In Search of F. Gordon Pratt

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F. Gordon Pratt in 1950

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F. Gordon Pratt was a naval architect in the first half of the last century who designed yachts and fast motor boats. He was also an inventor with several patents on hull form and boat construction to his name, a student of hydrodynamics, and a racing enthusiast in his younger years who took part in prestigious boat competitions. He was fairly wealthy at first but ended his life with very little. His financial woes did not impact his perseverance, passion, and imagination, however, nor did they impinge on the caring husband, father, and grandfather that he was. He passed away some sixty years ago and the time has come to pay him a well-deserved tribute.

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Introduction

My first clear memory of my grandfather was when he came to visit my sister, Brigitte, and me in our "home d'enfants" (preschool boarding school) in a little village, Chesières, in the Swiss Alps. The year was 1953 and I was seven and a half at the time. I had arrived a few months before directly from France¹ whereas Brigitte, who was nine, had been there for many more months. It was Christmas and since it had snowed just before his arrival, everything was covered in fresh crispy snow. I'm not sure how we communicated with our grandfather since he spoke very little French and neither of us spoke English at the time. Still, he was there, with presents he had brought from England, whereas our parents, Roger in Paris, and Jill in Italy, were absent.

What struck me at first, in the perception of a child, was that he was very old. He wasn't really - he was 68 - but his very white hair put him, in my mind, in the "very old grandfather" category. What I didn't know then was that he had turned prematurely grey in his early thirties, and by his forties he was totally white. He was a soft-spoken man, with a smile on his face, clearly happy to see us and spend some time with us. He was invited to the Christmas party organized for the children and fit in very nicely with all the other adults. It is only much later that I was to discover that he had often travelled to France to see us when we were even younger. He had also written letters to us in his rudimentary French which our foster parents or caretakers over there had read to us. They then made sure we replied and helped us with our letter writing.

Our grandfather returned a year later to see us, and also came to Merano, Italy, in the summer where our mother was racing her horses. Clearly he wanted to be part of our lives, although we didn't quite realize it back then. It was in 1956 - I was ten at the time - that we got the opportunity to get to know him a bit better. We now both spoke English, and he had invited us to spend two whole months of the summer holiday with him in Richmond Upon Thames which is now part of Greater London. He lived in a small bedsitter rented out by a hotel and since it was too small for the three of us, my sister and I slept in a small room in another hotel. He was still working in London at the time, so we were basically on our own during the day. But he had reserved a table for us in a small restaurant for midday, and had asked the hotel personnel to keep an eye on us.

We dined together in the evening, and on weekends he took us to various places of interest. For example, we would take the boat up the Thames to Hampton Court and would often stop off at Teddington Lock to walk around. It was only much later that I found out why. He had lived in the area for many years when he was a boy and young man. This he never told us. We also visited Somerset and stayed for a few days in Wells. One day, next to the Cathedral, we met a man, Lester Pinchard, whom he seemed to know quite well. Again, it was only many years later that I

¹ I had been removed in secret from my foster home by my mother, as I recount in my *In Search of Roger and Sallie:* https://www.francoisgrosjean.ch/In_Search_of_Roger_and_Sallie.pdf

learned that the two were cousins, that Lester was a clergyman, and that he had married my mother to her first husband. Here is a final example of how, in his way, he was putting clues in our minds about his past without actually giving us all the information. He took me during this holiday, and at other times too, to the South Kensington Science Museum in London where we ended up in the maritime section. There he pointed out the models of several Edwardian luxury yachts which I admired. Never once did he tell me that it was his firm, Cox & King, that had designed them, and that he had lent the models to the museum! It was as if he had received instructions from my mother - who always refused to acknowledge our Pratt side - to refrain from talking about his past to us. It is only in the last twenty years (I am currently 78) that I have discovered this side of my ancestry.

I have many simple everyday memories of that summer in Richmond. For example, our grandfather would welcome us for breakfast in his room on Saturdays and Sundays. He had prepared things neatly on his table - a hard boiled egg each, toasts, Oxford thick cut marmalade (it has been my favorite jam since!), butter which he had tried to keep as cool as possible before our arrival, and so on. If we arrived a bit earlier, we could watch him shave with a straight razor. I was captivated by the ritual: sharpening the blade on a leather strap (a strop), making lather and applying it



The Pratt emblem representing a beacon

to the face, holding various parts of the cheeks, chin and neck, and moving the blade in long, clean strokes, and so on. Thinking about it now, we had never observed our own father shave, as would a child in a family, simply because we only saw him on day visits in our foster homes and boarding schools. Once done, our grandfather would put on a shirt with a detachable collar which he'd attached with studs. He then added cufflinks, several of which were engraved with his emblem. We noted that it was also on his brushes and combs, and on other personal things. It depicted an ancient beacon (see photo) which was sometimes accompanied by the motto, "Lux et Salus" (Light and Salvation). The emblem and motto were also on his

pocket watch which we would play with as the back could open to show the intricate mechanism at work.

Although we lived in a different country, our grandfather was very much part of our lives. He would write to us often and send us sweets, little presents, and even International Mailing Coupons. The latter could be cashed in at the local post office instead of buying stamps if the employees were in a good mood (normally it wasn't allowed). We would also return to stay with him for a few days when we went to visit our Aunt Sheila, Jill's sister, spend part of holidays with friends who had invited us for Christmas, or stay with families who welcomed children for the holidays. One such family had a farm in Woodchurch, Kent. Whilst we were there, our grandfather came for a short stay in the nearby town (Tenterden in this case), took us out, and offered us lunch or dinner. Once the holidays were over, he would accompany us to London Airport or Victoria Station on our way back to our schools, either by plane or train.

We had these kinds of interactions for about ten years, during our childhood and teens, before he died at age 80. I was 19 at the time, and I remember flying in from Paris where I was a student to go to his funeral. He is buried at East Sheen Cemetery, Richmond, and on his tombstone there is a simple engraving: *In Memory of Francis Gordon Pratt, 27th February, 1885 - 14th November, 1965*.

For the next forty years or so, as I moved around from France to the United States and then to Switzerland, my grandfather remained in my thoughts. I would often tell people that he had been a true parent unlike our father and mother. I would also sometimes look at the few things that reminded me of him - photos, a few letters, his signet ring, and his watch. It was only when I had a bit more free time later in life that I started to look into the English side of my family of which he was part. I started with the painter Henri Jean-Baptiste Victoire Fradelle who had moved to England from France guite early on in his life, and whose paintings can be seen in various locations² as well as on the web. I then found out that his grandson, Gustavus Pratt, had co-owned a yacht design and brokerage firm, Cox & King. Their list of luxury yachts is impressive and there are many photos of them. It was while I was researching this firm that I contacted Wendy Schnur, Reference Manager at the G. W. Blunt White Library, Mystic Seaport, Connecticut, USA, who greatly helped me with information on the yachts but also on Gustavus Pratt and on Francis Gordon Pratt. I remember her first email which mentioned both of my ancestors, and my reply in which I told her that I was touched to see their names in emails and on the Web. They had both been gone for so long and I had so little information on them! So she sent me many documents from the library's archives, and later contributed to the website I set up on Cox & King³.

Wendy Schnur also introduced me to Paul Gockel who was writing a book on *Venetia*, one of the yachts designed by Cox & King, and he kindly shared some information on the two Pratts with me. At about the same time, my Aunt Sheila, whom I had kept contact with, passed away and I inherited some photo albums that had belonged to her parents, notably her mother, Ruth Pratt. They revealed many details I was unaware of including where the Pratts had lived in the 1920s and 1930s. A huge breakthrough came a few years later when my mother, with whom I had been estranged from the age of sixteen, passed away. Thanks to one of her friends, Alda Dapelo, I was able to obtain documents she found that had belonged to my grandfather. These included some of his professional writings, family letters and photos, and much to my surprise and joy, many of his diaries from the 1930s, 1940s and 1950s. The whole set wasn't there, but there were many, and the information they contained allowed me to discover the second part of his life. It also allowed me to search various archives and contact the descendants of people he had worked with, or who knew of him.

What follows is the story of an amazing person, who was dedicated to his work, passionate about his theories, and very loving towards his family. I will cover his early life as best as possible, most notably his years at Bradfield College, an English

² See https://www.francoisgrosjean.ch/Grosjean_Fradelle.pdf

³ See https://www.francoisgrosjean.ch/cox_and_king/

public school. I will then talk about how he trained to become a naval architect by doing apprenticeships with well-known ship building firms. This will be followed by his first steps in the design of fast motor boats and his racing years in England and Monaco. With the onset of World War 1, I will mention his three years managing the construction of airplanes before taking on more responsibilities at Cox & King. This will be followed by his few good years at the head of the firm before hitting hard times leading to his bankruptcy in 1934. I will then evoke his amazing recovery as a naval architect in the late thirties as well as his work for both the British and the American naval establishments during World War II. I will subsequently cover his professional activities in the late nineteen forties, and fifties, prior to his retirement. I will describe the loving family man, as well as the caring grandfather, and will finish with a short epilogue.

A few points need to be made before starting. First, I will use my grandfather's second given name, Gordon, throughout this monograph. This is because he was referred to as F. Gordon Pratt in various documents I found, and only rarely as Francis Gordon Pratt. I noticed also that his wife, Ruth, wrote "Gordon" in her photo albums, and that his cousin, Lester Pinchard, started a 1943 letter with, "My dear Gordon." The second point is that numerous people have given me information on Cox & King and the Pratt family: Wendy Schnur and Paul Gockel, whom I have already mentioned, as well as Charles and Martin Auld, Austin and Elizabeth Baines, Mark Brady, Sarah Berresford, John Cardwell, Paddy Ching, Robert Clements, John Collins, Kevin Desmond, Leonard C. Drinkell, Bill Ellis, Leslie Field, Julie Graham, Peter Hansford, Oliver Heal, Keith and Merle Jarrett, James R. Pratt, Kay Priestley, Graham Wadley, Dave Waller, Captain A. R. Ward, Willie Williamson, and Emma Wilson. May they all accept my heartfelt thanks. Finally, Wendy Schnur has corrected this monograph, and several of the above have read it and sent in comments, additional information, and corrections. I am truly grateful to them!

1. Early years

F. Gordon Pratt (henceforth, Gordon) was born on February 27, 1885, at 37, Lansdowne Gardens, South Lambeth, in London. His father was Gustavus Harry Fradelle Pratt, yacht broker, and his mother Fanny Pratt, formerly Snead. He had an older sister, Vera, who was born in 1882. Members of this branch of the Pratt family were definitely Londoners as Gustavus was born in Mayfair, and Fanny, his future wife, was living in Lambeth when they were married.

I have found very little on Fanny Pratt but there is some information on Gustavus. He lost his father, Thomas Pratt, when he was five, and his mother, Caroline, and two sisters moved from London to Hove, near Brighton. There, Caroline, Henri Fradelle's daughter, opened a boarding house and also gave music and singing lessons. Gustavus, therefore, grew up by the sea and that may explain in part how he became involved in yachts. He moved back to London at some point in his adult life, and with Sidney Depree, he established Cox & King in the late 1870's.

Like many boys of his background, Gordon was sent to boarding school when he was twelve. His parents chose Bradfield College, Berkshire, and after a few years, he moved into their new boarding house, Modern Side. According to Antony Collieu, the school archivist I contacted, it had been built to house boys who did not want to study the classics as their principal subjects, and it was right next door to the school's engineering workshops. According to Collieu, Gordon studied maths, engineering workshops (practical engineering, machine drawing) and science (physics, chemistry), in addition to English, German and religious studies. Out of a class of 21 he came third in the maths, science and engineering workshops but just below halfway up in the other subjects. Clearly Gordon was a born engineer, Collieu writes, and his career would have followed these strengths. He was not a prefect, "so I guess he was probably fairly quiet and hardworking and kept out of harm's way," Collieu adds. Gordon left in the summer of 1902 when he was seventeen. "I would say he left a little early but if he had a career waiting for him that would be quite natural in those days," Collieu concludes.

I haven't found any information on how Gordon chose to become a naval architect: Did his father encourage him to go in that direction? Did he choose the profession on his own volition? Was it a bit of both? Whatever the reason, for the next four years (1902-1906) he was an apprentice with two well-established firms. He joined Ramage & Ferguson Ltd., the famous shipbuilders, marine engineers and naval architects in Leith, Scotland. There he concentrated on mechanical engineering. The fact that Cox & King had collaborated with the firm in the construction of yachts such as *Agawa*, *Gunilda*, *Iolanda*, *Rovenska*, *Venetia*, etc, probably helped him obtain the position. I have found a mention of Gordon there in Nelly Spinney's diary⁴, the wife of Leslie A. Spinney who was *Wakiva*'s first captain. The two had come to Scotland for the last preparations, and then the launch, of the yacht (also built by Ramage & Ferguson), and they were hosted royally by Gustavus Pratt (dinners, theatre and other outings, etc.). They also spent time relaxing, and the November 14, 1902,

⁴ I wish to thank George F. Howatt, Nelly Spinney's grandson, for having given me extracts of the diary.

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entry starts with, "Mr. Pratt's son came down and we played ping pong" (Gordon was 17 at the time).

The other company Gordon worked with during his apprenticeship was The Thames Iron Works, Shipbuilding and Engineering Co., Ltd, that designed and built warships for many different countries. It was located on the River Thames (Leamouth) and this allowed Gordon to live some of the time near his parents' home in Hampton Wick, Middlesex, which is close to Teddington. When I visited the former town, I noticed that his future wife, Ruth Shipway, had lived nearby with her family. Did the Pratts and the Shipways know one another by any chance at that time? I haven't found the answer unfortunately.

Among his many activities, Gordon started going to the meetings of the Institution of Naval Architects (now the Royal Institution of Naval Architects). It is an internationally renowned professional institution whose members are involved at all levels in the design, construction, maintenance and operation of marine vessels and structures. He was elected a Student Member in 1905 at age 20, and became an Associate Member in 1910. Six years later, in 1916, at age 31, he became a full member. I remember him going to meetings when I visited him many years later, and he always put the initials M.I.N.A. besides his name on documents and envelopes. He was clearly proud to be a member of this prestigious institution.

Once his apprenticeships were over, at age 22, Gordon joined his father's firm, Cox & King, as a junior partner. This was in 1907. As can be found on the website I dedicated to the company,⁵ this London based firm in the late 19th and early 20th centuries had a number of activities: yacht designers, surveyors, brokers, auctioneers, but was also responsible for fitting out and laying up yachts. They first appeared in the Lloyd's Register of Yachts in 1878 and, as already indicated, the original owners were Gustavus Pratt and Sidney Depree. The location they occupied for some 40 years was 5, Suffolk Street, Pall Mall, London, but they also had offices in Wivenhoe, Essex, where they did the fitting-out and laying up of their yachts. Cox & King became famous due to the graceful yacht designs of Joseph Edwin Wilkins who was their naval architect for some 15 years until 1908. He was responsible for the design of many of the firm's famous yachts that would later be presented in their 1913 catalogue.⁶

When Gordon joined the firm, he concentrated on motor yachts, fast launches and racing motor boats. Among the many vessels he worked on, we know for sure that he designed *Winchester* for an American client (this is stated in is 1943 CV). It was a 165 ft. steam yacht which at the time was probably the fastest vessel in the world for its type (28 knots). *The Nautical Gazette* of August 5, 1909, has an article on it titled "An interesting turbine yacht." It states that it is one of the most interesting steam yachts built in recent years. Although of smaller tonnage than many yachts designed by Cox & King, it says, she is beyond doubt the most important steam yacht built for many years. It continues that the greatest care has been taken over the design both

⁵ A brief presentation of the company, along with their 1913 catalogue, and a complete list of their vessels, can be found at: https://www.francoisgrosjean.ch/cox_and_king/presentation.html ⁶ https://www.francoisgrosjean.ch/cox_and_king/catalogue.html

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of hull and machinery, and remarkably spacious and handsomely appointed accommodation is provided for the owner and his guests: a large dining-saloon on deck, drawing-room, one double and two single staterooms, etc. It adds that the



Photos of *Winchester* in the 1913 Cox & King catalogue

Captain's cabin and main pantry are on deck abaft the dining-saloon, and the Officers' mess room, three officers' cabins, galley and forecastle are in the forward part of the ship. Another short article in The Nautical *Gazette* a bit later (October 28, 1909) states that the Winchester, currently on trials, was quite a novelty in steam yachts, as it was fitted with turbine engines. water tube boilers and oil fuel. a combination which had never previously been tried in

steam yachting. In a document Paul Gockel sent me, he added an interesting piece of information he had found in *The Yachting World* (September 1909). On its maiden voyage, *Winchester* was towed across the Atlantic to within 300 miles of New York where its fires were lit and it then proceeded on its way under its own steam.

By 1909, Gordon was well settled in his career. His address was now Red Roofs, in Teddington, he was designing various vessels for Cox & King, and he was elected a member of the Royal Harwich Yacht Club. Bruce Moss, the club's archivist wrote to me in 2010 and told me that Gordon took out a warrant for his motor launch *Tyreless* on August 4, 1909. This gave him certain privileges such as mooring rights,



Tyreless on the right with *Baby V*. Courtesy Brooke Archives

exemption from lightage fees, and free pratique in various foreign ports. He could also wear the Blue Ensign. Gordon was also a member of the British Motor Boat Club.

2. Designing and racing motor boats

Between 1909 and 1914, as part of his activities at Cox & King, Gordon designed fast motor boats for various clients, and raced some of his own, notably the *Tyreless* boats which he used to test some of his designs. He

began with *Tyreless*, a 30ft fast launch built by F. Miller & Co. at Lowestoft, and which had a 40 HP Brooke six cylinder engine (see photo). We learn from *The*

*Times*⁷ that on August 3, 1909, at Cowes, "Mr. Gordon Pratt's *Tyreless* and Mr. May's *Defender* were first and second respectively in a race for vessels exceeding 12 knots." And on September 24, at Southend-on-Sea, in the race for boats exceeding 10 knots, on 10 sea miles, we read that *Tyreless* came in first, followed by Mr. Fairbanks' *Camilla* and Mr. May's *Defender*. In the photo presented above, Gordon is at the helm.



Tyreless II. Courtesy Brooke Archives

The following year, 1910, Gordon came back with a new fast launch, *Tyreless II*, 35 ft long (26 knots). It was built by F. Miller and J. W. Brooke & Co., in Lowestoft, and it too was raced in various locations, placing in some races and winning some. For example, at the Burnham Regatta on September 24, 1910, *The Times* reports that a cup was given by Mr. Gustavus Pratt for a race with bona-fide motor-boats (no hydroplanes) over 15 miles. Five boats were entered but only two actually raced.

Tyreless II beat *Baby V*, also a Cox & King designed boat. The winner's speed was worked out at just over 30 knots. I haven't been able to find out whether Gordon went up to get his cup from the hands of his very own father! But *Tyreless II* was the object of his Christmas Greetings card at the end of that year (see below).



Gordon's Christmas Greetings card at the end of 1910. He was living in Teddington at the time, a leafy suburb on the north bank of the River Thames.

It was during the first decade of the century that Gordon started work on a new hull design for fast motor boats. His first patent, titled "Improvements in and relating to mechanically propelled vessels" (GB191029895), was accepted in 1911⁸. Even though it is very technical, a few sentences extracted from it are quite clear:

⁷ Many race descriptions were transcribed by Leslie Field and are available on his website Hydroplane History: https://hydroplanehistory.com/misc/about_us.html

⁸ Gordon was to be the author of some 12 patents over a 28-year period; we will come back to them later in this monograph. They are listed in the Appendix.

"This invention relates to the particular formation of, or lines of, the hulls of mechanically propelled vessels, the object being to overcome the change in trim⁹ when travelling and consequent loss in speed due to the aft¹⁰ part of the vessel, which said change in trim may be described as making a vessel run uphill all the time.... this invention ... catches the bow waves and carries them under the vessel, thus retaining... the water displaced by the forward part of the vessel, the whole running practically on a level at great speed for power. By my invention the vessel runs at all speeds on a practically even keel."

In all probability, the first two *Tyreless* already had versions of this new hull. *Tyreless III*, 40' long, 32 knots, built in 1911 by J. W. Brooke & Co. (Lowestoft) certainly did as reported by *Yachting* in July of that year:



Tyreless III in Monte Carlo with Gordon at the helm. Courtesy Société des Bains de Mer, Monaco.

"... a very fast cruising displacement launch... (the boat) has a rather unique hull design... (she has) a straight stern and a moderately wide transom stern. ... her underbody is a new departure for a boat of her size and speed, and, running from stern to stern, is slightly convex while her sections are of a modified sharpie design, the rounded V-sections or hard chine commencing forward and disappearing aft. The idea is, of course, to reduce displacement ...".

The year 1911 was an important one for Gordon in his quest to be recognized as a designer and racer of fast motor boats. He was one of three selected to represent Great Britain, with *Tyreless III*, in the British International (B.I.) Cup (now known as the Harmsworth Trophy) which was to be held at Huntington Bay, Long Island, USA. The other two boats were the Duke of Westminster's *Pioneer* and Mr. Mackay Edgar's *Maple Leaf III*. At age 26, Gordon was now very much part of that segment of the élite society involved in motor boat racing. These were gentlemen who had the means to pay for their own boats as well as all the expenses linked to racing them. Thus, for example, the Duke of Westminster (Hugh Richard Arthur Grosvenor) was a British landowner and one of the wealthiest men in the world. In 1908, he had competed in the London Olympics as a motorboat racer for Great Britain. As for Edward Mackay Edgar, he was a Canadian-British banker who was a notable figure in powerboat racing, owning a number of winning boats. Of course, Gordon could not count on the kind of funds these two gentlemen had, but clearly his father Gustavus had given him *carte blanche* to design these fast racing motor boats,

⁹ From Wikipedia: "the trim is the inclination of the ship's designed horizontal fore and aft plane with the surface of the water in which she floats. When in normal trim this plane lies parallel with the surface of the water."

¹⁰ situated at, near, or towards the stern (back) of a ship.

compete with his own *Tyreless* boats, and thereby make the Cox & King name better known internationally.

Gordon arrived in New York aboard the *Minneapolis* in late August, 1911, whilst the three English motor boats were conveyed in the hold of the *California*. Even though the *New York Times* wrote on September 4, 1911, "... experts are of the opinion that a victory by America, if she attains it, will not be so easy as in previous years," the American boat *Dixie IV* had no problem winning and the United States retained the trophy. *Tyreless III* had made its mark, though, and *The Motor Ship and Motor Boat* reported later (3rd April, 1913): "Though *Tyreless III* did nothing of note in the B.I. Trophy of 1911 when she went to America, she has undoubtedly proved herself a fine sea boat. At the end of last season, she was purchased from Mr. F. Gordon Pratt by Mr. Alex Ogilvie, the airman, of Eastchurch. She is, we think, the first boat to be fitted out for aeroplane work and experiments, and as such she is a good example to the Admiralty of a type of craft that would be extremely useful as tender for the air fleet, where a destroyer is too large and a 40ft boat quite sufficient for the purpose." We will come back to this use of Cox & King's motor boats a bit later.

Gordon continued racing his boats in British waters, but he also went to Monaco for international competitions. Creg Calkins in his Hydroplane History¹¹ tells us that the very best racing events took place at the Monaco Yachting Exhibition and Regatta in April of each year. The first three or four days were devoted to showing all the new designs and technology of power boating in Europe, he wrote. Then the racing began and the "Monaco regattas were the showcases for virtually every innovation in power boat engineering and design," he stated.



A poster of Monaco by Jules-Alexandre Grun (c. 1908)

Reporting from Monaco on April 3, 1912, *The Times* noted the following: "The first thing which strikes the visitor to this year's exhibition is the prevalence of that type of hull which is very often referred to in England as the "*Tyreless* type" ... (the boats) all agree in being more or less flatfloored boats, the floor gradually turning up, as the bow is approached, into V sections. In most cases, the sections are formed of straight lines; when any curve does exist, it is a hollow curve and not a full one. As a result of this, the boats have sharp "chines". They certainly convey an impression of speed...".

By now, Cox & King had designed several racing motor boats and some were at Monaco. *The Yachting World* (November 21, 1912) wrote: "The past season's racing records form an interesting study, and from the point of view of design, it seems Cox & King's boats have had a most remarkable year." In a typed document I found in

¹¹ "Monaco" by Creg Calkins in Hydroplane History: https://hydroplanehistory.com/other/monaco.html © François Grosjean, April 2024

Gordon's papers, titled "Races won at Monte Carlo by Motor Boats of Cox & King patent design",¹² this is noted: "Commencing at Monaco in the spring, *Dyack* demonstrated that at the least a revolution was about to overtake the B.M.B.C. (British Motor Boat Club) 21 ft. class by winning the two special races as she liked." And in a footnote we are told that in 1912, four boats of Cox & King patent design racing at Monte Carlo and in home waters, won 33 first prizes including the Prix de la Condamine.

In 1913, Gordon brought his *Tyreless IV*, a 25 ft boat built by S. E. Saunders at Cowes, to Monaco (see photo). *The Motor Ship and Motor Boat* stated on April 10, 1913: "In the next ... class, from 6 1/2 to 8 metres length, the most important boat



Gordon piloting *Tyreless IV* in Monte Carlo in 1913. Courtesy Société des Bains de Mer, Monaco.

appears to be Mr. Gordon Pratt's new Saunders-built, Cox & King designed, fast cruiser, Tyreless IV, which is fitted with a Labor longstroke engine (and therefore technically a French boat) and which is understood to be capable of a good 26 to 27 knots over a measured mile." It was to do very well throughout the season in particular in October at Burnham-on-Crouch where it entered three races and won all three. Other boats designed by Cox & King which stood out at that time were Vicuna III, Fuji-Yama III, Cordon-Rouge IV. Cockle Shell, and Princess Caprice.

The last year of racing in Monaco before the outbreak of the World War I was in 1914 and the boat that Gordon designed that stood out was *Toto*. It had a Sunbeam engine developed by Louis Coatalen, a French-born automobile engineer who spent much of his life in the United Kingdom working for the Sunbeam company at Wolverhampton. *Toto* was owned by Mr. J. A. Holder. According to the document mentioned above ("Races won at Monte Carlo..."), *Toto* won the Prix du Premier Pas, the Prix de la Méditerranée, and the Daily Sea Mile Record.

I contacted Oliver Heal, the author of a book on Louis Coatalen,¹³ and he kindly shared with me photos of that spring 1914 (see below). As can be seen from all of this, in his seven years since becoming junior partner of Cox & King in 1907, Gordon had been very busy designing fast motor boats which were sold to those interested in racing them, improving on their hull designs, and actually racing his own *Tyreless* boats. He must also have spent some time at various meets representing the firm

¹² Unpublished document, Cox & King, 1914.

¹³ Heal, Oliver (2020). *Louis Coatalen: Engineering Impresario of Humber, Sunbeam, Talbot, Darracq.* Lewes, UK: Unicorn.

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Louis Coatalen (left), A. J. Holder and F. Gordon Pratt (right) in Monaco 1914. Courtesy Oliver Heal.



Gordon (left) and Louis Coatalen (right) in Monaco 1914. This is the first photo I have found of my grandfather in his earlier years (he was 29 at the time). Courtesy Oliver Heal.

and signing contracts with those interested in having their boats designed by it. One surprise I had when searching the web for Cox & King activities was to find a copy of their catalogue which I have put on my website.¹⁴ I can well imagine that Gordon was the one who had the idea of creating it and then giving it to prospective buyers. He was probably also the one who wrote the texts it contained. It is not dated but it was probably published in 1913 (or 1914) since many of the racing motor boats that are listed on the last pages were built before, or in, 1913. It contains 26 pages, all of which show vessels designed by Cox & King with the exception of three pages which describe the firm's products, their approach, and the success that was theirs at the time.

The catalogue is rather luxurious. The pages are thick photo album-like paper with a space marked for the photos which are glued onto the paper. The photos themselves are by well-known photographers at the time: Debenham, Geiser, Jenkins, Kirk, Newbald, Parry, Rapp, Stebbing, and West. I found the catalogue in the United States, a country that contained many potential buyers for such high-priced vessels. Unfortunately, it came on the eve of World War I and probably did not lead to any firm orders in the ensuing years.

In the one-page "Introductory", we note Gordon's mark when we read, "It is perhaps not fully realised how largely the cost of a yacht is dependent upon the designers. An efficient hull may enable the desired speed to be attained with considerably smaller and less expensive machinery than would otherwise be necessary, and at the same time leaving more space for accommodation." Of the two yachts mentioned in this short text, *lolanda* is characterized as "the finest yacht in the world" and *Winchester* as "the fastest ship of her size afloat." Clearly a generational transition had been taking place at Cox & King between more traditional large steam yachts, represented by Gustavus Pratt and his main architect, Joseph Edwin Wilkins, until a few years

¹⁴ https://www.francoisgrosjean.ch/cox_and_king/

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before, and smaller, faster, internal combustion engined yachts as well as fast motor boats, represented by F. Gordon Pratt.

The latter boats are described towards the end of the catalogue in a short introduction where it is written, "...a large number of boats, relying upon internal combustion engines as a means of propulsion, have now been constructed from (Cox & King's) designs and under their supervision, the success of which is nothing short of phenomenal." There follows a list of the successes of at least six boats in various competitions, as well as a few sentences on Gordon's new hull features. Among the photos in this section, there is a large one of *Tyreless III* at Monte Carlo, as well as smaller photos of various fast launches, yacht tenders, and racing motor boats that belong to the 21 foot restricted class.

3. Taking on more responsibilities

Practically overnight, with the onset of World War I on September 3, 1914, Gordon's life changed radically. His friend, Louis Coatalen, asked him if he would accept to manage the Aviation Department at Sunbeam Motor Car Co. in Wolverhampton. This would leave Gustavus Pratt largely in charge of Cox & King. Gordon accepted, and in his 1943 CV, he indicated that he built, organized, and managed one of six aircraft production factories started concurrently, and that it was the first of the six to put a machine in the air which gave a performance (both speed and climb) superior to that of any previously built aircraft of the type. In a short autobiographical essay "Anonymity," written in early 1942, which I found in his papers, he wrote, "I built, organized and managed a large aircraft factory in the 1914-1918 war as there was a shortage of people for the initial expansion of aircraft construction." Antony Collieu from Bradfield College reported that he was engaged on building seaplanes, aeroplanes and motor craft for the Admiralty, War Office, RAF, and French Government. Again from "Anonymity" we learn that among the aircraft were Short seaplanes and land bombing machines, under license from the three Short brothers; their factory also had modern flying boats under construction. Unfortunately, I have found nothing else about his time at Sunbeam nor photos of the aircraft he helped build.

There were many changes - some good, some less so - in the Pratt family during the war years. First, Gordon lost his mother, Fanny, on February 2, 1915, at age 60, from cancer and heart failure. She is buried in Teddington Cemetery in the same town she had lived in with Gustavus. A year and a half later, on November 7, 1916, Gordon married Ruth Helen Shipway. She was 21 (born on March 18, 1895) and hence ten years younger than he was. The ceremony took place in the lovely St. Paul's Church, Knightsbridge, in London. On their marriage certificate, Gordon is listed as a naval architect, and his address is 26, Lyndhurst Road, Wolverhampton. Ruth Helen Shipway lived at The Bays, Hampton Wick, Middlesex, and was the daughter of Annis Josephine Shipway, formerly Dee, and Robert Bruce Shipway. It could be that the Pratts and the Shipways knew one another from when both families lived in Hampton Wick.

It is worth pausing a moment on Ruth. She was the oldest child of the family and had two sisters: Hope, born in 1900, and Faith, in 1901. She came from a wealthy family

of merchants. Her grandfather, Robert W. Shipway, was the company director of Hammond & Co, the family breeches-making firm in Oxford Street. When she was young, she would sometimes stay with her grandparents at the stately Grove House in Chiswick as would many members of their very large family. In her unpublished memoir, my mother, Jill Shipway Pratt, describes her mother, Ruth, in this way: "Mother was a tall, thin woman with a pale clear white skin, thick, raven-black hair, and beautiful big clear blue eyes. Her features were classic, her mouth full with regular teeth." We also know that she spent part of her childhood in Belgium although I have never found out why. Her sister, Faith, whom I was to know fairly well when I was a student in Paris, also spent some time in Belgium during her youth.

Gordon and Ruth must have made a lovely couple at the time although the age difference must have been noticeable especially as Gordon's hair was already turning white.





Ruth and Gordon around 1920.

The year 1917 also had its ups and downs for the Pratt family. In August 1917, Gustavus entered a private nursing home for nervous disorders (was this the consequence of having lost his wife a year and half before?) and just a few months later (October 1917) he passed away from acute and chronic bronchitis. But this was also the year that Gordon and Ruth welcomed their first daughter, Sheila Fradelle, who was born on August 16, 1917. We will come back to her, and to her sister, Jill, who was born in 1921, a bit later on.

On the death of his father, Gordon inherited all of Gustavus' possessions and became the sole executor and trustee. As Gustavus wrote in his will, "I ask forgiveness of my daughter, Vera [who married John Swiney, later to become MacSwiney, a navy chaplain, in 1914 and lived at first in New Zealand], but she will understand I do this of necessity to accord the responsibilities of my said son. I desire my said son to transfer to my said daughter anything he may think fit or find himself in a position fairly to do after covering liabilities and reasonable consideration for himself but this is at the full discretion of my said son." Did Gordon follow his father's wishes? He did so to the best of his ability as an accountant reported legally in 1933 during Gordon's financial problems.¹⁵

De facto, Gordon became the sole partner of Cox & King. This would explain why he left his work at Sunbeam Aviation in 1917 and concentrated his energy on his company. John Collins of the Nottage Maritime Institute in Wivenhoe, Essex, explains the changes that took place at that time.¹⁶ The firm already owned land in the town for a shipyard, as well as laying up berths for yachts on the mud of the river Colne. It was decided at about the time Gordon took over that boats would be built in Wivenhoe. According to Collins, because of the war, the first vessels actually built were Admiralty contracts. In addition to building pontoons, the firm was soon engaged in building dredging launches for the Royal Engineers and service pinnaces for the Royal Air Service. The pinnaces were all completed, too late for the war, for the newly created Royal Air Force and were numbered *P81* to *P86*.

There is an enigma concerning a particular boat that Gordon designed and built around the end of the war (some say before, others say after). To introduce it, here is what the motor boat expert, Kevin Desmond, wrote in a book in 1979¹⁷:"Did you know that the first hard-chine motor-torpedo boat ever built was a 60-footer, powered by twin 500 hp Sunbeam engines and built by Cox & King at Wivenhoe, immediately after World War I?" I looked for it in Gordon's papers and found a May 3, 1948, letter to the Bassin d'essais des carènes (ship testing tank) in Paris. In it, Gordon writes, "... my early type and design had been well tested over a period of many years; for example, my motor boats which had been easy winners of many international races, at Monte Carlo, in the years 1912, 1913 & 1914, and my coastal motor boat¹⁸ (my design no. 287) which I built in 1918 and which had a speed of about 40 knots with engines of about 900 H.P. Moreover, no. 287 was constructed of wood, according to my British patent 128,445."

Mark Brady, another motor boat expert, in an email to me on March 30, 2011, wrote, "... his boats were certainly well-regarded immediately before the First World War, and it's quite likely that on the strength of that reputation the Admiralty ordered CMB (Costal Motor Boat) *113CK* in 1917 I believe the craft was completed, and that there's a reasonably strong possibility that she ran comparative trials with Thornycroft-design CMBs during 1919 under Admiralty auspices." Was Gordon's boat no. 287, then, the one built for the Admiralty, CMB *113CK*? Mark Brady told me in a subsequent message that he thought this was the case. So, now, was no. 287 / *113CK* the boat Kevin Desmond is referring to in his book, and was it indeed the first

¹⁵ Gordon gave Vera: 1) freehold land, a house and premises at San Raphael, Holmesdale Road, Hampton Wick; b) about £3,500 in shares; and c) £3,000 to be paid to trustees by 21st January, 1929. By 1933, the first two items had been transferred according to W. L. Karamelli, the accountant, but the £3,000 had not been paid. The accountant added that "the deed provides that Mrs. MacSwiney is to make any application for the sum due in writing; I understand that no applicatioin has yet been made."

¹⁶ https://www.wivenhoehistory.org.uk/content/topics/maritime/cox-king-wivenhoe

¹⁷ In Kevin Desmond (1979). *The Guinness Book of Motorboating: Facts and Feats*; Page 102.

¹⁸ Coastal motor boats were small high-speed British torpedo boats which had begun being used by the Royal Navy in the First World War.

hard-chine motor-torpedo boat ever built, at the very least, in Europe? It would appear to be the case.

Mark Brady, in an unpublished version of a talk he gave a few years later on CMB *113CK*¹⁹, characterized it as "a small war-vessel of genuinely innovative design" which he considered had a claim to be the progenitor of virtually all the Motor Torpedo Boats, Motor Gun Boats, Fast Attack Craft, etc. built for the Royal Navy at that time. He kindly shared with me a conjectural drawing he made of it largely based on that of *Mariette*, a 1930 55ft Cox & King designed motor cruiser²⁰. For Brady, *Mariette* was effectively a copy, in all relevant respects, of CMB *113CK*, in particular the hull and powerplant²¹.



Conjectural drawing of Coastal Motor Boat (CMB) *113CK* by Mark Brady, 2018. Courtesy Mark Brady.

Once the war was over, Cox & King started doing well again, and thanks to Gordon's marketing skills, there were adverts for it in various print media in the UK and in the USA. On the next page is an example of one that appeared in the Lloyd's Register of Yachts in 1922. We note that two addresses and phone numbers are given: one in Pall Mall, at the firm's traditional location, and one in Wivenhoe. John Collins adds that with the war over, the firm started in earnest to get a foothold in the yacht market, and built motor cruisers, such as the *Renow* and *Astra*, motor-sailers like the *Kittihawke*, and sailing sloops, *Peggy*, and ketches *Joanna* and the 44 ton *California II*.

Among the larger vessels designed by Gordon after the war was *Seaborn*. A 1925 *Yachting World & Marine Motor Journal* article²² tells us about it. It was a 550-ton diesel yacht constructed for Mr. Richard F. Howe by Ramage & Ferguson in Scotland. The article lists a number of novel features: "The bows resemble

¹⁹ Mark Brady (2018?). The sad story of CMB *113CK*.

²⁰ *Mariette* is described in the *Yachting World and Motor Boating Journal*, December 5,1930, p. 534. ²¹ Note that in Mark Brady's drawing, the upperworks are inspired by a Thornycroft CMB at the time as there is no known representation of CMB *113CK*.

²² The Modern Power Vessel: Designer of a new diesel yacht. *The Yachting World & Marine Motor Journal*, April 4, 1925.

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a light cruiser, the stern is similar to that of the *Mauretania* with fully balanced rudder, and the midship section is nearly square, so that the hull itself is unlike any other yacht." It adds that, "The five state-rooms and five bathrooms arranged on the cabin deck aft are unusually spacious owing to the special form of the ship. ... The dining saloon is elliptical in plan and will be large enough for dining 16 people. The main living-room is a large apartment also, of attractive shape." It continues with, "The keynote of the interiors is simplicity and refinement, effect being obtained by



F. Gordon Pratt (c. 1925 taken in the USA) and the diesel yacht *Seaborn* presented in the *Yachting World & Marine Motor Journal*, April 4, 1925.

classical detail and form and carefully selected colourings." And the concluding words are, "Mr. Pratt is to be congratulated on his ability to carry on the traditions of his famous firm." It is interesting to note that in his 1943 CV, Gordon mentions *Seaborn* in the following way: " ... the first diesel engined vessel to attain a speed of 30 knots, a record which it is thought remains to be beat."

At some point in the early 1920's, Gordon, Ruth and their two children (Sheila and Jill) left London where they had lived at 10, Orme Court, Bayswater. They moved to Copford Place, near Colchester, which they had bought in order to be closer to the Wivenhoe shipyard and to allow the children to grow up in the country. The *Yachting World & Marine Motor Journal*, that we have just mentioned, describes it as follows, "His home - Copford Place - a few miles from Colchester, is a charming old seventeenth century house, and shows him a connoisseur of furniture and pictures, etc., a useful attainment for a naval architect whose attention is principally given to yachts."



Copford Place c. 1925

Copford Place was indeed quite a beautiful property at the time. In a brochure in the late 1920's, we read that alterations had been made from time to time, but without spoiling the natural charm which the house seems to possess. We also read that the accommodation consisted of the main hall, staircase hall, three reception rooms and excellent, well-appointed offices on the ground floor. On the first floor, were nine rooms, two bath

rooms, and two W.C.s. Above were five good attic rooms. Finally, we read that the garden which surrounded the house was of quite exceptional beauty and charm. Spacious lawns, yew trees, wide herbaceous borders, one of which flanked an ornamental lake and was reflected therein, paved walks, and the few choice roses, were delights to garden-lovers.





Copford: Staircase hall

Copford: Dining room

In her unpublished autobiography, Jill, my mother, gives an impressive list of the staff that worked there: a cook, a cook's help, a scullery maid, three upstairs maids, two parlor maids, a nanny for the two little girls, a chauffeur and three gardeners! Jill and Sheila received the kind of upbringing the gentry gave to their children, with outdoor activities, most notably riding, being important components of this life. From this, both girls developed a real fondness for horses which were to be at the center © François Grosjean, April 2024

of their lives later on, but also for dogs, of which there were several at Copford Place, as well as other animals - cats, rabbits, hens, ducks, etc.



Gordon, Ruth, Sheila and Jill at Copford Place in 1924

It is fitting to end this part with a photo taken in 1924 at Copford Place of Gordon, Ruth, Sheila (7) and Jill (3). Gordon was a year away from being 40 and this first half of his life had been a success for him as is apparent in the photo. He was an established naval architect and the holder of several patents; he was also at the head of a well-known design and brokerage firm that opened a shipyard a few years before; and he lived with his young family in a lovely part of England. Who would have thought that in the months and years to come things would take a turn for the worse?

4. Hard times

John Collins of the Nottage Maritime Institute ends his short history of the Cox & King shipyard²³ with the following words: "The slow economy (in the 1920's) began to have its effect and the yard closed in 1925 but remained in the ownership of the firm which continued as yacht designers." A slow economy, which was to get worse, a reduced demand for yachts, and the fact that brokers were by-passed by buyers who went straight to the builders were some of the reasons for the closure. In addition, the firm began to be embroiled in lawsuits with the British Admiralty as we will now see.

Mark Brady, the motor boat expert I have already cited, looked into a notable case and sent me a summary in 2011.²⁴ It involved the firm's CMB (Costal Motor Boat) *113CK* (no. 287) that we have already talked about. The boat was completed to a state in which the Admiralty would take delivery, he writes, and this took place in August 1919. Even though it ran trials in 1919 and 1920, Brady isn't sure if she was fully fitted-out and/or commissioned. He continues as follows: "The Admiralty subsequently sought to return the boat to Cox & King, and recover monies paid for it, because the contract stated the maximum-speed requirement was 40 knots and the boat might be rejected if it couldn't make 38. (The implication is that CMB *113CK* never exceeded 37 knots - but that might well have been because the Admiralty supplied Sunbeam engines, which had an indifferent reputation.)"²⁵ The matter went to court even though the Director of Naval Construction and the Engineer-in-Chief didn't think a court would consider the Admiralty's case "reasonable," nor did the solicitor acting for Cox & King. Nevertheless the Admiralty obtained a judgement

²⁴ This was Admiralty Case no. 11567 (volumes 1 and 2).

²³ https://www.wivenhoehistory.org.uk/content/topics/maritime/cox-king-wivenhoe

²⁵ In a 2018 email message that Mark Brady shared with me, he states that Gordon was certain that his boat met, or at least could have met, the Admiralty's requirements, but had been let down by its engines which were known to have poor power/weight ratio.

entitling it to claim £5,350, a huge sum at the time. It is confirmed by Lloyd's List Law Reports of 1926 which states, "Cox & King, of Suffolk Street, London, to recover £5,350 paid by plaintiffs to defendants in respect of a motor boat ordered by plaintiffs, and then rejected."

Mark Brady feels that the Admiralty's request for this sum was an outrage. He states, "... basically the Admiralty was allowed to ignore the fact that the contract was made and the boat built under wartime conditions; and that the Admiralty's requirement when the order was placed was not for speed per se but for a better combination of speed and seaworthiness than Thornycroft's stepped hydroplanes offered." Brady adds that Gordon Pratt made things worse for himself by appealing. Unfortunately, he lost the appeal and the costs were awarded against him personally. He owed the Admiralty well over \pounds 6,000, and because trading conditions in his line of business were at the time poor (and would get worse when the Depression hit the USA in 1929-30), he might well have assets but he had little income, Brady states.



Mantells in 1928

In order to pay back his debt, Gordon had to reduce his expenses in a number of domains. So in 1927, the family moved out of Copford Place which was put up for rent and moved into a large house, Mantells, in Aldham, near Colchester. Gordon bought the house and took out a mortgage, and Ruth bought the two small cottages that were also there. Ruth had inherited from her father when he died in 1918 and once again from her grandfather, Robert William Shipway, when he, in turn, passed away in 1928. The

Pratt family were to stay for about ten years at Mantells. That same year - 1927 - having to make economies, Cox & King moved out of their well-known location at 5, Suffolk Street, London, and went to 50, Pall Mall, where they stayed for the next six years. This was still a very attractive location right in the center of London, where they occupied four rooms on the first floor with desks, files for plans, armchairs, pictures, as well as several model yachts, with two others on loan to the Science Museum in South Kensington.²⁶ Over the next several years, Gordon would spend part of the week in Aldham where he worked on several projects, and the other part in London at the Cox & King office. As for Sheila and Jill, they were boarders at Cloncurry School in Felixstowe. Gordon and Ruth would drive there on weekends and take the girls out or even bring them back home as the distance was not too great.

Let's now return to Mark Brady's account of Gordon financial problems. In the late 1920's, Gordon was in a wretched position, he writes. He was paying back in installments the sum he owed, and still had a few jokers he could use if needed. He was still the owner of Copford Place and, at the right time, could have obtained a good price for it. This was also true for his now closed shipyard at Wivenhoe if there had been a willing buyer, not to mention his current home, Mantells, and of course,

²⁶ From the document "Financial position of Cox & King", 1933.

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there was the income he made on projects he was working on. But things were not meant to go smoothly, unfortunately. Mark Brady writes that in 1931, "Some bright spark within the Admiralty decided it would be a good idea to petition to have Pratt declared bankrupt - in which case his assets might be seized/sold to pay his debts." Gordon kept hoping this could be avoided: he offered payment in services to the Admiralty, he suggested that the latter give him support for an application of his patents, etc. Unfortunately, he did not find a friendly ear there. Thus, the Director of Contracts wrote on March 7, 1933, "... there would appear to be no immediate prospect of business looking up in Mr. Pratt's profession...." On that very document, handwritten in the margin, one finds the following: "This matter has been outstanding for over 6 years and there appears to be no hope of a settlement. In the circumstances, and in order to reach finality, it is proposed to entrust the Treasury Solicitor to institute bankruptcy proceedings."

And so, Gordon was adjudged bankrupt on September 20, 1934, in response to the Admiralty's petition. Brady writes that this turned out to be a really bad idea as at the time the market for the assets seized was poor. For example, according to Mr. Karamelli's accountant document in 1933, the shipyard was worth nothing on a forced sale, but £4,000 if there had been a willing buyer; Copford Place was worth £3,000 in a forced sale but £6,000 if there had been a willing buyer; £1,750 for Mantells as opposed to £3,500 with a willing buyer, etc. Mark Brady continues, "At the time the market for the assets seized was poor, and in due course the Admiralty received barely 10% of the sum Gordon had owed before he was declared bankrupt."

The months that followed were very difficult for Gordon. Mark Brady writes: "This case ruined Pratt financially, and impaired both his physical and mental health." He moved Cox & King, temporarily from 55, Pall Mall to 50, Pall Mall and then, in 1934, to 18, Essex Street (London W.C. 2); he had some work done on Copford Place before its sale; he helped the trustee sell various motor boats he still possessed, etc. And, of course, he himself had to look for work, hence his many trips to Sheffield, Glasgow, Newcastle, and so on. Both the trustee and Gordon did a fine job in difficult circumstances. Mark Brady writes, "... his saleable assets having been surrendered, FGP successfully applied the following year to be discharged from bankruptcy (June 1935)." He had acted fast and well, but his life was changed by an action that the Admiralty did not have to take, not to mention the debt he still had to pay.

Mark Brady continues, "Gordon was able to re-establish himself as a naval architect, and in that incarnation had the last laugh. In the late 1930s he earned over £1,000 for his work in designing the boat *Tarret*,²⁷ and another bright spark in the Admiralty wondered if they might lay their hands on some of that against Pratt's still-considerable debt to them. To receive the legal advice 'No Chance!' - if you have a debtor declared bankrupt, you may seize certain assets he owns at the time, but you have no claim against anything he earns/acquires subsequently." Mark Brady concludes as follows, "In April 1943 the Admiralty eventually wrote-off £2,764.0s.8d

²⁷ We will come to it below.

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as 'irrecoverable' - money Pratt might well have repaid if he'd been given a fair chance!"

Since I do not have access to Gordon's diaries for the years 1935-1938, I have not managed to learn much about his life, nor that of his family, during those years. Gordon and Ruth appear to have lived in one of the cottages Ruth had bought next to Mantells. But they also spent more time in London. Gordon declared himself as designer and manager of a new company, Harelda Ltd, located also at 18, Essex Street, London.²⁸ By 1938, the office had changed location and was now at 60, Mark Lane, London E.C.3. Gordon and Ruth's girls were practically independent by this time: Sheila was in her late teens and seemed to be working in the world of horses in Springfield and Warwick. As for Jill, she stopped school (it was her choice to do so) and worked for kennels before joining her sister who was with a professional stable of show jumpers.

5. HMS Tarret

In parallel to his many occupations, Gordon continued to work on his inventions in the domain of hull form and hull construction, and submitted many patents. Earlier in this monograph, I described his first hull form patent,²⁹ in 1911, the object being to overcome the change in trim when a boat is running at full speed. The hull catches the bow waves and carries them under the vessel; that way, it runs at all speeds on a practically even keel. That same year, Gordon took out a second patent³⁰ that concerned the arrangement of propeller shafts so that they are approximately parallel and in the same vertical plane.

In 1918 and 1919, after all the work done on his fast CMBs (Coastal Motor Boats), Gordon took out three patents. One concerned hull form again³¹ and had as object the attainment of a minimum resistance to forward motion as well as greater seaworthiness and dryness when travelling in rough water. He attained this by constructing the hull so that the chine or bilge lines do not come into contact with the water until a point aft of midship. The two other patents concerned hull construction. The first one³² is described by Gordon himself in a 1948 letter he wrote to the Bassin d'essais des carènes in Paris. He states, "... the purpose of this invention was to increase the strength of wood hulls and to facilitate their construction by a design of parts which could be fabricated without need for specially trained shipwrights and boat builders." He adds, "... wood construction was adopted because all available steel, steel working facilities and steel-workers were urgently needed for the building of larger vessels." The second hull construction patent³³ relates to how boats can be built by putting together a series of prebuilt web frames (we would talk of assembling prebuilt modules today, I suppose). The two schemas in the patent, presented below, show what he had in mind.

²⁸ I have found nothing on Harelda Ltd.

²⁹ "Improvements in and relating to mechanically propelled vessels" (GB191029895 - 1911-09-07).

³⁰ "Improvements in and relating to vessels driven by screw propellers" (GB191029896 - 1911-11-16).

³¹ "Improvements in the hulls of mechanically propelled vessels" (GB118956 - 1918-09-19).

³² "Improvements in and relating to the hulls of ships" (GB128445 - 1919-06-26).

³³ "An improved hull for ships" (GB128446 - 1919-06-26).

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Illustrations in patent GB128446 -1919-06-26

In 1929, despite all the financial problems he had, Gordon found the time and energy to take out a new patent³⁴ concerning how to accelerate the flow of water adjacent to the hull in close proximity³⁵ to the propellers. This involves an enlargement built in or added to the skin of the vessel. Finally, as a culmination and, in part, an integration of all his patents since 1911, there was a group of identical patents in the late 1930's, the first completed in Great Britain in 1938,³⁶ then one in each of the following countries: the United States, Canada, France, and Denmark. We will refer to the "1938 patent" from now on and

will base ourselves on the printed US version, which we have managed to obtain.³⁷ A few extracts from the document will suffice as it is rather technical: "This invention relates to the hulls of mechanically propelled vessels. It is well recognised that a large percentage of the resistance of ships and boats, and more particularly vessels designed for high speeds, is due to skin friction. ...The object of the present invention is to improve the construction of hulls of abnormal form for high speed by still further reducing the area of the under surface in contact with the water when travelling at high speeds....." The drawing that accompanies the patent does not show clearly the hull form of such a boat but I have been able to reconstruct it somewhat with a simple cut and paste of the original drawing, as can be seen below. The hull



The hull form proposed by Gordon in the 1938 patent which was then used on HMS *Tarret*.

³⁴ "Improvements in and relating to mechanically propelled ships or vessels" GB patent: GB332188.

³⁵ Written as such in the patent.

³⁶ "Hydroplane vessels" (GB478695; applied 1936; completed 1938).

³⁷ "Hull of mechanically propelled vessels". (US patent 2,181,463; November 28, 1939).

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configuration at the front of the boat is towards the top right, and that of the back is towards the bottom left. If one follows the hull from top right to bottom left, one can imagine what the hull looks like. It should be noted that in all my research I have never seen a photo of this hull as it was kept confidential in the late 1930's and during World War II.

Gordon believed strongly in his 1938 patent hull form (hence all the different national patents that pertained to it) and he contacted shipyards to see if they would be interested in building a vessel with this kind of hull. His contacts with the famous Swan Hunter & Wigham Richardson Ltd. (henceforth SH&WR) at Wallsend, Tyne and Wear, England, proved fruitful, and this is how *Tarret*, which was later to be, HMS *Tarret*, came into existence. It was to become one of Gordon's most notable vessels which can be found described in books, articles, and on the web. My investigatory task was made simpler as I was able to interact with Charles and Martin Auld, the nephews of the director at SH&WR in charge of the development of *Tarret* at the time. They kindly corresponded with me in August 2023 and sent me some documentation.

According to Charles Auld, it was in the late 1930's that Gordon brought his design for a high-speed hull shape for a large ship to SH&WR. He was put in touch with one of the younger directors, Paulin Denham Christie, who, after obtaining the company board's green light, became Gordon's contact. Models with Gordon's proposed hull design were built and tested in tanks but the results were inconclusive. So it was decided to build an experimental craft which would be one-third of the size of the original craft proposed. This would give a much better indication of how the full-size version would perform. Over several months in 1938, the craft was built and was given the name *Tarret* after the fast flowing river, Tarret Burn, in Northumberland. During the many months the project lasted, Gordon took lodgings at 13, St. Aidan's Road, Wallsend-on-Tyne.

Once built, the local media had a few articles on *Tarret*. Thus, the *Journal of Commerce Shipbuilding and Engineering*³⁸ wrote, "... the experimental craft, *Tarret* is said to be designed for a speed of about 30 knots ...The power is put in the hull in a novel way, and the hull is of hard chine form, built to Mr. F. Gordon Pratt's patent design." It added a bit later, "The *Tarret* is stated to have a length of 110ft and a beam of 15 ft.... The superstructure comprises merely a streamlined wheelhouse which is built into a streamlined funnel surmounted by a short pole mast." Also, "Propulsion is by a pair of 16-cylinder Davey Paxman engines, the first of their type." Another newspaper, the *Sunderland Daily Echo*³⁹ stressed the new hull form, "The yacht embodies an entirely new hull design which is expected greatly to increase the speed of vessels. One feature is that no bow wave is created." As for the engines, it confirms, "The yacht is equipped with two 1,000 h.p. Diesel engines." Richard Carr on his website "Paxman History Pages"⁴⁰ states that, "Of all-welded steel construction, the 110 ft long vessel displaced 115 tons and achieved 30 knots on

³⁸ "Speed and streamlining for merchant ships of the future". *Journal of Commerce Shipbuilding and Engineering*, March 23, 1939.

³⁹ "New hull design". *Sunderland Daily Echo*, December 31, 1938.

⁴⁰ https://www.paxmanhistory.org.uk/mar-nonnaval.htm

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trials (without armament). In 1938 she was believed to be the fastest diesel-engined vessel in the world."



Post card of *Tarret* based on a February 7, 1939, photo taken by J. H. Cleet FRPS of South Shields.

At the time, everyone talked about a "yacht" and Charles Auld underlined this aspect to me: ".... she was initially registered as my uncle's private yacht at the Royal Northumberland Yacht Club to obviate the need for her to be measured to be put on Lloyds Register (since such measurement might give away her dimensions)." The Tyne Built Ships website⁴¹ even adds that it was to keep hull details secret. Even though photos of *Tarret* at the time seem to show a prototype motor gun boat (MGB) - see the grey paint, the form of the bow, and the streamlined superstructure -Charles Auld clearly stated in a message that she was not built specifically for the Admiralty. But with the war quickly approaching, members of the naval establishment were very interested in it, came to see it, sailed on it, and then commandeered it.

The trials started at the very end of December 1938, as the *Sunderland Daily Echo* stated, and continued through most of 1939. Charles Auld writes that they would sail out of the Tyne and turn north to run up and down the measured mile which was off St Mary' Island. The trials seemed to have gone well as reflected in one of Gordon's letters to the Bassin d'essais des carènes in Paris some time later⁴²: "The 110 ft HMS *Tarret,* of hull form according to my British patent no. 478,695, had been very successful, as to speed for power, endurance at destroyer cruising speed (20 knots) which was maintained over a distance of 1,000 miles, in the North Sea, in midwinter, and *Tarret* had proved to have quite exceptionally good qualities in rough seas." Susan Denham Christie, herself a naval architect, spent a rather stormy day

⁴¹ https://www.tynebuiltships.co.uk/T-Ships/tarret1939.html

⁴² May 3, 1948.

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on *Tarret* during the trials and wrote a fun article for "The Shipyard".⁴³ In it there is the amusing description of what happened to the tomatoes brought on board for lunch in such stormy weather!

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The photo below shows *Tarret* during its acceptance trial on December 12, 1939. Three days later it was handed over to the Admiralty and it became HMS *Tarret*. Charles Auld adds, "I understand that her hull shape was then used for motor gunboat design."



Tarret in rough seas on December 12, 1939. Photo taken by J. H. Cleet FRPS of South Shields.

The hull innovation that *Tarret* brought, based on Gordon's 1938 patent, and all his preceding work since 1911, is often described in the literature. For example, Keiren Phelan, in his *Fast Attack Craft*⁴⁴ is quite laudatory: "...perhaps the most expedient project in the pre-war years was the design by F. Gordon Pratt of Cox & King for a 110ft vessel called *Tarret*. She was built in 1939 by Swan, Hunter and Wigham Richardson of Wallsend-on-Tyne, Newcastle, of all-welded steel construction. She had a maximum speed of 30 knots, without armament, but could maintain this speed in rough weather. The hull shape was a development of Pratt's designs of 1912. *Tarret* was commissioned as a Motor Anti-Submarine Boat (MASB) in 1940 and used later for training...". If Gordon had lived long enough to read such positive descriptions, he would have felt vindicated. And he would have been amused by the fact that *Tarret* can now even be bought as a model kit, despite the fact that the real *Tarret* no longer exists.⁴⁵

6. World War II

While Gordon was working on *Tarret* in the north of England, the Cox & King offices had moved to their final location: 60, Mark Lane, London E.C.3. It was more a place

⁴³ Susan Denham Christie."In Lighter Vein: Our trial trip". *The Shipyard*, April-May 1939.

⁴⁴ Keiren Phelan (1977). *Fast Attack Craft: The Evolution of Design and Tactics*. Macdonald and Jane's.

⁴⁵ *Tarret* as a model: https://www.sarikhobbies.com/product/tarret-masb-or-mtb-plan/

for the firm's archives, designs, models, etc. than a place where anyone worked, it would seem. Unfortunately, on May 10, 1941, the building it was housed in was bombed to the ground during the Blitz. Two days later, on May 12, Gordon wrote in his diary, "damage fantastic & still burning." What a loss that was for those interested in yachts and fast motor boats in the first half of the 20th century! We are lucky though that many photos had been taken of the firm's vessels, that there were articles written about them, and that a few copies of their 1913 catalogue still exist. But they simply can't make up for the loss at the time.

During 1940 and up to the end of 1941, Gordon was based primarily in Wallsend-on-Tyne where he seemed to be continuing his work on hull form, appendage design, and propulsion problems. Who he was working for is unclear, however. As for the family address, it was still in Altham, Essex, in 1940. It is there that Ruth looked after her mother, Annis Josephine Shipway, before she passed away in May of that year. By early 1941, Gordon and Ruth had moved back to London, to 29, Queen's Gate, South Kensington. The street is very fashionable - today the building houses the Royal Thai Embassy - and the flat was probably simply rented. Gordon used it as his personal address but from now on he often took lodgings where his work brought him.

Because of his interest in fast motor boats, his many patents, and all the energy he had spent on Tarret, one would have thought he would have found work, directly or indirectly, for the Admiralty. This was not to be, however. He talks about this in his short autobiographical essay, "Anonymity," that dates back to 1942: "The first years of the war, I spent upon research and practice in the U.K. (primarily in Wallsend) and I offered free use by the government during the war of a demonstratedly successful invention, but which was refused with the statement: what you offer is good but we must use what we have got for this war." I'm not guite sure what the invention was but it was probably linked to his Tarret hull form. As for the refusal itself, it may hide the fact that there must have been people at the Admiralty who knew about his litigation with them and his payment problems, and hence did not trust him to the fullest. And yet, they called upon his work, in particular his patents, guite extensively during the war, as we will see later. It should also be added that Gordon was quite critical of some of the conclusions of the naval architect William Froude who, in the preceding century, had examined the behavior of scale models which were then extrapolated to full size ships⁴⁶. This may not have been to the liking of some.

All this led Gordon to look elsewhere: "In the circumstances, I sought other work and eventually had the choice of appointments with the RAF or with the M.W.T., S.T. Division. I accepted the latter." The M.W.T. was the Ministry of War Transport, a department of the British Government formed early in the war to control transportation and resources. As for S.T., it was the Sea Transport Division. From late 1941 to the end of 1943, Gordon was a Licencing Officer with them, first in the Middle East, and then in Scotland. His job was basically that of a ship surveyor: to

⁴⁶ Gordon wrote the following in his 1942 diary: "It is lamentable that progress is frustrated by the folly of fanatical faith in the fallacy of treating the purely empirical formula of Froude as though it were a Law supported by scientific knowledge of cause and consequence in any particular case."

examine marine vessels, to assess the condition of their structure, machinery and equipment, and to propose modifications and/or repairs to make them seaworthy again.

Gordon left Greenock, Scotland, on November 6, 1941, for Egypt and tells us a bit about it in "Anonymity." The day before his departure, he wrote, "I breakfasted early with my wife, said good-bye and drove to the railway station where I was met by my younger daughter [Jill]. The night before we had dined at a well-known night club where we were recognised and as it was known I was leaving for [the Middle East] the crooner sang, "Bring back my daddy to me", through the microphone, which brought home to me that I was setting out upon more than an ordinary business trip." He travelled on "a comparatively small cargo and passenger ship. The gathering of the convoy, which we were to join, was an impressive sight and soon after sailing we settled down into our allotted position." It took them about 33 days to arrive somewhere in the south of Africa and then a few more days by air in a Douglas, twin engined monoplane, to reach Cairo and then Alexandria. He kept an extensive work diary of his stay in Egypt, and a typical day sounded like this: "On-Surveyed the Pontoon Barge September XX and completed On-Survey Report. Wrote On-Survey Report for the Nicolas G. KuluKundis. Prepared repairs authorisation for M.V. Prince Baudoin. Interviewed the captain of a Norwegian ship. Ditto the captain of Prince Baudoin".



Gordon's M.W.T. card in early 1942 in Alexandria, Egypt

As we go through his diary, we realize that he missed his research work back in England and that he was not terribly enthusiastic about his new job. He quickly noticed several things that were not optimal. Here is an extract from his diary⁴⁷: "Merchant Ship Repair Control (MSRC) simply does not exist. All that has been done is to send forms out for ship officers and agents to use for notifying repairs required. Some of them come in and are dealt with by anyone irrespective of whether appointed for MSRC staff duties.... One may laboriously sort out the notes

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submitted, inspect the damage, etc. and collate the whole thing with suggested methods of repair, etc. In some cases, no-one takes the slightest notice. ... JRS [his boss] has very little education in technical knowledge and is only expert in making the chiefs think he is doing a lot because he rushes around for hours."

In the end, the best feedback he received was not from his boss or colleagues, but from the crews of the ships he worked with. He noted the following in his diary on January 9, 1942: "I find the ships' officers take to me all right, as knowing what I am talking about; and they always seem quite pleased to see me back again." He was also often invited to lunch on board ships which could be quite a treat if the ship were French, for example!

Thinking that things would be better elsewhere, and after a few weeks in Suez, he volunteered in May 1942 to go to Massawa, a port city in the Northern Red Sea region of Eritrea. But there, another problem arose: convincing the naval base to undertake merchant ship repairs was an uphill battle. As he wrote on July 28 of that year: "Unless it can be arranged that the opposition of Naval Base ... to using facilities here for merchant ships repair is withdrawn, what use to remain here at risk of life or health in the worst climate in the world? Resign and obtain repatriation so can report in London?" But again, the feedback he received on his work from ship crews was a morale booster. Here is a diary entry for August 18: "Rec'd letter from chief engineer of *Belgian Airman* to say the overheating of the fuel oil is cured by the piping fitted at Massawa and many thanks for my help."

Unfortunately, Gordon was hit by several health problems during his stay in the Middle East: dysentery, heat exhaustion, and then pneumonia. He wrote on October 5: "I was started on a course of M&B (methylene blue) and put in a pneumonia jacket." He added the next day, "Practically living on M&B; food nauseating; M&B is a refined form of Chinese torture through the senses of taste and smell." Because of these problems, and his age (he was 57 by then), it was decided that he would return to the United Kingdom and continue his work there. The trip around the Cape took many weeks (troops had priority over civilians even if they worked for the war effort) but it allowed him to fully recuperate. He left for Durban, South Africa, on October 28 on the Dutch passenger liner, S.S. *Indrapoera*, and noted, "Am eating well and trying to put back a little weight before getting into cold weather." And to keep his mind busy, he went back to his studies and writings. Thus, on November 8, he wrote: "Completed report re. propellers and speed performance of *Indrapoera*; found new method of calculating power from W=column of water and determining wake effect."

From Durban, Gordon took another ship to Cape Town where he stayed several weeks. He did a lot of sightseeing but also more research: "Have finally determined the elucidation of the screw propeller, except for sorting out effects." Finally, the last leg of his return journey was on the M.V. *Britannic*. He arrived in Liverpool on February 26, 1943, and was in London the next day. Here is the entry for that day: "Ruth and Sheila met me; lunch at Euston Hotel; secured room at 20, Cornwall Gardens, S.W.7.; Jill came to Queen's Gate after dinner; supper with Ruth." It should be noted that at the time the Queen's Gate flat was lodging military patients recuperating from their wounds, hence the lack of room.

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After a month in London writing reports on his Middle East stay and meeting members of the M. W. T., Gordon was asked to go to Glasgow for at least three months to continue as Licencing Officer. At first, the welcome was excellent and he inspected and proposed modifications to numerous ships. Unfortunately, little by little, things began to sour. His boss, Mr. McKinnon took a dislike to him probably because Gordon was very conscientious, and wanted things to run well. His diary entry for April 16, 1943, was: "Everything decided by rule of thumb without any sort of check by anyone who knows about such things. Nothing written down and all left to memory." And yet again, the feedback he obtained from ship crews was good. For example, when he went to see the ship *Fort Walsh*, he was invited to lunch on board, and "the chief officer said it was nice to deal with someone who knew what he was talking about."

By mid-August 1943, with his additional months with M.W.T. over, Gordon was back in London where he took some time off. His diary entry for August 21 reflected this, "R [Ruth] lunch Peters [a restaurant]; to a flick and tea; supper Queen's Gate." Sheila was in town (she worked for a famous stable in Newmarket) and they went out with her. A few days later it was Jill's turn to be in London and his diary entry for September 10 was: "Met Jill 10.30; lunch Allen's; with Jill to flick; supper to Orsi's with R. Jill came in about 21.00, walked with her to her guarters." Gordon then started looking for work as his bankruptcy had left him with no independent means. He made contact with the US Army Transportation Corps, on Duke Street, which was interested in bringing a person with his experience into their group. On October 5, 1943, he noted in his diary, "First day with Uncle Sam." He worked on various projects with them: the Chrysler Sea Mule Marine Tractor which was a barge-tug with twin screws, about 40 ft long; the 2 1/2 ton amphibious truck labeled DUKW; various barges and pontoons, as well as tank landing ships (recall that the Normandy landings were in full preparation); the T/ES Schedules; the TO-50-500 equipment schedules (tables of organization for a variety of crews), etc. It is during this period that Gordon was to meet Roger Grosjean, my father. His diary entry for November 18, 1943, was: "To Queen's Gate; supper with R. Met Roger Grosjean; Free French Airforce who called to see Jill." He saw him again a few weeks later⁴⁸: "Jill rang up and called for me 18.30 with Roger; they took me to supper at French Club (off St. James' Street)."

Information on Gordon's war years stop at the end of 1943 as his diaries for 1944 and 1945 were missing in my mother's things when I came into possession of them. I cannot but wonder if they were removed on purpose. As I relate in the monograph on my parents,⁴⁹ all kinds of extraordinary events involving them, many secretive, took place during those years. Roger was working for MI5; Jill was probably surveilling him and became pregnant with my sister, Brigitte; Roger changed his name to François Perrin and was sent to Morocco as a Free French Air Force instructor; the two were reunited in Paris in March 1945 even though civilian travel was not yet allowed, etc. How much did Gordon know about these events and what

⁴⁹ See In Search of Roger and Sallie:

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⁴⁸ December 27, 1943.

https://www.francoisgrosjean.ch/In_Search_of_Roger_and_Sallie.pdf

were his reactions? Since other documents on my parents were also removed in my mother's things, I wouldn't be surprised if those two diaries joined them.

7. Other jobs, other homes

The first two years after the end of the war, i.e. 1946 and 1947, were far from guiet for Gordon as he tried to go back to what he really enjoyed working on: hull form, hull and appendage design, propulsion problems, as well as a theory of hydrodynamics. He probably didn't think he would find a niche for this type of work in a British firm (or maybe he tried and was turned down) so he tried in France. As it happens, Jill and Roger were in Paris, and with Roger's help, he made contact with the Ministry of Armament which directed him to the Bassin d'essais des carènes, in Balard (Paris). It was the main French testing tank for hulls under different testing conditions. Roger acted as an intermediary with engineers there and translated some of Gordon's writings. In a March 2, 1946, letter to Roger, Gordon writes: "The question will probably arise: Why come to France, why not get the matters established in England, your own country. The answers to that are: Firstly, I have a French patent which I want to exploit [this was the French version of his 1938 patent]. Secondly, if that is not sufficient, the English are very conservative, the present [vessel] rules are English ... so it is like asking a man to change his religion... and thirdly, whilst I am British, my father was half French and I am myself 25% French. Added to which, it will be unnecessary to remind any Frenchman, that for example, the French are more open to logical argument and more inclined to favor new ideas ...".

So Gordon spent several months in Paris in 1946 interacting with engineers at the Bassin (Mr. Aupetit, Mr. Normand) as can be seen in several diary entries: September 12, 1946: "To Bassin; met M. Aupetit who said agreed correction of Froude formula necessary"; September 17, 1946: "Worked on proposition of Bassin; decided to submit alternative scheme; Norman telephoned"; September 21: "Worked all day on model calculations re. Bassin"; October 5: "Completed offsets drawing for Bassin." It's interesting to note that while he was in Paris, he remade contact with Louis Coatalen, the Sunbeam director he had worked with some twenty years before.

Things moved slowly at the Bassin, though, so Gordon returned to London and started to look for work, at least for a short while. In November 1946, he took on a draughtsman's job with Babcock and Wilcox, a London company best known for their boilers, marine and land-based. Some ten months later (September 1947), he moved to Rugby, Warwickshire, to work with the English Electric Co. on contracts for steam turbo-alternators for large power stations. It was while there that he contacted the Royal Commission on Awards to Inventors which had been formed just a few months before in order to settle awards made to those whose inventions, patents, designs, etc. were used by various bodies during the Second World War. This allowed Gordon to finally learn of the contribution that his patents had made during the war without having been told at the time.

He summarized this in a May 3, 1948, letter to the Bassin d'essais des carènes. The introductory sentence says it all: "... it has been officially disclosed that during the

1939-1945 war, the British Admiralty utilized my inventions upon a very large scale." He then listed his patents and how they were used. Here are three examples, - the 1911 patent (GB29,895) was the distinguishing feature of a large number of 70ft M.T.B.s (Motor Torpedo Boats);

- the 1918 patent (GB118,956) was the distinguishing feature of numerous craft designated P.V.s (pilot vessels) and M.G.B.s (motor gun boat);

- the 1919 patent (GB128,445) was applied to, in all, 1,500 craft, mostly of about 110 ft in length; the wood construction was adopted because all available steel, steel working facilities, and steel-workers were urgently needed for the building of larger vessels.

I suppose that Gordon received some monetary compensation for the use of his patents, but this, I'm sure, did not make up for not having been involved in designing and building the actual boats used during the war. Even his advice had not been solicited. In the same letter (May 3, 1948) he wrote, "Unfortunately, when it was decided to build the 110-ft M.G.B.s and M.T.B.s, I had left for the Middle East. Consequently, I had no opportunity to submit a statement relative to the full effect of the progress I had made in a space of a quarter of a century of research, experiment and practice; not only as to hull-form resulting in my 1938 invention, but as to hull design to best suit individual requirements, appendage design best suited to high speeds... and propulsion problems where propellers are working in free water instead of in a ship's wake." Maybe one day we will learn why Gordon was not called upon directly but it probably has to do with his years of litigation with the Admiralty.

When Gordon moved to Rugby in September 1947, he was still hopeful that the project with the Bassin des carènes would come through. But it didn't, and his temporary relocation some 78 miles from London slowly became permanent. He found durable lodging in a small village, Dunchurch, just outside Rugby where he stayed for five years. Of course, he would return to London to see Ruth at regular intervals, or she would come to see him, and he would take vacations to go and stay with Sheila or Jill. He also wrote at least once a week to Ruth, and very frequently to Sheila and Jill. But basically he was Dunchurch/Rugby based in the late 1940s and early 1950s. He tells Roger in a November 1948 letter, "This is a nice village and has a small restaurant (The Tudor) run by a lady who learned to cook in Geneva and Copenhagen. She does the cooking herself and gives personal attention to her customers, like in France. I am living with nice people and am quite comfortable, but I very much want to get back to boats and ships in my work, and my ambition is to work in France and be near Jill, Brigitte and François and yourself."

One job led to the next, but not pertaining to boats, alas. In May 1950, he took a job with British Thomson-Houston (BTH), a British engineering and heavy industrial company known primarily for their electrical systems and steam turbines. He stayed with them for a few months before finding work with a company much more to his liking: Armstrong Whitworth Aircraft Company (AWA), Ltd. This famous aircraft manufacturer was working at the time on the jet fighter, Gloster Meteor, and Gordon was involved in it. He wrote the following to Jill⁵⁰: "They are quite amenable to ideas, and two proposals I ventured for simplification and weight saving have been

⁵⁰ Letter September 12, 1951.

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accepted ... Of course, it is early days and I may hit a snag; but it looks as though I have a chance to 'get my oar in', if I take it steadily." He worked on the sliding hood test rig, the housing of the air brakes, the prone pilot version of the plane, and so on. His interest in planes, that was triggered by his three years at Sunbeam Aviation during World War I, his visit of the Farnborough Airshow in 1952, and even a flight down to Rome on the Comet, the world's first jet airliner, must have made this particular job all the more enjoyable.

For a reason I cannot determine, Gordon left A.W.A. at the end of December, 1952, and two months later started at Norris Industrial Consultants Ltd (N.I.C.) in Bristol. They offered engineering services for investigations and inspections, and Gordon's job there - making detailed technical drawings or plans for machinery, infrastructure, sections, etc. - involved spending time in other locations (e.g. Leicester, Brentford). In September 1953, he transferred to the London office of N.I.C. which allowed him to finally move back to the London area, in this case, Richmond Upon Thames, right next to Teddington. He rented a room at the Strathmore Hotel (room 29 at 35 Petersham Road) and this is where my sister and I would go to see him.

Gordon stayed with N.I.C. for four years - during which time Ruth passed away (I will return to this in the next chapter) - and his final job starting in 1957 was with Gwynnes Pumps, Ltd, in Hammersmith, London W.6. He stayed with them a bit more than a year and worked on tenders and dredgers including hull design and construction. It must have been both a sweet and a sour moment to be back in his original profession, some ten years after having had to abandon it.

In February 1959, at age 74, and after fruitless efforts to find yet another job - firms picked up young men while the going was good, Gordon wrote - he finally decided to retire and concentrate on his writings. He had never stopped working on his theories since the end of World War II but now he could quietly make some headway. A short entry in his diary later that year (June 27) reflects how much he enjoyed this new life, which was both quiet and reflective: "Richmond Regatta. Lunch Twickenham. Walked back by river." And in the Notes at end of that week: "Retyped 'Correlation'." Gordon had a number of friends who were engineers and naval architects with whom he corresponded and shared his writings. One good friend, quite a bit younger than him, was Ralph Toms. He was an aeronautical engineer who had worked on the Vickers VC-10 jet airliner and with whom he had a book project in common. Toms would ask him in his letters how he was progressing on his fluid theories. And Gordon would send him versions of the latest chapters he had written with titles such as "Ships' Stability"; "An outlook on design"; "Fluid motion"; "Correlation"; "Transatlantica"; etc.

8. Family man

Before ending, I will say a few words on the husband, the father, and the grandfather that Gordon was. All too often when writing about someone as dedicated to his work as was Gordon, one tends to leave aside their personal life and the relationship they had with their family. And yet, these aspects often reflect more appropriately the kind of person they were, and this was especially true of Gordon.

The husband

As we saw earlier, Gordon and Ruth were married in 1916 and formed a lovely couple. There is an album I obtained with photos of them with their young children at Copford House, and they looked happy together.



Gordon and Ruth in 1937

During Gordon's bankruptcy, their marriage must have been under stress, but we know that Ruth defended him in various ways. For example, she lent him £750, she bought some Harelda shares, and she attended the judicial proceedings in 1934. One consequence of the bankruptcy was that Ruth's estate was kept even more separate from Gordon's; for the rest of their lives, they kept independent accounts of what they spent. They seem nevertheless to have shared some expenses.

In November 1942, and then from April to July 1943, we have a rare window into their relationship with a few letters Ruth wrote to Gordon whilst he was in the Middle East, and then in Glasgow, working for the Ministry of War Transport. She addressed him with the affectionate acronym "O.M." (old man), as did Sheila and Jill in their letters. An Airgraph sent to him in November 1942,⁵¹ to Durban, starts with "My dear O.M." and ends with "Fond love.... I hope to hear from you soon." Here is an extract taken from it: "It is strange to think that it's a year since you left; you have travelled so far whilst I have just been working hard, but very happy doing it, and people are so kind to me. But it makes the time go by almost too quickly, and I find it hard to believe I'm growing old!. ... Airgraph should only take about a fortnight, I believe; so we shall feel we are not so far away from you now; take care of yourself; don't worry about any of us; things will work out in the right way, I expect." We should note that this was the time when both Sheila and Jill were leaving their first husbands.

A few months later, when Gordon was in Glasgow, Ruth wrote⁵²: "It's a pity that [your work is] so boring and monotonous..... Let us look upon it only as a stepping stone to something else, as 'marking time' again until the right thing is due to come along." A few weeks later, she states, "My dear... I've got a lot to tell you and shall be able to write to you, and give myself more time to attend to personal affairs now." At the end, she writes, "Shall be so late for the old aunt. So must rush. Please write when you receive this and then I can time my next one to you more accurately. Cheerio. All the best. Ruth." When Gordon's contract with M.W.T. was over, Ruth warned him⁵³: "Be very careful, won't you, about legal rights, etc.; we've had enough "law" to contend with to last us a life time." This was a clear sign that the bankruptcy had marked her strongly. Gordon sent parcels from Glasgow down to Ruth and she

⁵¹ Airgraph from Ruth 5 11 1942.

⁵² Letter from Ruth 11 4 1943.

⁵³ Letter from Ruth 13 6 1943.

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commented on one in this way⁵⁴: "Phyl came to supper and we both agreed that the bacon you send from Glasgow is vastly superior to the stuff we get here. I cooked it in casserole (without smell!) and she thought it awfully good." In other letters, Ruth reminded him of his daughters' birthdays (in fact, he always marked all birthdays in his diaries) and hoped that he could make it down to be with her at Newmarket to see Sheila.

When Gordon moved to Rugby for his work, in 1947, he wrote to Ruth regularly, exchanged parcels, went to see her on some weekends, and even had her come down (she didn't move around that much). Here are Gordon's diary entries for four days together in August, 1948:

- 27: Ruth arrived; met her at 5.50.
- 28: After a little shopping, to Dunchurch; lunch at Tudor Café; v. good indeed & tea.
- 29: To Dunchurch for lunch again; and again very good.
- 30 (Mon): Ruth left by 7.29 train.

During those years, Gordon and Ruth did not live together, but they did everything they could to stay in touch and see one another when they could.

But difficult times for Ruth were arriving. From what I can gather from Gordon's short diary entries, Ruth was diagnosed with breast cancer in April 1953. It was at about that time that Jill brought my sister and me to London to see her. She was operated on (or simply followed some kind of therapy; it is unclear) and then went to a convalescent home near Salisbury (Heale House at Middle Woolford). It wasn't too far from where Sheila lived (Upavon) and not that great a distance from Rugby and Bristol where Gordon worked, so that both Sheila and Gordon could come to see her quite often. In October 1953, with Gordon now in Richmond, and Sheila and her husband, Michael, moving away from Upton, Ruth came back to the London area and found accommodation at the Lady Margaret House Nursing Home in Ealing, in Greater London. It is only 3.5 miles from Richmond and so Gordon could visit her once or twice a week.

As time went by, Ruth did not get better, unfortunately. On January 26, 1954, the nursing home phoned Gordon and he reported this in his diary, "R worse and they think touch and go." Things stabilized, though, and a few months later, he received a letter card from her which I reproduce here⁵⁵: "My dear O.M., Just to let you know that I am seeing [name unclear] this afternoon as there are also further things for us to discuss. Would it be too much for you if you could come over on Sunday as I do want to have your advice. I am more than grateful to you for dealing with the family so tactfully for me, and all the endless accounts. How I wish I was well enough to be up and doing. I get very depressed that it is taking so long. Au revoir. Ruth." At the end of that year, Gordon came to Switzerland to see my sister and me for the second time, and I seem to remember him telling us that Ruth was very ill. He helped us write her a postcard, I believe. Just fifteen days after his return to Richmond, on January 12, he wrote the following in his diary: "Mrs G. rang office to say R passed at 10.50 a.m. Wired to Sheila, Jill, & Faith, and went to Ealing." Gordon organized the funeral service, and welcomed members of the family: Sheila

⁵⁴ Letter from Ruth 8 7 1943.

⁵⁵ Letter card from Ruth 24 6 1954.

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and Michael (her second husband), Jill, Faith, and Helen Shipway (a cousin). It was a very depressing time for him and he was a bit critical of the burial ceremony: "All went all right but I thought the chapel, and smoking chimney, and the service awful." Similar to other moments of great stress - the official declaration of bankruptcy, handing *Tarret* over to the Admiralty, etc. - Gordon fell ill for a few days.

In sum, there was love and then fondness between Gordon and Ruth, but Gordon's bankruptcy in 1934, and his long absences in the 1940's and 1950's for his work (abroad and in other parts of the country) must have impacted their relationship a bit. Gordon also knew that Ruth and Jill did not get on well, and this must have been very difficult for him. Jill noted this about her mother in her unpublished monograph, "I don't think she was ever happy. I don't know why." We know very little about Ruth's life at 29, Queen's Gate after the war (recall that it housed military patients recuperating from their wounds during the war). There are a few sentences here and there in Gordon's diaries pointing towards Ruth's impatience and at times frustration, but from what I have been able to find out, these moments were not caused by Gordon. The two were attached to one another throughout their almost 40 years together.

The father

Both Sheila and Jill have appeared in various places in this monograph and I won't repeat what I have written. What is clear, though, is that Gordon was extremely fond of both his daughters and spent as much time as possible with them. In most photos from that time, people pose and rarely smile. But in the one below that I have found, Gordon is playing with Jill and both have a wonderful smile.



Playing with Jill in 1928

When the children were not at Cloncurry School in Felixstowe, Gordon would accompany them to various events such as the Pony Club meetings, the club's yearly dance, cubbing meets (e.g. at Coggeshall), as well as to gymkhanas. To get there, they would often take "The Tank" which was how they named their car.

Both Sheila and Jill left home quite early on to work with horses and dogs, and then in the theatre for Jill. Sheila married Thomas (Tom) Kelsal Taylor, a show jumper, in August 1940 (she was 23). However, she soon found out he was violent, both physically and psychologically, and they separated quite soon after. As for Jill, she too married quite early on, in 1942, to Rowland Cross but here too things broke down quickly. When

Gordon came back from the Middle East, both girls were in the process of divorcing, and Gordon paid for their lawyers.

A few letters from each daughter to their father in the spring of 1943 were in my mother's things, and they give a view of how well they got on with him. Sheila starts

her letters with "Darling O.M." or "Darling Daddy" and ends them with something like, "Au revoir and lots of love" or "Look after yourself. Love". She talks about recovering her furniture from Tom's home, thanks her father for sending a cheque to the solicitor, Rollo, and talks about her work at Newmarket. For example⁵⁶, "I rode a gallop with a jockey (P. Beasly) in front of the King the other day!" She also commiserates about Gordon's job in Glasgow,⁵⁷ "So sorry you have a stinking job...(but) glad Glasgow isn't too bad, and you have found some friends, which all helps." She also offers to do his sewing for him⁵⁸: "I really think you are too old to start darning socks; why don't you send them to me ... I have plenty of time." And she thanks him for the things he sent her⁵⁹: "A thousand thanks for your letter and the choc; it was terribly sweet of you to append your coupons on me; I do appreciate it."

As for Jill, she starts her letters with "Darling Daddy" and ends them with variants of "God bless darling; look after yourself. Much love." She describes where she is geographically with her theatre company (Brighton, Hull, Harrow, Bath, etc.), asks him if they can meet up when she is in the north of England, and tells him about Bill, her new boyfriend. She also asks for help paying bills⁶⁰: "If you could be an angel and pay the enclosed bill for me, I will refund it, in a few weeks' time when things are nice and straight." She too is grateful for his coupons,⁶¹ "Thanks awfully for the coupons; I will try and send some of them back when I have bought [some clothes] that will just about set me up O.K. for some time to come..." And she too commiserates about Gordon's problems⁶²: "Sorry you are not hitting it off with the M.W.T. What have you done to annoy them? I thought you were so very popular when you first came back to England." As it happens, it is only a few months later that Jill was to meet Roger, my father. We saw previously that Gordon had been introduced to him in late 1943, but with the 1944 and 1945 diaries missing, we do not know how much he knew about Roger's and Jill's (Sallie's) work for MI5.

After the war, Gordon remained in constant contact with both Sheila and Jill. He would write to each one regularly, see them in London when they came, visit them where they lived, etc. He spent a bit more time with Jill in the late 40's and early 50's but that might be due to the fact that this was an occasion to also see my sister and me, and to be in Paris in case projects came through from the Bassin des carènes. Both daughters rallied around him when Ruth died and there was practically no Christmas that he did not spend with the one or the other. The only negative account of a visit I found was for Christmas 1955 when Brigitte came to stay with Shella and her second husband, Michael, in Market Harborough. Gordon wrote on the 24th, "Atmosphere w/S&M very tense." And on the 25th, "Atmosphere worse and the most unhappy Christmas I have ever had." I wonder if he wasn't, in fact, witnessing the first signs of Sheila's and Michael's separation. In the end, Sheila was to marry three more times. All in all, the Pratt family was solid and its members supportive of one

⁵⁶ Letter May 6, 1943.

⁵⁷ Letter April 4, 1943.

⁵⁸ Letter May 6, 1943.

⁵⁹ Letter June 2, 1943.

⁶⁰ Letter May 15, 1943.

⁶¹ Letter May 18, 1943.

⁶² Letter May 25, 1943.

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another. Why Jill didn't carry this over to her own family, first with Roger, and then with her two children when she was separated from him, remains a mystery. It makes me think that she was indeed bipolar and could not control her illness.

The grandfather

In the Introduction, I talked of the presence of our grandfather in our lives when we were children, from 1953 to the early sixties: his two trips to see us in Switzerland (1953 and 1954), our summer vacation in Richmond in 1956, the other times we would see him, the many letters, postcards and presents he would send us over the years, and so on.

Going through his diaries added more information on the type of grandfather that he was, and showed that early on he decided to play an active role in our lives. Thus, when Ruth went to Paris in late May, 1947, and wrote to Gordon that things were not going well between Jill and Roger, and that Roger had left, Gordon entered this in his diary on June 2: "Wrote to Ruth; will not go to Paris; will work and give savings for Brigitte and François; but no (NO) money for lawyers and anyway, think no chance of a divorce." Unfortunately, there was a divorce (Jill's second in just a few years) but the procedure dragged on for six years. During that time, Jill was given custody of the two children, with visiting rights for Roger of only two Sundays a month. Since Jill had no time for us, and didn't appreciate us, she put us in various foster homes, and did everything she could to exclude Roger from being an active parent. So, over the next thirteen years, Gordon would often step in when he could. Here are a few examples of actions he took that we were not aware of.

Very early on, in the spring of 1946, when Gordon lived on and off in Paris, he took Brigitte for a checkup and reported that the doctor said she was a fine child and would be entirely OK after a correct diet for a time. She was in a foster home in Melun and may not have been nourished correctly. She was returned there and on October 6, Gordon visited her and wrote, "With J&R to Melun to see Brigitte. Am very distressed that she seems unhappy." Clearly, our well-being was always in his thoughts.

As we saw earlier, Gordon had us come to him for vacations, or he would come and see us. He even organized our time away from our boarding schools for several years. It was never easy as our vacation time was a low priority for Jill, and she didn't want Roger to get involved. So, for example, with the Easter holidays arriving in 1958, Gordon wrote to my sister and me to see if we knew what the plans were; he then wrote to Sheila and Roger (with whom he still got on well) and finally organized that I would spend one week in Paris with my father and one week at *Gai Matin*, a local preschool boarding school, since Aiglon was closed and the boys had returned home. A year later, this time for the summer vacation, he finally worked out, in extremis, as Jill didn't respond to his letters, that my sister and I would first go down to Montpellier in France to stay with our great grandmother (Roger's grandmother) and then we would go to Rome to stay with our mother. He wrote the

following in his diary at the end of a busy week organizing all of this⁶³: "Re'cd 5 telegrams, sent 2; many letters rec'd and written, and 2 tel calls."

Things were just as time-consuming, if not more, when we were invited to stay with friends. Here is an example: I was friends at Aiglon College with a boy called Chris Gallagher. His parents saw that I was a bit of a lost soul, and that it was only at the last minute that I would know where I would go on vacation. So, in the spring of 1957, they wrote to my mother to see if I could spend a few weeks with them that summer at their house on Lake Como. Since my mother didn't reply, the school gave Gordon's address and he acted as a go between involving the Gallaghers, my school, and my mother. The latter finally refused after all the work Gordon had done to organize things. She never gave us a good reason apart from telling us that we had "no family pride," as if accepting a holiday invitation involved family pride. Gordon wrote the following in his diary on July 10⁶⁴: "Letter from Aiglon. Cabled Jill. Wrote to Aiglon & Mrs. Gallagher ... What a day!" Surprisingly, six months later my mother agreed that I could spend Christmas with Michael Ward and his mother in Chipping Campden, England. Once again, Gordon organized things, and took care of me for a day or two on arrival, and when I departed afterwards.

Gordon was also the one who finally found the school I was to go to in England. After six years at Aiglon, my mother wrote to me one day (in January 1960) to tell me that I would start at Ratcliffe College the following term. The reason she gave me was that Aiglon was not sufficiently strict and that I needed to get a gentleman's education! It was only once I read Gordon's diary for 1959, many years later, that I realized that he had done all the groundwork. He had written to several Catholic public schools notably the Oratory School, the Douai School, and Ratcliffe College. He also interacted with Mr. Corlette, the head of Aiglon College, who probably wanted me to stay. Finally, once Ratcliffe had been chosen, he thought of the fact that I didn't play rugby or cricket (important sports in public schools in the winter and summer) and that it would probably be difficult for me to learn how to play them at the age of 14. So he interacted with Ratcliffe (again) and got me enrolled in the rowing club. He probably thought it would be easier for me to learn how to row but it wasn't, and after several weeks, I was "demoted" to athletics (track and field) where I did reasonably well.

Gordon was indeed our guardian angel during our early years and did everything in his power to make our lives as normal as possible!

Epilogue

Gordon's last diary was 1959 and my biography ends at that time. I have very little information from then on and hence can only give a very rough outline of his last five years. Since he had spent some vacation time at Mannarese, Jill's horse farm in Italy, and had enjoyed it, it would seem that at some point he accepted an invitation to come and live his retirement years there. Jill had transformed the first floor of a stable house into a small studio which he could use. So at Christmas, 1960, or in the

⁶³ Diary July 12-18 week, 1959.

⁶⁴ Diary entry, July 10, 1957.

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early part of 1961, Gordon gave up the room he had occupied since 1953 at the Strathmore Hotel in Richmond, and left for Italy with his belongings, especially all his papers and manuscripts.

I would see him there from time to time when I went to Rome on vacation, but starting in 1962, I no longer returned and hence lost touch with him. It would seem that after about a year at Mannarese, Gordon moved into a hotel in Rome (the Manfredi Hotel, Via Margutta 61). Then, for reasons I do not know, Gordon was back in England at the end of 1963, having left most of his documents in Italy. Maybe his return was temporary but then became permanent. Or he was no longer welcome in Italy and was encouraged to return to England. But then, why not bring his things back? I simply do not know.

Gordon stayed at the Bingham Hotel, Richmond, for a few weeks, and then went to live in 1964 with Mr. and Mrs. Cooper at 10, Tudor Gardens, Barnes, as a paying guest. Was this a couple whom Sheila knew who accepted to look after him since he was suffering from the onset of dementia, most notably confusion and memory loss? He stayed there for a while and then moved to the Rosedene Nursing Home, 147, Trinity Road, Wandsworth Common, London S.W.17, where he passed away on November 14, 1965. His death certificate indicates that he was 80 years old, a retired naval architect, and that the causes of his death were cerebral and generalised arteriosclerosis, and senility. He was buried on November 18, 1965, in East Sheen Cemetery, Richmond.

And so ended the life of F. Gordon Pratt, an accomplished naval architect, passionate about his work, creative and meticulous in his projects, demanding of himself and others. As we saw throughout this short monograph, Gordon was confident and determined, which led to many successes but also some failures. Taking on the Admiralty in court and appealing the decision was courageous but a bit imprudent. It ruined him at the time, and it had long lasting negative consequences in the second part of his life. But, as I wrote at the beginning of this monograph, his financial woes did not impact his perseverance, passion, and imagination, nor did it impinge on the caring husband, father, and grandfather that he was.

Appendix. Patents by F. Gordon Pratt (primary source: UK Intellectual Property Office)

Year	Title	Details
1911	Improvements in and relating to mechanically propelled vessels	<u>GB patent</u> GB191029895 - 1911-09-07 Inventor: PRATT FRANCIS GORDON (GB) Applicant: PRATT FRANCIS GORDON (GB) EC: B63B1/18 IPC: B63B1/18; B63B1/16 Publication info: GB191029895 - 1911-09-07
1911	Improvements in and relating to vessels driven by screw propellers	<u>GB patent GB191029896 - 1911-11-16</u> Inventor: PRATT FRANCIS GORDON (GB) Applicant: PRATT FRANCIS GORDON (GB) EC: B63H5/08 IPC: B63H5/08; B63H5/00 Publication info: GB191029896 - 1911-11-16
1918	Improvements in the hulls of mechanically propelled vessels	<u>GB patent GB118956 - 1918-09-19</u> Inventor: PRATT FRANCIS GORDON (GB) Applicant: PRATT FRANCIS GORDON (GB) EC: B63B1/20 IPC: B63B1/20; B63B1/16 Publication info: GB118956 - 1918-09-19
1919	Improvements in and relating to the hulls of ships	GB patent GB128445 - 1919-06-26 Inventor: PRATT FRANCIS GORDON (GB) Applicant: PRATT FRANCIS GORDON (GB) EC: B63B5/00 IPC: B63B5/00; B63B5/00 Publication info: GB128445 - 1919-06-26
1919	An Improved hull fo ships	r <u>GB patent GB128446</u> - 1919-06-26 Inventor: PRATT FRANCIS GORDON (GB) Applicant: PRATT FRANCIS GORDON (GB) EC: B63B3/00 IPC: B63B3/00; B63B3/00 Publication info: GB128446 - 1919-06-26
1929	Improvements in and relating to mechanically propelled ships or vessels	<u>GB patent GB332188</u> Inventor(s) not available Pratt, F. G. Feb. 14, 1929. Screw propellers Means for accelerating the flow of water adjacent to the hull in close proximity to the propellers comprises an enlargement built in or added to the skin of the vessel, such enlargement being greatest in the plane of the propellers. The hull 1 is provided with enlargements 7 in the vicinity of the propellers 4, 5, the enlargement being greatest in the plane of the propellers and fairing off fore and aft and extending above and below

the level of the swept circle. The speed of flow of the water 3 near the hull is speeded up to approximate to that of the outer less-disturbed water 6.

Canadian class (CPC): 114/22

Publication info: CA374980 - 1938-07-05

1933 Improvements in GB patent GB422580 and relating to Inventor(s) not available Balancing-apparatus. WARD, Ltd., T. W., Albion mechanism for raising and lowering Works, Sheffield, and PRATT, F. G., 55, Pall Mall, windows, shutters London. Aug. 3, 1933, No. 21831. [Class 78 (ii)] and the like [See also Group X] A balancing device for a sliding shutter or the like comprises a spring or springs enclosed in a watertight casing and acting on squared lever fulcrums 4, which pass through glands 9 in the casing and are connected to the lifting levers 6. Non-corrosive washers 10 are placed on the ends of the fulcrums inside the locking collars 7 and levers 6. Two or more bearings 5 are provided in the casing, which is closed at the ends by screw caps 3. Compression springs acting on cam-shaped levers may be substituted for the tension springs. 1936 Hydroplane vessels GB patent GB478695 Inventor(s) not available Abstract Abstract of GB478695 478,695. Hydroplane vessels. PRATT, F. G. April 18, 1936. No. 11180. [Class 113 (ii)] The hulls of high-speed boats are constructed with two or more longitudinal chines 1, 5 on each side of the keel or centre line. These chines are angularly disposed to one another in side elevation and the surfaces between any two chines are from bow to stern smooth and unstepped. All the chines terminate aft in the same horizontal plane. Specifications 29895/10 and 118,956, [both in Class 113 (ii)], are referred to. The junctions of the central surfaces 1 and the outer surfaces 2 and of these surfaces with the side members 3 is arranged to leave spurs 5. The bottom of the boat is provided aft with a longitudinal trough 6 which may broaden step-wise." 1938 Relates to the hulls Canadian patent CA374980 - 1938-07-05 Inventor: PRATT FRANCIS GORDON of mechanically Applicant: PRATT FRANCIS GORDON propelled vessels

EC:

IPC:

(Vessel hulls)

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1938	Perfectionnements aux carènes de navires à propulsion mécanique	<u>French patent</u> FR829719 - 1938-07-05 Inventor: GORDON PRATT FRANCIS EC: B63B1/20 IPC: B63B1/20; B63B1/16 Publication info: FR829719 - 1938-07-05
1939	Hull of mechanically propelled vessels	<u>US patent</u> US2181463 - 1939-11-28 Inventor: GORDON PRATT FRANCIS EC: B63B1/20 IPC: B63B1/20; B63B1/16 Publication info: US2181463 - 1939-11-28
1941	Skrog til mekanisk drevne Fartöjer.	Danish patent DK59286C - 1941-12-08 Inventor: PRATT MARINEARKITEKT FRANCIS G (GB) Applicant: PRATT MARINEARKITEKT FRANCIS G (GB) EC: IPC: Publication info: DK59286C - 1941-12-08