

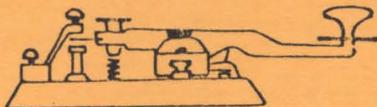
summer 1988

ORSUM
agnificat

magazine for morse-telegraphy

■ ■ ■ ■ ■ nr 8 ■ ■ ■

Morsum Magnificat



01-368 4588

1, Tash Place - London, N11 1PA

MORSUM MAGNIFICAT was first published in Holland, in 1983, by Rinus Hellemons, PAOBFN. Now published from London, it provides 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.

EDITOR AND PUBLISHER:

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London N11 1PA, England.

Tel: 01-368 4588

SUBSCRIPTIONS

United Kingdom - £6.50 per annum, postpaid. Cheques, etc, payable to MORSUM MAGNIFICAT, or Girobank transfer to 57 249 3908.

Europe, including Eire - £7.00 sterling by international cheque or postal order.

Other countries - Surface mail, £7.00 (or U.S. \$13.00); Airmail £8.50 (or U.S. \$16.00). Payment in U.S. dollars by banknotes only. PLEASE DO NOT SEND DOLLAR CHECKS.

ISSN 0953-6426

Cover photo: Casey Schreuder, VK2CWS, Engadine, Australia. Ex-reader of Dutch MM, now a reader of EMM.

The story of

The Key - 3



THE "LIGHTNING SLINGER"..... VIBROPLEX

by LOUISE RAMSEY MOREAU, W3WRE.

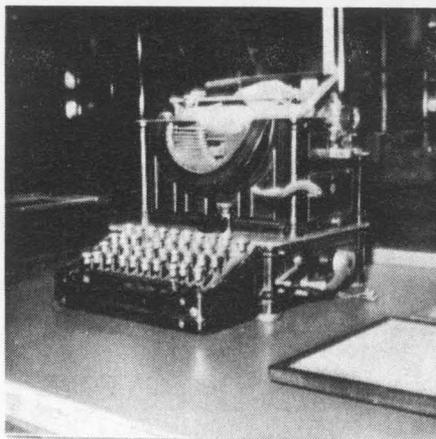
The "sideswipers" and types of keys manufactured to help those who were afflicted with "telegraphers' paralysis" did indeed assist a great many to continue in the profession; but they were not designed for speed, and speed was essential to be able to clear the huge work loads that the operators handled each day. In 1879 Walter Phillips devised the Phillips Code that consolidated all the different codes in use and eliminated much of the "box car" abbreviations invented by the operators. This code did speed up transmissions but was not the full answer.

In the 1880's Phillips had also applied for a patent for a vibrating key as did a number of others. However only a few operators used these early attempts at speed keys because the ineffective forms of damping resulted in blurry sending, and split dots. The crack "A-wire" operators condemned them as "fit only for a bug", or a "bug's key".

The word "bug" as used on the wires during the late nineteenth and early twentieth centuries was pure telegraphic profanity. To these men a "bug" was a lousy operator with a fist that only a mother could love. Those kings of the wire who were proud of their ability to send from ten to eighteen thousand words in a single trick would have nothing to do with the early ineffective instruments.

Then, in 1902, Charles Yetman received a patent for a "Telegraphic Transmitter" (fig. 1) that was nothing but a typewriter that transmitted the Morse characters on a

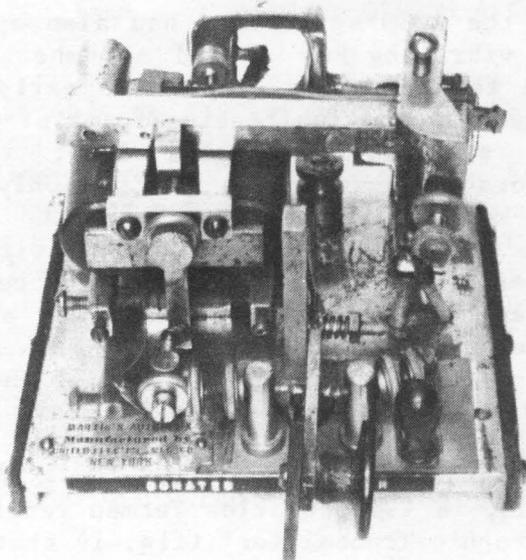
fig. 1.
Yetman (1902)



wire. The major drawback was the necessary skill and ability to type. Unlike teletypewriters this was for transmitting only and the copy was still received on a sounder. The Yetman was in use for a number of years in a few offices.

One year after Charles Yetman received his patent, Horace Martin was granted one for the first of the semi-automatic keys. This key, called the "Autoplex" (fig. 2), was battery powered by two dry cells and utilized a pair

fig. 2.
Martin
Autoplex.



of magnets from a sounder to hold the vibrator stationary when dashes were being made. This clumsy, heavy instrument was made for Martin by the United Electric Company of Norcross, Georgia, and was accepted and in use for several years.

In 1903 when Martin received U.S. Patent 732,648 (fig. 3) for his "telegraphic transmitter" he sewed up the entire field. In those eight pages of drawings and specifications he included every possible method of creating dots automatically and dashes manually. With it he slammed the door on any possible attempts to produce semi-automatic instruments, with just two exceptions.

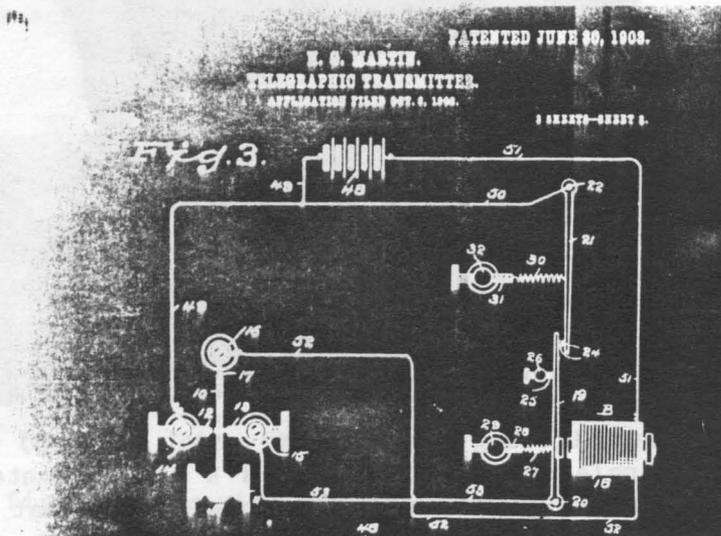
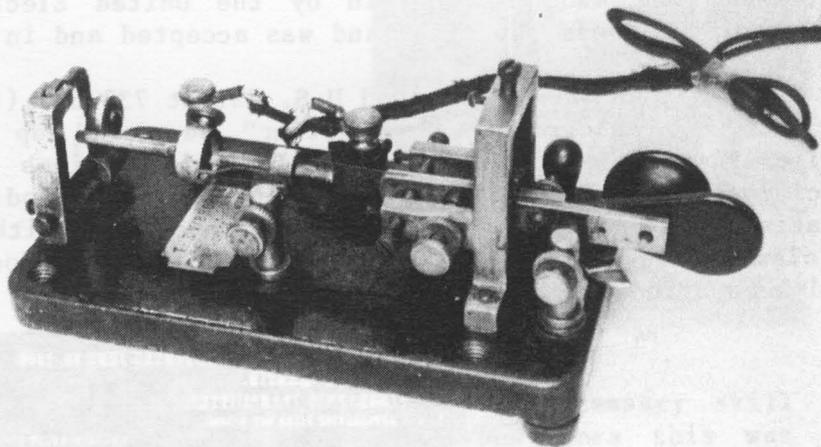


fig. 3.
Martin
Patent
732,648.

Even as the Autoplex was being sold to telegraphers, Martin was working on a radically improved model that went on the market in 1904, and he called it the "Vibroplex". That 1904 key is the "Original" model (fig. 4), and the only difference from the modern chrome and red lucite versions is the mounting of the dot contact. In 1904 it was a straight strip of metal attached to the pendulum but by 1906 Martin had changed it to the familiar "U" style of mounting.

All the early Vibroplex were custom built by Martin to order in a small shop at his home in Brooklyn. All Martin keys had that black japanned base with the gold carriage trim, and all the name-plates were labelled "'The Vibroplex' by Horace G. Martin New York".

fig. 4. Vibroplex "Original" (1904)

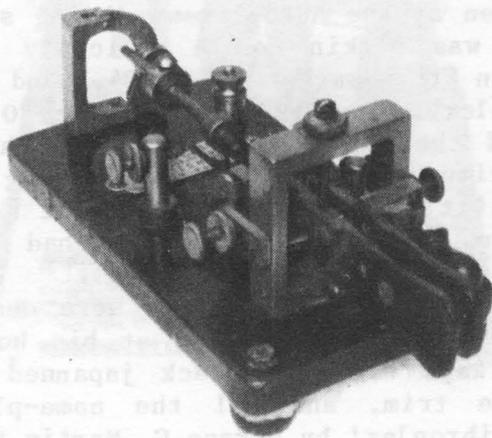


The Vibroplex Company name-plate began to appear on the keys with the Number 4 model in 1914.

Martin was continually coming up with new ideas to improve this key. The problem of split dots, or possible "lash back" after the thumbpiece controlling the dots was released was more effectively handled by the "Double Lever" Vibroplex in 1911 (fig. 5), with separate levers for dots and for dashes.

The following year the "X" model (fig. 6) went back to the single lever, but utilized a single contact for both the dots and dashes with a special strip that held the

fig. 5.
Vibroplex
"Double Lever"
(1911).



pendulum stationary while the dashes were being made. 1912 also saw the first official listing of the Vibroplex name as a registered trademark, both in advertising and stamped as trademark number 84,356 on the name-plate.

About this time, Martin teamed up with James Albright, and the Albright Company began producing Vibroplex keys, some from Albright's typewriter offices in New York City, and some from Martin's Brooklyn location. From then on the name-plates were all of the more familiar style although the "Lightning Bug" logo did not appear until the 1920s.

There was a need for a smaller key that could be easily carried for use at sports events, conventions, in fact for any activity in the field. So in 1914 Martin

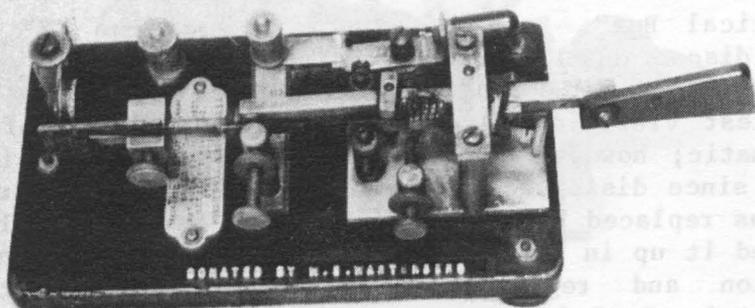


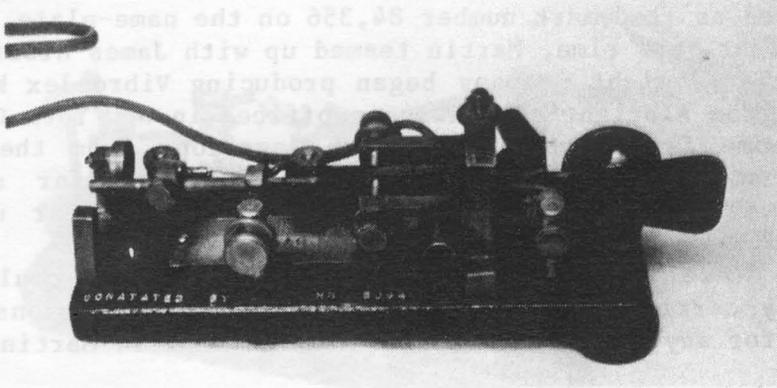
fig. 6. Vibroplex "X" model (1912)

designed the Vibroplex "#4" (fig. 7), the half-size version of the "Original", later to be advertised as the "Blue Racer".

However, for some there was still the problem of curtailed space for operating in telegraph offices. There is nothing so crowded as a wire chief's desk and the speed keys took up too much room - even the smaller "#4" was too large - so it was back to the drawing board for Horace Martin.

He didn't take much time incorporating the single contact feature of the "X" model into a vertical style semi-automatic (fig. 8) mounted on a $2\frac{1}{2}$ " x $3\frac{1}{2}$ " inverted U-shaped base that fitted into a very small area. This patent appeared in 1917 as the "Upright Vibroplex" or Wire Chief's Key", which the operators nicknamed the

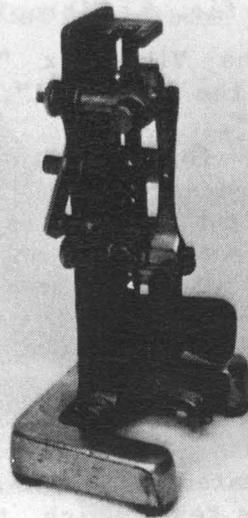
fig. 7. Vibroplex "#4" (1914)



"Vertical Bug". Both the "Upright" and the "X" models were discontinued by Vibroplex in 1925.

The term "bug" that was so scathingly given to the earliest vibrating keys had stuck to any kind of semi-automatic; however the originally profane definition had long since disappeared as such terms do (for the record, it was replaced by "lid" and "plug"). Martin and Albright picked it up in typical "if-you-can't-fight-'em-jine-'em" fashion and registered the word, with a stylized "Lightning Bug" design, as one of the copyrights and

fig. 8.
Vibroplex
"Upright" (1917)



trademarks of the Vibroplex Company.

Vibroplex was busy with military orders during the First World War so it was not until 1923 that the newest and greatest of all the Martin patents appeared. Called the Vibroplex "#6" (fig. 9), and later advertised as the "Lightning Bug", it was offered with a choice of red, blue, green, nickel or the well-known black base. Probably the smoothest operating and most efficient of all the Martin keys, it was later chosen by the military during World War Two as the work horse of the Signal Corps, the "J-36", and was selected by the Navy as their speed key.

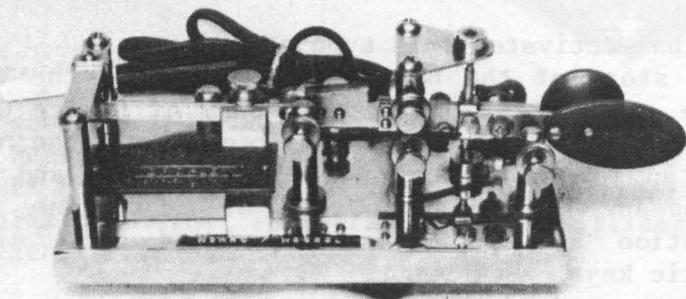


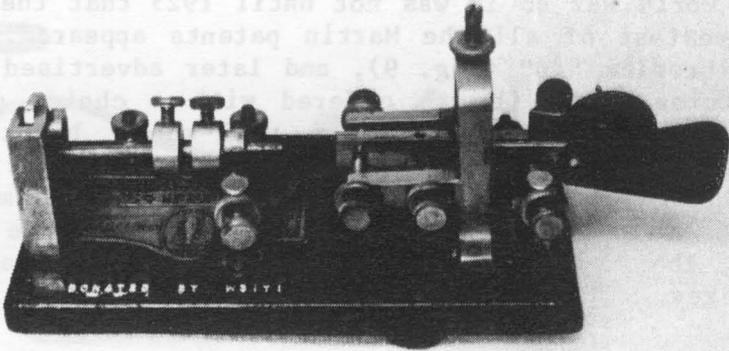
fig. 9. Vibroplex "#6" (1923).

After the exclusive manufacturing rights of Vibroplex, as well as the patent monopoly, expired the market was wide open. But in 1930 Martin produced one more design, the "Martin Junior" (fig. 10) for use in radio, for since CW had replaced Spark it was possible, at last, to use semi-automatics on the air.

Martin left Vibroplex in the 1930s and organized the Martin Research and Manufacturing Company, making "Martin Flash Keys". In 1940 he sold his jigs, dies and patents to the J.H. Bunnell Company who produced the "Bunnell-Martin Flash Key" (fig. 11).

The Vibroplex Company continued to produce the original Martin designs with many new models for amateur radio: the "Zephyr", "Champion", "Blue Racer" and, under the aegis of John La Hiff, the gold-plated "Presentation" model in 1941. Then, after World War Two and the introduction of electronic keys, the "Vibrokeyer", actually

fig.10. Martin "Junior" (1930)



a key that activated this type of keyer.

The story of the bug and the story of the Vibroplex are the same story. It is the story of Horace G. Martin (fig. 12), a telegrapher who recognized the need for speed, an inventor who answered that need, and a clever businessman who turned a term of opprobrium into the designation now popularly associated with all semi-automatic keys.

References used

There are no formal published works covering Vibroplex. All material in this article is based on the Martin patents, the keys themselves, personal correspondence and interviews with persons who knew Horace G. Martin.

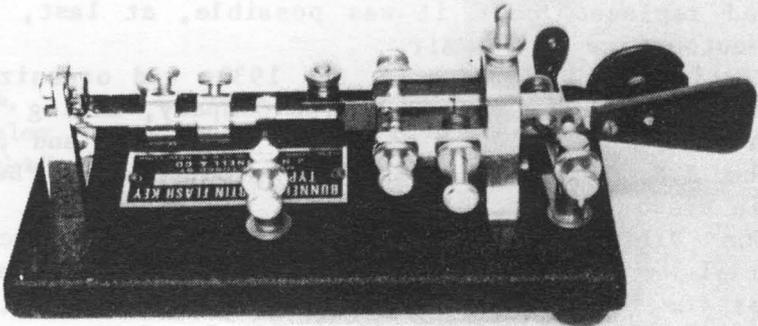


fig. 11. Bunnell-Martin Flash Key (1940)



fig. 12.
Horace G. Martin



Picture sources

fig.1 - Henry Ford Museum; figs. 2, 4, 5, 6, 7, 8, 9, 10, 11 - W3WRE Library; fig. 3 - U.S. Patent Office; fig. 12 - Vibroplex catalogue. Photography: Ralph Williams N3VT (Copyright reserved).

Frank, thank you...

Many will remember with affection those, now "silent key", who introduced us, then trained us, in the mystics of "Charlie Whiskey". If there is a "Roll of Honour" for our dear departed friends then I would wish to nominate Sergeant Mason, Ack Ack Signals, stationed at Woolton, near Liverpool, in 1940, an ex-naval telegraphist who, during the first world war, served on HM destroyers.

His recollections of setting up his spark transmitter on the Captain's head, because "that was the only available free area" moved us rookies to enquire - "what happened if the Captain was taken short?" His immediate response was to increase the QRM he frequently superimposed on his immaculate 25 wpm Morse sending.

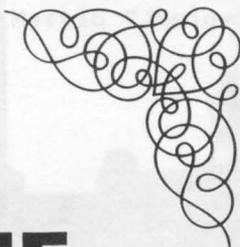
Frank, thank you. You were in my thoughts when I was told at the RSGB Convention in March 1986 that I had passed my Amateur Morse test - Thanks!

Don Powell, GOFHI.

CQ

FROM THE

PAST



by ALFRED PAICE

"Come up and see the station," said Denis.

I had just delivered our church magazine, found him (for once) at home and had been given coffee. Then came the invitation. I knew he was a keen radio man but I had no idea what to expect as I followed him upstairs. My most recent acquaintance with radio equipment of this sort went back to wartime R.A.F. days, using those bulky bewildering radio sets with which we talked to aircraft from our control tower in India. I'd had no training for this, having been transferred from a defunct operations room!

What Denis shewed me was a surprise, although now I think of it I should have expected to see the compact lines, the buttons, the digital displays, and so on. After all, the deck I use for listening to Radio 3 and my tapes and records is all compact and transistors, isn't it?

Denis, better known to some of you as G4VGS, gave me a quick look at and demonstration of his gear, of which he is rightly proud, having made so much of it himself. Then came my next surprise. He shewed me a gadget which I now know to be an electronic keyer, and tapped out something which registered as 'Cheeky-Charlie, Queer-khaki-cow'.

"Did you send 'CQ'? I asked.

Now Denis looked surprised; he knows I'm not a radio



"CHEEKY-CHARLIE, QUEER-KHAKI-COW".

man. Yes, he had sent CQ. Suddenly I realised why I had recognised those letters. More than fifty years ago, as a Boy Scout, I had taken an interest in signalling. Only flag-wagging; we couldn't afford anything else in those days. I was good at Semaphore, then tried Morse. Not so easy, but to help me learn the alphabet I found a list of words and phrases for each letter of the alphabet, the syllable stresses of which corresponded with the dits and dahs of the initial letter - Alert, Baby-bit-it, Cheeky-Charlie, and so on. Because I left school and started work shortly after this I had to give it up, and never thought about it again until that day a few weeks ago. Yet there it still was, a ghost from the past!

I wonder if any of you older hands started learning your Morse in the Scouts, and if so, did you use this method?

Alfred Paice

Just rambling....



Subscription rates. I regret that it will be necessary to increase subscription rates (except for Europe) from the next issue, as shown elsewhere in the magazine. For destinations outside Europe MM has always been sent by air but it is now necessary to take a more realistic account of the cost of airmail. The most substantial increase is in the dollar price owing to the continuing poor exchange rate. To lessen the impact a new surface mail option allows readers outside Europe to still receive MM at the old sterling price of £7 if they don't mind waiting for their copy. Owing to changes in the postal regulations subscriptions from the Rep. of Ireland are now the same as for Europe.

Subscriptions starting with this issue (Nr 8) will be accepted at the old rates - so tell your friends about MM and encourage them to join now before the price goes up!

Reviews wanted. There is a review of the Kent straight key in this issue and one of the Kent paddle coming later, both by G3MCK. MM would like to carry reviews of other keys currently on the market, and of any other dedicated Morse products. If you have any such items please consider reviewing them for the benefit of other readers (items from all countries are welcome) - but contact me first to avoid unnecessary duplication!

Exchange & Mart. I am often asked if MM could carry advertisements from readers who want to buy, sell or exchange specific items of Morse interest. For a trial period, therefore, I will take brief advertisements from readers only, free of charge. Space is limited and I may have to condense the wording. Write clearly, and include your name, address, and telephone number. No 'general', eg, "old Morse keys wanted", or 'continuing' adverts accepted. Copy date for the Autumn issue - 15th July.

News from Holland. Rinus's health has improved somewhat and he and Dick have published three "final" magazines, titled "30", "73", and "88", using up all the material they had in hand for Dutch MM. A number of readers of EMM have enquired about Rinus, and send him their best wishes. You can meet him, and other MM enthusiasts, most afternoons on 3553 kHz, the MM ragchew frequency.

73, Tony.

OZ7B0 Keyer



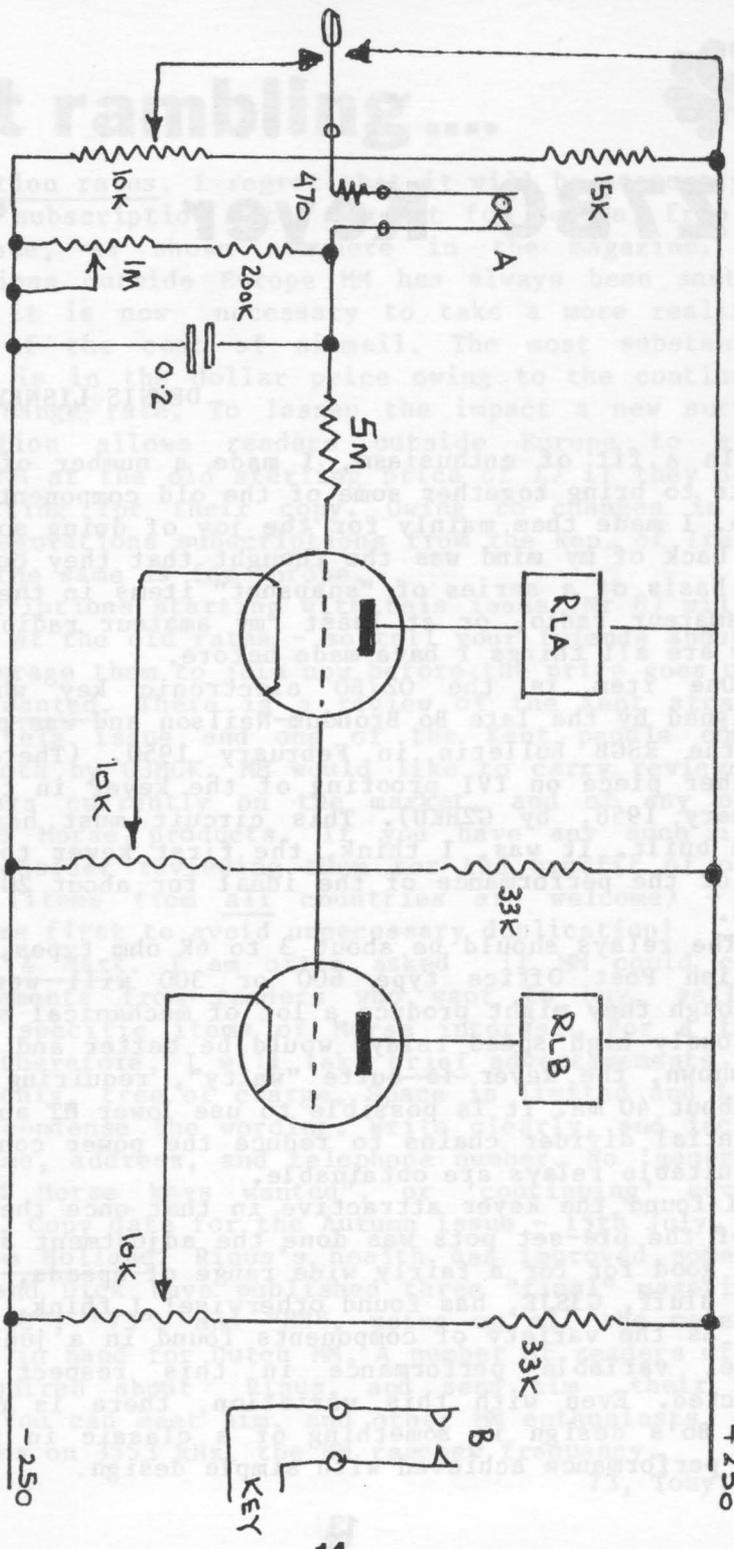
DENNIS LISNEY, G3MNO.

In a fit of enthusiasm, I made a number of replica units to bring together some of the old components that I have. I made them mainly for the joy of doing so, but at the back of my mind was the thought that they could form the basis of a series of "snapshot" items in the history of amateur radio, or at least "my amateur radio", since they are all things I have made before.

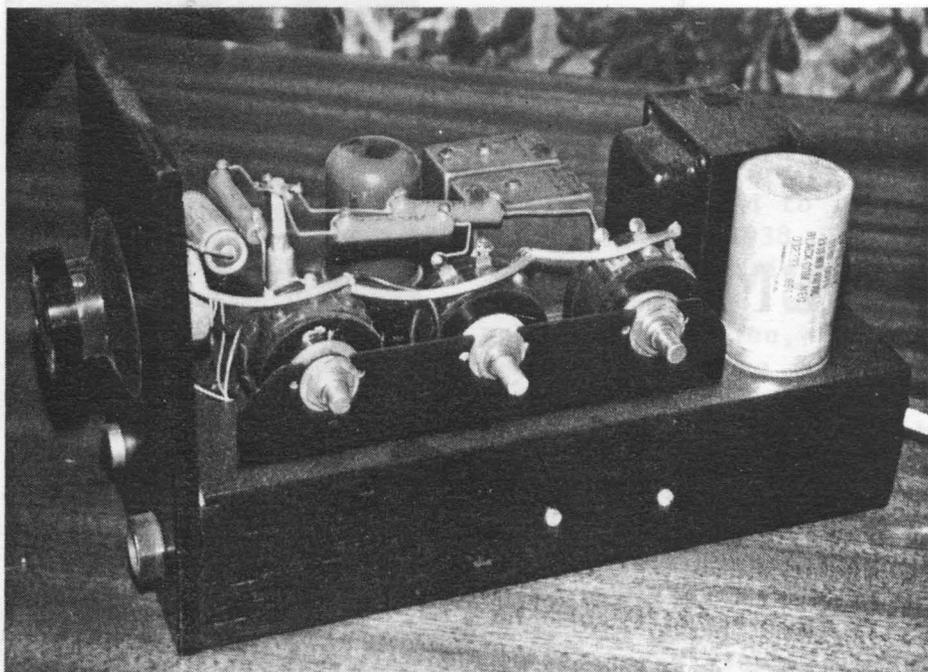
One item is the OZ7B0 electronic key which was designed by the late Bo Brondum-Neilson and was published in the RSGB Bulletin in February 1950. (There was a further piece on TVI proofing of the keyer in the Bull, January 1958, by G2HKU). This circuit must have often been built. It was, I think, the first keyer to achieve 90% of the performance of the ideal for about 20% of the cost.

The relays should be about 3 to 6K ohm types, and the British Post Office type 600 or 300 will work well, although they might produce a lot of mechanical sidetone. Obviously high speed relays would be better and quieter. As shown, the keyer is quite "watty", requiring 240 VDC at about 40 mA. It is possible to use lower HT and higher potential divider chains to reduce the power consumption if suitable relays are obtainable.

I found the keyer attractive in that once the setting up of the pre-set pots was done the adjustment seemed to hold good for for a fairly wide range of speeds, although John Bluff, G3SJE, has found otherwise! I think, however, that as the variety of components found in a junk box is large, variable performance in this respect may be expected. Even with this variation, there is no doubt that Bo's design is something of a classic in terms of high performance achieved with simple design.



GSN7, 2 x 6J5, etc.



Dennis Lisney's "replica" OZ7B0 keyer.

SCENIC ROUTE...

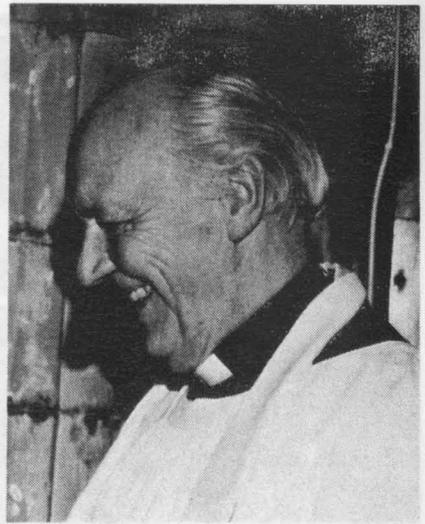
The location - R.N. Wireless Station, (Ceylon West). - A very bored operator with bits of blotting paper between the cans and his ears to counter the sweat. A call from one of the merchant ships (SS British Workman). Just another PCS report to be passed to the Admiralty in London for subsequent QSP to Portishead.

We've handled over 40 of 'em already today. The format is always the same - co-ordinates (Eastings, etc), course, speed. He QSL's, tosses it with an accuracy born of boredom into the tray. Two days later a short but poignant message from Admiralty: "Consider it extremely unlikely SS British Workman proceeding Truro via the ALPS".

Well! He shouldn't have reversed the co-ordinates should he? And who was responsible for this inglorious cock-up? I'm not saying....

Geo Longden, G3ZQS.

Listening for RAEM



RAY HUNTING, G3OC.



Fifty years ago, in 1936, I saw an appeal from Moscow, published in an American magazine. The following year there would be an Arctic expedition led by Papanin, with the scientists Fedorov, Shirov, and Krenkel. The four men were to spend the winter on an ice-floe drifting south from the North Pole, and Krenkel would send daily reports to a Soviet base, using a 10 watt transmitter, powered by a hand-operated generator.

The call-sign was to be UPOL, and all transmissions would be on the 20m CW band. Moscow wanted full copies of all transmissions, and the best complete entry would be awarded "The Russian Grand Prize" for this useful contribution to science. The purpose of course was to have a radio back-up in the event of losing contact with Krenkel, or news about the party if the ice-floe disintegrated. Fifty years ago my sole ambition in life was to get that Grand Prize! I picked up Krenkel on his first transmission and copied him day after day during the weeks that followed.

When the time came to send the material, I recognised two evident drawbacks. First, radio communication from the ice-floe had been uninterrupted, so there was no need for foreign reports of the text. Secondly, all entries had to be posted to a most sinister address, "The Kommissar for Chemical and Air Defence, Moscow". My large envelope, with its sheaf of coded messages, together with reports of radio and weather conditions, virtually screamed for investigation by the authorities before it

was permitted to leave this country.

Months later, Moscow replied with a UPOL QSL card, a map of the Arctic and photographs of the heroic ice-floe team. There was no mention of the Grand Prize or its recipient. These unusual items from the Soviet Union roused much local interest and I was invited to display them at the Manchester Radio Exhibition in 1938.

I mounted them with newspaper cuttings in a large picture frame, and it went on show. To my bitter disappointment, my precious exhibit was stolen, probably for the picture frame. If you happen to see a Russian pre-war map of the Arctic with a UPOL QSL card attached, they belong to me. By the way, the organisers of the Exhibition came to see me in 1939 to inquire if I had any other interesting Ham Radio items to display. Among the various expressions and phrases in my reply was the word "NO".

(Reprinted from Mercury, journal of the Royal Signals Amateur Radio Society, November 1986)

Needs slight adjustment

In 1951, my first USN duty assignment after I got my "wings of gold" (naval aviator) was with the original "Hurricane Hunters" squadron, Patrol Squadron TWENTY-THREE (VP-23). I was the most junior officer in the most junior flight crew in the squadron. I was second navigator. Our patrol-plane commander had the excellent policy of requiring all his crew members to be "cross-qualified" in other crew members' duties.

We were in a PB4Y2 ("Privateer") patrol plane, on a low altitude bombing training flight, out of Miami, FL, bombing Chicken Rocks, NW Bahamas. We had to file hourly position reports by CW. Our co-pilot was "sitting the circuit" that day. His was not a very "swift fist". While filing our "hourly" with NKT radio (Marine Cherry Point, NC), he was "hooking it" at about 1½ wpm. To his credit, the NKT operator came back to him at the same deliberate speed to "roger" the transmission, but he added a comment: ZAB2 - your speed key is improperly adjusted....

Tom Bowers, WD4CQY.

ROY WALMSLEY, G3IBB.



Key~tronics, 3



MORSE KEYBOARDS

These are devices which have the appearance of a portable typewriter and generate a complete character in Morse code when a key is tapped. All characters, including barred ones like AR and BT are available on a single case, 4-bank, set of keys, and are self-completing. A single tap of the key is sufficient to generate the complete character plus an inter-character space (dash length) at the end.

On the simpler machines the typing speed has to be geared up to the code output. On other, more complex boards it is possible to type into the machine faster than the output is being used, the input characters being stored and presented to the output at the proper time and in the correct sequence. This is called "buffering".

NON-BUFFERED KEYBOARDS

Of necessity, typing on the simpler keyboard calls for a rather special technique. If, say, the "J" key is pressed the length of this character leaves ample time to press the next key before the "J" is completed, thus making full use of the automatic inter-character spacing mentioned earlier.

On the other hand, a character like "E" calls for a much faster jump to the next key. The net result is that manipulation of the keys is jerky, rather than the rhythmic flow normally associated with touch-typing. It is difficult to use the space-bar on an un-buffered

keyboard due to there being no sound emitted when it is pressed and generally the simpler boards omit this facility, leaving the inter-word spacing to the judgement of the operator.

BUFFERED KEYBOARDS

At first sight these seem to be the complete answer to sending perfect code; in practice there are problems. Using a modern integrated circuit miracle called a FIFO (First In First Out) the operator can type faster than the speed at which the Morse code is being sent. Each FIFO can store 32 characters - they can be stacked to give as many characters as required. A common feature of machines using buffered inputs is some sort of indication as to how much of the store is full - it might be a meter calibrated "EMPTY" to "FULL", or a series of light-emitting diodes. As the FIFO empties, it can be topped up. So what is the snag?

The big problem is typing 'blind'. It is extremely difficult to type one thing and, at the same time, to monitor the output which is something you said earlier.... Typing 'blind', one tends to lose 'contact'; just sitting hitting a set of keys takes the personal feel from a QSO. And it takes considerably more skill to type with no monitoring facility - try typing a letter sometime without looking at what you have written! This objection to the FIFO could be overcome with some sort of visual display unit (VDU), but un-buffered keyboards are easy to use and don't require this added complication.

KEY-SETS

Building a keyboard yourself, the biggest item is a set of keys. The best sort are ex-computer terminal boards which appear on the surplus market from time to time. Most of these have switches which are small reeds activated by a tiny magnet when the key is pressed. Other common key-sets available are active units which require a 5 volt supply to operate. These use a principle called the "Hall Effect".

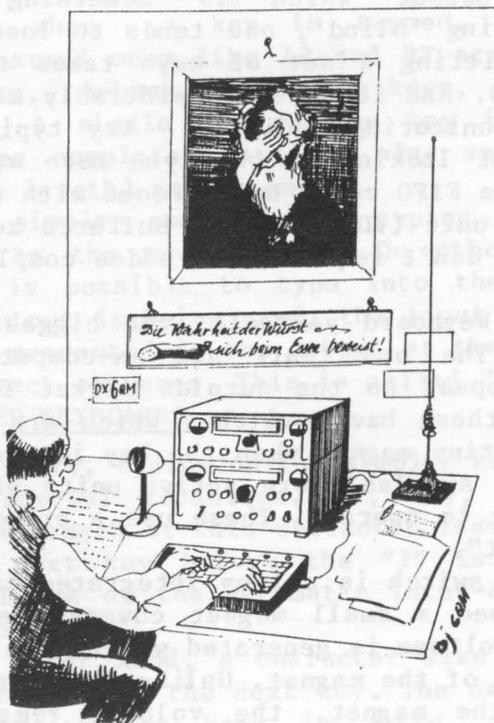
Inside each switch is a tiny integrated circuit. When a key is pressed a small magnet covers the integrated circuit and a voltage is generated within the circuit due to the presence of the magnet. Unlike the normal voltages generated by the magnet, the voltage remains in the presence of the magnet, even when the magnet is stationary. This is the Hall Effect. The electronics side

of a keyboard consists of some 10 common integrated circuits and a 5 volt PSU. If a buffered unit is considered the main extra cost is that of the FIFO, and a 12 volt supply is also necessary.

TYPING

Whatever the type of keyboard, to get the best results and the most pleasure from its use, the added skill of "touch-typing" must be learned. By far the best way is to learn to type on an ordinary typewriter first, either by using a do-it-yourself course from one of the many (cheap) books available, or by joining the girls at night-school..... But once you have used a Morse keyboard you'll never want to return to the el-bug!

(Keytronics originally appeared in "Mercury", journal of the Royal Signals ARS, in 1978)



EUCW NEWS



The European CW Association is an association of European independent amateur radio clubs with a combined membership of some 4,000 CW operators. Its principle purpose is to support and encourage amateur radio CW operating, with member clubs exchanging ideas and information and arranging CW activities on an international basis.

Member organisations of EUCW are AGCW-DL (Germany); BQRP (Benelux QRP); BTC (Belgium); G-QRP (UK); HCC (Spain); HSC (High Speed Club); INORC (Italy); Scarborough (UK); SCAG (Scandinavia); SHSC (Super High Speed Club); TOPS; UFT (France); and VHSC (Very High Speed Club).

New Chairman

From January 1, 1988, the chairman of EUCW is Tony Smith, G4FAI, (nominated by the G-QRP Club) succeeding Edgar Schnell, DL6MK, who has been chairman for the last three years.

EUCW Fraternising CW Party

The trophy presented by the retiring Chairman for the member organisation with the highest score in the 1987 CW Party has been awarded to UFT, the Union Francaise de Telegraphistes.

This year's event will be held on 19-20 November. Full details will be given in a later issue of MM.

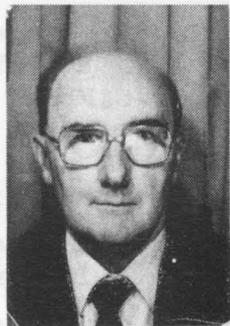
AGCW-DL YL-OM CW PARTY

This event - part of AGCW-DL's "Year of CW YLs" will be held on Monday evening, 8th August, from 1630-1800 UTC on 3540-3560 kHz. Details from Mrs Gisella Rink DL6ZAR, Rontgenstr. 36, D-6450 Hanau, Fed. Rep of Germany.

Worked Scandinavia on CW Award

There are new rules for this attractive award. The number of awards is no longer limited. SWLs are welcome, and it is now a little easier to gain the award! Full details (including a list of SCAG members - needed by SWL entrants) from R. Meilstrup OZ5RM, Bavnestien 6, DK-2850 Naerum, Denmark. (Send IRC).

Morse testing and training in the UK



RON WILSON, G4NZU.



The UK has two classes of amateur licence, the class A which requires a theory examination plus a Morse test at 12 words a minute; and the class B which requires the same theory examination, but no Morse.

The class B licence restricts operation to frequencies of 50 MHz and above. Until 1985, the use of CW was prohibited for B licensees. The class B can be converted to class A by passing the Morse test, when all frequencies allocated to UK amateurs become available for use.

In 1985, the restriction on the use of CW by B licence holders was relaxed as an aid to "self-training" in Morse code. At this time the administrative arrangements for the Morse test were also altered.

Contracted out

The issue of licences and Morse testing is subject to the International Radio Regulations and is therefore a government responsibility. The Post Office, and later British Telecom, carried out this task as government bodies. However, on the privatisation of BT the Department of Trade and Industry took over responsibility for these matters. The contract for Morse testing was put out to tender and the Radio Society of Great Britain, offering a superior service at lower cost, was awarded the contract.

Up to this time, testing had been carried out by GPO/BT mainly at their coastal radio stations, of which there are about twenty scattered around the coast of the UK. This system was thus completely independent of the amateur movement, and most candidates were involved in

considerable travelling to a testing station.

The RSGB scheme, by contrast, provides Morse testing centres in each county of the UK, though in the more sparsely populated regions there is, in effect, a regional centre. These centres are staffed and run by teams of examiners most of whom are amateurs, although some are former BT examiners.

The scheme is run by a Chief Examiner, Neville Ianson, G3GDO, and a Deputy Chief Examiner, originally Rik Edmondson, G3YEC, who between them have travelled the length and breadth of the UK testing and appointing examiners of whom there are over 230. They have also been heavily involved in setting up the administrative side of the scheme. Rik has now had to withdraw from his post and has been replaced by Phil Bell, a former professional.

Potential examiners are required to pass a test at 20 wpm, and to have relevant experience in testing situations, and a suitable personality.

Nerves!

Each county has a number of examiners, one of whom is designated Senior Examiner. It is his responsibility to arrange suitable accommodation and dates for the test sessions. He must ensure that each session runs as smoothly as possible, both the test itself and the reception and handling of the candidates - who are always in a highly nervous state!

Why this nervous state is so common is interesting, as the precise details of the test are well known by the candidates in advance. They know, or should know, exactly what they have to do. Perhaps this is just another of those fascinating psychological aspects of Morse learning!

In the receiving test candidates are allowed four errors in plain language, and two in the numbers. In transmitting they are allowed no uncorrected errors, but are allowed four and two corrections in the plain language and numbers respectively.

Two examiners

Candidates are tested in groups of three for receiving, but the transmit part is taken individually. Each session is taken by two examiners. One, the "session examiner", is responsible for the conduct of the test itself, and the other acts as a "witness examiner". His purpose is to act as a check on the session examiner,

and to assist with the paper work.

It must be appreciated that the examiners are also subject to nerves! The concentration required is considerable, as they have to ensure that the speed is correct; that they are sending the text correctly; that they are sending the correct characters, and that those characters are well formed and spaced. (How many of us REALLY listen to our own CW?)

It must be remembered that the examiners are experienced and practised CW operators who are used to rather faster speeds than 12 wpm! As the test is required to be given and taken on a straight key, we have another reason for concentration. It is not unusual for examiners to have fairly regular sessions on a straight key, just to keep in practice!

Easy access

In any given county, tests are held at two-monthly intervals, with surrounding counties holding their tests in the months between. Thus for all candidates there are a number of test centres available within relatively easy travelling distance which, between them, provide a testing facility every month.

In Nottinghamshire, for example, about half our candidates come from within the county, the remainder tending to come from areas served by the motorway network, skirting the city, which provides an easy route to Nottingham. Some counties with relatively poor internal routes, or widely separated areas of population, may have tests arranged at a number of different centres.

Sending practice

For many years the UK has been covered by a network of stations transmitting "slow Morse" sessions as an aid to learners. This is very satisfactory for developing receiving skills. The formation of transmitting skills has, however, until the licence variation, been a matter of solitary practice, or finding some class A licensee willing to help. The difficulties are many, perhaps the most serious being the reluctance of the helper to give a really honest assessment of the Morse received from the learner.

This is a difficult situation, depending on the CW experience of the helper, his knowledge of the test itself, and the personalities of both helper and learner. In recent years, with the advent of Morse training

programs on home computers, there has arisen the possibility of testing your sending by the computer's ability to read your CW. (Is there a better test of hand-sent Morse?).

Surprise

The variation in the B licence allows the use of CW on-air for practice purposes. With the old testing system under British Telecom, it was always maintained that the main cause of failure was in the receiving part of the test. With the new system it is found that sending causes the majority of failures. This is a surprising change when the availability of the licence variation is taken into account. Indeed, one really has to ask whether the majority of candidates are taking proper advantage of this facility?

Since it became available there has been a considerable increase in the number of Morse practice nets on the 2m band, frequently run by a helpful class A licensee. Unfortunately it would appear that some of them



PSST! WHAT'S DIDIDAHDIT?

are preparing their students for a test other than the official one! Some of the advice given is such as to guarantee failure! For example, that the examiners would prefer good Morse at 10 wpm rather than rough Morse at 12 wpm. Of course we would like good Morse. It makes things easier for us. But the test IS at twelve wpm and not ten!

Frightened

Most of these nets consist of sending messages of text from a book. This is fine in the early stages, but I am of the opinion that students should move to a normal type of conversational QSO as rapidly as possible. The good test candidate is no problem, indeed it could almost be said that they are "naturals". For the weaker ones, it is evident that they are still frightened of the key.

This could be due to insufficient transmitting practice. However, I feel there is more to it than this. To them, the key is still an unnatural thing stuck on the end of their fingers, demanding the utmost concentration, frequently pounded with great vigour, with huge gaps and incredible tensions. Apart from needing advice on the use of a key, if they could be involved in "real" conversations, where they are having to think about what to send, then I believe the key would rapidly become a natural part of the process.

They should be so busy thinking what to send that they cannot afford the luxury of worrying about the key. This type of practice, using a key with a personal minimum gap and tension would, I am sure, not only improve their sending, but also their enjoyment of our glorious mode.

Improvement

The new RSGB testing scheme has now settled down, both administratively and practically. It is providing the service the aspiring class A amateur wants at reasonable cost, at reasonable intervals and near his home. The scheme has not been set up and left to run in a vacuum however. It is subject to inspection, both by the RSGB and the DTI, who are making spot checks on the facilities and the standards of the many centres. At this time all appears to be well with the scheme.

The increase of tuition nets and the informal advice that examiners are able to give, not only at the test but also in their clubs, is having an interesting side effect. The new class A amateurs, at least those bitten by the CW bug, first try out their wings on the 2m band,

and the standard of operating is showing a steady improvement. Long may it continue to do so!

(Ron Wilson transmits two slow Morse sessions a week, runs a Morse evening class, and is RSGB Senior Morse Examiner for Nottinghamshire. "How's that for punishment?", he asks. "I must be either keen or mad; bet you know what the xyl says!"

Ron recently produced a booklet for his Morse class, "THE TEST AND AFTER", which offers good advice to candidates on getting through the test and goes into some detail to help new licensees get through their first CW QSOs. He covers such matters as "Is it better to listen or to call?"; "How to make a CQ call"; "Answering a CQ call"; "The rubber-stamp QSO"; "Carrying on with the contact"; and "Finishing the contact". All good basic stuff for the beginner. It costs just £1.50 and can be obtained from Ron at: 9 Greythorn Drive, West Bridgford, Nottingham NG2 7GG.)

Longest Word?



To help another disabled amateur develop stamina in sending Morse, Bob, G4ZIK, a white stick operator, produced from memory the 38 letter contrived word below.

The version in the Concise Oxford Dictionary does not include "istically" at the end but even so, G4ZIK is the only person I know who can pronounce it without stumbling. Could this be the longest single word in the English language? And how could you abbreviate it for CW?

FLOCCINAUCINIHLIPIILIFICATIONISTICALLY

Practice those EEs for clean CW

To help the same amateur get over the difficulty she had in sending two consecutive letter Es, Bob produced the following practice piece in about 5 minutes.

"The sixteen kneeling greenkeepers ceased weeding to say shes been seen sweeping greenflies from the sheets beside the beehive where the busily buzzing bees followed the queen bee in her breeding flight under the watchful eyes of seventeen beekeepers standing kneedeep in weeds."

Both exercises were very successful. The YL passed the Morse test at her first attempt and now has a very smooth fist.

(Tom Mansfield, G3ESH, in Groundwave, newsletter of Wimbledon & District Amateur Radio Society)



Untitled story



Extra-Sensory Perception - ESP for short, has been for many years a subject of scientific study and appraisalment. Here are four of my own experiences.....

The year is 1904. "Het Handelsblad", Holland's leading newspaper, had hit on the bright idea of sending to London a number of their bi-lingual top reporters, who collected early editions of all the British daily newspapers as they came off the presses, and translated into Dutch all the despatches cabled to London by British correspondents covering the Russo-Japanese war. They made them into a coherent whole, which was rushed down to Chelmsford and sent by W/T to Amsterdam, where it arrived in time to be printed in the first edition of the Handelsblad, and thereby constitute a series of scoops.

At Amsterdam was a special Marconi wireless station, located in a disused sulphuric-acid factory, from where relays of messengers on bicycles took the despatch to the Handelsblad as it was received, page by page. It was my job to take down, at thirty or so words a minute, the whole long story before four o'clock in the morning, to get it printed in time.

One night a blizzard tore off the roof of the shed in Amsterdam which housed the W/T receiver, and also put our engine out of action. Signals from London were clear and strong. I got the whole of the 1500 words despatch, but

could not acknowledge having received it until the next night, when we had contrived to get the engine running again. Judge then, our amazement on learning from Chelmsford that the operator had been taken ill suddenly and that it had not been possible to find another in time to transmit the despatch! In that despatch was news of the destruction of the Russian fleet by the Japanese.

The next incident took place about a year later when a friend told me that his uncle, a King's Messenger, had cabled him from Sumatra to the effect that he had dreamed the third horse in the first race at Epsom on Derby Day would win at twenty five to one. Since my friend was a non-better, I took the chance - and the horse did in fact win at the odds forecast by my friend's uncle.

A third equally curious occurrence in which I participated took place in connection with the inauguration of the first daily ocean newspaper in the Cunard liner "Etruria". The Etruria, built about 1880, was the last of the old iron ships. Fitted with the largest compound marine engine in the world, she and her sister ship, "Umbria", were the fastest liners afloat.

Every night at midnight, Poldhu transmitted to us the day's news. Signals were terribly difficult to receive because of the noise and vibration in the vessel, and the fact that Poldhu signals at their best sounded like peas being dropped one by one onto a tin plate a long, long way away. Many peas missed the plate altogether, and the din of bangs, scratches and crackles from "atmospherics" was indescribable.

On one particular night we were slamming at full speed through mountainous seas against a full Atlantic gale. Signals from Poldhu were particularly weak, many peas missed the plate, but somehow I managed to get the news and piece it together. At breakfast that day, April 30th, 1909, the few passengers who dared face their breakfasts read in the ship's newspaper that the Queen of the Netherlands had given birth to a daughter, and that Louis Bleriot had been the first man to fly across the English Channel in his aeroplane. The fact that the Etruria, out there in mid-Atlantic, had these two news items before the people of New York created a furore at the time.

On berthing at Liverpool on the return voyage, I was ordered to report immediately to the London office. This I did with pleasurable anticipation, but my reception

there was frosty. I was summoned to appear before the Marconi Engineer-in-Chief who told me that the aerial at Poldhu had, on that particular night, blown down, putting Poldhu out of action. If I made up any more such stories as on that day, well, I was for it!. I had, in fact, received a news message that was never sent out!

The fourth episode was even more mysterious. At the time I was in India and had been instructed to proceed to Lhasa as the Dalai Lama wished to have a wireless installation at his palace, which stands on a hill, the Potala.

The journey from Darjeeling to Lhasa is a rough one through mountainous country, by mule. I got as far as the fifth "halt" when a human hand, protruding from an orifice in a small brick structure, without door or window, beckoned me.

There I found, but never saw, a holy man who had, I learned, repeated the sacred word OM a million times and thus achieved sanctity. He informed me that I would be



wise to return to India at once where I would meet, on the Apollo Bundar at Bombay, another holy man who had information for me. Sure enough, there on the Apollo Bundar, I was accosted by a yellow-robed individual who told me that I would be ordered to proceed to London at once, to explain why a contract I had negotiated, and thought was an accepted fact, had been rejected. And so it befell.....

There were other strange happenings in which I was concerned, in the last war, which cannot, for the sake of security, be related here. But it seems to me that ESP needs not only a sensitive original "medium", but also a person concerned in the implementing of the received message, with that person being required to act in order to bring the import of the message into reality.

There may be among those who served with Special Forces Signals, and who survived the war, some who have had analogous experiences to those I have set forth here.

(When Major Watterson died, at the age of 92, he bequeathed "Untitled Story" to John I. Brown, G3EUR, "to do something about". Publication in MM is the result, and in a future issue John will tell the story of "Wattie's" incredibly varied and active life.)

IN BRIEF...



WORLD QRP DAY. June 17th is IARU World QRP Day, when all radio amateurs are asked to try working with low power (5 watts or less if possible) to see what they can achieve.

AUSTRALIAN AMATEURS can use a special bi-centennial prefix, AX, during 1988. There are also special State Wireless Institute stations (or affiliated clubs) using the prefix VI88 followed by State suffixes, eg, VI88QLD, VI88VIC. (Contributed by Bill Horner, AX4MWZ).

SPREADING THE WORD. "From HCJB programme, 'Ham Radio Today', I have heard you run a CW magazine"..... J.C. Gomes, Portugal.

THE MM Q/Z-CODEBOOK, 82 pages, is still available @ £3.00 (or U.S. \$6.00 in notes) from G4FAI. Contains all Q & Z-codes including the original Q-code of 1912.

Keystroke Efficiency



Wm. G. PIERPONT, NOHFF.

Defining one keystroke as a make and break, the bug, electronic keyer and iambic key are compared with a straight key. For the alphabet, the letters are weighted by the English text frequency table in "Elementary Cryptanalysis" by Helen F. Gaines; for numerals the average is used. Typical stroke counts are:

	<u>Straight</u>	<u>Bug</u>	<u>Electronic</u>	<u>Iambic</u>	<u>Let.Freq</u>
A	2	2	2	2	.0805
B	4	2	2	2	.0162
C	4	4	4	2	.0320
F	4	3	3	2	.0228
J	4	4	2	2	.0010
Q	4	4	3	2	.0020

Relative key-stroke efficiencies are:

Letters

<u>Total</u>	100%	78.6%	68.2%	59.1%
<u>Saved</u>	-	21.4%	31.8%	40.9%

Numbers

<u>Total</u>	100%	60.0%	36.0%	36.0%
<u>Saved</u>	-	40.0%	54%	54.0%

Although the typical iambic keyer may at first sight seem more complicated with its differential two-paddle handling, the above analysis represents the degree of movement-effort involved. Each type of key has its own peculiarities.

The



KENT KEY



by GERALD STANCEY, G3MCK.

I didn't need it but it looked so nice on the stand at the RSGB Convention that I bought one. The item to which I am referring is a straight Morse key made by a UK company called Kent. The key is styled in the conventional robust British pattern and is available in three flavours.

1. As a completely assembled unit.
2. As a full kit of parts.
3. As a kit of hardware, but without base.

I bought the full kit.

The first thing that struck me on unpacking the kit was the quality. Not only was the finish of the components excellent but the packaging was first class. Items were packed in separate polythene bags or wrapped in tissue paper. A comprehensive set of assembly instructions was provided.

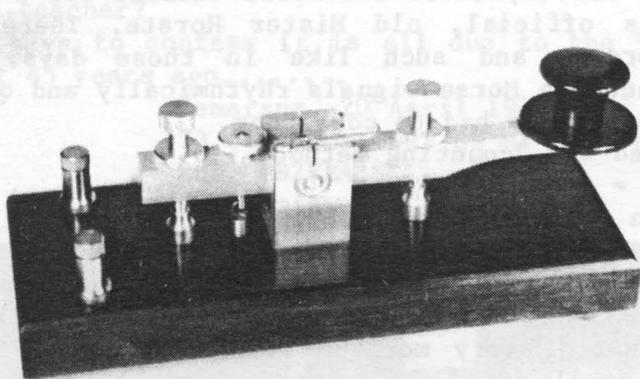
I decided to break the habit of a life-time and assemble the key by following the instructions!! No problems were encountered and about half an hour later the job was done.

During assembly, the real quality of the key became apparent. It is the little things, like the pin which secures the tension spring under the base. This is not just a piece of steel wire like a one inch nail. It is a nicely machined cylinder with a groove into which to locate the loop of the spring and the ends of the pin are slightly chamfered. The bearings are precision ball-bearings, and the adjusting screws for gap and tension have fine pitch threads.

Assembly is very easy and requires no great skill or

tools. I used two screwdrivers, pliers, wire-cutters, soldering iron (25w), sharp knife (razor blade), and a hand drill with a 1.5 mm bit. The latter was used to put four small wood screws into the base - I am rather a pedant for such matters.

The key is designed to make by closing the front contacts as is normal practice. However, as back contacts are also provided, it would be simple to assemble the key to use these instead of the front contacts. It is quite feasible to modify the key to use both contacts. However on the standard kit only one set of solid silver contacts is provided. This may not be a problem if low currents/voltages are being keyed, but Kent are prepared to provide extra contacts.



To summarise, I am very pleased with the key. Assembly was no problem but I would recommend the average amateur to purchase the full kit unless they have a burning reason to mount it on a base of their choice. Whilst a dimensioned overlay of the base is provided, the drilling of seven accurately placed mounting holes is beyond my capabilities using hand tools. Also, the weighted base which Kent supplies is a nice piece of polished hardwood with chamfered edges.

The key is available from:

R.A. Kent (Engineers), 243 Carr Lane, Tarleton, Preston, Lancs PR4 6YB.

P.S. I was so enamoured with the Kent straight key that I bought their keyer paddle. This too is a winner and will be reviewed separately.

AN OLD METHOD



IN MODERN TIMES

Kundjana Sutawibawa

Before the war, in 1939, I was attending a Radio-Telegraph School, where our Morse teacher was a Posts and Telegraphs official, old Mister Horste. There were no tape-recorders and such like in those days. Mister Horste sent the Morse signals rhythmically and quietly on the buzzer and we had to copy them.

He used the "counting method" -

A dot = one

A dash = one-two-three

Space between elements = and

Space between words = one-two-three-four-five. So the letter B was one-two-three and one and two and three.

We counted every morning and I was one of his most faithful pupils in this method. It paid dividends later when, during my service in Posts and Aviation, 1945-1957, I always used a normal hand key.

In 1979, radio-communication came to life here. Antenna towers and radio stations grew up like mushrooms, all with the latest apparatus, RTTY, recorders, automatic electronic keyers, and huge transmitters. They looked more like studios than amateur radio shacks. Many of us were on 2 metres rather than h.f., and you could not find a hand key on the table top.

In 1981, not having heard any Morse for 24 years, I began to have CW QSOs using my call-sign YC2BDJ until 1984, YC2FEA in 1985, and now YB2FEA. My intention was to show my friends and acquaintances that it was not only possible, but easy to make contacts with a simple rig and a hand key. Most of them were surprised at how many awards and other successes I obtained with CW.

In 1981, the authorities introduced examinations for

radio amateurs, but the results were very poor. Of 2,000 entrants in 1981-82, only 10% were successful.

In 1983, I started a course covering radio-procedures, radio-theory, and Morse code.

I did not use expensive gear for the Morse lessons. Just like old man Horste, in 1939, I sent Morse signals by hand and the pupils copied them. I gave them four tapes with hand-transmitted Morse and a booklet containing the texts. In teaching them to handle the key I also used the Horste method.

Well! The results were extraordinary!

Ninety percent of my pupils passed the tests. In 1985, 110 out of 120 were successful, and all of my pupils are known for their splendid keying.

A good teacher?

No. I have to confess it is all due to the "counting method" of 45 years ago.....

Semarang, 20 April 1986.

73 old hams, QRV CW HF band hand-key.
Kun, YB2FEA,
Indonesia.



MORSE CLASS, SEMARANG, 20 APRIL 1986.

SOS via Auto-Alarm



Donald K. deNeuf, WA1SPM.

Not very much seems to have been written about an important maritime safety radio system called the AUTO-ALARM installed on ships of many flags. A large number of vessels such as freighters and tankers today have only one Radio Officer aboard, leaving the 500 kHz international distress frequency uncovered when he is off duty.

The AUTO-ALARM in effect "watches" the distress channel in his absence. Another vessel in distress transmits a prescribed signal on 500 kHz and the AAs on vessels 500 miles or more away will sound a loud bell in the RO's quarters as well as on the ship's bridge. When it sounds off the ROs rub the sleep out of their eyes, man the 500 kHz frequency and await the stricken vessel's standard SOS procedure. Some shipping interests have dispensed with a Radio Officer aboard, in which case the AA is useless since it's full function requires the follow-up of a human operator.

The modus operandi of the AA system is as follows: The RO of the vessel in trouble initiates an automatic keying device for his 500 kHz transmitter. It sends the AA signal for one minute, consisting of a minimum of 4 dashes of four seconds duration. However any 500 kHz equipped vessel can trigger the AA on other vessels by keying manually synchronised dashes through watching the radioroom clock. This has four-second markings around the perimeter of it's face, pointed up by the sweep second hand.

The 500 kHz radio equipment of most vessels will cover an area of at least 500 miles in daylight and much

greater distances at night. Coastal stations commonly repeat a ship's AA signal to ensure coverage of all ships in the area. Of course, with the Coastal Station's higher power such action usually triggers the AA system of ships far beyond the practical range of rescue. Better this than some vessel within the rescue area not picking up the AA signal because of weak signals, QRM, etc.

The newest Marisat satellite system provides for a distress call by merely punching a red SOS button on the ship's satellite transmitter which instantly commandeers a priority satellite channel direct to the Sea Rescue Services. Some equipment now ties in with a satellite navigator system and automatically transmits the distress vessel's position in latitude and longitude as well as it's identity.

However, nothing seems to be absolutely fail-safe. When, in 1980, the cruiser M/V PRINSENDAM (PJTA) off the coast of Alaska (carrying some 500 persons) developed a fire which went out of control, the RO called up the priority satellite channel but the COMSAT operator in Washington for some reason connected him with a hospital orderly in Kodiak. In frustration he went to 500 kHz and initiated the AA signal. He got an immediate response from several vessels and rescue operations went into effect.

According to the FCC, there were some 350 vessels who copied the SOS on 500 kHz while only one vessel responded to the alarm on 2182 kHz emergency voice channel, operating from the bridge, and none heard the calls on the VHF voice emergency channel No. 16.

It's a thought...



Maurice Sandys (Home-made Handkey, MM Nr 3) wonders if the designer of the RAF's type D Morse key was a wireless operator himself.

This I don't know but I think the Stores Controller must have been a ham; the stores reference number of the key is 10A/7373!

Graeme Wormald, G3GGL.

Australian COUNTRY TELEGRAPHER



by KEVIN CURTIS

The role of the Telegraph and the Morse code in rural Victoria about 1939.

My father was employed on the Victorian railways and upon graduating as a ganger on the permanent way we moved to the small town of Wycheproof in 1939. Wycheproof is about 190 miles north west of Melbourne on the Calder Highway which is the main road to Mildura. In 1939 Wycheproof was a fairly prosperous wheat and wool growing centre with a population of about 1,200.

It was also a prominent railway town on a branch line from Bendigo to Kulwin in the arid desert area of north-west Victoria. We had a passenger steam train six days a week and many goods trains carrying wheat, livestock and, of course, the bulk of the town's daily provisions, including ice from Charlton for those of us not privileged to possess a refrigerator.

I left school just after my fifteenth birthday having attempted my Leaving Certificate by correspondence course - it was rather difficult to get any supporting tuition at the small school at Wycheproof which catered for years 8 and 9. Employment opportunities were scarce but I was fortunate enough to qualify by examination for appointment as a telegraph messenger in the then Postmaster-General's Department at Wycheproof.

As a youngster, it became evident to me quite rapidly that the post office was the hub of the town's communications by mail, telephone and telegraph. One was involved in the lives of so many people. The telegraph will be covered specifically here, but the mail in early 1940 included the first letters back home from those who had enlisted and departed for the UK and the Middle East.

It brought newspapers from Melbourne for the rural community; our dentist despatched dentures through the

post to his patients in surrounding settlements; the post office staff knew who was involved in all the local lodges because the invitations to meetings etc went through the mail; the debt collector at Bendigo sent registered letters to defaulters; and all the major department stores in Melbourne sent their catalogues through the post.

Answer the Morse!

I was attracted to the telegraph. It intrigued me from day one as to how my Postmaster would ask the senior messenger to "answer the Morse". Then, at his desk in another corner of the office he would write out (or type) the message coming in and then issue another instruction, "give him OK".

I learned the code and practised nightly under the tuition of the Postmaster and postal clerk. By my 16th birthday, in October 1940, I could transmit "GA WF", ie, "go ahead - Wycheproof", and the boss would receive. I then gave the reply "OK 1 WF". The salary of a telegraph messenger in 1940 was £51 per annum, but as soon as you qualified as a telegraph operator, sending and receiving at 22 wpm, you were eligible for a £12 per year allowance.

I took my receiving test in mid-1941 but had to wait till November to do my sending. I think I only sent one message and the supervisor said to the Postmaster over the wire, "OK he is alright". I was elated and as soon as the test was over a call came from Melbourne, "UM WF M" - Melbourne calling Wycheproof with an urgent telegram.

The Postmaster said, "You take it". I gave the go-ahead and it was a telegram for my father from his brother. It indicated that my cousin had been lost when HMAS Sydney had been sunk. This took some of the glamour off my achievement but it brought home the role the telegrapher played in those years.

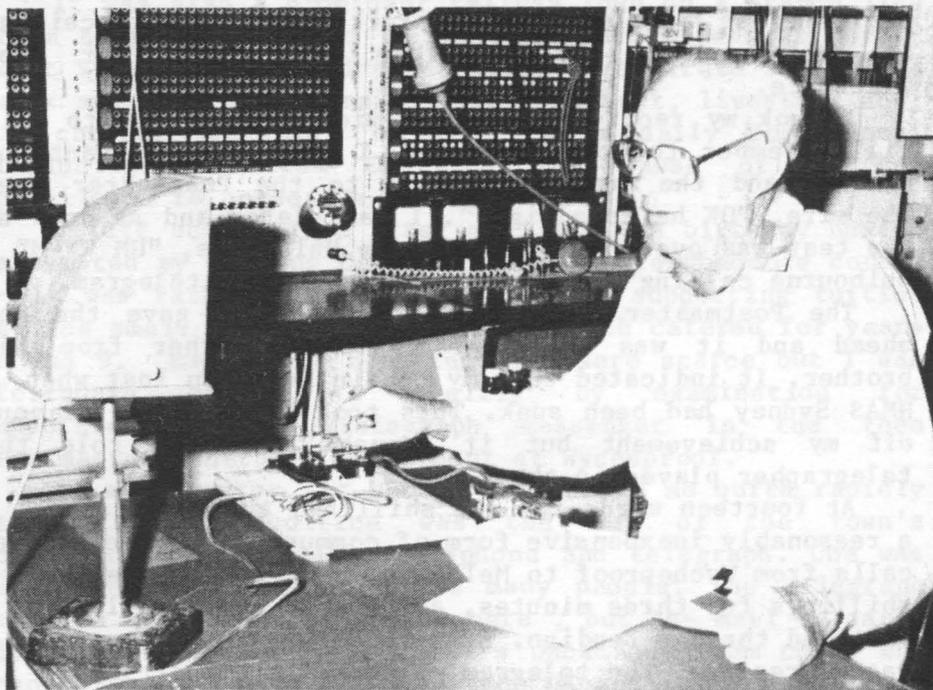
At fourteen words for one shilling, the telegram was a reasonably inexpensive form of communication. Telephone calls from Wycheproof to Melbourne cost about three shillings for three minutes, and had to be manually switched through Bendigo. Even in 1940 war-time traffic was increasing. The telegram was used for traditional family occasions, eg births, deaths, marriages, and each had its own distinctive form. We also had special forms for Mother's Day and Christmas greetings.

Wycheproof as a rural centre for wheat, wool and sheep had several stock and station agents in its business community. By telegraph the agent would order parts for machinery, stock drenches, produce supplies, etc; he would order railway trucks for grain to be despatched to the flour mills; and sheep trucks to carry sheep to the Flemington sale yards in Melbourne.

Waiting on the steps

The train would depart Sunday night or Monday morning for Tuesday's sale. Tuesday afternoon, the agent and the farmer would be camped on the post office steps waiting for the telegram advising the sale price of the stock. If it was late coming through the telegram would be delivered to one of the four pubs in town!! The hotel proprietor also used the telegraph to order his supplies of hogsheads, firkins, and kilderkins. The banks were great users of the telegraph system but they were shrewd - the messages were usually in five-letter cipher.

In the 1930-1940s, the metropolitan newspapers featured country news on a large scale. This was before



KEVIN CURTIS - AT THE CANBERRA END OF THE DUBBO CENTENARY LINE, MAY 5, 1987 (Reported in MM7).

radio newscasting achieved the sophistication which obtains today. The local newspaper correspondent sent press telegrams at special rates and they were usually lengthy missives lodged late in the afternoon. Great for sending practice but the bane of the Melbourne telegraphist who was due to finish his shift at 6.15 p.m. In large towns court proceedings were often reported by telegram, particularly if it was difficult to get through by telephone.

Saturday I always found interesting. Early telegraph traffic contributed to the less than legal activities of the community. The first telegrams from Melbourne would be received with the preamble "1/- collect". Before the recipient could take delivery of his message he would have to pay the transmission fee of one shilling. These were the tips for the metropolitan race meetings, usually lodged by the sender on Friday evening at the Elizabeth Street post office in Melbourne for transmission on Saturday.

The only place to invest on the day's racing was with the SP (starting price) bookmaker and I suspect he thrived on a lot of information included in those telegrams. I recall visiting a friend who worked on the Elizabeth Street counter, one Friday evening after the war. She literally had hundreds of these messages for transmission to destinations all over Australia, tipping different horses for different areas and often different horses in the same race.

Repeating station

Saturday afternoon at Wycheproof was very busy. We were the only office open to cover a significant part of north-west Victoria and operated as a repeating station for offices which closed at noon.

The bulk of traffic passing through was pre-post betting information for SP bookmakers. Telegrams would be lodged at metropolitan racecourses, at urgent rates, for transmission to country areas in expectation that they would be received before racetime.

We had to be pretty versatile operators, with some knowledge of the names of horses and an understanding of prices. The operators in Melbourne would belt this material out at 25-30 words per minute and because time was the essence of the contract you could not afford to break or ask for repeats of strange words too often. Some

of the places we relayed for also had some strange names and used up a fair bit of transmission time. I soon learned where Chillingollah, Chinkapook, Manangatang, Pier Millan, Watchupga and Annuello were and who was the hairdresser or billiard saloon proprietor in the town - our man in Wycheproof was the draper - quite an honourable occupation for an important job in the local community; taking threepence each way on the favourite at Flemington!

Wool prices were a great test of the Morse operator and an important part of the town's economic structure. While I did not know what AAA super fine was at $1/6\frac{3}{4}$ d per lb. I knew it was better than someone else's AA coarse at $1/0\frac{1}{4}$ d per lb. One soon learned the SLASH -.-. and the .-.- signalling a fraction coming up.

Casualty telegrams

As my career at Wycheproof came to an end in mid-1942 we were receiving our share of casualty telegrams, killed in action, missing believed prisoner-of-war etc. The telegraph operator was always the first to know and immediately alerted the Postmaster whose job it was then to involve a clergyman or close friend before delivering the fateful message. Sometimes we brought good news too - prisoner-of-war and safe, or returning home on leave. We always made a point of getting these messages to the recipients as quickly as possible, even by riding a bicycle some miles from town if no telephone was connected.

I spent many years on the relieving staff of the post office in rural Victoria. In the north-west I worked in the Sunraysia fruit growing area around Mildura on the River Murray. Again the community relied on the telegraph for produce prices, eg tomatoes, peas, beans, dried fruit; and we also sent river heights to the central weather bureau. I worked in Gippsland to the east of Melbourne and there we had cattle prices, reservoir heights, orders for the paper mills; and holiday bookings at places like Lakes Entrance. At Bruthen we had maize prices; and when Melbourne called Bruthen, the Morse read "BUM"!

Weather reports

The telegraph operators in the country towns transmitted weather information daily to Melbourne with 9 a.m. observations. In the hot dry summers of Wycheproof



our coded message on many a day was "REAP AB SABRE" - no cloud, no rain, no wind. I cannot recall if actually in that order but when we had rain everyone in town wanted to know how much. As the war progressed the information became more sophisticated and we transmitted 5-letter and 5-figure cipher. The weather forecast was received about 1 p.m. each day and posted up on a board at the post office. This ceased when Japan entered the war. However, the one o'clock time signal was transmitted daily to the post office; the post office clock was always correct in the country town.

Looking back over the years, one appreciates now how much entire communities depended on the post office, and in particular its telegraph operators as the harbingers of good news and bad. The telegraph was also an integral part of the business activity of rural areas - the bank manager was as keen to know the price of commodities as

was the farmer or grower. They were very fulfilling years in my career as a public servant.

The war years

As a postscript, I would like to refer briefly to another aspect of my years as a telegraph operator, and that covers the war years. In June 1942 I was transferred from Wycheproof to Mildura. I was one of a group of four sent to open a post office at an RAAF station then being set up as a fighter pilot operational training unit. This was a particularly frustrating period for three of us, all qualified telegraph operators, who thought our role should be fighting the war. However, the powers that be decided our contribution should be as civilians living on a service establishment.

In hindsight this was also a very fulfilling experience. The telegraph system (and postal, though lesser) was an integral part of the lives of service personnel. Family bonds were maintained through birthdays, seasonal greetings, new arrivals and, sadly, on occasions, deaths. Mum and Dad often received an SOS for money and the system soon provided a £5 telegraph money order to salvage some financial embarrassment.

We sent our share of casualty telegrams lodged by the RAAF for transmission to relatives after aircraft accidents; we often knew who was being posted to operations before officialdom received the message, but we could never decipher the hundreds of five-figure or five-letter groups we transmitted through the system.

I recall being admonished on one occasion by the District Postal Inspector, 200 miles away down the line from Mildura towards Melbourne. He had the telegraph line under observation as a routine monitoring job when I took a 200 word 5-figure cipher from Melbourne in perfect Morse at about 25 wpm. The "book" said all figures had to be repeated at the end of a message; the Melbourne operator asked if I wanted a repeat because we had been working one another for about three hours in really good stuff. I said "No". I was prepared to back my judgement as a brash 19-year old! Lo and behold, the phone rang five minutes later with a blast from the Postmaster for allowing his operator to break the rules. We all survived!

I recall clearly another occasion when a young fighter pilot on operational training asked the Postmaster if he

could arrange for him to have a Morse test so he could retain his operator's certificate for the day when he would return to the Post Office. He had apparently beaten the system and enlisted. It was my job to supervise his receiving test one evening. He was a bit rusty but we doctored up the message to get him through. He was shot down and killed in New Guinea three months later.

(Kevin Curtis worked for the Postmaster General's Department, Victoria, Australia, from 1939-1950. He was Secretary Manager, National Capital Development Commission, Canberra, 1976-1982.)



The cat that learned Morse

Here's a priceless story about a black cat, told to me by a radio officer, who swears by the Great Hook Block that every word is true.

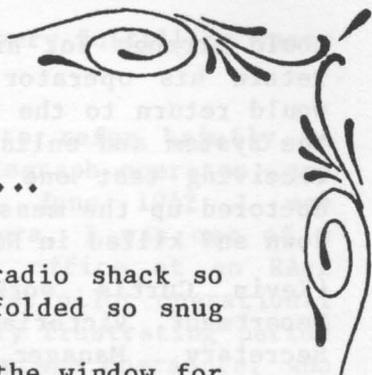
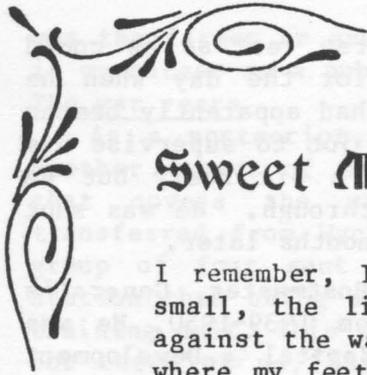
It concerns a Black Cat they had in one of his old ships and this cat was fascinated by the Morse signals which came from the loudspeaker in the radio office. The cat used to spend hours in the office, sitting in front of the speaker, just as though it was in a Cat's Heaven.

So, during the long night watches he conceived the idea of teaching the cat the Morse signals of the ship's callsign. For weeks he imitated the ship's call on a buzzer, simultaneously tapping the cat's starboard forepaw on the office table.

After a time, the cat would recognise the ship's callsign when other ships called and it would stand up and mew. When he "turned-in" at night he used to leave the speaker on, with "Maggie" keeping guard with a beatific expression.

Early one morning weeks later, in the middle of the Pacific Ocean, he found "Maggie" in his bunk, frantically pawing his face. So he dashed into the radio office, and discovered another of the company's ships calling for medical assistance for one of the firemen who had symptoms of appendicitis.....

(Reprinted from "The Thirteenth Voyage" by Fred G. Shaw in the August, 1984, edition of "Sea Breezes" by kind permission of the publishers.)



Sweet Memories....

I remember, I remember the radio shack so
small, the little cot that folded so snug
against the wall
where my feet stuck through the window for
everyone to see
'twas there I got 'em sunburned on the SS
XVB



You'd have to go to the county coop, for a
smaller room to find
in fact its very doubtful if there's room
to change your mind.
I almost turned a somersault when we got in
a sea on gentle Lake Superior on the SS
XVB.



In fancy yet I see the place ('twas built
around the mast)
'tis said they put the set in first and
built the cabin last.
The way she leaked when rain drops dropped
was a pleasant sight to see,
not to mention how nice and damp we got in
station XVB.

I may go to many harbours and moor at many
docks but never hope to sail again in such
a little box.
I'll always remember when I was 'OP' on the
good ship XVB.

"SPARKS"
Bill White, Opr.,
Station XVB, SS Glenorchy.



(Sparks Journal)

ABSCONDED!

\$350 REWARD

OFFERED BY TITLE

AMERICAN SURETY COMPANY, of NEW YORK,

For the Apprehension and Detention of

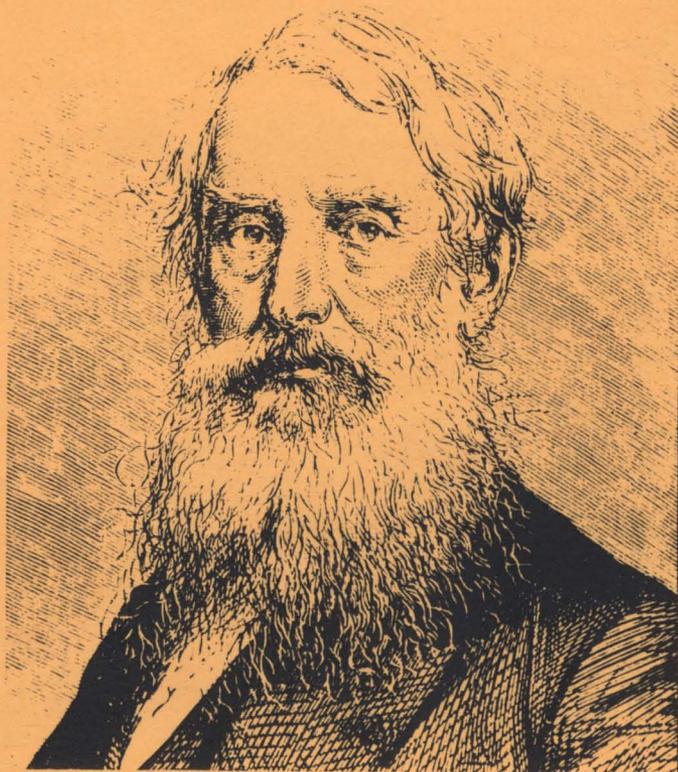
SAM. B. ROBERTS, Telegraph operator, ex-manager Pacific Mutual Telegraph Co. at Kansas City, Mo. *Description:* Height about five feet seven inches, medium build, weighs about 145 lbs., square shoulders, medium full face, high cheek bones, hair and moustache light sandy color (latter supposed to be now shaved off), lame in right leg and walks stiffly as if it were a wooden one, has lost the toes of that foot, and wears a box-toed shoe. Apparent age 38 to 40. Talks slowly. Is a fugitive from justice, charged with forgery and embezzlement. **ROBERTS** left a wife and children, and is supposed to have taken with him one **IDA TOBIAS**, alias "Ada Linwood," alias "Ada Tobias," alias "Ada Long," alias "Ada Roberts." *Description:* Rather petite form, dark hair close cropped, grey eyes, pleasant face but not considered handsome. Is an accessory before and after the fact to Roberts' embezzlement.

If apprehended communicate immediately with the

AMERICAN SURETY COMPANY,
160 Broadway, New York.



Journal of the Telegraph, Aug 20, 1886.



Samuel
Inley
Greene
Horse