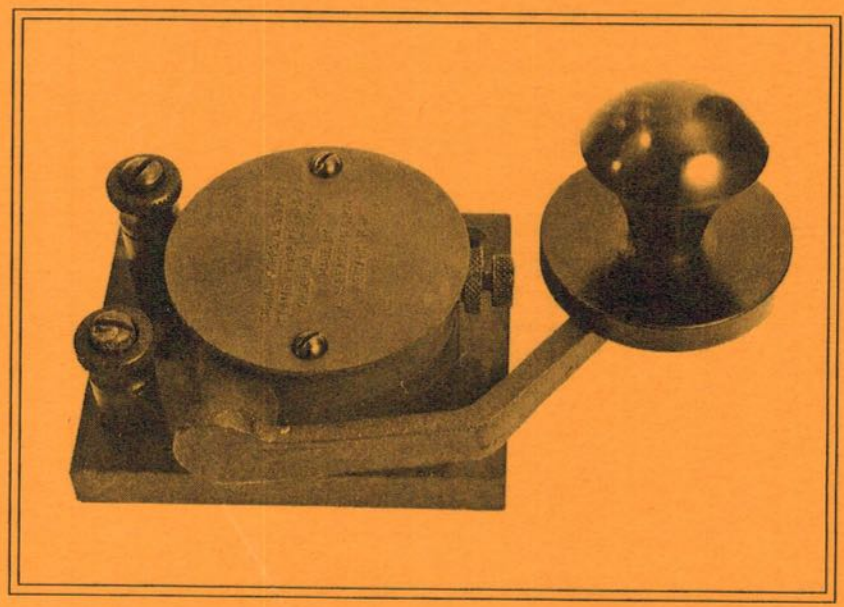
Flying the flag for Morse

Number 37 – Christmas 1994

Morsum Magnificat

The Morse Magazine



US Army Signal Corps J-5-A Flameproof Key

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Flying the flag for Morse

Morsum Magnificat

ISSN 0953-6426

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MORSUM MAGNIFICAT was first published as a quarterly magazine in Holland, in 1983, by the late Rinus Hellemons PA0BFN. Now published six times a year 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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 Printed by Hertfordshire Display plc, Ware, Herts

ANNUAL SUBSCRIPTIONS:

	UK	*Europe Airmail*	*Rest of the World: Surface**	*Airmail*
1 Year:	£12.00	£12.75	£14.50	£15.50
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RATES:	*Surface**	*Airmail*
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ON OUR FRONT COVER
A J-5-A Flameproof Key, Signal Corps, US Army.
Made by L. S. Brach Mfg Co., Newark, NJ.
Collection/Photo: Giuseppe Povoledo IV3PVD

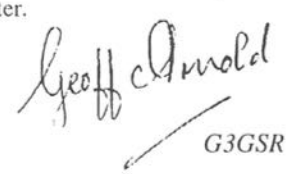
Comment

WHEN WE CHANGED *MM* from a quarterly to a bi-monthly publication, early in 1993, we still had quite a stock of the binders which would take only eight issues. These have now all been sold, and we are pleased to announce on page 48 of this issue the availability of new binders which will accommodate twelve issues – two-years' worth of the magazine. Although the price is higher than before, the new binders actually work out cheaper on a 'cost-per-issue' basis. I hope that you'll like them.

Whilst on the subject of costs, we haven't had a general subscription price increase since 1991, other than to take account of the two extra issues you now get each year, and I'm hoping to be able to maintain that happy state of affairs for a while longer. Much of the credit for this must go to our printers, who have kept their price steady, despite several paper price increases. On the editorial side, production techniques are being modernised all the time, which has brought some cost savings, and we have recently also begun to take advantage of a new bulk contract offered by the Post Office for overseas Air Mail.

For Surface Mail, we have suffered substantial postage rate increases over the past few years, made worse for us by changes in the price/weight break structure. We have so far absorbed the cost of these, but we now feel that we must increase Surface Mail subscription rates. The speed and reliability of Surface Mail has been getting steadily worse recently, with postings to North America and Australia and New Zealand taking up to 50% longer than previously to reach their destinations, and some packets just disappearing into limbo! Sending replacements for missing magazines is obviously costly, and we feel that we can no longer guarantee delivery of Surface Mail subscription copies. Instead, we would encourage overseas readers to opt for Air Mail despatch – the price is now only a little more than Surface Mail, and the service very much better.

73 de



G3GSR

Contents

Advertisements

News

IARU No Change Decision

Following the IARU Administrative Council meeting in Singapore on 10–12 September 1994, a press release covering the various matters considered at the meeting included the following statement:

'A resolution concerning the requirements in the Radio Regulations for a demonstration of Morse code ability for operators licensed to use amateur frequencies below 30MHz was adopted.

'Consistent with the views of the member societies as expressed through the regional organisations, the IARU will neither propose nor support a change in the requirement at this time.'

World Amateur Radio Day

The IARU AC press release also stated 'A resolution was adopted designating the third Saturday of September as World Amateur Radio Day, as an opportunity to focus public attention on the benefits derived from Amateur Radio, and a theme for 1995 of "100 Years of Radio" was adopted.'

In view of the great contribution of Morse code in enabling early wireless to be used for communications, Morse clubs and organisations might consider giving a high profile to amateur CW during World Amateur Radio Day 1995, both on the air and in associated publicity aimed at the amateur community and the general public.

Possible activities could involve special events on-air; or the setting up of 'visitor friendly' public demonstration CW stations, with a strong emphasis on explaining the important role of Morse since radio began.

Enthusiasts could submit articles on Morse subjects to the specialist amateur magazines throughout the year (perhaps linked to the Marconi Centenary celebrations) to raise Morse awareness in the amateur community; and more generalised articles on Morse subjects, relative to World Amateur Radio Day and the Marconi celebrations could be submitted to both national and local newspapers or general magazines.

We will be pleased to hear from any readers undertaking special CW activities for World Amateur Radio Day, or the Marconi celebrations, to enable details of their activities (or publishing successes) to be reported in *MM*.

MEGS Proficiency Award

MEGS (Morse Enthusiasts Group Scotland), which exists to provide assistance to beginners or existing operators wishing to improve their skills, has introduced a progressive Proficiency Award for its members.

The 12 wpm award requires one contact at that speed with MEGS stations GM0RSE or GM0RSE/P plus contacts with two other MEGS members. Awards for higher speeds at 15, 18, and 20 wpm, each require a further contact with GM0RSE or GM0RSE/P and a further


MORSE ENTHUSIASTS GROUP SCOTLAND

MEGS

'GMORSE'

Morse Proficiency Award

This certificate of competence in the handling of morse traffic between amateur radio stations is awarded to :

I, the undersigned have pleasure in confirming that the above named operator qualified on the date and at the standard indicated below.

12 words per minute
15 words per minute
18 words per minute
20 words per minute

two members, so that for the final 20 wpm award four contacts with the club station(s) are required (at 12, 15, 18 and 20 wpm) plus eight other contacts with MEGS members.

Qualifying contacts are arranged by members calling in to the MEGS nets on 3.530MHz on Monday and Thursday evenings from 7.30 to 8.30 p.m. local time. All amateur stations are welcome to call in and work MEGS stations on these 12 wpm nets but if they are not members they are not eligible to take part in the awards programme.

All Morse enthusiasts, without geographical restriction, are welcome to join MEGS and participate in its comprehensive training programme. This ranges from meeting the needs of absolute beginners to advanced techniques, using both tape and 'on-air' training methods as appropriate. A club profile of MEGS appeared in MM27 (p.38). Life membership costs just £1.00. Further information can be obtained from George M. Allan GM4HYF, 22 Tynwald Avenue, High Burnside, Rutherglen, Glasgow G73 4RN.

'Fingerstar' Keying Ring

LFD Ltd, of Portsmouth is to produce an infra-red identification transmitter to be worn on a finger of the hand of a helicopter pilot (it can also be used by infantrymen). By pressing a button on the ring, the wearer can signal slow Morse over a 2.5km range. The ring also has a green map-reading light designed not to dazzle night vision goggles. It is understood that production for the Ministry of Defence is to begin in December.

(From a report in Electronics Times. *Submitted by Dennis Goacher, G3LLZ, who comments 'The technology is new, but Morse is still used!)*

Joe Kelly Memorial Award

Joe Kelly GM4AQM was a founder member and first Secretary/Treasurer of the 'Kingsway' Technical College Amateur Radio Club in 1971. He subsequently served as vice-chairman, chairman and the club's liaison officer with the college. He was the club's Morse tutor for nearly 20 years and was an unrepentant straight key CW man.

The 'Joe Kelly Memorial Award for Fostering Morse' has Joe's own key, presented by Mrs Margaret Kelly, mounted on the award. One of his Morse training tapes, pictures of him as a lecturer/tutor, etc., together with QSL cards and extracts from the Club station log book are in a compartment in the base of the trophy.

The Dundee Amateur Radio Club decides each year on a worthy recipient of the Award and the Committee of MEGS (Morse Enthusiasts Group Scotland) was proud to be the first recipient, having it presented personally by Mrs Kelly at Dundee in April 1993. As a token of their gratitude, a member of the Committee, Bob Rankin GM0NPS, has made a special display case to house the award.

The recipient of the 1994 Award is Jack Nicholson, GM0MFE, for his work in furthering Morse within the Dundee ARC. Jack is also a member of the MEGS Committee. He works to further their ideals in his own area, and occasionally takes over the GM0RSE call for the MEGS nets.

Apart from the 'Joe Kelly Memorial Award', the club has another Morse award, a mounted vintage key donated by 90-plus years old Clarence Tomlinson, for a competition run every three months. One point is awarded for a contact with any one of a list of countries, and a 2-points bonus is awarded for contacts with some of the more remote countries; a similar bonus is given for any /MM contact. Most of the countries are quite easy to work, so QRP operators and those with less sophisticated equipment have a reasonable chance of gaining the award.

The Dundee ARC provides Morse instruction for beginners and they are brought up to the necessary 12 wpm standard for the amateur test. Harry Angus, GM4MUZ, is one of the Morse testers for the area and he runs a class at the club's Tuesday evening meeting.

Despite the calls for a no-code licence, the majority of the club's members are in favour of Morse being a necessary qualification for a full licence.

(Report from George Allan GM4HYF (for MEGS), and Jack Nicholson GM0MFE (for Dundee ARC). MM *would welcome reports of Morse activities in other amateur radio clubs from around the world. – Ed.)*

AGCW-DL QRP Winter Contest

Dates/times: 7–8 January 1995, 1500 UTC Saturday to 1500 UTC Sunday, including 9 hours compulsory rest time to be taken in one or two periods.

Participants: Single-ops in CW mode on 3.5, 7, 14, 21 and 28MHz bands. Only one TX and RX or transceiver may be operated at the same time. QSOs with stations outside the contest are valid for scoring. Reception of RST only is sufficient for non-contest stations. Contest stations exchange RST + serial number/category. Observe IARU-recommended sub-bands for contest operation.

Categories: VLP – very low power, up to 1 watt output or 2 watts input. QRP – 'classic' QRP, up to 5 watts output or 10 watts input. MP – moderate power, up to 25 watts output or 50 watts input. QRO – above 25 watts output or 50 watts input.

Scoring: Every QSO with a station on the same continent = 1 point. DX stations = 2 points. The contest manager will calculate extra points for contacts with VLP, QRP and MP-stations having submitted logs.

Multipliers: Each DXCC country worked + 1 multiplier per band. The contest manager will calculate extra multipliers for DXCC countries worked

for every QSO with a VLP, QRP or MP-station having submitted logs.
Final score: total QSO points x total multiplier points. The final calculation will be made by the contest manager.
Logs: List QSOs separately for each band and mark your claimed multipliers. Give details of the obligatory rest time(s) taken and the outputs or inputs of all transmitters used. Other station information will be appreciated. Include your full address and send an IRC if a results list is required. Other stations worked in the contest will only get full points for contacts with you if you send in your log! Logs to be sent, by 1 March, to Dr. Hartmut Weber DJ7ST, Schlesierweg 13, D-38228 Salzgitter, Germany.

AGCW Semi-Automatic Key Evening

Date and Time: 15 February 1995, 1900–2030 UTC. **Band:** 3.540–3.560MHz. **Participants:** Operators keying by means of mechanical semi-automatic keys (bugs). No hand keys (pump keys), no electronic keyers, no electronic code reading devices!
Call: CQ AGCW TEST de ...
Test Groups: RST plus QSO-number (starting with 001)/the abbreviated year the operator started using his semi-automatic key (bug) successfully (example 569001/61).
Scoring: Each completed QSO = 1 point. Only one QSO with any participant is allowed. Bonus points – any operator having more than 10 QSOs in this event may nominate five (5) bonus points to another operator for 'good sending'. Such a nomination should be made in the log submitted after the event.
Logs: To include time, station worked, group sent, group received, points claimed individually and in total, and any nomination for bonus points. Include also, where possible, details of your bug, its serial number and year of production. Send the log, before 15 March, to Ulf-Dietmar Ernst DK9KR, Elbstrasse 60, D-28199 Bremen, Germany.

(Information on the above events from Otto A. Wiesner DJ5QK, on behalf of AGCW-DL. A club profile of AGCW-DL appeared in MM20, p.18.)

PCH

A 90 Year-old Celebrity

by Geert v.d. Werf PA3CAH

The loss of the *Titanic* in 1912, when there were no rules and regulations relating to safety of life at sea, made the shipping world realise that measures had to be taken to avoid similar tragedies in the future. A conference was held in London in 1914 and the members agreed on the internationally accepted 'Treaty of London' ... one article of which required coastal stations to monitor distress frequencies day and night...

ONE OF THE MEMBERS of the London conference in those early days was Holland, which was one of the first countries in the world to erect a coastal station for wireless communication with ships at sea. This was Scheveningenradio which was founded in December 1904, and was then known as Scheveningenhaven. It was housed in an empty construction shack which had been used by a government department, considered obsolete, and abandoned.

The first callsign was SCH, the first three letters of Scheveningen. In 1933, the callsign was changed to PCH in accordance with the rules of the Cairo Conference.

The first shack was soon found to be too small and the station moved to a new building. However, the installation of a second transmitter created more space problems. Apart from that, there were severe interference problems from their own transmissions and in 1926 it was decided to locate the receivers some 40 miles from the transmitters.

Reception Difficult

The transmitters remained at Scheveningen (near the Hague) and the receivers were installed at Ijmuiden (near Amsterdam). This created serious misunderstandings for users since the station was called Scheveningenradio but was located at Ijmuiden.

In the early days of PCH, all traffic was on medium and long waves, but by 1927 short wave transmission was possible. In the years that followed this became a successful system. However, due to the development of electricity networks all over the country, creating a great increase in interference and electrical noise, reception of weak signals by PCH became very difficult.

It was then decided that the receiving aerials had to be erected at some distance from the station. During WWII the station was more or less demolished by the enemy and all PCH activities came to a halt.

Post-war Rebuilding

After the Liberation, rebuilding of PCH took place in a very short time.

The first messages were transmitted from an old school building in the centre of Ijmuiden. It soon became apparent, though, that three schoolrooms were not suitable for a very busy coast station and a new building was erected at Sluiseiland at the entrance to Ijmuiden-harbour.

But even this was unable to cope with the enormous increase in traffic and eventually PCH moved to yet another new building at another location in Ijmuiden, in the Merwedestraat, in 1971.

Perhaps sadly, in this building there is no receiving or transmitting equipment, just a few operating consoles, and all operations are by remote control. The transmitters and receivers are in suitable locations in other parts of Holland.

Collaboration with Coast Guard

In the beginning, the main object was to maintain reliable communications between ships and coast station, but soon the priority became 'safety at sea', and Scheveningenradio became an integral part of the Dutch PTT (equivalent to the GPO in the UK). After the PTT was privatised in 1989 enormous changes took place. Part of the service went to the Coast Guard, callsign PBK, and PCH is now a commercial operating organisation mainly concerned with communications.

The Coast Guard controls the Dutch coastal area on a 24-hour basis, including monitoring the various distress and emergency frequencies. However, by mutual agreement watch on the 500kHz emergency frequency is undertaken by Ostenderadio.

In the event of an emergency near the Dutch coast Ostenderadio can use PCH's 500kHz transmitting equipment to contact the vessel in distress. The Coast Guard, which is controlled by the government, is located on the top floor of the PCH building.

Although reorganisation took place after the privatisation of PCH the dividing line between the two organisations is blurred. The technical infrastructure of the Coast Guard, for instance, is maintained and serviced by PCH.

World-wide Coverage

When PCH started, at the beginning of this century, they used medium wave only, with just one transmitter and one receiver. Now, 90 years on, apart from transmitters in the marine band (around 2.2MHz), PCH has transmitters for world-wide coverage throughout the entire short-wave spectrum.

On VHF they have complete national coverage with marifone. Satellite communication has turned out to be very successful and is expanding daily. The Coast Guard use the well-known NAVTEX system, a message handling system designed to increase safety at sea.

PCH, at present, has three services:

1. Telephony (short-wave, medium-wave, VHF)
2. Telex over radio (TOR)
3. Telegraphy

Transmitting and receiving equipment is situated at various locations in Holland. SSB is used for telephony. TOR is mainly ARQ in FSK, and telegraphy, as always, is CW. On the emergency frequencies, however, tone modulation (A2) can be transmitted in compliance with the safety rules and instructions.

Silent Keys of PCH

PCH is a link in the world-wide AMVER (Automated Mutual-Assistance Vessel Rescue) system which was originated by the US Coast Guard. All shipping movements in a certain area can be tracked by this system. All ships taking part inform PCH regularly of their position, speed and course. PCH relays this information to the AMVER computer in the USA, as well as other details such as 'doctor on board', 'fire-fighting equipment', and so on. Whenever or wherever a ship is in distress, it can be determined from the computer which ships are nearby and action taken accordingly.

GMDSS (Global Maritime Distress and Safety System) is the new safety system for seagoing vessels. It will be implemented world-wide by the end of the century. Sadly, because of this hi-tech development, the last of our sparks will fade away and the keys of PCH will become SILENT KEYS.

(Abridged and adapted for MM *from an article in* CQPA, *October 1994. Original translation by Bastian van Es PA0RTW.)*

KEY WT 8 AMP

Further Information

by Tony Smith G4FAI

BY COINCIDENCE, while the survey of the KEY WT 8 AMP, was in progress, Louis Meulstee PA0PCR was preparing an article entitled 'Unusual Military Morse Keys' for publication in *The AWA Review*, Volume 8, 1993, published by The Antique Wireless Association in the USA.

Included in his 45-page article is a section on the KEY WT 8 AMP, and while his work covers a lot of the same ground as the *MM* survey, albeit in a different way, he also records information not included in the survey. With his permission, that information is extracted from his article and is included in this follow-up report.

The First KEY WT 8 AMP

The surprising range of over a hundred KEYS WT 8 AMP revealed by the *MM* survey in MM28, starting with a No 2 key dated 1935, automatically prompted the question 'was there ever a No 1 key?', and Louis has provided the answer! The 'Key WT 8 AMP' (i.e., No 1) was used with Wireless Telegraph Sets 'A' Mk I* and 'C' Mk II, as listed in Signal Training Volume III, Pamphlet No. 5.A, November 1926 and Pamphlet No. 11, September 1926, respectively.

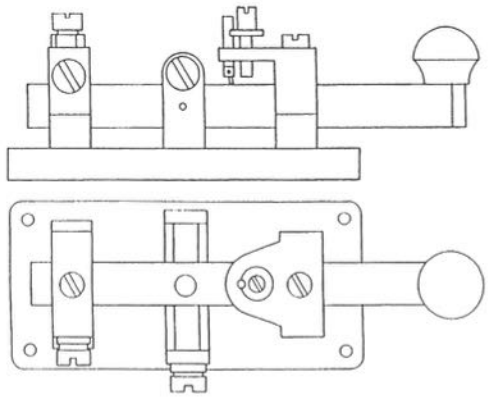
Rare photographs discovered by Louis at the Royal Signals Museum, Blandford, reveal that the P.O. type tensioner of this key is located on the front bridge, and there is no terminal screw to enable the front stop to be used as a spacing contact (see drawing on the following page). Louis suggests that the latter omission is the reason why this key was soon replaced by the KEY WT 8 AMP No 2.

Possibly, not many of the No 1 keys were made and any still existing will be highly prized by collectors. If any reader has a key of this type, or can provide further information about it, please contact *MM*!

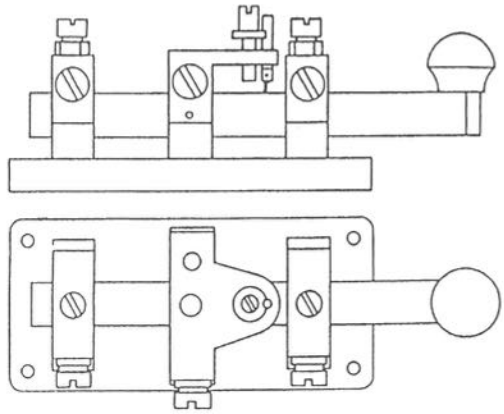
While the *MM* survey found a No 2 key (survey Group 1) dated 1935, Louis has discovered references to this key as early as 1926. The Specification for Reception Set 'C' Mk II, dated 20 April 1926, calls for a 'Key, W.T. 8 amp, No 2' to be supplied by manufacturers; and Signal Training Volume III, Pamphlet No. 12 (February 1929), for Wireless Telegraph Set 'A' Mark 1* (Pack), notes that the pattern of the key used 'is known as 'Key W/T 8 amp. No 1 or No 2.'

Key & Plug Assemblies

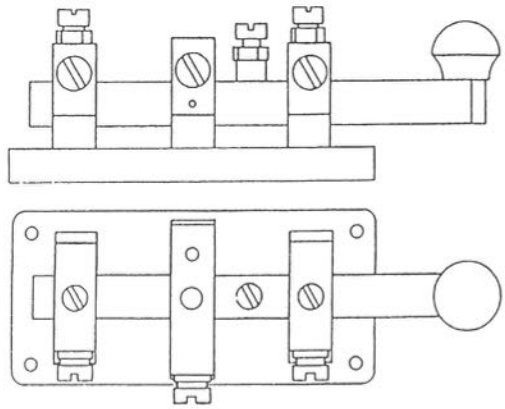
No 2B – (ZA 4500): The survey was unable to find any information on this Assembly, but Louis' article indicates it was used with Wireless Sets Nos 11, 12, 22, 33, and 53. It consisted of a metal base plate on which a KEY WT 8 AMP was mounted. It had a large round



(a) Dated c.1926, with P.O. type tensioner on front bridge. This original design (i.e., No 1) had no spacing contact, and its two terminals were usable on the left-hand side of key only. For those who have already seen the article in the AWA Review, *Vol. 8, please note that this is an amended drawing based on photographs (reproduced in this report) discovered after the original article was published.*



(b) Dated c.1926–39. P.O. type tensioner on centre bridge. Three contacts, with three terminals usable on either side of key. As referred to in Groups 1, 2, 3, and 5 of the survey in MM28.

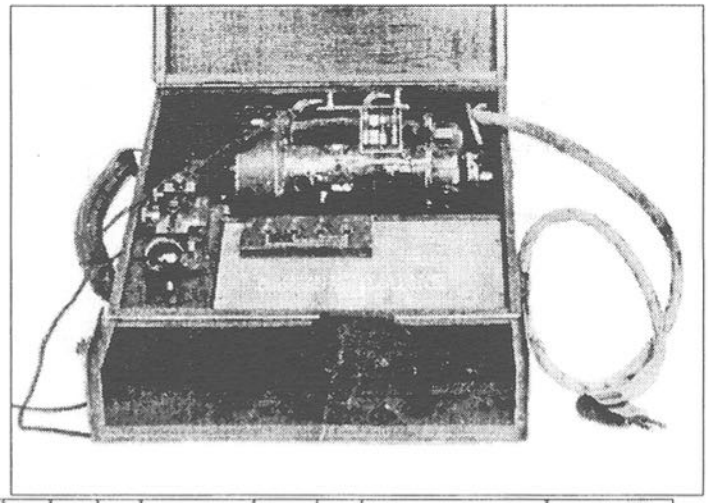


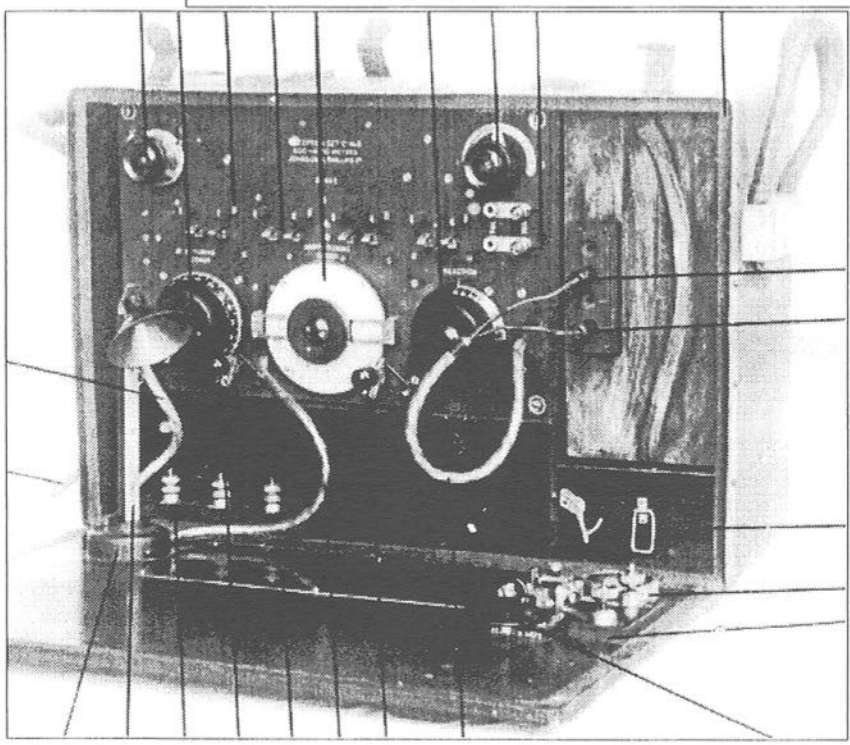
(c) Dated late 1930s (possibly 1939–1941). Simplified tensioner mounted on lever arm. Three contacts, with three terminals usable on either side of the key. As referred to in Groups 4, 6, 7, and 8 of the survey in MM28

Drawings: Louis Meulstee

EVOLUTION OF THE THREE-BRIDGE KEY WT 8 AMP DESIGN

KEY WT 8 AMP (i.e., No 1) mounted on W/T Set 'A' MkI*. Unit H.T. (1926)





Photos: Royal Signals Museum (via Louis Meulstee)

KEY WT 8 AMP mounted on Reception Set 'C' Mk II (1926)

finger guard and a twin connecting cord ending in a tip and sleeve plug. The initial No 2 Assembly was used with WS No 2, while No 2C was used with WS No 11 in tanks. The No 2D version was used in Wireless Remote Control Unit G. For mounting on a table, the base plate was secured by 'Slide No 1.'

Key & Plug Assembly No 6 – This was used with Wireless Set No 9, and had a metal cover to slide over the key.

No 8B (ZA 24790) – This is a tropicalised version of the Key & Plug Assembly No 8. It can be easily recognised by its cover/metal baseplate of olive-drab colour, a plug filled with moisture-resisting compound, and a rubber-covered cord. It was used with tropicalised versions of the Nos 18 and 68 sets.

No 9 – Although developed primarily for the Wireless Set No 19, this was later issued for other radios. Other, tropicalised, versions recorded are Key & Plug assembly No 9A (ZA 17693) and No 9 MkI/I (ZA 26291), but these differ very little from the original Assembly No 9.

R11950 – Made by Northern Electric, this was used with Canadian WS No 19 MkII and MkIII. It was normally issued as 'Key & Plug Assembly No 9' (ZA 0937).

No 19 – As well as being used with the WS No 62, this Assembly was used with WS No C12. The Assembly is also known as 'Key and Plug, Telegraph', NATO Stock No Z1/5805-99-420-5943.

Louis Meulstee's article covers many other keys, apart for the KEY WT 8 AMP, and *MM* hopes to be able to reprint specific sections of his article at a later date.

More on Key & Plug Assemblies

GROUP 4

The following key, listed on page 17 of MM28 has been noted mounted on a brass plate marked KEY & PLUG ASSEMBLIES No 2B ZA 4500, as used with Wireless Sets Nos 11, 12, 22, 33, and 53. See the next page for an explanation of the column headings and codes:

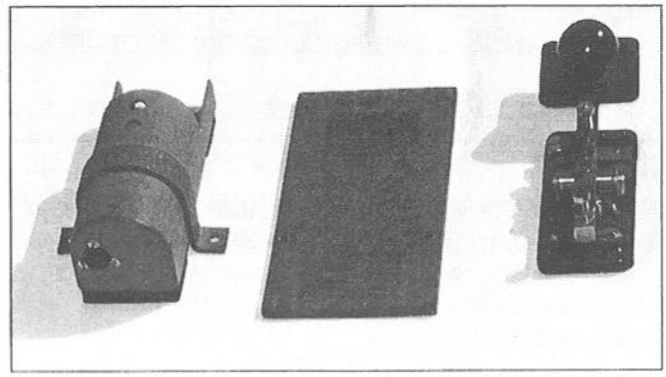
1	2	3	4	5	6	7	8
N	R		P		WER	1940	E

The following additional information concerning various Key & Plug Assemblies was received by Wyn Davies from Major (Retd) Roger Pickard, Curator of the Royal Signals Museum at Blandford in Dorset:

No 8 – Also used with the WS No 8. The WS No 8 and the previously noted WS No 18 were man-portable HF sets, 1940–1948.

No 9 – Also used with the WS No 9 and the Canadian WS No 9 (both WWII).

No 19 – Also used with the WS No 19 (1940–1958). The WS No 62, previously noted, dated from 1944 to 1962. The Key & Plug Assembly No 19 is believed



Unknown key & plug assembly, separated into component parts. See text below

Collection/photo: John Elwood WW7P

to have also been used with the WS No 21 and WS No 22. Can anyone confirm this please?

John Elwood, WW7P, has an unplated brass H&C No 2 MkII, ZA3145 (Group 11) key, fitted in a previously un-noted key & plug assembly; see photo above. Made of very heavy metal, the cover looks rather like a locomotive assembly and is held onto a heavy steel plate, $5^{7}/_{8}$ x 3 x $^{3}/_{16}$in, by means of a U-clamp; it has two holes on the top for access to the adjusting screws on the key. The key itself is secured to the cover assembly by means of a single hole drilled and tapped in the centre of the key base. The finger plate on the key is Bakelite with rounded corners, measuring $1^{3}/_{4}$ x $1^{3}/_{4}$ x $^{3}/_{32}$in, but may not be original. The cover is separated from the steel base by two rubber pads, back and front, measuring $1^{3}/_{4}$ x 1 x $^{5}/_{16}$in. If anyone can provide further information about this assembly, what equipment it was used with, etc., please contact *MM*.

More Keys

Further versions of the KEY WT 8 AMP, reported since the original survey results were published, are listed on the next page. For the benefit of new readers, the numbered column headings relate to the characteristics of the keys as given in the following table:

1 – Reference No ZA or other, or not indicated (N).
2 – Base with sharp (S) or rounded (R) corners (the latter includes two types, small radius and larger radius).
3 – Base has extra (5th) mounting hole suitable for Key & Plug Assembly No 8 or No 9. Indicated as '5'.
4 – Bearing pin, taper (T) or parallel (P).
5 – Finger plate/knob skirt (F). Some noted with, some without (S).
6 – Maker, or not indicated (N).
7 – Year, or not indicated (N).
8 – Country: Australia (A), Canada (C), England (E), New Zealand (NZ), South Africa (SA), USA (US), not indicated (N).

GROUP 1

KEY WT 8 AMP No 2. THREE BRIDGES. P.O. TYPE TENSIONER (TENSION SPRING)

1	2	3	4	5	6	7	8
N	S		T	F	Stanley Elec	1936	N
N	S		T		A.G.I. Ltd	N	N

Fitted in WS No 1, Serial No. 1417 made by Aeronautical & Gen. Inst. Ltd, 1937. Exhibit in Kapiti Coast Museum, New Zealand. Key has 6 holes drilled in base to fit a thin plate with serrated edge. This engages with a spring in the radio set and allows adjustment of the amount the key extends from its enclosure. (Info from Max Kempson, ZL1VV/G3JJT.)

GROUP 3

KEY WT 8 AMP, NO NUMBER. THREE BRIDGES. P.O. TYPE TENSIONER (TENSION SPRING)

1	2	3	4	5	6	7	8
N	R		T	F	N	N	A?

Marked D↑D. Assumed to be Australian. Complete with cord and ¼in phono plug on large rounded Bakelite plug marked No.10 560, with a ↑ symbol above the 560. Owner told this key came from a Lancaster bomber, but seeks confirmation.

GROUP 11

KEY WT 8 AMP No 2 MkII. NO BRIDGES. SIMPLIFIED SPRING TENSIONER (COMPRESSION SPRING)

1	2	3	4	5	6	7	8
ZA 2869	R	5	P		H & C	N	N

Moulded brass nickel plated arm, square ends, with spacers integral with casting. Note that the arm of the apparently identical key listed on page 21 of MM28, in a ZA 4390 Assembly, is not nickel plated.

Unusual Mounting

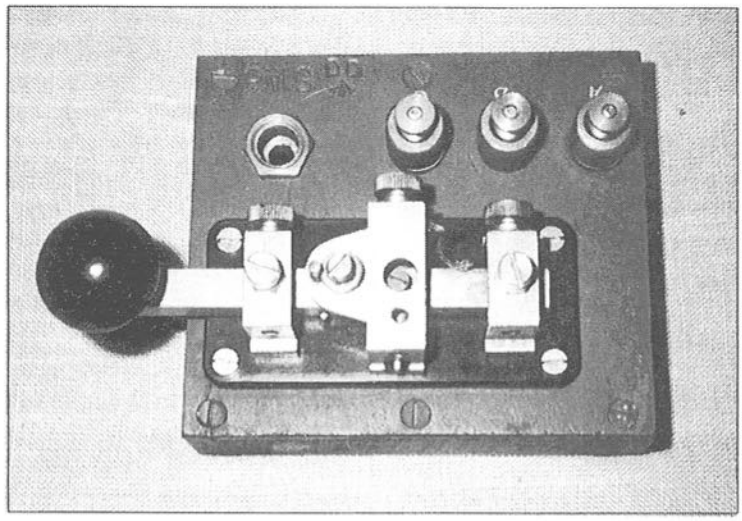
Wes Tyler, VK2WES, has an Australian D↑D KEY WT 8 AMP No 2, similar to that noted in the last entry for Group 1 in the survey, on an unusual mounting as follows. If anyone recognises this application (see photo top right) please contact *MM*:

GROUP 1

KEY WT 8 AMP No 2. THREE BRIDGES. P.O. TYPE TENSIONER (TENSION SPRING)

1	2	3	4	5	6	7	8
N	R		T		D↑D	N	A

Plated brass lever and bridges. Marked D↑D on lever. Key mounted on wooden base having three terminals marked A, B, and C, plus a headphone socket marked D↑D

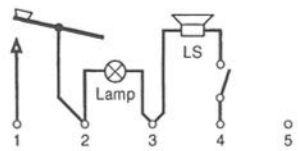


Collection/Photo: Wes Tyler VK2WES

Key WT 8 Amp No 2 (Australian) fitted to P.M.G. D↑D wooden base. Does anyone recognise this application?

Photo: Henri Jacob F6GTC

(above) ADMIRALTY PATTERN 1271 BUZZER REPEATER AND KEY UNIT, SER. No. WER 12917, containing a KEY WT 8 AMP No 2 MkII with a 10A/7790 knob from an RAF 'bathtub' key and (right) connections for the unit



No 9. Wooden base is stamped P.M.G. D↑D, and a white stamp on side has an ↑ over 1121 circled.

Navy Application

While KEYS WT 8 AMP have been identified so far mainly for Army use, plus a few RAF applications, one has now been identified in a Navy application. Henri Jacob, F6GTC, has a No 2 MkII key mounted on an ADMIRALTY PATTERN 1271 BUZZER REPEATER AND KEY UNIT, SER. No. WER 12917 (see photo and connections diagram). If any reader recognises this unit and knows what it was used for please contact *MM*.

KEY WT (AUST) No.1

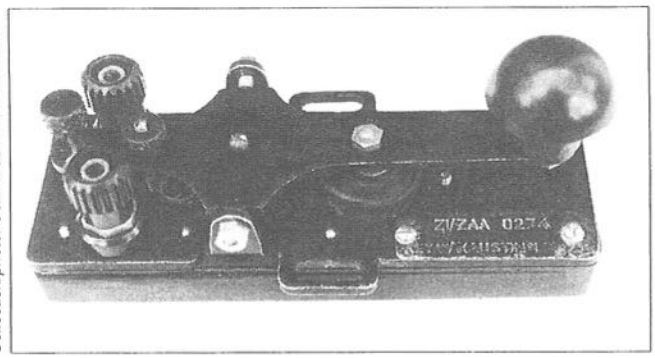
Colin Mackinnon, VK2DYM, has a Z1/ZAA 0274 KEY W/T (AUST) No 1 MkII, which could possibly be a predecessor of the KEY WT 8 AMP. The small aluminium nameplate stamped with the above information covers an earlier designation stamped on the metal base, namely, Z1/ZAA 7990 KEY W/T No 1. The original No 1 key has, presumably, been modified in some way to become a MkII and the nameplate used to replace the original designation.

Colin feels that the knurled terminal knobs cannot be original, or part of the MkII modifications, but cannot confirm this in the absence of more definite information on the original key No 1. He says the key, with a multi-layer base (rubber at the bottom) and rubber-shrouded contacts, is quite complex. It has nearly 60 separate parts and would have been quite expensive to manufacture.

It would not, however, take 8 amps, probably nearer 1 amp. It is slightly larger than the 8 Amp key, i.e., 128 x 48 x 54mm (l x w x h), weight 240g. The key knob is quite familiar and seems to be identical to those used on the later Keys WT 8 Amp in Australia and elsewhere.

If any readers can provide further information about this key, its use, or its approximate date, please contact *MM*. It is assumed the slotted lugs on either side of the base indicate that it could be used strapped to an operator's leg without the need for a Key & Plug Assembly as required for the 8 Amp keys? It is assumed that ZAA means 'ZA Australia'?, but does anyone recognise the code 'Z1', or know its meaning? Finally, does anyone know of a similar key, perhaps ZA 7990 or ZA 0274, used by the British Army?

(continued on page 18)



Collection/photo: Colin Mackinnon VK2DYM

Z1/ZAA 0274 KEY W/T (AUST) No.1 MkII

Makers

The following further information should be added to the list of makers:

A.G.I. LTD: New entry. Stands for Aeronautical & Gen. Inst. Ltd. Believed to have been located in the Croydon area in recent years. Any information on this company welcomed.

CLIPSAL: Clipsal keys were made by Gerard Industries of Adelaide, South Australia, a family owned business started in the mid-1930s. During WWII they made a range of metal and Bakelite components for the war effort, including telephone parts, aircraft and bomb switches, and Morse keys. There is no specific information available on that period but the present-day company believes just three people were involved in making the keys, one to operate the compression moulding press for the Bakelite base, a metal fabricator, and an assembler. There are no records available of the number made or the period of manufacture.

Only two versions made by Clipsal were reported in the survey (in Group 1) and these were Keys WT 8 Amp No 2 dated 1942 and 1944. If any readers have versions made by this company other than those listed, please let *MM* know. The company was still making Morse keys (not WT 8 Amp) in 1960, as evidenced by the Clipsal Contractors' Guide for that year, but it is not known if they continued key manufacture right through from the 1942 era to 1960. Apart from information on Keys WT 8 Amp, it would be interesting to receive information on any other Clipsal keys that readers possess. (Information from Colin MacKinnon VK2DYM).

E.T. Ltd: Ericsson Telephones Ltd, Beeston, Nottinghamshire (now Plessey and GEC). Rowland Cox G4AL worked at the Beeston factory until he retired. He remembers the keys being made there in 1940, and managed to obtain one. The survey lists only three versions made by this company, i.e., Group 1, No 2, ZA4511, 1940; Group 2, No 3, ZA4605, 1941; and Group 6, Key Signalling No 2, undated, installed in a Fullerphone. Reports of further versions marked E.T. Ltd will therefore be welcome. The latter installation suggests that this company may also have made Fullerphones.

STANLEY ELEC: New entry. Country not known. Any information on this company welcomed.

WILLIS & CO. LTD: Although not specifically related to the Key WT 8 Amp, Dennis Lisney, G3MNO, remembers dealing with this company, who were located in North London, when he worked in the former Wireless Experimental Branch of the GPO in the 1950/60s. Dennis says, 'Not only did we get excellent prices for our small productions of waveguide bits and pieces but Willis himself was quite a smart mechanical engineer... and was a real pro... It's fascinating to think that he was also a WT 8 AMP man!'

There is still incomplete information on the full names and/or original addresses of the following makers. If anyone can help to fill in the gaps please contact *MM*. A.M.C.; AWA (Amalgamated Wireless Australia); © (The Chad Valley Co?); C.E.L.; EWT (Contractors to P.M.G. Australia?); H & C; L.A.M.; LC (Contractors to P.M.G. Australia?); LMK Manufacturing Co. Ltd.; N.C. Co; Northern Electric Co, Canada; P.M.G. (Post-Master General, Australia?); PX (It is not known for certain if these are a maker's initials. Confirmation welcomed.); Pye; T.B. & S.; U↑D (South Africa?); Westclox (Canada); Willis & Co Ltd (London).

Tom French, W1IMQ, sent an advertisement from the ARRL License Manual, *1961, by Burstein-Applebee Co. of Kansas City, Missouri, featuring this Code Practice Oscillator Kit which included a Key WT 8 Amp (3 bridges, simplified tensioner) described as 'the popular British version of the J-38 key'*

Collector's Dream

Finally, I return to Louis Meulstee's article in the *AWA Review*. In a story guaranteed to make any key collector green with envy, Louis tells how, on holiday years ago in Belgium, he and his wife passed a war-surplus store called 'Stock Americain'. On inquiry, it appeared the owner had ceased trading. However, he invited Louis to look in his former storage barn where there were a number of dusty crates filled with rusty Morse keys, apparently having been stored there a long time.

A modest sum made Louis the owner of the lot, not knowing that this included a nest of field mice! On return home he dumped everything in his garage, but a week later his wife complained about the mice... Eventually he got rid of them and repacked the keys in cartons 'for future use.'

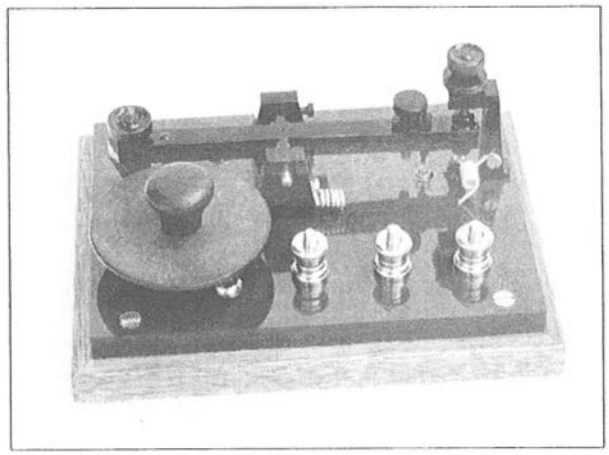
During preparation of his article his wife reminded him about the keys. Opening the cartons after 16-odd years, they revealed a treasure of about 120, mainly British, Key & Plug Assemblies of every design and variation. Fungus had grown over everything, but after cleaning it was remarkable how well they had survived, and he used a number of them as illustrations for his article.

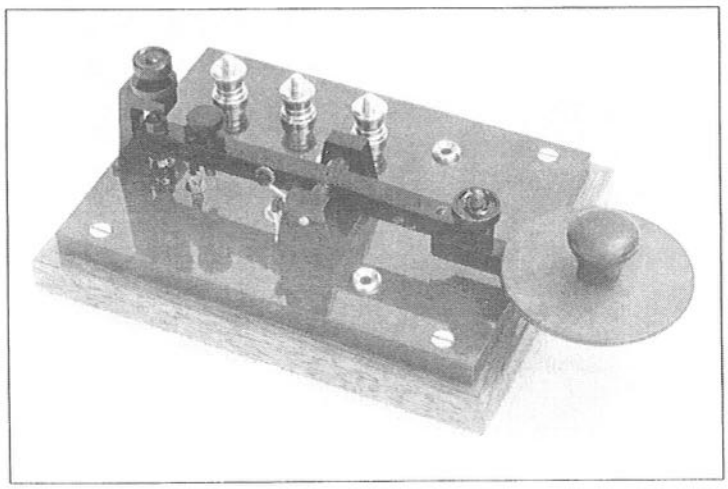
Acknowledgments and a Plea

Many thanks to everyone who sent in additional information on the KEY WT 8 AMP. Special thanks go to Louis Meulstee for so willingly sharing the results of his own researches with *MM*, and especially for providing information about the KEY WT 8 AMP No 1.

The file on the Key WT 8 Amp remains open. If any reader can provide new information, or can enlarge on the information already given about these keys, please contact *MM* via Tony Smith G4FAI, 13 Morley Road, Sheringham, Norfolk NR26 8JE, England. ***MM***

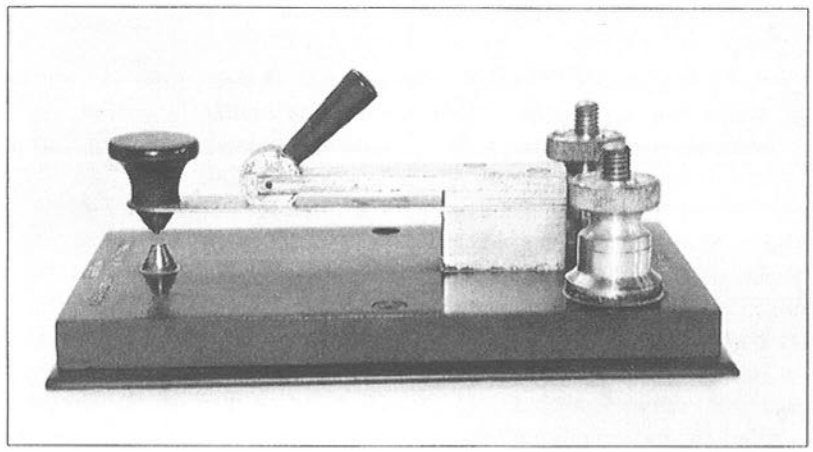
Info Please!





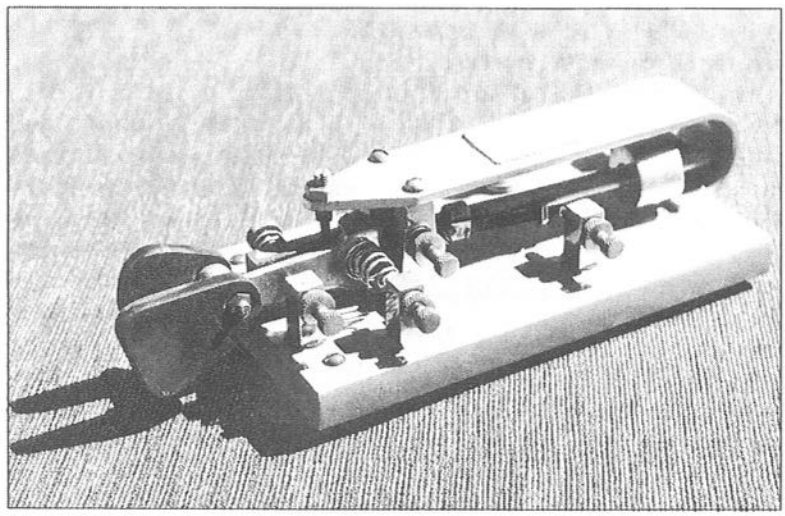
Photos: Dennis Goacher

Dennis Goacher, G3LLZ, bought the arm for this key, with hinged knob section, for 50p at a junk sale. The contacts are at the rear of the arm and there are no signs of anything attached to the arm forward of the pivot.
Using old references and sketches, he made the rear fixed contacts and mounted them, with the arm, on a paxolin base, adding terminals to enable the key to be used. Information required on the original use of the key



Collection/Photo: Stan Williams G3LQI

Morse key(?) by H. Tinsley & Co, London SE25, Type 1202, No.29357. Any information welcomed



Collection/photo: David Couch VK6WT

Australian semi-automatic key by H.C. Ingram. Further information welcomed

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Readers require further information on the keys, etc., featured here. Please write to Tony Smith, 13 Morley Road, Sheringham, Norfolk NR26 8JE if you can help.
All useful information received will be published in MM *in a later issue*

Deep Sea 'Sparks'

A Book Review

by Geoff Arnold G3GSR

WITH EACH PASSING DAY, it seems, we ex-seagoing radio officers move ever closer to becoming the modern equivalent of the dinosaur. It is good, therefore, that a few of our breed have been driven to record their experiences in magazine articles and books.

This particular book is unusual in that it tells of the job as seen by a young Canadian girl, Olive J. Carroll, who looked after the radio communication needs, and many other duties, too, on board the Norwegian cargo vessel *Siranger* for a period of four years.

The author's interest in radio had begun whilst still at high school, where she joined the girl cadets and was taught, besides marching and drill, how to send and receive Morse by flashing light. Finding that she enjoyed the code, she decided to take a job which would finance her through wireless school, with the aim of obtaining a commission in the armed forces (WWII was still in progress at the time). She soon realised that the war was probably going to end before she had even finished her night-school course, but she continued with her studies, progressing so well that the college principal recommended her for a government subsidy which would allow her to give up her job and study full time instead.

The only snag was that upon obtaining her licence she was under contract to work for the Canadian Government. And so it was that she became employed as an interceptor operator at stations near Vancouver. Hearing tales of the exploits of other Canadian female wireless operators who had obtained jobs on Norwegian ships, Olive resolved to try to do the same. It was not until 1947, however, that she received the news that there was a vacancy for her on a ship in San Francisco.

Off to Sea

After a 'crash course' from a colleague in how to tune up a transmitter – not a skill she'd previously required as a receiving operator – Olive flew down the coast and joined the Westfal-Larsen vessel *Siranger*. She was surprised to find that she was taking over the job from another Canadian woman operator, who explained that there was far more to it than just operating the radio equipment. The wireless officer had also to act as the Captain's secretary and the ship's purser as well, and all this in the Norwegian language, of which she then knew but one word – *skål*!

The radio installation was one of

the standard multi-rack set-ups fitted in American wartime-built merchant vessels, the RCA 4U, comprising HF and MF transmitters and receivers, emergency transmitter and crystal receiver, auto-alarm, generators and control gear.

Memories

I am sure that anyone with a seagoing background will not get very far into this book before they start to think, 'Oh yes! I remember just that sort of thing happening!'.

There are tales of trips ashore at various ports around the globe. The variations in standards of food and accommodation, the attitude and efficiency of other officers and crew members, all those things which can make a vast difference to life on board any ship.

More than any other single factor, the attitude and character of the captain can make life a pleasant experience or a hell for the radio officer, who reports directly to him. Olive was lucky in that for much of her time at sea, she worked for a caring and considerate captain who earned and enjoyed the respect of his ship's company; at other times, she was not so lucky!

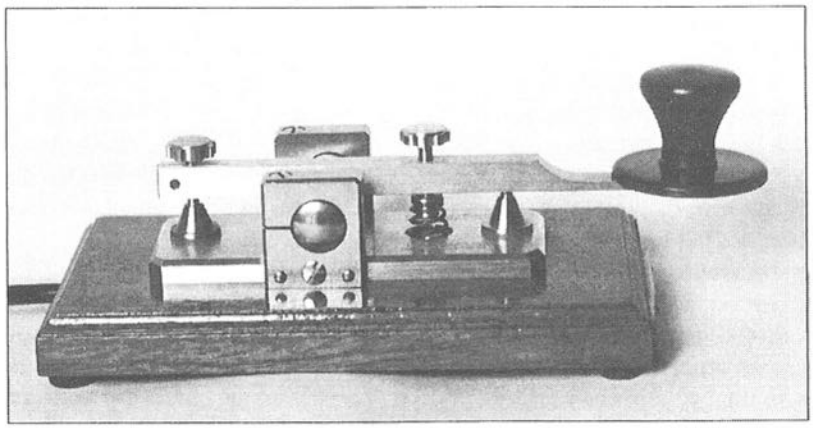
The clerical side of the job: ship's accounts, wages, signing crew-members on and off articles, and functioning as captain's secretary, occupied a considerable proportion of the author's time, leading to much burning of the midnight oil. The long hours, combined with poor food, caused Olive to lose a considerable amount of weight, which she did not regain until she 'swallowed the anchor' and went home to enjoy her mother's good cooking.

Availability

Deep Sea 'Sparks', by Olive J. Carroll is published by Cordillera Books, Vancouver, in hardback, and contains 357 pages, 5⅞ x 9in. It is well illustrated with photographs of the author, her shipmates, and ships and ports around the world.

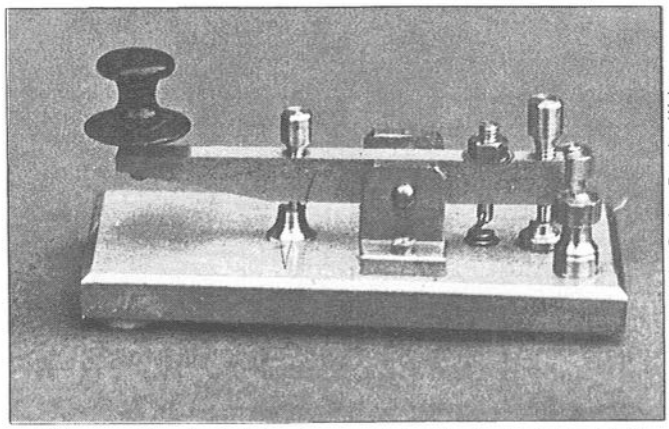
Deep Sea 'Sparks' will be available shortly from the MM Bookshelf, price £17.90 including postage to UK addresses, or £18.50 to Europe or elsewhere by surface mail. ***MM***

Showcase



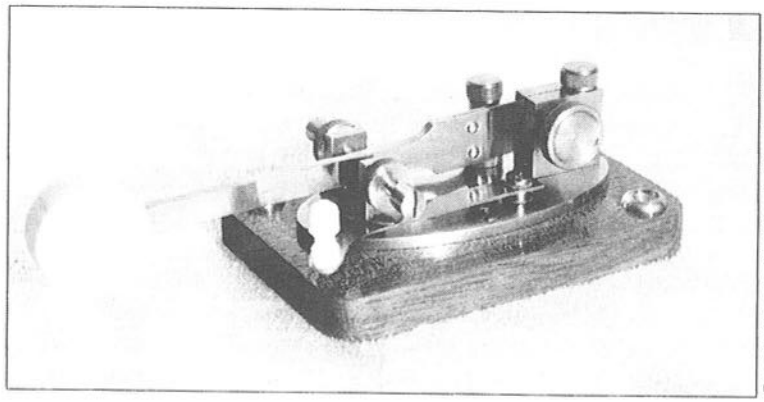
Photo/Collection: G4GZQ

Schurr key. Picked up at a rally and refurbished by John McGinty, G4GZQ. John says 'It works well and is really eye-catching. I have, however, replaced the original knob which was very uncomfortable to use.'



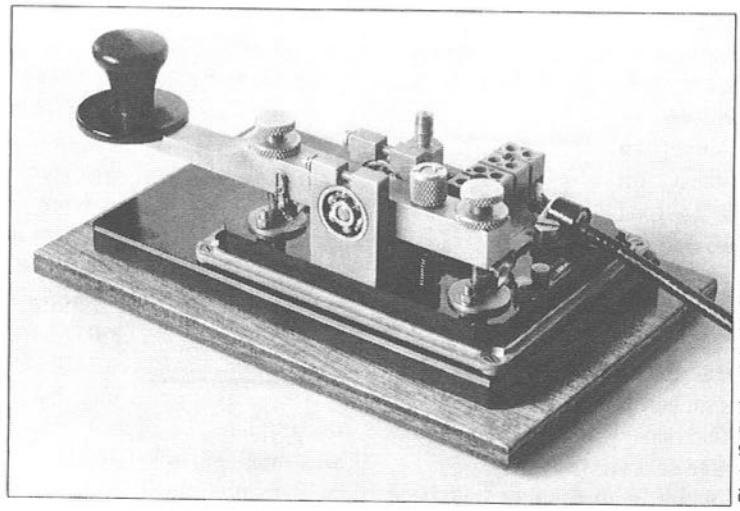
Photo/collection: Wyn Davies, Brymbo, Wales

Fully operational miniature key made by Vic Pugh, G2CQX. All screws are adjustable, as is spring tensioner. Base measures 35mm x 15mm, height of key 10mm



Reproduction built by Dennis Goacher G3LLZ

Reproduction Bunnell double speed key with synthetic ivory finger button and circuit closing switch knob. This type of key, popularly known as a 'sideswiper', was introduced by Bunnell in 1888 and was the first attempt to speed up hand sending by using horizontal instead of vertical key movements



Photo/Collection: John McGinty G4GZQ

Late model Marconi 365 FZ, with non-standard knob made to suit its owner's preference

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Showcase features keys and other collectors' items of telegraphic interest. If anyone can add to the information given please contact Tony Smith, 13 Morley Road. Sheringham, Norfolk NR26 8JE

Early Telegraphs on the Line

by Ted Jones G3EUE

A VARIETY OF telegraphic systems were used 'on the line' in the mid-19th century. Several of these are described here, based on reports published c.1850–53.

The Double-Needle

The rate at which newspaper dispatches were transmitted from Dover to London provided a good illustration of the developed state of the needle telegraph and the skill of its operators.

The mail left Paris at midday and press material was handed to the staff at Dover soon after the arrival of the boat which, of course, depended on the state of wind and weather.

The clerk, who was alone, delivered the dispatch, letter by letter, to his correspondent in London. There, two clerks were on duty, one to read the signals and the other to write them down. As soon as the signal for preparation was given, the writer sat before his manifold book whilst the reader spoke the message as it arrived.

Meanwhile, a messenger had been sent for a cab, which waited in readiness. On completion of the message, the elapsed time was noted and a signed copy immediately sent to its destination. The manifold facsimile was retained as the office copy. That copy and the original from Dover were sent to the chief telegraph office in Tunbridge for comparison. Later, the clerks calculated the number of words and time involved to find the rate per minute. In the meantime, the nature of the dispatches could be read daily in *The Times*.

French State Telegraph

The signals adopted to express letters in the French State telegraph, being made by a single motion of the arms, were produced more quickly than the multi-deflections of the needle instruments. The French instrument, like the double-needle, comprised two completely independent instruments with separate conducting wires. Its speed of transmission, due to their combined powers, was claimed to be 200 letters or signs per minute. *(The electric telegraph in France at this time exhibited the same signals as were previously used by the visual telegraph which signalled from hill-top to hilltop. – Ed.)*

By comparison, the alphabetical telegraph of the French railway system was much slower, with an average rate of transmission of about 40 letters per minute. *(This system did not require trained operators. – Ed.)*

The Morse System

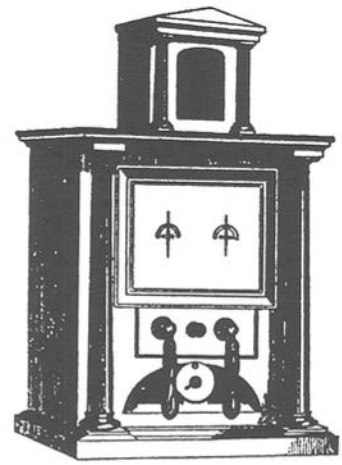
By 1853 approximately 90 per cent of all telegraphic traffic in the United States used the Morse system. The transmitting key actuated the armature of an

electromagnet at the receiving end, producing an audible click. Depending on the skill of the operator, the receiving agent could acquire the facility to interpret the clicking and write it down, or dictate it to a clerk, without using the available apparatus for impressing the signal onto a paper tape.

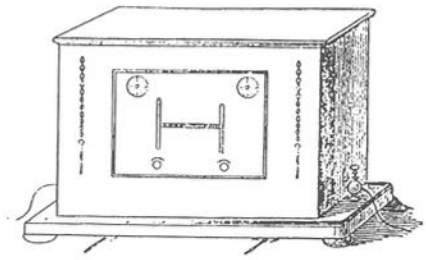
In practice the telegraphist was seated at a table with a supply of black-lead pencils. Depending on his skill, messages would be sent as fast as he could write them down. In a busy office one person was engaged solely in sharpening pencils! Only the most expert telegraphists could operate in this way. Others either verified a message by reference to the embossed paper tape or even copied it entirely from the tape without ever listening to the signal.

There were great discrepancies in the reputed speed of transmission of the Morse telegraphs due, no doubt, to the varying skills of the operators on whose performance the estimates were based. One report claimed that the average speed was from 135 to 150 letters per minute. By comparison, a director of one of the largest New York companies stated that on the basis of the average length of a telegraphic word being 5 letters, his company achieved a speed of 20 to 23 words per minute.

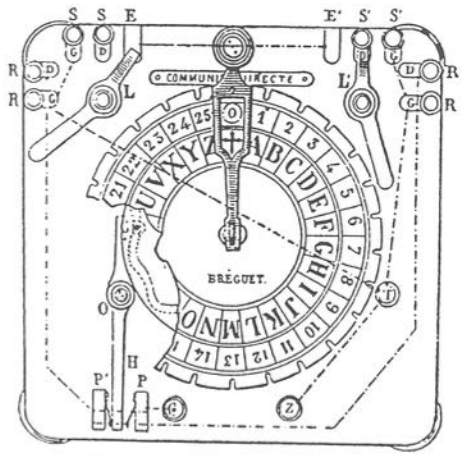
No doubt a higher rate of transmission could be reached but a writing speed of 20 words per minute was considered rapid enough. The Morse telegraph was considered to be faster than the double-needle in the ratio of 3 to 2. The reasons for this were said to be the greater celerity (speed) with which the ciphers were impressed on the paper tape compared



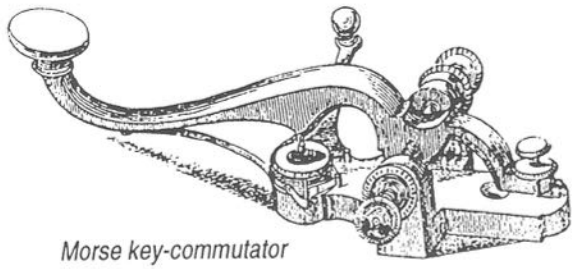
Double-needle telegraph



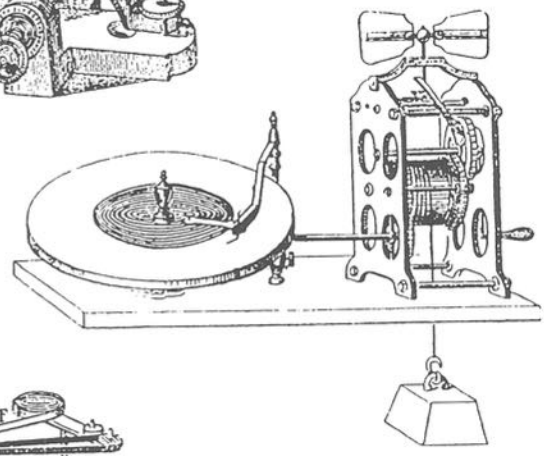
French State Telegraph



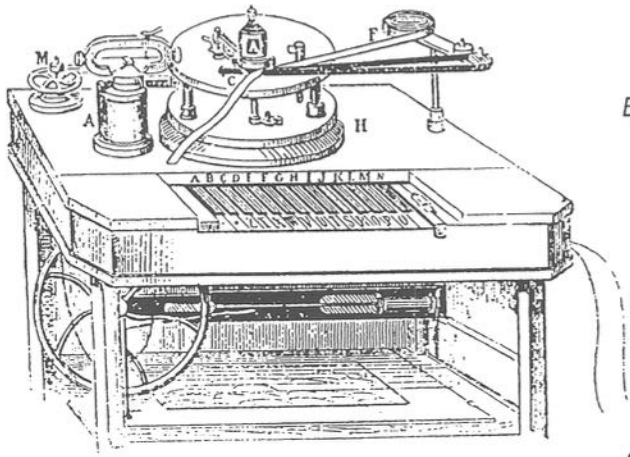
French Railway Telegraph



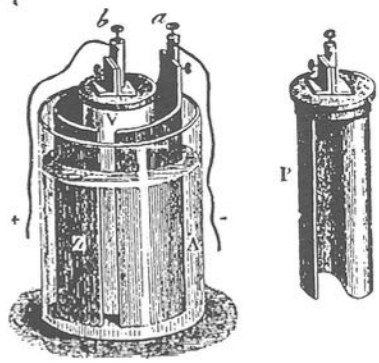
Morse key-commutator



Bain's electro-chemical telegraph



House's printing telegraph



The Grove Battery, showing the complete cell and, right, the 'S'-shaped platinum electrode

with that with which the visible signals were exhibited and succeeded each other in the English and French telegraphs; and secondly the elimination of delays in transmission arising from the want of attention or quickness of eye making repetitions necessary.

American offices with Morse lines employed numerous staff including copyists, book-keepers, messengers, line inspectors and repairers. A well-conducted office could handle a great deal of traffic. A single office with two lines of 500 and 200 miles respectively, after spending three hours transmitting public news, telegraphed in a single day 450 private messages, averaging 25 words each besides the address and signature, 60 of which were sent in rotation without a word of repetition. The nett proceeds would have been significant at the usual rate of 25 cents for 10 words over a distance of 100 miles.

Bain's Telegraph

The Bain electro-chemical system, which also used a key-commutator, should have handled traffic at least as fast as the Morse lines. However, a review of that traffic operated by the Electric Telegraph Company in England indicated an average speed of less than 20 wpm, which was slower, in fact, than that of the double-needle. Its advantage over the double-needle, though, was that it wrote the dispatch in cipher, which was retained in the receiving office for reference purposes, and thus eliminated the need to employ a copy clerk.

When Bain traffic was transmitted by a previously prepared perforated tape, the whole sending and receiving operation became automatic and despite practical difficulties at the time it was forecast that, when perfected, it could result in much of the business then carried by the post office (i.e. mail) being transferred to the telegraph – once prejudice and opposition by counter-interests had been overcome. (*Bain's telegraph was also used in the USA in competition with the Morse system. – Ed.*)

House's Printing Telegraph

This system claimed an ordinary transmission rate of 30 to 35 words per minute, with up to 50 wpm on occasions. On reception, all words were printed in full in ordinary Roman characters whereas other systems delivered them in visible signs or ciphers which had to be interpreted and written down.

Although the speed of sending relied on the ability of the telegraphist, no skill was required at the receiving end to interpret or decipher the messages. If its claims were well-founded, it was suggested that this system could easily supersede the Morse telegraph in the USA.

Long Routes

In Europe, a major problem in transmitting messages over long routes was the need to pass material through a number of systems. Stations separated by long distances were generally in different countries with the lines passing through different States in which different telegraph systems were used.

Each section necessitated the message being taken down and re-transmitted through the next section, often with delays before forwarding. A message

A map of telegraph lines in Europe, 1854, or as the original caption in The Electric Telegraph *quaintly put it: 'In the annexed map is presented a general view of the telegraphic network by which Europe was overspread at the close of the year 1854'*

from Milan to Paris, for example, had to be routed through Trieste, Vienna, Berlin and Brussels, taking more than 24 hours to reach its destination.

As was to be expected, the best examples of long distance communication occurred in the United States and by 1854, thanks to improved equipment and line insulation, a New York company reported direct links in some cases over a distance of 1500 miles.

Standardisation Planned

Despite these advantages, many delays occurred in the American telegraphs through the diversity of instruments, ciphers and abbreviations used. Accordingly, the majority of American Telegraph companies formed themselves into a confederation to promote the adoption of a common system on all lines. The confederation met annually in Washington and its Secretary, Mr J.P. Shaffner, published a monthly periodical devoted to subjects directly or indirectly connected with electric telegraphs.

As not less than nine-tenths of all American lines, as well as those of contiguous states, were worked with Morse's instrument it was proposed to standardise it as soon as possible to one uniform pattern. The aim was that parts as well as batteries should always be readily available in case of failure, with like parts fitting all instruments and all apparatus.

The American telegraphs invariably used Grove batteries constructed from a cup of unglazed earthenware placed inside a glass container. A zinc cylinder was let down between the two containers while a platinum cylinder was held in the earthenware cup. The outer space was filled with diluted sulphuric acid and the inner with pure nitric acid.

Statistical data from 1853 records the annual consumption of battery materials by the Morse companies as follows:

Nitric acid	199 680 lbs
Sulphuric acid	50 000 lbs
Zinc cylinders	16 500 lbs

and it was estimated that the total number of telegraphic messages sent over all lines in 1853 exceeded eleven million.

Many Uses

In his reports to Congress, Samuel Morse gave numerous examples of the use made of the telegraph by all classes of persons, from the time of the very first line. During the Philadelphia riots of 1844 the Mayor of that city sent an express message by railway to the President of the United States in Washington.

On arrival of the train at Baltimore the substance of the message was transmitted over the newly erected (first ever) line between Baltimore and Washington. The President held a cabinet meeting while the dispatch itself was awaited and his reply was ready for return to Philadelphia when the messenger eventually arrived by train.

Other examples over later years, and referred to in detail, include frequent use of the telegraph for medical consultation, business and social affairs, and even 'electric marriages' by telegraph!

Reference

The Electric Telegraph. Dr Dionysius Lardner. Pub. Walton & Maberly, 1855. ***MM***

Beginners Corner

Breeding Better Brasspounders

by Dr Gary Bold ZL1AN

AN INTERESTING question was posed to me recently: 'Is Morse ability passed on genetically?' The questioner observed that several old-time CW operators of his acquaintance had fathers who had been telegraphists, or service operators skilled in the code, and surmised that perhaps people who were naturally gifted in this direction 'passed it on through their genes.'

He even quoted my son Geoff, ZL1NGB, as an example to bolster his case. 'Of course' he said 'I'd expect your children to carry these genes, and this accounts for the ease with which he picked it up. And look at Ron ZL1AMO's daughter! I wish we were all that lucky!'

Ron will be well known to many of you as a CW DXpeditioner, with a habit of popping up in unexpected places to effortlessly hammer out thousands of QSOs with eager award hunters.

I had sent my Morse teaching software to Ron for his daughter, and my questioner had overheard a brief conversation we'd held on 2m, in which Ron told me that his daughter had passed the 12 wpm test, starting from scratch, with just 4 weeks of practice. Neither Ron or I helped our offspring in any way (except, by inference, via our genes) and both had studied only using computers.

Indeed, the fastest Morse-learner I ever knew told me that he started Morse practice for his ticket (in ye Olde Days, using ZKF) just one week before sitting the test, and passing it! And his father was a country Postmaster, a skilled telegraphist.

His earliest memories were of sitting, fascinated, on the floor in the telegraphy office listening to his father's sounder. He unconsciously learned to recognise when the station was being called, and would scuttle off to get Dad. In fact, he was quite a bit older before he realised that all adult males could not automatically read Morse, in the same way that they could read and write English!

But rather than having a genetically inherited ability, I think that he had been so saturated in the sound of Morse from birth, that his mind had become sensitised to it. When the time came to learn it properly, the subconscious was ready. Furthermore, he had no hang-ups about 'not being able to do it'. Every teenager knows that 'whatever the old man can do, I can do better'.

Walter Candler went to extraordinary lengths to emphasise a positive mental attitude. He was sure that many of us are beaten before we start, because we never really believe that we can do it.

And I have many letters from learners saying they initially fell into the same psychological trap.

You may not have heard Morse from the cradle (neither did I), but you can condition your mind to it, by playing it in the background (digital 'Muzak') while you're driving to work, washing the dishes or cleaning the car. You don't have to consciously listen to it. This may sound silly, but it works.

But there's another factor in both these cases – the computer. Learning Morse is just acquiring another linguistic skill, and educationalists in many fields now recognise the computer as a most patient, non-threatening and reliable teacher of skills. That's why I refuse to teach anyone Morse myself – I distribute software, instead, which does it better than I can. *(Gary's programmes are available to readers of* MM, *as explained in MM25. If new readers are interested, please send an s.a.e. to Tony Smith for an explanatory leaflet. – Ed.)*

Learning to Send with a Straight Key

Casey, ZL4CA, a legendary Morse operator of yesteryear, once observed that 'anybody can learn to read fast Morse, but very few can learn to send it properly'. To beginners, this usually seems an astonishing statement, because their experience is almost invariably the other way round. It seems easy to hammer out more or less recognisable characters on the key, but learning to read the stuff is an agonising and time-consuming process.

Casey probably overstated his case, because he was almost certainly a 'natural' himself, one of those relatively few people to whom decoding Morse seems little different from listening to speech. It IS difficult to send FAST Morse accurately, because at some stage we all reach our limit of manual dexterity and brain/hand co-ordination. But I contend that it is NOT difficult to send accurately at 12 wpm, the speed required to pass our ZL test *(and the UK test. – Ed.)*, if you go about it the right way. Nevertheless, some still fail. Why is this?

Most who fail the sending test do so because their RHYTHM is wrong. That's one reason why most Morse teachers concentrate on RECEIVING first so that the correct symbol sounds are imprinted in the brain before the fingers learn bad habits. I devised some simple exercises which Richard, ZL1BOK and I recommended on his Morse learning sessions a year or two back, and which really seemed to help.

Before you even START to send Morse characters, it's vital get the relative lengths of the dits and dahs correct. Even though the MARK length of a dah is three times that of a dit, the length of a dah plus dit-space is only TWICE that of a dit plus dit-space. That means you can send 4 dits in the time it takes to send 2 dahs. My first exercise is to send a continuous string of repetitions of 4 dits followed by 2 dahs, like 'didididi dahdah didididi dahdah ...'

Tap your foot rhythmically. Send each dah plus space in the time of one foot tap, and two dits plus spaces in the same time. The taps occur in the spaces shown between the groups above. If you do this for several evenings, it will imprint the correct relative element durations in the mind. You don't even

need a Morse key, you can just oscillate your wrist up and down on the edge of the table.

Now practise sending ONE dah followed by TWO dits in a stream. Again, the DAH and the two DITs plus spaces take exactly the same time. Now, just decrease the pressure on the key, so that the hand is moving up and down with the correct timing, but the contact doesn't close. Start closing the key again for one of the dahs, the two following dits, and the next dah, then stop. You have sent a perfect 'X'.

A little thought should enable you to see how to make up other common letters from these rhythms. The trick is, to train the mind so that you can do this WITHOUT tapping the rhythm with your foot, and without 'leading up to it'. It comes pretty rapidly.

The most difficult test is to send exactly in synchronism with a computer. My MSDOS program, 'FSEND' allows you to practise this, since you can get the computer to send prepared text from a disk-file. If you can do this, you're sending extremely well – it's surprisingly difficult!

The character and word spaces are what trip up most people. I also distribute, as part of my teaching software, a program called MREAD, which reads Morse and prints it on the screen. All you have to do is connect the Morse key to appropriate pins of the RS232 port – MREAD provides an audio tone as well.

Morse Learning Software

From time to time, I'm asked to give opinions on various Morse learning software packages. I'm always reluctant to do this because I don't get much feedback about these from learners, who are the only people able to constructively comment. I do get lots of feedback about my own software, which triggers continual modification and rethinking of my

ideas. As a result, I do have some strongly-held 'don't do this' opinions, all reinforced by learner's comments:

• Don't even look at a written table of the Morse code before starting to learn, and certainly never attempt to memorise one visually. You have to learn Morse by sound.

• Don't have anything to do with software that 'shows you the Morse characters on the screen'.

• Don't have anything to do with training schemes that ask you to initially listen to successions of dots and dashes, or parts of characters, or to 'count the dots and dashes' in characters. You have to recognise whole characters, and doing this will retard your progress. Listen only to complete, correctly sent, characters.

• Don't ever listen to Morse at a character speed of less than 12 wpm. Use 14 wpm or faster, if possible.

• Don't learn by memorising opposites, such as 'K' and 'R'. This actually causes some people to confuse them forever!

• Don't spend lots of time copying random code groups. Reading plain language is very different *(refers to the ZL Morse test. – Ed.)*. Random code groups are popular because simple computer programs to send them are easy to write. They have a place, for identifying and practising 'hang-up' characters, but that's all...

(Extracted and adapted for MM *from Gary Bold's 'The Morseman' column in* Break-In, *journal of NZART. Gary's Morse training programs are available free of charge from* MM. *Send an s.a.e. for details to Tony Smith, whose address appears inside the front cover.)*

Did Money Change Hands?

(Or did the Operator have a sense of humour too?)

When the first locomotive chugged into Tucson on newly-laid Southern Pacific tracks in March 1880, city officials were so proud they held a municipal celebration. Telegrams were sent to a long list of dignitaries throughout the nation, including the President, as well as the following wire to the Pope.

'To His Holiness, the Pope of Rome, Italy. The mayor of Tucson begs the honor of reminding Your Holiness that this ancient and honorable pueblo was founded by the Spaniards under the sanction of the Church more than three centuries ago, and to inform Your Holiness that a railroad from San Francisco, California, now connects us with the Christian world. (signed) R.N. Leatherwood, mayor. Asking your benediction. J.B. Salpointe. Vic. Ap.'

Three local jokesters, thinking the mayor's pride had gotten out of hand, bribed the telegraph operator not to send the wire to the Pope, but instead to deliver the following 'reply' at the height of the celebration banquet.

'His Holiness the Pope acknowledges with appreciation receipt of your telegram informing him that the ancient city of Tucson at last has been connected by rail with the outside world and sends his benediction, but for his own satisfaction would ask, where in hell is Tucson? (signed) Antonelli.'

Submitted by Richard L. Thomas KB7BAD, Phoenix, Arizona, USA

Reflections from Uncle Bas – 21

Yellow Fever?

by Bastian van Es PA0RTW

IN NORWEGIAN SHIPS, Radio Officers have many more tasks apart from taking care of communications and radio equipment. In fact, their main responsibility is the ship's administration and personnel files. This includes the very important Health documents which are required in every port of the world.

Entering a US port, for example, the officials of the Department of Health were always the first to climb the rope ladder, immediately followed by those from Customs and Immigration. If I remember correctly, every department had its own vessels and their officials boarded the ship even before it had tied up alongside the pier. Why there was such a hurry was never clear to me until the day we had a sailor on board with an unknown disease, assumed to be yellow fever.

Many Cargoes

In those days we were chartered by 'United Fruit', the well-known banana company. Our ship, the Norwegian freighter SS *Candida*, callsign LELM, did not transport bananas but performed regular services from American ports to the various Central and South American countries where United Fruit had its locations for growing bananas.

Our cargoes consisted of a multitude of products, such as railway carriages, generators, steel bars, typewriters, conveyors and many tons of chemicals. All these were necessary for the growing and transportation of bananas from the fields to the various ports where they were loaded on board seagoing vessels.

Sometimes we had shipments from one location of La Gran Flota Blanca to another, for example very large and extremely heavy conveyor belts from Cuba to Guatemala. One of these voyages stands very clear in my mind, as if it happened yesterday although it took place more than forty years ago.

Complete Train

This involved the transportation of twelve complete railway carriages, a locomotive and several hundred metres of steel rail. The cargo came from Honduras and was destined for Panama. Not all the carriages would go in the cargo holds and four were secured with steel wire on the deck. As the width of the ship was less than the length of the carriages, the carriages hung out partly over the water. Fortunately it was a short trip, about 400 miles and the weather in the Caribbean was excellent.

To be on the safe side, though, the captain asked for a detailed weather report for the area before we left port, and I copied all the available transmissions from coast stations and the Coastguard relating to our route.

The voyage went well and took just a few days. Unloading the big and heavy train was a different cup of tea altogether, though, and took almost a week. In the end all went well. Nevertheless it was a trip to remember. Just suppose we had been hit by a hurricane, which would not have been at all unusual at that time of the year!

. . . CAPTAINS ARE NOT VERY HAPPY . . .

Terrible Fever

A few months after this, just a few hours out of Havana, one of the sailors was taken ill. On occasions like this, it is customary for the chief mate to distribute aspirin, send the victim to his bunk and usually within 24 hours the situation is under control.

Not this time, however. The man ran a terrible fever and started hallucinating. The captain ordered him to be transferred to the ship's hospital, a separate cabin mainly used to store old files, football boots and shirts, etc., and of course cases of bandages and medicines. Additionally, bolted to the deck was an old bed with rusty springs and a dirty mattress.

Diagnosis by Radio

It is a fact that on board the SS *Candida* illnesses were a rare phenomenon. This was not so strange since apart from the captain everybody on the ship was young and healthy. And let us not forget, too, the rigorous medical examination everyone had to undergo when signing on.

In the meantime, the condition of Eigil Pedersen was deteriorating rapidly and the captain ordered me to contact the Red Cross hospital in Oslo via Bergenradio (LGB). After exchanging a number of messages, with questions and answers, the medical staff at the hospital diagnosed yellow fever and advised us to set course for the nearest port.

It is well known that captains are not very happy when they have to sail a few extra miles and will do their utmost to avoid such unwelcome irregularities. Fortunately, after some calculations in the chart room it became clear that our next port of call, New York, was also the nearest port so a change of course was not required.

Yellow Flag Hoisted

Naturally, the Coastguard had to be informed that we had a contagious disease on board. Two days later it became obvious that the telegram I had sent had been clearly received and understood since, passing Ambrose light

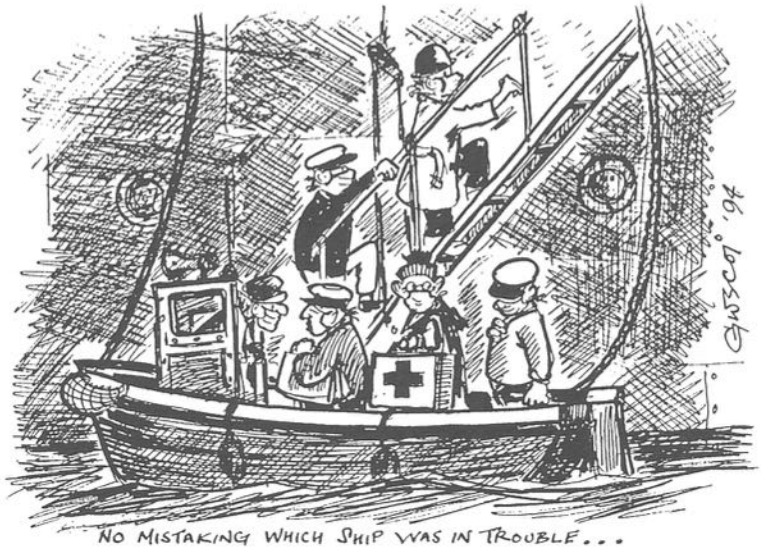
vessel near the entrance of New York harbour, we were welcomed by three grey, official, vessels.

According to the rules, the captain had hoisted a yellow flag *(standing for the letter 'Q'. – Ed.)*, the international signal for contagious disease, so there could be no mistaking which ship was in trouble. The little ships from the various departments came alongside and the officials climbed the rope ladder to come aboard. All of them had surgical masks over mouth and nose and were wearing gloves, and the pilot who followed them was wearing the same outfit.

Usually the captain welcomes the pilot on board after which he escorts him to the bridge. Not this time however. The pilot sort of sneaked round the captain and hastened to the bridge. No doubt he had orders from 'somebody' to be as careful as possible. On the bridge, he turned to the captain and gave the order to set course for the quarantine station off the coast of Newark, a few miles from the Statue of Liberty.

Medical Examination for All

After the ship was anchored, the captain was told to get all the crew members together in the mess where the doctor would examine each and every individual on board.



In the beginning, when the crew had heard about their sick colleague, they had been nervous and uneasy. But when the days passed by and everyone stayed perfectly healthy they had calmed down and the ship sailed on as usual.

Thirty-four crew members were gathered in the mess, laughing and joking, not sure what was going to happen. But the smiles and jokes quickly disappeared when it became clear that the officials were very serious and considered the case extremely dangerous.

Officers Different

The men were ordered to strip, and in this instance stripping meant naked from the waist down. Blood samples were taken as well as fingerprints. I did not understand the purpose of the latter but nobody volunteered any information.

So far, the captain had been more or less ignored, but at this point he considered the procedure a bit too 'informal' for his officers and requested separate and special treatment for them. Unwillingly, the chief official agreed and the captain, mates, engineers and the Radio Officer were examined in a separate cabin.

In the meantime, the sick crewmember had been carefully removed from the hospital cabin and transported immediately to a real hospital in New York City.

Long Wait

After the examination of the crew, we had to wait for the results of the tests. For almost eight days we waited on board under the strict surveillance of quarantine personnel.

At long last the official message was delivered to the captain, 'ship and cargo are free to go', a contagious disease had not been found. Sailor Pedersen had reached the hospital just in time. An acute perforated appendix was diagnosed and he was operated on immediately. ***MM***

(In my seagoing days, routine medical inspections on arrival in a foreign port were usually fairly perfunctory. In one Far Eastern country – I cannot now remember which it was – the regular arrival inspection involved the whole ship's company lining up on deck for two or three hours, after which the Port Health official strolled along and demanded to inspect the front and back of our hands. He never passed any comment, and what he was looking for I never could discover. Perhaps one of the doctors among the MM *readership can enlighten us? – Ed.)*

The Use of '33'

'33', the signature used between YLs is often misused and its origin tends to get lost. YLRL was organised in the US in 1939, and it was at this time that women amateur radio operators seemed to find their niche. 'YL' was adopted as a general term denoting any female licensed amateur operator, regardless of age or marital status.

'33' was originated that same year by Clara Reger W2RUF and it was adopted by YLRL for exclusive YL use. It means 'Love sealed with friendship between one YL and another YL.'

We are reminded that, with this background and meaning, it is understandable that '33' is not only exclusive to YLs but is never used in the plural. We sign '33'.

(From the 'ALARA Column', by Robyn Gladwin VK3ENX, in Amateur Radio, *journal of the Wireless Institute of Australia, August 1992.)*

Club Profile – 10

QRP Amateur Radio Club International (QRP ARCI)

QRP ARCI WAS FOUNDED in 1961 by the late Harry Blomquist, K6JSS, with the aim of reducing QRM (interference) on the air by members voluntarily limiting their power to 100 watts or less at all times.

Due to increasing interest in true low power operation, and through the leadership of then-president Tom Davis, K8IF, the club voted in the late 1970s to redefine its purpose and adopted the now generally accepted definition of QRP as 5 watts output CW and 10 watts PEP SSB.

The voluntary 100 watt power limit was later abolished, and members may now run any legal amount of power necessary at any time for any purpose. However, the 5 watt limit should be observed when members claim to be operating QRP; and club awards and activities are geared to the 5 watt (or less) level. While QRP is equally applicable to both CW and SSB operation, a very large proportion of the club's QRP activity is, in fact, in CW.

QRP ARCI does not advocate the reduction of the legal power limits of amateurs in any country, and serves only to provide a forum for those who enjoy the thrills and challenges of building and operating low power equipment.

The club is a member of the World QRP Federation, it collaborates with other QRP organisations and maintains fraternal links with the European CW Association. To encourage on-the-air QRP operation, QRP ARCI promotes the use of designated QRP calling frequencies, regular QRP nets, and a program of operating awards and contests.

Journal

QRP Quarterly, the journal of QRP ARCI, is published in January, April, July and October. Each issue contains club and other QRP news; construction projects; antenna and other technical articles; equipment and publication reviews; contest and award news; correspondence; a useful members' ideas exchange column; members' own news; and a wide selection of QRP related material.

Awards

The objective of the QRP ARCI Operating Awards Program is to demonstrate that 'power is no substitute for skill'. It encourages full enjoyment

of amateur radio while running the minimum power necessary to complete a contact and thereby reduce interference on the crowded amateur bands.

Most of the following awards are available to any licensed amateur radio operator. Reference to QRP implies operation with a maximum power level of 5 watts output CW or 10 watts SSB.

QRP-25 – Available to any amateur for working 25 members of QRP ARCI who are running QRP. Endorsements available for 50, 100 and every 100 stations worked thereafter.

WAC-QRP – Available to any amateur confirming contacts (QSOs) with stations in all six continents while running QRP.

WAS-QRP – Available to any amateur confirming QSOs with stations in at least 20 of the 50 states of the USA while running QRP. Endorsements for 30, 40, and 50 states confirmed.

DXCC-QRP – Issued to any amateur for confirmed QSOs with 100 ARRL countries while running QRP.

1000-Mile-per-Watt (KM/W) – Issued to any amateur transmitting from or receiving the transmission of a QRP station such that the Great Circle Bearing distance between the two stations, divided by the QRP station's power output, equals or exceeds 1000 miles-per-watt. Additional certificates can be earned with different modes and bands.

QRP-NET (QNI-25) – Issued to members completing 25 check-ins into any individual QRP ARCI net. Subsequent 25 check-ins to another net will earn an endorsement seal.

Full details of all awards, and how to claim them, are published in the *QRP Quarterly* from time to time.

Contests

The club organises a number of contests around the year, both in its own right and in collaboration with other QRP organisations, and full details are published in the *QRP Quarterly*.

Typical CW events are the Spring QSO Party in April; the Hoot Owl Sprint in May; the Summer Homebrew Sprint in July; the Fall QSO Party in October; and the Holiday Spirits Sprint in December.

Nets

The QRP ARCI Net Schedule lists QRP nets on Wednesday, Thursday, Saturday and Sunday each week on 3.535/3.560, 7.030/7.040, and 14.060MHz. These nets provide the latest QRP news and allow members and others checking-in to meet other QRPers on the air. Full details of the nets are published periodically in the *QRP Quarterly*.

Dayton

QRP ARCI takes a QRP booth at the annual Dayton Hamvention, and arranges hotel reservation for members attending this high spot of the amateur radio year. Many QRPers from both the United States and around the world converge on this famous event, and a QRP ARCI hospitality suite enables them to meet old and new friends, demonstrate their latest projects, exchange experiences, or just talk QRP!

Membership

Membership of QRP ARCI is open to all radio amateurs or short-wave listeners, in any country, who are interested in the aims of the club.

The annual subscription for a new member (first year) is US $12.00 or $14.00/£7.00 for DX members, which includes receipt of the *QRP Quarterly*. Renewal subscription (i.e., subsequent years) is US $10.00 or $12.00/£6.00 DX.

Applications for membership should be sent to the QRP ARCI Membership Chairman, Mike Bryce WB8VGE, 2225 Mayflower NW, Massilon, Ohio 44647, USA.

UK applications/renewals may be sent to Dick Pascoe G0BPS, Seaview House, Crete Road East, Folkestone, Kent CT18 7EG. ***MM***

*(*MM *is grateful to Les Shattuck WN2V, President of QRP ARCI, for assistance given in the preparation of this profile.)*

Wishing all our Readers a Happy, Peaceful and Prosperous 1995

Readers' ADs

EXCHANGE

KEYS and SOUNDERS for exchange. List available on request. Henri Heraud F6AOU, 9 Avenue de Bellevue, 91130 Ris Orangis, France.

How to Work With Brutal Morsemen

Students should grow up in the art of preserving a tranquil and courteous demeanour in their work on the line. They must be careful not to burden their speeches with ceremony but treat their *vis-à-vis* with respect.

There are circumstances in the peculiarity of telegraphers' work on a wire, dealing with men they have never seen, that seems sometimes to breed irritation at every dot. The bickering of lawyers at the bar is not a parallel to it, and strange to say in an exceedingly large number of instances in which the operator on the line is pronounced 'crank' or 'mule' he, in personal individual intercourse, is an affable courteous gentleman, elevated above petty spite and unwilling to wound the sensibilities of even a tramp.

The only good rules to follow in working with nervous, ill-tempered or brutal morsemen are, keep your temper, stick to the text, ignore innuendoes and try calmly to progress your business without attempting to either propitiate or further antagonise your partner on the line, and he will soon become ashamed of himself and special ill treatment on his part toward you at least will cease.

These are rules more easily laid down than followed, but their practice yields a big return upon the investment.

From The Philosophy and Practice of Morse Telegraphy, *by T. Jarrard Smith, published by Manhattan Electrical Supply Co., Inc., date unknown.*

Bookshelf

A mail order book service for selected telegraphy and radio titles. The letters *MM* or *RB* followed by a number after each title indicate the magazine and issue in which a review appeared.

The prices quoted for each title are inclusive of postage and packing, the first figure being for despatch to UK addresses, the second for despatch to the rest of Europe by airmail or elsewhere in the world by surface mail. Airmail rates for the rest of the world on request, or if you are using your credit card we can ship by air at your instruction, simply adding the difference in postal cost to your bill.

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NEW TITLES on the Bookshelf

Deep Sea 'Sparks'
by Olive J. Carroll

Recounting the experiences of a Canadian girl whose interest in radio stemmed from instruction in Morse signalling by flashing light in the school cadet force. She trained at radio school and first worked as an interceptor operator for the government, before eventually obtaining a seagoing post aboard a Norwegian cargo vessel.

The book tells of her life on board over a four-year period, through good times and bad. Being required to do duty also as ship's purser and captain's secretary meant frequent 'burning of the midnight oil'. Combined with the effects of on-board food which varied from indifferent to inedible, this caused the author to suffer sickness and considerable loss of weight before she was finally able to leave the ship.

(see the review on page 22 of this issue of MM*)*

357p, 5⅞ x 9in, hardback
£17.90 (UK): £18.50 (Eur/Sur)

TELEGRAPHY BOOKS

Detailed descriptions of the titles listed below available on request

Introduction to Key Collecting by Tom French *(MM17)* ..... £6.75 (UK): £7.05 (Eur/Sur)
Vibroplex Collector's Guide by Tom French *(MM17)* ..... £9.75 (UK): £10.25 (Eur/Sur)
Bunnell's Last Catalog (with commentary) by Tom French *(MM23)* ..... £4.85 (UK): £5.05 (Eur/Sur)
Railroad Telegrapher's Handbook by Tom French *(MM22)* ..... £6.75 (UK): £7.05 (Eur/Sur)
McELROY, World's Champion Radio Telegrapher by Tom French ..... £14.70 (UK): £15.40 (Eur/Sur)
The Telegraph by Lewis Coe *(MM31)* ..... £19.10 (UK): £19.80 (Eur/Sur)
History, Theory & Practice of the Electric Telegraph by George B. Prescott ..... £12.75 (UK): £13.65 (Eur/Sur)

RADIO BOOKS

Deep Sea 'Sparks' by Olive J. Carroll (MM37) ..... £17.90 (UK): £18.50 (Eur/Sur)
Dawn of Australia's Radio Broadcasting by Philip Geeves ..... £3.95 (UK): £4.40 (Eur/Sur)
Discovering Vintage Radio by Peter Lankshear ..... £4.15 (UK): £4.65 (Eur/Sur)
Communications Receivers – the Vacuum Tube Era by Raymond S. Moore ..... £15.00 (UK): £15.85 (Eur/Sur)
The RACAL Handbook by Rinus Jansen ..... £13.00 (UK): £13.75 (Eur/Sur)
The Golden Age of Radio in the Home by John W. Stokes ..... £17.50 (UK): £18.00 (Eur/Sur)
More Golden Age of Radio by John W. Stokes ..... £25.00 (UK): £25.50 (Eur/Sur)
Radio! Radio! by Jonathan Hill ..... £28.50 (UK): £29.50 (Eur/Sur)
70 Years of Radio Valves & Tubes by John W. Stokes ..... £21.00 (UK): £22.00 (Eur/Sur)
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Your Letters

Readers' letters on any Morse subject are always welcome, but may be edited when space is limited. When more than one subject is covered, letters may be divided into single subjects in order to bring comments on various matters together for easy reference

Korean Key Japanese

In MM36, p.23, I noticed the 'mystery' key, possibly made in Korea. As I work for an international company I asked our agent in Seoul if he could translate the maker's plate. The reply was 'It's Japanese'.

I then tried again in Japan and received the following reply:

'Without any doubts, this key was manufactured by Matsushita Wireless Company (present Matsushita Electric Co. Ltd.) during World War Second in Japan. Letters are a little old Japanese. Place of manufacture is unknown from this plate but seems at some place in Japan and Korea (during this period, Korea was under control of Japan).' The translation of the plate is given as:

'MANUAL OPERATION KEY - TYPE 2
(MONTH) (YEAR)
NO. (—) WEIGHT (—)
MATSUSHITA WIRELESS CO. LTD.'

Herman van den Berg PA3BFH
Kudelstaart, Holland

(We also received a translation from Dennis Goacher G3LLZ, courtesy of a Chinese work colleague, which intriguingly gives the maker as 'Panasonic Radio Corporation'. PA3BFH referred this apparent discrepancy back to Japan and received the following further information in reply. 'Panasonic is just brand name of Matsushita Electric Industrial Co., Ltd. In Europe they are using Panasonic Europe as their trade name. Matsushita Wireless Co. Ltd. existed during 1935–1945 but now all of their functions have been merged to Matsushita Communication Industrial Co. Ltd. (MIC). The two companies are in the same group, but Panasonic and MIC are different companies. Panasonic is very popular in Europe but it is not accurate to use the name as their former company "Matsushita Wireless Co. Ltd.", Matsushita Communication Industrial Co., Ltd., or MIC, is correct.'

The wording on this key has aroused a lot of interest, and we also received a translation from Yuzuru Suzuki AA1JA, of Malden, Massachusetts, USA, in which he translates the maker as Matsushita Musen Kabushiki Kaisha (Matsushita Wireless Company). Our thanks to everyone for taking such trouble to help us identify this key. – Ed.)

RAF Type 51 Key

In answer to the question on page 45 of MM36, the RAF Type 51 key was also used in the Vulcan bomber.

Dave Rycroft (Flt. Lt.) G4OKO
RAF Locking, Avon

Abbreviations & Procedures

I wrote previously (MM32, p.46) about US Novices using KN barred. Since then,

I have had some interesting letters and calls concerning the later use of the prosign to mean 'only the one station'.

Some people remember using it before 1951, and one learned it in the Czech paramilitary equivalent of DOSAAF. So the US Novices must have 'adopted' it rather than 'invented' it.

Bob Eldridge VE7BS
Pemberton, BC, Canada

('KN barred', meaning 'only the one station to reply', appears in the 1948 ARRL Handbook, *but not the 1944. – Ed.)*

F17 Key

I refer to the unknown key from G3LLZ on page 24 of MM24, identified in MM25, p.41, by G3BEX as a GPO single current type F17 key. My own key of this type has 'Y59' stamped on the underside of the base and the underside of the lever arm. Does anyone know the significance of this marking please?

John N. Elwood WW7P
Phoenix, Arizona, USA

Two-lever Key

The 'mystery' key with wooden lever, on page 25 of MM36, is one half of a two-lever key used for single needle telegraph operation. The knob shown on John Pears' half has been added later.

According to my 1901 edition of *Electricity and Magnetism*, by Silvanus P. Thompson, 'by depressing the right-hand one or the left-hand one (i.e., levers), currents are sent in either direction at will' thus causing the needle of the receiving instrument to be deflected to right or left as required.

The illustrations below show the construction of the key; also how it was mounted in a receiving instrument to form a combined transmitter/receiver.

Dennis Goacher G3LLZ, Swindon

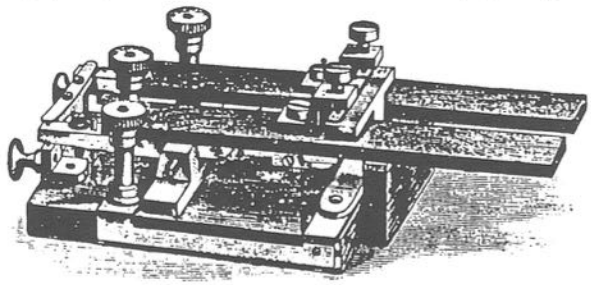
(Some single-needle instruments had drop handles for sending instead of two-lever keys. – Ed.)

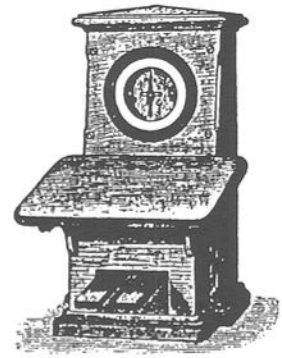
Unknown Miniature Key

The unknown miniature key shown on page 25 of MM36 is a military key still in use with the British Army.

It is used with the Clansman UK/RT320 Transmitter-Receiver. This is an HF set covering 1.5–29.999MHz, with 100Hz steps available. The plug is a 7-pin Clansman plug. The set has low power, about 5 watts and high power, about 30 watts.

The modes available are AM, CW (wide), SSB, and CW (narrow). It can





Two-lever single-needle telegraph key (above) and the key mounted in single-needle receiving instrument

be used with a whip antenna or dipole/sloping wire. The key has two adjustable settings, i.e., Tension and Gauge, and comes with an adjustable leg strap. It is very lightweight and is quite nice to use.

Colin Forrester (Corporal), G7LWJ
Aldershot, Hants

Definitive Publication

I am returning to a childhood infatuation with Morse as an American artist, and to his invention, the great Morse code. This is leading, of course, to buying a key and obtaining an amateur radio licence.

In preparing for the 'General' operator's licence here, which requires 13 wpm, I came across a detailed bibliography which lists your publication many times and states that it is the world's definitive Morse quarterly. The titles are absolutely fascinating.

Long Beach California operates a 24-hour CW beacon at 100 watts, callsign WA6APQ ('DE WA6APQ/BQN LONG BEACH, CA...'), on 10 metres, 28.245MHz. I believe this is operating out of the radio room of the old *Queen Mary*, about 2 kilometres from my home.

I doubt if this beacon will reach Europe, but several DXers here tell me that it will get to you direct as it does here. The beacon is limited to 100 watts by law.

James Harlan Smith
Long Beach, California, USA

Creed Coding

With reference to my letter in MM36 (p.47) regarding altering 7B type heads for secrecy, I have since realised it would be necessary to modify the keyboard also. The only way to do this would be to re-mark the keys which would make other than one-finger typing impossible. Ah well! Back to the drawing board!

Alan Hobden G3YNN
Ninfield, East Sussex

Don't Understand!

I recently bought a copy of *Elements of Radio Communication*, 1934, 2nd edition, by Professor John H. Morecroft (Columbia University), published in the USA.

In listing the Morse code it gives Z as – – – · ; 'Understand' as · · · – · (which the RAF used as VE barred for "start of transmission" and I still do!); and 'Don't Understand' – · · · · – · which is new one to me.

Richard Q. Marris, Slough, Berks

(The 'Z' could possibly be a misprint for – – · · but is any reader familiar with the signal for 'Don't Understand'? – Ed.)

Erasure Signal

The continuing and interesting correspondence about this tricky signal has reminded me of my learning days when I was taught by an old army stalwart from WWI to count up to seven as I sent, by which time eight dots would have emerged!

It is exactly the same as PA3FBF, Monika's 'Mississippi' twice (MM35, p.40). Each number has one syllable except 'seven', and one does it without thinking (after a little practice!).

BUT, having now read G3MCK, Gerald's reference (MM36, p.43) to *Telecommunications Procedures for Civil Aeronautical Fixed Service*, quoting

'error signal consisting of not less than eight dots', I consulted my *Royal Air Force Pocket Book*, Air Publication 1081, 3rd Edition June 1937, reprinted February 1939, (By Command of the Air Council). And what do I find?
'Erase ····· about ten times'!!

Graeme Wormald G3GGL
Bewdley, Worcestershire

Distinctive Tone

I read the letter from Monika Pouw-Arnold (MM35, p.43) about non-T9 tones just after looking at the schematic of the transmitter used at AC4YN in 1937 (a Kallirotron push-pull power oscillator running 100 watts input and keyed directly in the cathode's loop.)

With the HT coming from a rotary generator and undoubtedly some click and chirp, that should produce a romantic and distinctive tone indeed. It does seem strange that we still send a third digit for the signal report, but at least it distinguishes a CW QSO from a fone QSO in the log.

Bob Eldridge VE7BS
Pemberton, BC, Canada

Junker Keys

Re 'Junkers or Junker' (MM35, p.27 and MM36, p.48), I would like to give you some brief information about Joseph Junker, engineer and navy officer (Kapitn zur See) in WWI.

Junker founded his company in Berlin in 1926. The high precision Morse key 'Morsetaste M.T.' was one of his first products. He was granted a patent for it in the late twenties. The key was produced in different sizes and with seven different types of *RCL* filter

Joseph Junker, inventor of the Junker key

combinations. The company made a semi-automatic 'bug' as well.

Junker died in 1946. After WWII, the 'Joseph Junker Elektroapparatebau - Fernmeldetechnik GmbH', in Bad Honnef/Rhein, became the main German producer of racks for telecom companies.

Gregor Ulsamer DL1BFE
Emden, Germany

RAF Operators

Reading an old wartime RAF recruiting book the other day, I noticed that in the trades available there were two types of wireless operators. One was described as ACH W/T Radio Operator Group II, and the other was ACH W/T Wireless Operator Group II. It would appear from the trade description that the Radio Op required some basic knowledge and a better standard of education... 'a superior type of clerk...'

I'm at a loss to work out what the difference in terminology means. It did say that from the Wireless Ops some would be selected for aircrew. Perhaps

an ex-RAF reader can supply the answer?

Like Reg Prosser (MM36, p.43), I was an OWL (but this was in 1946, Reg, when all those paths you had cleared with the columns had long since grown over!). I recollect very early in our training at Catterick we were told that out of the several hundreds joining the OWL's course only a handful would ever see a wireless set. The Army of those days certainly knew how to whip up enthusiasm!

Many thanks for *MM*, an excellent magazine.

Geo Armstrong G0LIU
Carlisle, Cumbria

How Many keys?

In your editorial in MM34, you commented on the number and variety of keys made. I have started a list to catalogue all known types and variations of keys. I am constantly adding to this list and hope to verify each entry with either a good advertisement or a key in a collection.

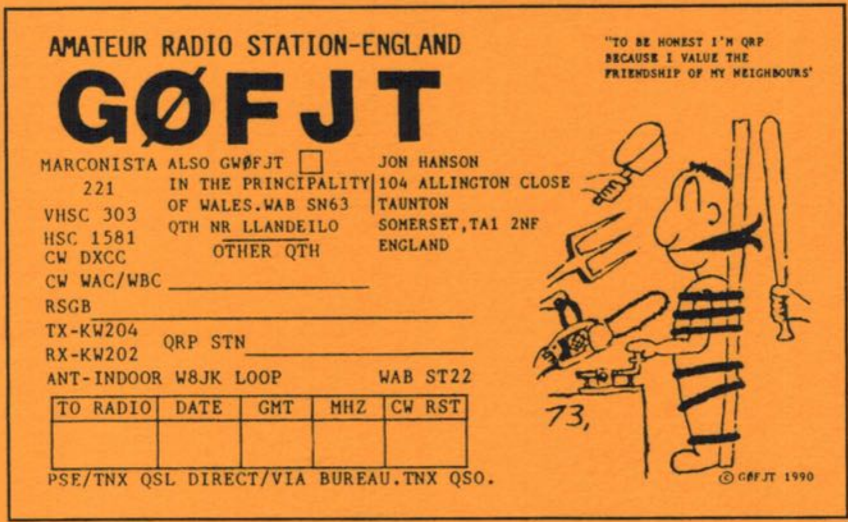
I have been working on a database of key ads, and when I get it done I will be able to add quite a lot to the key list. I have over 3000 entries from *QST*, *73*, CQ, *Radio*, *R9*, *Railroad Telegrapher* and other publications. With the database I can track the address changes and model numbers on keys which helps to date and identify them.

I need to merge this database with the key makers' database. My guess is that I will be able to identify at least 1500 keys made since 1901!

Lynn A. Burlingame N7CFO
Bellevue, Washington, USA

Morse QSLs

A series of reproductions of QSL cards with a Morse theme



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GØFJT

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VHSC 303
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ALSO GWØFJT
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73,

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Bjørn Nielsen
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Try, 9750 Ø. Vraa
Denmark

OZ6DO

To radio G4FAI Date 18-9-77 GMT 1950

CW x MHz 3.5 RST 559 QSB DOWN TO 53

RX/TX: TEN-TEC [redacted] 5 wat. inpt
ARGONAUT 509 ~~PA 100 wat.~~

Ant.: DIPOL

Tnx QSO. Vy 73

Bjørn

Dr TONY
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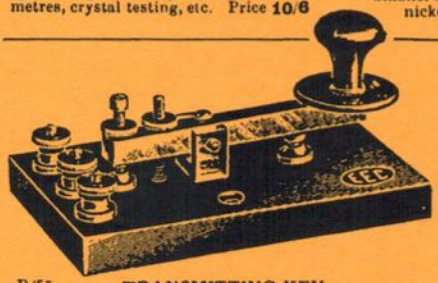

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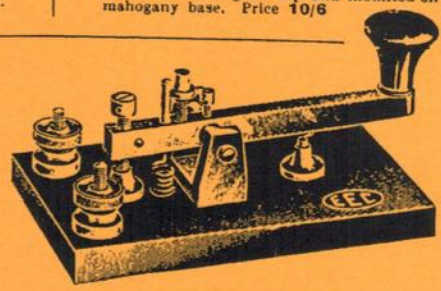

Keys and buzzers as offered in the 25th Anniversary Catalogue of Economic Electric Limited, of 10 Fitzroy Square, London W1, published in August 1922