing at all for steam. I then asked if everyone was alright and he relied he did not know where James Morris the fireman was, but thought he must be in the stokehold where he was last seen. The Chief Engineer had, apparently made attempts to enter the stokehold by way of the stokehold ladder but failed to do so owing to the heat of the ladder caused by the escaping steam. However, I made my way through the stokehold alleyway leading through the engine-room. The Chief Engineer followed me through the passage which was flooded by some three feet of water as the ship was settling by the stern. We found the body of the fireman which was lying on the starboard side of the furnace under three feet of water. I managed with the aid of the Chief Engineer to drag him through the alleyway on to the engine-room plates, and from there we got him on to the deck.
>
> I found that the donkey pump had been blown from the starboard side across the engine-room platform, for a distance of six or seven feet; the dynamo had been put out of action and all the bunks in the focastle had collapsed. the wireless apparatus was out of commission, the stove in the galley smashed and the bunkerhatches blown off.
>
> The *"Sodium"* had apparently heard the explosion and turned back to our assistance immediately. She berthed on our port side about thirty minutes after the casualty. In the meantime we had prepared a tow-rope in an attempt to tow the *"Calcium"*; we all boarded the *"Sodium"* who took my vessel in tow. Her bow was sticking in the air with her fore-foot plainly visible. It was raining at the time, very dark and the sea was feshening. Unfortunately the tow-rope parted and, although we made several other attempts to tow her, due to the weather conditions it proved impossible. She gradually sank lower and lower until she even too far down to attempt to beach her, and finally in position 53° 25'N by 3° 30'w. I saw her list and sink to port at about 0820."

The *"Sodium"* with the rescued crew and the body of James Morris steamed away from the tragic scene and landed at Llanddulas at 1000/30th. The other fireman on the *"Calcium"*, James Crossley, was cut over the right eye, he and the Captain being the only casualties. There were three other vessels damaged by mines that day in the same area: HMS *"Venomous"*, a long-range destroyer; *"Catrine"*, a 5,200 ton merchantman, and the 8,000 ton tanker *"Dorcassia"* but they were able to reach Liverpool. Three months later the *"Catrine"* was bombed by enemy aircraft at Liverpool and again survived.

That the *"Sodium"* turned back and stayed with the stricken *"Calcium"* in such hazardous circumstances was a creditable performance in the dark, and a fine example of the risks taken by crews of the Merchant Navy.

In Capt. Atkinson's report, he stated that the degaussing was on and in working order prior to the explosion. The daily record of the RN Minesweeping Division however states that the vessel was not degaussed and not using a searched channel. The naval account would be made only after the casualty had been reported and it is likely that the details were not fully confirmed. A steel ship has a magnetic field which actuates magnetic mines. To overcome this effect a wire girdle is placed around the vessel through which an electric current is passed reducing the ship's magnetic field. In the case of the *"Calcium"* and of the other vessels damaged by mines that day, it would appear that all were degaussed and that they had encountered contact mines laid, probably, from a submarine. It is unlikely because of the small number of vessels sailing to the minor North Wales ports that all such channels were swept frequently. The swept channel was more likely to have been via the main shipping lanes.

The tragic irony of the loss of the *"Calcium"* with the young life of the fireman working alone in the stokehold, was that the limestone that was to have been carried would most likely have been turned into bleach and eventually delivered to the works at Belmont.

James Morris deserves to be remembered: a dedicated member of the Merchant Service who died, like so many others, doing a job of work that we might benefit in later years. That we may have failed them, even when remembering them, raises the point of whether their sacrifice was worth it.

Crew of the 'Calcium' in December 1940

Master	-	J.R. Atkinson	Fleetwood	aged 45 years
Mate	-	J.E. Humphreys	Liverpool	" 32 "
2nd Mate	-	E.R. Brown	Southampton	" 39 "
Engineer	-	T. Hignett	Widnes	" 38 "
Fireman	-	J. Crossley	Preston	" 53 "
"	-	J. Morris	Bolton	" 27 "
Able Seaman	-	T.G. Porter	Fleetwood	" 56 "
" "	-	J.C. Davies	" "	" 46 "
" "	-	A.G. Beaton	Ross-shire	" 27 "

••••••••••••

Coasting vessels operated by I.C.I. Alkali Division

LITHIUM	Built	1917	by	Cochrane	250	tons	deadweight	
HELIUM	"	1917	"	"	"	"	"	"
BARIUM	"	1918	"	Renholdson	520	"	"	"
CALCIUM	"	1918	"	Geo. Brown	520	"	"	"
WESTON	"	1920	"	Cochrane	330	"	"	"
BEESTON	"	1921	"	"	330	"	"	"
SODIUM	"	1924	"	Renholdson	520	"	"	"
INDIUM	"	1924	"	"	180	"	"	"
JOLLY DAYS	"	1935	"	J. Lewis	350	"	"	"
CERIUM	"	1943	"	Goole S/B	560	"	"	"
THORIUM	"	1947	"	Burntisland	630	"	"	"
POLYTHENE	"	1948	"	Goole S/B	325	"	"	"

••••••••••••

The other war loss of the I.C.I. fleet was the Weaver flat "Rose" (220dwt), sunk by air action in Liverpool Docks in 1941.

Richard Hughes & Co., Liverpool

The 'ROSE' boats

by Douglas Head

EARLY IN 1885 the firm of Richard Hughes & Co took delivery of the iron-built steamer *"Primrose"* from the Paisley yard of H. McIntyre. The day she was launched her name was registered with the GPO as the telegraphic address of the Company and has remained so ever since. The original head office of the Company was at 27 Water Street, Liverpool and the ships of the fleet were distinguished by a black funnel with a single narrow red band. The house flag was white with a red rose in the centre and the letters R.H.& Co. on blue - one symbol in each corner. For many years each vessel carried her name in large white letters along both sides of the hull, but in later years this practise was discontinued.

In 1892 the head office moved to 17 James St. Liverpool, where it remained until 1935. the Company's vessels were engaged largely in the ocastal and near-continental tramping trades, though for a considerable number of years Hughes ships were engaged in the transport of china clay from the Cornish ports of Fowey and Par to Runcorn, on the Upper Mersey, whence it was sent by barge to the Staffordshire Potteries. An advertisement in April 1893 stated that the Company had inaugurated a new, regular service between Liverpool and Plymouth & Fowey, taking goods at through rates to all ports in Devon and Cornwall per the steamers *"Primrose"*, *"Wild Rose"*, *"Moss Rose"*, *"White Rose"*, *"Red Rose"*, *"Brier Rose"* & *"Pink Rose"*.

From 1888 the fleet slowly grew, and eleven vessels carried the Hughes flag into the First World War. Of these, only two were lost: *"French Rose"*, by mine in November 1917, and *"Red Rose"* which went missing in May 1918, and because two vessels were built in 1915 and one bought in, the fleet consisted of twelve vessels at the end of hostilities. A marine loss, *"Wild Rose"* in 1919 and *another "White Rose"* in 1920, both by collision, temporarly reduced the fleet to nine.

In January 1920 it was reported in the shipping press that part of the fleet of Richard Hughes & Co had been sold:
Owen H. Donnely & R. Leeson 37 Westmoreland St Dublin;
Blush Rose (1913), Brier Rose (1892), Dunmore (1901), Guelder Rose (1913)
Robert Leeson, 5 Drury Lane, Liverpool;
Guelder Rose (1913), Joffre Rose (1915), Mersey (1892), Moss Rose (1890)
Pansy (1898), Primrose (1910).

This report referred to the vessels in commission at the time, but did not include three new steamers *"Beatty Rose"*, *"Jellicoe Rose"*, & *"Haigh Rose"* built in that year. The sale was confirmed in March 1920, the purchasers being a syndicate Owen H. Donelly of Dublin and R. Leeson of John Edwards & Co. Liverpool and financed by Irish Banks. Unsuccessful, the venture did not last long and the ships were sold back to Richard Hughes & Co in September 1921.

Probably the most notable feature in the long history of the Hughes fleet is the great increase and equally great decrease of its strength in the thirty years from 1921 to 1951. An extensive building programme, begun in 1920 with the *"Beatty Rose"* & *"Haigh Rose"* was completed in 1931. By that year, with five other vessels previously purchased the fleet had grown to 29 vessels. This figure stood until 1936 by which time the Company had been reconstituted under the name Richard Hughes & Co (Liverpool) Ltd with its head office in Exchange Buildings. During that year the *"Louie Rose"* was sold to Tunisian-flag buyers, followed by the sale of *"Fullerton Rose"* for demolition and the *"Hayle"* to Cardiff owners.

No further change took place until the onset of the 2nd WW. In November 1940 *"Haigh Rose"* in the Bristol Channel, followed in December by *"Amlwch*

Rose" which went missing in the Irish Sea. 1941 was an equally bad year for the company - in March the *"Briar Rose"* was missing in the Irish Sea. In April *"Dudley Rose"* and *"Anglesey Rose"* were both lost by air attack as was *"Fowey Rose"* in July. The *"Pink Rose"* was lost by collision in May and *"Primrose"* capsized off Cork in January. The remaining units in the fleet survived until August 1945 when *"Blush Rose"* was sunk by collision with Blue Funnel's *"Glaucus"* in Liverpool Bay and then in November *"Sturdee Rose"* capsized off Trevose Head.

The decline of the fleet in the immediate post-war years was not arrested by either new-building or purchase of existing vessels and in 1946 the Head Office was moved to London.

In 1952 Mr. P.E. Holden acquired control of the fleet, forming a new operating company under the style of Hughes Holden Shipping ltd. Two modern motorships were built and put into service, though one of these, *"Briar Rose"* was sold in February 1954. The Head Office of the new company moved yet again to Swansea though the registered office (and that of Richard Hughes & Co (L'pool) Ltd., which name was retained) remained 20 Castle St. Liverpool.

The new houseflag was white with a diagonal red band having the letters H H in black on either side. Of the 49 vessels owned since 1885 only eighteen survived to be sold for further trading; eight were lost by collision, five by foundering/capsizing, six were wrecked, two sold for demolition, five went missing and five became war losses.

FLEET LIST

1	Primrose 91184	1885-1906	Iron sc. str. b. Paisley 1885. 262grt Stranded Mounts Bay. Cornwall 23.8.06
2	Wild Rose 93781	1888-1919	I. sc. str. b. Paisley 1888 245grt Sunk in collision Bristol Channel 19.4.19
3	Moss Rose 97787	1890-1927	St. sc str. b. Grangemouth 1890 371 grt stranded Holyhead total loss 28.10.27
4	White Rose 89711	1898-1901	I. sc str. b. Middlesboro 1884 333grt for W.Harkness/Son as *Matlock*. Acquired by R Hughes 1898 r/n *White Rose*. Wrecked near Fowey 5.2.01.
5	Red Rose 97854	1891-1918	St & ir sc str b Paisley 1891. 423 grt Missing 21.5.18 Littlehampton/Le Havre
6	Mersey 99363	1911-1930	St sc 3-masted str b Hayle Conrwall 1892 for Rogers & Bright. 1911 R Hughes r/n *Mersey Rose* Sunk after coll's'n north of the Channel Islands 11.10.30
7	Pink Rose 99362	1892-1917	St & ir sc str. b Glasgow 1892. 334grt Wrecked near Lossiemouth 23.12.17
8	Brier Rose 99394	1892-1941	St & ir sc str. b. Glasgow 1892 497grt Missing Belfast-Cardiff 25.3.41
9	Avon 45549	1894-1909	Iron sc str. b Glasgow 1865 as *Avon* for for Carron & co 572 grt 1888 T. Jack & Co. Larne. 1891 H. Williams (L'pool). 1894 R Hughes & Co (Avon S.S. Co) Sunk in collision R. Mersey 19.10.09
10	Foyle 93020	1895-1897	Iron Sc str. b 1872 Newcastle 316 grt for McChrystal, L'derry. 1876 M Murphy, Dublin. 1890 R Hughes & Co. Foundered SW of Bardsey Island 19.8.97
11	Daisy 62649	1897-1903	Iron Sc str b. Sunderland 942 grt as *Emerald* for Weatherly, Sunderland 1893 D. Taylor, Glasgow. 1897 R Hughes. Wrecked Whitsand Bay 27.2.03
12	Pansy 109433	1898-1941	St sc str. B. Grangemouth 1898 555grt 1941 R/n *Pink Rose*. Sank after collision off Scillies 4.5.41

32 Fowey Rose 146387	1929-1941	1923 b Queensferry 470grt as *Cornish Merchant* for Cornish Traders Ltd Falm'th 1929 R. Hughes r/n *Fowey Rose* Bombed near St David's Hd. 8 lost 5.7.41
33 Louie Rose 147625	1924-1936	1924 b Paisley 1,596grt 1936 G. Montefiore & V. Anchad Tunis r/n *Sainte Bernadette* 1941 Soc. Tunisienne D'Armament, Tunis 1955 Luigi Amico, Genoa
34 Gronant Rose 147286	1924-1929	1924 b Paisley 1,110grt. Sank after striking submerged wreck, 26.9.29
35 Hayle 96562	1924-1937	1893 b as *Hayle* by Harvey of Hayle, Cornwall for own account. 1924 R. Hughes & Co. 1937 sold Thos Ward Briton Ferry for b/u
36 Fullerton Rose 147308	1925-1937	1925 b Paisley 1,596grt. 1937 Angel & Co Cardiff r/n *Bramden* Mined/sunk SE of Harwich 16.9.39. 3 lost
37 Dorothy Rose 161129	1929-1947	1929 b Glasgow 1,600grt 1947 Tyne-Tees SS Co r/n *Belgian Coast* At Antwerp for b/u 26/10/57
38 Dudley Rose 161136	1929-1941	1929 b Glasgow 1,600grt. Sunk in air attack 4m Berry Head 9.4.41
39 Moss Rose 161157	1930-1957	1930 b Holland 702grt. 1957 Kontos Bros, Piraeus r/n *Virginia K* 1962 Stavros Theodosis r/n *Sofia* 1964 Dionysios Daifas r/n *Dionysios TH* 1968 K.P. Papamarkis r/n *Olkas* 1971 M. Kotroubra & Co r/n *Sitra* 1973 B/u Greece
40 Anglesey Rose 161159	1930-1941	1930 b Glasgow 1,151grt Sunk in air attack nr Trevose Hd 16.4.41
41 Pink Rose 161148	1930-1936	1930 b Holland 739grt Sank after coll'n with st.trawler 11 m from Tyne Pier 10.3.36
42 Maurice Rose 162326	1930-1947	1930 b Glasgow 1,600grt 1947 A. Coker & Co r/n *Baltic King* 1949 Queenship Nav. Ltd London r/n *Richmond Queen* At Dunston on Tyne for b/u 4.10.57
43 Dennis Rose 162328	1930-1947	1930 b Glasgow 1,600 grt 1947 Tyne-Tees SS Co r/n *Virginian Coast* 1953 Aniceto Vrain & Lucio Zatica Puerto Limon Costa Rica r/n *Julian Presa* At Briton Ferry (T Ward) for b/u 31.1.58
44 Prestatyn Rose 161155	1930-1953	1930 b Glasgow 1,200grt 1953 Dorey & Co Guernsey r/n *Lancresse* At Bruges V Heghen Freres for b/u 2.4.62
45 Wallace Rose 162336	1931-1954	1931 b Holland 632grt Sunk/coll'n, Erith Roads Thames 26.1.54
46 Amlwch Rose 162345	1931-1841	1931 b Holland 600grt Missing Manchester Ship Canal-Dublin 8.1.41 All hands lost
47 Moelfre Rose 162402	1931-1958	1931 b Holland 605grt At Neath Briton F. for b/u 31.12.58
48 Brier Rose 168593	1952-1954	1952 b Aberdeen 626grt 1954 Grand Union(Sh'p'g) Ltd London r/n *Marsworth* 1969 Brodogradliste "Cres" Rieka r/n *Kimen*
49 Rambler Rose 168594	1954-1961	1954 b Aberdeen 1,400grt 1961 Dorey & Co Guernsey r/n *Belvidere* 1964 Brit'n S.S. (W. Watts) r/n *Putney* 1965 Comben Longstaff r/n *Balmoral Queen* 1969 Elias G Condos, Piraeus r/n *Solon* 1971 Fortuna Shipping Co., Famagusta r/n *Malena* later r/n *Kaisis I* 1982 (1st Half) sold for b/u Limassol

Member David Thomas requires assistance with material for a book he is writing.

THE BRITISH SEA APPRENTICE

A *SOCIAL HISTORY*

THE PROJECT is planned as a study of the life and times of the apprentice and cadet in British merchant ships from the mid-1840's to the mid-1980's; that is, from the inception of the Marine Department of the Board of trade to the period immediately folling the conflict over possession of the Falklands Islands.

Little enough has been written about the apprentice, as distinct from the records, biographies and autobiographies which treat the period of apprenticeship as one episode among many. Research in this instance is being conducted not only among archives but also among personal papers and the reminiscences of serving and retired oficers and men, as well as those who have turned to other occupations since their sea apprenticeships. Family papers concerned with sea-faring forebears are also sought.

It is important to note that both deck and engineer apprentices/cadets will be included and, with respect to recent times, the experiences of women who decided upon a sea career. Their views and comments of the watch ashore are also of vital interest: the apprentice's mother, sister(s) and other relatives as well as girl-friends and fiancees.

Contributions of appropriate material, either on loan or permanently, are sought, in particular the following items:

Photographs, in any condition, monochrome or colour, prints or slides of ships, people, places.
Letters to and/or from apprentices & cadets, both official and personal, including telegrams, cards etc.
Diaries and journals, both official and personal
Official papers - certificates, notices, agreements, indentures, etc.
Miscellaneous - published articles, articles
Personal reminiscences, no matter how incidental, including not only events but also descriptions of routine, work, ships, food & accomodation, ship's people, etc. Accuracy is not of paramount importance.
Observations of (other) apprentices and cadets.

Material submitted on loan will be handled with the utmost care and returned without delay. all costs incurred by the contributor, including postage will be refunded, although the author would be grateful for any disclaimers in this respect. Ful acknowledgement will be made, and where copyright applies current British legislation will be observed: unless otherwise stated by the contributor permission to copy and/or quote will be assumed, free of any and all charges. If material is submitted conditional upon any copyright restraints the author would be gratefulfor clear statements to this effect.

David H. Thomas, MNI
21, Heol Pen-y-Craig
Ystradowen
CWMLLYNFELL
Dyfed SA9 2YP Tel: 0639 830995

August 1991

Liverpool, *September, 1891*

TO THE CHAIRMAN OF THE
COMMITTEE FOR NAUTICAL EDUCATION.

SIR,

WE, THE UNDERSIGNED OFFICERS, APPRENTICES, and SEAMEN of the MERCANTILE MARINE, hail with hope and gratitude the prospect of the establishment in Liverpool of a PUBLIC SCHOOL for the teaching of Navigation and other subjects which intimately concern our calling.

Hitherto, probably through inadvertence, no adequate provision has been made for the Special Education needed by our Class, and in this respect we have been at a great disadvantage compared with the Mercantile Marine Officers of other Nations. The cost of even the Elementary knowledge required for pasing the Board of Trade Examinations is altogether disproportionate to our means, but we look forward to being able to obtain for our selves and our successors the benefits of more thorough and systematic instruction at reasonable cost.

We desire to emphatically express our opinion, and wish that the control of the proposed Nautical School should be vested in a Committee of the City Council. Some other public bodies appear to us to be ineligible for the following reasons :-

(1) Classes in connection with the University would be entirely over our heads and would lack the popular and accessible character neccesary to make the School useful and acceptible.

(2) The Shipowners' Associations contains many gentlemen of enlightened and generous views, but there is too much diversity of opinion amongst the general body as to the need of better education for Ship's Officers.

(3) The Mercantile Marine Service Association does not in any way represent the Officers of the Mercantile Marine, being governed by old-time Captains and small shipowners, who have no sympathy with the modern Educational movement, nor ability to direct it. We could have no confidence in an Institution under the direction of such a body.

(4) The Local Marine Board, as far as we are concerned, is merely an examining body, constituted to carry out an old established system of Examinations.

We, in common with hundreds more, eagerly desire to have the opportunity to spend our leisure time when in Port, in making good the deficiencies in our knowledge of may subjects relating to our calling, on account of the early age at which we went to sea, by having access to a School on popular lines sited to our wants.

At a time when so much attention is given to Educational facilities for other indistries, we think that some consideration is due to a class who represent the principal industry of Liverpool, and whose duties require special knowledge and skill for their efficient discharge.

We are, Sir,

Yours very respectfully,

RECENT ADVANCES IN SHIP TECHNOLOGY

by L.A. HOLDER

Background and acknowledgements

It is with some trepidation that I address the Liverpool Nautical Research Society, as I am neither historian nor academic researcher. In most of my research, I have been trying to look ahead. Predicting the future should be one of the most challenging areas of research. However, I have found that it attracts less criticism. Nobody really knows what will happoen, so they cannot check your results, and by the time events show how wrong you were, people have forgotten your predictions. I still belive that lecturers should be looking well ahead. Today's trainees will not be well served by preparation for past practices, and a modest attempt to look forward and prepare them for the challenges they will face in the World, should help them to cope.

My one excursion into history was in the early 1970's when W.E. May invited me to write the "1930's onwards" chapter of his book, "A History of Marine Navigation".[1] The Research for that chapter gave me a profound respect for historians and a new perspective on technology.

The centenary of the founding of Liverpool Nautical College is on us. Through the good offices of my friend Alston Kennerley of Polytechnic South-west (Plymouth), I have been able to stand back and see the manning of ships and the training of seafarers in a new light. Dr. Kennerley, in his MA thesis[2], uses Liverpool Nautical College and HMS "Conway" as examples of two ways in which nautical education was organised in the second half of the 19th century. His thesis contains a wealth of carefully compiled information and I am most grateful for his permission to draw upon it.

Introduction

The two strands of this talk are 'technology' and 'manning'. In that order they represent the way my interests have developed over the last thirty years. As a young man, I thought technology was fascinating and important. Whilst serving at sea, devices such as radar and the automatic pilot were being more and more widely used. Each time a new model appeared. it was capable of doing some incredible things which its predecessor could not do. There seemed to be no end to the clever things which scientists could do, given the resources and a modest period of time. In proceeding with a M. Phil degree, I began to realise that it was not the equipment which was paramount, but the attitude, knowledge and skills of the persons to whom it was entrusted.

During this talk I will first look at technology and the forces which bring about its introduction: Next I would like to look at the manpower side; from historical background to present recruitment, education and training. Finally I would like to share with you my views on the matching of technology and manpower for the future.

Technology

The practical mariner has always been suspicious of new technology. Commander May, briefing me for my section in the above mentioned book, pointed out the long delays which occurred between shore-based scientists pronouncing on new navigational techniques and mariners actually using and trusting them. Before the days of aircraft and space travel many of the best scientific brains were solving maritime problems. Commander May gave as an example of mistrust, the reaction of mariners to the new-fangled knotted log-line for measuring speed. Mariners were worried that it would destroy the valuable skill of looking over the side and reckoning "about 5 knots" etc.

In the M. Phil. research into navigational accuracy[3] I was able to build a mathematical simulation of navigational accuracy using conventional sun & star sights, and then compare it with the theoretical accuracy of the then newly

introduced Transit Navigation System, and finally to confirm the predicted accuracy with results from ships fitted with the new equipment (one advantage of a part-time research degree is that it allows plenty of time to collect data). Through this research I started to learn the importance of two groups of people. I realised that to design, build and implement a new navigation system took more than technical brilliance, insight and imagination; it also needed leadership, guile, stubbornness and perseverance. I had already been privileged to listen to and meet some of the people who worked on the military navigation systems developed during WW2, but my special admiration goes to Dr. Richard B. Kershner of the space Dept of the Applied Physics Laboratory of John Hopkins University of the USA. The first navigation satellite launch had resulted in disaster when the launch vehicle failed early in its flight. To come back from such a disappointment must have taken courage. What I later learned, was that the few seconds of data which were received from that abortive launch were used positively by Kershner and his team to upgrade and modify the next version of the system to give much greater accuracy. He saw failure as an opportunity for new development.

The second group of people for whom my research gave me respect were the experienced UK Merchant Navy navigators who, given a range of old and new equipment much of which was unreliable or inaccurate, used their experience to sift through the misleading clues and achieve remarkably accurate and consistent results. Having the courage to read a new device, compare the output with 'common sense' and discard it, took skill and nerve!

At that time, several companies gave me access to the navigational data on their vessels and allowed me to use the results in my thesis. Returning to speed logs, I did not believe the officers or the QEII who told me they did not rely on a speed log, as they could look over the side and judge speed to +/- 0.25 knot. The results proved them right and me wrong. They used engine revs and looked over the side to judge the slip from the wind and sea effects. They were more accurate that the best of speed logs at that time.

In the study on Technology and Manning[4] in 1984-86, a Research officer at Liverpool Polytechnic, Colum Legget, through correspondence and meetings with scientists and researchers identified a wide range of potential new maritime applications of technology for the 1990's. The list is given in Appendix 1. In his analysis he identified two distinct ways in which new equipment, new designs or new operating procedures were introduced:

> where the technology already exists and a maritime application is sought.
> where an immediate maritime operational problem or need exists and a solution is sought

It is is matching real problems to 'man-plus-machine' solutions that the research team, put together by Capt Frank Main and led by the late Keith Jones, at Liverpool Polytechnic made such a major contribution.

Where the Technology exists

Much of the World's research and development effort in the last forty years has been spent devising new military systems. Some companies have maintained links with merchant shipping over long periods of time and have a sound understanding of the industry. However particularly when defence spending is cut, many companies have looked to merchant shipping as an alternative outlet for their products. It is very difficult for the scientist or engineer in the 'back room' of an equipment manufacturer to know how to 'sell' technology to merchant ships. The problems are not clearly defined, and any overt field research may alert a competitor.

The situation may give rise to the 'solution in search of a problem syndrome', where the salesman first tells you about the problem that you did not know you had, and then offers to cure it for you. Perhaps this is an overstatement, but any marine superintendent who has had real problems on his plate will probably recognise the type of salesman to whom I refer.

Where, through foresight or trial & error, a new product does become established, it becomes part of the mariner's 'toolkit' and should be expertly used, but there are many cases radar for collision avoidance being a noteable one, where the training has lagged behind the technology. More about this later.

Where there are Operational Problems

Where a particular problem arises which can be clearly defined in technical terms, the solutions can be sought directly, and alternatives evaluated. To be topical, the structural failures of bulk carriers are currently causing concern. At first glance the answer would seem to be to scrap all the ships over a certain age, but as you get closer to the problem, you find that there are many factors other than age which come into play, as outlined in the Journal of the Nautical Institute *SEAWAYS* in August 1991[5]:

design and construction features.
welding imperfections during building or repair
the nature of cargoes carried
the history of stresses during loading, on passage and during discharge
any physical damage by cargo and grabs
corrosion and wastage
the nature of yield failure, brittle and fatigue fractures, their initiation and the way they spread
the difficulties of inspections etc.

Solutions are needed quickly. Knee-jerk political and legislative solutions seldom solve problems. The need is for rapid collaborative research between the organisations involved, sound decisions and rapid implementation of new standards and/or procedures. Other problems may equally affect the long term viability of an enterprise, but not risk such dramatic consequences. The need for fuel efficiency, reliability of critical items of equipment, better control systems etc. can be defined and technical solutions sought. Again, it is normally the case that technology will not offer a 100% answer, and there is usually a need to involve people in the eventual solution.

Recent Advance in Technology

If we stand back and look at the changes of the last 150 years from a distance, there have been two major technical revolutions, each of which has had a major impact on the mariner. first the change from sail to steam which was well advanced 100 years ago.

In his book "The Blue Funnel Legend"[6], Malcolm Falkus gives details of the technology being used by companies such as Ocean Steamships:

> "...the average tonnage per vessel nearly doubled between 1889 and 1900, while the total tonnage of the fleet not far short of trebled. the building of twenty-three new ships of advanced design in less than a decade was an heroic achievement...."

Alston Kennerley in his thesis[7], shows that there was an active debate about the effect of technological change on the skills and knowledge required by seamen:

> "One further factor made the period after 1850 different from that before. this was the changing nature of the industry. The steamship was now beginning to make its presence felt, and a new era of demarcation, between sailing ship manpower needs and those of steamships, was becoming apparent. Theory and practice in nautical education and training would have to take account of this changed environment."

The second revolution which has occurred more recently is in automation, electronics and information technology. The effects are almost as dramatic as the change from sail to steam. It is now possible to monitor and control equipment automatically from a remote station without large numbers of 'hand-on' watchkeepers.

This is well illustrated in the publication "Integrated Ship Management and Instrumentation" by Videotel Marine International Ltd[8]. The full programme consists of 4 videos and supporting written material, which deal with the whole ship and the changes which will be required in manning and training. Much of the material derived from the work of Dr. David Lawrence, Research Officer from the Plymouth Polytechnic part of the Technology and Manning Research Team. I am grateful to Videotel Marine International for allowing me to show the short extract which dealt with 'guidance systems'.

The Factors which Emerge

changes in operational techniques and procedures, (these may also be influenced by casualty investigations and changes in regulations)

less time spent on routine data gathering and processing and more time to consider options, planning and results

the ability to access data from remote points changing the decision-making process.

more data, better accuracy of data, more efficient monitoring and improved displays changing the decision-making process and use of staff time

changes in maintenance: policy, planning and the relationship between ship-board maintenance and shore support

changes in job specifications, work roles and required knowledge

changes in social and domestic arrangements on board

the concept of a ship affecting the quality of an integrated transport service

new relationships between ship and shore as a result of improved communications

The changes will be reflected in the education and training needs of students

Manning The Historical Perspective

Everyone seems to agree that seafarers need to be well trained, but there has been a long-running debate about the need for them to be well educated. Referring to the period after 1850, Kennerley[9] states:

> "The introduction of compulsory examinations came to be regarded as a retrograde step by those who looked for well educated officers. For them the period of the voluntary examinations was viewed as a kind of 'golden era.'"

In September 1891, in a letter to the Chairman of the Committee for Nautical Education of Liverpool City Council (see Appendix) the officers, apprentices and seamen of the mercantile marine questioned the commitment of shipowners and "old time captains to better education for ships' officers and the "modern educational movement".

Liverpool City Council reviews the provision being made by private schools in the city (of which there had been many) and decided to found the Liverpool Nautical College, which they did in 1892. On 4th May 1892[10] they appointed James Gill as the first Head Master. James Gill had been a lecturer at the Sailors Home School for many years. He came from the academic background which had been fostered by the national Goverment's Science & Arts Department. That Department was set up in 1853 to further industrial education, initially using £180,000 profits from the 1851 Exhibition. Although the Science & Arts Department scheme failed to ensure widespread higher education for ships' officers, the Liverpool Nautical College tradition of good education survived. In 1902[11] "one report credited it with having trained 91 of the 96 officers who had passed the extra-master's examination since the examinations were stiffened in 1898".

At the time of change from sail to steam the major concerns in UK maritime manpower were:

recruiting enough young British people to man the fleet (HMS *"Conway"*, commissioned in 1859, was to increase the number and quality of entrants)
the need for good practical training, and whether the old master-and-apprentice concept was out of date.
the need to revise the content of training programmes to take acoount of new equipment being introduced and new work roles
whether some or all seafarers needed higher eductions
whether nautical education should be arranged nationally or locally
whether it should be funded by central government, local rates, the employers of the students themselves
whether the students should be taught by academics or seafarers
how, and by whom, their competence should be assessed

There, are as you will see, many parallels with the current "technical revolution" which is being brought about by automation and information technology.

Manpower Today

In the 1990's, we can see that things are changing, but not all ships will change at the same time and seafarers must be able to man existing ships as well as coping with new technology.

Some major advantages of new technology are:-

opportunities for more effective use of manpower
opportunities for greater safety and efficiency
better monitoring and control of complex operations
better information for decision-making
the reliability of modern processors

Some perceived disadvantages of new technology include :-

extra capital costs
greater complexity requiring expensive diagnostics, repairs, maintenance and/or replacement
the need for new manning policies and structures
disruption of personnel policies and progression and the cost of retraining for sea and shore staff
failure of equipment in severe marine environments and lack of available repair facilities
increased need to practice emergency routines
changes in recruitment and new-entrant training

The key to successful introduction of high technology vessels lies in the personnel: recruitment, training and development policies which will allow the new developments to be introduced alongside current fleet units, and used to full advantage.

There are young people in the UK who are interested in ships and the sea. (Do not listen to disillusioned 50-60 year olds. Talk to the young people themselves) What is needed is a system to foster that interest, develop and broaden it, and to add to it the opportunity for good practical training onboard. Colleges, such as the Marine and Marine Engineering sections of the Liverpool Polytechnic, and Sandown College for Marine Radio and Electronics, are able to recruit students to degree and HND programmes and fire their interests and enthusiasms. The industry has still not got its act together in terms of practical training onboard. I have just researched and written a book "Training Onboard"[12] which was commissioned by Vidoetel Marine International Ltd., and has been endorsed by the major international organisations including the International Maritime Organisation. It sets out the ways companies can encourage and monitor training. the book was requested, not by British (UK)

owners, but by Chinese (Hong Kong) shipowners, who recognise the importance of seafarers and the need to support their efforts to change college theory into sound practical seamanship and peformance at sea.

Britain has a wealth of maritime experience, and should learn from past mistakes, and this time make co-ordinate government, industry and academic plans to make the most of our potential in terms of technology and - more important - the talents of our young people, and the not-so-young seafarers whose horizons can be broadened and skills enhanced.

NOTES:

1. May, W.E. (1973) "A History of Marine Navigation" G.T. Foulis & Co. Ltd.
2. Kennerley, A. "The education of the Merchant Seamen in the Nineteenth Century". M.A. Thesis. Liverpool Polytechnic.
3. Holder, L.A. (1973) "Present Navigation of British Merchant Ships and the Potential of Available systems". M. Phil. Thesis Liverpool Polytechnic
4. Holder L.A., Moreby, D.H. et al (1986) "Technology and Manning for Safe Ship Operations in the 1990's". Dept of Transport & Education Authority research project. Available from Kelvin Hughes Charts & Marine Supplies London
5. "Bulk Carriers" *SEAWAYS* August 1991. A series of articles.
6. Falkus, M. (1990) "The Blue Funnel Legend" p 112. Macmillan.
7. Kennerley, op. cit., p. 54
8. Hudson, G.F., Johnson,R.A., Lawrence D.P. (1988) "Integrated Ship Management and Instrumentation". Publication and 4-part video series by Videotel Marine International Ltd.
9. Kennerley, op. cit., p. 54
10. " " op. cit., p. 120
11. " " op. cit., p. 126
12. Holder L.A. "Training Onboard" (1991) Witherby & Co Ltd.

SAMUEL OWEN, AN ENGLISH STEAMSHIP PIONEER IN SWEDEN by Charles Dawson

Making the sea voyage from Stockholm to St. Petersburg (sic!) is today a pleasant and usually calm undertaking, but the route has experienced many ups and downs in the past. We tend to forget that the Vikings in their time were making raids eastwards as well as west and south. They colonised parts of eastern Europe, and their oarsmen - rus in the old Norse language - it is said, gave their name to Russia, the area they inhabited there. As Russia expanded its empire and became more powerful, Swedish kings spent much energy in trying to retain their hard-won Baltic territory until Peter the Great's victories against Sweden at the beginning of the 18th century began to change the course of European history in those parts.

Conjuring up the scenes that had been enacted over the years in these waters, I came to think of the important part that Samuel Owen played. In his memory, a street near the central waterfront of Stockholm, where he once had a factory, is named Samuel Owens Gata. (Gata = street: we see the Norse influence in northern England in the use of the word gate in street-names).

Samuel Owen was a farmer's son, born in the village of Moreton Say in Shropshire in 1774. Clive of India came from the same parts. Owen finally settled in Sweden and there built the first passenger steamship to travel these waters, making Sweden the next European country after England and Russia to enter the field. Among the nations of the world owning steamships, Sweden's tonnage was in 1849 second only to the UK, although with only about 1/10th the tonnage of the UK.

Owen came to create a good deal of Sweden's early engineering prestige and earned himself great honours in the process. An interesting side-effect of his concern for the spiritual needs of his workers was that he introduced Methodism to Sweden and played a prominent part in the fight against "demon drink".

After his apprenticeship in England in carpentry, Owen's early interest in things mechanical had led him to the Bolton & Watts factory just being built in Birmingham, where he spent four years in the pattern shop and foundry, encouraged by Abraham Storey, master founder there, and inventor of the dry sand technique.

Eager for further advance, Owen moved and took a position as workshop instructor in the firm Fenton, Murray & Wood, of Leeds, manufacturers of steam-engines.

With his keen desire to advance still further, Owen seems to have had the intention of emigrating to America, the great land of opportunity. He had been fascinated by the pioneering work of the American inventor Oliver Evans, who had interesting theories regarding the use of high-pressure steam, a typical case of a man before his time.

Fate saw to it that on 4 May 1804, Owen found himself landing not in New York, USA, but in Gothenburg, Sweden. The opportunity had presented itself for Owen to help supervise the assembly of steam engines the Swedes had purchased from his firm and another London manufacturer. Owen returned to England in December 1805, not intending to return to Sweden, and took up a position in London with Woolf, another prominent steam-engine man and one of the pioneers of the compound engine.

Owen's previous patron in Sweden, Baron Edelcrantz, was now already arranging the purchase of another engine from Murray's, but finding them tardy in replying he wrote directly to Owen, saying that there was a future for him in Sweden as a specialist in his field. Owen returned

to Stockholm in August 1806, there to remain for the rest of his life, apart from a fleeting visit to England in 1825.

Owen's first job after returning to Sweden in 1806 was as superintendent of an engineering firm in the capital, where during the next 2½ years he was in charge of the construction of the first rolling mills for iron plate in Sweden, which came into operation towards the end of 1808.

In the spring of 1809, Owen set up his own firm, the first in general engineering in the country. When he started, he said that he was able to find only one man who had ever seen a foundry. By 1844 there were 26 and Owen had manufactured over 60 steam engines and over 1000 threshing machines with a thriving export business to Denmark, Germany France and Russia.

Not only can he be considered to have founded Sweden's modern engineering industry, but he soon turned his attention to shipbuilding. In 1816 he constructed his first steamship, STOCKHOLMSHÄXAN ("THE WITCH OF STOCKHOLM") fitted with a pioneering experimental propeller. It is believed that this was in effect a rear-mounted paddle-wheel i.e. only a partially submerged propeller. As others discovered, much still had to be done to develop a really efficient form for this new mode of propulsion, and Owen returned to the paddle wheel in 1818 for his subsequent vessel AMPHITRITE. She was probably Sweden's first regular passenger steamboat, making her maiden voyage from the capital westwards across Lake Mälaren to Västerås in 1818.

In 1820 he built the schooner-rigged P.S. STOCKHOLM which he was keen to see used in traffic further afield. Already by the next year, she was on her way from Stockholm to Abo in Finland, the final part of Sweden's one-time Baltic empire which had been lost to Russia in 1809.

In the promotion of the company running the service, Owen had the help of his father-in-law, a business-man, Zacharias Strindberg; his daughter, who was Owen's third wife, was an aunt of the great Swedish writer August Strindberg.

The STOCKHOLM's maiden voyage to Abo took place on 1 October 1821, her passage time being some 24 hours. That year, she made three return voyages with Owen himself in command. During the next three years a more or less regular service to Abo was maintained during the ice-free season. Occasional voyages were even made to Helsinki.

However, the traffic did not flow completely problem-free. Not that there were mechanical problems; not surprisingly, remembering the stormy relations that had existed over the years between the two countries, the problems were basically political and they took the well known form of suspicious bureaucratic control by the Russian authorities that tended to disturb the regularity of the traffic.

Owen was not to be daunted and decided to use a little guile in an attempt to further his ambitions to inaugurate a new service ranging even further afield. In advance of STOCKHOLM leaving the capital for Abo on 26 July 1824, he boldly advertised that this voyage would continue to St.Petersburg, the new capital that Peter the Great had founded in 1703 on a swamp. To make the journey in Owen's day you had to deposit your pass in advance with the Royal Russian Consulate in Stockholm for inspection, and hopefully await its safe return to your vessel's captain just before departure. The system died hard.

After arriving at Kronstadt on 3 August, it was announced that the voyage had been made in order to "be present at the ceremonies

celebrating Her Royal Majesty's the Dowager Czarina's name-day". This polite gesture -- or the humour behind it - did not at all go down well with the Russian authorities. STOCKHOLM's return journey, planned for 6 or 7 August, was delayed somewhat; for almost a month in fact.

Gradually the machinery was oiled and oil was poured on troubled waters and now you can take the comfortable Russian cruise ship ILITCH across to Peter's capital that once again is called by its old name. Perhaps you might even be allowed to visit Kronstadt*.

* There was a strange paradox in this respect about Russia. Their great emperors did welcome help from experts in many fields; their navy was largely built up by British officers serving in it and their arsenals and engineering works were built up by Scotsmen, but that is another story.

Although only illustrations of Owen's steamships remain, there is one outstanding monument to his activity left in Stockholm. The spire and pinnacles of Riddarholm church, which was burnt in 1835, was at Owen's suggestion replaced by a filigree cast-iron spire, which was made in his works and is still there to grace the view of the Old Town.

At the same time in England, when cast iron came to be used for prefabricated elements for commercial buildings, the architect Thomas Rickman (1776-1841) in cooperation with the Liverpool ironmaster John Cragg, erected churches in the material. Was it from one such church, perhaps St. Michael's church in Grassendale, that the Mersey shore nearby received its soubriquet "The Cast Iron Shore" that I remember from my boyhood in Liverpool?

RESEARCH NOTE

The speaker at our November meeting, G.W. Place, was awarded Ph. D. recently. He tells me that his thesis "Passenger Shipping from Parkgate" is to be published later this year.

We look foward to learning mu h mo than we heard at our talk, as travel to Dublin via Parkgate was a very busy one until the arrival of steam power.

Local Notes

A New Museum on Merseyside ? ?

THE WARSHIP PRESERVATION TRUST in partnership with Wirral Borough Council has brought two warships to Birkenhead for permanent public display in the docks there.

The frigate HMS *"Plymouth"* and submarine HMS *"Onyx"* built at Cammell Lairds are now being prepared for public exhibition beginning April. *"Onyx"* was the only conventional submarine to serve in the Falklands conflict.

TALL SHIPS

Merseyside has been fortunate to gain the prize of another visit of the World"s largest sailing vessels. *Grand Regatta Columbus '92* is under the patronage of Her Majesty the Queen, King Juan Carlos of Spain and the Presidents of Italy, Portugal and the USA.

In August nearly 100 Tall ships will mark the 500th Anniversary of the official arrival of Europeans on the Western Seaboard of the North America. Commencing their voyages from Genoa & Lisbon they will depart finally from Europe at Cadiz calling at the Canary Islands, and Puerto Rico to arrive New York 4th July (Independence Day).

The Transatlantic Race begins 16th July at Boston reaching the Mersey 12th August. They ships will berth in Birkenhead Docks from 12th to 16th. No doubt visitors will be permitted to walk round the Docks viewing the vessels lit up overall.

A spectacular series of events is planned by local authorities on both sides of the Estuary, including firework displays, a Concert at the Royal Philharmonic Hall and a march thro' Liverpool of 2,000 crewmen to a ceremony at St. Georges Hall. On 16th August there will be the superb Grand Parade of Sail as our sailing visitors depart. Could be as many as two million sightseers coming to Merseyside !

Ferry to Northern Ireland

Late in December I noticed a large white ro-ro ferry passing New Brighton about 1100hrs. Had the name NORSE LAGAN painted on bows and stern(s). Can only presume that the word "Lagan" links the vessel with Belfast. But funnel colours of two thin white bands on black exhaust chimneys match the house colours of the Finnish Steamship Company or perhaps those of the Manchester Ship Canal Company.

Ferry was seen to leave the Mersey about 1500 hrs same day. Obviously a new vessel on the Belfast Service.

LIVERPOOL NAUTICAL RESEARCH SOCIETY

(FOUNDED 1938)

Vol 35, No 4

Spring 1992

BULLETIN

Savage's *m.v. "Fallowfield"*

CONTENTS

Liverpool Nautical Research Society

Annual Subscriptions
Local: £5 *Country:* £4 *Senior Citizen:* £4 *Family:* £7

Application forms for membership and any other correspondence to:-
Hon Secretary, L.N.R.S.
Maritime Records Centre
Merseyside Maritime Museum
Pier Head Liverpool L3 4AA

SOCIETY NOTES

Annual General Meeting: 21st May
Changes of venue and time may arise
Will the Subs be increased ? ?

In view of the excellent attendance at our January and February meetings, our Chairman asked a numl regular attenders their opinion on the idea that all our meetings be held at Midday at the Maritime Mus Most people were in favour. If we obtain agreement of the Museum, the idea will be proposed at the AG be held May 21st.

Also at the AGM we shall bring up the matter of increasing our subscriptions. These have been held a present level for over 15 years. Currently these are barely sufficient to main-tain the level of services t members. We may have to pay a rental for the use of the room etc. When the present subs-cription established, the 2nd class postage was 12½p. Other expenses have risen in parallel.

W. A. Savage and the Zillah Shipping & Carrying Co

Douglas Head

Captain William Alfred Savage was born at Sankey Bridges, near Warrington in 1856 and went to People's College. When his parents moved to Widnes he was sent to the National School there. He started his career when about 14 years old with a firm of ship's fender makers, but it was not long before he left to work for John Hutchinson & Co, chemical manufacturers. However he always looked to the sea and after a short office life he joined his father George Savage, master of a small coastal sailing vessel. Here, allied with hard work, a sound business sense was to make him a prominent Northwest shipowner.

In 1873, when still only seventeen, he became master and part owner of the sailing flat *"Refuge"*. This vessel was lost (23rd April 1885) when stranded between Rhyl and Prestatyn with a cargo of limestone from Llandulas for Widnes. Savage and his single crew member survived.

It was then that a small steamer, *"George Deakin"* owned by Messrs George Deakin & Co of Northwich, attracted his attention. Capt Savage was always proud to relate this part of his history and of the kindness of Mr. Deakin who filled the little steamer with numerous spare parts which had not been planned when the purchase price had been agreed. The success of the little steamer gave him the confidence to purchase, (in 1891) with several Warrington businessmen, a new steamer *"Zillah"* under construction at the Tranmere yard of James Harland & Co. From the same yard in 1895 he bought the *"Merlin"* and formed the Zillah Shipping & Carrying Co. Ltd. The steamers *"Priscilla"* & *"Sarah Brough"* were the next to appear, built by the Ailsa Shipbuilding Co Ltd of Troon for the rapidly growing trades William Savage had in mind. After only a short time as master of the *"Sarah Brough"*, Savage came ashore to give his attention to the Company of which he was chairman and managing director. Under his able guidance it prospered and in 1914 there were no less than twenty vessels under the company's name, all built to his design and specification, the last three by the Lytham Shipbuilding and Engineering Company of which he was made a director in 1917.

IN 1904 he formed W.A. Savage & Co converted into a limited company in 1911 and in 1909 formed the Zillah Engineering Co Ltd with the object of effecting the repairs and maintenance of the parent company's fleet, which venture proved successful. In January 1915 Savage purchased a controlling interest in the Pwllhelli Granite Co Ltd (Liverpool) which had quarries at Minnford and Gimlet Rock, Pwllhelli.

Captain Savage was regarded as a great authority on coastal shipping and marine insurance matters and his opinion was greatly valued. I was a sad loss to many when he died at his residence "Zillah" Hill Cliffe, Warrington on 7th July 1918 aged 61 years.

The Company was acquired by Coast Lines Ltd in 1949 but retained its identity for a number of years

In 1958 two ex-'Savage' vessels were converted by Coast Lines for unit-load service and operated a nightly service with containers and trailers between England and Belfast under the name LINK-LINE. The service was inaugurated in January 1959 *"Birchfield"* and *"Brentfield"* being renamed *"Pointer"* and *"Spaniel"* respectively. Two years later both vessels were replaced by two new-buildings. Then in 1965 they were transferred to Burns & Laird Lines to be operated mainly between Ardrossan/Preston to Larne on charter to Northern Ireland Trailers Ltd on that company's unit-load services.

Alterations were made to *"Foxfield"* and *"Greenfield"*, the provision of one large hatch in place of the two existing ones and the replacement of the wooden hatch-boards by Cargo-Speed steel folding hatch-covers and the raising of the hatch coamings to between 3 and 4 ft. The former vessel was transferred to Burns & Laird Lines Ltd in April 1966 and renamed *"Lairdsfox"* the latter was altered by Manchester Drydocks Co Ltd leaving that yard in August 1966

under the new name *"Lairdsfield"* alterations to both vessels taking about 7 weeks to complete. The *"Lairdsfield"* made her 'maiden voyage' on 7th July on the steel run from Ardrossan to Belfast. The *"Lairdsfox"* followed on 30th August.

Anglo-Irish Transport Ltd began a service from Preston to Londerry & Portrush running unit-load services with 3/4 sailings weekly Preston to Londonderry and 2 sailings weekly Preston to Portrush. The *"Fallowfield"* (ex "Medusa") was the first vessel to berth at Portrush under the new arrangement on 3rd November 1964 and by the end of the year the *"Fernfield"* was also operating on the Preston-Ulster services for the same company.

Entry in SYREN FINANCIAL HANDBOOK for 1960:

Zillah Shipping Company Ltd. Reg. Office Reliance House, Water St. L'pool
Managers: W.A. Savage Ltd., 7 Chapel St. L'pool L3
Directors: M. Arnet Robinson (managing) Geoffrey Beazley, Hugh M. Clarke, John W. Dodd.
Registered May 29th 1895 as Zillah Shipping & Carrying Co Ltd.
Present Title: August 2nd 1949.
Principal Shareholder: Coast Lines Ltd.,35 Crutched Friars, London
Fleet : 12 ships of 6,743 gross tons; average age 7 years.

In 1967 the firm was listed as W.A. Savage Ltd, Reliance House L3.
Directors: H.M. Clarke, P.S. Cross, I.M. MacLaren
"Earlsfield", "Fallowfield", "Fernfield", "Grangefield", "Holmfield"

FLEET LIST

No	Name	type	tons	built/acquired		No	Name	type	tons	built/acquired	
1	Refuge	flat	59	1864	1873	34	Amy Summerfield	str	407	1921	1927
2	George Deakin	Str	105	1866	1873	35	Accordance	"	259	1923	1929
3	Mary Foxley	flat	53	1840	1890	36	Adherance	"	218	1914	1929
4	Obadiah	flat	59	1858	1890	37	Appliance	"	197	1921	1929
5	Zillah	Str	136	1891	1891	38	Assistance	"	233	1903	1929
6	Merlin	"	139	1895	1895	39	Brackenfield	"	660	1937	1937
7	Priscilla	"	243	1896	1896	40	Broomfield	"	657	1938	1938
8	Sarah Brough	"	299	1898	1898	41	Rowanfield	"	495	1938	1938
9	G.A. Savage	"	357	1900	1900	42	Empire Tulip	m/v	288	1939	1940
10	Zillah	"	373	1901	1901	43	Maplefield	str	495	1941	1941
11	Margerita	"	375	1902	1902	44	Larchfield	"	493	1941	1941
12	Thelma	"	400	1903	1903	45	Empire Maythorn	"	390	1946	1946
13	Mayflower	"	396	1905	1905	46	Hazelfield	"	692	1948	1948
14	Aquilla	"	450	1907	1907	47	Dransfield	"	652	1921	1949
15	Ophir	"	469	1907	1907	48	Fairfield	"	801	1925	1950
16	Little Orme	"	203	1906	1908	49	Caldyfield	"	879	1921	1952
17	Cecil	"	235	1890	1909	50	Westfield	"	496	1935	1952
18	Puffin	"	404	1900	1909	51	Northfield	"	781	1933	1953
19	A. Hayward	"	444	1908	1908	52	Freshfield	m/v	518	1954	1954
20	Alyn	"	350	1909	1910	53	Foxfield	"	498	1952	1954
21	Zelia	"	387	1912	1912	54	Fallowfield	"	490	1953	1954
22	Summerfield	"	687	1913	1913	55	Oatfield	"	500	1952	1954
23	Thornfield	"	488	1913	1913	56	Greenfield	"	500	1953	1955
24	Eleanor	"	490	1897	1913	57	Grangefield	"	504	1954	1955
25	Ashfield	"	436	1914	1914	58	Brentfield	"	1263	1955	1955
26	Silverfield	"	436	1915	1915	59	Edgefield	"	373	1956	1956
27	Limesfield	"	427	1916	1916	60	Earlsfield	"	635	1952	1956
28	Briarfield	"	446	1920	1920	61	Birchfield	"	1265	1956	1956
29	Beechfield	"	449	1922	1922	62	Holmfield	"	479	1957	1957
30	Gorsefield	"	528	1922	1922	63	Fernfield	"	498	1954	1958
31	Heatherfield	"	447	1924	1924	64	Glenfield	"	567	1940	1959
32	Elmfield	"	450	1925	1925	65	Garthfield	"	606	1938	1960
33	Penstone	"	267	1926	1926	66	Fordfield	"	499	1954	1960

TWIN-SCREW BLOCKADE RUNNERS

A.H. McClelland

A wise saying frequently ignored these days, is that judging people of the past by the conventions customs and priorities of the present is a dangerous busin-ess, worse than that it is a foolish business. No more so is this true than in the study of the links between Britain and the Confederacy. in the American Civil War. Whilst the continuation of slavery in the South must be acknowledged to have been a key issue, there were other pressing concerns as the writer has indicated in earlier articles (BULLETIN, Vol. 33 Nos 1, 3 & 4), and often an impatience with the self-righteousness of many of the abolitionist agitators.

It is little wonder that shipbuilders on Merseyside, the Clyde and the Thames in a highly competitive situation had few qualms about accepting orders for vessels to be employed as blockade runners in the Confederate cause.

In pursuing his particular interest in the "runners" the writer initially concentrated on those completed on Merseyside, but inevitably became aware of the swift steamers launched elsewhere, e.g. the three-funnelled paddlers of the *"Falcon"* class launched in 1864 by Randolph, Elder & Co on the Clyde and the advanced twin-screw steamers produced by J. & W. Dudgeon of Cubitt Town on the Thames. Between 1862 and 1865 the Dudgeon brothers completed twenty twin-screw steamers. Of these the first eight were sisters, or near sisters, specific-ally designed for blockade running. The lead ship was the *"Flora"* built of iron with a clipper stem on dimensions 165' x 23'x 13'6" (trial draught 7'0"). The mean of the trials of the eight vessels demonstrated the following results :-

Indicated HP	... 600 (from four cylinders, each 26" diam, piston stroke 21")
Steam pressure	... 23½lbs (the writer has seen 30lbs quoted)
Vacuum	... 26 ins
Revolutions	... 115 rpm (the average at the time was 50 rpm)
Speed	... 14 knots
Coal consumption	... 15 cwt per hour

Each of the engines of the *"Flora"* drove a three-bladed propeller of seven foot diameter direct, and her manoeuvrability was enhanced by the location of a rudder behind each screw. Equipped with two main tubular boilers, she had a third, reported to have worked at 50lbs psi which produced "blast in the funnel and dried steam from the other boilers".

During her trials late in 1862 the manoeuvrability of the *"Flora"* was demonstrated as follows:-

1: Full speed ahead with both engines. helm put hard over, a circle was completed in little more than the ship's length in 3 minutes 30 seconds.

2: One engine going full ahead, the other stopped, the helm put hard over on the working side, a circle was completed in little more than the ship's length in 3 minutes 30 seconds.

3: One engine going ahead, the other astern, the helm put hard over, the vessel completely turned round on the centre of her length in 3 mins 48 secs.

4: The engines turning in opposite directions as before, but the helm fixed amidships, the circle was completed again in the ship's length in 4 m. 28 s.

In a paper presented to the Insitute of Naval Architecture in 1865, Messrs Dudgeon reported of their twin-screw blockade runners:-

> "The facility of manoeuvring has been of great service to these vessels in performing their duty. The fact is it has saved them in many cases from being taken. The advantage of having two engines independent from each other has also manifested itself; when one engine was damaged, it was stopped and easily repaired, whilst the other was going. Also, in going out (presum-ably on their delivery voyages) it was found saving to work alternately one engine and boiler, when vessels still attained the fair speed of eight knots. The greater part of these vessels have been chased and escaped, only one being taken; some have run ashore, some are still existing" [1]

Of the Dudgeon products probably the most famous were the "Edith" later C.S.S. *"Chickamauga"*, and the *"Atalanta"* later C.S.S *"Tallahassee"*. The former's dimensions were 175' x 25' x 15' with a displacement of 510 tons and a draught of 7'9" on trials. The *"Atalanta"* measured 200' x 25' x 13'4" also with a displacement of 510 tons on a draught of 7'1". On her trials the *"Edith"* achieved 13.4 knots with an indicated horsepower of 894 produced by two pairs of 34" cylinders with a piston stroke of 21". Steam was supplied at 21lbs psi on a coal consumption of 24 cwt per hour. She ran the blockade frequently before being purchased by the Confederate Navy at Wilmington N.C. in 1864. In view of her ultimate employment it is significant that during her trials her propellers having been operated in opposite directions, their roles were suddenly reversed and the effect on the ship was instantaneous; the revolving motion was checked and reversed with the greatest ease. "This experiment was repeated several times, and proved that such a twin-screw vessel might in itself become the carriage for heavy ordinance too heavy to be trained in the ordin-ary way".[2] As the *"Chickamauga"* the steamer was the subject of a dispute between the Confederate Army and the Navy, but in October 1864 she went to sea under the command of Lt. J. Wilkinson, C.S.N. She steamed as far north as Long Island Sound before proceeding to St. Georges, Bermuda for repairs and coal. She took several prizes, returning to Wilmington in mid November 1864. Eventually the *"Chickamauga"* was taken up Cape Fear River to be sunk as a blockship by the Confederates after the evacuation of Wilmington.

According to the "Civil War Chronology" (VI - 309) the *"Atalanta"* was ordered, presumably nominally, by the London, Chatham & Dover Railway Co. to the design of Capt. T.E. Symonds, R.N. (the writer wonders if T.E. Symonds was related to Capt. William Symonds, Surveyor of the Navy 1832-1848, who designed fast anti-slaver brigs). By Dudgeons' own account the *"Atlanta"* was a long vessel with fine lines, definitely intended as a blockade runner. During her trials she achieved 15 knots, with an indicated HP of 1,220 produced by two sets of twin cylinders each of 34" diam. with piston stroke 21", taking steam at 29lbs psi on a coal consumption of 26 cwt per hour. In a race between her and the regular Cross-Channel packet *"Queen"* she beat her rival by half an hour on the run between Calais and Dover, taking only 77 minutes whilst the *"Queen"* took 107 minutes. After a successful career as a "runner" the *"Atalanta"* was taken up by the Confederate Navy in 1864. Renamed *"Tallahassee"* she put to sea from Wilmington N.C. in the August of that year under the command of Commander J.T. Wood, C.S.N. and in a round trip of 19 days proceeded as far north as Halifax NS, destroying 26 vessels and capturing 7 others. Returning to base short of coal she was re-named *"Olustee"* and with Lt. W.H. Ward C.S.N. in command she sailed again in October. Although damaged by Federal gunfire she made another successful cruise, destroying 6 ships before shortage of bunkers forced her back to Wilmington early in November, evading capture twice on the way in. Her armament was removed and as the *"Chameleon"* she reverted to her original role. In January 1865, heavily laden with supplies for General Lee's Army, which was by then in dire straits, she was proceeding with great caution towards Wilmington when her commander suddenly became aware that Fort Fisher had been taken by Federal forces. As two warships tried to intercept her, the pilot of the *"Chameleon"* caused her to execute one of those sudden 360° turns which had been such features of Dudgeons' trials and she was able to run clear, out to sea.

The twin-screw "runners" effectively demonstrated the practicability and advantages of their propulsive arrangements under the most arduous conditions. Dudgeons' faith in them was well justified, and it is interesting that many years ago the writer was told on good authority that they were "good sea boats which could walk away from paddlers in most conditions".

1. Rudgeon, J & W "Record of Performance and Experiences with Twin Screw Steamers" Trans. I.N.A., 1865 (Vol VI), p 209

2. Ibid. p 210

DISASTER ON THE LIVERPOOL BAR
by Charles Dawson

For a ship to be caught in really bad weather she did not necessarily have to be thousands of miles away from home, caught in a typhoon in the China Seas or fighting her way round Cape Horn in winter.

Captain Thomas Garry Fraser (1850-1934), a Cumberland man, says in the account of his thirty-four year seafaring life that, "amongst my many hazardous adventures this wild night in the Mersey estuary holds a prominent place in my memories".

The event happened in 1892 on his twenty-fifth voyage, and his fourth with the iron ship *MAXWELL* of Liverpool, Official number 93714, 1856 gross tons, 269.1' x 39.1' x 23.5', built in 1887 by T.B. Royden & Sons of Seacombe for Johnston, Sproule & Co of Liverpool. It was nearly his last voyage.

Early on a lovely summer morning, Tuesday 19 July 1892, his ship left the lock at Birkenhead in tow of the steam paddle tug *GREAT WESTERN* bound for San Francisco with a cargo of coal. At 5.30 a.m. they passed the "Magazines" and four hours later, clear of the river, the pilot disembarked; the tow continued until passing the Northwest Lightship. The weather had begun gradualllly to deteriorate, the wind veering from NW to NE and finally strengthening to storm force, with heavy seas breaking over both tug and tow. The tug tried her best to hold her own with the wind by zig-zagging. To help her, Captain Fraser attempted to set his lower staysails but as each was set, so it was blown to rags.

The tug-master suggested that a return to Liverpool was the best measure to follow, but in pulling the ship's head round from the west shore, the tug's hawser parted. Experience told the master that to anchor would have ensured the loss of ship and all on board, for with such a wind and high sea the cables would have parted the moment the weight of the ship came on them. The ship's crew began the frantic task of breaking out a new five inch steel wire hawser. At the same time the helm was kept hard down, the mizzen yards backed and the foreyards run square in an attempt to keep the ship's head as near the wind as possible and retard the drift towards the banks. The wire was passed through the hawse-pipe, and with much labour, laid out along the lee side of the deck. After many narrow escapes from collision, the tug *GREAT WESTERN* was manoeuvred under shelter of the ship and after several fruitless attempts, at last succeeded in picking up a heaving line to which was bent a heavy messenger line.

Now all were heartened by being once more attached to their only hope, the tug, and proceeding towards the Bar some eight miles away. In such a position, in narrow waters bounded by an iron-bound coast and banks, with a near-hurricane from seaward, the force of which precluded the idea of help from her canvas, a sailing ship is indeed a helpless machine.

The tug resumed her zig-zag tactics. In the high seas however the tug was pitching and rolling and she lost much of her power by the sea throwing her paddles out of the water. Still striving against the wind, they passed the Bar Lightship at about 10.p.m. Dusk was setting in, the tide was ebbing, there was no abatement in the force of the wind, and its direction was unchanged. The short choppy seas breaking over the Bar made the vessels almost unmanageable. When before the wind, the sea was so high that *MAXWELL* pooped twice, something Captain Fraser had never

previously experienced in all his many years in the heaviest gales in the open oceans of the world.

They passed dangerously close to the Bar Lightship, hugging the buoys on their port side where the deepest water was. Captain Fraser had hopes that they would cross in safety until, after one heave on the crest of a huge wave, his ship sank in the trough with "a peculiar, undescribable tremor". At the first crash, all hands were mustered at the extreme end of the poop, as being the place most free from the force of the waves breaking over the bridge. The tremors came again and again, then she struck with such force that spars were broken and men went tumbling. The hawser parted, the seas overwhelmed the ship and the captain, standing aft, now felt and heard a resounding crash that reverberated through his ship's hull. Then the ship settled down and lay quiet, with the sea washing over her, fast on Little Burbo Bank. Attempts by the crew to launch the boats were in vain: a couple of davits were damaged and a couple of boats were reduced to matchwood.

With the tow-rope gone, the tug *GREAT WESTERN* was now unable to assist further, and not very manageable herself, left the scene and made for Liverpool to raise assistance, firing rockets as she went.

At 11 p.m., the schooner *RAMBLER*, inward bound for Runcorn her home-port, under small canvas, found herself unable to avoid striking *MAXWELL*. She hit the steel hull with a heavy glancing blow, breaking her masts and reducing her rigging to a tangled mass. The crew of *MAXWELL* could only watch in horror as the schooner drifted away in the direction of the river. Captain Maxwell believed that all her crew had perished.

Coxwained by Nicholas Hinchley, the Mersey Dock Board's 34' long oared lifeboat No. 2, built 1880, with a crew of 12 men, was launched from Princes Stage in response to a call from *GREAT WESTERN*, now back in port. The boat was taken in tow by the paddle-tug *KINGFISHER* and after over two hours was cast off some three hundred yards to the windward of *MAXWELL*. It was now 2 a.m. when she was rowed towards the sinking ship through the heavy breaking sea, striving to get to the lee side. She had crossed the stern to take up the best position to rescue the crew, when suddenly a high cross-sea struck her and threw her clean over and her crew into the water. The crew managed to scramble on to the boat's bottom, and clung to the keel. They were unable to use their flares and rockets, their cries were drowned by wind noise and the up-turned hull slowly drifted away.

The distress signals fired from the tug *GREAT WESTERN* had been responded to quickly. The Formby Lifeboat set off to row the eight miles to the Bar. The New Brighton lifeboat *HENRY RICHARDSON* was towed out by *GREAT WESTERN* and after much difficulty succeeded in reaching the lee side of *MAXWELL*. The lifeboat was managed in a masterly manner; one by one the crew were rescued until all had left except Captain Fraser. He had taken to the mizzen rigging, for now even the poop was under water. He wrote later: "I was silly enough to refuse to leave the ship, not from any foolish sentiment, but from feelings that only those who have been in a similar position can appreciate".

No reasoning, shouted from the lifeboat above the roar, could move Captain Fraser at first, but the coxswain and one of the lifeboat crew, at considerable peril, climbed into the rigging and proceeded from supplication to intimidation. Finally, appealing quite straightforwardly to his humanity, they put it plainly to him that the lifeboat had twice

nearly capsized and that the crew were all married men and their loss would plunge their families into distress and poverty.

Their entreaties, coupled with their refusal to leave without him, had their effect. After the men had returned safely to their lifeboat, the captain waited for her to come up on the crest of a wave and jumped into her. He was bruised and stunned and the next thing he remembered was someone putting into his mouth something which he was told was rum, but which he thought tasted like Stockholm tar. The New Brighton lifeboat *HENRY RICHARDSON* landed him at New Brighton Pier and a kindly policeman arranged for a cab to take him to his nephew's house. The rest of the crew were taken to the Liverpool side by the tug *GREAT WESTERN* and duly cared for by the various humane and benevolent societies of the city.

Meanwhile the tug *KINGFISHER* resumed the search for the Liverpool Lifeboat, while Coxwain Andrew Aindow of the Formby lifeboat chose to patrol the channel between the Formby and Crosby Lightships. By 3.30 a.m. there was still no trace of the missing lifeboat. She was nevertheless still afloat. Those clinging to her had the greatest difficulty in maintaining a hold. More than once, benumbed with cold and exhausted by their struggles, one or other of them would let go his hold and fall back into the sea, only to be grabbed in time by one of his mates and hauled back on the boat. Immediately after the boat capsized, Emmanuel Rodriguez was swept away and not seen alive again. In spite of their lifejackets and oilskins, William Ruffler, John Gannon, Henry Beaver and David Thomas had managed to hold on. The latter, inserting his hand into one of the non-return valve apertures, gave himself a stronger hold and several of the others clung to his legs.

At daylight they counted themselves and found that eleven of their original thirteen had survived the night, but several were injured. Ruffler, completely exhausted and obviously suffering from exposure, weakened still further and was washed away. David Morgan, John Gavin and Albert Martin were worst affected and had to be continually encouraged by the others to keep hanging on. Charles Norton, John Hughes and William Bramhall were injured but held on strongly. Only four had escaped some form of injury: Coxwain Nicolas Hinchley, William Ellison, Henry Beaver and David Thomas, although the latter's hands and arms must have suffered from his way of holding on. For a short time their hopes were raised when they saw the Hoylake lifeboat *COXWAIN SAMUEL ARMITAGE* making her way out to the wreck, but they could not catch her attention.

The tug *KINGFISHER* had still, after a couple of hours, not seen any sign of the missing lifeboat and returned to port for consultation. On the way back they found the wreck of the schooner *RAMBLER* anchored near the Northwest Lightbuoy some eight miles from the Bar. Incredibly all the crew were alive and well. They took the vessel in tow and continued on to Liverpool.

When Captain Swenny, RN, Senior Marine Surveyor of the MDB, learned that the New Brighton Lifeboat had returned with the crew of *MAXWELL* and that the *KINGFISHER* was still searching the area for the Liverpool Lifeboat, he acquired the services of the paddle tug *BRILLIANT STAR* and made for the wreck. After a vain search, he assumed that the Liverpool lifeboat may have returned to shelter through the Rock Channel, normally used only by shallow draft vessels passing between Liverpool and the North Wales ports. He therefore instructed *BRILLIANT STAR* to return to port.

The Liverpool lifeboat, still upside down, continued to drift with the tide and wind, her actual movement being in a wide sweeping arc towards the northern Wirral coast. The men knew that they were not in the main channel and could only hope for a sighting by the occcasional coaster or flat. From 3 a.m. the weather had moderated and by 5 a.m. the waves, although still washing over them, were not as frequent or as high. But the injured men were in increasing agony, with swollen joints adding to the aches and pain of the exposure to the cold water and viciously bitter winds.

They were driven before the gale for some five hours, across the banks. Once when lifted on top of a wave, they caught sight of the New Brighton lifeboat which had followed them down channel but the roar of the gale, the noise of the waves and the darkness which had fallen, prevented the men on the half-submerged boat from attracting their attention.

At about 7 a.m., the lifeboat to which the men were still clinging was seen by some fishermen who were on the lookout on the beach close to Hoylake. They saw the boat drifting towards the beach near Leasowe Lighthouse. Assistance was obtained and the men brought ashore. A little while before the boat grounded, all the men were alive, but when they landed, two were dead and a third was in a critical state and died a few hours after being taken to Hoylake Hospital.

That unprecedented storm in the Mersey estuary only a few miles from Liverpool had been created by a tropical hurricane that had strayed far north that July night. The force of the wind was registered at Bidston Hill Observatory at from eighty to one hundred miles per hour.

A government investigation was held to enquire into the mishap to *MAXWELL* and to the loss of life from the Liverpool Lifeboat, but there was no Board of Trade inquisition for it was quite plain that the disaster had been caused by the unprecedented weather situation. There was enormous public sympathy for those lost from the lifeboat and public subscriptions were called for. The MDB officers took control of the funds and there is some justification for saying that not all of the money raised reached the families of the dead. Administration is a costly business.

Captain Fraser believed that very few if any ships had ever been recovered from the tideswept banks of the Mersey estuary, and little hopes were entertained for *MAXWELL*. Singular to say, however, the tides had carried her up a hard sound bank, instead of what was expected, namely that she would sink in the quicksands. It was believed too that details of her "old-fashioned" construction had helped her favourably: her after-run had large pockets filled with cement that had given her extra stiffness there. She was pumped out and towed into the drydock at the Great Float, Birkenhead for repair. She was then managed for a time by Nicholson & Co. and later by John Edgar & Co. After a few years' sailing, she was sunk in a collision off Dover with some loss of life.

This article is based mainly on Captain Fraser's own account, which appears in CAPTAIN FRASER'S VOYAGES, by Marjory Gee, Stanford Maritime, London, 1979. In addition some further details follow the information appearing in a book by J.A.Sullivan.

'SO YOU WANT TO BE A PILOT . . . ?'

P. J. H. Tebay, FNI
Liverpool Pilot

Article from PILOTAGE published by the Nautical Institute (£71.16)

'RIGHT PILOT, SHE'S ALL YOURS'. No matter how long the time spent waiting and studying for a licence, the first time the shipmaster acknowledges your professional expertise by entrusting his command to you, surely only the most unimaginative would not admit to a little *frisson* of pride and anticipation. The time has arrived for you to demonstrate that it has all been worthwhile and that you are the man for the job. Demonstrate it you must, because after briefing the master on the plan of action you, the expert, will rightly be expected to take the con and carry it out. Forget that mealy-mouthed, non-descriptive term 'advisor to the master,' as you will not be acting as some sort of soothsayer at the captain's elbow saying 'mind that bank' or 'watch that buoy'. You are IT, charged with conducting the vessel from here to there with safety, efficiency, and without delay.

You may have a bridge team to help you, but more likely in these days you will be expected to get on with things with the minimum of crew assistance and when docking on a do-it-yourself bridge to have the physical dexterity of the one-man band. However, if all goes well—and most times it will—you will experience the inward satisfaction of having shouldered a considerable responsibility, used the skills that you have learned, and lived up to the standards implicit in your pilot's licence.

What sort of person is it, then, who takes up pilotage as a living? Are there any common character traits or attitudes? After 36 years as a pilot and having met many European colleagues through EMPA, one finds it difficult to generalise as they seem to come in all shapes, sizes and demeanours. However, there are one or two pointers. Firstly, the nature of the decision making and responsibility demanded by the job produces very independent thinkers. This, in turn, means that they make naturally good leaders, but, equally, critical followers—the isolation of the pilot's job does not breed sheep.

Secondly, traditionally proven training schemes have, in the past, made pilots great sceptics of any new systems or marine innovations until they are seen to work—pilots tend to be conservative by nature and embrace new ideas slowly. Finally, they are proud of their profession, which can be both a hard taskmaster and yet provide an almost unique job satisfaction in today's world.

Are you getting the picture?

As to your personal qualities and character, what will you be expected to bring to pilotage? Some attributes are more easily measured than others—intelligence and health for example and the ability to apply that intelligence in a practical way. Pilotage is the art of the practical. Less immediately quantifiable would be the assessment of your motivation. Why do you want to be a pilot and on what level of real knowledge of the job do you base your views? To get this right is of prime importance in trying to eliminate the potential square pegs from the existing round holes. Pilotage can be, and often is, a stressful way of life both mentally and physically. This was clearly identified in various European human factors studies in recent years, and the candidate entering the profession unprepared or for the wrong reasons is a potentially unhappy pilot.

In the past, some training schemes did attempt to gauge both determination and motivation, but the methodology used could scarcely be described as scientific. It has been suggested that an element of psychological testing should be introduced for candidates. Perhaps, but I have memories of some years ago when a colleague had a breakdown (from which he later fully recovered), to examine the suggested causal strains and stresses of pilotage, his tame shrink spent time on the pilot boat and ships talking to pilots. In conversation afterwards he was heard to claim that, compared to his patient, he was more concerned for the rest of us!

Multiple responsibilities

Once licensed, you will find that your direct and indirect responsibilities are multiple. In addition to the prime shipboard reponsibilities to the vessel, master and crew, this not only extends naturally to the shipowner but has a duty of care to the environment and the public. This applies particularly today with certain classes of ships and cargoes operating in a consciously green world. Accidents in such circumstances can have very far-reaching results. Further, the pilot will have a responsibility towards his port and to his pilotage authority—one provides him with a living and the other grants him his licence. Unfortunately, but inevitably, all these interests do not necessarily harmonise when financial considerations clash with safety. They can and do produce their own pressures and complicate the decision-making process.

Your advice to the master and your plan of action will evolve from your knowledge of all these factors and be tempered by experience. At times it will seem easier to say 'yes' to something about which you are uneasy than to stand firm, but the right decision is what is expected from you. What is very apparent is that a pilot's mistake or misjudgement is usually there subsequently for all to see. Not for you the gloss of anonymity or the disguising mysteries of the accountant's ledger, and no pilot worth his salt shrugs his errors on to someone else. It will not just be the potential disciplinary action that may follow any error or negligence—any system that relies purely on that must surely be a failure—it will be the injury to your professional pride that hurts. It must therefore follow on that you must be the sort of person who can accept this level of responsibility on a day-to-day basis.

A good pilot should have patience. You will need it

waiting for your first licence, waiting for your ship, waiting for tide, lock, berth, and waiting (and waiting and waiting) for the ship to respond to your helm and engine orders. The impatient pilot is not only a pain to himself, he is often a considerable worry to others.

Communicating well

Are you a reasonable social mixer and able to communicate with others? By this one does not suggest the lifestyle of the last playboy of the western world, or the ability to speak well on the VHF in many languages. More simply, you should be able to get along with those with whom you will work. Pilotage communities tend to be close communities and anti-social trouble makers are disruptive and therefore unwelcome.

Good communicative ability and the right presence are also very necessary to foster initial good master/pilot relations. First impressions are important and, just as you will be assessing the ship and master when you board, so will any interested captain be summing up the person to whom he is handing over his pride and joy. Generally speaking, he will not want to be bored with your personal tales of woe unless they materially affect the ship's safe passage. He should be acquainted with facts, but never needlessly worried. A cheerful pilot breeds confidence, but your Captain will not want a laid-back character seemingly intent on taking his ship 'boldly, where no man has gone before.'

Another aspect of communication that is vital is brought about by the elements of strain inherent to pilotage. You will, in your time, have some near misses and probably some incidents. You will also have your worries; the pilot with too much imagination is a problem, but the pilot with none is a menace. It is important therefore that you are neither too proud nor too up-tight to discuss pilotage problems with your peers to help alleviate tensions. To unwind with your colleagues is no bad thing, as it is the bough that cannot bend in the gale that will eventually break.

Health

On the matter of physical health, it is as well for you to be aware that the pilot's lot is not a happy one. The aforementioned European human factors studies revealed a well above average incidence of cardio-vascular problems amongst pilots. Ulcers, varicose veins, haemorrhoids, and liver complaints added on seem to disperse the disorders fairly well around the body. Apart from the already mentioned stress factors, the inevitable unsocial and often long hours, irregular meals, irregular sleep patterns and long pilot ladders are seen as leading culprits.

It may not be possible to eliminate all the causes, but much can be ameliorated by both sensible work patterns and personal health care. So look at how the pilots work in your prospective district before you join and remember that a work system that may be attractive to a younger man may well become distinctly onerous in later years. The heavy smoking, heavy drinking, over-weight pilot of yesteryear may have been the life and soul of the party, but today his party is likely to be shorter than anyone else's.

Shiphandling

You may or may not have been born with a natural gift for shiphandling. If you have, you will get an immediate pleasure in pilotage. If not, then, like the rest of us, you will learn your art first by watching others and then hands-on on the bridge under guidance. There may be other ways, and modern sophisticated teaching tools should not be denied, but there is no comparison to learning in the hot seat.

Good shiphandling is like a combination of being a jockey in knowing what you can and cannot expect of your mount, being a good assessor of forces and angles like a snooker player (but preferably without the cushions), and with the sensitivity of a heavy goods vehicle driver on an icy road. As I doubt if you will have this range of experience then, in this respect there could be a certain random element in your selection! Unless, of course, you can prove otherwise.

Satisfaction

Whilst most of this contribution is about what pilotage will demand from you, how about what it gives in return? After a working lifetime's involvement, I think I can fairly say that, money aside, its rewards are considerable. Despite the unsocial hours, the lifestyle generally is not unattractive. You will have the pleasure of being home-based whilst still seagoing, and you cannot take your work home with you (no matter how hard you try). When you are off you are off, and tomorrow is another day. Whether employed or self-employed, once on the ship you are your own boss, you are the expert in your particular field and you will be prepared to stand or fall by your decisions, judgement and skill.

There is tremendous variety and satisfaction in pilotage; variety of ship, of person, of good company, of circumstance and the satisfaction to be had in a task well done. In your career you will have had enough happy, sad, exciting, interesting, fulfilling and awful experiences to make a television series and you will have met a lot of nice people en route. Perhaps the most immediate of all these satisfactions is when, after successfully overcoming every difficulty that has been strewn in your path, you have got the ship safely to her berth and you *know* you have acquitted yourself well. Regardless of what tomorrow may bring, today you are ten feet tall!

'Thank you pilot for an excellent job.'□

The following is the legal statement made by one of the surviving pilots prior to the Inquiry into the loss of the Liverpool No.1 Pilot Cutter during the early days of the 2nd World War. At the time all shore and floating navigation lights were extinguished. In all 16 pilots and several apprentices lost their lives.

Dock Solicitor's Office
Liverpool 7th December

THOMAS HAROLD WEBSTER says :-

I live at 12 Woodland Drive, Wallasey.

I have held a First Class Liverpool Pilots Licence for the past 27 years. I entered the Pilotage Service as an Apprentice Pilot in the year 1900 and was licensed as a third class Pilot in 1908 and as a Second Class pilot in 1910. My age is 56. I am appropriated to Royal Mail Lines.

At 7 p.m. om Saturday, the 27th November, I went on board No. 2 Pilot Boat at Princes Stage and proceeded in her to the Bar where I transferred to No. 1 Pilot Boat at about 10.30 p.m. - wait to be boarded on an inward bound vessel. I went up to the bridge and spoke to Captain McLeod told him of the name of the vessel I was expecting and the time of her expected arrival and the number of the room on the Pilot Boat in which I was going to turn in.

While I was talking to Captain McLeod I saw the Bar Light bearing about abeam on the starboard side. - The weather was then fine and fairly clear, the wind W.S.W. force 7.

I went below and after a short conversation in the Saloon with my fellow pilots I turned into Room No. 4 on the port side forward.

I slept until a time which I thought would be shortly after 3 a.m. (I looked at my watch but the room being dark I could not see the time) when I awoke and went on deck. The weather then was wind, I don't know the direction, force 7 with heavy rain squalls. No lights were visible.

I spoke in passing to one of the firemen at the stoke hole door (sic) on the starboard side, the lee side. I asked if we were boarding pilots on any vessels because I could feel the vibration of the engines going astern and he replied to the effect that the engines were going full speed astern. On looking over the side I noticed that there was sand churned up in the backwash from the propeller - from that I judged that the Pilot Boat was in very shoal water. I had not identified any bumps as indicating that the Pilot Boat was actually hitting ground - I had felt the effect which is usually felt when the Pilot Boat is backing into a sea, and for that reason I made the remark I did to the fireman.

I said to the fireman "We're either ashore or very near it" and on that went below to dress. On my way along the alley-way I called into the pilot's room intimating to them that I thought the vessel was ashore. I got fully dressed with overcoat, oilskins and boots and took my hand bag up into the Saloon. I also had a lifejacket over my arm - later the rest of the pilots and the two examination officers came into the Saloon.

I then went up on the bridge. - Both Captains MacLeod and Bibby were there. The wind was then about force 7 with heavy rain squalls. No lights visible. heavy-sea - wind and sea were hard on the port quarter.

I didn't go into the wheelhouse so I did not see the compass I assumed the direction of the wind was the same as when I turned in which would give the Pilot Boat a N.Ely heading - but that is assumption. I asked Captain Mcleod where he thought we were and his reply was to the effect somewhere on Rhyl Flats. I had no further conversation with respect to her position. Knowing the general practice of keeping the Pilot Boat's head to sea it didn't seem to me to be an unreasonable assumption. The navigation of the vessel was, of course, in the hands of Captain McLeod and the crew.

I returned to the lower deck and advised various people to get their life-jackets - my idea being that although there was then no danger they might be neccessary later on.

I observed at about this period that Captain Bibby was on the foredeck with one or two apprentices working at the windlass attending to the anchors.

At about this time the Pilot Boat was bumping and lurching and listing first to starboard and then to port, and continually driving to leeward. - The port motor boat was lowered into the water and brought round the stern on to the lee side, and the port pulling boat left hanging on its davits. The starboard quarter motor and pulling boats were also lowered into the water on the lee side.

Previous to the boats being lowered, several distress signals had been detonated, sending up a shower of white stars, and red flares burned. These signals had been used soon after the vessel touched, and were continued at intervals. - The wireless generator could plainly be heard, tut I didn't hear any definite messages at this time though later I heard messages being transmitted.

I assisted in getting lifelines ready if anyone went overboard and ropes out to the three boats, and in keeping the boats as far as possible from fouling each other - so that they would be ready for emergency.

At this time particularly and throughout the whole of the episode the capability, conduct and courage of the apprentices was of so high a character that I must draw attention to it. There was a quiet acceptance by everyone on board of the situation and help was willingly rendered by everyone.

Four apprentices were in the boats - one in the pulling - two in one motor boat, and one in another attending to that while alongside. The Pilot Boat which up to this time had laid with the wind abaft the beam on the port side probably due to some unevenness of the ground slewed round and brought the wind on to the starboard quarter, which caused the starboard side to become temporarily the weather side, with the result that the sea was running against the starboard side caused the pulling boat to break adrift. One of the motor boats went after her and disappeared in the darkness and after what seemed a longish interval I saw her return to about 50 feet almost ahead or slightly on the starboard bow with the pulling boat in tow. It was dark but I saw the motor boat's lamp and could see the dark hulls in the white of the breakers. During their absence, Lieut. Wallace and I prepared lines procured by Apprentice Teire and another apprentice ready to throw to these boats on their return but they did not come within heaving distance. They stayed in view for a short period and I heard a hail from the motor boat that the engine was conking out. They then disappeared from view in a heavy sea and I did not see them again. Lieut. Wallace, myself and Teire waited right on the bows for the boats to come in closer.

The other boat was alongside under the starboard fore rigging, the Pilot Boat having again slewed and made a lee on the starboard side. - Very shortly after, Apprentice Lancaster came on to the fore deck and asked should he go in the remaining boat to the rescue. I replied that he should not go without permission. - He returned to the bridge and I presume received permission because he went over the starboard bow down a life line and cast off. The boat disappeared into the darkness to leeward and after a considerable interval we observed her on the port bow returning apparently alone, moving head to sea - we could see her light and her dark hull in the white water distant about 100 feet. She turned to run before the sea I presume to come under our lee and in turning disappeared from view. I can't say what happened to her.

During this time the Pilot Boat was still driving to leeward bumping over the ground and shipping heavy water over the port side.

As there was nothing more I could do on the foredeck I returned to the bridge. Everyone was very wet with the rain and spray. There were several pilots on the bridge. The wireless was transmitting and receiving messages. From what I could hear of the Wireless Operator's voice I gather an Irish Boat was in communciation and also that three lifeboats were out looking for the Pilot Boat. Owing to the absence of Apprentice Lancaster, who had I presume been detonating maroons I took this duty on myself and proceeded at intervals to fire them. During this time I heard Pilot Trott's voice repeating messages apparently received on the wireless from the Irish boat. The Irish boat intimated that he had all hands on the lookout. We replied "Will fire next rocket in five minutes from now - please look out." At the end of that period I detonated a maroon. This process was repeated Trott keeping contact and giving me the time. My idea is that either Pilot Hoppins or Apprentice Hollis were operating the wireless.

The Irish boat asked if he could be of any assistance. I heard Captain Mcleod say he did not think she could be of any further assistance.

At about this time I along with others observed a dark object forward of the beam on the starboard side. My first idea was that it was Perch Rock Battery, but as the light grew it was identified as Ainsdale Lido amnd we knew we were on the Lancashire Coast. Up to this time is was the general idea on board that we were to the Southward of the Bar Ship.

In conversation with several of my colleagues we estimated that the Pilot Boat was not less than a quarter of a mile from the dry shore. We discussed the possiblity of swimming ashore and discounted it because of the distance and the heavy breakers.

At about this time, i.e. round about dawn the vessel's drive to leeward had ceased and she was fast aground with a very dangerous list to port; the port side of the boat deck under the water, the seas breaking over her whole length and carrying away the port pulling boat and much of the woodwork. The Chief Engineer had a talk to Captain McLeod who said there was nothing more the Engineer could do as the water was over the fires. The masthead signals were still burning.

Up to this time no one had gone overboard. There were a number of pilots, the engineers, firemen and maybe others under the lee of the chartroom and various people on the bridge.

The two life rafts were lowered from the bridge and one moored alongside and the other kept on the starboard side out side of the rails on the boat deck.

As time went on the top structure began to carry away and I observed the interior fittings and structure of the chartroom carry away.

I was standing under the lee of the chartroom with others. I don't know at what period exactly those rescued from the rigging had taken to it. The seas were enormous and lifted us to the underside of the bridge deck and dropped in the waterway again. I saw that the port bridge leaves of the engine room sky light were swung back by the sea leaving the engine room open and full of water.

A sea which seemed larger than the others lifted her bodily driving her on to an even keel and apparently into deeper water, so that what before had been the high (starboard) side became now totally submerged.

I saw Firemen Lawler washed overboard hang on to the raft and he asked us to be pulled back again - which he was.

With the rising tide and consequently rising sea I saw the ability of those with me to hold on was getting less and a subsequent sea which carried over board Bibby and Teire washed me over the rail to which I hung overboard and from there made my way foward to the forward rigging, into which I climbed below Steward Roberts. Above him were those saved by the Blackpool Lifeboat.

Then I could see the bridge and wheelhouse. There were McLeod, Trott, J. Currie and Hoppins and maybe Lawler on top of the Wheelhouse, Cockram holding on to the starboard bridge stantions. The port and forward rails of the bridge had disappeared. the doors, panels and windows of the wheelhouse had gone leaving only the uprights and deck. My colleagues on the lee side of the chartroom had disappeared. I hung on for some time until after 9/45. During this time I saw Cockram washed over from the bridge and climb back again obviously in an exhausted condition and later after a sea had swept over I did not see him. I saw Hoppins washed from the wheelhouse roof and climb back again. I saw the top of the firemen's scuttle on the foredeck level with the water, indicating the extent to which she was submerged.

I entwined my right leg in the ratlines to keep me form being washed away when the lamp standard on the bridge washed across my left hand causing me to lose hold and I fell backwards with my feet still entangled. A subsequent sea tore the ratlines away and when I came to the surface I was about 20 yards from the vessel and realising that I could not get back I turned and swam for the shore. Owing to my injured right leg and the chartacter of the shore I was unable to get up. I don't know how long I laid there but was eventually picked up in and unconscious condition. I came to in Southport Infirmary.

Steamers of the Past

by James E. Cowden

On 16th July and 27th August 1936 the turbine steamer *Pretoria* and its sister ship *Windhuk* were launched from two parallel slipways of the famed Blohm and Voss shipyard at Hamburg.

Both vessels were destined for the German-South African service of the Deutsch Ost-Afrika Linie of Hamburg. These two light grey passenger-cargo liners, each over 16,000grt with accommodation for the carriage of 490 passengers, were undoubtedly the most beautiful and well-balanced large liners used on the German-Africa service. They did not operate a "round Africa service" but departed from Hamburg calling at Southampton, Lisbon, Casablanca, Las Palmas, Walfisch Bay, thence on to Capetown, Port Elizabeth, Durban turning round for the homeward passage at Lourenco Marques.

Propulsion for these 18-knot ships was provided by Benson boilers and geared turbines with an output of 14,200 hp. Both were purposely designed for be not quite as fast as the Union Castle passenger steamers, the largest British liners on the African service of the time; to have built them larger would have piqued the British all too severely. The German foreign policy of 1936 (the year of the Olympic Games and shortly afterwards the Anglo-German Fleet Treaty) was marked by the striving for friendly relations with the UK.

These two fine express liners were considered an investment in the future. The German Government believed in 1936 that sooner or later there would be a re-division of the former German African colonies as prior to the Treaty of Versailles. At the time of the entry of the *Pretoria* and *Windhuk* into the service the era of Anti-Colonialism had not yet broken through. It was still thought that processing colonies was an international custom, and indeed, a firm economical custom. Without a revision of the Treaty of Versailles and thus without hope of fresh German activities in Southwest and East Africa this 'duo' would scarcely have been built with such generous dimensions and outstanding facilities.

On 19th December 1937 the *Pretoria* departed from Hamburg on her maiden voyage, by which time the 2nd W.W. was threatening. with the outbreak of hostilities, *Pretoria* was requisitioned and operated as a military accommodation/ hospital ship. In the latter stages of the War *Pretoria* was captured intact by British forces and operated for the Ministry of War Transport by the Orient Line of London under her new name *Empire Doon*. As a troop transport she operated in many parts of the Globe. In 1949 after extensive alterations to her machinery and accommodation were carried out, she was re-named *Empire Orwell*. Two of her eight turbines were removed reducing her service speed from 18 to 16 knots. The accommodation was re-arranged for 360 passengers in addition to 1,100 troops. She retained an overall white paint hull and superstructure with her two funnels painted in the traditional buff of the Orient Line who remained managers.

In the 1958 when all passenger ship routes faced strong competition from the airlines *Empire Orwell* was chartered to the Pan-Islamic Steamship Company, of Karachi for use on their pilgrim service. She departed from Southampton on 1st April 1958 but unfortunately when passing Portugal she sustained damage to her turbines and had to be towed into Lisbon by the German tug *Seefalke* out of Corunna. After a delay lasting a couple of months *Empire Orwell* cleared for Karachi from where she carried religious pilgrims to Jeddah and return. After about 12 months on the service she returned to the UK and was laid up in the Kyles of Bute and subsequently offered for sale.

The Blue Funnel Line had, for many years, operated ships on the 'pilgrim service' and it was they who purchased the *Empire Orwell* to supplement their ageing *Tyndareus* (b. 1916) on this service.

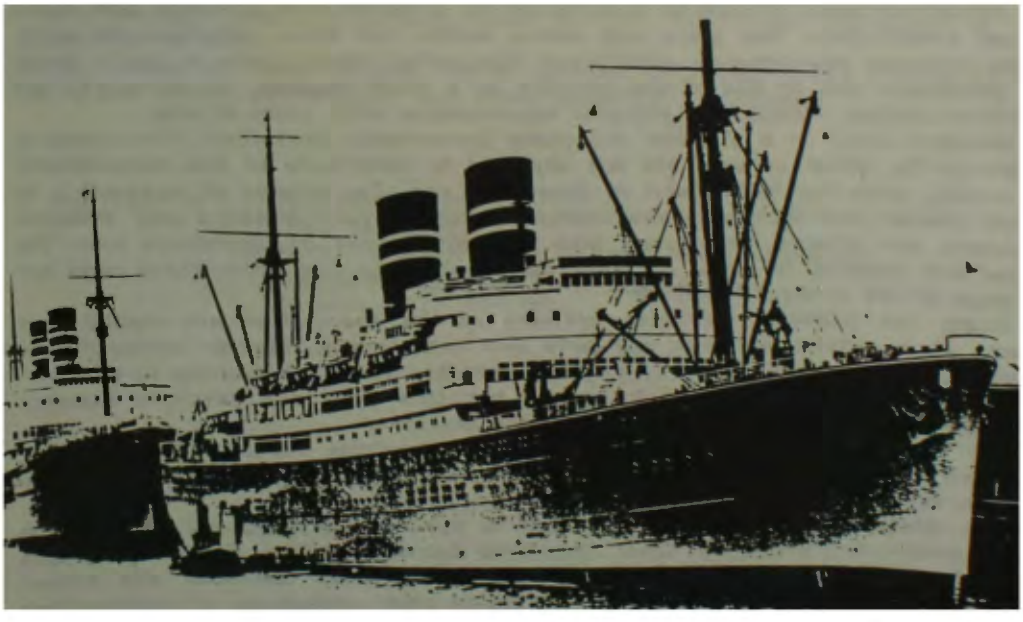
To suitably refit *Empire Orwell* for their eastern service she was sent to Barclay Curle at Glasgow who removed all her troop accommodation and fitted Indonesian-type beds as used for pilgrims. Her accommodation, after modification, comprised 106 1st class and 2,000 pilgrim berths in the former troopship accommodation spaces. It was Blue Funnel's intention to re-name her "Dardaneus", but at the suggestion of the organisers of the pilgrimages in Indonesia the name *Gunung Djati* was chosen. The name is derived from an early Moslem Hadji of humble origin who, after becoming a Sultan in West Java, resigned and dedicated himself to Islam. He established Mohammedanism in West Java and became a legendary figure in the Moslem world.

After refit *Gunung Djati* visited the River Mersey for one week prior to departing on 7th March 1959 for Djakarta, although retaining her white hull, she lost the deep blue riband she carried when trooping, but was given a mauve coloured riband of similar depth.

About 12 months later she was sold outright to the Indonesians. From then on she changed hands on several occasions. At the beginning of 1962 the Indonesian Government was listed as owners. In 1964 she was listed under ownership of the Peini Line (National Indonesian Navigation company). Two years later she was listed under the Arafat Line. It is hard to credit that 37 years after her launching this fine old lady of the sea was taken to Hong Kong and again given a major overhaul at the Hong Kong United Dockyards. Part of her overhaul consisted of a new set of M.A.N.-type diesel engines.

In the late seventies, her pilgrim days ended and she entered the Navy under pennant no 931 and re-named *Tanjung Pandan* after the main town on Biliton Island in the Riau Archipelago, carrying troops between Java and Eastern Indonesia, especially Urian and Timor.

In 1987, she was finally sold for demolition at Singapore.



Passenger steamers "Pretoria" and "Windhuk" berthing at the Petersen-Quay in Hamburg

The North Western Model Shipwrights Association

The Association was founded in 1979 when five or six enthusiasts from different localities met to exchange experiences in pursuing their mutual interests in building model ships from draft and plans of vessels of the 17th to 18th century period. Their first meeting was in St. Helens, Merseyside. None were involved in the subject professionally; all were drawn to it for its own sake as men of natural skills with a common desire to build model wooden ships to museum standards of craftmanship. They attracted others and by the end of 1991, the Association membership had grown to fifty, drawn from a wide area and from overseas.

With that growth interests also widened and the aims of the Association as now defined in its formal constitution are:-

> "...the encouragement, improvement and advancement of ship-modelling of all types, scratch-built or built from kits; nautical painting and drawing; modelling of marine objects; and nautical research with the needs of the model-maker particularly in mind."

Anyone attracted by the subject and having the desire to further these aims is eligible for membership.

The Association has two marine artists among its members and one member specialises in producing reproduction antique nautical instruments from the earliest days of ocean navigation to the 19th century. All are model makers covering, as a group, an extensive range of specialised interests.

Saturday meetings are held at approximately equal monthly intervals at the Association regular venue, the Conference Centre (formerly the College for Adult Education), Southport Road, Chorley, Lancs which is still administered by the Lancs Education Committee. The meetings commence at 11am with the minimum of formal business; proceed to discussions on progress and problems with models under construction, new plans and books, books, new tools, materials and workshop technical developments until lunch time. After lunch there is nearly always an illustrated talk by one of the members, or a guest speaker, on an appropriate maritime subject, followed by informal conversation until close at 4pm.

Members living at a distance and those permanently prevented from attending meetings for other reasons are not expected to contribute to the Associattion's operating costs for the benefit of those who can. Two grades of membership of equal stakes but different subscription levels, styled *Members* and *Research Members*, are offered. The former take the main burden of operations costs, the latter are intended to cover no more than a share in the productions costs and postage of the 4-page 'Newsletter'.

Solely for practical purposes, officers of the Association are elected from among those attend meetings regularly and consistently. Similar considerations have evolved the rule that only regular attenders fully subscribing to all operating costs are granted voting rights; but this does not preclude Research Members expressing an opinion through the Secretary.

All members are encouraged to engage in maritime research and Research Members arfe particularly encouraged to do so as a means of keeping in touch, though far away; but there is no obligation involved.

Both categories of members are entitled to purchase, at cost, any or all of the Association's monographs in their "Archives Extracts" series. These monographs are accessible to subscribing members only. "Archives Extracts" are written primarily for the model maker. They are based upon collections of maritime data and plans acquired by members over many years. As this data comes to light it

is formulated, edited, augmented; missing items are searched for, drawings restored and reproduced in a convenient size and format. Each "Archives Extracts" issued is a truly concise monograph on a single subject, each is in uniform A4 size, varying from 8 to 40 or so pages, most with A3 fold-in plans at the end.

Work of past and present members of the Association is on permanent display in several National Museums eg the "Coriolanus" in the Merseyside Maritime Museum and the "Caliph" in the Museum of Transport, Glasgow, both by Douglas Hamby. Members of the LNRS will have admired with particular pride the delightful model of the Stuart yacht "Mary" by their late friend and colleague Ken Stuttard, also a keen member of the NWMSA. The miniature models of Mersey gig-boats in the M'side Maritime Museum are Ken's work too.

Another NWMSA (and LNRS) member who must be recalled by name is the late Dr. Frank Howard whose models of Mersey Flats are exhibited in the Boat Museum, Ellesmere Port, the Science Museum, South Kensington, and the M'side Mar. Mus. His research of Mersey Flats is proving particularly valuable and he was also the author of "Sailing Ships of War 1400-1860" published by the Conway Maritime Press (1979). There is a little-known unpublished article by Frank Howard describing his experiences when mastering the problems of taking off lines of a Mersey flat laying at awkward angles in the Mersey and up-river. This article was read with most sympathetic understanding by another NWMSA (and LNRS) member with similar recollections of wallowing harbour sludge, measuring up West Lancs sailing fishing nobbies* and whose efforts were rewarded by sets of lines plans/drawings of those craft being accepted into the MRC Archives.

* See "The Lancashire Nobby" A.J. Lloyd A Merseyside Maritime History" publ by LNRS 1988

Other NWMSA members have built models for private collections and have undertaken restoration work, but the latter has to be approached with caution since many damaged models in private hands are not worth restoring except in the opinion of the owner.

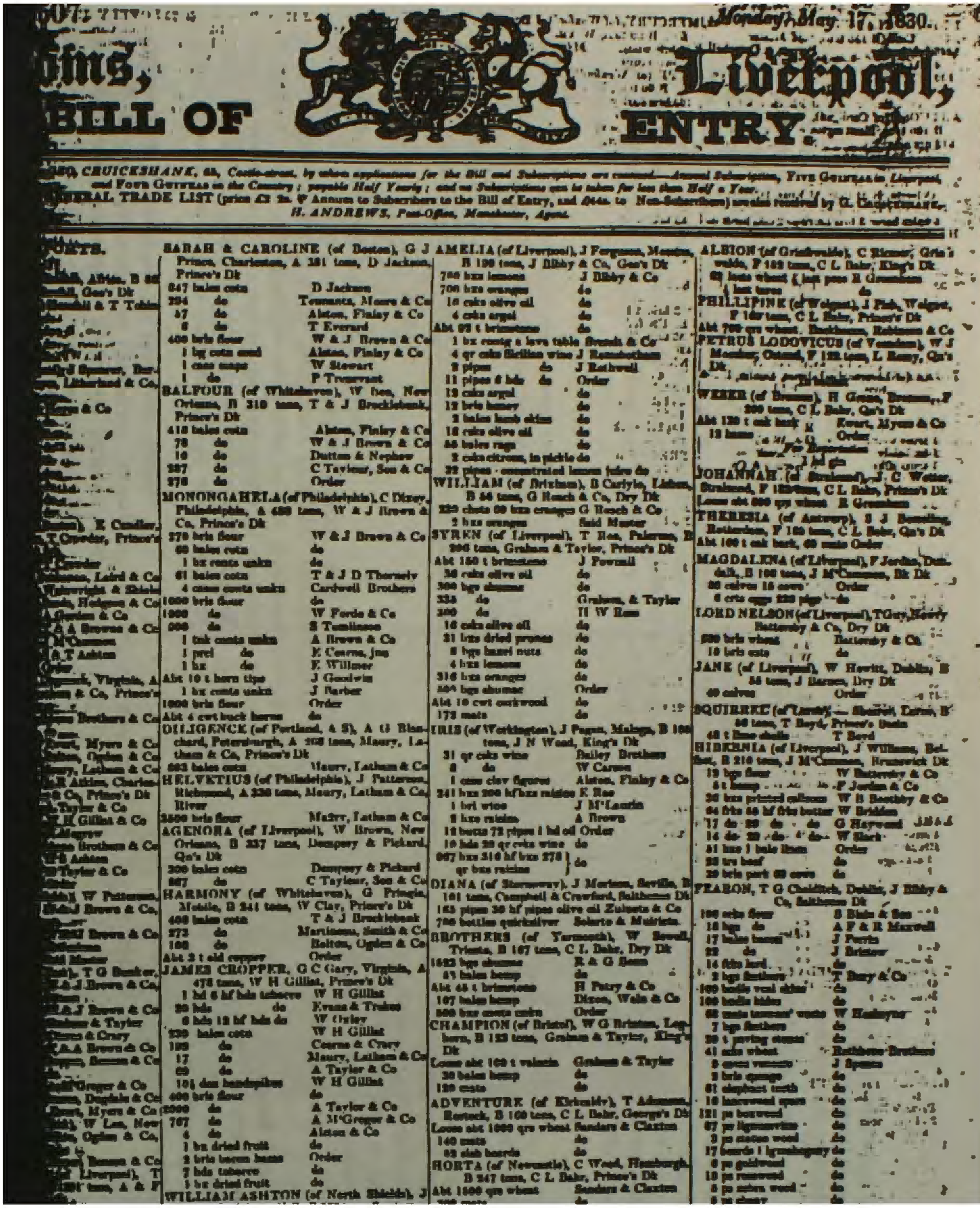
Over a number of years several NWMA members have contributed illustrated articles to the *MODEL SHIPWRIGHT* and other modelling periodicals.

L.J. LLOYD

all enquiries to : Mr. David Gabbutt
Hon. Secretary
North Western Model Shipwrights Association
39 Branch Road, Mellor Brook
Blackburn, BB2 7NY

Page omitted in error from "The 'ROSE' Boats" of last issue

13	Northcote 69571	1898-1901	Iron sc str. b. Whitby 1878 for John Holman, London. 959 grt. 1898 acquired by R Hughes & Co. 1900 r/n *Violet*. Wrecked Gulf of Bothnia 23.10.01
14	Lily 94364	1899-1903	Iron sc str. b. Blyth 1888 as *Godmundung* for W. Lamplough, London. 611grt 1890 J. Cory, Cardiff. 1899 R. Hughes r/n Lily. 1903 sold Norway r/n *Oteren*. 1915 r/n Grenmar. 1916 r/n *Hovde*. Torp. French coast 15.10.17
15	Primrose 128044	1910-1941	Stl 3masted str. b Paisley 611grt Capsized Daunt Rock 30.1.41
16	White Rose (I) 131332	1911-1911	Stl 3-m str. b Paisley 1911 610grt Disappeared La Pallice-L'pool Dec 1911
17	Blush Rose 135482	1913-1945	Stl 3-m str b. Holland 1913 645grt 1942 beached nr Milford after bombing Sank R.Mersey after coll'n 3.8.45
18	Guelder Rose 135512	1913-1943	Stl 4-m str b. Holland 700grt 1943 F. Browne, London. 1947 Anthony & Bainbridge r/n *Riversider* 1951 Connell &Grace N'cstle r/n *Akenside* Sold for b/u 28.9.54
19	White Rose (II) 135517	1913-1920	Stl 4-m str. b. Paisley 1913 632grt Sank after coll'n off Trevose Hd 20.3.20
20	Joffre Rose 137458	1915-1947	Stl str. b S. Shields 1915. 715grt 1941 Beached after bombing nr Milford 1947 Holderness S. Co. r/n *Holdernene* 1952 Tyson Edgar, London. r/n *Themsleigh* Sold for b/u Tyne 28.10.55
21	French Rose 137445	1915-1917	Stl 3-m str b. Holland 1915 465grt Mined and sunk nr Shipwash L.V. 24.11.17
22	Dunmore 113926	1916-1927	Stl str. b Paisley 1916 237grt for Home Trade St. Carrying Co. 1914 Goole Shipbuilding & Rep'g Co. 1916 R. Hughes. 1927 Burnden Ltd, Goole. 1931 Jack Bros, Glasgow. 1933 Destr/fire
23	Jellicoe Rose 143642	1920-1955	Stl Str. b Paisley 1920 1,079grt 1955 Sold Panama r/n *Conchita* Sold by auction Aug 1963 (Ceuta?)
24	Beatty Rose 143668	1920-1927	Stl 4-m str. b. 1920 Paisley 1,079grt Foundered NW Casquets 1.4.27
25	Haig Rose 143705	1920-1940	Stl 4-m str. b Paisley 1,079grt Missing Barry-Plymouth 11.12.40
26	Cornish Rose 137210	1929-1942	b. 1920 Queensferry, 471grt, *as Cornish Trader* for Cornish Traders Ltd. Falmouth 1929 R. Hughes, r/n *Cornish Rose* 1942 Ohlson & Co. Hull 1945 Katsoulakos, Piraeus r/n *Takis K.* Stranded Greek Island. sank 17.11.50
27	Wild Rose 145179	1922-1951	b 1921 Bideford 873grt as *Monkstone* for Stone & Rolph, Swansea. 1922 R. Hughes & Co. r/n *Wild Rose* 1951 GW Grace & Co London r/n *Sussex Elm* 1953 Holderness S.S. Co r/n *Holdernene* At Dublin for b/u 19.2.58
28	Foch Rose 145960	1922-1956	b 1922 Paisley, 1,120grt. At Blyth for b/u 6.12.56
29	Sturdee Rose 145983	1922-1945	1922 b Bideford 873grt. Foundered 4m off Trevose Head 15.11.45
30	Welsh Rose 144860	1929-1946	1922 b Goole 581grt as *Brookside* for Thomas Rose, Sunderland. 1929 R. Hughes r/n *Welsh Rose* 1946 GW Grace, London, r/n *Sussex Birch* 1953 Holderness S.S Co r/n *Holdernile* At Gatehead for b/u 15.11.55
31	Dorrien Rose 145985	1922-1951	1922 b. Paisley, 1,053grt. 1951 Fairwood Shpg & Trdg Co., Swansea r/n *Fairwood Elm*. 1956 Glynwood Nav Co Hull, r/n *Cupholder* 1958 Holderness S.S. Hull r/n *Holdernore* At Dublin for b/u 14.3.59


Monday, May 17, 1830.

...oms, Liverpool, BILL OF ENTRY.

RESEARCH NOTES

The latest arrival in the Maritime Records Centre is an (almost) complete set of printed Customs Bills of Entries in the form of large books in which the details of cargoes arriving at the Docks of a particular port are printed. The series which began in 1830 continuing to 1940 are invaluable for many types of research. The above extract (for May 1830) gives an indication as to the details entered in the books:-

DIANA of Stornoway. J. Morison (master) from Seville. Burden 101tons
Campbell & Crawford (agents) Salthouse Dock
165 pipes 30 half pipes of olive oil ... Zulueta & Co
700 bottles quicksilver ... Sclarto & Muirieta

The M.R.C. holds these books for all British ports. (Alas there are a few missing.)