Fire and ice is an unheard of mixture, but this whimsical phrase aptly fits George Fisher’s (Figure 1) life from his teenage years through early adulthood. Fisher was born on the last day of July 1794, in Sunbury (Middlesex) England, son of surveyor James Fisher and his wife Henrietta. When James died three years later, Henrietta was left to raise a large family. Having received little early education, by the age of 14 George entered the office of the Westminster Fire Insurance Company in 1808, humble beginnings that were to have monumental consequences for the young man.

The Fire Office

In that day each of the insurance companies, or fire offices, established fire brigades. Firemen were paid a set retainer, plus extra for attending training and fires. The London insurance companies hired their firemen almost exclusively from the watermen who operated water taxis on the Thames.

In addition to firemen, companies also hired porters who were responsible for salvage at fires. They removed and protected contents that might be destroyed or damaged. Fisher was a clerk, but he may also have been a porter, and his “devotion to uncongenial duties won the respect and rewards of his employers.” - in part a medallic reward no less, as he was honored with a silver medal from his masters.

At one of the firm’s very early meetings, it was determined “The Ye marke of the office to be Ye Portcullis and Plum and Feathers.” Consequently, the 40 mm. medal’s obverse (Figure 2) features a portcullis atop a rectangular base (a portcullis was a heavy iron grating, hung in or over the gateway of a medieval castle or fortress, and lowered to prevent the entrance of an enemy - hence the chains on either side).

The portcullis was borrowed from the crest of Westminster, while the tuft of feathers in the crown are the same as those in the arms of the Prince of Wales (later King George II). Interestingly, the Prince once actually assisted in battling a fire at the French Chapel and Library, in Spring Gardens near Westminster. The base displays ESTABLISHED, with MDCCXVII below. The whole
design is encircled by WESTMINSTER FIRE OFFICE. The reverse (Figure 3) features wording engraved in script and Old English lettering, within an oak wreath: MR.GEORGE/FISHER/ELECTED/17TH AUGT. 1809. These fire medals are quite rare and I have seen only a few examples over many years.

Through the Fire Office, Fisher evidently came in contact with eminent men of science, including Sir Humphry Davy, Sir Joseph Banks, Sir Everard Home, and others, all of whom fostered Fisher’s “ardent desire for knowledge [and] strong mathematical and scientific tastes.” At the time, a clerical appointment was a typical path to a university assignment, and young Fisher entered St. Catherine’s College, Cambridge, in 1817.

North Towards the Pole

Fisher’s studies were interrupted by a serious illness, which continued to plague him in later years, but the ardent student persevered and excelled to such an extent that he garnered an appointment as one of two astronomers on an upcoming Arctic expedition. The recommendation came from none other than the President and Council of the Royal Society, a learned organization for science founded in 1660. The Society claims to be the oldest such organization still in existence. It is a voluntary body, operating as the academy of sciences of the United Kingdom and the Commonwealth.

The reasons for organizing the expedition grew out of reports from Greenland whalers that open water extended much further north in 1816 and 1817 than in previous years. Consequently, the Admiralty sent out four ships on April 25, 1818: H.M.S. Alexander and Isabella sought a North-West Passage (a sea route from the Atlantic to the Pacific via the Arctic). Meanwhile, H.M.S. Trent and Dorothea (Fisher’s ship) were ordered to sail over the top of the world.

Fisher’s branch of the expedition sought to jump off from the Svalbard Islands (far north of Norway), sail northward to reach the Bering Strait, and then onto the Pacific Ocean. This course was chosen due to the belief in an Open Polar Sea - a theory that persisted even until the final decades of the 19th century. Some people believed that, while the Arctic was ringed by ice, if one could navigate through the ice it was possible to sail into an ice-free Arctic Ocean, even across the North Pole.

Within Admiralty instructions for the expedition, it was obvious the Royal Society placed great faith in Fisher’s abilities: “Mr. Fisher, who is represented to us as a gentleman well skilled in Astronomy, Natural History, and various branches of knowledge.” He was provided with instruments to make observations concerning the length of a pendulum vibrating seconds (for the determination of the Earth’s shape and to make other scientific observations).

Just four months previous to the expedition’s departure for the Frozen Zone, Mary Shelley’s Frankenstein made its appearance. The passionate explorer Robert Walton burst from its pages as he hungered for glory and knowledge on his North Pole quest. Walton became cocky and believed that his sheer force of will could defeat the ice that locked his ship in its grasp. He eventually learned to temper his desire for glory in order to protect those for whom he was responsible, eventually deciding to escape the crystal prison and sail for home. It was a lesson the fictional Victor Frankenstein did not grasp until it was too late.

During the real North Pole expedition, the Trent and Dorothea reached their rendezvous at Magdalena Bay (northwest Spitzbergen Island). After surveying the harbor for some days, the expedition set sail again on June 7. The ice soon trapped the ships and they drifted helplessly, but were able to find refuge at the island’s Fair Haven. After another attempt on July 6, the pair penetrated to 80º 34’N, their farthest north on the voyage. Here a mass of white boulders blocked any more progress and they were again surrounded by menacing giants.

After finally freeing themselves, a gale sprang up and the explorers’ wooden homes were severely damaged by the ice. Again finding refuge in Fair Haven, temporary repairs were carried out and the expedition sailed for home on August 30. Never again did any Royal Navy vessels attempt to sail across the Arctic Ocean.

In spite of the unforgiving ice and sea, Fisher reaped a scientific harvest from the experience based on experiments on the length of the pendulum at Spitzbergen. An abstract of these experiments eventually saw print in an appendix of A Voyage of Discovery Towards The North Pole by Beechey (a Lieutenant on the Trent). In addition, the results of Fisher’s observations of the ships’ chronometers during the voyage were embodied in a paper read before the Royal Society on June 8, 1820, entitled On the Errors in Longitude as determined by Chronometers at Sea, arising from the Action of the Iron in the Ships upon the Chronometers.
Figure 4: Hudson Bay, Foxe Basin and Baffin Island (Exploring Polar Frontiers).
Polar Chaplain and Astronomer

Shaking off his harrowing first experience in the deep blue, Fisher appears to have specially taken Holy Orders to become a naval chaplain, thus entering a select group. There were not enough chaplains for shrunken post-Napoleonic War requirements, and as a result, in 1820 the Navy Board decided to “encourage” chaplains to volunteer. The approach taken was recommending to the Church that it should grant “acting orders” to deacons, who would in turn be accepted for service in the Navy. In general, however, the Board declared it desirable that candidates should be in priest’s orders. In spite of this effort, by 1824, the whole of the chaplains’ list consisted of only 17 “retired” and 39 “active” names in all.

After becoming Reverend George Fisher, R.N., the Frozen Zone beckoned the holy man. He was again recommended by the Royal Society to be the astronomer for an Arctic expedition - this time for William Parry’s second attempt at sailing a north-west passage.

In April 1821, H.M.S. Fury (Fisher’s ship) and Hecla were sent by the Admiralty to search for a passage along the west coast of the unknown Foxe Basin (northernmost Hudson Bay), north of Repulse Bay (Figure 4). Parry became the first to sail through Frozen Strait, and by late August, finding no way through Repulse Bay, he probed the fringes of Melville Peninsula northward. Haviland Bay, Bushnan and Vansittart Islands, Gore Bay and Lyon and Hoppner Islets were some of the new features fixed to European maps during this time. Sailing as far as Ross Bay by boat, the two inlets were scrutinized before it was decided to make winter quarters off southeast Melville Peninsula, at Winter Island.

A portable observatory, embarked on the Fury, was set up ashore during the winter and Fisher had a supernumerary Able Seaman named Henry Siggers as his servant. Numerous wide-ranging experiments were conducted; among them were those of value to navigators in high latitudes, including comparative tests of compasses and numerous observations to determine refraction when stars were observed near the horizon in very cold weather. He also measured the velocity of sound, the contraction of a series of different metal bars at low temperatures, and the behaviour of various chemicals.

In fact, the following year, Fisher’s discovery of the liquefaction of gases (especially chlorine) took place— one year before the noted English chemist and physicist Michael Faraday, who is usually credited with being the first to liquefy chlorine. History is sometimes blind to achievements in far-off places.

The importance of a careful study of Inuit culture was not lost to Parry and his men, and they made detailed observations from the time the Inuit visited the ships on February 1, through the winter. After breaking out of winter quarters on the second day of July (Figure 5), it

*Figure 5. Warping a vessel out of winter quarters (Richard Schlecht).*
was an Inuit map of the region that guided the expedition northward, until the Inuit were encountered at Igloolik.

Pressing farther north, the entrance to Fury and Hecla Strait unfolded before Parry, but a wall of ice barred his way (Figure 6). Not to be outdone, Parry struck out overland and confirmed the strait led west into open sea; in fact, this was the entrance to the southernmost possible north-west passage (but modern knowledge confirms that ice conditions made it impassible to sailing vessels).

Parry returned to Igloolik Island and established winter quarters at that place, where the expedition again had close contact with the Inuit during the winter of 1822-23. Fisher once more set up the portable observatory ashore and patiently continued his valuable experiments.

Leaving winter quarters in August 1823, Parry made a second unsuccessful attempt to sail through Fury and Hecla Strait, but the fear of scurvy plagued his mind, so he abandoned the effort and returned home. This was the last major attempt to find a north-west passage through Hudson Bay, and the search for an elusive passage continued in more northern latitudes.

Parry’s journal made specific note of Reverend Fisher’s advancements in the departments of science:

I have the most sincere pleasure in offering my testimony to the unabated zeal and perseverance with which under circumstances of no ordinary difficulty from climate, and in spite of frequent ill health, he continued to pursue every object which could tend to the improvement of Astronomy and Navigation, and to the interests of Science in general.

Indeed, of Parry’s 800-page published journal, the last 300 are observations of weather, position, and astronomy by Reverend Fisher.

Over the course of two Arctic expeditions Fisher had conducted pioneering work on the physical, chemical and physiological consequences of the Arctic climate. Even the cause of an Arctic splendor, the *Aurora Borealis*, was theorized on by Fisher, who clung to the general belief that the *Aurora* was an electrical phenomenon. Like his contemporaries, he had no inkling that its true origin was a stream of ionized solar particles made visible on reaching Earth’s atmosphere.

### High Honors and the Greenwich Hospital School

Though his theory on the *Aurora* went astray, Fisher’s diligence paid off, and he was elected a Fellow of the Royal Society at only 31 years of age in 1825. In that same year, he became the Chaplain of Stansted, Essex. Two years later, he was also elected a Fellow of the Royal Astronomical Society, and became the Chaplain of Ampthill, Bedfordshire. Fisher acted several times as Vice President of the latter organization and was a member of the council from 1835 until 1863. Though he was also made a Fellow of the Royal Geographical Society in 1830, Fisher resigned in 1840.

From 1827 to 1831, Reverend Fisher was employed as Chaplain to H.M.S. *Spartiate* (1827-1830) and *Asia* (1831), continuing his magnetic observations at London, Ryde, Malta and various ports on the coast of the Mediterranean. On his return, he was assigned to H.M.S. *Victory* at Portsmouth from 1832-33, after which he retired from the Navy on half-pay.

Various biographical sources state that in 1834, Lord...
Auckland (First Lord of the Admiralty) offered Fisher the choice between the living of Falstone in Northumberland or the Chaplaincy and Headmastership of Greenwich Hospital School. However, H.D. Turner (author of *The Cradle of the Navy*) qualified this information in private correspondence: “I suggest that as Chaplain he [Fisher] was regarded as he was some kind of principle [sic] to be included on committee, and there is also a possibility that at some time, headmaster of the Lower School.” At this time the Headmaster of the Upper School was Edward Riddle.

At about this time, Fisher married Elizabeth Alicia Woosnam; they had two daughters and a son. The eldest daughter, Alice Fisher, took up nursing at the late age of 34, and eventually reached across the Atlantic to occupy the superintendent’s post at the Philadelphia Hospital in Pennsylvania.

Fisher found the School in much need of guidance, and through his fortitude in carrying out schemes for the good of the establishment, “his calm demeanour (sic), his tact and even-handed justice,” the institution became what one professor described as, “second to no other similar school in Europe.” During his time of office, the Greenwich Hospital School assumed a highly practical character as a “hot-bed of navigation,” supplying other navigation schools with teachers who in turn filled the ranks of the Mercantile Marine and Royal Navy (along with naval instructors for the latter).

To aid navigational studies, Fisher took the lead again and supervised the planning and construction of an observatory, which continued under his guidance for 13 years, including the observance of the solar eclipse on July 18, 1860. Some sources state that Fisher may have become the Headmaster in 1856, and continued at this post until his retirement in 1863. However, other sources indicate Fisher was Principal of the School from 1860 to 1863.

**Arctic Honor**

It was during this period that Fisher claimed his Arctic Medal 1818-1855 (Figure 7), signing for it on May 12, 1857. Though originally intended to recognize specific expeditions between these dates, the award was also granted to Captain Francis L. McClintock’s privately funded Franklin Search expedition in the steam yacht Fox, during 1857-1859. During the search, the only recovered official written records of the lost Franklin Expedition were found.

According to *British Battles and Medals*, “Although about 2520 men were eligible for this [unnamed] medal, only 1500 were struck for the main issue in the 1850s. However, more may have been issued than are recorded in the official rolls” One comment on the roll shows a very late award, “Sent to party May 6th 1902.” Most unusually, Arctic Medals were issued in 1986, 1988 and 1998 to three descendants of Franklin Expedition members.

The Arctic Medal and Fire Office Medal were Fisher’s only entitlements, and he had the distinction of being the only chaplain entitled to this Arctic issue, and one of only two Astronomers. The other was Major General Edward Sabine, R.A. (1788-1883), a veteran of three expeditions. A much-accomplished scientist, Sabine also claimed his medal.

**Twilight**

Fisher retired in 1863, sold many of his books, and moved to Rugby, Warwickshire. During his later years, Reverend Fisher continued to contribute to practical knowledge by producing a most valuable paper to the seventh edition of Riddle’s *Navigation*, titled *Circular Arc Sailing*. It was a highly practical and instructive attempt to modify great circles sailing when the latitude into which a ship would be led is so high as to render navigation dangerous. Nearly 80 years of age, Reverend Fisher passed away on May 14, 1873, “Always of singularly childlike and contented disposition, the companionship of those dearest to him, and his books, were all he needed for happiness,” noted one obituarist.
Postscript

Reverend Fisher’s granddaughter, Miss A. B. Darnell, presented an extensive collection of his scientific notes, observations and Greenwich Hospital School letter books to the National Maritime Museum in 1958, in addition to his scientific instruments (which are held in the Museum’s Navigation Department).

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