Number 19 – Spring 1991

Morsum Magnificat

Samuel F.B. Morse Bicentennial Issue

Morsum Magnificat

magazine for morse telegraphy

MORSUM MAGNIFICAT was first published in Holland, in 1983, by the late Rinus Hellemons PA0BFN. Now published in Britain, it aims to provide international coverage of all aspects of Morse telegraphy, past present and future. MORSUM MAGNIFICAT is for all Morse enthusiasts, amateur or professional, active or retired. It brings together material which would otherwise be lost to posterity, providing an invaluable source of interest, reference and record relating to the traditions and practice of Morse.

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Comment

As you have no doubt already guessed from the front cover, this issue is somewhat different to the usual *Morsum Magnificat*.
Saturday, April 27th is the 200th anniversary of the birth of Samuel Finley Breese Morse, and this *MM* is intended as a celebration of that event.
It may be Morse's 200th birthday, but his code and the systems which use it are still very much alive and kicking, no matter what some people would like to think! Perhaps it would be going too far to say that every schoolboy and girl should be taught the rudiments of the code, which could at the least provide them with a useful means of emergency communication in some circumstances. It is, though, encouraging to hear of youngsters in radio clubs or in groups such as Scouts, Guides or military cadet forces being given that skill. Long may that state of affairs continue, for the world would undoubtedly be a poorer place without Morse code.

I hope that you'll forgive me devoting a little space to what might be called a 'house-keeping' matter for overseas readers. Some of you are continuing to send payment for subscriptions, back issues, etc., in currencies other than Sterling. Payment in US Dollar bills is acceptable – we can save them up until we have an amount large enough to absorb the charge of £3 or so which our bank makes for handling the exchange. Bank cheques in US Dollars or other foreign currency are another matter.
When banked, these are converted to Sterling at the current rate, and then subject to a handling charge of £5 **for each and every cheque!** That doesn't leave us with very much from a cheque for US$17, for example!! I know that it's expensive for overseas readers to get drafts or money orders drawn in Sterling to send us, which is why we recommend that you pay by VISA or Mastercard credit card, involving the minimum extra cost for both you and us. Thank you for your co-operation.

Geoff G3GSR

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MM Issue No. 19

From One Code to Another

by Tony Smith G4FAI

Every now and then some writer re-discovers the fact that dispute exists about who invented the Morse code. Convinced that they are on to a sensational story, they depict Samuel F.B. Morse as a calculating man who took unfair advantage of Alfred Vail, and took full credit for the invention of a code that should properly be called, they say, the 'Vail Code'. Their conclusion is that Morse was a charlatan no longer worthy of the regard in which he was previously held. Without going too deeply into the matter they also ignore, or are unaware of, the fact that there were at least two other Morse codes used before American Morse, plus experiments with at least six others, and that the International code we use today was compiled by a German – and that this code could perhaps be better called the 'Gerke Code'!

The fact is, no-one knows for certain who did compile American Morse code, which is the one all the fuss is about. It may have been Morse; it may have been Vail; it may have been both partners working together, which is perhaps not an unreasonable proposition. Morse claimed that he was the inventor while Vail made no claim at all; it was Vail's family that claimed the credit for him after his death.

Many Plans

In 1845, Vail wrote a description (published 1847, see note below) of the first telegraph installation between Washington and Baltimore, in which he observed that 'During the period of 13 years, many plans have been devised by the inventor to bring the telegraphic alphabet to its simplest form. The plan of using the common letters of the alphabet, twenty six in number, with twenty six wires, one wire for each letter, has received its due share of his time and thought. Other modes of using the common letters of the alphabet, with a single wire, have also been under his consideration. Plans of using two, three, four, five and six wires to one registering machine have, in their turn, received proportionate study and deliberation. But these, and many

other plans, after much care and many experiments, have been discarded; he being satisfied that they do not possess that essential element, simplicity, which belongs to his original first thought, and the one which he has adopted.'

When Morse entered into partnership with three others to develop the electro-magnetic telegraph which he had invented, it was agreed that everything, including improvements devised by the others, would be patented in Morse's name to protect the interests of them all in the courts. They anticipated that others would try to use the telegraph without paying royalties to the partnership, and agreed that if there was dispute among themselves about who had invented any particular improvement this would weaken their legal right to receive payment from others. This is why Morse consistently claimed in public that he had personally invented everything patented in his name – and why the other partners never disputed it. It is also the reason why there is so little information about who actually invented what; or evidence to support the specific, and often unfair, allegations made against Morse in later years.

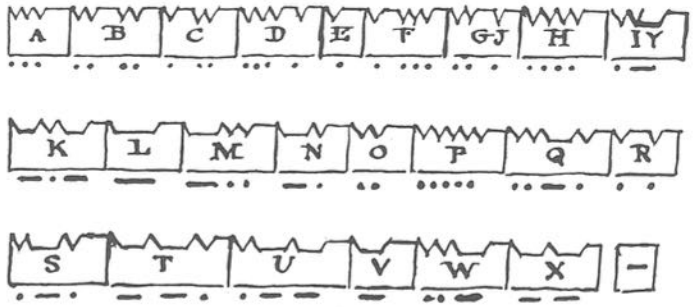
Numerical Code – 1832

To start with, no-one seems to dispute that Morse invented the very first code used with his earliest instruments. The idea for this numerical dot, line and space code, linked with a code dictionary, is dated 1832, and is described elsewhere in *MM*. Apart from signalling numbers representing words this code could also send numbers representing letters to enable unusual words, not in the code dictionary, to be spelled out in full. This code was in use when Alfred Vail first saw the invention in 1837, and at that time Morse was still engaged in building up his full dictionary of codes.

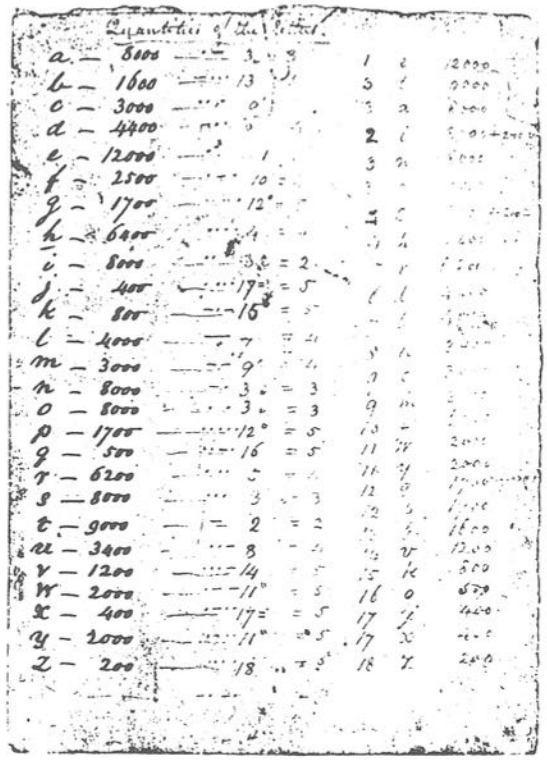
First Alphabetical Code – 1837

At a demonstration on 24 January 1838, Morse and Vail, now partners in the enterprise, dispensed with the dictionary and used a new alphabetical code with Morse's port-rule sending instrument, re-built and improved by Vail. Instead of loading up the instrument with cast type representing numbers, they used type representing letters and doubled the sending speed of the system. This was, however, still cumbersome as each individual message had to be loaded individually into the machine.

This first alphabetical code was the fore-runner of American Morse and was part of Morse's caveat of 1837. It used dots, lines, and spaces between groups of dots for individual letters (the letter B, for instance, was ·· ··



Morse's sketch of the saw-tooth cast pieces for his port-rule transmitting instrument (correspondent) using the 1837 alphabet code



Morse's list showing the established frequency of the letters of the alphabet and how the 1844 code symbols were allocated (apart from the letter J – see text). The faint figures on the right place the letters with the most common use at the top and the least used at the bottom to assist in the allocations

and C was · ··). These symbols were chosen arbitrarily without regard to the frequency with which particular letters occurred in everyday use. The symbol for E, however, was a single dot, using the shortest symbol for the most common letter, anticipating the later more scientific approach to code compilation.

American Morse – About 1844

Around the time of the 1844 government sponsored demonstration of the Morse telegraph between Washington and Baltimore, the partnership produced a new code. This, in effect, re-arranged the 1837 code into a more sensible order based on the frequency of use of each letter in the English language. According to one account Morse visited a printing-office to count the different quantities of type used by the printers in order to decide which were the most frequently used letters. According to another, it was Vail who visited a newspaper office for the same purpose.

Whoever it was, an undated note by Morse shows what was done after the most frequently used letters were identified. Every letter was given a separate symbol, unlike the previous code which had the same symbol for phonetically similar letters (ie, G/J; I/Y: and S/Z). The symbols were weighted to determine their length, enabling the shortest symbols to be allocated to the most commonly used letters and the longest to those letters used the least. A dot counted as 1; a dash was 2; a space between groups of dots 1; and a long dash (letter L) 4; while no letter was to exceed a count of 5.

In the final code there was one unexplained exception to this logical approach. This was the letter J which Morse's notes show as · ··· counting as 5 and fitting in sensibly with the pattern of symbols used for the other letters. The final symbol adopted, however, was –·–· which broke the rules by counting as 6 and, by implication, defined J as the least used letter of the alphabet. (The letter count found the least used letters were Q, 500; J, 400; X, 400; and Z, 200). For some reason, the rejected · ··· was used for ampersand (&), and survives to this day in International Morse as ES with the same meaning.

The exact date of the introduction of American Morse is not known, although Vail's booklet identifies it as the code used on the Washington/ Baltimore line which formally opened on 24 May 1844. This code became the standard operating code on the landlines of the USA and Canada until the Morse telegraph began to be phased out after WWII.

It survived in ever lessening commercial use until the 1960s and today it is the cherished 'mother tongue' of the Morse Telegraph Club which, as

reported from time to time in *MM*, re-creates landline links via the public telephone system, amateur radio nets, and tape exchanges. In manual operation American Morse is not a 'tone' code and is always received via a sounder. For manual speed sending the semi-automatic bug, which was invented for use with this code, is used; an electronic keyer, unless capable of sending in the bug mode, would be unable to cope with the single double length dash used for the letter L, and the even longer dash which signifies the numeral 0. To those brought up with it, American code is known as 'Morse' and International code is often known as 'Continental' or 'Radio'.

Austro-Germanic Morse – 1852

The first Morse line in Europe was between Hamburg and Cuxhaven in 1847 but its Inspector and Technical Manager, Friedrich Clemens Gerke, felt that the American code was not satisfactory for German communications. He devised a new, simpler, code in which all dashes were the same length (equivalent to three dots), and there were no symbols having spaced groups of dots. He did, however, retain those American symbols which provided the shortest possible characters for the most frequently occurring letters.

During the next few years as the telegraph spread to other German States and to Austria, each State devised its own variation of Gerke's approach to the code, necessitating telegraphic translation to a different code as messages crossed State boundaries. In 1851 the newly formed Austro-Germanic Telegraph Union decided to adopt Gerke's code, with certain amendments, in all States as part of a unified telegraph system as from 1 July 1852. The new code spread to other European countries and was modified or added to in various ways by international agreement, eventually being adopted by the newly formed International Telegraph Union in 1865.

Further amendments have been made over the years, mainly relating to the symbols used for punctuation and the length of symbols or spacing. Material is being collected for a detailed survey of the history of this code up to the present time, which will be published in *MM* in due course.

Gerke's amended code became known as Continental Morse, and eventually it became the International Morse code of today. It was used on all international telegraph routes (outside North America), overland or undersea, and provided the ideal communication mode for the newly invented wireless. In the latter case, of course, the code was really the inspiration for the invention. A good practical system of signalling already existed between stations via metal wires and earth connections. The purpose of early wireless was simply to replicate and extend the scope of the existing Morse telegraph

	1837 code	American Morse about 1844	Austro-Germanic Morse, 1852
A	···	·–	·–
B	·· ··	–···	–···
C	· ··	·· ·	–·–·
D	··· ·	–··	–··
E	·	·	·
F	· ···	·–·	··–·
G	·· ·	––·	––·
H	····	····	····
I	·–	··	··
J	·· ·	–·–·	not used
K	–·–	–·–	–·–
L	—	—	·–··
M	–··	––	––
N	–·	–·	–·
O	··	· ·	–––
P	·····	·····	·––·
Q	··–·	··–·	––·–
R	· ·	· ··	·–·
S	·–·	···	···
T	––·	–	–
U	·––	··–	··–
V	–	···–	···–
W	··–	·––	·––
X	––	·–··	–··–
Y	·–	·· ··	–·––
Z	·–·	··· ·	––··

The three alphabetical codes, 1837–1852, showing how 17 of the original symbols have survived to the present day, but with changed meanings in all but four cases, i.e., E, H, K and N. Note that in the 1837 code phonetically similar letters, i.e., G/J, I/Y and S/Z, had the same symbols, and that the 1852 code did not use the letter J, which was added later

without the need for wires between stations.

International Morse has an honourable history, on land, sea and air. It has saved many thousands of lives, and has provided world-wide communications for an infinite variety of purposes. Today, while commercial Morse operation is declining, the code provides a fascinating and enjoyable activity for amateur radio operators around the world who are able to communicate with each other without a knowledge of each other's language, thanks to the

unique nature of the code and its associated international operating procedures and abbreviated signals.

Morse's Contribution

All of the above codes have their origins in Samuel F.B. Morse's original ideas of 1832. It doesn't really matter that later telegraph engineers or operators came up with new improved ideas. That is the natural order of things, and such contributions can be applauded without diminishing the importance of the original invention. Marconi didn't have much to do with today's advanced radio techniques, but no-one says that as a result he didn't really invent wireless!

Morse was the original inventor. He spent years, often in poverty, working to bring his ideas to fruition, maintaining a belief in, and an enthusiasm for, what he was doing which was not always shared by his colleagues. He patented his invention, and he was supported by the courts when others sought to challenge him. Despite all the controversy he is, in my view, morally and legally entitled to be known as the Father of the Morse Telegraph, and the original inspirer of the ideas that led to the various codes, American, International, Russian, Japanese, Hebrew, or any of the others, that bear his name. He was honoured in his lifetime. He is honoured in 1991, the 200th anniversary of the year of his birth.

Booklet by Alfred Vail

A photocopy of the 24-page booklet by Alfred Vail, *Description of the American Electro Magnetic Telegraph* illustrated by fourteen wood engravings, published in 1847 and referred to above, is available from Mr T. Wickstrom, 1664 East Shore Drive, St. Paul, MN 55106, USA. Its price is $10 surface mail or $12 airmail worldwide, payable in US funds, or $8.50 within the US.

This is Vail's own description of the Morse telegraph instruments and code used on the 1844 line between Washington and Baltimore, of which Morse was the Superintendent and Vail Assistant Superintendent. Morse history enthusiasts will welcome the opportunity to obtain even a photocopy of such an historic document. They are not very likely to obtain an original copy!

Mr Wickstrom also has a large quantity of radio, electrical and electronics books and magazines collected over the years which he is currently cataloguing and disposing of. He will include a copy of his current list with each copy of the Vail booklet purchased. ✚

A Man of Many Talents

Morse the Artist

In 1811 Morse, whose tastes during his early years led him more strongly towards art than towards science, became the pupil of Washington Allston, then the greatest of American artists, and accompanied his master to England, where he remained for four years. His success at this period was considerable, but on his return to America in 1815 he failed to obtain commissions for historical paintings, and after working on portraits for two years at Charleston, SC, he removed first to Washington and afterwards to Albany, finally settling in New York.

In 1825 he laid the foundations of the National Academy of Design, and was elected its first president, an office which he filled until 1845. The year 1827 marks the revival of Morse's interest in electricity. It was at that time he learned from Professor J.F. Dana of Columbia College the elementary facts of electromagnetism. As yet, however, he was devoted to his art, and in 1829 he again went to Europe to study the old masters.

The year of his return, 1832, may be said to close the period of his artistic, and to open that of his scientific life... During the twelve years that followed, Morse was engaged in a painful struggle to perfect his invention and secure for it a proper presentation to the public. The refusal of the Government to commission him to paint one of the great historical pictures in the rotunda of the Capitol seemed to destroy all his artistic ambition. In poverty he pursued his new enterprise, making his own models, moulds, and castings, denying himself the common necessaries of life and encountering embarrassments and delays of the most disheartening kind...

Encyclopaedia Britannica, Ninth Edition, 1883

Early Photography

While in Paris in 1839, Morse met Louis Daguerre, and became interested in his newly invented Daguerrotype system of early photography. Morse was the first to write about the subject in America, and he proposed Daguerre for honorary membership of the National Academy of Design. Morse took up photography, teaching Daguerrotype to pupils for $25, and his pupils became leaders of the new profession. Up to the time of his death he was known in photographic journals as the father of American photography.

Describing this phase of his life, Morse wrote, 'I derived a small revenue to release me from debt, and to expend in the construction of new and improved telegraphic instruments in the leisure furnished by cloudy days.' ✚

A Magnificent Invention

Alfred Vail's own account of his first sight of Morse's invention

'Some time during the early part of the year 1837, having called at Prof. Morse's studio... during a conversation with him he told me that he was about to bring out a new and important discovery which would make "some noise in the world" – I expressed a wish to see it, when he replied that he would apprise me and send me an invitation – my mind became deeply impressed with what Prof. Morse had stated and I called upon him the more frequently afterwards – but do not recollect that anything was said about the invention.

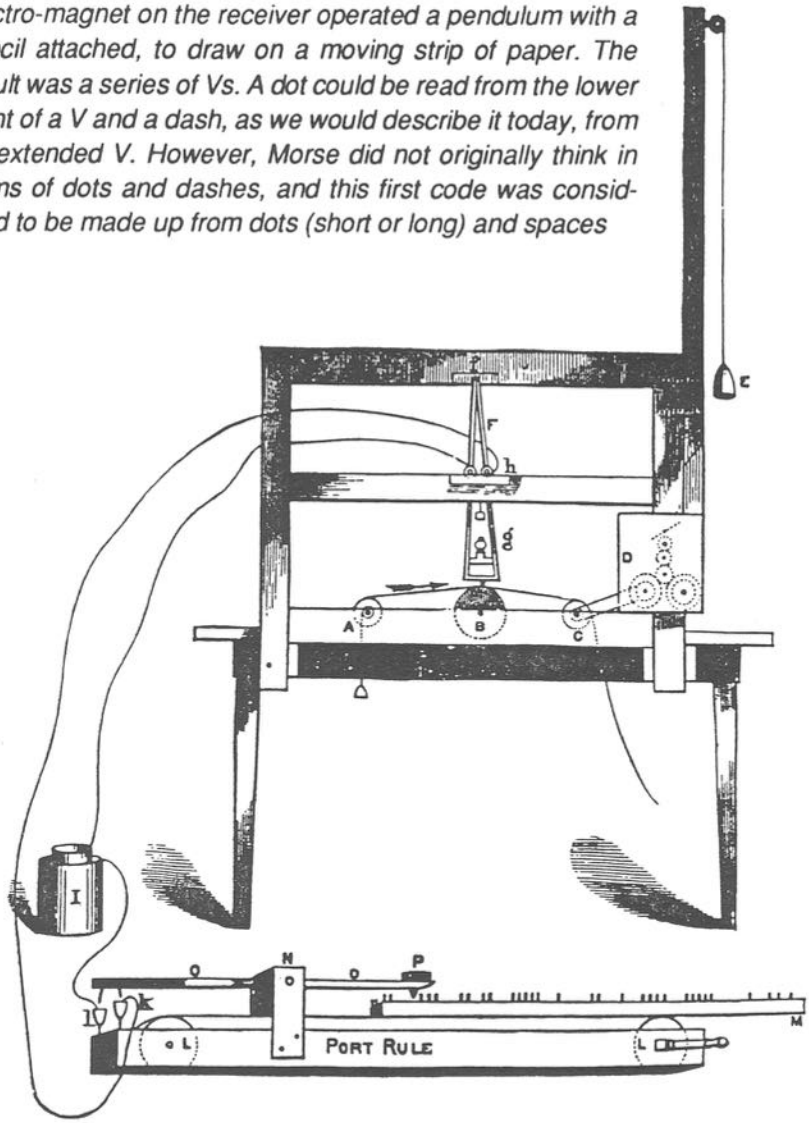
'However, it so happened that on one of these occasional visits (2 September 1837), I accidentally without invitation called upon him at the University and found Prof. Morse, Prof. Torry and Prof. Daubney in the mineralogical cabinet and Lecture room of Prof. Gale in the University where Prof. Morse was exhibiting to these gentlemen an apparatus which he called "his Electro-Magnetic Telegraph." – There were wires suspended in the room running from one end to the other and returning many times making 1700 feet.

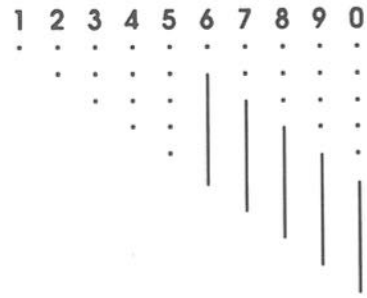
'The two ends of this wire were connected with an electro-magnet fastened to a vertical wooden frame, to the magnet was its armature, and also a wooden lever or arm, fitted at its extremity to hold a lead pencil. This lever was supported on an axis which admitted it to work freely. There was also a spring connected with the lever to carry the armature from the magnet when the wires were broken.

'To these vertical supports there were also fixed a train of wheels similar to those of a wooden clock which with rollers drew off a strip of paper wound round a pulley by means of a weight. This paper passed over a roller directly under the point of the lead pencil in the end of the armature level. The magnet and lever were so placed in the vertical frame that the movement of the pencil always touching the paper was across it and not parallel with its length.

'There was another apparatus made of two long flat pieces of wood so fastened together by their sides that the space between them would admit of pieces of metallic plates of type metal, some of which were thick spaces commonly used by printers for spacing lines and had notches in them.

Sketch of Morse's invention, originally conceived in 1832. Register (receiver), top, and Correspondent (transmitter), bottom. The port-rule of the transmitter contained cast type with saw-teeth, representing numbers 1 to 0, inserted as required. Cranking the handle caused the port-rule to pass through the machine while the saw-teeth activated the switching arm, the end of which dipped wire ends into mercury pots. When the circuit was thus closed an electro-magnet on the receiver operated a pendulum with a pencil attached, to draw on a moving strip of paper. The result was a series of Vs. A dot could be read from the lower point of a V and a dash, as we would describe it today, from an extended V. However, Morse did not originally think in terms of dots and dashes, and this first code was considered to be made up from dots (short or long) and spaces





Morse's first code, of 1832, used figures only, and a dictionary of some 5000 numbered words. For example, 'England' was 252; 'Wednesday', 4030. The sending operator looked in his dictionary to find the numbers representing the words to be sent, and the receiving operator looked in his copy of the dictionary to find the words equating to the numbers received. Morse's 1832 notes seem to indicate that unusual words not in the dictionary were to be spelt out letter by letter, with numbers representing the letters

'There were others also which appeared to be cast. These types with their notches and spaces were used for breaking the circuit by raising the wire out of a cup of mercury and thus letting the battery in action and taking it out producing magnetism in the Electro-Magnet and then divesting it of magnetism.

'This instrument I saw work and produce that peculiar kind of marking which appears like the letter V or W... I became thoroughly acquainted with the principles of its operation and I may say was struck with the rude machine containing as I verily believe the germ of what was destined to produce great changes in the condition and relations of man.

'I rejoiced to think that I lived in a day, and my mind contemplated the future, in which so grand and mighty an agent was about to be introduced for the benefit of the world. Before leaving the room in which I beheld for the first time this magnificent invention, I asked Prof. Morse if he designed to make

A reading from Morse's first self-recording register. This represents number 627 in the dictionary code

Illustration from Samuel F.B. Morse, His Letters and Journals, *by Edward Lind Morse, 1914*

he did so intend but desired assistance to carry out his plans. I then promised him assistance for a share in the invention, to which he assented.

'I then returned to my boarding house, locked the room door and threw myself upon the bed... With the atlas in my hand, I traced the most important lines that would most certainly be erected in the United States and calculated their length.

'The question rose in my mind whether the magnet could be made to work through great lengths and after much reflection I came to the conclusion that provided the magnet would work at a distance of 8 or 10 miles there was no risque in embarking in the enterprise and upon this I decided in my own mind to sink or swim with it.'

Extracted from At Speedwell In The Nineteenth Century *by Cam Cavanaugh, Barbara Hoskins and Frances D. Pingeon. Published by The Speedwell Village, 1981. Reprinted by kind permission of Historic Speedwell.*

Further extracts, describing Vail's work with Morse in developing the new telegraph will appear in later issues of MM.

No European Patents

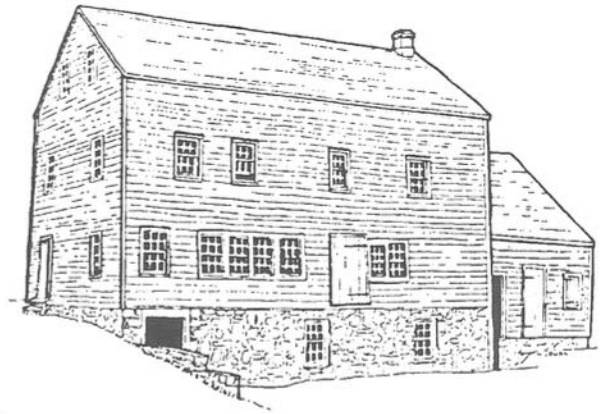
Morse and (one of his partners) F.O.J. Smith arrived in London during the month of June. Application was immediately made for a British patent, but Cooke and Wheatstone and Edward Davy, it seems, opposed it; and although Morse demonstrated that his (system) was different from theirs, the patent was refused, owing to prior publication in the London *Mechanics' Magazine* for 18 February 1838, in the form of an article quoted from Silliman's *American Journal of Science* for October 1837. Morse did not attempt to get this legal disqualification set aside.

In France he was equally unfortunate. His instrument was exhibited by Arago at a meeting of the Institute, and praised by Humboldt and Gay-Lussac; but the French patent law requires the invention to be at work in France within two years, and when Morse arranged to erect a line on the St. Germain Railway, the Government declined to sanction it, on the plea that the telegraph must become a State monopoly. All his efforts to introduce the invention into Europe were futile, and he returned disheartened to the United States on 15 April 1839.

From Heroes of the Telegraph, *by J. Munro, The Religious Tract Society, London 1891*

Speedwell and the Telegraph

by Tony Smith G4FAI



The factory at Speedwell where Alfred Vail worked on the telegraph in an upstairs room in 1837, and where he and Samuel F.B. Morse gave the first public demonstration of Morse's invention on 11 January 1838. Sketch reprinted with kind permission from Historic Speedwell, *a student activity book published by Historic Speedwell 1984*

Historic Speedwell at Morristown, New Jersey, USA, preserves part of the homestead farm and ironworks complex of the Vail family, and its collections capture the flavour of life at Speedwell during the early 19th century. The 7-acre site includes the family mansion and other original structures as well as three 18th and 19th century homes moved from the centre of Morristown.

The centre of interest for Morse enthusiasts is the old cotton factory (a designated National Historic Landmark) where Alfred Vail worked on the telegraph in an upstairs room, and where he and Samuel F.B. Morse gave the first public demonstration of Morse's invention in January 1838. The beams still contain the nails used to string two miles of wire around the room for that demonstration, and there is a present-day exhibit in the room comprising documents, models and instruments, illustrating the invention and the early development of the telegraph.

Many activities take place throughout the year at the museum, some related to its telegraphic connections. In 1988, for instance, a Special Event amateur station, W2TW, took to the air at the site, to commemorate the 150th anniversary of the first public demonstration of the telegraph at Speedwell on 11 January 1838. On 30 April 1988, the Alfred Vail Chapter of the Morse Telegraph Club celebrated the same anniversary as part of the then annual North American MTC 'wire' link-up via Western Union. During this event telegraphic instruments were used at Speedwell on the original workbench used by Vail and Morse.

Dramatised Re-creation

The museum has produced an intriguing video tape, *Speedwell and the Telegraph*, which tells the story of Alfred's first sight of Morse's original invention in 1837, and his subsequent work in improving the instruments leading up to, and including, the first public demonstration the following year.

Available in both 30 and 60 minute VHS/Beta tapes, this dramatised presentation was filmed on site at Speedwell. It provides in passing an interesting insight into family life during the 19th century, and its period costumes and settings serve to emphasise just how long ago the Morse telegraph was conceived and developed.

The production portrays Alfred as the unsung hero of those early days with Prof. Morse, obsessed with his status as the original inventor, taking unfair advantage of Alfred's good nature and technical ability as he effects various improvements to the first instruments. This interpretation, of course, has been the basis of controversy over the years. The dramatisation does outline the Morse side of the matter, mainly through Alfred's own defence of the Professor's attitudes and actions, but the video's message – that Alfred's part in the development of the Morse telegraph deserves greater recognition – comes through loud and clear.

My favourite scene is the private demonstration in 1837 where Vail offers his help to Morse, with the register making a very satisfying 'clunk' as it goes into action. I find this quite thrilling every time I view it, even though the instrument's connecting wires, as depicted, don't actually dip into the mercury pots to complete the circuit!

The story is well presented and, although the production and the acting could be better in parts, there is undoubtedly some quite enthralling material here for the enthusiast. I doubt if anyone else has even attempted to make a similar presentation of the subject so, despite some limitations, it is a unique and worthwhile item to have for anyone interested in the history of the Morse telegraph.

There is one problem for overseas enthusiasts. American video tapes are not necessarily compatible with the video systems of other countries and may have to be converted/copied before they can be used. This certainly applies to the UK, and the additional cost of conversion can double the cost of the original tape.

Details of *Speedwell and the Telegraph*, which is available for rental or purchase, can be obtained from Historic Speedwell, 333 Speedwell Avenue, Morristown, New Jersey 07960, USA. ✚

The First 'Hand Key'

...and its 20th century descendants

by Tony Smith

While Alfred Vail must take credit for the invention of the first lever hand key in 1844 (see 'The Story of the Key', MM6, p.1), Samuel F.B. Morse was attempting to find a simple substitute for his original unwieldy Correspondent (sending instrument) well before that date.

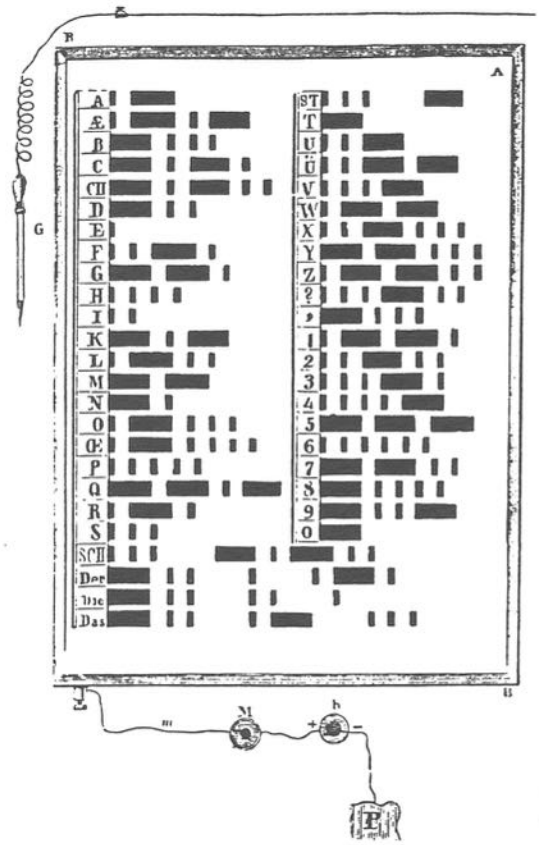
On 28 January 1839, Morse who was in Paris seeking to interest the French government in his electro-magnetic telegraph, wrote to one of his partners, F.O.J. Smith (who had accompanied Morse on his visit to Europe, but had returned to America earlier) about problems experienced in his mission, arising from changes in the French government. His letter ended, however, on a more cheerful note. 'Nothing has occurred in other respects but what is agreeable...

'All my leisure time (if that may be called leisure which employs nearly all my time) is devoted to perfecting the whole matter. The invention of the correspondent, I think you will say, is a more essential improvement. It has been my winter's labor, and, to avoid expense, I have been compelled to make it entirely with my own hands.'

No Moving Machinery

'I can now give you its exact dimensions – twelve and a half inches long, six and a half wide, and six and a half deep. It dispenses entirely with boxes of type (one set alone being necessary) and dispenses also with the rules *(i.e., port-rules, see description of the original instrument elsewhere in this issue – Ed.)* and with all machinery for moving the rules. There is no winding up and it is ready at all times. You touch the letter and the letter is immediately written at the other extremity...'

From Morse's description, his new invention was the transmitting plate, illustrated in various books in the years that followed. This was a plate on which the Morse symbols for letters and numbers were represented by short and long strips of metal connected to a battery. To transmit a symbol the operator moved a pointer or stylus, electrically connected to the line, along the strips corresponding to the desired letter or number, causing currents of long or short duration to be transmitted to line. As the pointer was manipu-



The 1850 transmitting plate from Geschichte der Telegraphie. *See text*

lated by hand, this instrument could well claim to be the very first 'hand key', but just how extensively it was used is unclear.

Surprising Suggestion

Freebody's *Telegraphy* (successor to Herbert's *Telegraphy*) published in 1959 seems to suggest that the transmitting plate was used in conjunction with the Morse embossing register on the first line between Baltimore and Washington in 1844. It gives no source for this surprising and previously un-noted suggestion, and as the plate it illustrates is the German one described by Robert Sabine, below, the proposition should perhaps be discounted in the absence of further evidence.

Karass (*History of Telegraphy*, Germany, 1909) illustrates a 'writing plate' which at that time was preserved in the Postmuseum in Berlin. It is not known where this plate originated. It bears an interesting version of the code, using some American Morse symbols, including all the numerals, and others which were adapted for European use and which can be recognised by today's international code operators. This interim code is believed to be one of several used by different German states before they all adopted the Austro-Germanic code of 1851/52, which eventually became the International code of today. According to Karass, the plate was originally illustrated in 1850 in a book by Schellen who suggested that the plate originated from Prof. Meissner in Braunschweig who had come to the same idea independently of Morse, using the plate to lighten the work of sending.

Later, Robert Sabine, son-in-law of Sir Charles Wheatstone, described a similar plate using the same pre-1851 code, but without the 'SCH', 'Der', 'Die' and 'Das' shown on the earlier illustration. 'This apparatus', he wrote, 'is intended to replace the key... The arrangement has never enjoyed an extensive employment, and is now, perhaps, entirely out of use. The reason of this is probably to be found in the fact that the imperfect appreciation of time which prevents some acquiring uniformity in manipulating the key renders them as unable to move the style with an equal velocity over the plate, time being a factor of velocity.'

Unexpected Revival

It seemed a good idea, especially for the less skilled operators, but apparently if you couldn't get the rhythm of a conventional key you wouldn't do much better with the stylus and plate. So the transmitting plate went out of fashion, if indeed it ever was in fashion, apparently to be forgotten for ever... However, it wasn't forgotten, and the principle enjoyed a surprising double revival in the twentieth century.

In England, in 1920, a similar plate, this time embossed with the symbols of the Continental or International Morse code, was advertised by Graham &

A NEW INSTRUMENT For RAPID LEARNING SCRIBO-MORSE No. S. 167

Scribo-Morse, No. S. 167, consists of a rectangular polished mahogany box containing inside a buzzer and battery, and affixed to the outside a metal plate having the Morse characters in relief, as shown white in the illustration, the remainder of the plate being heavily coated with a non-conducting material.

One end of the buzzer circuit is connected to the plate and the other to a metal Pen by means of a flexible lead. By passing the Pen firmly over the metal signs, each in turn will emit through the buzzer its characteristic sound, and thus the learner's ear will rapidly become accustomed to the peculiar rhythm of each letter as he hears it.

GRAHAM & LATHAM, LTD., *Military Engineers*

(Dept. W. 2) **27, LOTS ROAD, CHELSEA, LONDON, S.W. 10**

Scribo-Morse advertisement, from Wireless World *12 June 1920*

Latham Ltd, Military Engineers of Chelsea, and called the 'Scribo-Morse'. It was also different to Morse's 1838 invention in another respect. It was not intended as a line sending instrument, but as a self-contained Morse learning instrument, complete with battery and buzzer. In view of Robert Sabine's earlier comments, one wonders just how useful this was as a learning aid!

I have a Scribo-Morse, less box, in my collection and have been able to try it for myself. With great care, it is possible to send reasonably readable code, but knowing Morse already was a great help! Sabine was right, a steady hand at constant velocity is definitely needed to use the instrument effectively and its application must have been very limited.

War Service

According to Bill Eason G4MQN, writing in RAOTA's *OT News* of April 1989, the idea surfaced yet again in WWII when Allied intelligence services at Whaddon Hall made up instruments based on the same principle, intended for agents who did not know Morse. The Morse symbols were set out vertically instead of horizontally and one-time coded, one-way, radio messages were sent in CW, with return messages being received in the form of coded speech messages broadcast by the BBC.

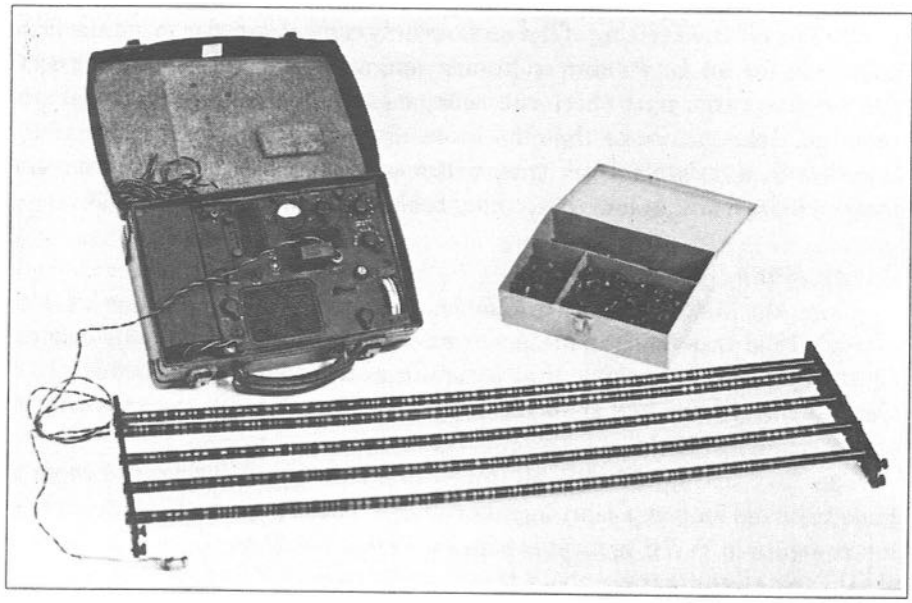


Photo by kind permission of Royal Signals Museum

'Squirt' high speed Morse sender with an A Mark III suitcase transceiver

Another instrument, based on the same principle, can be seen at the Royal Signals Museum at Blandford Camp in Dorset. This is the 'Squirt', so named because it was intended to send short messages at very high speed. Rather in the manner of Samuel Morse's first port-rule correspondent, the instrument was loaded up with the message to be sent, with a series of conductors and insulators on a rod performing the function of Morse's cast type.

A wiper was then run along the rod by hand and the message transmitted at very high speed, presumably without the problems likely to be associated with the simple transmitting plate. John Brown G3EUR, designer of the B2 and other clandestine sets, was consulted on the suitability of the B2 and the A Mark III sets for high speed keying by means of the Squirt and carried out some lab tests to check this out. He tells me, however, that he has no specific information about its use in service, although it was thought likely to be of use in Far East operations for Chinese/Malay operators having, perhaps, no skill in Morse.

The most important feature was the possibility of eluding enemy DF (direction finding), while the simplicity of the idea – totally mechanical, with no power requirements – was held to be of great value. There were problems, however, in main station reception arising from the need for a wider band-width. The off-tune setting of the receiver was critical in order to get the right beat note for an Undulator or human operator; and the resulting poorer signal/noise ratio, plus short run time, meant that a starting signal was required. John mentions that the Poles also had their own version of the Squirt with a *portable* 1 kW transmitter to go with it! Details of this, and more, will be found in his forthcoming book, referred to in MM7, p.33.

Conclusions

From the little evidence available, it seems likely that Samuel F.B. Morse's 1838 transmitting plate was never brought into use on his original circuits, while it is possible that a similar plate invented independently in Germany may have had some limited use before 1851, but perhaps only on an experimental basis.

The 1920 Scribo-Morse is an interesting revival but it does not seem to have survived long as a learning instrument. The reported use of stylus type instruments in WWII is most intriguing and it would be of great interest to obtain more information about these applications. *(If any readers can add to or correct any of the information contained in this article I should be delighted to hear from them – TS)* **continued on page 23 ▸**

The First Morse Line

On 3 March 1843, Congress finally approved a grant of $30 000 to test the electromagnetic telegraph. Prof. Morse was 52 years old. Behind him were years of disappointment, frustration and poverty. Ahead of him was the construction of a 40 mile wire along the railway running from Washington to Baltimore, a task new to those undertaking it, requiring techniques, equipment and materials which, in some cases, did not yet exist.

Morse was appointed Superintendent of Telegraphs at a salary of $2000 a year. Professors Fisher and Gale were assistant superintendents, at $1500, and Alfred Vail an assistant superintendent at $1000.

Fisher, who had helped with earlier experiments, was to supervise the manufacture of the wire, and its insulation and insertion into lead pipes. Gale's scientific knowledge was to be placed at the disposal of the project whenever required. Vail was to superintend the making of the instruments, batteries, etc., and F.O.J. Smith, Morse's fourth partner, was to secure a favourable contract for the trenching required to run the wire underground.

Nepotism

For the first few months all went well. Several contracts were placed with costs considerably less than estimated and Morse grew hopeful of early completion well within the sum allocated by Congress. Problems then arose over the contract price for the trenching which, disturbingly, was exactly that estimated by Morse. It transpired that Smith had placed the contract with his brother-in-law, and the difference of opinion between Morse and Smith over this matter was the beginning of an ever-widening gulf between them.

Superintending the trenching for the contractor was Ezra Cornell, later founder and chief benefactor of Cornell University. He is reputed to have invented the plough, pulled by eight mules, which dug the trench, laid the cable and filled the trench again, all in one operation. When the work finally started he was able to lay the line so quickly the manufacturers could not keep up with him.

After nine miles had been laid, it was found that the pipe-encased wire had faulty insulation caused by heat in the manufacturing process. Professor Fisher, responsible for supervising manufacture, and for testing the finished product, was dismissed and at the same time Gale resigned due to ill-health. With just himself and Alfred Vail left to superintend the work, Morse was in

despair. He had planned an underground line believing that Cooke and Wheatstone's system in England had successfully used buried conductors.

Overhead Wires

Vail and Cornell urgently read all the literature they could find about the European telegraphs and discovered that the English underground wires had also been a failure and had been replaced by overhead wires on poles. Cornell was then appointed as a mechanical assistant to Morse at $1000 a year, taking responsibility for constructing the line, and his enthusiasm, energy and ability became a major factor in its final completion.

By April 1844, poles 24ft high, 200ft apart were extending along the railroad. Good progress was again being made, with Morse telegraphing his assistants and receiving replies 'within seconds'. The insulation of the overhead wires where they were attached to the poles caused problems, but Cornell devised an economical solution using readily available glass doorknobs.

With everyone working under great pressure, the wires reached Annapolis Junction, 22 miles from Washington, on May 1, in time to pick up news from the railway of the proceedings of the Whig national convention at Baltimore. News of the convention's nominations for president and vice-president were flashed to Washington an hour before the train bearing the news reached there, enabling Morse to give that city a foretaste of what was to come.

'Things went well today'

On the day before the convention he wrote to Vail, 'Get everything ready in the morning... When you learn the name of the candidate see if you cannot give it to me... before the (rail) cars leave you...'

Next day, he wrote, 'Things went well today. Your last writing *(i.e., sending – Ed.)* was good. You did not correct your error of running your letters together until some time. Better be deliberate... I may have some of the Cabinet tomorrow... Get from the passengers in the cars from Baltimore, or elsewhere, all the news you can transmit...' Finally, the line from Washington to Baltimore was completed and, on 24 May 1844, all was ready for the first official demonstration of the Morse telegraph. Annie Ellsworth handed Morse the first words to be sent – and the rest is history!

Incredulous

On May 26, the Democratic convention met in Baltimore and Morse was able to relay news direct from the convention to Washington, another

opportunity to demonstrate the potential of his telegraph. Vail and Cornell had their instruments at the railway station in Baltimore, while Morse was located in a room below the Senate chamber in Washington.

There were nine ballots for the presidential nomination, all reported faithfully and instantly by Vail. Excitement rose to a crescendo in Washington as the news came into Morse's office and a little-known outsider, James K. Polk, finally received the almost unanimous support of the convention for his candidature.

The same procedure followed the vice-presidential nomination, but this time the nominee, Senator Silas Wright was not at the convention, but in Washington. Vail telegraphed details to Morse who passed them to the senator. Wright declined the nomination and asked Morse to send his decision to an incredulous convention which received his reply only minutes after nomination.

First Conference by Wire

They telegraphed again, received the same reply and, unsure of the accuracy of the new telegraph, sent a delegation by train to Washington to make sure they had received the message correctly.

In Baltimore, having received confirmation of the accuracy of the telegraphic message, a committee of the conference sat with Vail at his instrument while Wright joined Morse in Washington in private session. Via the new telegraph, the committee told Wright the reasons why he should accept the vice-presidential nomination. In return he explained his reasons for declining and this first long-distance telegraphic conference continued until the committee was finally convinced that Wright would not accept.

Thus the Morse telegraph became a reality. Soon its wires and facilities would spread across North America and then around the world overtaking or replacing, in its day, all other systems. The age of telecommunications had begun. ✚

The First 'Hand Key' – continued from page 20

References

Samuel F.B. Morse, His Letters and Journals, ed. his son Edward Lind Morse, Houghton Miflin Company, 1914: J.W. Freebody, *Telegraphy*, Pitman 1959: Th. Karass, Braunschweig, *Geschichte der Telegraphie*, Vieweg 1909: Robert Sabine, *The Electric Telegraph*, 19th cent.: Correspondence with John I. Brown G3EUR, 1990. ✚

What Hath God Wrought!

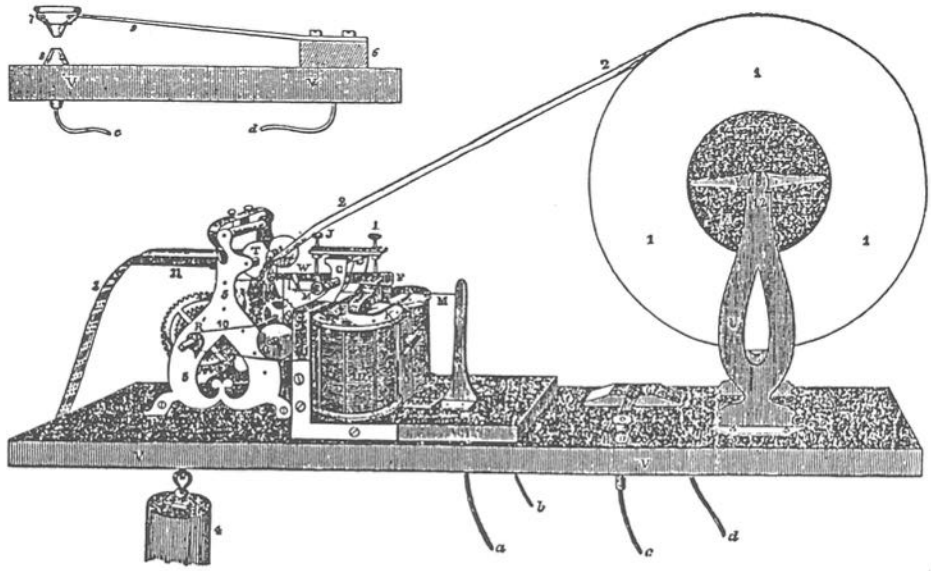
In 1843, with funds exhausted, Samuel F.B. Morse petitioned Congress for a second time, and waited two months in Washington for a bill to be approved which would allocate $30 000 for tests to evaluate the merits of his telegraph. He wrote to Alfred Vail, 'My means to defray my expenses, to meet which every cent I owned in the world was collected, are nearly all gone, and if, by any means, the bill should fail in the Senate, I shall return to New York with the fraction of a dollar in my pocket.'

On the last day of the session, 3 March 1843, disappointment seemed inevitable. Any business not completed before the adjournment could be delayed for up to a year and, as evening approached, senatorial friends told him they thought the bill would not go through. In the depths of despair he returned to his room and made arrangements to leave Washington the next day. At breakfast next morning he was interrupted by Annie Ellsworth, daughter of an old friend, the Commissioner for Patents, who told him that the bill had been passed unopposed just before the adjournment at midnight. He could hardly speak at first, and when he did he promised her that she should choose the words for the first dispatch on the line from Washington to Baltimore which was to be built with the money from Congress.

When the line was completed and the first official demonstration was given in front of invited observers, on 24 May 1844, Morse kept his promise. Annie Ellsworth chose the first words to be transmitted, and the phrase 'What hath God wrought!', taken from the Old Testament, Numbers, ch.23, v.23, took its place in history.

According to a contemporary account in the *Journal of Commerce*, Morse transmitted the sentence, 'letter for letter in one minute', to Alfred Vail in Baltimore, 'and the same sentence was again received from Baltimore in another minute... Nothing could have been more appropriate than this devout exclamation at such an event, when an invention which creates such wonder, and about which there has been so much scepticism, is taken from the land of visions, and becomes a reality...'

At last a full-scale Morse telegraph was in operation and carrying traffic daily, but what of the future? The immediate plan was to extend the line to New York and Boston, using a single wire and earth return instead of the metallic circuit (double line) used so far. But Morse wanted the government to take control of the system and its future development, believing it far too important to be left in the hands of private companies.



The 1844 Instruments – Morse register and key as used on the first line between Washington and Baltimore. Alfred Vail's first hand key is located between the paper roll and the register mechanism. A clearer view of the key is shown separately (top left). In 1845 terminology, V and V is the platform. 8 is a metallic anvil and 7 a metallic hammer attached to a brass spring, 9.

Vail wrote, 'The key or correspondent is used for writing upon the register at the distant station, and both it and the register are usually upon the same table' (i.e., baseboard). From this description it appears that the term 'key', as an alternative to 'correspondent' (i.e., sending instrument), may have been used from the time this predecessor of the conventional hand key appeared in 1844

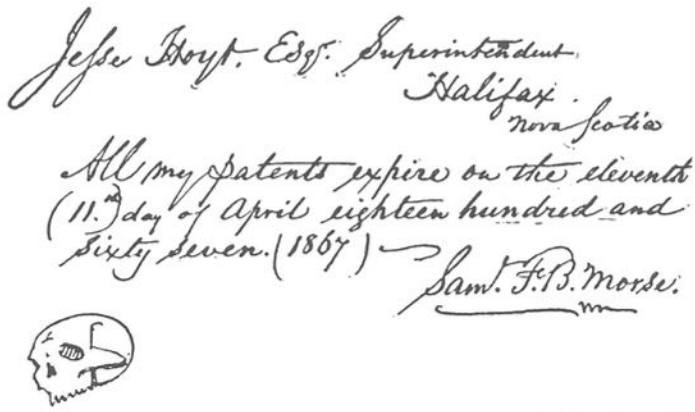
Illustrations from Description of the American Electro Magnetic Telegraph *by Alfred Vail, 1845, published 1847*

Negotiations took place along these lines, but finally all that Congress would do was vote a further $8000 to support the line already built. Morse and his partners (except F.O.J. Smith) placed their business affairs in the hands of Amos Kendall, former Postmaster-General, and soon, in 1845, various private companies came into being with plans to erect Morse lines across America.

European countries became interested and at last, after thirteen years of hardship and struggle, ridicule and indifference, the stage was set for the expansion of Morse's telegraph not only nationally, but around the world. Annie Ellsworth's choice of message was indeed appropriate. ✚

Deadhead

Readers may have wondered about the small sketch which appears under Samuel F.B. Morse's original signature on the back cover of recent issues of *MM*. This is a 'deadhead' drawn by Morse which he used to frank his free telegraphic messages. When telegraph companies entered into an agreement to use the Morse telegraph a clause was often included in it granting Prof. Morse and his fellow patentees free use of company's lines.



Telegram from Morse bearing his characteristic deadhead
From Samuel F.B. Morse, His Letters and Journals,
edited by Edward Lind Morse, 1914

In American railway jargon 'deadheading' was the practice of off-duty employees riding the trains free of charge. In telegraphic practice, a deadhead telegram was a free message, and the abbreviated signal 'DH' was used to signify such communications. *(As late as the 1960s, the practice lived on in shipboard radio services, where prefixes PDH, RDH and CDH signified telegrams with some or all of the charges 'franked' or cancelled. Does it still? – Ed.)*

According to the late Don deNeuf WA1SPM, the phrase, meaning one who gets something free, goes back well before the railways and the telegraph. 'The term was used in precisely its present sense at least as early as the palmy days of Pompeii when those who had free seats at the theatre were provided with ivory checks in the shape of a skull or "deadhead", and no doubt the expression was ancient even then.'

It seems that Prof. Morse's right to send and receive free telegrams was not always honoured, as is recorded by him in a letter from his home at Poughkeepsie, dated 15 August 1868, addressed to William Orton, President of Western Union.

'My Dear Sir,
From the earliest establishment of the Telegraph I have been accorded gratuitous use of the Telegraph for telegrams from me and to me. This has been on the majority of lines, and especially at the North, a courteous concession to me as the inventor which I have appreciated.

Today I have experienced the second refusal (at the New Orleans Office) to send a telegram to me without a prepayment. The first refusal, I think was at the Oswego office some weeks ago, but attributing it to the ignorance of the operator as to the custom of sending to me free of charge, I took no notice of it. But this second refusal of which I have just been informed by letter from New Orleans, induces me to ask if any order has been given countervailing the former custom...

In regard, however, to the lines South, the Wash. & New Orleans line, & Southwestern lines, if I am not greatly mistaken there is a special clause inserted in the original contract by N.V. Kendall, granting the free use to the original patentees, as a perpetual right to them personally. As I have not the record by me, I will not be sure of this fact. At any rate I prefer not to put it on the ground of right, but of courtesy, and if the interests of the Company require a withdrawal of this free transmission, I shall not press the words of any contract in opposition.

But if there has been no withdrawal of free transmission, may I ask that the various offices may be informed, so that there may be a perfect understanding of my position in future ———
With sincere respect
Y. Ob. Servt,
Sam. F.B. Morse.'

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Samuel F.B. Morse, His Letters & Journals, ed. Edward Lind Morse, 1914.
D.G. Sanders, *The Brasspounder*, 1978.
J.H. Bunnell, *Students' Manual*, 1884.
Dots & Dashes, journal of Morse Telegraph Club, Vol XVI, No. 4, 1988.

By Land and Sea

All the Lines are Morse

I visited one of the offices with Dr Whitehouse and Mr Brett where (in the city) I found my instruments in full activity, sending and receiving messages from and to Paris and Vienna and other places on the Continent. I asked if all the lines on the Continent were now using my system, that I understood that some of the lines in France were still worked by another system. The answer was – 'No, all the lines on the Continent are now Morse lines'.

From a letter sent by Morse to his brother Sidney, from London, England, 1 July 1856

Atlantic Cable Signals

The only instrument which could be used successfully in signalling through the (first) Atlantic cable was one of peculiar construction by Professor Thompson, called the marine galvanometer. In this instrument momentum and inertia are almost wholly avoided by the use of a needle weighing only one and a half grains, combined with a mirror reflecting a ray of light, which indicates deflections with great accuracy... Thus, when this galvanometer is placed as a receiving instrument at the end of a long submarine cable, the movement of a spot of light, consequent on the completion of a circuit through the battery, cable, and earth, can be so observed as to furnish a curve representing very accurately the arrival of an electric current.

... Lines representing successive signals at various speeds can also be obtained and, by means of a metronome, dots, dashes... etc, can be sent with nearly perfect regularity by an ordinary Morse key, and the corresponding changes in current at the receiving end of the cable accurately observed... A system of arbitrary characters, similar to those used upon the Morse telegraph, was employed, and the letter to be indicated was determined by the number of oscillations of the needle, as well as the length of time during which the needle remained in one place.

The operator, who watched the reflection of the deflected needle in the mirror, had a key, communicating with a local instrument in the office, in his hand, which he pressed down or raised, as the needle was deflected; and another operator occupied himself in deciphering the characters thus produced upon the paper... the fastest rate of speed over the cable could not exceed three words per minute.

From History, Theory, and Practice of the Electric Telegraph, *by George B. Prescott, pub. 1864*

Morse's Last Message

As Prof. Morse approached his 80th birthday, the telegraphists of North America resolved to mark it in a special way. Unavoidable delays prevented celebrations on the actual birthday, April 27, but on 10 June 1871, hundreds of telegraphers with their families converged on Central Park, New York. They came for the unveiling of a bronze statue of the 'Father of the Telegraph', paid for by contributions from telegraph offices throughout the USA and Canada. The statue still stands (see page 35 of this issue of *MM*).

Morse, himself, felt it was inappropriate to attend such a ceremony but that evening was present on the stage of the Academy of Music in New York, for a packed celebratory meeting presided over by William Orton, President of the Western Union Telegraph Company. After speeches paying tribute to Morse's achievements, the telegraph lines to all offices in North America, and to many overseas, were cleared. Using an original instrument from the Washington/Baltimore line, a young lady operator, Miss Sadie E. Cromwell, sent what was, in effect, a farewell message to the fraternity from the man they were honouring. 'Greetings and thanks to the Telegraph fraternity throughout the world. Glory to God in the highest, on earth peace, good will to men.'

Morse was escorted to the table to key his name at the end of this message, becoming overcome with the emotion of the occasion as wild applause rose in the auditorium. Congratulatory messages from home and abroad flooded in, and Morse concluded the evening with a speech recalling his early struggles and paying tribute, by name, to all who had helped him bring his dream to reality.

He died less than a year later, at his winter home in New York, on 2 April 1872. James Reid, Editor of the *Journal of the Telegraph*, summed up the feelings of his fellow telegraphers when he wrote, 'In the ripeness and mellow sunshine of the end of an honored and protracted life Professor Morse, the father of the American Telegraph system, our own beloved friend and father, has gone to his rest.

'The telegraph, the child of his own brain, has long since whispered to every home in all the civilized world that the great inventor has passed away. Men, as they pass each other on the street, say, with the subdued voice of personal sorrow, "Morse is dead." Yet to us he lives. If he is dead it is only to those who did not know him.' ✚

A Few Thoughts on the Name 'Morse'

The immigrant ancestor of Samuel F.B. Morse was Anthony Morse, who sailed from England in 1635, from Marlborough, Wiltshire, settled in Newbury, Massachusetts, and died in 1686.

The question of the ancestry of Anthony and the origin of the name 'Morse' has occupied members of the Morse Society, all members of the various branches of the Morse family, for many years. In 1985, John R. Morse, a research volunteer at the James Duncan Phillips section of the Essex Institute Library at Salem, MA, wrote an article with the above title in the Newsletter of the Morse Society after consulting *Blood of an Englishman*, by Edward C. Morse, one of the library's large collection of genealogical works. This book is devoted mainly to discussion on the origin of the Morse family in England with specific reference to Anthony Morse.

Starting Point

John R. Morse wrote, 'The name Hugo De Mors, appearing in 1358, is my starting point... Who was he, and where did he come from? Edward II of England had the dubious distinction of starting the Hundred Years War. The French Royal House was in disarray and Edward felt he should take steps to gain the French Crown. He was noted for his communication system, having threads all through the Continent. He needed allies and gathered his forces wherever he could. A prominent family in Northern Netherlands (then including parts of West Germany), named De Mors or Von Mors was surely contacted between 1340 and 1350. I feel that Hugo joined him at this time.

'The war continued sporadically for some time when the Black Prince (son of Edward III) captured the French King John, took him to England and held him for ransom. A truce came and negotiations began. It was for one of these negotiations that Hugo De Mors was ordered to conduct a party, including high churchmen, to Paris. At this time the French countryside was infested with mercenaries turned highwaymen who were robbing and pillaging at will.

'The requirements to lead this party were: first, the unquestionable loyalty of such a leader to King Edward; second, he had to be a proven

warrior and leader of men; and third, he had to have a group of men-at-arms. In those days, Kings did not provide men, only supplies.

Powerful Family

'The name De Mors appears on an ancestral castle 100 miles east of Antwerp, near the Rhine. As of 1940, this castle was a military museum. The De Mors family was powerful in the fourteenth and early fifteenth centuries. "From 1414 to 1463, Dietrich Von Mors was archbishop of Cologne, Duke of Westphalia and Count of Arnsberg. His brother Frederick was Count De Mors and brother John married the heiress of Mahlbery-Lahr. In 1450, the House of Mors was opposed by that of Hoya, and weakened and died out." (This quotation from Vol. VIII, *The Close of the Middle Ages*, The Cambridge Medieval History.)

'A scion from this De Mors family would easily fit the requirements of Edward III when he chose Hugo to lead his party to Paris. The exact name Mors seems to point directly to this German family as our continental forbears.

'This matter warrants a closer examination by serious researchers. It would be of great interest to discover the coat of arms this family used. Perhaps it is in Teutonic Heraldry, or in the ancestral castle. Look for both De Mors and Von Mors. Armed with these clues, hopefully one of our interested readers will be able to further our search.'

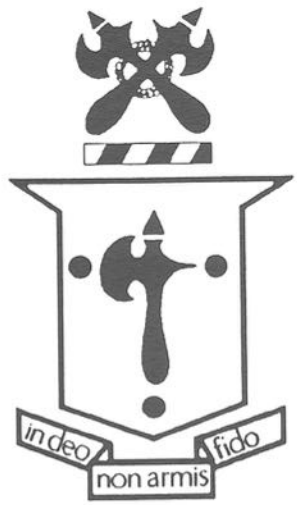
Coat of Arms

In the same issue of the *Newsletter*, the Chief Editor of the Morse Society, Denis S. Morse, commented on John R. Morse's conclusions. 'In Abner Morse's *Memorial of the Morses* (1850) there are several pages in the preface devoted to Hugo De Mors. As regards the Morse coat of arms, Abner reported that he was told by Samuel F.B. Morse that these arms have been in the Morse family in the south of England for nearly 500 years, i.e., back to the 1300s.

'Abner pointed out that these Morse arms were not found in Burke's *History of the Extinct Peerages of England*. So he concluded that such arms would probably have had a Continental origin, and his choice was France. In *Blood of an Englishman*, Edward C. Morse has an alternative suggestion... that they came from the "Ancient House of Mors" of Netherlands-Germany, as described above by John R. Morse.

'According to Edward C. Morse, "His (i.e., Hugo De Mors) Coat-of-Arms is identical with that device of the early Mors family in East Anglia (Suffolk and Norfolk)". Further, he said, "About that time – when Edward III

The coat of arms of the Morse family. Will this provide the necessary link to assist in identifying the De (or Von) Mors castle in Germany, or even confirm the past existence of the De Mors family in East Anglia?



encouraged so many of the Netherlanders to settle in East Anglia, the name of Mors appears for the first time in England where, according to records, most of the Germanic families easily fitted in as independent owners of farm lands; i.e., yeomanry."

'The first known occurrence of the Mors name in England was in 1381... and about where it should be, according to Edward C. Morse, in East Anglia. And, again, according to Edward C., all these factors have given rise to the generally accepted conclusion and recognition of Sir Hugo as the progenitor of the family.'

Two Hypotheses

'Another item of interest is a somewhat vague statement by Edward C. Morse, "In the dim past an adventuresome Viking expedition from the North of Denmark had carried the name of Mors up the River Rhine." I cannot say whether this was speculation on Edward's part, or whether he had some facts to base it on. An article by Philip McCord Morse has suggested that the Mors family in East Anglia was possibly of Danish origin, and that the Mors name may have been an outgrowth of something else.

'Because the Mors name was not found in England before 1381, this certainly was a reasonable hypothesis. Now we have another hypothesis – that of Edward C. Morse – which suggests that Hugo De Mors came to East Anglia from the Netherlands and that it was he who began the Mors family in England. This does not sound at all implausible – but unless the presence of Hugo in England can be confirmed this theory would indeed be difficult to substantiate. But it does seem worth noting that the racial origin of Hugo De Mors as proposed by Edward C. Morse, is essentially the same as that proposed by Philip McCord Morse.

'According to John R. Morse, Edward's book is presented in a scholarly manner and is well documented. John R. thinks we (The Morse Society)

should do some research ourselves – if only to satisfy ourselves of the probable validity of the key references quoted by Edward C. Morse.'

Teaser

In correspondence with *Morsum Magnificat*, Denis S. Morse comments further that 'what we have is essentially a teaser. The name of Hugo De Mors has never been found on any historical basis in England, but this does not necessarily mean that he never existed – just that no-one (that I know) has found it. I have no idea where Rev. Abner Morse found the reference for his 1850 *Memorial of the Morses*.

'The ancestors of the immigrant Anthony Morse have been traced back at least to a Will dated 1542. I don't think there is much doubt about the Wiltshire family originating from East Anglia – but I have no specific family connection to propose. However, Anthony's English lineage would appear to go back to William, born c.1510–20 (ref: *Pillsbury Ancestry* by Holman).

'I think that the location of the De Mors castle would be in what is now Germany rather than in what is now the Netherlands. Unfortunately, I have never seen the quoted reference or any other reference on this family. I would be very pleased to have you mention the need for further research on the De (or Von) Mors family of the Rhine.'

Help Wanted!

If any readers of *MM* have access to appropriate historical records and can help in any of the matters referred to please contact Tony Smith. Can our German readers help in identifying the De Mors castle in Germany? Was there a (Sir?) Hugo De Mors who settled in East Anglia as suggested? Can his family be linked to Anthony Morse who emigrated to America in 1635?

Acknowledgements

MM is grateful to Denis S. Morse, Chief Editor, for his permission to adapt material from the original articles in the *Newsletter of the Morse Society*, March 1985, for readers of *Morsum Magnificat*. ✚

Full Employment

A poor fellow, seeking employment in a Chicago telegraph-office, finally asked to be hired as a telegraph pole. It was no use, every post was full. – 'Telegrapher'.

Reproduced in The Telegraphic Journal, *London, 1 November 1876*

The Late Professor Morse

From the *Illustrated London News* of Saturday, 4 May 1872

'This eminent scientific investigator and practical inventor, who is deemed by his American countrymen the true author of the electric telegraph, died, at New York, on the 2nd ult. at the age of eighty. He was born at Charlestown, Massachusetts, in 1791, his father being the Rev. Jedediah Morse, a geographer of some repute. Samuel Finley Breese Morse was educated at Yale College, Newhaven, in Connecticut, where he took his degree in 1810. He chose the profession of painter, and with his countryman Allston came to England, where he became an intimate friend of the late C.R. Leslie, and pursued his art studies under Benjamin West. He won a prize for sculpture at the Royal Academy in 1813, and exhibited a large picture of "The Dying Gladiator", which gained him much applause.

'Returning to America, he dwelt, first at Boston, then in New Hampshire, next at Charleston, South Carolina, and subsequently at New York, in which last-named city his talent as an artist began to earn its reward. In 1829 he again visited Europe; and it was during his return voyage, in 1832, on board the packet-ship *Sully*, that, in conversation with a fellow-passenger, Professor C.T. Jackson, of Harvard, Mr Morse thought of using the instantaneous passage of electricity through a wire for conveying messages and recording them – five years before the inventions of Messrs Wheatsone and Fothergill Cooke in England, and of Steinheil in Bavaria, were publicly made known.

'Mr Morse thence-forward devoted much of his time to this subject, and in 1835 completed a working model of his "Recording Electric Telegraph", which was patented in Washington. It was perfected in 1840, and in 1844 the invention was brought into practical use on the Baltimore and Washington line, the first in the United States. The total length of all the electric and magnetic telegraph lines in the Union at the present day is 61 207 miles, consisting of 133 000 miles of wire, and new lines are continually laid.

'Three fourths of them, at least, belong to the Morse system, which has the advantage of printing every word of the message transmitted,

in the shape of a variable sequence of dots and strokes marked on a narrow endless strip of paper... By means of this invention newspaper reports and other lengthy communications are sent, in America, with much greater expedition, and at much less cost, than has yet been practicable in Europe. Mr Morse was also the first constructor of a submarine telegraph, having laid one in New York Harbour in October 1842.

Morse's statue in Central Park

'He received, in latter years, the most flattering testimonials of merit; in 1856 he was entertained in London by the directors of all the telegraph companies in Great Britain; in 1860, at the suggestion of the Emperor Napoleon, an official convention of the European Government Telegraph Directors gave him a present of 400 000f.; and the telegraph managers of America honoured him with a grand demonstration, last June, when a statue of him was erected in the Central Park at New York *(see above)*. He was also invested with many titles and orders of knighthood by foreign Courts, and with the honorary degrees, diplomas, and medals of Universities and learned societies all over the world... The portrait we engrave *(see the front cover of this issue of* MM*)* is from a photograph by Mr H. Claudet, of Regent-street.' ✚

Happy Birthday Professor Morse!

Roundup of celebration events/activities notified

To celebrate the 200th anniversary of the birth of Samuel F.B. Morse, who was born on 27 April 1791, amateur radio CW stations around the world will be on-the-air on Saturday 27 April 1991 to honour the memory of 'The Father of Telegraphy'. A number of non-amateur events will also take place as detailed below.

The idea is simply for as many CW stations as possible to be operational that day to exchange fraternal greetings and generally enjoy some time on the key. If it is possible to use old-time keys or other equipment for the event so much the better, but this is not essential.

Before, during and after the weekend a number of special CW stations or activities will be heard which will add to the interest of the occasion. Look out for, and participate in, the following. When fuller details have been given previously, the number of the issue concerned is shown in brackets after the item. Let us know how you get on!

Poughkeepsie Radio Amateur Club with K2KN from Locust Grove, Poughkeepsie, New York, Samuel Morse's country home from 1847 to 1871. Station operational from 1400 to 2000UTC on April 27. CW frequencies 3710, 7110, 14 050, 21 110 and 28 110 ±10kHz. Special QSL card via the ARRL bureau. (MM18)

The **ARRL** begins a new Samuel F.B. Morse Bicentennial Code Proficiency Award, with the first qualifying run from W1AW at 2300 UTC on April 27. (MM18)

The **Sydney Morsecodians Fraternity** (Australia) will operate old-time instruments at the historic Alice Springs Telegraph station, in the Northern Territory, April 21–27. This station will be linked by a 3000 mile 'landline' to the National Science & Technology Centre at Canberra, ACT. (MM17)

FOC Jubilee 1991. A special Award for the non-member working the greatest number of FOC members in 40 days beginning April 27. Look out for G4FOC on the anniversary day. Details from Peter Miles G3KDB, PO Box 73, Lichfield, Staffs. (MM18)

Darwen (Lancs) ARS are holding a special activity week in the foyer of the local public library, and a special call has been applied for. Details from G3ZQS. (MM18)

GX6CW/A, the **Amateur Radio Club of Nottingham**, will be active over the weekend April 27–28, on HF and VHF. Details from G4NZU. (MM18)

Smiths Industries Radio Society, Cheltenham, will operate GX4MEN over the weekend April 27–28. Details from G4YIX. (MM18)

A **Morse Memorial CW Meeting** at Maassluis, Holland, will activate PA6MMD on April 27, with special QSL cards for the occasion. *MM* readers are welcome to attend this international meeting. (MM18)

A new CW Award will be launched by the **European CW Association**, with up to 40 stations worked on the first day, April 27, counting as double contacts. The award certificate (see inside back cover of this issue), printed on heavy quality parchment type paper, bears a map showing Europe 'at the time of S.F.B. Morse'. (MM18)

AGCW-DL's Morse Memory week precedes the bicentennial date, from 0000UTC April 20 to 2400UTC April 26, on all bands 160–10m (including WARC bands), plus 2m and 70cm. Special QSLs and certificates for participants. (MM18)

The **Friends of Samuel F.B. Morse**, (FMC, Germany) are organising a Morse Memory Day on April 27, 0000–2400UTC, on all bands HF to SHF, open to all amateurs and SWLs world-wide. (MM18)

GB0IMD, celebrating **International Marconi Day** on April 27, will be operating CW throughout the month prior to, and after, the 27th and will be especially pleased to work stations celebrating the Morse bicentennial. (MM18)

GB2SM, station of the **Science Museum**, London, will operate during the period April 20 to May 5 with the special call GB200SM, using CW only.

The **International Short Wave League** will be active on CW, on April 27, with the ISWL club callsign, G4BJC.

The **Karelian DX Club 'Kivach'** has announced a special 'Samuel F.B. Morse' award to commemorate the bicentennial. The requirement is 13 CW QSOs, with any amateur stations world-wide, in which one letter of the callsign of each station worked can be used to spell out the name of the award. Alternatively make 200 CW QSOs in the club's annual international contest.

Fee for the award is US $6.00 or 12 IRCs. If the award is qualified for in the contest the fee is halved. For applications and further information: write to Dimo V. Frolov UA1NDY, PO Box 4, Petrozavodsk-14, 185014 Karelia, USSR.

The **Edmonton, Alberta, chapter of the Morse Telegraph Club** will operate the unique call VE6SFBM from April 27 to May 3, on or near the international QRP frequencies, 3.560, 7.030/40, 10.106, 14.060, 21.060 and 28.060MHz. Operation will be from the C & E Railway Museum's 1891 railway station replica (see MM18, p.28), also from Fort Edmonton Park. QSL via bureau, or direct to Moe Lynn VE6LBY, 10644 - 146 Street, Edmonton AB, Canada T5N 3A7 (enclose SASE or 2 x IRCs for replies).

Other chapters of the Morse Telegraph Club (USA) also plan to celebrate Prof. Morse's birthday with amateur radio stations as well as with their more usual 'dial-up Morse' landline connections. In some cases radio contacts will be made with celebrants using either American or International Morse code. (MM18)

The **Royal Signals Amateur Radio Society** will operate special event station GB200SIG from April 20 to May 4, and possibly for a further two weeks thereafter. The station will be active on all bands 160–10m, and possibly 2m, for as many man-hours a day as operators are available.

The RSARS station will be operated by the Scarborough Special Events Group. The Group's own call GX0OOO will also be on the air for the two weeks commencing April 20, operated by G4SSH.

Station **3A200SM (Monaco)** will be active during April. No other information available.

Locust Grove, home of Samuel F.B. Morse
Calendar of bicentennial events, 1991

April 27: Gala Dinner/Speaker, Vassar College.

May 25–27: Opening weekend. Theme, Morse the inventor. Demonstration stations by Morse Telegraph Club and Poughkeepsie Amateur Radio Club. Talk by Dr. Laurence A. Wills, SUNY Maritime College, about the use of Morse code in the US Merchant Marine. Possible exhibit of Morse Medals.

June 22: Morse, the Community Man. Signed tours for the Hearing Impaired.

July 20–21: Founders' Weekend. Victorian Garden Party, tour of gardens, etc. Music. Refreshments.

August 17: Morse, the family man. Victorian costumes. Children's costume contest. Magicians, clowns, puppet show, etc.

August 18: Concert by Riverbank banjo band.

September 21–22: Civil War Encampment.

October 18–19: Morse, the Painter. Seminar at Marist college. Exhibition of copies of his art. Speakers: William Kloss, Dr Carleton Mabee.

Sept – October: Vassar Art Gallery.

December 7–8: Morse: A Young Morse. Christmas at Locust Grove. Music and Caroling. Reading, 'The Night before Christmas'. Refreshments.

Other events (to be confirmed): Classical guitar concert. West Point chamber music group.

Full details from Young-Morse Historic Site, 370 South Road (US Rte. 9), PO Box 1649, Poughkeepsie, New York 12601, USA.

Readers visiting Locust Grove during the bicentennial year are asked to write to *MM* (Tony Smith) to tell us how they enjoyed their visit. Photos, postcards, etc., of Morse memorabilia suitable for printing in the magazine will be very welcome.

Celebrations at Locust Grove

On 30 July 1847, Samuel F.B. Morse wrote to his brother, 'I have this day concluded a bargain for it. I am almost afraid to to tell you of its beauties and advantages. It is such a place as in England could not be purchased for double the number of pounds sterling. Its "capabilities" as the landscape gardeners would say, are unequalled.

'There is every variety of surface, plant, hill, dale, glens, running streams and fine forest, and every variety of different prospect: the Fishkill Mountains towards the south and the Catskills toward the north; the Hudson, with its variety of river-craft, steamboats of all kinds, sloops, etc., constantly showing a varied scene.'

Morse was referring to Locust Grove, Poughkeepsie, New York, which was to be his country estate until his death in 1872. In 1901 the estate was bought by the Young family, and in 1975 Annette Inglis Young endowed a trust in perpetuity to maintain Locust Grove as an historic site and wildlife sanctuary for the 'enjoyment, visitation and enlightenment of the public.'

Today the Young-Morse Historic Site is a designated National Historic Landmark open to the public, from Memorial Day weekend to September, daily except Monday and Tuesday, also October weekends and all Monday holidays. Additionally advance reservations can be made for special group tours during October, November, December, April and May.

The house is surrounded by 150 acres on a bluff above the Hudson river, and the estate includes historic gardens and buildings, acres of woods and scenic walking trails to the Hudson River. The house contains a beautiful collection of 18th and 19th century furnishings and other treasures belonging to the Young family; but the main point of interest for Morse enthusiasts is the Morse room on the first floor of the mansion, filled with Morse memorabilia, including a model of Morse's first telegraph and a collection of early telegraph equipment.

Morse had a telegraph line wired into his office from the main route close by, and today the sound of code can still be heard at his country home. Each year, during its opening weekend, Locust Grove holds a Telegraph Weekend during which members of the Morse Telegraph Club use authentic equipment and American Morse for a transcontinental celebration of Morse's invention; and the Poughkeepsie Amateur Radio Club operates a Special Event radio station using telephony as well as International code.

These activities will be repeated in 1991 to celebrate the 200th anniversary of the birth of Samuel F.B. Morse when, as previously reported in *MM*, Poughkeepsie Radio Amateur Club will operate K2KN, from 1400–2000 UTC, on April 27, with CW transmissions on 3.710, 7.110, 14.050, 21.110 and 28.110MHz, ±10kHz.

Locust Grove is planning a continuing celebration of the Morse bicentennial throughout the summer of 1991. For further details, see 'Happy Birthday Professor Morse!', a roundup of celebration events and activities, elsewhere in this issue. ✚

World's Biggest Sounder

The largest 'telegraph sounder' ever constructed was presented to Western Union in New York City by the Liberty Loan Committee of the Second Federal Reserve District in October of 1918.

This mammoth replica of a sounder was mounted in Herald Square at 35th Street (NYC). It measured 5 feet 6 inches long by 3 feet wide at the base; from base to top was 3 feet 4 inches; the coils were 18 inches high and the armature was 3 feet 6 inches long.

Had it been an actual working model it probably would have outdone a jack-hammer breaking up pavement from a noise standpoint, and certainly telegraph operators could have 'read' it several blocks away!

Don deNeuf, WA1SPM (SK)

News

High Speed Championships 1991

The bi-annual IARU (International Amateur Radio Union) Region 1 High Speed Telegraphy Championships will take place at Neerpelt, Belgium, on 4–6 October 1991. The Organising Society, UBA (Union Belge des Amateurs-Emetteurs), has issued a formal invitation to all Region 1 member societies to participate in the championships. Acceptance of the invitation was required by 1 April 1991, including details of the number of participants and other persons who will be attending for the team events.

In the 1989 championships, national teams from Bulgaria, Czechoslovakia, Hungary, and the USSR took part, together with individual entrants from Italy, Germany, France and Holland. It is hoped that this year, the 200th anniversary of the birth of Samuel F.B. Morse, will see some teams from non-East European countries taking part for the first time.

Readers of *MM* who are interested in entering the championships may like to know that even if their national societies do not organise a team entry it is still possible for individuals to enter the Open Class competition which has categories for 'Youngsters' (up to 15 years), 'Juniors' (up to 18 years), 'Seniors', male (over 18), 'Senior YLs', i.e., female (over 18), and 'Veterans' (46 years or over).

Those wishing to enter the Open Class should inform their national society of their intention to enter as soon as possible as societies are required to send this information to reach UBA before August 4, i.e., two months before the championships begin. The full rules are obtainable from all IARU Region 1 national amateur radio societies. A summary of the rules for the various events will be published in the next issue of *MM*.

Readers in IARU Region 1 are requested to send to *MM* any information they can obtain regarding their own national society's intentions to organise (or not to organise!) a team entry for the 1991 championships.

Straight Key Evening

The Edgware and District Radio Society's 9th annual Straight Key Evening will be held from 1900 BST on Friday, 17 May 1991. Activity will be in the 80 metre band around 3.550MHz. Call CQ SKE.

The club will be activating their special call, GB2SKE, during this event. The station will also be on-the-air during the afternoon of the 17th on 40m CW, when it is hoped to work many stations in Europe as well as in the UK.

All comments will be welcomed by the SKE organiser, John Bluff G3SJE, 52 Winchester Road, Kenton, Harrow, Middx HA3 9PE, England.

East to West QRP Weekend

This event, held on 28–30 September 1990, was judged an outstanding success by its joint organisers, the OK QRP Club (Czechoslovakia) and the G-QRP club (UK). More than 50 logs were received, while many more stations were known to be active over the weekend. Logs were received from every country in Eastern Europe, showing that the aim of bringing east and west Europe together in QRP friendship was fully achieved.

The leader in Area A, Eastern Europe, was UA3MBJ (USSR), runner-up was SP5SDA (Poland), using a single 14.060MHz crystal, and third place went to OK2BMA (Czechoslovakia).

In Area B, Western Europe, the leader was G3JFN (UK), who received the paddle key donated by G4ZPY Paddle Keys International. Runner-up was SM6BSK (Sweden) while DK5VD (Germany) was third.

The rules for the 1991 event, to be held September 27–29, will include suggestions made by entrants to reflect the advent of a much more united Europe and will also cater for long distance contacts with stations outside Europe and Asiatic Russia.

The new rules will be published shortly. Any station using 5 watts of CW, or less, can take part in this revised event which is intended to demonstrate the close unity of QRP operators throughout the world.

Information from Gus Taylor G8PG, on behalf of the OK QRP and G-QRP Clubs.

Hungarian Club Applies to Join EUCW

Another East European CW club has applied to join the European CW Association which until recently had only West European members. The Hungarian Telegraphy Group, HACWG, was founded in 1985 'to unite Hungarian amateurs who like telegraphy work'. Now associated with the reformed Hungarian national society, MRASZ, its objectives are to popularise CW, to attain high CW activity, promote Hungarian diplomas, and to join EUCW.

Foreign amateurs can become honorary members on the recommendation of two club members, after contacts with them lasting at least 30 minutes at

a speed of 150 letters per minute or higher on the PARIS base. Applications must include a statement that the applicant did not use a keyboard, computer or decoder during the qualifying QSOs. Activity takes place every Monday between 1800 and 2000 UTC, around 3.565MHz.

Applications, with two recommendations plus 5 IRCs (entrance fee only), should be sent to Valeria Csaszar HA3FO, Secretary HACWG, H-7100 Szekszard, Rakoczi u. 16, Hungary.

Q & Z Codebook

The reprinted 82-page *Morsum Magnificat Q & Z Codebook* (see MM18, p.3) is available to readers outside the UK for US $10 by surface mail, or US $12 airmail, payment by banknotes only. The UK price is £5 (sterling), also by banknote.

The Codebook can be obtained from Dick Kraayveld PA3ALM, Merellaan 8, 3145 XE Maassluis, Netherlands (Tel: 01899-18766). Please tell your friends about this publication. It can be purchased by non-subscribers, who will receive details of *MM* with their copy.

Morsum Magnificat

BACK ISSUES

Stocks of past issues of *MM* are going VERY fast; only the following issues are now available:

Numbers 1, 2, 8, 9, 10, 17 & 18.

All others are out of print. If you have any gaps in your set, check the list above to see if they're still available and send your order NOW, before it's too late. Price including postage £2.00 each to UK addresses, £2.15 overseas. Deduct 10% for orders for 3 or more copies. See inside front cover for how to pay.

In RADIO BYGONES April/May issue, available now!

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Telephone 0202 658474: International +44 202 658474

Club Profile – 1

The aim of The Radio Telegraphy Very High Speed Club (VHSC) is to encourage and maintain very high speed amateur radio telegraphy. The club has approximately 300 members and publishes its *VHSC Bulletin* in the English language. Foreign members are welcome. Applicants for membership must be able to operate in CW at 40wpm

There is a joining fee of 10 IRCs (International Reply Coupons) for life membership, but no annual subscription. The club has connections with the Netherlands' national radio society, VERON, and is a member of the European CW Association. The VHSC Committee consists of PA0LOU, Chairman; PA0DIN, Secretary/Treasurer; and DL2FAK, member.

How to Join

After several QSOs with a VHSC member ask him to send you his recommendation for VHSC membership. The recommendation is subject to satisfactory completion of a two-way CW QSO of at least 30 minutes, with a telegraphy speed of at least 40wpm. Solid copy and excellent keying is required of the applicant and no keyboards or decoders are permitted during these QSOs.

Four recommendations are required to qualify for membership. These should be sent, with 10 IRCs, to the Club Secretary: Din J. Hoogma PA0DIN, Schoutstraat 15, 6525 XR Nijmegen, Netherlands. All applications should include a declaration that the applicant did not use a keyboard or decoder during the four test-QSOs. A certificate of membership is sent to new members. Enquiries about membership should be sent to PA0DIN (send 2 IRCs).

Celebrations

VHSC was founded on 1 May 1961, four days after the 170th anniversary of the birth of Samuel F.B. Morse. Four days after the Morse bicentennial on 27 April 1991, therefore, the club will be 30 years old. VHSC is urging all members to celebrate both these special dates with extra activity on the bands during its 1990/1991 Marathon.

The Marathon is a year long event, from 1 May 1990 to 30 April 1991. During this period the aim is for all VHSC members to work as many fellow-members as possible using CW, and all participants will receive a 'VHSC 30 YEARS' memorial certificate sponsored by PA0DIN. ✚

What of the Future?

by Roy Clayton G4SSH, Chief Morse Examiner

While this special issue of MM *looks back to the early days, it is also an appropriate time to think about and discuss the future of Morse telegraphy. As reported in MM18, Roy Clayton G4SSH is the Radio Society of Great Britain's new Chief Morse Examiner.* MM *asked Roy for some background information about himself, his approach to his new appointment, and his views on the future of Morse within amateur radio.*

After serving for many years as a Marine Radio Officer with the Marconi International Marine Communications Company in the '50s and '60s, I have been employed in Government Communications for the past 28 years. I became a licensed radio amateur in 1983, and am an active HF DXer, using basic equipment to simple antennas. I am a firm believer in the use of Morse, both as an effective mode of communication when chasing DX and also for the sheer enjoyment of using a mode that can give such satisfaction and sense of achievement.

I was previously Senior Morse Examiner for the county of North Yorkshire, having formed the team in 1986. I am Chairman and founder of the Scarborough Special Events Group and Editor of the *Scarborough DX News-sheet*. This local news bulletin is specifically aimed at the average 100W and dipole operator to prove that with operating skill and CW you can work the world with limited resources. An avid Award Hunter, I am presently the leading G-station in the CW WPX Honor Roll. A family man, my son is G4UUU and my daughter G7BBB.

Most of your readers will be aware that the use of Morse in the professional services is declining as more cost-effective, speedier and less-manpower intensive modes of reliable communication become available. In the long term it may well be that Morse will become almost exclusive to amateur radio, with national societies and enthusiast magazines, such as *MM*, becoming the sole remaining specialists on the subject.

Fortunately, in the field of amateur radio the above professional considerations are more than outweighed by the tremendous advantages that the use of Morse can give, such as the efficient use of radio spectrum, the

ability to use simple low cost transmitters and receivers, its international language capability, and its superiority over other modes in its ability to contact distant stations over weak and fading signal paths.

To employ these advantages, however, requires a certain amount of self-training and dedication in order to acquire unique skills. Regrettably, there are many people today who would rather spend their time and effort in trying to change the rules.

I am acutely aware that the majority of amateurs who go on to use Morse as their main operating mode are mature ex-professionals. Unfortunately, many successful Morse test candidates (in spite of their good intentions not to lose their hard-earned skills) find the transition from the 12wpm test speed to the 20wpm average QSO too difficult a gap to bridge. Instead, they settle for an easy life on the microphone and in doing so throw away one of the finest means of working the exotic stations. This often leads to the conviction that 'you have to have a beam and a linear to work the DX', and another disgruntled and frustrated hopeful departs the hobby.

I believe there is a part to be played by individuals, clubs, national societies and specialist magazines, in encouraging, teaching, demonstrating, and providing opportunities for newcomers to learn basic Morse up to 12wpm. Then, and equally important, in continuing to provide support and further training, enabling the newcomer to gain the confidence and increased speeds necessary to go on to employ the mode to its fullest potential.

Having just taken over the post of Chief Morse Examiner it is, perhaps, a little early to consider what changes, if any, are needed in the UK Morse test to meet the changing needs of amateur radio in the nineties. However, with a team of 300 professional and ex-professional examiners in the Morse Test Service, I am in the fortunate position of being able to consult what must be the largest pool of experienced radio amateurs in the country, and this I intend to do in the near future.

May I wish your magazine, and your aims, every success.

(Readers' views on the future of amateur CW will be welcomed for publication in future issues of MM *– Ed.)*

Readers' ADs

WANTED

Mechanical type bug key of Vibroplex, Eddystone or other manufacture. If you have one for sale please telephone Reg G0NYR on Liverpool (051) 489 6833.

Just rambling...

An Opportunity to Celebrate!

Professor Morse was greatly honoured in his lifetime because of the then incredible achievements of his electro-magnetic telegraph. He saw this grow from a primitive home-made instrument into a sophisticated system of communication which spanned the world by landline or undersea cable. Yet, although he, himself, conducted experiments in 'wire-less' telegraphy, he did not live to see the even greater achievements that were made possible following the invention of radio.

This anniversary year gives those of us who know something of the wonder of Morse telegraphy an opportunity to remember and celebrate the 'Father of the Telegraph'. This special issue is *MM*'s own contribution to the celebrations, concentrating on the early days of Morse's marvellous invention and its associated codes. I hope you will all enjoy it.

I hope, too, that our radio amateur readers will be able to take part in some of the many bicentennial activities announced in this and previous issues. Those of you who are not licensed amateurs can also join in these fraternal activities by listening to them on your short-wave receivers, especially as several events have SWL sections. Our friends in the Morse Telegraph Club and the Sydney Morsecodians, of course, don't need radio at all with their unique 'dial-up' line facilities, although they might take a few patched-in wireless signals on this occasion!

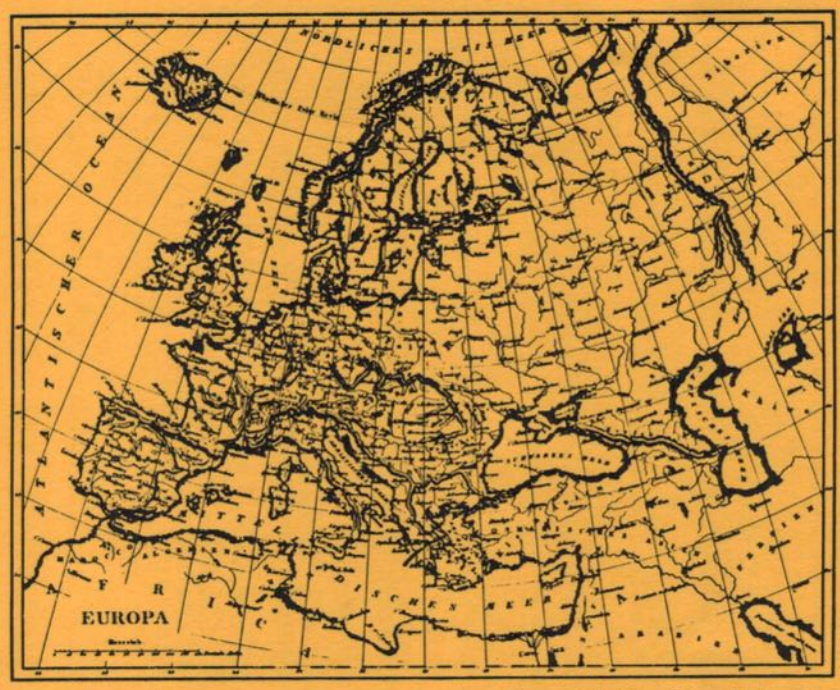
As a communications mode, Morse telegraphy is disappearing in the professional world, and amateur radio may soon be its last bastion. Amateurs, therefore, need to take every opportunity to demonstrate that CW is still alive and well, and the 200th anniversary of the birth of Samuel F.B. Morse is surely one of those opportunities!

Have a great time in the celebrations, and simply by doing that, show that even though CW is a minority mode it is a large and important minority, still making a significant contribution to amateur radio.

Finally, don't forget to write to *MM* after April 27 to let us know how you got on so that we can carry your reports and/or photographs in the following issue.

73, Tony G4FAI

On the facing page – The new 'Worked EUCW' Award which is to be launched on the Morse Bicentennial, 27 April 1991, with up to 40 stations worked on the first day counting as double contacts. See further information in MM18, p.45. Full details from the EUCW Award Manager, Gunther Nierbauer DJ2XP, Illingerstr. 74, D-6682 Ottweiler, Germany (send two IRCs)



Europe at the time of Samuel F.B. Morse

European C.W. Association

THIS IS TO CERTIFY that.....has communicated with, or heard, 100 members of EUCW-Clubs by means of Morse telegraphy via Amateur Radio in accordance with the rules of the EUCW-Award.

Class of Award

EUCW Awards Manager

Certificate Nr.

SAMPLE ONLY

Date

Classes of Award - ORP. up to 5 watts output; Standard. any legal power; SWL. stations heard using any power.

Alfred Vail