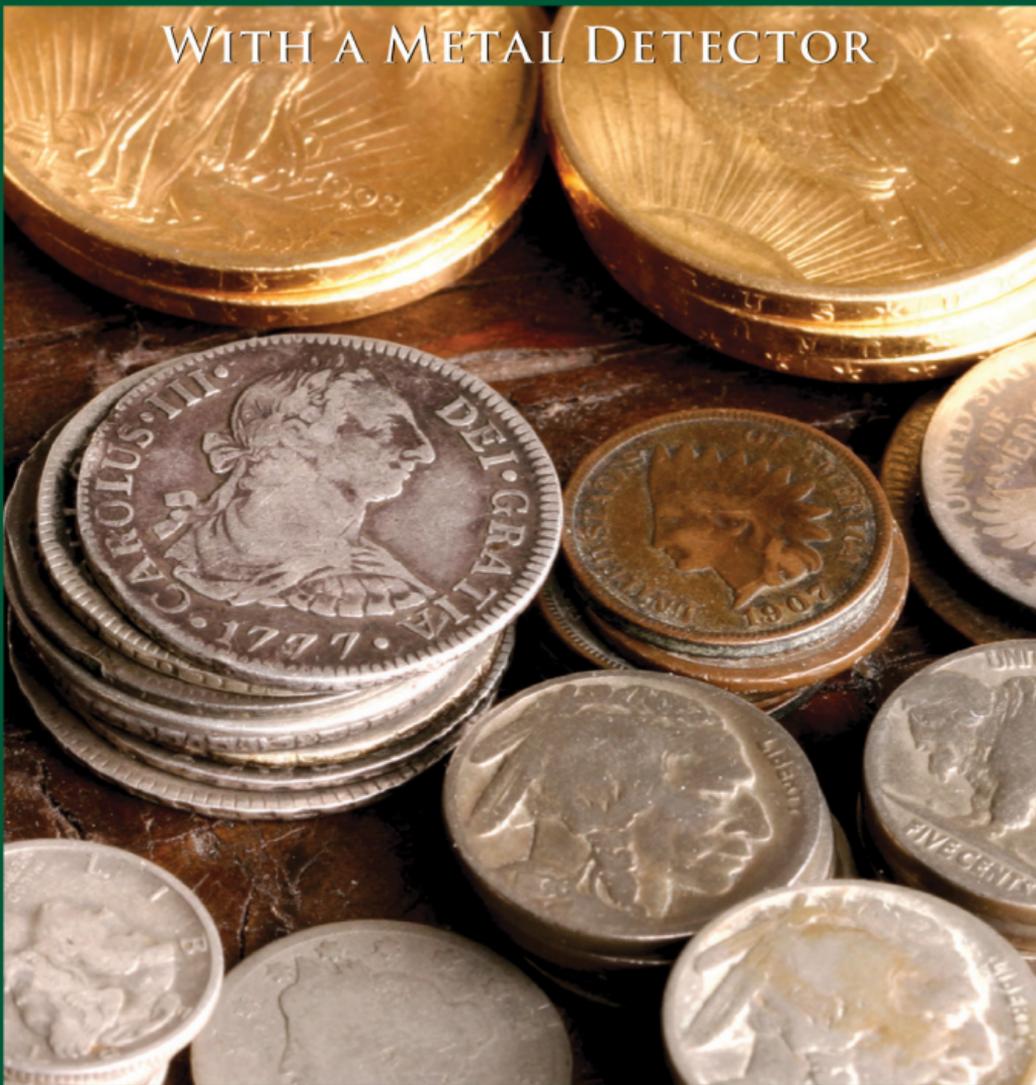


THE SPORT OF COIN HUNTING

WITH A METAL DETECTOR



CHARLES GARRETT

THE SPORT OF
**COIN
HUNTING**



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CONTENTS

About the Author	5
Introduction	7
Even in Your Own Backyard	9
Parks and Playgrounds	13
Lakes and Beaches	16
Cache Hunting	20
Coin Hunting Techniques	25
Identifying a Target	29
Coin Recovery Tools	31
Cleaning Your Coins	37
Health and Safety Issues	44
Common U.S. Coins	48
International Coins	73
Final Thoughts	77



Author Charles Garrett has been an avid coin hunter for decades and has written extensively on the subject.



ABOUT THE AUTHOR

For more than 40 years, Charles Garrett has pioneered the development of the modern metal detector, demonstrated its capabilities in searches throughout the world and devoted himself to teaching others to use detectors. He has recovered treasures of all types while searching all over the world. Although he has made countless exciting discoveries over the years, he is particularly fond of coin hunting.

Garrett's first major publication, in fact, was *Successful Coin Hunting* in 1974. This book has been reprinted more than a dozen times and continues to be a top seller. Many of the coins, relics and other treasures he has discovered are now on display in the Garrett Museum at the company's factory in Garland, Texas.

Charles Garrett's lifetime interest in treasure hunting prepared him to excel in that field. After earning a Bachelor of Science Degree in Electrical Engineering, he worked at Texas Instruments and Teledyne Geotech developing systems and equipment required by America's fledgling

space effort. While devoting himself to his hobby, he designed and built his own metal detectors. This avocation became a career when he and his wife, Eleanor, founded Garrett Electronics in 1964 to manufacture and market his inventions.

Garrett quality is known today throughout the world. From the beginning, Garrett vowed “to practice what I preach” by field-testing his equipment—to insure it works for customers regardless of ground conditions and environment. He has become recognized as an unofficial spokesman for the hobby of treasure hunting and the metal detecting industry through a long list of honors, personal appearances and books. Garrett—with many years of coin shooting—is uniquely qualified to present this succinct guide to recovering coins with a metal detector.

INTRODUCTION

Treasure hunters who recover relics and prospect for precious metals such as gold and silver know that research, knowledge of history and a little bit of luck are required. Coin shooters, on the other hand, know that they can take their detector out and begin finding coins almost anywhere in the world.

It's hard to describe the thrill American coin hunters feel when they unearth a rare 1700s-era coin. Less rare, but equally exciting, to many are the countless buffaloes, liberties, Barbers and Morgans just waiting to be discovered. For the young beginners that first modern nickel from the school playground can bring a rush of excitement that may forever hook them into the sport of coin shooting.

Metal detectorists overseas in Europe have the potential to recover coins thousands of years old. European treasure hunting magazines

regularly depict detectorists who have dug up ancient hoards of Roman coins.

The purpose of this coin hunting field guide is to offer you the basic knowledge necessary to join the fine sport of coin shooting with a metal detector. For the veteran coin hunters, this book will offer tips that will help improve your odds of being successful.

The Sport of Coin Hunting also includes a brief reference section on some of the types of coins you can discover. For more thorough knowledge of coin hunting, please reference my book, *Successful Coin Hunting*. For those of you just joining this exciting hobby, *I welcome you and wish you great success.*

I'll see you in the field...

Charles Garrett

Garland, Texas

EVEN IN YOUR OWN BACKYARD

When asked where I think a person should start their search for coins, I have many times responded with, “Anywhere...even in your own backyard!”

Even if your home is relatively new, the ground under it is not. Your grass may contain coins dropped by kids at play, by people maintaining the grass and shrubs, and even by the home’s original construction workers. For older homes, the sky is the limit as far as possibilities. I hear from treasure hunters regularly who scoured their property with a metal detector for the first time and were shocked at the results.

One key area to start sweeping your search-coil is along any sidewalk or driveway that leads into the home or that runs across the property. Coins dropped years ago may have slipped right down into the ground cracks. Over time, these coins will settle deeper into the soil and disappear completely from sight—but not from

the “sight” of a quality metal detector’s search-coil.

Today’s modern metal detectors are generally easier to use than models of decades past. High-quality metal detectors, such as those that bear my name, are perfectly obedient and will do exactly what they are told to do—which is find coins and treasure while ignoring most metal junk.

Your determination to be more successful will result in your finding even more coins and other valuables. There is no wrong time of the year to hunt and very few wrong places to search. Think about it: wherever people have lived, played or done business, they have lost coins.

For people who love to travel, the sport of metal detecting simply can’t be beat. Take the case of Mike Hardin, for example. When he stopped by the Garrett factory recently to visit, he showed off some of his impressive collection of old coins—including an 1907 Barber dime, an 1876 Shield nickel, an 1890 Seated Liberty dime, just to name a few.



Longtime coin hunter Mike Hardin has found many old coins with his Garrett detectors over the years, plus an impressive collection of rings and other jewelry.

“Metal detecting has become a way of life for me,” Mike said. “And, what a great way to pass the day!” After buying his first Garrett metal detector in 1989, Mike was able to roll up found coinage and deposit \$1,000 into his bank account during his first year.

Coin hunting with a metal detector is truly a hobby that can pay for itself.

Good coin hunting “hot spots” around older homes include:

- near front doors, porches, steps and gates;
- around mail boxes, storm cellars, basement steps and even old outhouses;
- along fence rows, trails and driveways;
- and under shade trees, under places where clothes lines once hung and where play areas were once located.



Search carefully around porches and sidewalks of old homes for early vintage coins.

PARKS AND PLAYGROUNDS

Most coin hunting takes place in cities or at least good-sized towns. Since this is where people live, it is also where they have lost coins. Playgrounds are generally high on anyone's list of where coins can be found in quantity. Although most coins will be fairly recent, you will rarely be disappointed here.

It will pay you to search carefully near any playground apparatus where kids have climbed, tumbled or fallen. Careful coin hunters will usually get a few worthwhile signals around the see-saws, swings and jungle gyms.

The athletic fields at many playgrounds can be equally fruitful in their production of coins. Don't forget the stands where spectators sit to observe the youths at play. Rarely will you ever fail to find coins under and around stadium seats. In addition to coins, you might find watches, rings, knives, keys and other objects that have fallen through the stands. Excited spectators often unwittingly supply us treasure

hunters with loot galore. Fences around stadium seating areas have been known to produce paper money that has been blown by the wind and trapped. If there is a swimming pool, search the grassy areas around it where parents and friends watch the swimmers. Look around all drinking fountains, picnic tables and benches. Pay attention to children at play; see where their activities lead them.

Make a concerted effort to search old parks and playgrounds as they *used to be*. Research old park maps to locate the original locations where crowds gathered at bandstands, concession stands and attractions no longer in existence. Such sites could prove very rewarding.

Lakes are often found in conjunction with parks, and coin hunters can often have a field day along their shorelines. Also to be found in many parks are wishing wells, ponds, streams and similar areas where coins are traditionally tossed. Such areas are usually protected from the public and probably cleaned out on a regular basis. If you are lucky, however, you might find one that is located near or beneath a grassy

area where people stand while throwing their coins. Children especially have been known to drop coins they intended to toss.

When you search parks and playgrounds, do not forget to make a search through the parking areas. Most big parking lots are paved nowadays, but there are still plenty of places where people park on gravel—and lose coins while they are digging out their car keys.



Parks and playgrounds are generally productive places for novice coin hunters to try out the sport of metal detecting.

LAKES AND BEACHES

Coin hunters will also do well to search lakesides, riverbanks and seashores. Coins, rings, watches and other jewelry are lost daily by swimmers and sunbathers. Ancient silver and gold coins are discovered periodically on Gulf Coast and South Atlantic beaches, particularly after hurricanes or tropical storms churn up the ocean bottom.

When searching surf, sand and shallow water, your choice of detectors can be important. The high salt content in ocean water and beach sand can be best eliminated by using pulse induction metal detectors whose circuitry ignores both salt and black sand. Since fresh water does not present such challenges, almost any detector will operate successfully near streams and lakes.

Beach hunting offers an advantage because each new tide brings in additional stores of lost treasure. Ocean beaches, lake shores and riverfronts should be searched immediately after

weekends and holidays. One method I recommend for working the shorelines with your metal detector is to scan in a parallel path while hugging the water's edge. If your path length



Pulse induction metal detectors such as Garrett's *Sea Hunter* and *Infinium* models ignore the mineralization effects of salt water and black sand for coin hunting at the beach.

is not too long, each return path will be nearly parallel to the preceding one.

Let the searchcoil just skim the sands and keep it level throughout the length of a sweep. Overlap each sweep by advancing your searchcoil about one-half its diameter. Always scan in a straight line. This improves your ability to maintain correct and uniform searchcoil height, helps eliminate the “upswing” at the end of each sweep and improves your ability to overlap in a uniform manner, thus minimizing skips.

Don't ignore either very loud or very faint detector signals. Always determine their source. If a loud signal seems to come from a can or other large metal object, remove it and scan the spot again. Everyone benefits from the removal of such trash that you will sometimes dig. We perform a service not only for all beachcombers and sun worshipers but for sea creatures and bird life as well.

Beach hunters should study tide tables, as listed in newspapers, to determine when the day's low tides will occur. When the water level has dropped, more beach area is exposed,

allowing you to work not only more dry land but also enables you to search a greater distance into the surf.

Low tides occur approximately every twelve and one-half hours. You should plan your work period to begin at least two or three hours before low tide and continue long after designated low tide times. That's four to six hours of improved hunting.

Look for tidal pools and long, water-filled depressions. As the tide recedes, watch for streams draining back into the ocean. These "mark" the location of low areas. If you will constantly keep in your mind the vision that only a few feet beneath the sand's surface a blanket of treasure awaits, your powers of observation will keep you alert. Continually watch for those low areas that put your searchcoil closer to treasure.

Such natural "traps" should always be searched. For more information on beach hunting, please consult my field guide *How to Search Sand and Surf*.

CACHE HUNTING

Whether they readily admit it or not, finding a hidden treasure is the dream of almost every metal detector hobbyist. To this end, cache hunting is the most romantic and potentially profitable form of metal detecting.

I have spent my fair share of time in the field searching for caches. Some were hidden by notorious outlaws. You can be certain plenty of buried treasure is still just waiting to be discovered. The caches unearthed today in most cases were not, however, tucked away by bank robbers or gunslingers. Many a law-abiding farmer or old-timer is known to have buried a fruit jar of cash to save for a rainy day or to even hide from the family.

Regardless of the age of the coins, there is a special thrill to finding a mass of money. For example, a local boy named Cameron stopped by the Garrett Museum recently to show off a cache of buried modern coins and paper money he detected in his apartment complex while using an *ACE 150* metal detector.

Caches come in every shape and size. I know because I have found several small and large coin caches, relic caches and high-graded miner's caches. You might find a small coin purse or even a large hoard buried deeply in an old container or safebox. In order to find a long-lost cache, you must utilize your research skills



Coin caches are particularly exciting. Just ask 10-year-old Cameron, seen here with the modern cache he found six inches deep with his Garrett ACE 150 detector.

to determine where something may have been hidden or buried. Maps, old newspapers and historical documents can shed light on places you should consider for hunting. Old-timers themselves can also be virtual vaults of information that helps you locate potential treasure locations.

You will generally find caches carefully hidden in places that were familiar to the people who hid them. In most cases, they wanted to have easy access to their money. Common hiding places in old homes include fireplaces, under base boards, in the walls, inside water wells and even in old books.



Bill Mason of Minnesota found these two caches of nickels and silver coins while searching old abandoned farmhouses.

To find caches most effectively, I recommend that you use the All Metal Ground Elimination mode almost exclusively, simply because caches are often buried deeper than other



Ian Botley of England discovered a hoard of more than 2,800 Fourth Century bronze Roman coins in 2007 with his *GTI 1500*.

buried treasures. The vast majority of caches are small and buried deeper than single coins are usually found. Of course, when using the All Metal mode, you must be prepared to dig your share of junk metal. Avoid the temptation to discriminate out iron: you might also be ignoring an iron pot full of old coins!

Large searchcoils and depth multiplier accessories can substantially increase the depth you can search for buried caches. If you believe your target is larger than a 12-ounce drink can, I recommend searching with a special two-box coil metal detector. When searching for a cache behind or inside home walls, I recommend you use a 12-inch searchcoil and turn the discrimination controls to their lowest settings—just enough discrimination to eliminate nails from detection.

After nearly six decades of treasure hunting, I can assure you that hidden treasure is out there. It's up to us to find it. For more thorough details on cache hunting, I would recommend you consult my book *Treasure Caches Can Be Found*.

COIN HUNTING TECHNIQUES

Deciding *where* to hunt is important but to be successful you must use a quality metal detector. Garrett's popular *One-Touch*[™] metal detectors have all been preset at the factory for ease of use. You can simply turn them on and begin scanning. With any detector, however, **it is strongly advised** that you carefully read its instruction manual and watch any DVD that comes with it before starting your first search.

Once you begin searching for coins, your rate of good target recoveries will increase as you become more skilled. Whether you are an old-time coin shooter like me or a newcomer to the sport, here are some general metal detecting pointers I would offer to anyone.

- **Use proper scanning techniques.** Keep your searchcoil level as you scan slowly and methodically. Scan the coil in a straight line in front of you from side to side, keeping the searchcoil one-half to one inch above the ground. This straight-line method allows you to

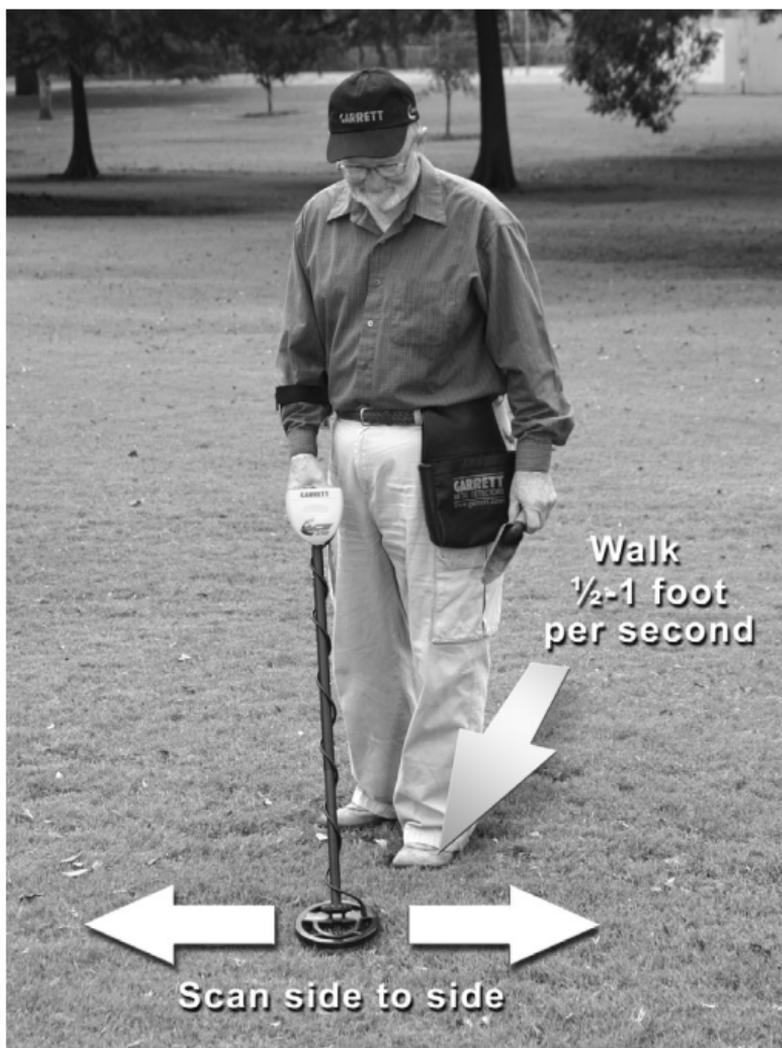
cover more ground width with each sweep and helps you keep your searchcoil level, especially at the end of the sweep.

Overlap by advancing the searchcoil as much as 50% of the coil's diameter at the end of each sweep path. Occasionally, scan an area from a different direction. Move your searchcoil at the rate of about one foot per second. Don't be in a hurry!

- **Crisscross the area.** Use well-planned passes to thoroughly cover an area you believe might be productive. Utilize a mental grid of the area as you search methodically. Some coin hunters use markers to keep track of their progress in larger areas.

- **Use headphones.** I recommend headphones for all treasure hunting to suppress external noise and to help you hear the faint signals of deeper targets.

- **Keep a journal.** You will want to keep a record of your treasure hunting finds. Log the date, coin type, location, depth and any other relevant data regarding your discovery. Over time, you may likely discover patterns or areas



Scan side to side with the coil about 1 inch above the ground and walk $\frac{1}{2}$ to 1 foot per second.

that have been more successful for you than others.

- **Know your coins.** A coin hunter invariably becomes a *numismatist*, one who closely studies and collects coins. Some coins you find might be worth much more than coins that are decades older. A number of factors (rarity, engraving errors, etc.) that numismatists study can affect the value of minted currency. Coin values are updated regularly in guides posted online and printed in coin periodicals.

- **Never trespass.** All land in the United States is owned by some individual, firm or governmental body. Understand local regulations and always get permission before hunting on any private property.

- **Fill your holes.** I have always urged all treasure hunters to leave the area they hunt in better condition than they found it. This means that you should haul out the junk metal and trash that you find and, of course, properly fill in the holes that you dig.

IDENTIFYING A TARGET

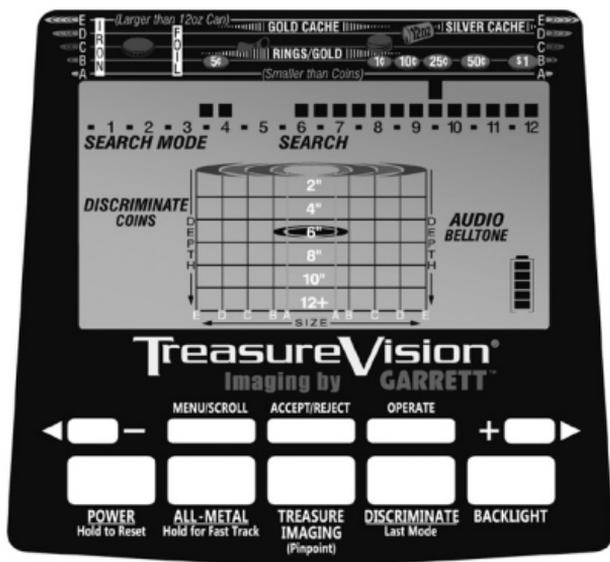
Meters and LCDs on metal detectors can provide additional information concerning the possible “value” of targets. Garrett’s LCD, called a *Graphic Target Analyzer* (GTA™), can show you every target—even the “bad” ones. Garrett’s *GTA* actually indicates what type of metal, and even what type of coin, you have discovered. Some Garrett detectors also can indicate the target depth.

Many Garrett detectors include a Target ID Guide located above the LCD. Microprocessor-based technology enables your detector to reveal a metallic target’s probable identity. In the case of U.S. coins, the Target ID reveals the discovered object’s metal conductivity—which is a great aid in indicating whether the target is likely a penny, nickel, dime, quarter, half dollar or dollar coin.

With Garrett’s *Graphic Target Imaging* (GTI™) and *Graphic Target Profiling* (GTP™) model detectors, you’ll even be given an indication of the *size* of your target. As detectors

continue to improve, I believe that even more target information will be presented visually.

It's up to you to interpret this information. This will be a snap if you're using a detector with a system of visual identification. A glance at its LCD and Target ID Guide should give you a pretty good idea of what you've found before you even consider recovering it.



Exclusive *Treasure Imaging*™ on Garrett detectors can take the guesswork out of target identification. The LCD display above shows a quarter at about 6" depth.

COIN RECOVERY TOOLS

Once your detector indicates a target is below your searchcoil, you will want to recover it efficiently and without damage if it is a coin.

Always try to locate your target precisely by pinpointing. Do this by scanning back and forth over the spot where you received a signal. Advanced metal detectors offer an automatic pinpointing mode that enables the instrument to hover directly over a target with no motion and get a signal.

Experience and practice will show you how to pinpoint your target with your coil. Once you have it precisely located, mark the spot with your coil hovering above the target. Treasure probes and steel trowels work well in standard soil. Plastic sand scoops help you sift through large volumes of dry sand to find coins on playgrounds and beaches. In soft soil, drive your metal or plastic scoop just behind the pinpointed area and then bring the scoop up for sifting. If you did not successfully retrieve the treasure target

in your first scoop, pinpoint it again with your detector and repeat the process.

Regardless of soil type, you should have a coin-hunting apron with one or more pockets or a treasure pouch or a small bag suspended from your belt. The pouch should be waterproof or include plastic pocket liners to keep moisture from soiling your clothing. When you retrieve treasure from the ground, especially muddy ground, some of the soil will stay with the item until you have cleaned it. One pouch or bag



A quality hand-held pinpointer detector can save considerable time in determining if your coin is still in the ground or in the dirt pile that you have removed.

should be used for your recovered coins and the other for junk metal and trash you find.

Tougher soils require more rugged recovery tools. When you locate a metallic object in a grassy area, cut a half-circle around it and make it three inches deep. Then literally fold the turf back. If your find isn't in this first plug, remove a second and deeper plug, making certain that all loose dirt falls back into the hole. After you retrieve your treasure, fold the turf back in place and step on it.

If you must cut a plug, some hobbyists recommend cutting a square plug so that it will fit precisely back into the hole. They suggest further that the plug be cut deeply with lots of soil attached to it so that powerful lawnmowers can't pull your plug from the ground before the grass has become reestablished.

Experience has proven that cone-shaped (pointed at the bottom) plugs are more likely to be uprooted by mowers. You will often have to pinpoint your find in the plug itself after you dig it up. A quality treasure probe, or small hand-held pinpointing metal detector, will save

time and effort in precisely locating small coin targets. Their removal can be more exact, and you won't have to break apart the plug to find the coins. The more dirt that the plug contains, the more likely the grass is to live.

Small pinpointers can be used to scan in the hole. If you do not receive a signal, scan over the dirt or plug you have removed. Without such a handy pinpointer, scan your searchcoil back over the hole and the dirt to determine if you have successfully extracted the target. You can also pass handfuls of the soil over the searchcoil until you find a small target. Make sure, of course, that you are not wearing a watch, ring or any other metal on the hand you swing over the coil.

Many coin hunters use a screwdriver to dig and recover coins. After pinpointing they push the screwdriver into the ground two to three inches behind the coin, sticking the screwdriver in at a 45-degree angle about five inches deep. You'll want to use a screwdriver with a dull point to keep from scratching the coin. With your screwdriver inserted five inches deep,

push forward and to the left, making a slit in the ground three to five inches long. Then make the same slit to the right, with the slits leaving a “V-shaped” piece of sod which you lift and push forward, swinging it up out of the ground.

After you have retrieved your coin, the sod will fall back into the hole in the exact place it came out, and the grass roots will not die. This is especially true if you don’t cut roots of the grass by making your “V,” but merely force most of the roots from the ground. The hobbyists who use screwdrivers are convinced that most park caretakers would much rather see treasure hunters use a screwdriver than a knife.

A slightly different retrieval method after pinpointing your target is to carefully insert a dull-pointed probe into the ground until you touch the coin. This will inform you of its exact depth. Then insert a heavy duty screwdriver in the hole made by your probe, stopping before it touches the object. (Remember, you already know how deeply buried it is.) Rotate the screwdriver gently until you have a cone-shaped hole about three inches in width across the top. It is

then usually an easy matter to remove the coin with just a little digging with your fingers or the point of the screwdriver. This method requires some practice and skill to prevent scratching the coin. To fill the hole, insert the screwdriver into the ground two or three times around the opening. With just a small pressure toward the hole the surrounding soil and grass fill it in, leaving absolutely no scar.

There are other retrieval methods you can use depending upon the soil condition. In extremely hard and sunbaked soil and in frozen ground, it is necessary to use some type of rugged wide-blade pick to hack your way into the ground. In softer dirt the digging is easier, and one of the methods described above or your own variation of it might prove to be more practical and less damaging to the ground.

Regardless of the type of ground where you hunt, you should study these methods and work out the one or ones best suited to your needs. Good luck with your digging, and always remember to fill those holes!

CLEANING YOUR COINS

In most cases it is advisable to make no attempt to clean coins, other than to remove surface dirt with just a general light soaking in mild, soapy water. Do not use harsh dishwasher detergent; use only liquid hand soap. The slightest damage to a coin can degrade its numismatic value. Coin collectors prefer to buy coins as they are found and do their own cleaning rather than have someone attempt to clean a coin and destroy its value.

In the event you decide to clean circulating coins to exchange at the bank for crisp bills, let's examine some of the possible ways.

Electrolysis

One of the most sophisticated means of cleaning is through the use of electrolysis—the principle of removing a microscopic portion of the coin's metallic surface by sending a small electric current through the coin while it is submerged in a solution of water and citric acid.

A small glass about the size of an 8-oz cup is used with a stainless steel electrode similar to a tongue depressor submerged in the water.

One terminal of a low voltage (3 to 6v) supply is applied to this electrode in the water. The circuit is then completed when the other terminal is attached to the coin by means of an alligator clip or some spring tension device. A direct current of 10 to 100 mils is generally passed through the coin. The higher the current, the faster the surface metal will be removed from the coin. The metal, as it is removed, breaks up the surface corrosion. Coins are usually left in the bath from one to about 10 minutes. Following the electrolysis bath, the coins must be carefully scrubbed with a soft brush.

This electrolysis technique works quite well on some coins. It offers the opportunity for *permanent damage* to your coins, however, unless great care is taken in keeping the liquid either clean or separated for different types of coins. Nickels should be cleaned in their own bath, pennies in their own bath and silver coins in still a third bath. Otherwise, nickels and

dimes cleaned in a penny solution will turn red. The more modern multi-clad coins which are growing in popularity create similar problems. Coin cleaners of the electrolytic type are most often used on very badly corroded coins such as those which have been submerged in salt water for a long time.

Liquid Cleaners

I have tried just about every type of liquid there is that claims to clean metal, including the expensive solutions used by professional jewelers. These high-priced solutions worked the best of all, but they leave a peculiar odor...and they are quite expensive. All things considered, my favorite cleaning liquids are either olive oil or a solution of white vinegar and salt.

When coins are soaked in olive oil anywhere from an hour to several days, surface corrosion will be loosened sufficiently so that a small brush will complete the process. I recommend you use a brush with fine wire to remove stubborn corrosion. Let me warn you that while an olive oil soaking will cause absolutely no harm,

you can easily scratch your coins with the wire brush.

My recommendation for a cleaning method would be to use the white vinegar and salt solution followed by a light brushing, if necessary. Then, to protect your coin, wrap it in aluminum foil or place it in a tarnish-proof coin envelope.

When using the vinegar/salt method, you will need separate glasses for copper and for silver/nickel coins—primarily to avoid staining the dimes, nickels and quarters a copper color. To mix your solution, pour one teaspoonful of table salt into each glass and add one ounce of white vinegar.

This solution will generally clean about six to eight coins at a time, and can be doubled for a quantity job. You must watch the coins pretty closely as you take them in and out of the solution. Try not to wash too many at one time, as some coins will be ready to remove before others. Some coins will clean faster and easier than others; you can help things along by rubbing them with your fingers and dropping them back into the cleaner. A few coins may need to stay



These photos from Garrett ACE enthusiast Dan B. illustrate the condition of old coins as they appeared upon recovery and after some careful cleaning.



here for as long as an hour, but most will come clean in seconds or minutes. Your coins will turn dull if left too long in the solution. This dull finish will not harm their monetary value and it won't be as unsightly as tarnish.

I believe you can complete the best job of cleaning your coins with this method by properly rinsing them. Your rinse container should be filled with cold water and left under a slowly running tap. When the coins begin to shine brightly in the vinegar/salt bath, transfer them to the rinse. After the coins have rinsed for about three minutes, you can wipe them or spread them out on a towel to dry. This method is essentially for coins that are merely tarnished. Those that are badly encrusted will have to be scrubbed with a brush as described above.

When to Clean

I do not recommend trying to clean any coins while still in the field. In trying to rub the coin clean or remove dirt from it while you're still hunting, you may mar its surface. Why take time away from your coin hunting?

When you return from hunting, place those coins that need cleaning in a wooden or plastic bowl. Handle them gently and use a mild, soapy solution. Try to separate the coins so that one does not lie on top of another. After they have soaked for a while, gently rub each with a soft cloth to remove dirt and contamination.

When you determine that additional cleaning is required, you can clean the coins by one of the previously mentioned methods or some other technique that you have devised. For your valuable finds—even the finds that you only *suspect* are valuable—I urge you to let them be cleaned by a specialist. Don't take the chance of reducing any coin's value by damaging it through improper cleaning. The money you lose will be your own.

It is seldom advisable to clean any coin beyond the mild soaking and light rubbing. When you become acquainted with coin dealers, you will learn that they would rather buy coins that have not been cleaned, except to remove loose surface contamination. Dealers seem to prefer coins with the natural, aged look.

HEALTH AND SAFETY ISSUES

I sincerely believe that the benefits to be derived from coin hunting are both mental and physical. On the mental side, the zest and thrill of discovery that this hobby brings are an absolute joy to the soul.

On the physical side, metal detecting in the fresh air is good exercise under the control of the individual. Men and women, youngsters and retirees alike, can enjoy coin hunting for hours a day or just short periods of time. The hobby is ideal for young people with high levels of energy and curiosity.

The novice hunter should understand that metal detecting for long periods of time can leave him or her with cramped muscles or sore joints the following morning. My advice is to spend a few minutes warming up with simple stretching exercises before undergoing a lengthy afternoon of swinging a detector. You should also take an occasional break from your hunting and be sure to drink plenty of fluids.

Comfort is essential to the enjoyment of coin hunting. In warm weather in open environments perhaps the only clothes needed are



Protecting your knees with pads like these and your neck from the sun will prevent discomfort that lessens your coin hunting fun.

shorts, a tee shirt and sneakers. It is important, however, that you always protect yourself from the sun. Skin specialists recommend the use of a high-numbered (at least 25 SPF) sun screen. In both hot and cold weather, clothing must offer protection from the elements while permitting considerable freedom of movement.

Be aware of your environment: monitor weather reports before you set out in the field. You should pack for your any extensive hunting trip just as you would if you were going camping. Part of enjoying your field excursions is being comfortable. Therefore, I suggest you include such personal items as a canteen, snacks, digging tools, sunscreen, knee pads and toilet paper. Your primary considerations in poor weather are warmth, mobility and dryness. Non-porous clothing can make you perspire, and if it does not provide vents for evaporation of this moisture, you'll soon be uncomfortable.

I strongly recommend you protect your clothing (and your knees) with comfortable, adjustable waterproof knee pads. Thick, tough rubber pads prevent skin abrasion and sore

knees. Sometimes I wear polarized glasses that reduce surface reflection of the sun.

Hunting in cold weather presents clothing options. Thermal underclothing and heavy socks will keep you warm. If your inner clothing soon becomes saturated with perspiration, you've dressed too warmly. Several thin layers that let moisture escape while trapping air are the best combination. When clothing becomes wet, it loses most of its insulating properties. You may have to do some experimenting, but give cold weather hunting a try.

Carry along a covering to protect your auto seats and floorboards from becoming wet or muddy. Whatever you wear, I urge you to protect yourself adequately and to be comfortable. Treasure hunting with a metal detector is an exhilarating experience. Don't allow clothing issues to lessen your hunting ability.

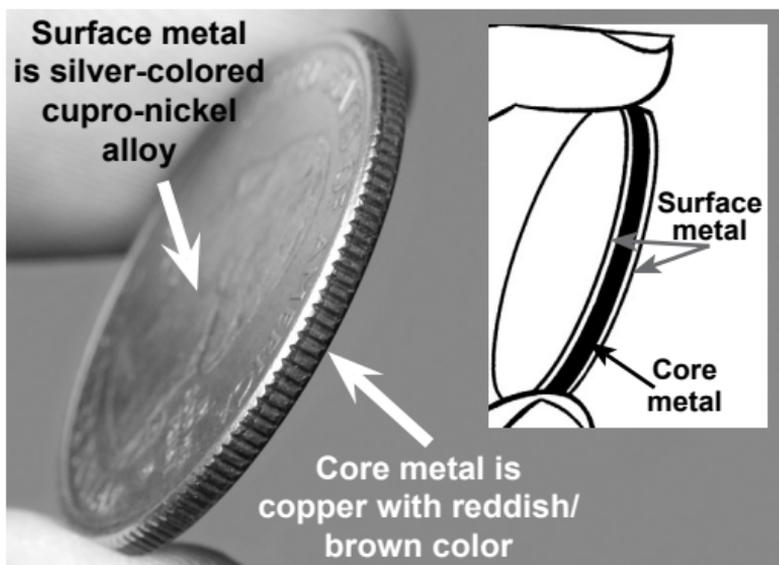
COMMON U.S. COINS

The following section will help educate the coin-hunting novice on some of the coin types that are commonly found in the U.S. Please consider this as only a brief introduction to the boundless array of coin types that you may encounter. For specific details on a particular old coin you should consult one of the detailed books or Internet sites that are dedicated specifically to coin identification.

This introduction to American coins offers you very basic information on the different coins. Space simply does not permit lengthy coverage. The value of each varies based on its age, condition, rarity and the particular U.S. mint which created the coin.

Coin Composition: Silver vs. Clad Coins

The U.S. Mint began producing coins to replace the *pieces of eight* and Spanish doubloons used by Americans. The first U.S. mint was completed in 1792 in Philadelphia and the first coins were struck from silver from George Washington's household collection.



Careful examination of this U.S. “silver” coin shows that it is a *clad coin*, which began minting in 1965 to replace the silver content. Upper illustration more clearly depicts the layers of a clad coin.

Beginning with the first strikings in the 1790s, U.S. silver dollars, half dollars, quarter dollars, dimes and half dimes generally contained 89-90% silver and 10% copper.

Although their *alloy* content was not technically 100% silver, U.S. coins with 90% or more silver in their composition are considered “pure silver.” When the first nickels were introduced just after the Civil War, they were 75% copper

and 25% nickel. By 1964, the price of silver was exceeding the face value of U.S. coins, so Congress and President Lyndon B. Johnson authorized a new *clad composition* which began minting in 1965.

After 1964, the outer surfaces of U.S. dimes and quarters were made of “cupronickel”—a copper-nickel alloy that is 75% copper and 25% nickel. These clad coins have a pure copper center core. The clad half dollar which began minting in 1965 was reduced from 90% pure silver to 40% silver content. In 1971, the half dollar’s silver content was further reduced when it went to the same copper/nickel composition as the dime and quarter.

Dollar Coins

Although a *Continental Dollar* was struck in 1776, the first minted U.S. silver dollars were coined in 1794–1795. The first minted dollar coin is called the *Flowing Hair* type, depicting a Lady Liberty head with flowing hair on the obverse (front) side. The dollar coin design was changed to a new view of Liberty in 1795 that



Seated Liberty with motto dollar coin (1866–1873).

is known as the *Draped Bust* coin. Nearly 1.5 million silver dollars were coined from 1794–1804. These early dollars were primarily composed of silver with a small copper content.

Silver dollar production ceased from 1804 until 1836, when a new design by engraver Christian Gobrecht was released. The original *Gobrecht Dollar* coin minted from 1836–1839 (less than 2,000 total) is only slightly different from the *Seated Liberty dollar* described below in that it originally included a flying eagle. Composition: silver/copper mix.

Seated Liberty No Motto silver dollar: Almost 2.9 million minted between 1840–1865. Obverse depicts Miss Liberty—with 13 stars



Morgan silver dollar (1878–1921).

surrounding her—seated on a boulder, holding a pole topped by a liberty cap. Her right hand supports the shield of the union, which is inscribed with “Liberty.” Reverse depicts an eagle with the Union shield on its breast. The eagle clutches three arrows and an olive branch with “United States of America” in a semicircle above. The Seated Liberty dollar was revised in 1866 when the motto “In God We Trust” was added in a scroll above the eagle. Composition: silver/copper mix.

Seated Liberty With Motto silver dollar: Over 657 million minted between 1866–1873. Obverse depicts Miss Liberty—with 13 stars surrounding her—seated on a boulder, hold-

ing a pole topped by a liberty cap. Her right hand supports the shield of the union, which is inscribed with “Liberty.” Obverse depicts an eagle with the Union shield on its breast. The eagle clutches three arrows and an olive branch with “United States of America” in a semicircle above. The motto “In God We Trust” was added in 1866 in a scroll above the eagle. Composition: silver/copper mix.

Trade dollar: Less than 36 million minted between 1873–1885. Designed by William Barber and originally created for use as trade dollars with China. The design featured a seated female Liberty figure on the obverse and an eagle on the reverse. Composition: silver/copper mix.

Morgan silver dollar: Over 3.6 million minted between 1878–1921. Designed by engraver George T. Morgan. Obverse depicts left-facing head of Liberty. Reverse depicts a scrawny eagle which has led to coin’s nickname *buzzard dollar*. Composition: silver/copper mix.

Peace dollar: Designed to memorialize World War I’s armistice, this coin’s obverse



Peace dollar (1921–1964).

depicts Miss Liberty with a radiant crown. More than 190 million minted between 1921–1935. Another 316,000 peace dollars were minted in 1964 but were destroyed before being released to the public. Composition: silver/copper mix.

Eisenhower dollar: After a five-year ban on silver dollar production, Congress approved a new one-dollar coin. More than 700 million were minted between 1971–1978. Obverse depicts President Dwight Eisenhower. Reverse depicts an American eagle landing on the moon. Composition: silver with copper/nickel “clad” for collectors; copper/nickel clad for circulation.

Anthony dollar: After a five-year ban on silver dollar production, Congress approved



Eisenhower silver dollar (1971–1978).

a new one-dollar coin. More than 900 million minted between 1978–1999. Smaller than a half dollar in size, this coin's obverse depicts women's voting rights pioneer Susan B. Anthony. Reverse depicts the American eagle landing on the moon. Composition: copper/nickle clad.

Sacagawea dollar: Minted from 2000–present. Obverse depicts Native American woman Sacagawea, who helped the Lewis and Clark Expedition. Reverse depicts an American eagle in flight. Beginning in 2009, the reverse image will change annually. Composition: gold-colored copper/zinc/manganese/nickel mix.

Presidential dollar: Circulation began in 2007 and will continue with four presidential

coins to be released annually. Obverse depicts the president with his years of service. Reverse shows the Statue of Liberty. Composition: gold-colored copper/zinc/manganese/nickel mix.

Half Dollars

The first silver half dollars produced in the U.S. in 1794 carried the *Flowing Hair* design—a youthful Lady Liberty with long, flowing hair. These early silver half dollars have recently sold for nearly \$400,000 each. The so-called *Flowing Hair* design became the *Draped Bust* dollar in 1796. A new *Capped Bust* dollar design was minted from 1807–1839. Composition: silver/copper mix.

Seated Liberty half dollar: Minted from 1839–1891. Obverse depicts Lady Liberty seated on a boulder. The reverse depicts an eagle with shield, arrows and an olive branch. Composition: silver/copper mix.

Barber half dollar: About 136 million minted between 1892–1915. Designed by sculptor-engraver Charles E. Barber. Obverse depicts a right-facing head of Liberty with her hair bound



Capped Bust half dollar (1807–1839).



Barber half dollar (1892–1915).

up in a cap and a laurel resting along her hairline. The motto “In God We Trust” appears above her with 13 stars. Reverse depicts an eagle with a shield on its breast, an olive branch in its right talons and a bundle of arrows in its left talons. Composition: silver/copper mix.



Walking Liberty half dollar (1916–1947).

Walking Liberty half dollar: Over 485 million minted between 1916–1947. Obverse depicts a full-length figure of Lady Liberty striding toward a new day's dawn and carrying branches of laurel and oak. Reverse depicts an eagle perched on a mountain with a sapling of mountain pine. Composition: silver/copper mix.

Franklin half dollar: Almost 498 million minted between 1948–1963. Obverse depicts Benjamin Franklin with “In God We Trust” below. Reverse depicts the Liberty Bell. To its left is “E Pluribus Unum” and to its right is a small eagle. Composition: silver/copper mix.

Kennedy half dollar: Obverse depicts U.S. President John F. Kennedy. Reverse depicts



Franklin half dollar (1948–1963).

presidential seal. Composition: silver/copper mix at first. Replaced by silver-clad copper from 1965–1970. Composition from 1971–present was copper-nickel-clad.

Quarters

Believe it or not, America once minted more than one million Twenty Cent coins between 1875–1878. Because it was similar in size and design to the Seated Liberty quarter of the same day, public outcry killed this coin. The first quarters were minted from 1796-1807 featuring a right-facing Lady Liberty and are known as *Draped Bust* quarters. The *Capped Bust* quarter



Twenty cent coins (1875–1878).

dollars minted between 1815–1838 featured a left-facing Lady Liberty wearing a “Liberty” cap. Composition: silver/copper mix.

Seated Liberty quarter: Minted from 1838–1891. Obverse depicts Lady Liberty seated on a boulder. The reverse depicts an eagle with shield, arrows and an olive branch. Composition: silver/copper mix.

Barber quarter: Minted between 1892–1916. Designed by engraver Charles Barber. Obverse depicts a right-facing head of Liberty with her hair bound up in a cap and a laurel resting along her hairline. The motto “In God We Trust” appears above her with 13 stars. Reverse depicts an eagle with a shield on its breast,



Barber quarter (1892–1916).

clutching an olive branch and arrows in its talons. Composition: silver/copper mix.

Standing Liberty quarter: Over 226 million minted between 1916–1930. Obverse depicts a standing Liberty figure holding a shield in her left hand. Her right hand holds drapery and an olive branch while “Liberty” is in a semicircle above her head. Reverse depicts an eagle in flight. (Special bicentennial 1976 edition quarters were also minted for two years during this time.) Composition: silver/copper mix.

Washington quarter: Billions minted from 1932 to the present. Obverse depicts George Washington. Reverse depicts eagle, olive branches and an arrow. Composition: silver

planchets, 1946–1964; copper and copper/nickel-clad composition since 1965. (Bicentennial and state quarters have also been issued.)

Dimes

The first U.S. 10-cent coins were minted in 1796 and employed the *Draped Bust* design of Lady Liberty through 1807. The *Capped Bust* dime was produced from 1809–1837. Composition: silver/copper mix.

Seated Liberty dime: Minted between 1837–1891. Obverse depicts Lady Liberty seated on a boulder with a shield and a pole topped by a liberty cap. The reverse depicts a wreath with “One Dime” imprinted in its center. Composition: silver/copper mix.



Barber dime (1892–1916).



Mercury dime (1916–1945).

Barber dime: More 500 million minted between 1892–1916. Named in honor of coin designer Charles Barber. Obverse depicts Miss Liberty wearing a Liberty cap with shortly cropped hair. Reverse uses the same wreath design of the prior Seated Liberty dime. Composition: silver/copper mix.

Mercury dime: More than two billion minted between 1916–1945. Obverse depicts Miss Liberty wearing a winged cap symbolizing freedom of thought. Often mistaken as Roman messenger to the gods Mercury, this image led to its nickname “Mercury” dime. Reverse depicts an ancient symbol of authority called *fasces*, with a battle ax atop it and an olive branch beside it.

Composition: silver/copper mix. (Also known as the Winged Head Liberty Dime.)

Roosevelt dime: Minted from 1946 to the present. Named in honor of President Franklin D. Roosevelt soon after his death. Obverse depicts Roosevelt's portrait with "In God We Trust" and "Liberty." Reverse features an upright torch of freedom, flanked by branches of olive and oak, denoting peace and victory. Composition: silver/copper mix through 1964. Copper-nickel clad composition since 1965.

Half Dimes

Prior to the first U.S. nickel being introduced in 1866, there was a small silver coin called the *half dime*. A special 1792 *half disme* (the "s" in disme was later dropped) was minted with a short 1,500-coin run. The first true half dime utilized the *Flowing Hair* design and was minted between 1794–1795. This design was followed by the *Draped Bust* half dime (1796–1805) and the *Capped Bust* half dime (1829–1837).

Seated liberty half dime: Over 84 million minted between 1837–1873. Obverse depicts



Half dime (1792–1873).

Lady Liberty seated on a boulder with a shield and a pole topped by a liberty cap. The reverse depicts a wreath with “One Dime” imprinted in its center. Composition: silver/copper mix.

Nickels

Shield nickel: Over 128 million minted between 1866–1883. Obverse depicts a shield design. Reverse contains a large numeral 5, encircled by 13 stars with rays between the stars. Composition: copper/nickel mix.

Liberty Head nickel: Minted between 1883–1913. Obverse depicts Lady Liberty’s head surrounded by 13 stars. Reverse shows the Roman numeral V within a wreath. One of the *five* 1913



Shield nickel (1866–1883).



Liberty Head nickel (1883–1913).

Liberty nickels minted was sold in 2007 for \$5 million! Composition: copper/nickel mix.

Indian Head/Buffalo nickel: Over 1.2 billion minted between 1913–1938. Obverse depicts a Native American in headdress and the word



"Indian Head" / Buffalo nickel (1913–1938).

"Liberty." Reverse depicts an American bison. Composition: copper/nickel mix.

Jefferson Head nickel: Minted from 1938 to the present. Obverse depicts President Thomas Jefferson with his Monticello home on reverse. Monticello was replaced in 2004–2005, but has since returned. Composition: 1938–1942, 1946–present, copper/nickel mix. Wartime composition was of copper/silver/manganese between 1942–1945.

Pennies

The U.S. copper *large cent* was first released in 1793. The original *Flowing Hair* design was



Matron Head large cent (1816–1839).

changed six more times during the next 60 years and its size was slightly reduced. The large cent was minted from 1793–1857, when a smaller one cent coin replaced it. Composition: copper.

Flying Eagle cent: Over 42 million minted between 1856–1858. Obverse depicts an eagle in full flight. Reverse depicts a wreath with the inscription “One Cent.” Composition: copper/nickel mix.

Indian Head bronze cent: Almost 1.6 billion minted between 1864–1909. Obverse depicts a female head in a feathered Indian headdress. Reverse depicts wreath, shield and inscription “One Cent.” Composition: this penny intro-



Flying Eagle cent (1856–1858).



Indian Head bronze cent (1864–1909).

duced with lighter weight bronze alloy (copper/tin/zinc) mix. (Also known as “Indian cent.”)

Lincoln Wheat cent: Billions were minted between 1909–1958 with notable variations. Obverse depicts a right-facing portrait



Lincoln Wheat cent (1909–1958); 1943 steel penny shown.

of President Abraham Lincoln with the word “Liberty” to his left and “In God We Trust” in semicircle above. Reverse depicts two sheaves of wheat with the inscriptions “One Cent,” “E Pluribus Unum” and “United States of America.” Composition: copper/zin/tin mix from 1909–1942 and 1947–1958. (Referred to as “wheat pennies” or “wheaties.”)

Lincoln Steel cent: More than one billion minted in 1943 of the Lincoln wheat cent. Due to diversion of copper for war efforts, the U.S. Mint switched to steel for one year—although steel soon proved to be an unsuitable substitute. Composition: zinc-coated steel during 1943. (Commonly referred to as “steel pennies.”)

Lincoln Memorial cent: Billions have been minted from 1959 to the present. After 50 years of production, the wheat design on the original Lincoln cent was removed in favor of an image of the Lincoln Memorial. Composition: copper/zinc/tin mix between 1959–1962. During the period 1962–1982, the penny’s composition was .94 copper and .05 zinc. From 1982 to present, the penny’s composition has been .975 zinc and .025 copper.

Other Early U.S. Coins

One of the earliest U.S. coins minted was the copper *half cent*, produced between 1793–1857. Five different variations of a Lady Liberty head adorned the obverse of the half cent during this time and the reverse is imprinted with “Half Cent” inside a wreath.

More than 31 million *two-cent coins* were produced between 1864–1873 and made of “bronze,” an alloy composition of mainly copper that also included tin and tungsten. The two-cent coin was the first U.S. coin to bear the motto “In God We Trust.”



Three cent silver coin (1851–1873).

The *three-cent coin* was released in 1851, when the cost of a first-class postage stamp was reduced from a nickel to three cents. Minted from 1851–1873, the three-cent coin was composed of silver and copper.

U.S. Gold Coins

After the passage of the Mint Act of 1792, the first gold coins ever minted in the U.S. were struck in 1795. Sporting Lady Liberty wearing a turban cap on the obverse and a scrawny single eagle on the reverse, the \$5 gold coin became known as the *half eagle*. These half eagles were minted between 1795–1929 with six significant design variances.

The \$10 gold coin, known as an *eagle*, was minted between 1795–1933 with four variations. A \$2.5 gold coin, known as the *quarter eagle*, was minted between 1796–1929 with five design variations. With the success of the California Gold Rush of 1849, Congress authorized the first \$1 gold coin, which was minted between 1849–1889.

This was followed by the *double eagle*, a \$20 gold coin minted between 1850–1933 with three design variations. A \$3 gold coin was also minted between 1854–1889. This coin became popular in its day because just one such coin would purchase a complete sheet of 100 three-cent stamps.



Half eagle \$5 gold coin (1795–1929).



Double eagle \$20 gold coin (1850–1933).

Gold coin production was ceased in 1933 by order of President Franklin Roosevelt, who also prohibited the private ownership of gold coins and bullion. It was not until 1986 that the U.S. Mint began producing gold and silver bullion coins again. Known as *American eagles* because of the eagle family depicted on the reverse side, U.S. gold bullion coins are minted in \$5, \$10, \$25, and \$50 denominations.

INTERNATIONAL COINS

Coin hunters in the United States are overjoyed to find a coin that dates back to the late 1700s. In Europe and other countries, however, it is common for treasure hunters to dig up coins that are many *thousands* of years old.

The previous section showed a sampling of the many coins minted in the U.S. during the past 230-odd years. Just imagine the varieties of coins that have been minted, stamped, hammered and shaped in all other countries throughout the world over history!

Staters, groats, shillings, guilders, florins, sovereigns, guineas, francs, pesos, thalers, marks, balboas, euros, reals...the names of the world's coins are as varied as their designs and compositions. Regardless of what country you find yourself in, the fact is that coin hunting with a metal detector can be productive *almost anywhere*.

I have had the pleasure of digging up numerous ancient Roman coins during my metal detecting excursions in Europe. There is a special



Coin hunting in Europe can produce hammered coins which are many hundreds and even thousands of years old, such as this sampling from the Garrett museum.

thrill to unearth a piece of currency that pre-dates the time Christ was on this earth. It is also interesting to note the early techniques of coin production.

The world's earliest known coins were produced in China and western Asia Minor during the 7th century BC. The first Greek coins were stamped with designs on their obverse (front) side. Various designs were hammered into the coins that began to be created throughout

the Mediterranean cities during the following centuries. The early method of coin-making involved the artisans placing a blank piece of metal between two dies. The top die was then struck with a hammer to produce an image on both sides of the metal.

The earliest known Roman coins were lumps of bronze which were eventually replaced by cast pieces of bronze. The first silver coin was the denarius, which was first struck around 211 BC and continued through the middle of the 3rd century AD. Other Roman coins were made of silver and even gold.

By the 17th century, the world's *hammered coins* were being replaced by *milled coins* fashioned by machines. Another early coining method of pouring molten metal into a cast or mold created what are known as *cast coins*. More often than not, cast coins of ancient China, Greece and Rome were made of copper or bronze, although some early cast coins were made from silver and occasionally gold.

The Spanish milled dollar was a minted silver coin worth eight reals which was first



1777 two reals (obverse)



1785 two reals (reverse)

created in 1497. The Spanish dollar became the first world currency and was accepted in the United States as legal tender through the 1850s. This milled dollar—known as a *piece of eight*—was often cut into pieces to make change. Each of the eight *bits* was worth 12.5 cents—thus the phrase “two bits” was later coined to refer to a quarter dollar.

The use of a high quality metal detector is extremely important when treasure hunting in European countries. Some of the really old hammered coins are especially thin and small in size. Such coins have often settled deep in the soil over the many centuries since they were lost.

A FINAL WORD

In closing, let me urge you to follow the treasure hunters' code of ethics. Always observe "no trespassing" signs wherever you hunt. Many natural sites represent a fragile environment that can be easily damaged or destroyed. At the close of your day's hunting please leave behind only footprints—not pull tabs, wrappers, cans or other souvenirs of our "disposable" civilization. The advice I have always given is to try to leave an area in better condition than you found it. A fellow treasure hunter may want to work the area someday. You may even want to come back yourself.

Here are a few other final thoughts I offer to coin shooters old and new:

- Study information about old coins and their value, which can be surprisingly high. If your research is thorough, you will know when you find good ones, and you can profit from them.
- A gold coin is the goal of every treasure hunter, whether he or she will admit it or not.

The key to finding one is research and hunting where gold coins might have been lost.

- It's more fun hunting with a buddy! Locate others in the hobby, perhaps through a treasure hunting club. You can learn from each other.

- Learn from your computer. Check out the Garrett web site at www.garrett.com regularly for information on new equipment and treasure hunting tips. Chat rooms and treasure forums can also be entertaining and informative.

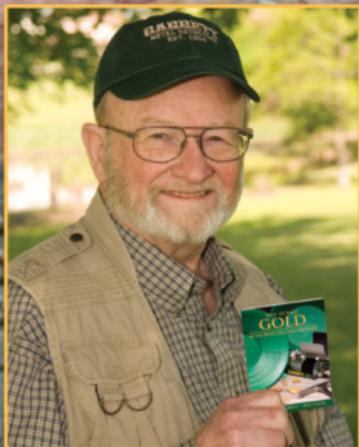
New success stories are being written every day. Use a Garrett metal detector or other high quality instrument and keep your faith in it. Have patience and continue hunting with your detector until you have mastered it, and success will surely be yours.

Good hunting and God bless. I'll see you in the field!

Charles Garrett



Ancient shipwrecks with tremendous loads of treasure are still being discovered. Old Spanish coins like these are sometimes found with metal detectors on beaches after storm surges.



A sampling of Charles Garrett's coin finds

Charles Garrett

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and author*

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