THE ART OF SIDE-SWIPERY

No, this is not about traumatically removing the doors of parked cars while speeding on your way to the office half an hour late on Monday morning! I want to discuss a code keying method that requires no external power source and no expensive electronic keyers: the side-swiper. This rarely used but very natural-feeling keying technique is rapidly fading from use and is often misunderstood by today's hams who've never seen a genuine J.H. Bunnell & Co. double speed key which came to be called the cootie key or side-swiper. I shall just call it a "swiper" as I describe below the technique and equipment needed to try it yourself.

First, a bit of history. The early Bunnell model "W" was called the double speed key and was developed to overcome telegrapher's paralysis or "glass arm" (carpal tunnel syndrome according to modern medical parlance). The Bunnell double speed key was patented in 1888 (16 years before the emergence of semi-automatic keys) and sold until the 1920's. Bunnell's sideswiper was operated using a horizontal motion of the hand and arm. It has two fixed contacts-- one left and one right. The circuit is closed by moving the lever to the right or left. A repeated rocking motion of the wrist and hand was used to send the dot and dash elements of The code. Genuine Bunnell or other antique sideswipers are somewhat scarce among collectors. Since the key was not designed to be portable in a manner similar to the bug, but was attached to the operating desk with screws, may have made it unpopular among professional telegraphers.

The semi-automatic key (bug) that could make dots automatically was first patented in 1892 and sold to telegraphers c.1904 by Horace Martin to help operators send faster code with less effort. This is the key which became a family of Vibroplex bugs which are still sold and used today. Talking on the air with other hams about my swiper, I often find that there is some confusion between bugs and swipers since they both use a similar side-to-side wrist motion. As lovely as they are and fun to collect, the subject of this article is NOT about the Vibroplex bug, the Mac-Key, the Speedex, or any of the other semi-automatic keys.

Because commercially produced swipers are relatively rare, some hams over the years built inexpensive home-brew swipers for themselves. However, I want you to know that the swiper key does not HAVE to be made from a hacksaw blade, a razor blade, or scraps of sheet metal as in the past. I have found in Dave Ingram, K4TWJ's excellent books and CQ magazine articles about collecting telegraph keys that some sophisticated antique bugs actually had a built-in swiper mode. But YOU can try a swiper by adapting currently available commercial keys to the task. For example, you could use a Vibroplex single paddle Vibrokeyer or a Kent single paddle key as a swiper by jumpering the dot and dash binding posts and connecting them to the "hot" side of your rig's key jack while using the normal ground connection, of course.

The technique is very simple and feels very natural after a short practice period. Most references to side-swipers in the literature about key collecting say that using a swiper is very difficult to learn and is in some way inferior to using a bug to send Morse or continental code. This is simply NOT true! The hand motions necessary to form certain letters and punctuation like the letter "C" or periods are identical on both bugs and swipers. It's granted that many letters are formed differently on these keys, but learning proper swiper technique is easier by far than learning proper iambic keyer technique. As I see it, the only real limiting factor to swiper use is that it tends to be most comfortable at speeds ranging between about 12 to 25 wpm.

Let's get down to business and try our hand at side-swipery. First, place your thumb and index finger (or preferably, the 1st **two** fingers) lightly on the paddle. Oscillate your hand side-to-side on the paddles allowing your finger(s) to leave the paddle briefly at the end of the stroke to the right with the thumb, and allowing the thumb to leave the paddle briefly at the end of the stroke to the left with the finger(s). Make a string of dashes, keeping them very evenly spaced and each the same length. Then try a long string of dits, slowly at first and speeding up only a little as it begins to feel natural. Last, send a string of alternating dots and dashes beginning with the finger making the dots (di-dah di-dah...etc.), and then try it with the finger making the dashes (dah-di-dah-di-dah-dit... etc.).

In QSO's I have been accused of using a bug due to the sound of my steady, rapid-fire dits although I am also happy to report that these comments are usually coupled with compliments on my being "easy copy" on the air. Making fast dits on a swiper is fairly easy, but one must develop a habit of sending consistently good, well-spaced code rather than just showing off.

Practice every number, punctuation, prosign, and letter off the air until you feel confident about your sending. Begin swiper training by learning the numbers "0" and "5", followed by the rest of the numbers and then the punctuation before trying the alphabet. Each character should be repeated many times to imbed the feel of it into the brain. This is similar to what pianists and other musicians do to learn fingerings and chords, etc. Learning and practicing the longest characters first will help prevent bad habits.

Although some cootie users disagree, I found that it's easier to send well-spaced, easy-to-copy CW when I begin **every** letter or number with my index finger! Therefore the 1st, 3rd, and 5th elements of a character are made with the index finger (symbol: F). Conversely the 2nd, 4th, and 6th element, whether a dit or a dah, will be made by the thumb (symbol: T). Remember, don't think dots and dashes, just think about the sound of each letter or word in the code.

Michael O. Hyder N4NT tells me he prefers to alternate the finger and thumb regardless of where each is used in the character being sent. If the finger was used last, he begins the following character with the thumb and conversely he begins the next character with the finger if the thumb sent the last dit or dah.

See the following examples**:**

"0" = Dah-Dah-Dah-Dah-Dah   "5" = Di -Di -Di -Di -Dit   "?" = Di - Di - Dah -Dah -Di -Dit
    F   T   F   T   F   F   T   F   T   F   F   T   F   T   F   T

Adjusting the key or paddles that you are using as a swiper is very important if you want to send really solid copy. Adjust your swiper the opposite way you adjust a paddle for use with a keyer**:** use <u>wide</u> contact spacing and <u>firm</u> spring tension, which is very similar to K4TWJ's advice on how to adjust a bug. Side-Swipery, like using a bug, is best described as slapping the key around the table rather than pussyfooting around tickling the paddles! The wide contact spacing yields crisp, well-separated dits. Narrow spacing and/or weak spring tension makes a "5" sound like "Lolly-Lolly-Lah" instead of the desirable "Digga-Digga-Dit".

I have found that the action of magnetic paddles is a bit too light to become a good swiper. It can be done if you are careful to hold your keying hand like the letter "C", keeping your fingers and thumb far apart while keying. The extra spacing is created by your hand rather than the wide spacing of the contacts on the key, since the contacts have limited travel even at the widest setting. It requires an inordinate amount of practice to pull this off well, though. I find that a spring loaded iambic key is somewhat better as a swiper than a magnetic paddle, but not as good as a Vibrokeyer.

My first swiper was actually two J-38 keys mounted back-to-back (base-to-base, actually) on a sturdy "L" bracket anchored on a flat, heavy base. The two straight keys are oriented 90 degrees off from the way you normally see them in this configuration. In February 1996 I worked a fellow who was using back-to-back J-38's as the paddles for his keyer, and he had a very good fist. Way back in October 1970 I passed the examinations for both general and advanced class as administered by an FCC engineer (no VE's then). In those days we had to demonstrate that we could send as well as receive continental code. We were allowed to bring our own familiar key if we wished or we could use the examiner-supplied straight key. I wish you could have seen the looks on the faces of the other examinees when they saw my back-to-back J-38's on that monstrosity of a frame I had built!

I learned in my readings about the history of CW that code sending contests were held at 1930's hamfests where each contestant would send a given sentence 4 times; once on each of the following keys: a straight key, a side-swiper, a right-hand bug and a left-hand bug! If our forebears could do that then surely we can give this very old technique a try.