

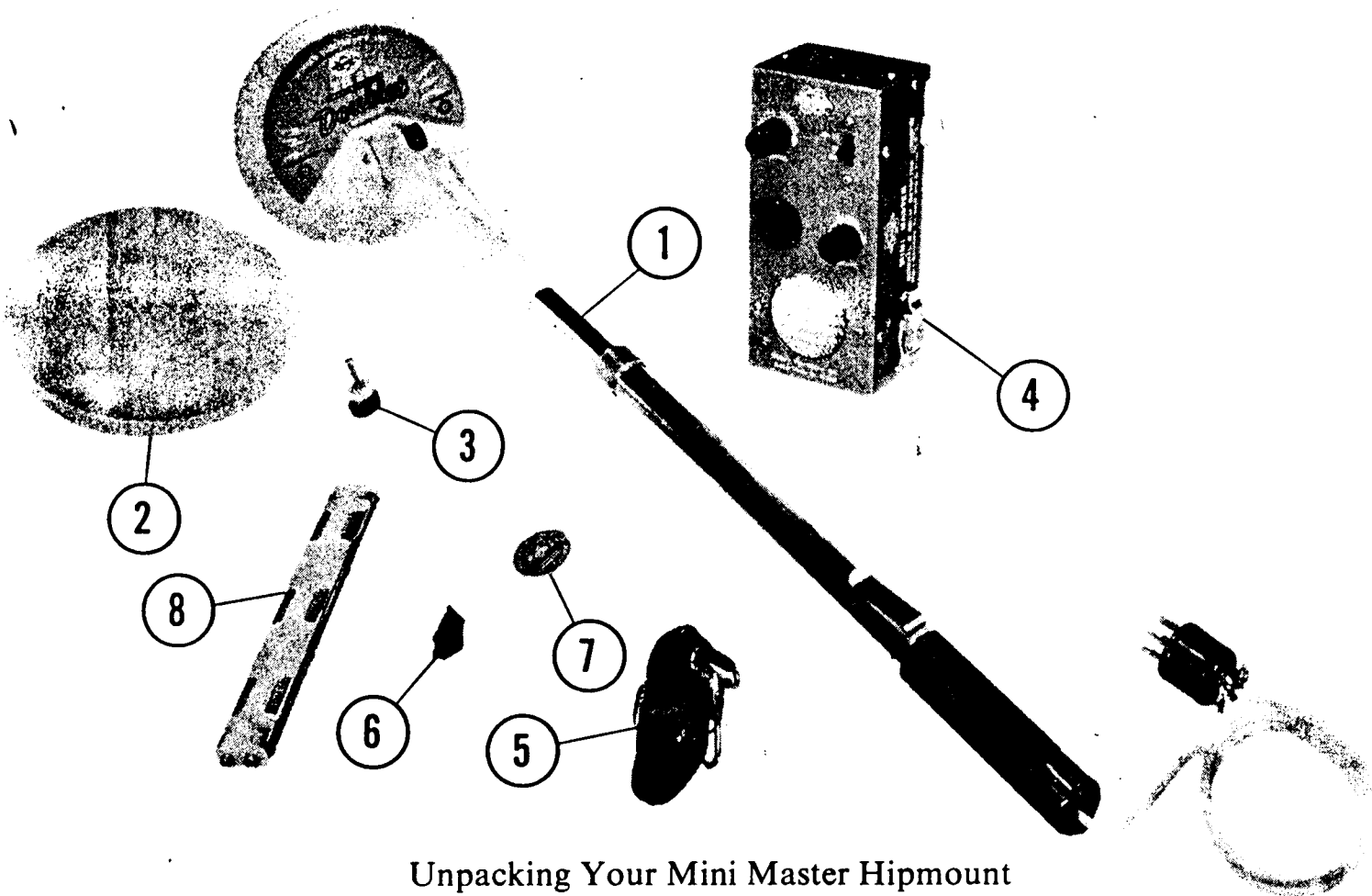


Mini Master

Introduction

There are two types of metal detectors currently available: Beat Frequency Oscillators (BFO) and Transmitter-Receiver (TR). For many years the BFO was the best available, but recent developments have made the TR instruments much more sensitive, reliable, and easier to use. The Mini Master Hipmount by White's Electronics incorporates the very latest of these advances and is unexcelled for performance among metal-mineral detectors.

This USER'S MANUAL, along with White's METAL DETECTOR FIELD GUIDE, is designed to help you get the most out of your Mini Master detector. Read the instructions carefully, practice often, and take care of your instrument—you have the finest equipment money can buy. The rest, of course, is up to you!



Unpacking Your Mini Master Hipmount

When you unpack your Mini Master Hipmount, compare what you've got with the picture above. Fill out the Warranty Card and mail it within ten days of purchase.

IF ANY PARTS ARE MISSING, CONTACT YOUR DEALER AT ONCE. Your problem will receive prompt attention. In any case, this is what you should have:

- | | |
|-------------------------------|-------------------|
| 1. Probe and Rod Assembly | 5. Shoulder Strap |
| 2. Protective Loop Cover | 6. Mineral sample |
| 3. Thumbnut and Retainer Bolt | 7. Coin Sample |
| 4. Mini Master Hipmount | 8. Battery Pack |

SHIPPING DAMAGE

If your Mini Master Hipmount appears to have been damaged in shipment, contact the CARRIER for a **SHIPPING DAMAGE INSPECTION**. Save the original packing materials and all other labels—these will be required for insurance coverage.

ASSEMBLY INSTRUCTIONS

(Figure 1)

The only assembly required on the Mini Master Hip-mount is the attachment of the six-inch loop to the Loop Rod (6). Do this by following these easy steps:

- A. Insert Isolator (1) into Loop Rod (6). Depress the small button on the bottom of the isolator (1) so that it slips inside the Loop Rod (6).
- B. Gently push the lower end of the Isolator (1) between the mounting flanges (2) of the detector loop.
- C. Align the bolt holes and gently force the Loop Retainer Bolt (3) through.
- D. Screw the Thumbnut (4) onto the loop bolt and tighten it FINGERTIGHT.

CAUTION

The Loop Cable Connector (5) is a **WATERTIGHT SEAL—DO NOT TRY TO TIGHTEN OR LOOSEN IT IN ANY WAY.** Tampering with this connector will destroy the seal and void your Warranty.

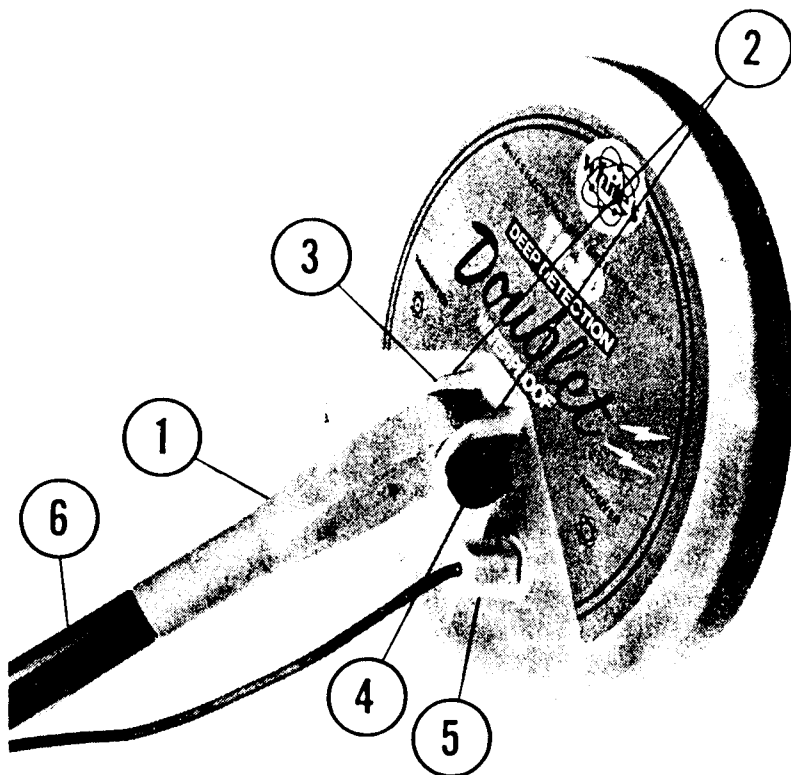


Figure 1

CONNECTING DETECTOR LOOP

(Figure 2)

In general, it is best to put on the instrument case with the carrying strap or straps in whatever position seems the most comfortable. Then connect the Cable Connector (7) in the following manner.

- A. Align the dot (9) on the Cable Connector (7) with the dot (9) on the Case Connector (8).
- B. **GENTLY** push the pins of the Cable Connector (7) into the aligned holes of the Case Connector (8). It should go together very easily—**DO NOT FORCE IT.**

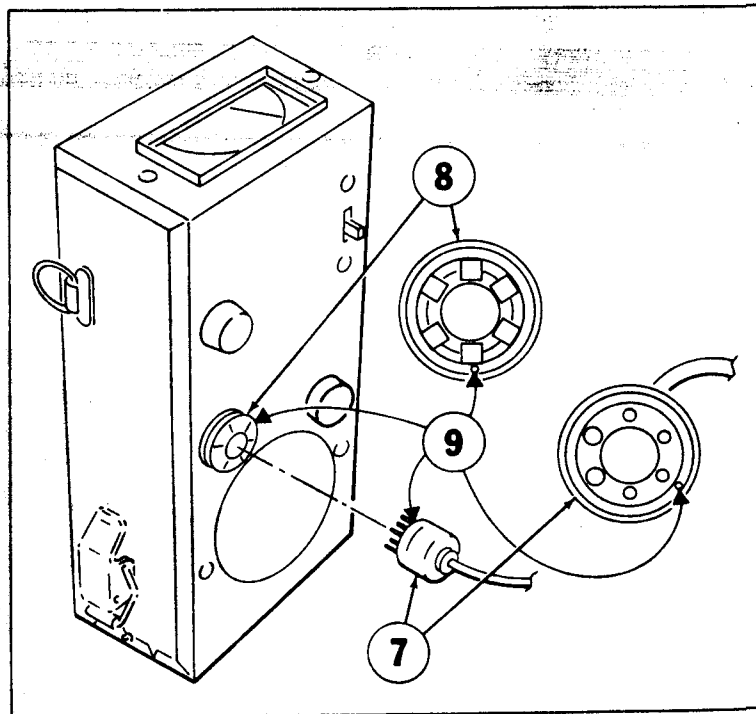


Figure 2

Battery Installation

V. Battery Installation (Figures 3 & 4):

- A. Check the Battery Pack (Fig. 3) for polarity—each AA penlight battery should have negative (—) end compressing the spring inside its holder and positive (+) end should be at the end without spring. **POSITIVE (+) AND NEGATIVE (—) ENDS OF THE BATTERIES SHOULD ALTERNATE AS SHOWN IN FIGURE 3.**

Figure 3

- B. Connect White Battery Pack (Fig. 3) to White Battery Connector (Fig. 4). **NOTE THAT CONNECTOR WILL ONLY FIT ONE WAY.**
- C. Install Battery Pack (Fig. 3) inside Battery Compartment (Fig. 4).

NOTE:

When closing Battery Access Door, always make sure that wires are not pinched between door and instrument case.

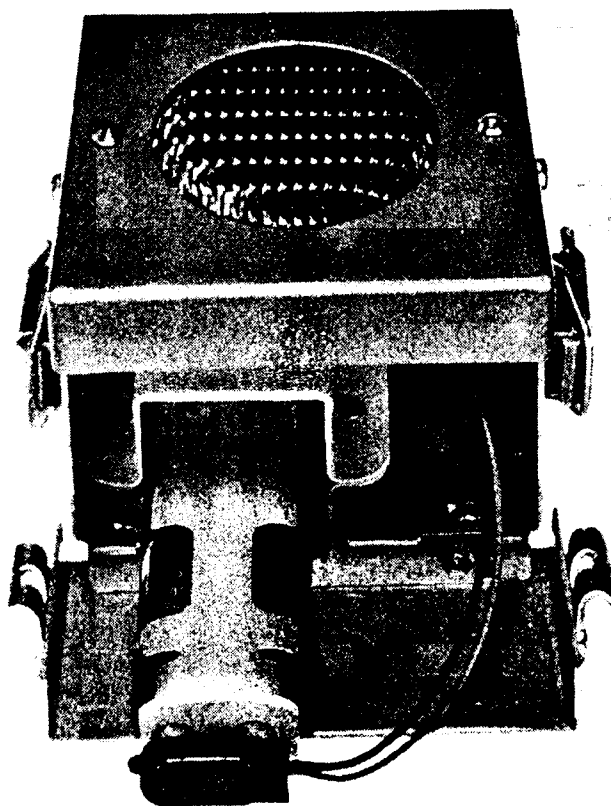


Figure 4

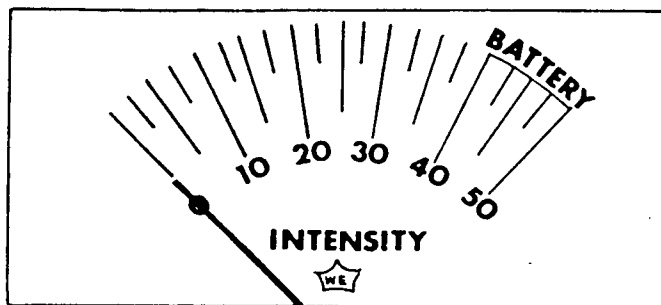


Figure 5

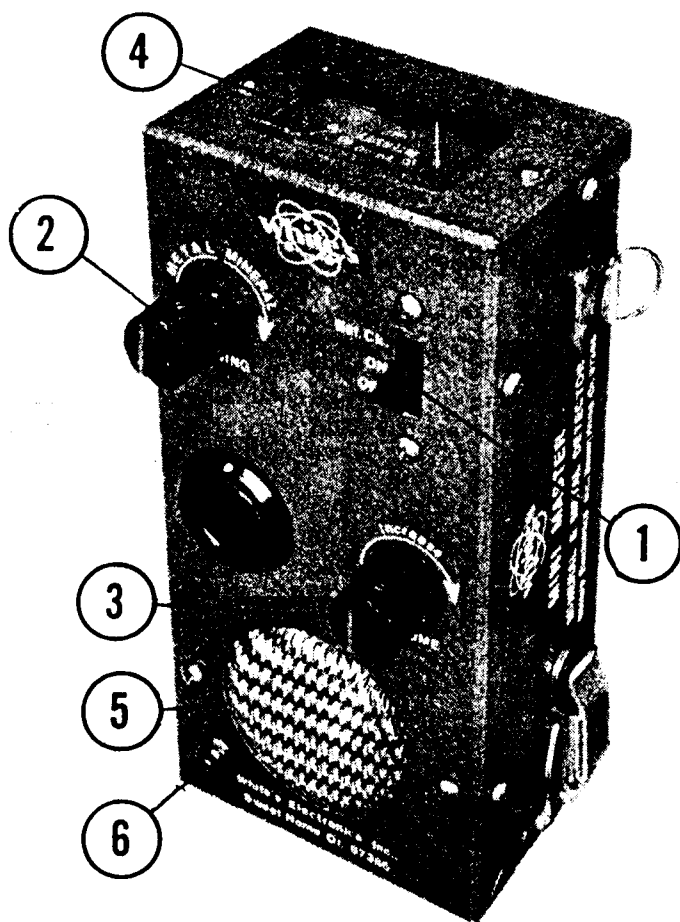


Figure 6

Battery Testing

Condition of batteries may be tested at any time by sliding the Power Battery Test Switch (Number 1, Fig. 6) TO THE BAT CHECK position. You will note that there are 3 positions to this switch: OFF/ON/BATTERY CHECK.

IF THE METER NEEDLE DOES NOT COME ALL THE WAY UP TO THE "BAT CHECK" ZONE WHEN THE MINI MASTER HIPMOUNT IS FIRST ASSEMBLED, THEN AT LEAST ONE BATTERY IN THE PACK BEING TESTED IS PROBABLY INSTALLED BACKWARDS. In this case, remove the battery packs and repeat battery installation steps. If the batteries should ever fail to measure up after a long period of use, then they probably are running down.

If the battery test shows that the batteries do not come up to the "BAT CHECK" zone after a period of service, the batteries should be replaced.

Use of Headphones

Headphones serve three uses: (1) They let you hear faint signals (deep find, older coins!) easier; (2) they shut out unwanted noises (like surf sounds at the beach); and (3) people, including small children, are not as likely to interrupt you while you're searching in a public place like a park or a beach.

Tuning Procedure

The Mini Master Hipmount has 3 operating controls:

- (1) Power Switch
- (2) Main Tuner
- (3) Volume Control

In addition the instrument is equipped with a signal intensity meter (4); audio-speaker (5); and a headphone jack (6).



Figure 7

TUNING THE MINI MASTER HIPMOUNT:

Set your Mini Master on a table with the loop extending into the air, AWAY FROM ANY METAL, as shown in Figure 7. Place a medium thick book on the probe handle so that it remains steady while you are getting familiar with this operation. NOTE: The fellow in the picture has removed his watch and rings so that there is no metal on his hands that might interfere with tuning. You should do the same.

To tune the Mini Master Hipmount for maximum sensitivity follow these simple steps carefully. If you have never used a metal detector before BE SURE that you "test tune" as outlined below before you try it on the ground. In some areas of the country the ground itself can cause false signals that make first time tuning for a novice very difficult.

Please refer to Figure 6 for the Following:

- I. Set controls:
 - A. Turn tuner (2) ten turns LEFT.
 - B. Turn Volume Control (3) FULL RIGHT (maximum).
 - C. Turn Power Switch (1) ON.

DO YOU HEAR A TONE FROM SPEAKER?

IF YES—Then find the NULL—Turn Main Tuner (2) RIGHT until tone goes away.

If you do not get a tone, go to BATTERY INSTALLATION on Page 4 and check proper installation.

- II. SET MAIN TUNER (2) FOR A SOFT METAL THRESHOLD. From the NULL, turn Main tuner LEFT (towards soft metal arrow) until tone just starts.

Hold a coin in front of loop face and note how the tone changes as you move the coin closer to the loop and back and forth across the loop face. NOTE: Do not place the coin directly on the loop when making these tests.

You have now tuned the Mini Master Hipmount for the best search sensitivity. Coins, rings, bottle caps, jewelry, pull tabs, and many other metal objects will now cause the tone to increase sharply as they come into the loop field. Objects that are mostly iron or steel will cause the THRESHOLD TONE to disappear.

At this point the Mini Master Hipmount is fully "BENCH TUNED". Make a final test with both the coin and mineral sample to make sure that the instrument will get louder for the coin and quieter for the mineral sample. Further adjustment, should it become necessary, will be done with the loop on the ground to compensate for mineralization of the soil which can cause "false readings" in some parts of the country.

REPEAT ALL STEPS UNTIL YOU CAN DO THEM WITHOUT LOOKING AT THE MANUAL. THEN YOU WILL BE READY TO WORK IN THE FIELD.

How to search



Figure 8

Once you have tuned the detector on the ground and you start sweeping the loop back and forth, you will notice that you get a "false signal" every time you pass the loop over a depression or raise the loop to go over a clump of grass. To cope with this, detune the detector by turning the Main Tuner back into the NULL. Try and keep the loop as close to the ground as possible without scraping (This "best height" will vary with conditions; grass height, stones, and bumps will affect it). A sharp "Bleep", or increase in the tone, will tell you that you have passed over or near a metal object.

In order to get acquainted with the kinds of sounds produced by various kinds of buried objects, the serious coinshooter plants a "test garden" that serves two functions; First, it enables the operator to get familiar with known objects at known depths and the kinds of sounds that can be expected. Second, it provides a method of checking the performance of the instrument over a period of time, making sure that it is still performing at top efficiency. Bury some coins, tinfoil, bottlecaps, and other metal objects at known depths in an area where you can always get to them and will remember where they are. After you have gotten familiar with what you've planted, have someone else plant some of these items where you don't know exactly where they are. See if you cannot only find them, but identify them before you dig them up. NOTE: When you bury coins, do not bury them more than three inches down. This is the limit for a freshly-buried coin (in the ground less than a year); a coin that has been buried for a long time (and is thus more valuable!) causes a chemical "halo effect" in the soil around it and acts like a much larger, and easier to find, target.

MINERAL SETTING

All through the preceding instructions, you have been told to tune your detector for a METAL THRESHOLD tone by turning the Main Tuner LEFT out of the quiet NULL. This setting will pick up non-ferrous metal objects—gold, silver, etc.—as an increase in the tone and allow ferrous (iron-containing) objects to drop the tone. You need to know that there is also a MINERAL THRESHOLD on the other side of the NULL where this order is reversed.

If you wanted to find objects that are primarily made of iron, you would find the NULL as before, but turn the Main Tuner out of the NULL to the RIGHT instead of the LEFT. Now, ferrous objects will cause the tone to increase and gold and silver and other non-ferrous objects will cause the tone to decrease or go away. This feature is a useful one, especially if you want to clear a driveway of nails, for instance, or find a chunk of barbed wire in that cow's tummy. Be sure, however, that you don't try to go coinshooting with the detector set for mineral threshold—you are bound to have a bad day!

Good Luck & Good Hunting!

Proper Care of Your Detector

The following are precautions you should take to protect your instrument from harm, insure its long life, and avoid nullifying the warranty.

Cleaning: The loop and rod or probe are waterproof. They can be cleaned with fresh water and a mild cleanser. After cleaning, however, dry the instrument thoroughly. Caution! The instrument case is not waterproof, and water—if allowed to enter it—may damage electronic components.

Weather Conditions: Protect your detector from excessively cold weather. Freezing can damage the electronic components, the case and/or the batteries. Excessive heat can also damage the instrument. Never leave it in the sun. It's best to lay it in the shade when temporarily not in use. If it's left in a car on a hot day, cover it with a blanket or something similar to protect it from the direct rays of the sun, and then leave the windows slightly open to permit ventilation. Needless to say, protect your detector if you operate it in the rain, as water may get into the instrument case.

Salt Water: Salt water is very corrosive! Immediately after your detector has been exposed to salt water, rinse it thoroughly with fresh water, being careful not to allow water to enter the instrument case. Then wipe it with a cloth dampened with fresh water and dry it thoroughly.

Storage: If you plan to store your detector for any length of time, unsnap the battery and remove it from the instrument. Whenever your detector is not in use, turn the **VOLUME** knob all the way to the "**PWR OFF**" position.

Service And Warranty Information: If your new metal detector is ever in need of service, ship it to us at the factory address below or to one of the Service Centers listed on the back of the warranty statement. Insure it fully, prepay the charges, and enclose a letter describing the nature of the problem. As long as your detector is under warranty there is no charge other than a small handling and postage fee.

Read your warranty card carefully. It describes completely what is covered and the length of the coverage. If you have any questions don't hesitate to write us. We will be happy to answer any questions you may have.

HELPFUL HINTS AND TIPS

1. "How deep will it go?" Detection depth is determined by five main factors.
 - a. The **SIZE** of the object.
 - b. The **SIZE** of the loop.
 - c. The **LENGTH OF TIME** the object has been buried.
 - d. The **SKILL** of the operator.
 - e. The ground **MINERAL CONTENT**.

The longer an object has been buried, the better you will be able to detect it. A chemical reaction called a "halo effect" between such objects as silver or copper coins and the surrounding soil may cause your detector to register a much larger increase in volume than might otherwise be expected for a small coin. If the halo effect is strong enough, your detector may continue to register even after you have dug up the coin.

2. "What will my detector locate?" Silver, lead, copper, bottle caps, tin foil, pull tabs, cartridge cases, rings, brass and tin cans are just a few of the conductive objects that can be detected. Your detector will not locate sticks, rags, bones, paper, wood or other non-metallic objects.
3. Learn how to interpret the different types of responses from your detector. A nail lying flat in the ground will sometimes produce a double or single reading depending upon whether your loop passed across it lengthwise or across its width. So it's a good idea to sweep your finds from several different directions to try to learn as much as possible about the object you have located. Coins will usually only produce one reading regardless of sweep direction.
4. Rather than waste time, check around the trees for junk items such as foil, pull tabs, bottle caps, etc. This will frequently indicate whether or not someone has already been in the area with a detector.
5. Always "criss-cross" an area when hunting it.
6. After you have dug up a coin, always check the hole again for more. As many as 10 coins have been found in one hole!
7. When beachcombing the best place to look for coins is near the concession stands.
8. Check the shallow water in swimming areas. Most rings and coins are lost when people enter the water.
9. If you make plans for coinshooting, check the history records of the area.
10. Always carry a plastic bag for your detector in case you get caught in the rain.
11. Never ask permission to treasure hunt over the phone. People tend to visualize you using a pick and shovel, making large holes.
12. Join a local historical society or get acquainted with its members.
13. In lawn areas, use a screwdriver of no more than eight inches as your tool. Limit the size of the hole to a **MAXIMUM** of two inches in diameter. Don't forget to fill in the hole. Public and private officials and property owners will be more likely to allow continued treasure hunting if you do no environmental damage.