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# The Moving Fire

A biography of John Watkins Brett, Father of Submarine Telegraphy

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*"For beneath the seas, beneath the heaving waters, down many a fathom deep in the still waters, the moving fire takes its darksome way, until it emerges on some foreign shore, once more to commence afresh its rapid and useful career over the wide expanse of the Continent."*

From The Electric Telegraph in 'The Quarterly Review', Article V, No 189, July 1854

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## Introduction

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Actually, this can scarcely be called a "biography" of John Watkins Brett – the man who can, with every justification, claim to have 'annihilated space and time' by linking the continents of the world through submarine electric telegraphy. Despite his immense achievements very little is recorded of his personal life, what else there is relies on his own carefully-managed publications and claims. This is but a chronology of several episodes in his eventful life.

John Watkins Brett was a man who delivered what he promised. On June 16, 1845 just as the electric telegraph was entering the public imagination, he committed "to form a connecting mode of communication by telegraphic means from the British Islands and across the Atlantic Ocean to Nova Scotia and the Canadas, the Colonies and Continental Kingdoms." He indeed constructed the mechanism that achieved all these immense ambitions.

By 1851 his *Submarine Telegraph Company* had laid the first successful underwater cable between England and the "Continental Kingdoms"; by 1858 his *Atlantic Telegraph Company* had proved that it was perfectly feasible to join the British Islands "across the Atlantic Ocean to Nova Scotia and the Canadas". In between these epic events Brett had organised companies to connect Europe with Africa and with Asia by underwater telegraph. It was only his early death that prevented him seeing the ultimate, complete success of his dream of 1845.

There are two original sources that detail the Brett connection with the submarine telegraph: a slim, 180 page volume titled 'The Origins and Progress of Brett's Submarine Oceanic & Subterranean Electric Telegraph' written and published privately by John Watkins Brett himself in August 1858, just after the failure of the first Atlantic cable. It is a compilation of documents and press opinions favourable to Brett's story, but it does give due credit to most of the others involved in his endeavours from 1847 to 1858. It had a small circulation, being distributed to

his friends and allies, and to some elements of the London press.

The other source, from which the 'Origins' book seemingly was derived, are the records of his younger brother, Jacob Brett, that the great (and ever generous) telegraph engineer Latimer Clark acquired and donated to the Society of Telegraph Engineers in January 1898. It is not a particularly deep file, including as it does photographs or *cartes de visite*, original and draft prospectuses, corporate constitutions, agreements, contracts, cuttings, sketches, a few letters and samples of the output of the Brett's type-printing telegraph, in what can best be called a scrap-book of around 240 pages.

Neither of these sources deals in any way with the early history of the Bretts; and the "Bretts" in plural are integral to J W Brett's unusual life.

It has been left to the writer to scour the newspapers and magazines of Britain and America during the period of J W Brett's short life to discover a few more facts, and to the acquisition and sharing by Bill Burns of new letters from the earliest period.

This essay is really a series of episodes that have come to light, ignored in the Brett family's self-published biographies, and are meant to illustrate John Watkins Brett's life, his formative years, his motives and his business ethics, and incidents after his early death. There remain large questions about his life and works, not least in regard to his death in an asylum for the insane, for which no explanation has ever been given. There are several contradictions through his life: he and his family were strongly religious yet many of Brett's later associates were of dubious moral status. He did not marry. The relationship that subsisted between him and his brother, Jacob, the "Tonto" to his "Lone Ranger", is curious, to say the least.

There are no clear answers or conclusions to draw regarding the life of John Watkins Brett; other than to state the obvious: that much more remains to be discovered. However, whatever else might be found, he was, as 'The Times' dubbed him in 1855, undoubtedly "The Father of Submarine Telegraphy".

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## 1. Art for Art's Sake

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John Watkins Brett lived from 1805 until 1863, just 58 years, a short life by nineteenth century standards. He was the son of William (1772 - 1848) and Elizabeth (1778 - 1849) Brett of the City of Bristol in the West of England. His father was a cabinetmaker and upholsterer in a substantial way of trade. Like so many of his early personal details, the exact place of the birth is unrecorded. He and several members of his family were members of the Church of the United Brethren, also called the Moravians. In the 1840s J W Brett regularly contributed money to the missionary work for which the Moravians were notable. In addition to this was a continual family connection with the Church of England, which occupied an important position in his life.

On the apparent dissolution of the family firm in 1835, William Brett & Son were styled "makers of cabinet and upholstery furniture" with warerooms at 49 Park Street, Bristol, and a manufactory in St James's Square. Their advertisements showed that the firm produced tables, wardrobes, cellaret sideboards, dining tables and chairs, chiffoneers (sic), bookcases, whatnots, fire-screens as well as painted bedroom furniture and bedsteads, and fancy-wood picture frames. It was a large firm by any standard. At nine o'clock on Thursday June 24, 1833 a fire had broken out at William Brett's previous premises in Upper Maudlin Lane, Bristol that "raged with considerable fury" destroying the building, unfinished furniture and raw materials. One is forced to say that fire is to feature with surprising frequency in this essay.

There were a great many Bretts. John Watkins Brett was devoted to them all, particularly as he never married. In his will, apart from a tithe devoted to Christian charity, his entire estate was left to a catalogue of Bretts. For the latter half of his life he worked and resided at No 2 Hanover Square, London, with his younger brother Jacob, who was born in 1808 and who was to die in 1897. Several other Bretts, male and female, were to lodge with him in London for long periods over his years there.

With an artisan background in a provincial town John Watkins Brett, rather surprisingly, was in his early and formative adult years an artist, a painter of miniatures. In rationalising this one can add that the association with fine furniture and the houses of the wealthy through his father's trade when young would certainly have introduced him to the value of creative works. He was something of a child prodigy, painting in oils from a very young age.

J W Brett was, between the ages of 12 and 21, according to one obituary, studying with an "artist" called Mintorn in Bristol, during which time he became a tutor in drawing. This is likely to have been John Mintorn (1773 - 1870) of Albion Villa, Rich-

mond Park, Clifton, Bristol; the owner of a "revolving library and bookshop" at 43 College Green, Bristol, where Brett was probably an apprentice. John Mintorn had artistic pretensions, dealing in art and prints as part of his trade; his children were to become very well-known as artists and modellers in wax. The firm were also "importers of and dealers in alabaster, china, glass and other vases, figures, Italian marbles and other articles". John Mintorn had been a small-scale patron of the Irish artist Francis Danby in 1813, of whom more later.

Brett set up a house and studio in his home town of Bristol in 1830, managing to find the funds to travel through Europe, to France and Italy, in his early twenties. But within a year of this 'settling down' his life was violently changed: in 1831 a fire entirely destroyed his new studio, with all of his works and his small collection of *objets d'art*.

It is almost certain that the fire was linked to the so-called 'Reform Riots' that occurred in Queen Square, Bristol, over three days from October 29, 1831. These, the most savage of many events connected with voting reform, saw a mob of 3,000 kill twelve people in the city, and the destruction by fire of the Mansion House, Custom House, Excise Office, the Bishop's Palace, the Bridewell, two other prisons and six warehouses, as well as many private houses in or near Queen Square and the harbour on the riverside.

In August 1832 J W Brett "of Corn Street", in concert with George Davey, another book and print seller, of Broad Street, Bristol, was sketching and engraving illustrations of the recent riots in the city for public sale. The entrepreneurial if tasteless Mr Davey is to reappear in the Brett story.

Such writings that mention Brett's life subsequent to the loss of his studio have said, more or less dismissively, that by 1845 he was a "retired art dealer" or a "wealthy dealer in curios" or worse (when described in 1909 as), "the bric-a-brac shopkeeper". These opinions are only partly true: indeed John Watkins Brett turned from creating works of art after the destructive year of 1831 and took to buying, selling and, no doubt, enjoying, fine art for the rest of his existence; over his short lifetime he accumulated a very large, qualitatively impressive, even world-class collection.

Brett was to continue painting for pleasure; however the body of his work was spread among his family and friends. He, for many years, cited his occupation as "artist", but his profession from 1832 always was that of "picture dealer". This was a curious business, being, in the social structure of the time, on the fringes of "trade", and - it has to be said - even of respectability. However, it gave Brett access to gentlefolk and the wealthy without being one of them by birth. He did not ever keep a "shop"; from around 1841 he used his large, rented house in the south-eastern corner of Hanover

Square in London to display “his” pictures, drawings, coins and curios to potential purchasers.

## 2. New Worlds

After the incendiary disaster of 1831, with a new-found vigorous entrepreneurial spirit, at age twenty-seven John Watkins Brett left for America. He remained in the New World for five years, between the end of 1832 and the autumn of 1837, accompanied, at least in the later months, by William Brett, in all likelihood his father. His purpose there was the display of a travelling collection of thirty-six “Old Master” paintings. Of these works all except one were mysteriously attributed as ‘the property of a gentleman in the west of England,’ which had been assembled over the years in England and Italy; works, according to the American newspapers of the time, valued at from £500 to £1,200 each:

Gherard de la Notte ‘Denial of Peter’  
 Rembrandt or Vanderhelst ‘The De Witt Family’  
 Sir Joshua Reynolds, ‘The Clive Family’  
 Sir Joshua Reynolds, ‘Dr John Thomas’  
 Guido Reni, ‘The Judith’  
 Guido Reni ‘The Ascension’  
 Domenichino, ‘The Landscape’  
 Claude, ‘Sea Piece’  
 Berghem, ‘Landscape’  
 Van Lint, ‘Landscape’  
 Backhuysen, ‘The Storm’  
 Leonardo da Vinci, ‘St Jerome’  
 Carlo Dolci, ‘Herodias’  
 Carlo Dolci, ‘Magdalene’  
 Fyt, ‘Game Piece 1’  
 Fyt, ‘Game Piece 2’  
 Raphael Mengs, ‘Entombment’  
 Raphael Mengs, ‘Descent’  
 Tintoretto, ‘Crucifixion’  
 Recco, ‘Gamesters’  
 Vandyck, ‘Garden of Love’  
 Jan Steen, ‘The Festival’  
 Vandevelde, ‘The Calm’  
 Titian, ‘Entombment’  
 Murillo, ‘The Agony in the Garden’  
 A Carracci, ‘Joseph’s Dream’  
 Nicolo Poussin, ‘The Dare of the Seasons’  
 Maturino, ‘The Holy Family’  
 Gasper Poussin or Orizonti, ‘The Landscape’  
 Vandyck, ‘The Holy Family’  
 Teniers, ‘The Landscape’  
 Van Huysum, ‘Flowers’  
 Le Brun, ‘St John’  
 Vandermeulen, ‘Hunting Scene’  
 Harlow, ‘Death of Hyppolitas’  
 Russell, ‘Cottage Grandfather’

This list of works, drawn from American sources, is given complete so that others, properly knowledgeable and qualified in art, might comment on their provenance. It is not known how a relatively-

unknown twenty-seven year old acquired or arranged such a collection.

These works of art were first shown in magnificent display during 1832 at the *American Academy of the Fine Arts* in New York and then at the *Boston Athenaeum* in the following year for the benefit of those in the former colonies feeling their isolation from European culture. The success of the tour was such that it was proposed in the art-collecting community that the exhibition be brought from Brett by the American government to decorate their president’s palace.

All of Brett’s works of art were then displayed to Senators and Representatives, and to the American public, in the central rotunda of the new Capitol building in Washington for six months during 1834 in an encouragement of the prospective purchase.

Senator George Poindexter proposed a sum of \$40,000 (£8,000) as suitable recompense to J W Brett for their purchase on February 5, 1835, the Senate in committee rejected the deal 20 to 22. Senator Henry Clay reintroduced the suggestion on the following day, but it was left “on the table”, ignored. It seems from articles in the Washington press that Brett was holding out for \$60,000 (£12,000). J W Brett wrote a long letter to the Editor of the ‘National Daily Intelligencer’ in Washington on February 23, 1835 lobbying in support of the projected sale. Having failed in completing the deal Brett carried the pictures off south to show them to new audiences in Baltimore, Maryland, and Charleston, South Carolina.

In America’s cultural capital, New York, Brett’s chief ally and friend was John Trumbull, a revolutionary war veteran, a major American artist and collector of art. In 1818 Trumbull had himself been commissioned to decorate the same rotunda of the Capitol with four mighty pictures that in 1835 was to feature Brett’s travelling exhibition, and from 1817 was president of the prestigious *American Academy of the Fine Arts*. Trumbull, by a single eloquent speech, had successfully resisted the merger of his wealthy Academy with the new and impecunious *National Academy of Design* of New York in 1833, earning him the perpetual enmity of the latter establishment’s president, one Samuel Finlay Breese Morse...

Trumbull wrote to Brett, “If the gallery of the Louvre (800 feet) could be divided into sections of forty feet few only of the sections would be found to contain works really superior of those of your collection.”

Then, in one of those curious coincidences that occurred throughout his life, the *Academy of the Fine Arts* at Barclay Street in New York, where Brett was storing his travelling exhibition, was effectively burnt down on March 23, 1837. Although many of the displayed works of art in the Academy’s own galleries were saved from the blaze by staff hurriedly cutting them from their frames, John Trumbull’s private collection and Brett’s Old Master

paintings were being stored in heavy boxes for shipment on the third floor and almost entirely consumed. The loss to the City was said to total \$50,000 (£10,000).

John Watkins Brett left New York on the sailing packet *United States* on October 30, 1837, having remained in America for five years promoting his Old Master "show" and dealing in art. He hinted broadly, when writing in 1858, that he had met "his friend" Samuel Finley Breese Morse sometime in 1837 in New York, doubtless sharing their interest in painting...

As a post script to this episode, William Brett was canvassing Congress from Brown's Hotel, Washington, on December 19, 1837, offering for sale a fine enamel of George Washington and paintings by Paul Potter, Bingham, Carlo Dolci and Rembrandt, as he was just about to leave for Europe. These pictures, presumably, escaped the New York conflagration.

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### 3. High Art & Retail Commerce

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Even before John Watkins Brett's return to Britain the name of William Brett, his father, had been established as a picture dealer, rather than a cabinetmaker, in a large house at 36 King Street, Covent Garden, London. Here J W Brett adopted what was to become his *modus operandi*; remaining in the background, allowing others to be the face of his industry. It was a street that, in the 1830s, held the substantial auction houses of Debenham & Storr, and John Crace Stevens, as well as sellers of gold and silver, fine furniture, *objets d'art* and curiosities. On Saturday night, September 12, 1835, in yet another of those strange coincidences, a fire broke out in the two upper floors of William Brett's King Street house and "many valuable pictures by the old masters were destroyed, with an estimated value of £10,000."

For a few years after 1837 J W Brett took a villa at 16 Avenue Road, adjacent to Primrose Hill, in north London. The family of Wilkie Collins, the novelist, were neighbours at No 20. Their property was described by the Collins's as "a convenient dwelling in the Avenue Road, Regent's Park - precisely in the quiet situation, on the outskirts of London, which Mr Collins (senior, an artist) desired to occupy." It was, perhaps, too quiet and distant from town for the purposes of J W Brett...

It was in March 1841 that John Watkins Brett took up the lease on the mansion house at No 2 Hanover Square, London, in the south-east corner of the square, opposite the social comings-and-goings of the fairly fashionable Hanover Rooms, where he was to live, and to deal, discreetly, in pictures and other works of art, for the rest of his life. The previous occupant of the house had been the Bishop of Exeter. Unlike most in his position Brett made no

pretensions to a landed estate or any sort of country establishment.

The house at No 2 Hanover Square was described in March 1865 as having "a wide and handsome front, with portico entrance and balcony, and plate glass windows to the principal apartments. Numerous bed chambers, a suite of three drawing rooms and a boudoir, and a handsome dining room, library, study and a gentleman's morning room, entrance hall with two staircases, and a corridor at the back opening into a large *salon* or picture gallery, ample domestic offices in the basement and stabling for four horses, with carriage house, dwelling rooms and lofts in Mason's Arms Yard in the rear."

For several years subsequently the Hanover Square house was home, in addition to John Watkins Brett, to Jacob Brett, Caroline Jane Brett and one F Ricketts (a Mrs Ricketts is known to be another sister). On June 25, 1846 Caroline Jane Brett, youngest daughter of William Brett, was married to William Wileman of Edgware Road at St George's Church, Hanover Square by her brother the Rev Francis Henry Brett. An additional brother, Thomas Watkins Benjamin Brett, lodged there for several years in the early 1850s.

It is likely that the death of William Brett in 1848, age seventy-six, in Bristol and his widow, Elizabeth, shortly afterwards, imposed responsibility for his brothers and sisters on J W Brett at Hanover Square. One of his sisters, also named Elizabeth, was classified as an "imbecile".

There was *another* occupant of No 2: the Reverend Thomas Halford, MA, FSA, held a "portion" of the Hanover Square house at least from 1847 until his death on April 21, 1857. Born in 1788, he had two preferments of the Church of England, at Laleham, near Staines, in Middlesex and at Outwell, near Wisbeach, in Norfolk. A fellow of Jesus College, Cambridge, he was a benefactor to the college of £2,000 in 1851. Halford was a considerable scholar, interested in ancient art and archaeology. He was a member of the Royal Society of Arts, the Royal Geographical Society, the Royal Horticultural Society, the British Archaeological Association and the Zoological Society of London.

The "portion" of No 2 Hanover Square previously occupied by Halford was offered on a six year lease in October 1857, and described as having three bedrooms and a dressing room on the second floor, a suite of three handsome drawing rooms, communicating with a boudoir and a water-closet, a capital dining room, ante-room, portico entrance, kitchen and servant's offices, and large wine cellars. The lease was not taken up and J W Brett assumed the whole house.

Once Brett settled in Hanover Square the art dealing business was quickly resumed with a new collection of "Old Masters":

On Wednesday, May 21, 1841 J W Brett, with the assistance of a Mr Hodgson, was in Liverpool, offering for sale to the public by auction High Class Pictures by Murillo, Alonzo Cano, Da Vinci, Titian, Paulo Veronese, A Carracci, Feramola S Rosa, Carlo Cignani, Caravaggio, Rubens, Vandyke, D Teniers, Vandavelde, Both, Cuyp, Palamedes, Mieris, Greuze, Hogarth, Sir Joshua Reynolds, Sir Thos Lawrence, Richard Wilson, Gainsboro', Constable, Westall, Nasmyth, Leverage, "and others too numerous to insert". The event was to be held at 12 o'clock precisely in the Ballroom of the *Adelphi Hotel*, Liverpool, with three days viewing, entry by catalogue at 1s 0d each. One asks oneself was this a genuine auction, or was the real purpose the selling of hundreds of one shilling catalogues?

In August 1841 J W Brett was advertising in the press an "Exhibition of paintings by the Old Masters" at the *Bristol Institution for the Advancement of Science, Literature and the Arts*, of 29 Park Street, Bristol, with over 100 works by Leonardo da Vinci, Raphael, Titian, Murillo and Rembrandt, among others. Entry was 1s 0d, catalogues 6d, season tickets with a catalogue 2s 6d. "It can be fearlessly announced that this Collection presents such a rare assemblage of choice paintings, in condition so pure, of originality so unquestionable, as is rarely or never met with except only in a few Royal or Public Galleries. Extra rare and very precious pictures will be exhibited singly in the Small Gallery." His vigorous style of advertising copy and the use of "extra pictures" to encourage repeat visits were, perhaps, affected by his time in New York. The exhibition was still open in October 1843.

Seeking a new outlet for his entrepreneurship in 1841, inspired, he said, by the *Art Union* movement that intended to educate and encourage people in popular culture, J W Brett started publishing art engravings by subscription. However he added to the simple sale of prints by canvass, a marketing ploy, in the form of the considerable incentive that on the completion of the whole subscription one lucky subscriber was to receive the original painting from which the engraving was taken. It is indicative of his motives that he freely admitted that this was done to make money, and that it was effectively a gamble.

Brett's first subscription venture commenced in Edinburgh and was an impression on a double-elephant (26½ inch x 40 inch) size sheet of 'The Opening of the Sixth Seal' by Francis Danby, for which 2,200 people were invited to subscribe one guinea (21s), and another eighty to subscribe three guineas for proof copies. One lucky subscriber would receive the painting "valued at upwards of 1,000 guineas"; another would receive, in a more utilitarian incentive, the steel mezzotint plate from which the prints were made, "which cost 650 guineas".

The great painting then set off on a nationwide tour. When the "Sixth Seal" was exhibited in Rochdale, Lancashire, soliciting subscriptions in May 1843 a northern vandal, apparently objecting to the participation of people of colour in the apocalypse, contrived to cut a twelve by eight inch piece from the centre of the painting. Having had the work repaired, in December 1843 Brett was in his home city showing the "Sixth Seal" for one week at the Exhibition Rooms of his old collaborator, George Davey, in Broad Street, Bristol.

The ballot for the "Sixth Seal" took place on September 30, 1844 at the *Bristol Philosophical Institution*; it was organised in the name of George Davey, the print-seller. But it was J W Brett who paid £50 for use of the Institution's Great Room. It was revealed at the event that one-quarter of the subscriptions originated in Bristol. The apocalyptic painting of 'The Opening of the Sixth Seal' by Francis Danby will make a further appearance in this essay...

John Watkins Brett subsequently moved operations to Oxford and obtained 1,600 one guinea subscribers for engravings of 'The Temptation' and 'The Expulsion', both pictures inspired by Milton's 'Paradise Lost', by Edouard Louis Debufe. He did not stint on quality; employing the eminent mezzotint engravers George Henry Phillips for the first and Samuel Cousins to make the plates for the second set of engravings, and using only the best materials.

It is worth noting some idea of the investment needed to enter into "subscription art": the engraver would receive, say, £1,500 in instalments and possibly a share in the profits, and the artist, say, £1,000 for the copyright even if Brett owned the original piece. To this had to be added the marketing costs, printing and distributing a prospectus, commissions to provincial agents, advertising, and so forth. At the top end of the spectrum in the 1840s, Samuel Cousins received 3,000 guineas for engraving Franz Winterhalter's 'The Royal Family', and the artist another 1,000 guineas, from the print-seller Francis Moon.

None of this "commercial" activity was undertaken in the Brett name. He used a publisher of repute and a series of respectable provincial agents to sell the subscriptions. Unfortunately for Brett his scheme, clearly a form of artistic raffle, was declared illegal by the Treasury, the government's finance arm, under the Acts outlawing Lotteries and the money that he had invested in purchasing original pieces and producing the mezzotint prints was lost.

There is nothing to hint that this subscription art exercise was anything other than a legitimate if misguided business opportunity; in fact J W Brett's views were sought by Parliament as to the issues that the action of the Treasury raised on improving popular culture.

John Watkins Brett was continuing all this time in his picture dealing business, no doubt making good use of his well-developed picture-buying connections in Europe and in America. In this he engaged in a fair amount of subtle showmanship. There were *three* main ways in which dealing in pictures could produce large amounts of money in the mid-nineteenth century. The most obvious was the simple buying and selling of works of art, connecting the seller with the purchaser. This was commonly done, in the higher end of the market, by showing the work in question in a suitable elegant setting – a *salon* in Hanover Square in the West End of London, for example. The second method was arranging a touring exhibition of a particularly fine piece, charging the aspiring middle-classes in the provinces say one shilling for a view – a visit to such a well-publicised event at an elaborately set-up local hall or *salon* would be a popular attraction. Lastly, there was the sale of prints of the subject, collectibles, as it were. A well-executed engraving in black and white of a fashionable or otherwise popular subject could be sold in a limited edition of several thousand for five, six or even ten guineas (105, 126 or 210 shillings) dependent on the ‘freshness’ of the plate from which it was taken. Brett had had experience in all of these methods of turning a profit from art; it fact, as has been illustrated, he pioneered the latter two entrepreneurial activities long before they became the “thing” in the 1850s. He was always discrete, as befits one dealing with the gentry and nobility, always employing agents to do the hard work.

It is illustrative of his manner of picture dealing to see that on September 8, 1841 the Fine Art correspondent of the ‘Morning Chronicle’, a liberal newspaper, felt it necessary to write of a visit to the “small but choice collection of paintings the property of John Watkins Brett of Hanover Square”. He devoted many paragraphs to a description of the ‘Assumption’ by Raphael that had caught his eye, adding gratuitously the long provenance as revealed by the owner. The journalist, in this blatantly puffing piece, rounded off with a few kind words on Mr Brett’s ‘Jacob with the Angels’ by Murillo, and his ‘Portraits of the Caesars’ by Titian, of which latter artist he apparently possessed six works.

A small domestic ruction occurred in 1842 when J W Brett’s youngest sister, who had been living with him since 1839, became involved in a Breach of Promise action in the Court of Queen’s Bench. One S Stone, a young man about to become a Baptist minister, had become engaged to Caroline Brett in 1834. Stone left Bristol to train for the ministry in Edinburgh and after five years separation the engagement was broken off in 1839 and he married in 1842. Miss Brett sued Stone for Breach of Promise in the latter year and the court found in her favour in December 1843, awarding her £250 in damages. Francis Henry Brett, one of her brothers, represented her interests in court. It was mentioned that

Caroline Brett was of the Moravian persuasion. William Brett, J W Brett’s father, was present at the hearing in 1843.

#### 4. A Bolt of Lightning

There was to be a damascene change to John Watkins Brett’s life in 1845.

This was the year that the ‘Railway Mania’ commenced in Britain; twelve months or so of massive investment in joint-stock companies that dragged the moneyed classes (and many others less wealthy) into a spiral of speculation. The Brett brothers were drawn into the hysteria, principally the abortive *Cork & Waterford Railway Company*, John Watkins Brett subscribing £6,250, and brother Jacob subscribing £3,750; Jacob subscribed a further £1,250 to the *Goole & Doncaster Railway*, and J W Brett £200 to the *Newcastle-upon-Tyne & North Shields Extension Railway*, and to shares in the equally short-lived *Lincoln & Grantham Direct Railway* in 1845 and 1846 as well as some discrete interests in speculative continental railways. In the subscription contracts John Watkins Brett was described as an “artist”.

It should be explained that the losses on all these abortive railway schemes were not for the full amount of the share subscription but went to pay the expenses incurred by the promoters and their advisors; the engineers and the lawyers. These, dependent on the ethics of the originators, could be a substantial percentage of the subscription.

Brother Jacob lived with John Watkins Brett in the same house for well over twenty years and Jacob Brett had acted as manager of the subscription art scheme in 1841. By 1845 he had discovered an interest in mechanical matters. How this came about is not known; but early in that year Jacob invested in a patent with William Prosser Jnr, a mechanical engineer, for a form of ‘atmospheric’ railway. In this the train is propelled by means of a piston in a vacuum tube set in the middle of the rails, rather than by a steam locomotive; with steam-powered pumps along the line to evacuate the air from the long piston, the ‘atmosphere’ pressing behind the piston to give motion. There were several versions of this mode of propulsion, but only one was actually operational – it was not Brett and Prosser’s. Despite this set-back Jacob Brett persevered and took out two more expensive patents for improved ‘atmospheric’ railways during 1845, without Mr Prosser’s assistance.

Then there came the bolt from the blue – truly a bolt of lightning. Sometime later John Watkins Brett said that it was over a *cup of tea*, early in 1845, that he and his brother first discussed the possibility of an electric telegraph connection across the English Channel, “and in the month of July, in the same year, they drew up a plan for not only uniting England and France, but Ireland, and the most distant

colonies in India." How did this damascene event come about?

There is a clue as to how the Bretts might have been introduced to the electric telegraph in an advertisement in the *Bristol Mercury* newspaper of April 16, 1842. Their long-time associate, the book and print seller George Davey, was to host a pair of lectures at his Exhibition Rooms in Broad Street, Bristol, on the evenings of April 20 and 21. A Mr Cogan of Bath was to demonstrate and explain the "electric telegraph, the electric-magnetic printing telegraph and the electric clock"; he also gave the lectures at the Assembly Rooms at the Royal Hotel, Clifton in Bristol. Entry was a substantial 2s 6d.

John Daniel Cogan, then aged 23, was a surgeon-dentist of 6 Walcott Terrace, Bath, Somerset; in subsequent years he adopted the titles "medical electrician" and "lecturer in natural sciences" to his practice. On the two April evenings in 1842, the *Bristol Mercury* was to report, he indeed showed the very latest in technology to his audience, describing his exhibits in considerable detail – the galvanic battery, electrotyping and the electric clock, before going on to explain Cooke & Wheatstone's five-needle telegraph and Alexander Bain's newly-patented printing telegraph.

Did George Davey invite his friends and neighbours the Bretts to see the electrical "wonders of the age" in 1842, most of which were so new as to be less than a year old? Was this the moment that caught their imagination?

At about the time as he was tinkering with 'atmospheric' railways, early in the year 1845, Jacob Brett had been toying, according to his older brother, with the idea of an autographic telegraph by which handwriting could be transmitted over distance, to sign documents, for example. It is not known whether this was an original concept or in concert with others. His appetite whetted, Jacob Brett then became acquainted with the work of Royal Earl House, a New Yorker, who had invented and constructed a truly remarkable electric telegraph. House's telegraph, unlike the competitive apparatus of Cooke & Wheatstone in Britain or Vail & Morse in America, which used complex ciphers or dots-and-dashes, to transmit their despatches, worked by pressing the lettered keys on a piano-like keyboard communicating to a remote electric receiver that printed messages in ordinary roman alphabet on a paper tape! Not only that but it printed them out twice as fast as any other telegraph could receive!

Jacob Brett did not meet the inventor himself but dealt in England with James Christy Bell, representing Abraham Bell & Son, commission merchants and ship-owners, of 117 Fulton Street, New York, acting for the reclusive Royal House. Jacob convinced himself that it was a good thing and he bought the European rights to the House telegraph.

Then he had to find the cash to exploit it; and, as it transpired, that meant involving his elder brother.

A formal agreement was drawn up between Jacob Brett of London, John Watkins Brett of the same place, and James Christy Bell of New York, and an English patent was obtained on November 13, 1845, for "improvements in electric telegraphy", carefully omitting, as the law then allowed, the name of the instrument's inventor Royal House. House did, however, through a separate indenture prepared by J C Bell, secure to himself a half share in all profits that the English patent might produce.

In addition to the long description of the House telegraph Jacob Brett inserted a final clause in Patent 10,939, dated November 13, 1845, very much as an afterthought, reading: "An 'Oceanic line' may be used in connection with the printing apparatus, in which the wires are varnished, bound with waxed or sere cloth, platted with waxed or greased twine, and around the whole a platted cable saturated tar is formed; metal weights coated with bitumen and ballasted are attached to the cable at intervals of a mile or more; tubes coated with bituminous substances (having openings fitted with water-tight coverings) are used to protect the cable on or near the shore. The wires may be coated with various colors to distinguish them." As this method of insulating the copper wire circuit was never used, these claims were to prove worthless when they were challenged in the courts of law, although both Bretts maintained that it demonstrated, at least, their moral priority in introducing submarine telegraphy.

It has to be said that Professor Charles Wheatstone had already proposed to the British Parliament on February 6, 1840, five years earlier, an underwater electric telegraph circuit within a protected cable from England to France, detailing its construction, its manufacture and the mode of laying it on the seabed. The professor, however, quickly moved on to other things and did not return to submarine telegraphy.

Money was not that flush, either that or John Watkins Brett did not have much confidence in his brother's judgement. To finance the development of Jacob Brett's type-printing telegraph a less than fraternal formal loan agreement was drawn up on July 1, 1845 between the brothers, by which J W Brett took security for the money he was to lend his brother through a one-eighth interest in the forthcoming telegraph patent, an interest in a patent for anti-corrosive iron and bitumen paint, in paintings by Debufe (presumably those used in the subscription scheme of 1841) and in some "museum models".

In addition to acquiring the patent, the fraternal loan permitted Jacob Brett, engineer, of 2 Hanover Square, London, and Alexander Prince, patent agent, of 14 Lincoln's Inn Fields, London, as the promoters, to "provisionally register" the *General*

*Ocean Telegraphic Company* on June 16, 1845 “to form a connecting mode of communication by telegraphic means from the British Islands and across the Atlantic Ocean to Nova Scotia, the Canadas, the Colonies and Continental Kingdoms”. This, as the Bretts never ceased mentioning, was the first electric telegraph company “provisionally registered” in Britain. It got no farther than recording its grand objectives with the registrar; although periodically re-registered, not even a prospectus explaining how it was to achieve these ambitions appeared.

The word “Ocean” was to be the critical innovation in the Bretts’ future plans.

It is clear from correspondence that has recently come to light from the early period between July 1845 and July 1846 that Jacob Brett was the individual in the family that introduced and carried on the telegraphic business in Hanover Square. His interest commenced, apparently, whilst negotiating several of the English patents that he had an interest in with James Christy Bell, of Abraham Bell & Company of New York, who was visiting Britain with his family in the summer of 1845.

On July 23, 1845 Jacob Brett was as interested in selling his patent rights to Bell as he was in developing the type-printing telegraph. He mentions in a letter that he had already been in touch with the Admiralty in regard to “my scheme” to unite the colonies with England by telegraph. He had then just had a view of the printer, and was proposing that the London government be offered the entire rights to it. If that failed he was considering approaching the French government with a similar offer.

The letter implies that Jacob Brett took up the type printing telegraph *after* he had registered the General Oceanic Telegraph Company on June 16, 1845.

Later in the month, on July 30, he was writing J C Bell that Cooke and Wheatstone’s agent had withdrawn opposition to the Brett patent for the type printer and that he needed a model to present to interested parties in London, including the Admiralty. He was then still eager for Bell to buy into one of his other patents.

J C Bell sent Jacob Brett new drawings and specifications from New York in August 1845, when Jacob Brett was just about to visit Paris “on our Telegraphic Affair”. He was also still involved in railway business, with a prospective concession for a line in Europe.

However, almost a year later nothing much had changed. Jacob Brett now had a model of the type-printer but was unable to get it to function. His letters are a stream of frustration at the attempts he had made to get it to work, and to accommodate the changes that were advised from New York. For the first time the name of Royal Earl House is mentioned as the inventor of the type-printing telegraph

apparatus. There is a more than a hint of desperation in Jacob Brett’s letters to J C Bell at this time.

Brett appealed on June 18, 1846 for information on House’s telegraph lines in America from which he could form a business in England, not knowing even the most basic details, such as whether he was using poles or underground circuits; he appealed, too, for more advice as to the construction of the apparatus. Jacob Brett presented the apparatus to an assembly of the Society of Engineers at Sir John Rennie’s house in London on June 20, but had to “fudge” the demonstration of its print function by blaming a faulty battery.

He also quoted for the supply of iron wire and iron pipe to New York, and mentions that there was now an opportunity in Holland for a new telegraph company.

A month later, on July 19, 1846, Jacob Brett confirmed that Dutch, French and Belgian patents had been secured in January, May and June 1846 for the type-printer, as well as in England, and that protection in Prussia and Austria was in hand. In Italy, the Kingdom of the Two Sicilies in Naples and the Papal States in Rome, he claimed, had expressed an interest in using the printer, but wanted a one-third interest in the patent. The bulk of the letter was again concerned with the lack of commercial information from America and his inability to get the apparatus to work...

He ends his July 19 letter with the plaintive postscript “The machines cost more than I expected”.

On November 14, 1846 the Bretts’ re-registered their firm with the even more compendious title of the *General Oceanic & Subterranean Electric Printing Telegraph Company*, combining their geographic ambitions with their patent for the type printing telegraph. Once again this got no further than “provisional” registration and was never an active concern.

It cannot be emphasised enough the change that these two interconnected events, the obtaining of the telegraph patent and registration of the telegraph company, brought to the Brett family. From inhabiting a quietly fashionable ‘commercial-artistic’ corner of London they, and particularly John Watkins Brett, were launched in 1845 into the wheeling and dealing world of cosmopolitan finance.

The government had in 1844 legislated to “register and regulate” joint stock companies. It did this with a light touch; investors had to have their wits about them. Shareholders were still liable for all of the debts of a company not just for their subscription, as with the South Sea Company of the previous century. If a company failed, even under the new law, the creditors could pursue any shareholder through the courts into bankruptcy.

Until 1856 the only ways for a company to acquire limited liability for their shares was by obtaining a

Special Act of Parliament or by a Royal Charter. Parliament was selective about allowing limited liability, only works of public good might have their shareholders so protected; railway and canal companies were the obvious beneficiaries. It was also a vastly expensive procedure, often contended in the Houses of Parliament, with the embarrassing possibility of rejection. A Royal Charter, granted by the Board of Trade, was generally granted to concerns working outside of the country; shipping and trading companies.

Unless the shareholder had full confidence in the promoters or the anticipated outcome of the company the risk of investing was frightening.

In Britain, Cooke & Wheatstone had secured a fourteen year monopoly on the provision of electric telegraphy through a series of patents dating from 1837, and in September 1845 had finally obtained financial backing for the creation of a national network by means of the *Electric Telegraph Company*. Although in possession of a Special Act, Parliament did not have sufficient confidence of its success to offer its shareholders limited liability. However the telegraph *did* have the confidence of a solid group of merchants, financiers and engineers connected with the railways. The City interests behind the new company were not going to allow any competition in the market until the master telegraph patent expired in 1851.

Faced with such organised opposition the Bretts subsequently, and insistently, branded their combined maritime ambitions and patent as "the Subterranean and Ocean Electric Telegraph, of which Jacob Brett is the sole patentee and originator", in an attempt to create a parallel monopoly in underwater telegraphy. The magniloquent claim was tested once in the courts and rejected; the type-printing telegraph patent and the initial corporate registration were separate matters, they had only a "moral" priority maintained by their own publicity. It became known through the public press that Charles Wheatstone, Alexander Bain, and even, he tells us, the imaginative American S F B Morse, had experimented with underwater electrical circuits well before 1845.

Continuing and completing the history of their type-printing telegraph: on Tuesday, March 23, 1847 Jacob Brett was able to proudly present his patented electric type-printing telegraph to His Royal Highness Prince Albert, the Queen's consort, at Buckingham Place in London. According to press reports, the Prince made suitably polite noises as to its simplicity and ingenuity.

Latterly, in exploiting the mechanical elements of the Brett telegraph patent, the skilled technical opinions of its inventor Royal House were, unfortunately, not taken into account. Worse, Jacob Brett took to "improving" the type-printing telegraph, reducing the piano-keyboard that transmitted the individual letters to a small box with a rotary han-

dle. He kept on "improving" the machine for ten years. The Brett type-printer was eventually given a trial by the Electric Telegraph Company in December 1848 on a long line between London and Norfolk in the east of England. It offered no advantage over the company's existing, cheaper, simpler instruments, and it proved difficult to synchronise the sender and receiver. The Bretts a little later offered the East India Company their type-printers at £50 a pair, but Cooke & Wheatstone and Morse instruments were then both available at £25 a pair. None were sold.

By 1854 Royal House had lost faith in Jacob Brett and assigned his share in the English patent for the type-printing telegraph to Charlton Wollaston, the Submarine Telegraph Company's electrician. In November 1854 Wollaston sued John Watkins Brett for disclosure of the profits that the patent had accrued from its use in his Mediterranean lines and to determine Royal House's half share. The other proprietors of the patent, Edward Willmer and a Mr Loyd, presumably a partner in the bank of Jones, Loyd & Company, supported the action. Brett declared to the Master of the Rolls, "The Howse (sic) printing telegraph was *not* used and had failed." Despite this the court instructed Brett to make full disclosure.

Eventually John Watkins Brett was to say in 1858 of the type-printer that it "incurred a sacrifice on my part of many thousands of pounds, without any valuable result for general purposes." The sophisticated House printer worked perfectly well in America, so well that its inventor was pursued ruthlessly through their courts by Morse in an attempt to suppress it!

So it was to be in company promotion that John Watkins Brett was to make his mark in the world. In this he had to be incredibly determined as there were immense setbacks throughout his career in creating the original cable network. From the middle of 1845 there were to be a long series of company registrations by the Bretts, customarily in the name of Jacob Brett, before even a part of these telegraphic ambitions were to come to fruition. Although the name fronting all these early promotions was that of Jacob Brett, Charles Bright, the famous telegraph engineer, in his memoirs, reveals that in the relationship between the brothers, it was *always* the hands of John Watkins Brett, the picture dealer, which, as Bright phrased it, "held the reins".

To start the ball rolling, it was John Watkins Brett who sold a large number of his own paintings at Christie's auction house in King Street, St James's, on April 23 and 24, 1847. These raised £6,788 towards the money needed for their new enterprise. The collection of Italian, Spanish, Flemish, Dutch and English pictures had been acquired, the public were informed, over a period of twenty years. They comprised the 'Assumption of the Virgin' by Raphael, the 'Descent from the Cross' by Daniel de

Volterra, 'St Jerome' by "L da Vinci", a 'Gem' by Correggio, a female portrait by Paris Bordone, the 'Adoration of the Shepherds' and 'Abraham and the Angels' by Murillo, works by Domenichino and Carracci, the 'Council of Trent' by Terburg, a 'Festival' by Jan Steen, portraits by Rembrandt, Vandyke, Velasquez, Sir Joshua Reynolds and Sir Thomas Lawrence, and that well-travelled workhorse of Brett's subscription art circus, the "Opening of the Sixth Seal" by F Danby!

With such capital as they could raise the Bretts had several models of the type printer manufactured in London and by March 19, 1847 had created yet another skeletal joint stock firm, the provisional *Electric Printing Telegraph Company for Land and Ocean Communication*, with a capital requirement of £250,000 in 12,500 shares. This time the Bretts managed to print their first prospectus canvassing for support, and opened an office and show-room at 29 Parliament Street, Westminster, above the shop of Thomas Vacher & Son, law stationers. The premises were conveniently adjacent to the Houses of Parliament and the offices of Government, so most suitable for lobbying those in authority.

The Bretts had a propensity for long and comprehensive company titles; they were also serial founders and re-namers of partnerships and joint-stock companies. The next few years were to be peppered with long company titles, most of which did not get beyond the issuing of a prospectus.

The Post Office Directories between 1847 and 1849 were to record the Parliament Street rooms as the "Electric-Printing Telegraph Office, (Jacob Brett, patentee)". From there invitations were issued to Members of Parliament, men of science and engineers to visit and view the Brett instruments during 1847, and a thousand copies of "a letter to the government with their offer to the government to establish a postal system of oceanic and subterranean electric telegraph between England and the colonies" that had been prepared a while previously in April 1845 were circulated. A specimen of "an oceanic cable" was produced and widely exhibited early in 1847. This cable had a copper wire core for the electrical circuit insulated with gutta-percha resin; to protect the resin from abrasion and sea creatures the Bretts proposed covering or "armouring" the core with spirals of iron wire, in the manner of iron wire rope used in mine and railway haulage. They commissioned the original English patentee of iron wire rope, Andrew Smith of Millwall, to make short lengths for exhibition.

The "letter to the government", addressed to the Prime Minister, Sir Robert Peel and copied to Members of Parliament and the newspapers, was an ingenious marketing contrivance: it was actually printed in capital letters on the long tapes of the Brett telegraph, the tapes were then cut up and arranged to form a page and careful lithographic copies made. To the recipients it looked as if the Brett telegraph printed neat pages of type!

The 'letter' sought government finance for a subterranean and submarine electric telegraph connecting London in England with Dublin in Ireland. The liberal Conservative government, seeing that millions were available through joint-stock companies for capitalising railways and other good things, thought that if the telegraph was also a good thing the public could pay for that, too; as shareholders. Equally, no government in Britain was disposed to grant a monopoly against competition, over that offered in law by patent, for any purpose, which the Bretts also looked for.

More important events were transpiring abroad. J W Brett was visiting Berlin in 1847, where he met Lieutenant Werner Siemens of the Royal Prussian Army, soon to quit the military and become a telegraph instrument manufacturer. They talked about submarine and subterranean telegraphs, and the use of resin insulation. Brett returned to Prussia in the following year to discuss co-operation with Siemens but the disturbed political situation compelled his return to London without any agreement.

The Berlin visit proved to be a side show. Jacob Brett was in Paris during 1846 calling on another of his brother's "old friends", Antoine Passy, a former minister of finance in Royal Government of the Bourbon king, Louis Philippe. The brothers had also taken a French partner to assist in their lobbying, Frederic Toché. Between the four of them they offered to underwrite the entire risk of creating an electric telegraph between France and Britain in return for a term of monopoly rights. The French government had different views on monopolies to that in London. On May 7, 1847 the Minister of the Interior of the Royal government granted the firm of *J Brett, Toché et Compagnie* a concession for landing telegraph cables in France. The monopoly was to take effect, and the appropriate license fee paid, only on the completion of the cable.

But the Bretts were not alone in looking to connect England and France. Charles Samuel West, a journalist turned inventor, had persuaded the Admiralty in London to pay for experiments in underwater telegraphy in 1844 and he laid a one-mile long submarine cable across Portsmouth naval harbour in June 1846. It was insulated with rubber and was covered with spiral iron wire to protect the soft core from the marine elements. On April 9, 1847 he, through the efforts of his business partner Captain W J Taylor, also gained a concession of the French to land a cable. The difference between the Bretts and West was that West had actually made an underwater cable; he was endorsed by establishment figures such as Charles Dickens and Joseph Paxton; even more importantly he had the support of the Electric Telegraph Company, with its domestic monopoly...

On October 7, 1847 Charles West and his partner Taylor contracted with the Electric Telegraph Company to lay an armoured cable to his successful

design between Dover and Calais, leasing the company the rights to use it for twenty-one years.

What was happening to the Bretts' project?

## 5. Illustrative Incidents

It is said that one is judged by the company one keeps; some of the company kept by John Watkins Brett in his new role as a capitalist venturer did not put him in a good light as the following episodes show all too clearly:

From 1843 until its folding in 1847 John Watkins Brett was Honorary Secretary of the *British & Foreign Institution*, 13 George Street, Hanover Square. This was a subscription club formed by the journalist and traveller, John Silk Buckingham. It was aimed at the middle classes and their ladies rather than the aristocracy as in the St James's clubs, offering a good cuisine, drawing rooms, lectures and *soirees*, to overcome the "London loneliness" of country visitors. Unfortunately the Institution was made the subject of a concerted campaign of belittlement by the snobs of 'Punch' magazine, where it was styled the "British & Foreign Destitute" from its constant canvassing for members in town and country, and its many offers to its subscribers. This type of marketing activity was very much in the vein of J W Brett's previous work. The Institution's constitution attracted His Royal Highness the Duke of Cambridge as patron, so Mr Punch's persecution seems ungenerous.

A more revealing episode in his life took place in 1846; John Watkins Brett, in his role as picture dealer, sold to Donald Maclean MP of Witton Castle, Witton-le-Wear, Durham, two pictures, one a Titian called 'Six Caesars' and one by Murillo called 'Abraham and the Angels', for an incredible £7,000. Of even more interest was the way this was to be paid: 20,000 tons of coal from the Witton Colliery at 7s 0d a ton, delivered to a railway in France with which Brett was connected. However Maclean was almost immediately revealed as insolvent and Brett retained the pictures. On April 27, 1847 Brett was sued by E Gompertz, an artist, for £350 as commission making the introduction on the unsuccessful sale. It was proven that Maclean MP had debts of £180,000 and assets of £100, and "lived on the credulity and property of others".

Then, in June 1846, Alexander Prince, the patent agent "and zincographer", who had jointly promoted the Bretts' original *General Oceanic Telegraph Company*, agreed to discount a £300 bill-of-exchange for J W Brett. In effect this meant that Prince bought a debt of money due to Brett, paying less than its face value for the service. Whilst this was normal mercantile practice in the City of London to ease cash flow, discounting for the "accommodation" of a private individual was a sign of financial need. Yet again Brett was unlucky in his choice of associ-

ates; Prince paid him £90 and then fled the country, still owing nearly £210. Prince had been in the Fleet Prison for debt in March 1841, and was to be returned to the Queen's Prison for similar reasons in November 1848.

On October 12, 1847, immediately on arriving in Marseilles in France to pursue the acquisition of the concession for the cross-Channel telegraph, one of the Brett brothers, most likely Jacob, was arrested for debt. His travelling companion and technical assistant, the civil engineer Charles John Blunt, who had lingered in Paris, stated that he had had to forward £50 to settle the Brett debt on October 14, and was also due 1,300 francs as expenses incurred in the trip, both sums he claimed in the Guildhall Court, London, in February 1849. Brett proved the untruth of the claims; although indeed seized for debt he was quickly released and was back in London on October 20 and had sent payment for Blunt's expenses to Paris, getting a receipt by return post. There was no £50 sum sent to Marseilles, Blunt was double-charging for the same amount.

The engineer C J Blunt, more noted for his educational text books than his tangible works, was to claim in February 1849 the "exclusive privilege" of the Admiralty for laying the cable of the specious *Dublin & Holyhead Submarine Telegraph Company*. This would seem to be the first public use of the phrase "Submarine Telegraph" in a company title.

These little episodes show the flimsy nature of the Bretts' finances in 1846 and 1847, and the doubtful nature of their associates.

Then, in October 1849, the following advertisement appeared in the national and railway press:

"Willmer & Smith (25 years connexion with the London press), news-agents in London, Liverpool and New York., joint owners of the patent rights and privileges of the Electric Printing Telegraph, invented and improved upon by Mr House of New York and Messrs Brett of London and Paris. Printing clear, legible type at forty to fifty words per minute, duplicate copies, to any extent, may be had at the same instant. Messrs Brett, House & Willmer".

The Bretts' financial difficulties were such that they found it necessary to seek additional, external capital to continue their ambitions. It was obtained from Edward Willmer and David Smith, who in the agreement with the Bretts styled themselves 'newspaper proprietors', of Liverpool. The Brett brothers were coy in revealing the extent of the new Liverpool participation; however it was still in existence in 1854.

Willmer & Smith, although calling themselves newspaper proprietors were actually wholesale newsagents, distributing London's papers and magazines in Liverpool and Lancashire, and "shipping enormous bales" of such to America and elsewhere, from their offices and news-room at 32

Church Street, Liverpool. They were not particularly reliable, reputable or helpful associates for the Bretts. As a sideline to their substantial distribution business they published "Willmer & Smith's European Times, an English newspaper, a shipping list and a general price current arranged and published expressly for Nova Scotia, New Brunswick, Newfoundland, Canada, the United States, etc.", with items extracted from the metropolitan papers that it sold in Liverpool. In pre-telegraph times they also fed American and local news, especially, as they were located in the port for Dublin - information on Irish events, to the larger London newspapers. Many of their feeds were amateur, exaggerated and inflammatory, particularly after the devastation of the potato crop in Ireland.

Willmer & Smith had enormous hostility to the Electric Telegraph Company, who refused to send their ciphered press messages, which condensed the length and reduced their revenues, other than at a premium rate. The telegraph company had opened their own competitive news-rooms in Liverpool and also gave preference to messages for the 'Times' rather than Willmer & Smith's client, the 'Morning Herald'. This reached a climax on July 27, 1848 when Willmer & Smith sent an outrageous despatch to the 'Morning Herald' claiming that Ireland was in revolution and that the military was defeated - neither of which was remotely true. The telegraph company in London, not unreasonably, copied the information to the government at Home Office who immediately and publicly condemned the grossness of the rumour, to the humiliation of both the 'Morning Herald' and their Liverpool correspondents. Willmer & Smith then commenced a disgraceful and long-running campaign claiming that the telegraph company's directors had used the content of their Irish Revolution message to speculate on the Stock and Produce Markets. On May 6, 1850 the telegraph company finally lost patience and sued for libel in both criminal and civil courts; Willmer & Smith, condemned once again by the government, publicly withdrew their allegations.

It got even more dubious: John Watkins Brett became a director of the South Eastern Railway of Switzerland from May 29, 1854 along with John Sadlier MP, Robert Keating, Anthony Norris and others. The line was to run from Rapperschyl and Rorschach to Coire with a branch to Glaris, in the cantons of St Gal, Grisons and Glaris. The association was wrought with lawlessness; the frauds committed by Sadlier, Keating and Norris were almost endless, involving the criminal failures of the Tipperary Bank, the Newcastle Commercial Bank, the Royal Swedish Railway, the Carson's Creek Gold Mining Company, the forgery of title deeds, the wholesale manufacture of fictitious shares, and circulation of worthless bills-of-exchange. Sadlier, an unmarried Irish catholic MP, whose business affairs were enmeshed with those of his brother, James, with but a modest establish-

ment, a state not dissimilar to J W Brett's, was a junior Lord of the Treasury in the London government, and Chairman of the London & County Bank. He poisoned himself on February 7, 1857; history does not record for what purpose the huge sums stolen were used. Sadlier in his final note said that the frauds were all due to "my own infamous villainy".

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## 6. Concessions

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In London the Electric Telegraph Company and Charles West had come to an agreement to construct an underwater circuit to join England with France in 1847. Unfortunately the telegraph company was in difficult circumstances, it had consumed its capital in completing its expensive national domestic network from London to Edinburgh and from Liverpool to Norwich, but it had little revenue as the wonders of telegraphy had yet to engage the public. Crucially the one line of telegraph that it did not control was that between London and Dover, the closest point to France; this had been licensed by the patentees, Cooke & Wheatstone to the South Eastern Railway Company. The railway refused to surrender its rights, as all other licensees had done, and, worse; was even investigating the possibility of making its own cable to France! Negotiations between the telegraph company and the railway company stalled. There was no money available for the risky venture and West was left without a backer.

To put the subsequent wheelings and dealings into political context: there was a substantial difference in the "permission" of the London government to land cables on British shore and the "concession" of a monopoly by the Paris authorities to land cables on French coasts. The British parliament had no desire to intervene in private business, and certainly would not grant *any* form of monopoly, an anathema to the politics of the time. Their only concern was that the maritime commerce of the nation was not disturbed by any coastal works and that the Admiralty was happy.

On the Continent of Europe the matter was very different; 1848 was a year of revolution. Revolution, as usual, being speedily displaced by the regime of a despot; in France, the last of the Bourbon monarchs, Louis-Philippe, was dispossessed by Citizen Louis-Napoleon Bonaparte, who rapidly escalated his role from prime minister to Prince-President and then to Emperor of the French. As despots go Napoleon III was benign, and, learning from the problems of his *grand-oncle*, was keen to absorb the technology of the British. The Bourbon bureaucracy was quickly subsumed into a Bonapartist technocracy strongly allied to Britain.

The first concession for an electric telegraph from England to France was obtained of King Louis Phil-

ippe through the influence of former minister Antoine Passy by Jacob Brett in 1847 to endure for a period for ten years. If the concessionaires made the telegraph without cost to the French state they could have a total monopoly of rights and revenues between the two countries. Brett was to be disappointed. He could not find the money or the will in the political turmoil of the following eighteen months to further its works and was obliged, with the change of regime, to surrender it without use.

However the French connection had been made and a second concession for the cross-channel monopoly was negotiated of the Prince-President Louis Napoleon by Jacob Brett in Paris on August 10, 1849, also for ten years. This required that a cable be laid between England and France, and messages successfully transmitted within twelve months of its grant, otherwise it too would become void.

Jacob Brett and the other concessionaires, John Watkins Brett and Frederic Toché, did not intend to risk *their own* money on constructing and working the cable; such capital as they possessed had been sunk in procuring the rights. For this a wholly separate joint stock *Société française en commandite* had to be incorporated under French law and the public in London and Paris then invited to buy shares in the enterprise, without reference or relationship to any of the Bretts' previous "registrations" of joint-stock companies in England. The French government was determined to maintain supervision and control of the enterprise.

In France "joint-stock" concerns were not independent but were effectively licensed and supervised by the government in Paris, who could nominate individuals to its board of management. Another difference was that, unlike in London, the proprietors, the board of directors and the other subscribers to the capital, and the management, known as the *gérants*, those who undertook the enterprise, were separate entities. The new joint-stock company would then pay the concessionaires a substantial license fee to work the rights that they had acquired.

So, to work this concession, on December 31, 1849, *la Compagnie du télégraphe sous-marin entre la France et l'Angleterre*, otherwise known initially as the "Electric Telegraph Company between France and England", was established in Paris under government charter, to make and lay the telegraph cables and to purchase Jacob Brett's patent for the type-printing telegraph apparatus. It struggled to find finance in either London or Paris. Despite its joint-stock structure it attracted few, very few, investors. Only £2,000 subscribed by the public for the 1850 cable and it had to be rescued at the last moment by Thomas Russell Crampton, a railway and locomotive engineer, who provided the virtually all of the necessary "pump-priming" money.

The capital structure of the French joint-stock company was, by London standards, unusual. The char-

ter allowed for £75,000 to be raised. Indeed £25,000 in £1 cash shares was subscribed for the works, most of which by Crampton and the directors. The remaining shares were reserved for the *promoters*, the concessionaires, J Brett, Toché & Company, to be issued as paid up after the works had been completed in payment for the concession and the Brett patents. Unfortunately for the promoters it was found necessary to award the holders of each of the 25,000 cash shares one free share from the reserve as an incentive. The balance of the reserved shares was then distributed to the promoters, Jacob and John Watkins Brett received in total 12,500 £1 shares "in consideration of all their previous labours and expenses, which extended over a period of about five years." The market value of these shares was minimal.

With such a poor capital base and the looming completion deadline date that made or broke the continuation of the concession, a temporary cable of the simplest sort, a weighted unarmoured wire covered with the newly-discovered resin, gutta-percha, was laid between Dover and Calais on August 28, 1850. Only the use of lead weights preventing the wire from floating was part of the Bretts' 1845 patent, their "bituminous" insulation and fabric covering had proved unworkable.

Regarding the August 28 expedition, F C Webb, who was to become an eminent telegraph cable engineer, recorded his experiences of the very first cable-laying voyage. In particular he noticed Jacob Brett: "Little Mr Brett came fussing about our men with such impracticable orders that at last they deliberately entangled him in the loose slack, so that he did not come there again." Finally Webb wrote; "When we got off Cape Grisnez we anchored, and a type printing instrument was put in circuit in the cabin. The instrument began to print off a jumble of letters, and Mr Brett tore the slip up, although it was a record of the first signals across the Straits."

A few short messages were eventually transmitted underwater by Jacob Brett's type-printing telegraph. Virtually all, like the first, were garbled and unreadable. The French government's Foy-Breguet needle instrument, which imitated in miniature the Chappe semaphore of its aerial telegraphs, was also tried on this, the first submarine cable.

The temporary cable failed almost immediately. But its brief life was sufficient. The well-organised publicity surrounding its laying and the success of its few messages was proclaimed not just in England and France, but worldwide - the electric telegraph had conquered the submarine world. The concession was confirmed on 19 December 1850 by an agreement between Alphonse Foy, the director telegraphs, and Jacob Brett, as the concessionaire.

With this short-lived success and attendant publicity, funds from investors in London and Paris were soon found and a far more robust, well-insulated cable protected against the marine elements and

man-made accidents by an external “armour” of spiral-wound iron wire, designed by T R Crompton, a “real” engineer, was laid with complete success on September 25, 1851. The design of this long-lasting telegraph cable proved to be the model for thousands of miles of submarine circuits.

Although the first patentee of iron rope in England, Andrew Smith, had made the Brett’s exhibition cables of 1845 and 1846, the contract for armouring the very first submarine telegraph cable was placed with the competitive manufacturer, Robert Smith Newall of Newcastle-upon-Tyne. Smith’s patent dated from 1835, with other individuals subsequently making improvements; Newall’s own patent dated from 1840. There was a third iron rope patent, in the name of Wilhelm Küper, that dated from 1841. Although Smith never made submarine cables, Newall and Küper (and his English successors) were to engage in the most savage competition over the manufacture of telegraph cables for ten years.

Just before the successful laying of the Channel cable in September 1851 Jacob and John Watkins Brett took Stand 429 at the Great Exhibition in the Crystal Palace in London’s Hyde Park which ran from May 1 to October 15, 1851. On it they had eleven displays featuring their patent apparatus: their electric printing telegraph receiver; their electric printing telegraph receiver with *additional* dial reading and acoustic signals; their communicator or transmitter for the printer, with a rotating handle; their communicator for the printer in the form of “a piano-forte” keyboard; a pocket communicator with a rotating handle; a circuit regulator or switch; a specimen of the first, but unsuccessful Channel cable of the previous year; a specimen of brother Thomas W B Brett’s iron pipe for cables; electric bells; several specimens of the print output of the type-printing telegraph; and the papers signed by the French authorities granting the Bretts a monopoly of cable landing rights.

The *Submarine Telegraph Company between France and England* opened from London through Dover and Calais to Paris, November 13, 1851 with a revised nominal capital of 2,500,000 francs or £100,000 in 5,000 shares. Its route was by the submarine cable from Calais to Dover, at which latter place messages were passed to the South Eastern Railway for telegraphing to its London Bridge Terminus, and then by messenger to the telegraph company’s office. There is no evidence that Jacob Brett’s type-printing telegraph was used on the successful cable. The Company, after trying Foy’s apparatus once again, reverted to Cooke & Wheatstone’s instruments, which were then out-of-patent.

It became clear that John Watkins Brett had severely over-extended his capital in securing the concession and in establishing the Submarine Telegraph Company. He had to allow others into the concession with the French, diluting his stake and that of his

brother. But the risk had been worth it. With the assistance of his new partners and by mobilising his allies in the daily and financial press the investing public were convinced of the viability and value of the submarine cable and gradually bought shares in the joint-stock company, and he was able to liquidate his holding, recovering his losses.

A third concession of the Prince-President on October 23, 1851 for ten years was granted to a new partnership under French law called *Wollaston et Compagnie*, in which John Watkins Brett was now just a junior participant. These partners in the concession for the cable, *Wollaston et Cie.*, in contrast to some of J W Brett’s previous, dubious, sources of finance were all titled gentlemen, against which no stain could be attached: Lord de Mauley, Sir James Carmichael Bt and the Hon Frederick Cadogan, as well as the civil engineer Charlton James Wollaston. They together *personally* owned the French concession for the cross-Channel cable. Alphonse Foy once again signed for the French administration. It is notable that Jacob Brett had been entirely eliminated from this, the working concession. However its representative agents in London were still the firm of J Brett, Toché & Company.

This concessionary partnership was to change its membership and title over the years. First, Charlton Wollaston withdrew and it was to become known as *de Mauley et Cie*; then the elderly Lord de Mauley died in 1855 and for the rest of its existence, until 1890, it was known as the *Société Carmichael et Compagnie*. Sir James Carmichael, Baronet, became the figurehead of this concern, and managing director of the Submarine Telegraph Company.

The new Empire of France was satisfied with the performance of the cable, which united it with its new, and slightly surprised, ally across the Channel in Britain. There were two formalisations of this, the concession was confirmed and the position of the Submarine Telegraph Company was recognised by the Empire.

The definitive agreement of October 23, 1851, to commence in force from July 1, 1852, was signed by Alphonse Foy (Chief Administrator of Telegraph Lines, France), Lord de Mauley (Submarine Telegraph Company), Frederick William Cadogan (Submarine Telegraph Company), Sir James Carmichael Bt (Wollaston and Company), and John Watkin Brett (Wollaston and Company). Once again Jacob Brett is no longer mentioned. The Degree confirming the concession of the French Government in the matter of the working of the cable by the Submarine Telegraph Company was dated 24 October 1851; it was varied slightly and extended by further Imperial decrees on 12 January 1859 and 22 May 1861.

The arrangement for the working arrangement between the *Société de Mauley et Cie* (comprising the partnership of Charlton James Wollaston, Francis Edwards, Sir James Carmichael, John Watkins Brett

and Frederic Toché) and the Submarine Telegraph Company (in the form of its board of directors Lord de Mauley, Frederick Cadogan, John Masterman, William James Chaplin, and Samuel Laing), was signed and dated 19 August 1852.

It is surprising to see that, as well as negotiating his telegraphic interests in Britain and France, J W Brett found time in December 1851 to lead a delegation including William Prosser, his brother's engineering collaborator, meeting with the Colonial Secretary, Earl Grey, to promote the introduction of railways into Australia.

Other corporate matters had been occupying John Watkins Brett in 1850 and 1851, as the cross-channel cable was approaching completion.

On November 14, 1850 Edwards & Radcliffe, solicitors, of 8 Moorgate Street, City and 8 Delahay Street, Westminster, deposited a Private Bill for the *European & American Electric Type-Printing Telegraph Company*; on the same day they also deposited a Bill for the *Submarine Telegraph Company between Great Britain and Ireland*; and November 15, 1850, the Bill for the *Submarine Telegraph Company between England and France*. In the initial two Bills the purchase of the telegraphic patents of Jacob Brett by the shareholders were particularly authorised.

The promoters abandoned the Irish and French companies before they came before the House during the first part of 1851. The "English" French company being effectively a duplication of that created in France in 1849, was eventually deemed unnecessary, but the success of the Submarine Telegraph Company led indeed to the Parliamentary authorisation and the formation in 1851 of the *European & American Electric Type-printing Telegraph Company*, a typical Brett omnibus corporate title. It was formed to lay underground cables from Dover to London, Birmingham, Liverpool and Manchester along the coach roads of England, connecting all the great population centres with the new continental cable to France. The need for this domestic telegraph concern was brought about by the continued resistance of the South Eastern Railway Company to allowing the cable company access to its own telegraphs or to permit it to lay wires alongside its lines, as well as to the utter hostility of the Electric Telegraph Company to sharing its own national network of circuits.

The promoters of the European company were Lord de Mauley, Sir James Carmichael Bt, and John Watkins Brett. However, the success of the cable was such that they were able to add to the board of directors Arthur Anderson MP, chairman of the Peninsular & Oriental Steam Navigation Company, W J Chaplin MP, chairman of the London & South-Western Railway, Samuel Laing, chairman of the London, Brighton and South Coast Railway, John Masterman Jnr, a City banker and a director of the Submarine company, and Admiral Richard O'Con-

nor KCH. John Watkins Brett was being subsumed into the cut-throat world of City capital.

With such supporters money was quickly raised in London and underground cables speedily, perhaps too speedily, laid alongside of the highroads. The first messages were made to Paris from its London office in Cornhill by way of Dover and Calais on November 1, 1852, from Birmingham, in the midlands of England, on August 8, 1853, from Manchester, in the north of England, on March 1, 1854, and the port of Liverpool on May 6 1854. Although formed to use the Brett type-printer it was found wholly unreliable and ordinary needle instruments were used during the company's short but successful life.

This was not all:

The *Société de Mauley et Cie.*, the concessionaires of the cross-channel cable to France, did not rest idle. Whilst its risky works were in progress during 1851 they approached the King of the Belgians for a monopoly of electric telegraph cable landing rights in his realm. It was granted and another concern was formed to make and work the underwater circuit (and to acquire public capital): the *Submarine Telegraph Company between Great Britain and the Continent of Europe*, yet another elaborate, all-encompassing title so common to the Brett enterprises. This was a British company, incorporated in London and secured limited-liability protection for its share-holders by means of a Royal Charter on April 14, 1851. The Belgian decree for the concession was finalised, after the success of the Dover cable, on February 21, 1852. Their cable, imitating the construction of the French one, was successfully laid between Dover in England and Ostend in Belgium on June 20, 1853.

The original Belgian chartered company was entirely financed by the promoters. It called for £75,000 but only £1,330 was subscribed, which was returned and the board assumed all of the risk and divided the shares amongst themselves. Not quite in the democratic spirit of joint-stock company constitution. Of course all of these shares found their way onto the exchange as the promoters, the board of directors, began to realise their stock and the public the profits to be made from the cables.

There were then three "Brett" companies in parallel existence; the *Submarine Telegraph Company between France and England* of 1849, the *Submarine Telegraph Company between Great Britain and the Continent of Europe* of April 1851, and the *European & American Electric Type-printing Telegraph Company* of August 1851. These three came to a working agreement for mutual cooperation on August 19, 1852. The agreement lasted for two years.

There followed a series of amalgamations with the companies competing with the dominant Electric company. The European company was bought in 1854 by the British Telegraph Company, which had circuits in the north of England and Scotland, as

well as its own cable to Ireland. This in turn merged with the Magnetic Telegraph Company to form, in 1857, the British & Irish Magnetic Telegraph Company. The Submarine Telegraph Company and the British and Irish Magnetic Telegraph Company came to a monopoly agreement on 12 April 1859 by which they would use only each other's circuits for foreign and domestic messages. In each of these connections John Watkins Brett passed seamlessly from board to board, acquiring larger and larger stakes in these domestic companies.

When the British company absorbed the European concern the 'French' and 'Belgian' cable firms henceforth traded simply as the *Submarine Telegraph Company*, although having separate capital, trading from its original office at 30 Cornhill, City. The Company was to greatly expand its cable network in the later 1850s. It laid a long circuit from Cromer to Emden in Hanover, in Germany, in November 1858, and an even longer one from Cromer to the island of Heligoland and to Denmark in July 1859. Neither of these two lines was long-lasting; war between Prussia and Denmark in 1863 disrupted both and the Submarine company relied on its connections with Belgium and France for its subsequent revenues.

By April 22, 1857 John Watkins Brett was director of the second largest domestic telegraph company in Britain, with circuits throughout England, Wales, Scotland and Ireland, as well of the company managing all of its connections with the entire Continent of Europe; even then it was a multi-million pound enterprise. It was an eternity from his "showman" days in America in the 1830s, but now he was surrounded by professional company directors, hard-nosed merchants from London, Liverpool, Manchester and Glasgow who understood the stock markets and keenly watched the value of their investment. His influence in England was being diluted as his apparent wealth increased.

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## 7. The Middle Sea

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At a banquet given in 1852 on the occasion of the opening of the submarine telegraph between England and France, J W Brett stated that "not only Paris and Vienna, but Constantinople, Calcutta, Peking, and America, will in a few years be next-door neighbours". True to this promise the circuits of the European Telegraph Company between London and Dover and of the Submarine Telegraph from Dover to Calais had allowed for two extra wires to communicate with the Mediterranean Sea.

*La Société du télégraphe électrique sous-marin de la Méditerranée, pour la correspondance avec l'Algérie et les Indes* was, as like as not, the project that killed John Watkins Brett. It was one of only two telegraphs in France that were not part of the state network, the other was Brett's successful *Submarine Telegraph*

*Company between France and England*. The success of that company was so great that it inspired the Imperial French authorities to grant a huge new concession to Brett and his partners to run for fifty years from July 2, 1853 – connecting metropolitan France with their vast colony of Algeria across the Mediterranean Sea. It was to be undertaken in co-operation with the Kingdom of Sardinia, whose realm included Piedmont, with its capital at Turin. In London it was known as the *Mediterranean Telegraph Company*.

The full capital of the company was 7,500,000 francs (£300,000); the government of France was to guarantee interest of 4% on 4,500,000 francs, the government of Sardinia 5% on 3,000,000 francs. There were five elements to this complicated project: 1] a cable of six cores from Capo Santa Croces, near Spezzia in Piedmont, to Cap Corse on Corsica, 2] land lines across the island of Corsica from Cap Corse to Bonifacio; 3] a cable of six cores from Bonifacio, Corsica, to Santa Theresa, Sardinia, 4] land lines from Santa Theresa across the island of Sardinia to Cagliari and to Capo Spartivento (Cap Teulade in French), and finally 5] a 125 mile long deep sea cable of six cores from Spartivento to the coast of Algeria, and along to the frontier of Tunisia at Bone. The Sardinians were to pay interest on the costs of parts 1, 3 and 4 once they were completed, the French to pay for that on the rest of the lines.

The line of six wires was divided: two for France, two for Sardinia and two for public use by the company for projected circuits between Britain and the Indies.

Profits were to be divided, according to the provisions of the concession, 5% to a reserve or insurance fund not to exceed 500,000 francs in total, 19% to the managers of the concession, and 76% to the shareholders. The sole responsible manager or *gérant* was John Watkins Brett, the *conseil de surveillance* consisted of le Comte de Morny, John Masterman, Samuel Laing, William Chaplin, Sir James Carmichael Bt and Ernest Bunsen. With the exception of the Comte de Morny, the half-brother and fixer-in-chief of the Emperor, Napoleon III, these were all members of the board of the original *Submarine Telegraph Company*. Interestingly, de Morny had a large and remarkably fine collection of pictures.

Jacob Brett and Gaetano Bonelli, the director of telegraphs in Sardinia, were appointed joint engineers. Glass, Elliot & Company were commissioned to manufacture heavy duty cables for the underwater elements; the Mediterranean company took on the laying of these lines itself.

Initially all went well: the first two six-core cables were laid in July 1854, and the land lines completed with little difficulty, opening the telegraph from Spezzia to Cagliari, a distance of 600 miles on April 15, 1855. This was a great achievement in more ways than one, given that Britain, France and Sardinia were at war with Russia, and, quite literally,

all steam shipping was taken up with military transports to the Crimea.

After this success J W Brett convinced the French to up their guarantee of interest to 5% on July 17, 1855 to attract further capital for the riskiest element of the circuit. The initial attempt to lay the 125 mile long cable from Sardinia to Algeria was started on September 25, 1855. The six core cable, of seven-and-a-half tons per mile manufactured by Glass, Elliot & Company of London, was on board a sailing ship, the *Result*, towed by a steamer, escorted by the Imperial Navy's *aviso* or steam yacht *Tartare*. The waters were far deeper at 1,500 fathoms than was thought possible, the cable broke and proved unrecoverable.

The Emperor of the French was pleased to appoint Jacob Brett *chevalier du Légion d'honneur* during November 1855 on the recommendation of the panel of judges of the Universal Exposition for his work on the Channel cable. There was some confusion as John Watkins Brett was present in Paris at the time and Jacob was not. And he not Jacob was initially summoned to receive the award. Only at the last moment was the error discovered and the "right" Brett found. It was said subsequently in France that it was the failure of the Algerian cable that prevented John Watkins Brett receiving a similar honour.

The second attempt, with a new cable, to connect Cagliari with Africa was commenced on August 7, 1856 using the ship *Dutchman*, once again escorted by the armed yacht *Tartare*. Money was now short and Glass, Elliot & Company were commissioned to make the new cable much lighter, four-and-a-half ton per mile, with just three cores. The number of cores was the bare minimum under the concession: two for the French government and one for the Mediterranean company's commercial traffic.

The mechanical arrangements of the first two attempts, in the hands of Jacob Brett, proved inadequate. In addition, no proper survey of the sea bed between Sardinia and Algeria had been undertaken; the waters were far deeper than anticipated leading to serious problems with the cable-laying. Both cables had to be restarted after commencing from Capo Spartivento, the first after 30 miles were laid, the second after 17 miles. The first cable was allowed to abrade on the laying vessel's bulwark and broke. The braking mechanism which controlled the speed of its descent to the ocean floor, an eight-foot diameter drum, was weak, leading to "runaways", in one instance two miles of cable ran out in five minutes. In the second attempt the depth of water, 300 fathoms, led to more cable being required than planned, so it was five miles short of the Algerian shore. The ship laying this cable hung on to the end whilst a desperate message was sent to Glass, Elliot in London by telegraph for thirty miles more. It broke in heavy seas after five days in waters too deep to recover.

There was a third and final attempt by the Mediterranean company to lay a cable from Cagliari to Bone on September 7, 1857.

In some desperation the Company turned to R S Newall & Company, the manufacturers of the original Channel cable. In return for a promise of £50,000 Newall agreed to make and lay a smaller four-core, three-and-a-half ton per mile cable of his own specification and at his own risk. Newall was subsequently severely critical of J W Brett; oddly blaming the cable's subsequent failures on the lack of land line connections at Capo Spartivento in Sardinia and at Bone in Africa, rather than his materials and management. Brett claimed that the insulation was inadequate and Newall did not allow sufficient mileage for contingencies; that Newall made "a very poor cable". The cable was laid from the steamer 'Elba' with Gaetano Bonelli of the Sardinian telegraphs and William Siemens, representing Siemens, Halske & Company, acting as electrical advisor to Newall, on board. The operation was, once again, hopelessly mismanaged; by Newall's own account his engineers confused kilograms and pounds weight of pressure leading to the brake on the cable for the first half of the laying to be inadequate and a massive loss of cable ensued as it ran away in 1,500 fathoms. Once again the cable ran short of the shore, this time at the Sardinian end! According to Newall there was, originally, only one telegraphic connection at Capo Spartivento and none at Bone, so temporary land lines had to be rigged. It was not until October 30, 1857, two months later, that Newall obtained the additional ten miles of cable and completed the connection to Sardinia.

But only two of the four cores (or just one according to J W Brett) were sound, these were taken by the French to fulfil the concession and Newall was forbidden by the authorities from interfering further with the cable. The Mediterranean company was left with no revenue earning circuits.

In 1858 Newall was commissioned by the Company to restore the Africa cable. The 'Elba' under-ran it from Sardinia for over 30 miles and into 700 fathoms depth and made repairs.

Two wires in the Sardinia to Algeria cable were still working for the government in February 1860, and for ten days in July 1860 the company contrived to get all four were working. They used Siemens & Halske's keys, receivers and relays and twenty or thirty Daniell cells to work the long circuit.

Newall's men and the 'Elba' managed to recover a hundred miles of the false starts and their "runaways" from the 1855 and 1856 cables, including an enormous number of kinks and a one mile long mass of tangled cable, which Newall wittily termed a 'Gordian knot', from the shore end at Capo Spartivento.

The Africa cable finally expired at the end of 1860.

To cover their outstanding costs the company was compelled to launch an *obligation* or loan of 1,250,000 francs (£50,000) in 100 franc notes redeemable at 125 francs through a sinking fund over twenty-five years between 1858 and 1882, and on which they were to pay a fierce 7½ % interest per annum, indicating the risk the company was taking on.

In an unusual turn of events, by 1860 the registered office of the *Mediterranean Telegraph Company* was moved out of the City of London to J W Brett's mansion in Hanover Square. By the following year he had been eliminated from its management and its board of direction, which was then repatriated entirely to France.

On February 17, 1857 John Watkin Brett and his lawyer, John Alexander Mainley Pinniger, also a native of England's West Country, in his case Chippenham, Wiltshire, not too far from the Brett family in Bristol, came to an agreement with the Imperial & Royal Austrian government in Vienna for the concession for telegraph cable between Ragusa on Austria's Adriatic coast to Alexandria in Egypt, on the way to India. The Vienna government was to finance the works and lease them to the *Austrian Submarine Telegraph Company*. The ever accommodating R S Newall agreed to construct and lay the cables. The key to this concession was a subsidy offered on through traffic by the British government and the East India Company, which would underwrite the financing of the cable. It would appear that this plan overlooked the susceptibilities of the Ottoman Turkish government in Constantinople that governed Egypt as a Pashlic. The Ottomans had their own views on who might land cables on their territory; Brett and the Austrians were not part of their schemes. A sole concession was granted to another company, a British company.

In July 1855 Sir James Carmichael Bt and Frederick Cadogan, two of the directors of the Submarine Telegraph Company, along with two directors of the company's bankers promoted the Railway Electric Signals Company. This, like the Submarine company, was actually a French firm; the *Compagnie des signaux électriques pour les chemins de fer* 'System Tyer'. It was launched in England on July 6, 1855 with an authorised capital of 1,500,000 francs or £60,000 in shares of 25 francs or £1, incorporated in France on May 2, 1856 and shared the offices in London and Paris of the telegraph company. Brett was not involved in this speculation; was this because he had doubts about its viability or because of other reasons? Edward Tyer's apparatus was sophisticated, perhaps too sophisticated. It did not have a long life, a horrific accident on one of the few lines with its signals in July 1857 abruptly ended its business, even through the courts absolved the system of any responsibility. J W Brett had a narrow financial escape in this instance.

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## 8. The Western Ocean

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Some might say that there is another claimant for the title 'Father of Submarine Telegraphy'. One who operated on an even grander scale than John Watkins Brett; his name is Cyrus Field, whose eventual successes subsumed those of Brett. Field was the son of a Massachusetts pastor, born in 1819 and with a battery of successful brothers. He made a fortune, a real fortune, after an apprenticeship in his brother's paper mill, dealing in paper in the City of New York. But it was ten years after J W Brett's sudden interest in telegraphy that Cyrus Field changed the course of his life and acquired an interest in the *New York, Newfoundland & London Telegraph Company*. This event occurred in the spring of 1854, when, after the original promoters of the scheme ran out of funds, Field and his partners bought them out and displaced them. The principal asset of the Newfoundland company was a 99-year right to land cables on the eponymous island and on its coast dependent, Labrador – the closest parts of the American continent to Europe.

The original plan of the New York, Newfoundland & London Telegraph Company was to create a line of wire from New York to Newfoundland, with short underwater cables to reach the island. Connection with Europe was to be made by transferring messages in waterproof containers to the existing lines of fast steamers that would pass its eastern station.

From 1845 John Watkins Brett's telegraphic ambition had eyed the Atlantic opportunity; he had knowledge and connection with America, especially with New York. It was his *forte* to identify such opportunities and from there to gather and influence investors, often with subtle and discrete tactics. It is clear that J W Brett was set on a submarine cable between Europe and America from the very beginning of his interest in telegraphy.

Field was a man of great dynamism and enthusiasm, the latter trait often leading to expensive diversions, particularly, like Brett, as he no technical knowledge. Worse, to correct this weakness he corralled S F B Morse as his electrical advisor. But Field, again like Brett, had identified international telegraphy as a great strategic opportunity.

In September 1859 one John Molesworth of Townhouse, Littleborough, near Manchester, (believed to be the Reverend John Edward Nassau Molesworth, DD, vicar of Rochdale, patron of the chaplaincy at Littleborough) wrote to 'The Times' describing in considerable detail John Watkins Brett's long-held interest in the Atlantic cable, quoting from his correspondence. Brett had written on July 12, 1852 to Frederic Newton Gisborne, the promoter of the *New York, Newfoundland & London Telegraph Company* acknowledging receipt of his initial plans. Rather

than rely on steamers for the connection to London Brett insisted in a letter of May 20, 1853 to Gisborne that an epic cable between Newfoundland and Ireland was the proper option. On July 8, 1853 Brett advised Gisborne to secure a monopoly for landing rights from the colonial authorities. This all came together on April 21, 1854 with a letter endorsing a provisional agreement on what he termed "Brett & Gisborne's Atlantic Cable" in which Brett wrote reassuringly, "I neither wish to absorb all the fame, or other than divide the profits". Brett was then appointed sole London director of the *New York, Newfoundland & London Telegraph Company*. Molesworth went on to describe how Field was to eliminate Gisborne from the company on buying-out the previous shareholders.

Separate from the lifting of a corner of the mantle of secrecy that covered these negotiations is the use of a strangely distant external source to place the "leak" with the national press to defend J W Brett's position. It is notable that it was undertaken by a member of the Church of England, with which J W Brett was well-connected.

Whilst Field was cleverly speculating in New York, J W Brett, as part of his plan with Frederic Newton Gisborne, had launched a provisional or draft prospectus in early 1855 for the *European & American Submarine Telegraph Company for uniting Europe and America* with a capital of £750,000 in shares of £5. It was declared to be the legal successor to Brett's original 'General Ocean Telegraphic Company' of 1845. The provisional board in London was drawn from Brett's allies in the successful Submarine company; that for New York was left blank. The office of 'Consulting Electrician' was pencilled-in as "Professor Faraday FRS" - an appointment that history indicates definitely ought to have been confirmed.

Interestingly, there seems to have been a collapse of trust at this time between the Brett brothers. Jacob Brett, the nominal "engineer" to the Channel cable and to the Mediterranean lines, henceforth from 1855 scarcely features in any role. Even the last patent for the type-printing telegraph was taken in the name of J W Brett, not his brother's. It can be conjectured that the expensive failure of the Sardinia to Africa cable gave due cause. By 1855 Jacob Brett had taken independent offices, and possibly even residential rooms, at 12 Pall Mall East, near Trafalgar Square, London, as the "submarine telegraph patentee".

Cyrus Field took the steamer to Liverpool late in 1854 and finally met with J W Brett in London. On January 22, 1855 the *New York, Newfoundland & London Telegraph Company*, formed by F N Gisborne and now dominated by Cyrus Field, having a monopoly concession for landing cables on Newfoundland and Labrador in North America, transferred its rights to John Watkins Brett for £2,190 (10,000 dollars). This effectively gave J W Brett the exclusive privilege in London for establishing the Atlantic cable.

In the next few months of 1855 Field was busy recruiting allies and technical endorsement for the Atlantic cable in Britain. As well as having a meeting of minds with John Watkins Brett, he was introduced by him to the youthful and supremely ambitious Charles Bright, engineer to the English & Irish Magnetic Telegraph Company, creator of their successful cables between Scotland and Ireland. The precise contribution to the new enterprise by Bright is obscured by subsequent events; few of the engineering specifications that survive bear his mark, his influence in the crucial laying operations of the cable was distant. It is possible that he, like many others, was overwhelmed by Field's enthusiasm.

The prospectus for the *Atlantic Telegraph Company* was launched in London and New York on November 1, 1856. It had a battalion-sized board of directors, comprising twenty-nine souls, American and British, under the management of Cyrus Field. This effectively combined the boards of the Newfoundland company and Brett's provisional American Submarine company.

Despite this superstructure the Atlantic company was and remained for several years in the hands of four promoters; Cyrus Field, John Watkins Brett, Charles Tilston Bright and E O W Whitehouse. This *quadrumvirate* had it written into the company's deed of settlement that they were to receive one-half of all profits above 10% for their efforts up to 1856. Subsequently, in 1858, this was altered to a sum of £75,000 in new shares in proportion that illustrates their relationship, Field receiving 37½%, Brett 37½%, Bright 16⅔% and Whitehouse 8⅓%.

It was John Watkins Brett who introduced Dr Edward Orange Wildman Whitehouse to the projected Atlantic Telegraph Company. Whitehouse, a medical practitioner and scientific investigator in many fields, had developed his own views on telegraphic apparatus in 1851 and 1852. On meeting J W Brett in 1854 Dr Whitehouse demonstrated a five-wire chemical telegraph system that he had developed, proposing that it be used to communicate verbatim passages of the House of Commons to the press. Dismissing this idea, Brett, impressed by the doctor's enthusiasm, challenged him with the need to send electric signals through the longest underwater cables, overcoming the effect known as 'retardation' or resistance. Brett provided him with instruments and the assistance of the Submarine Telegraph Company's instrument maker, James Blunt, and gave Whitehouse access to the long subterranean and submarine lines which his companies controlled for two years of experiments.

Whilst physicists such as Michael Faraday and George Airy, as well as the engineers and electricians of the telegraph companies, were studying the problem Dr Whitehouse quickly proposed his own empirical solution: he discovered, he said, that high-voltage current created by large galvanic batteries and induction coils could be used with a

small-diameter, and therefore much cheaper, copper conductor for the proposed intercontinental cable. Whitehouse's work was not particularly original; he was deeply influenced by the work of Prof Nicholas Callan of Maynooth College in Ireland, who may fairly claim to be the inventor of the induction coil, alongside of Heinrich Ruhmkorff. Whitehouse carefully patented his own new apparatus before demonstrating it to the promoters of the Atlantic cable over ever-longer lines of wire, including 1,125 miles of underground circuits on the Magnetic Telegraph Company in England, gaining the enthusiastic public endorsement of the visiting "electrician" S F B Morse. The problem of 'retardation' was solved...

In September 1858 J W Brett was to claim that he had been dubious of Whitehouse's claims, even hinting that he felt that the doctor was demanding too much money for the patent rights to his induction machines. Brett also claimed that it was Cyrus Field, who, having met with and been taken-in by their apparent technical brilliance, insisted that both Whitehouse and the young Charles Bright be brought in as co-promoters of the Atlantic Telegraph Company.

J W Brett's track-record in technical matters was not good; Cyrus Field's even less so. Dr Whitehouse was supremely plausible in the new science of electricity, and was accompanied by empirical evidence. When the cable was completed in 1858 the Whitehouse induction machines generating the equivalent of 2,000 volts were introduced and, in most opinions, contributed to the burning out of the already-damaged small-diameter cable. Scientific thought, led by William Thomson, endorsed by Michael Faraday, determined, after proper study and calculation, that relatively large-area conductors in the cable enabled the use of very low voltages with newly-developed highly-sensitive receivers over immense distances.

Brett's connection with Whitehouse might have terminally damaged his connection with the Atlantic Telegraph.

The history of the Atlantic Telegraph Company subsequently proceeded without much assistance from John Watkins Brett. In his final few years he was to have a series of problems that distracted him from this great work. Its story is told well elsewhere.

Despite his increased burden of management and aggravations his interest in the arts continued, J W Brett was one of the subscribers to the guarantee fund for the International Exhibition of 1862, he provided £500.

His directorship of the British & Irish Magnetic Telegraph Company led J W Brett into another set of crises. The Magnetic company had in 1859 promoted the *London District Telegraph Company* to provide 100 stations in the metropolis, intending to delivery telegrams anywhere in the city within a

half hour of receipt. It was by no means a big concern but it was, it seems, cursed from its commencement. It chose to build cheap overhead wires all across the streets, which were generally abused by the public as all previous urban circuits were laid invisibly underground, and its contractor for works failed in the first year. There was also no great rush for shares. Its publicity promised a lot, it delivered a slow and unreliable service. John Watkins Brett was deputed by the Magnetic company in 1861 to re-organise its management and find efficiencies.

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## 9. Finis

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By 1863 the spectre of financial disaster was looming.

An anonymous 'Shareholder' in the Submarine Telegraph Company wrote to the 'Times' newspaper on April 23, 1861 cataloguing a series of questions allegedly unanswered by the company's board of directors. It was claimed that of the £75,000 raised for the Calais to Dover cable in 1851 only £15,000 had been spent on the works; of the £80,000 capital of the Ostend cable, just £33,000 had gone on its construction - the balance, 'Shareholder' claimed, had been spent by J W Brett on unexplained "concessions and preliminary expenses". 'Shareholder' also stated that the roles of sole *gérant* or manager, concession-holder and contractor for the works of the Mediterranean Electric Telegraph Company had been combined in Brett to the detriment of the French and British shareholders.

This outburst compelled the Submarine company to reveal to the public its fragile early finances, how the promoters had surrendered much of their interest to attract the minimum capital needed for the very first cable and that the board, including J W Brett, had provided the entire capital for the Belgian cable from their own resources as the public would not subscribe. It was not a happy tale, and would not inspire confidence in the company's direction which had remained constant from the earliest days.

The August 1861 general meeting of the shareholders of the British & Irish Magnetic Telegraph Company was another blow to Brett. His re-election as director, normally a formality, was rejected by a majority of thirty-three to three votes.

The French shareholders of the Mediterranean Telegraph Company, the epic submarine line from Italy to Corsica and Sardinia and to Algeria sued *Carmichael et Cie.*, the concession holders, and John Watkins Brett, the sole *gérant* (manager), for the equivalent of £80,000 in 1861 claiming negligence after the repeated failures to complete the cable to Algiers. This massive law suit extended not just to the civil courts in France but to criminal liability in the person of Brett as *gérant*. This was on top of the

continuing problems with the Atlantic company. None of Brett's speculations in the Mediterranean Sea had done well; the long strategic circuits to Ottoman Turkey and Egypt were never started, only the abbreviated Extension lines to the small, but politically-important islands of Malta and Corfu were completed, scarcely huge revenue earners.

Apart from picture dealing Brett was left for real income with his original, still valuable interest in the Submarine company and a less valuable participation in the newly combined British & Irish Magnetic Telegraph Company. He was then also a director of the Atlantic, Submarine and Mediterranean Extension Telegraph companies.

John Watkins Brett died at the Coton Hill Institution for the Insane at Stafford on December 3, 1863. This was near to the house of his sister, Caroline Jane Wileman, at Longton Hall, Fenton, Staffordshire. The cause of his death was not made public; it was however described as an "illness" rather than, for example, an accident. He was interred in the family vault in the churchyard of Westbury-on-Trym, Bristol.

The Moving Fire that had created submarine telegraphy was extinguished.

The Royal Geographical Society offered an obituary in the spring of 1864; it is a very fair summary of his career from 1845:

"John Watkins Brett. Though not the scientific originator of submarine telegraphy - an honour which was won by Professor Wheatstone - Mr Brett was distinguished by being the first to show, by the actual experiment of laying a gutta-percha wire across the British Channel, in 1850, that the scheme was feasible. He had indeed called the attention of Government to the subject in 1845, with the view of connecting Britain with her colonies. He afterwards (1846-7) endeavoured in vain to carry out his project under the Government of Louis Philippe, though he had obtained a concession. At last, through his energy and ability, he obtained a renewal of the concession from Louis Napoleon; and in 1850 an experimental line was submerged by Mr Brett between Dover and Cape Griz Nez, by which the first submarine message was sent from one country to another; 'The Times' of the day remarking, "the jest of yesterday has become the fact of today." The present cable between Dover and Calais was laid in 1851, and the Dover and Ostend line in 1853; the latter under a concession from the King of the Belgians. The next trial was in the unknown depths of the Mediterranean, under concessions from the French and Sardinian Governments, and resulted, in 1854, in uniting the Island of Sardinia with the Continent of Europe. It would be superfluous to trace further Mr Brett's connexion with telegraphic enterprise: suffice it to say, that in 1856 he was mainly instrumental in forming the Atlantic Telegraph Company, of which he was one of the directors. It is rare to find a highly cultivated taste

for the fine arts combined with an enterprising mind, yet such was eminently the case with Mr Brett, as proved by his well-known, choice and varied collection of works of art. Mr Brett died on the 3rd of December last, at the age of 58, bequeathing one-tenth of his large property to charity."

Another long obituary appeared in the "Journal of the Society of Arts" on January 22, 1864; this was based upon J W Brett's own short autobiography of 1858.

The anonymous obituarist "T.A.M.", who had known J W Brett intimately for over twelve years writing in the 'Telegraphic Journal' of January 2, 1864, added movingly:

"The science of Telegraphy has lost - if I may be permitted to use the expression - the father whose fostering care controlled and developed nature's mysterious and intangible agent, and taught the infant Submarine Telegraph first to lisp a few words across the channel in 1850, and lastly to speak across the Atlantic, and whose electric voice is now heard issuing from the depths of the ocean to the furthestmost parts of the world, uniting shore to shore, annihilating time and space, and cementing amity and peace between the different nations of the earth. Surely this was a great and noble work."

"With a mind so essentially practical, it is rare to find associated the finer qualities of a refined taste for art; yet in the instance of Mr Brett, the intuitive gift of a painter early developed itself, and was matured by study; although his works as an artist are little known beyond his family, who possess many proofs of his talent as a painter, in the sketches made in a tour through America, and the highly finished drawings in their possession. His gallery of the works of the Old Masters has been a source of admiration to all who have had the pleasure of viewing it. Nor was his taste only confined to pictures, as his collection of antiquities, bronzes, coins, objects of *vertu* and books attests. The death of this talented man has left a great blank in the circle in which he moved, for he was essentially one of nature's own gifted gentlemen. Gentle and kind in disposition, resolute in purpose, and endowed with great natural talent and vigour of mind."

In a more businesslike vein, at the half-yearly meeting of the shareholders of the Submarine Telegraph Company on Friday, March 4, 1864 Sir James Carmichael Bt, the Chairman, announced that he "had a melancholy topic to introduce to them, namely, the death of their most valued coadjutor, Mr John Watkins Brett, and who, in fact, appropriately has been called by Professor Morse the father of submarine telegraphy, and who had been of eminent service to the company, for whenever an emergency arose, he was always ready to give his time and money to get through it. With regard to the extension of telegraphy, he might remark that in 1845 Mr Brett made a proposal to the Belgian government to

connect Belgium with this country by a submarine cable, but the proposal was laughed at. Since then, however, submarine telegraphy had proceeded so rapidly, that he hoped next year would witness the union of America with this country, by means of the Atlantic cable, which would just be twenty years since Mr Brett's first proposal was made with regard to Belgium."

Carmichael was curiously precise to the extent of pedantry in choosing to dwell on the connection to Belgium rather than the original, epoch-making cable to France of 1851. He was, of course, addressing the shareholders of the "Submarine Telegraph Company between Great Britain and the Continent of Europe"; the Calais cable was owned by the "Submarine Telegraph Company between England and France", incorporated and domiciled in Paris!

With an all too typical demonstration of American manners, Morse publically denied giving the accolade "father of submarine telegraphy" to J W Brett; appropriating it, as he did to everything connected with telegraphy, to himself.

The meetings of the Mediterranean Extension and Atlantic Telegraph companies on January 22, and March 15, respectively, merely noted the need to replace Brett on their boards.

There seem to be no other obituaries; none in the principal newspapers, and only a very few brief mentions of Brett's passing were published in the remaining technical press of the time.

John Watkins Brett had been a member of the British Association for the Advancement of Science (from 1854), of the Royal Geographical Society (1857), of the Royal Horticultural Society (1860), of the Royal Society of Arts & Sciences (1861), as well as the Art Union of London and the British Meteorological Society.

J W Brett had lived since 1841 at No 2 Hanover Square, London, which he held on lease. The unexpired portion of the lease, thirteen years, was sold in 1865 for £500. Otherwise he died with no real property. Apart from the collection of art his estate consisted mainly of original and preference shares, debentures, bonds, stocks and similar securities in the Atlantic, the British & Irish Magnetic, the Mediterranean Submarine, Mediterranean Extension, the New York, Newfoundland & London, and the Submarine telegraph companies and "other companies of a similar nature". These securities were valued by independent stock brokers, Foster & Braithwaite, in March 1865 at £32,536.

There was a monster auction of Brett's artistic estate between April 5 to April 18, 1864 at the house of Christie, Manson & Wood, 8 King Street, St James's Square, comprising of "The collection of Works of Art, formed during a long series of years by that eminent connoisseur John Watkins Brett, consisting of Egyptian, Ninevite, Greek and Roman antiquities; antique and *cinquecento* marbles and bronzes;

Italian, French and English works of art, from the earliest period to the present time; an important gallery of Italian, Spanish, Flemish, Dutch, French and English pictures; ancient and modern drawings; also furniture, porcelain, glass, miniatures, plate, carvings in ivory and precious materials, gems and coins, many of which having been exhibited at the Art Treasures, Manchester, the Loan Museum, South Kensington and the Royal Institute of British Architects."

The drawings alone realized £6,195, the most valuable items being: "Christ bearing his Cross" by Raphael, fetching 678 guineas; "The Dead Christ, Virgin, and six figures" by Titian, 610 guineas; "The Virgin enthroned" by P. Lippi, 890 guineas; and "The Adoration of the Magi" attributed to Jan van Eyck, 430 guineas. Other items included antiques, bronzes and marbles; his library of books, engravings and autographs; Greek, Roman and English coins and medals in gold and silver; antique and other gems, antique glass, Etruscan vases, Limoges porcelain, enamels and majolica; miniatures, boxes, watches, crystal, jade and carvings in wood and ivory. In all there were 2,051 pieces, which produced at sale £14,500.

Although the criminal suit ended with his death the series of civil law suits in France against the estate of J W Brett as the *gérant* of the Mediterranean Submarine Electric Telegraph for mismanagement continued for several years after, delaying the settlement of his will.

The surviving relatives mentioned in his will were Hester Brett (b. 1801), Jacob Brett (b. 1808), Isaac Brett (b. 1811), Elizabeth Brett (b. 1813), Francis Henry Brett (b. 1815), Caroline Jane Brett-Wileman (b. 1817) and Thomas Watkins Benjamin Brett (b. 1823). They were to receive equal portions of J W Brett's estate after his charitable bequests were fulfilled.

Of these the Rev Francis Henry Brett, MA, an Anglican clergyman, was Headmaster of Wirksworth Grammar School, near Matlock, Derbyshire, Caroline Jane Brett-Wileman, an enthusiastic follower of the Moravian faith, was married to Henry Wileman, a London china dealer who had taken over the Foley Pottery in Fenton, Staffordshire in 1853 and greatly expanded its works, and Isaac Brett, of Bristol, who was of the Moravian church, was an artist, and a member of the *Bristol Academy for the Promotion of the Fine Arts*. Caroline had given birth to a son in 1854; he was named John Watkins Brett Wileman. She had already taken in her sibling Thomas Watkins Benjamin Brett, as well as Elizabeth Brett, who in 1871 was classified as an 'imbecile', adding them to her family of four children. The later history of Hester Brett, the eldest child of William and Elizabeth Brett, is not known, but it is likely that she died between 1864 and 1871.

And what of "Tonto"? Jacob Brett, then aged 56, who shared the Hanover Square house, as well as

telegraphic trials and tribulations, with his brother, was, unfortunately, dissatisfied with his portion of his brother's estate and sued the executors and all of the other Bretts mentioned in the will. His unsuccessful suit went on for over four years. He then felt it necessary to live for the next thirty years of his life well-distant from his family in Paris, consuming his limited means.

Jacob Brett's first independent venture was as director of the *National Boiler Insurance Company*, scarcely a risky venture, in July 1864. But in September 1869, whilst the suit against his family proceeded, Jacob Brett, now living in distinctly unfashionable Great Portland Street, London, leant his name to the board of directors of the *Ocean Telegraph Company* that intended a new trans-Atlantic cable between Ireland and Nova Scotia. It had no qualified electrical or engineering staff, and was an abortive speculation on the coat-tails of the success of the Anglo-American and French cables. Jacob Brett's next venture was even farther from reality. Whilst resident in Paris, in May 1873, he joined the board of the *Economic Telegram Company*, another City speculation. This was formed to work a "remarkable invention" by one A Bernstein, a form of duplex telegraphy, in Austria, France and Germany. Bernstein had, in fact, made his discovery nearly twenty years previously, in October 1855.

On April 30, 1874 Sotheby, Wilkinson & Hodge, auctioneers, of 13 Wellington Street, Strand, London, sold the "Collection of Sèvres, Dresden and other decorative china" the property of Jacob Brett, as his residence in Paris was required for a new street to the Opera. The lots included "vases, plateaux, jardinières, coffee, tea and dessert services, of turquoise, rose, Dubarry, *bleu du roi* and other tints, painted with subjects after Watteau, flowers, figure and portraits of Louis XV and XVI, and beauties of the French court, richly gilt. Fine specimens of De la Courtille, Nast and other *fabriques*, a pair of lofty vases, a French faience-ormolu clock from the Palace of St Cloud, surmounted by a statuette of Urania, a splendid set of the Muses, chased and gilt, an elegant old *marqueterie* cabinet of tulip-wood, decorated with panels of Sèvres china, marble and bronze groups and figures, miniature drawings by Le Brun and Van Blarenberghe." A cynic might assume that this was booty from his brother's house at 2 Hanover Square.

When Jacob Brett returned to London in the late 1880s his circumstances were such that Latimer Clark, the telegraph engineer, found it necessary to sponsor a fund for his relief, and to charitably purchase six volumes of letters and records from him for donation to the library of the Institution of Electrical Engineers. The Board of Directors of the *Submarine Telegraph Company* voted him a gratuity of £200 on February 22, 1882 as "the founder of the company" who had "fallen into pecuniary difficulties". Lobbying the government brought Jacob Brett a Civil List pension of £100 per annum on June 20,

1887 and grant of £200 from the Queen's Bounty in 1892 when he was subsisting in lodgings in Paddington in west London. The *Submarine Telegraph Company* declined to assist him further.

On the celebration of the Fifty Year Jubilee of the Electric Telegraph Jacob Brett was one of the guests, invited, along with Sir Charles Bright, Sir William Thomson, Sir John Pender and Sir James Anderson, veterans of the Atlantic cable, to a grand dinner hosted by the Postmaster-General on July 27, 1887. His appearance unhonoured, among the host of "telegraphic knights" may be noted...

Jacob Brett died in 1897.

In July 1866 the *Tribunal civile de la Seine* in France dismissed with costs the action brought by a party of shareholders of the *Mediterranean Telegraph Company* against the estate of John Watkins Brett. In this they had claimed 2,000,000 francs (£80,000) compensation on the grounds of fraud and mismanagement by Brett as sole *gérant*; the French court judged that the shareholders had full knowledge of the operations of the company and had agreed to every action taken, moreover it adjudged rather than Brett owing the company money the accounts showed that he was a creditor to the sum of 25,000 francs (£1,000).

When the estate of John Watkins Brett was finally settled in December 1868 his residuary property totalled £60,000, from which the Scripture Readers' Union received £954 19s 10d and the Missions of the Church of the United Brethren, the Moravians, received £1,993 19s 6d.

On the evening of Tuesday, October 30, 1866, the Lord Mayor of London hosted a mammoth banquet in celebration of the final completion of the Atlantic Cable between Ireland and Newfoundland at the great Egyptian Hall of the Mansion House in the City of London. There were 150 guests drawn from the British and United States governments, the diplomatic community, from science, from engineering and from all the domestic and submarine telegraph companies in Britain. Among all of the many toasts and congratulatory speeches made during that happy evening, the name of John Watkins Brett, the Father of Submarine Telegraphy, was not mentioned once.

John Watkins Brett had, whatever his failings, done more than any man since 1845 to achieve the success of submarine telegraphy.

*Steven Roberts, Harrow, England*

*August 30, 2010,*

*Revised October 28, 2011*



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## Brett Patents

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A list of all the patents that include the names of the 'Hanover Square' Bretts:

*Patent 10,662*, May 10, 1845

William Prosser and Jacob Brett; improvements in propelling railway carriages

*Patent 10,758*, July 6, 1845

Jacob Brett; improvements in propelling carriages on (atmospheric) railways

*Patent 10,779*, July 21, 1845

Jacob Brett; improvements in atmospheric propulsion, tubes for atmospheric railways

*Patent 10,939*, November 13, 1845

Jacob Brett; type-printing telegraph (a communication from Royal Earl House)

*Patent 12,054*, February 8, 1848

Jacob Brett; improvements in type-printing telegraphs

*Patent 14,166*, June 12, 1852

William Reid and Thomas Watkins Benjamin Brett; improvements in telegraphs

*Patent 1,115*, May 11, 1853

Jacob Brett; improvements in type-printing telegraphs

*Patent 1,629*, July 8, 1853

Jacob Brett; photography (stereoscopic cameras) (a communication from abroad)

*Patent 1,819*, August 1, 1856

John Watkins Brett; improvements in printing telegraphs

In 1852 Thomas Watkins Benjamin Brett gave his address as Hanover Square; he had been recorded resident there in the census of the previous year, when age 29. His co-patentee, William Reid, was a major telegraph contractor in the 1850s, involved in laying the original 1850 cross-Channel cable. The claims were for wood troughs to protect underground cables and articulated metallic pipes for the same purpose. There is no further evidence of T W B Brett's interest in telegraphy.

Jacob Brett, John Watkins Brett and Charles William Tupper were assigned a share of a patent obtained in America by William Beasley of Smethwick, England, for manufacturing metal tubes in January 1855. Tupper was a maker of iron wire and had been connected with telegraphy since 1843, providing wire for Cooke & Wheatstone; he was also a director of the Atlantic Telegraph Company. Beasley was a tube and gun barrel maker, his original British patent for making metal tubes by spiral

winding was dated June 10, 1852; it had obvious potential for armouring submarine telegraph cables.

As a point of clarity, there are telegraphic patents in the name of Alfred Brett. The writer believes that this is Alfred Brett, vintner and brandy merchant, of 50 Blackman Street, Southwark, who financed the work of George Little, an electrical engineer, in 1847. There would seem to be no relationship between Alfred Brett and the 'Hanover Square' Bretts, but he did have a relationship, most likely filial, with Henry Brett, also a wine and brandy merchant, of 139 Holborn Bars, whose address is given by Alfred in his patent specifications.

There was a William Brett, of 27 Guildford Street, Spitalfields, a cabinet-maker, and a Thomas Brett, of 16 Lamb Square, Spital Square, also a cabinet-maker, in the 1840s. It can only be speculated whether they were related or not to the family of J W Brett.



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## Sources

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The Origins and Progress of Brett's Submarine Oceanic & Subterranean Electric Telegraph, by John Watkins Brett, August 1858

Jacob Brett's Papers, his 'scrapbook', January 1898

Much of this essay is drawn from reference to photographic copies of these two sources provided, with his customary generosity, by Bill Burns of Atlantic Cable, the Latimer Clark of the current century.

Mr David Wentink of Calabasas, California, is to be thanked for generously allowing access to the letters from Jacob Brett to James Christy Bell between July 1845 and July 1846.

Others sources consulted for details include: the Bristol Mercury 1829-63; the Daily News 1845-63; *Collection complète des lois, décrets, ordonnances, règlements avis du conseil d'état*, Paris 1857, Committee of Parliament on Art Unions, 1841; *Des opérations de Bourse*, 1859; Federal Reporter, 1891; The Washington Globe, 1834-37; Historical Register of Remarkable Events, 1847; Journal of Royal Geographical Society, 1864; Law Reports of England, including Brett v Stone, 1843, Blunt v Brett, 1849, Wollaston v Brett, 1854, Brett v Roberts, 1855, Hemans v Picciotto, 1857, Brett v Carmichael, 1864, Brett v Brett, 1866; Local Records or Historical Register of Remarkable Events, which have occurred in Northumberland and Durham, Newcastle-upon-Tyne and Berwick-upon-Tweed, 1867; the London Gazette, 1830 to 1890; Mechanics' Magazine, 1845 to 1864; Merveilles de la Science 1868; Modern Christianity, 1867; Mr Moon, the Printseller of Threadneedle Street, 1978; the Morning Chronicle 1829-63; The Washington National Daily Intelligencer, 1834-37; The New York Spectator, 1834-37; Notes & Queries, September 1865; Oxford Dictionary of National Biography; Scientific American 1852; Telegraphic Journal 1864; The Times, 1829-63; The Unarmoured Line from Dover to Cape Grisnez by Frederick William Webb in The Electrician, 12 July 1884; United Kingdom Intellectual Property Office records; United States Patent Office records.

My appreciation goes to Google Books and to the Godfrey Memorial Library, Middletown, Connecticut, for enabling much of the online research.




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## The Sixth Seal

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"The Opening of the Sixth Seal" by Francis Danby is on display in the National Gallery of Ireland, its unique if undignified contribution to uniting the people of the world unrecognised. It still bears the scars of its travels with John Watkins Brett.

"And I beheld when he had opened the *sixth seal*, and lo, there was a great earthquake; and the sun became black as sackcloth of hair and the moon became as blood; and the stars of heaven fell unto the earth, even as a fig tree casteth her untimely figs when she is shaken of a mighty wind. And the heaven departed as a scroll when it is rolled together: and every mountain and island were moved out of their places. And the kings of the earth and the great men and the rich men and the chief captains and the mighty men and every bondman and every free man hid themselves in the dens and in the rocks of the mountains; and said to the mountains and rocks, Fall on us and hide us from the face of Him that sitteth on the throne and from the wrath of the Lamb: For the great day of His wrath is come; and who shall be able to stand"

Revelation 6:12-17

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