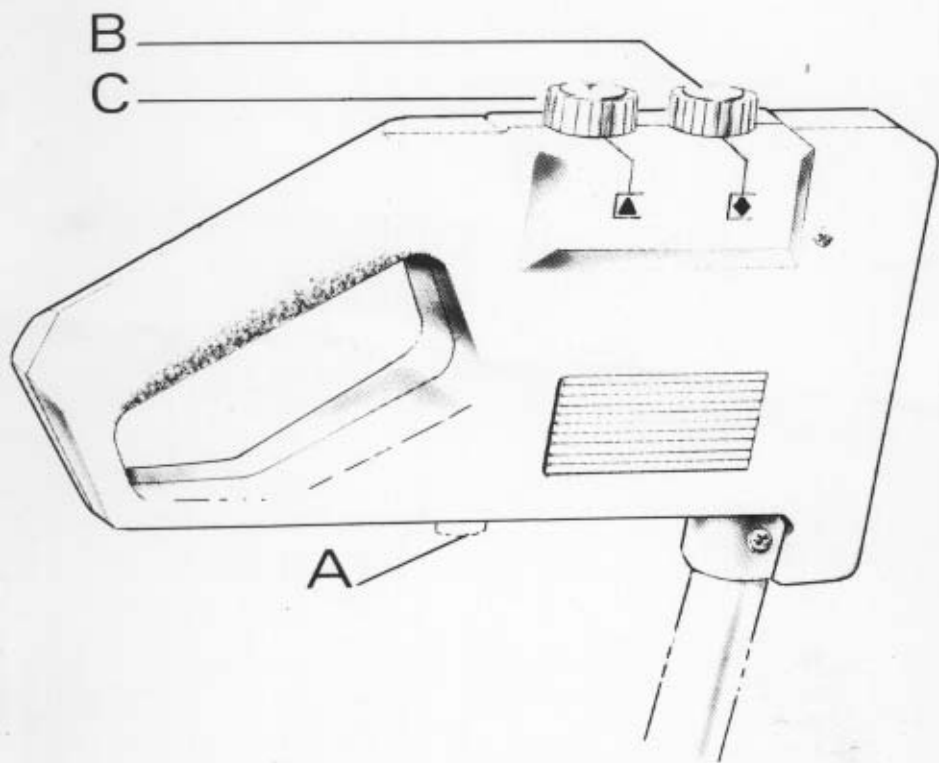


C. SCOPE



220

OPERATING INSTRUCTIONS

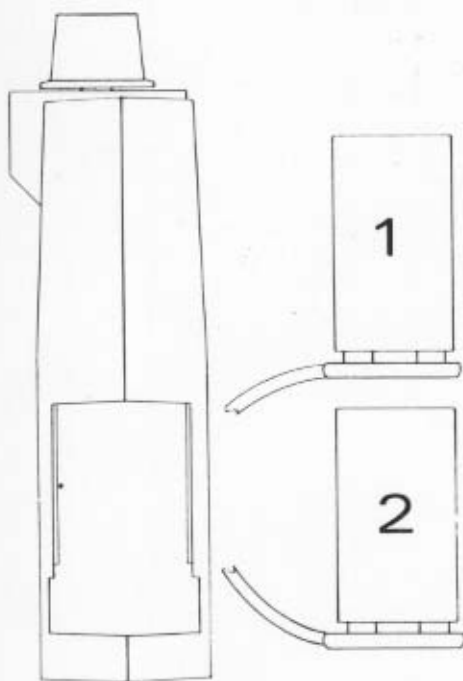
C-SCOPE 220 OPERATING INSTRUCTIONS

You are now the owner of a C-SCOPE 220 metal detector. C-Scope detectors are recognised as one of the finest metal detectors available. They are designed and manufactured to the highest standard to give you the maximum enjoyment and success. In order to obtain the best results, it is **IMPORTANT** that you read and follow these instructions.

OPERATING PROCEDURE

1. ASSEMBLY AND BATTERIES

Before testing your detector it is necessary to purchase and insert two PP3 batteries. They will last for approximately 40 hours of use depending on how long the detector is used each time and whether headphones are used. When the unit is not in use, it is **IMPORTANT** to make sure the detector is switched off, or battery drain will result. As the batteries get weaker, the volume will deteriorate. To insert batteries, remove the battery cover panel and insert the two PP3 batteries as per the diagram A.



Always insert battery 1 first with battery connection towards the bottom of the case.

DIAGRAM A

To assemble your detector simply insert the lower stem into the upper stem and select the most suitable height position for the user.

2. CONTROLS & FACILITIES

- (A) **HEADPHONE SOCKET.** Normal stereo headphones with a standard jackplug may be used, and these will improve performance.
- (B) **ON/OFF FINE TUNING Control.**
- (C) **MAIN TUNING Control.**

Before commencing an actual search, it is advisable for the user to understand the controls and their function. It is also important to test for the kind of signals the detector will give in use. The best way to do this is to tune the detector indoors by laying the detector over the edge of a table with the head hanging over the edge. Make sure there is no metal within a few feet of the head.

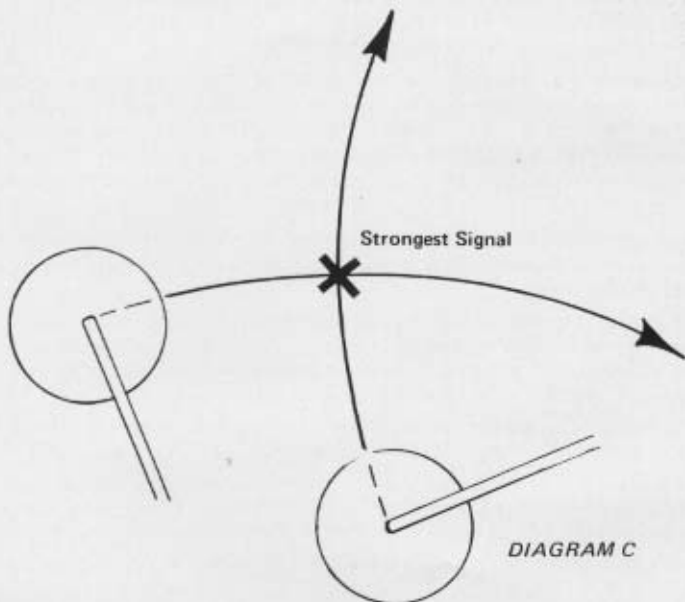
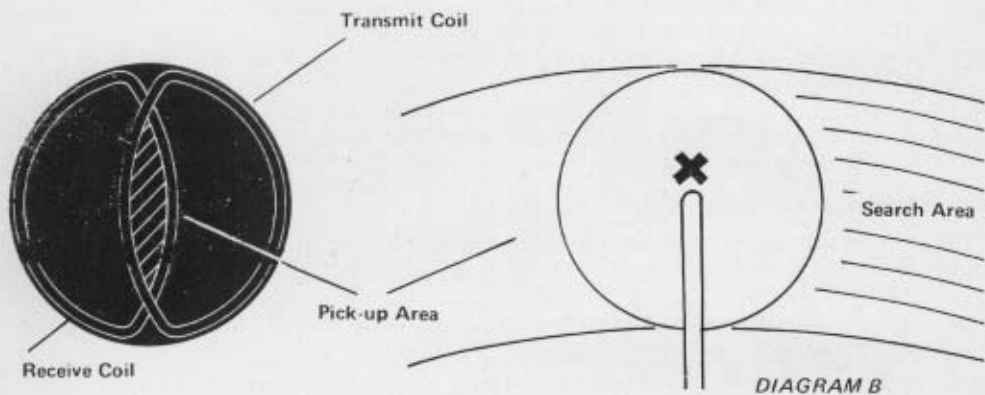
3. TUNING

The C-Scope 220 detector is designed to change its volume when the search head is passed over metal. To tune the detector, first switch the unit on at the ON/OFF switch (B). Then turn the MAIN TUNING control (C) clockwise until a tone can just be heard. Then turn this same control back until the tone just fades. The level of tuning can then be correctly set by adjusting the FINE TUNING control (B). The best setting is a level where the sound is just beginning to break through; that is where the sound can just be heard. If the detector is operated on a SILENT setting or when a tone is heard all the time, sensitivity will be lost.

4. DETECTING

To test for the type of signal you will get, take a coin or metal object and with the detector still on a table, tuned as previously described, move the metal object towards and across the search head. You will note that the volume will increase quickly as the metal object passes across the search head, with the loudest sound occurring when the search head is immediately centred over the metal object. As the object passes beyond the search head the sound will quickly fade.

Since the detector employs a Total Response search head the object can be detected across the full width, back to front, of the search head.



The strongest signal will always be received when the object is directly beneath the centre of the head (see X in diagram B.). To pinpoint the find, stop the search head when you are directly over the target object, then move the search head through 90° and sweep again, thus forming a cross with the two sweeps. The target object will be at the intersection of the two sweeps as shown in diagram C.

5. DETECTION RANGE

Detection ranges will vary depending on the size of the object, the length of time an object has been buried, and the type of ground the object is buried in. Generally speaking a small object such as a coin can be detected up to 10" deep and larger objects such as a hoard of coins or a gun or sword up to about 3'. The best ground conditions are well compacted soils and coins can be found at the greatest depths if the object has been buried for some time and the coin has interacted with the salts in the ground, thereby appearing larger to the detector. The worst conditions for detecting are on loosely compacted or freshly dug ground or when the object has only recently been buried. In these conditions detection range will be reduced.

6. DETERMINING THE TARGET SIZE AND DEPTH

An operator who is familiar with his instrument will be able to do an excellent job of determining object size, shape, and depth before he digs. This technique is learned from careful analysis of the audio signals coming from the detector. Each time a signal is heard, listen for any peculiar characteristics it may have; determine over how large an area you get a detector signal; and try to "outline" the object before you dig. Listen for the sharpness or dullness of the signals and determine the magnitude of strength of the signal.

After digging-up the object, compare the object size, shape, depth, and position in the ground with signal information you received before digging. After careful analysis of many digs, you will learn to "read" the hidden target before digging.

7. RECOMMENDATIONS FOR USE

Treasure hunting can be a profitable and a rewarding hobby, if approached in a patient and diligent manner. Time spent researching to locate a worthwhile site for a search can be time wasted if your search is hasty and erratic.

To achieve maximum results, it is important, then, to decide on your approach to each particular site, in advance of the actual search.

Tactics will be decided by the type of site — it is more profitable to scan a small area thoroughly than to conduct a haphazard search of the total site. However, when the site is too far away for you to make several return visits, a plan should be adopted which gives maximum site coverage, at the same time as indicating the most likely areas for detailed search.

One method is to divide the area into large squares by use of a 'criss-cross' search pattern. Starting along the left hand perimeter, search in a straight line, marking the location of any finds with small sticks, until you have covered the length of the site. Then, moving approximately ten feet to the right, search in a straight line parallel to the first line of search. This pattern should be repeated until the right hand perimeter is reached; then follow a similar pattern **across** the tracks of the first lines of search. (See diagram 2).

It quite often happens that where one find is made, other finds will be made in the immediate vicinity. **Accordingly, places having the highest density of markers, placed where finds were made, represent the most likely spots for further finds.**

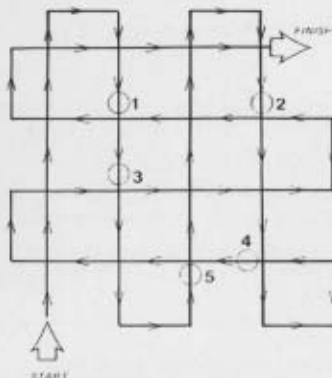
The detailed search is made by marking out strips of a width determined by the sweep of the detector, and moving forwards the approximate diameter of the search head after each sweep until the 'strip' has been completely covered. The adjacent strips are covered in a similar manner, until the complete area has been thoroughly searched. (See diagram 3).

Wooden pegs and string are ideal for marking out areas, but very often natural land marks such as trees, rocks, and plants can with practice, prove just as effective.

Whilst searching it is important to remember that the search head should be kept as close to the ground as possible. This ensures maximum depth penetration. There is a maximum detection range and a large gap between head and ground reduces the effective depth of the search. (See Diagram 4.).

Be as tidy as possible when extracting the finds from the ground. Nobody likes to see a footpath or

DIAGRAM 2



On arrival at the site a criss-cross search is made marking the positions of finds: 1, 2, 3, 4, and 5. A detailed search of the area around the finds is made on completion of the criss-cross search as in Dia. 3.

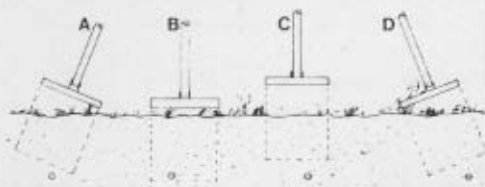
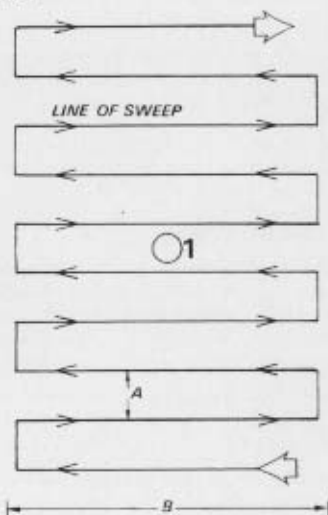


DIAGRAM 4 It is essential that the search head is kept close and parallel to the ground to avoid missing finds as in A, C, and D.

DIAGRAM 3



An area ten foot square is marked out around the find located by criss-cross search. This is then divided into strips which are carefully searched. Distance A = width of the detector's pick-up area. Distance B = length of a comfortable sweep.

field with great 'pits' left in it through careless digging — and even small holes are dangerous because people can trip and injure themselves. So, please, follow the treasure hunter's, 'Code of Conduct', see page 9.

Use a blunt trowel, or a medium-sized screwdriver to cut away the sod, and extract a core of earth from beneath this. Check that the core contains the find, before breaking it open. Avoid the use of sharp instruments (such as knives) at all times, since a scratch on a coin can reduce its value considerably.

After extracting the find, replace the soil and put back the sod as neatly as possible.

Another useful tip is to 'collect' all pieces of silver paper or junk that you come across — if you simply throw them to one side, you will probably end up detecting them again later!

8. CARE & MAINTENANCE

a) Care of your Detector

The working life of your detector will be shortened by careless use or neglect of the unit. Think of your detector as a scientific instrument — NOT A TOY. Your detector is designed to withstand rugged handling on any terrain, but mis-use or lack of due attention will tell in the end.

After using your detector in a hostile environment (salt water, sand etc.) the exterior parts of the casing should be flushed with clean water, paying particular attention to the head, and carefully wiped dry. Foreign particles in the control box can be removed by brushing carefully (or with compressed air or vacuum cleaner).

The life of the controls may be extended by periodic (100 hours of use) application of small quantities of light lubricant to the spindles, threads and knob grub screws (1"3 in 1" or similar household oil is suitable). This operation requires the knobs to be removed.

Light packing grease should be smeared on the threads of the locking collar, and at the same time, the head fixing bolt. Do not store the detector in a damp place.

If these suggestions are followed, your detector will give you many years of efficient use.

IN THE EVENT OF A FAULT

All faults or queries can be notified direct to the retailer or to C-SCOPE International Ltd, Wotton Road, Kingsnorth Industrial Estate, Ashford, Kent TN25 2LN.

If there are any problems quote the serial number on your copy of the guarantee form or inside the control box, and write to the above address or telephone ASHFORD 29181. Please state as clearly as possible the nature of the problem.

If sending the detector directly to C-Scope include an explanatory letter. Please check thoroughly with these operating instructions before sending your instrument back, particularly ensuring that the batteries are not simply run down.

IMPORTANT NOTICES

Following the guarantee period, C-Scope will correct all normal detector wear and failures at factory cost, plus shipping. A service charge of £2.50 plus shipping costs, will be made on any instrument that is sent to the factory and needs ONLY a battery. Please check your detector thoroughly with a new battery before sending it in.

C-Scope is continuously improving its products. Because of this, we reserve the right to make changes at any time. If you receive an instrument which has some feature slightly different from that shown in the brochures you have seen, or if a switch or control is relocated, etc., rest assured that this change is an improvement.

You may sell or trade your detector with the full assurance that the guarantee will remain valid until normal expiry, regardless of who owns the instrument.

A Guide to Treasure Hunting

THE IMPORTANCE OF THE RIGHT APPROACH

HOW TO LOOK

THE BEST SITES

WHERE TO LOOK

TREASURE HUNTING & THE LAW

THE RIGHTS OF THE FINDER

TREASURE TROVE

A CODE OF CONDUCT

THE IMPORTANCE OF THE RIGHT APPROACH

Your detector alone is not a guarantee of successful treasure hunting. Any detector needs an operator, and for the best results the operator needs the right approach, attitude and technique. Too many beginners neglect the importance of pre-planning and research before using their detector in the field, and patience and technique during the actual search.

A successful search should begin with research sometime before the day of the actual search. The extent and thoroughness of your research will be one of the major factors in the success of your detecting. You should aim to get as complete an understanding as possible of the local history and geography.

The key to the choice of the site is to think of people where they have congregated over the past few hundred years. What were their customs and pursuits? Where did they spend money? Where did they carry money? The answers are not Roman sites, nor are they associated with mystic treasure stories of cracks of gold. Rather, they are unassuming, undramatic places, like public footpaths and ancient rights of way, old houses and so on.

When you have chosen your site, allocate a whole day from early morning to early evening for the search. Make sure that you have all equipment you are likely to need. Your detector should be checked before starting out, and you should always carry a spare set of batteries. You will also need a strong, sharp trowel. It is also a good idea to have a set of lines and pins so that you can lay out your search area scientifically. Most beginners make the mistake of rushing about hoping to chance upon a rare find. If for example, there happened to be a valuable ring that was buried 4" deep on the site you were searching, if you rushed about haphazardly and quickly on the site, the odds would be very much against your finding it. On the other hand, if you pegged out the area scientifically and searched slowly and thoroughly, the odds of finding the ring would be much more in your favour. This example reminds me of a search made recently. In this instance a ring had been lost and the loser had only a rough idea of the location. The story was printed in TREASURE HUNTING NEWS and read as follows:-

"The recovery of lost jewellery is a subject which can play a large part in the life of professional treasure hunters, but has received very little publicity. Its importance was amply demonstrated recently when a diamond and platinum ring was recovered from a field.

Mrs. Carol Belham, who lives in Bombay, India, had returned to England for a holiday with her parents at Sturry, near Canterbury. Whilst walking in a field with some friends and her two sons, she realised that two of her rings were missing. One of the rings, unfortunately not the valuable one, was still in her younger son's hand.

For two evenings Mrs. Belham and about twenty friends searched frantically for the missing ring — platinum with a large diamond set in it, worth approximately £400. Having almost given up hope of finding the ring, Mrs. Belham reported the loss to the police. Luckily, at the police station they knew a local treasure hunter who had found lost jewellery in the Canterbury area before, and advised Mrs. Belham to contact him.

Metal detectors, when efficiently used, are capable of finding any metal object on the surface of the ground but they must be correctly used. This means carefully marking the area to be searched in lanes the width of the detector's swing with pegs and string, and then slowly and painstakingly going over the pegged-out ground.

Such painstaking work can be boring, but the boredom is often relieved by the occasional signal meaning a find, and is necessary to assist success in finding the lost object.

On the first afternoon of the search, an area of 50 sq. yds. was covered, but the only things recovered were part of an incendiary bomb from the last war, a motor cycle head lamp, a halfcrown, a three-penny piece, and odd pieces of metal.

Suddenly, the treasure hunter had a signal from his detector — the first that afternoon apart from those heralding finds of silver paper — and there, well hidden beneath a tuft of grass, was the ring.

The actual finding of the ring was a bit of an anti-climax, but Mrs. Belham's pleasure made up for it. Her husband was due to join her three days later, and she had dreaded telling him about the engagement ring.

This was a successful search for Mrs. Belham and, of course, the treasure hunters, too, got their reward. A hunter usually collects 10% of the insured value of the object recovered. If the lost object is not insured, or is found on a "no find — no reward" agreement, the percentage would be higher. Conversely, if the treasure hunter charges whether or not a find is made, the reward would be lower. It is as well to decide on payment and confirm it in writing with the client before beginning.

Jewellery recovered can prove a lucrative line for professional and amateur treasure hunters. It is a job which can only be done thoroughly with metal detectors. Witness Mrs. Belham's ring — twenty people searching for five hours did not find it; two metal detectors recovered the ring in three hours.

The points to remember when contemplating recovery work are careful planning (establish as exactly as possible where the object was lost), and thoroughly search (peg and rope out lanes). This discipline is worth bearing in mind during a normal treasure hunt. It is very tempting to cover as much ground as possible but careful planning and searching in a confined area will narrow the odds in the favour of the treasure hunter."

Remember, **BE PATIENT** and **WORK SLOWLY**. Do not try to cover too large an area. Restrict yourself to a small area and work through it thoroughly. Make a note of the position and extent of the area, and then when you return you can start again further on without missing any ground or covering the same area twice.

It is also important to keep the detector head as close to the ground as possible. Ideally, you should "iron" the ground with the search head of the detector, so that you do not lose any detection range.

Similarly, if you work slowly and carefully you should be able to distinguish the faint signals as well as the clear-cut signals and further increase your finds.

The technique of getting the best out of your detector is not learnt overnight. You need to get as much experience as possible so that you can recognise every kind of signal. Indeed, a good detector operator can often tell you what is being detected before it is unearthed.

WHERE TO LOOK

It has already been mentioned that the most profitable sites are those where people have congregated, walked, or lived over the past few hundred years, or even longer.

Houses If you live in a Victorian house you might not even have to leave your home for your treasure hunting. Old houses have seen remarkable amounts of money pass over the threshold during their history. Britain has had its fair share of misers, and it is surprising how many little hoards or boxes containing savings turn up.

One area to concentrate on is under skirting boards, where coins or rings might have rolled. Doorways too, may prove rewarding as many money transactions take place there. Old fireplaces and chimneys should be well scanned with the detector, as these are favourites for finding hoards, etc. The floorboards should be examined carefully and special attention paid to short lengths which could conceal caches. It is also surprising how much money is lost in old chairs, so give them a look over. And then of course, the garden should be thoroughly examined. The amount of coins lost in old houses cannot be over-estimated. Most coin shops confirm that many people bring coins in for valuation that they have found *accidentally* in their houses. A deliberate search in a house of the right age can hardly fail to be rewarding.

Rivers Rivers are favourites with many treasure hunters, and some idea of their potential can be gauged from a letter that was recently written to TREASURE HUNTING NEWS.

Dear Sir,

With reference to your request in the August edition of Coin Monthly, "Who are the Treasure Hunters?" you may be interested to hear of my success.

I started Treasure Hunting eighteen months ago. To date I have found approximately 1700 coins, dating from an Edward III 1361-69 half groat up to a 1971 ½p and including an Elizabeth I sixpence, George III 1ds and ½ds, a Victorian sovereign, rings, bracelets, (gold and silver), watches, pendants, lighters, cutlery, thimbles, (including an excellent hallmarked silver one), penknives, badges, brooches, keys and many other items of interest.

My favourite site for detecting is along the river banks, especially when one can locate the old towpaths.

E. R. T. Dickens, Bovington, Herts.

The best parts of rivers to concentrate on are (1) public footpaths along river banks, (2) Bends of the river where erosion has been taking place. (3) Bends in the river where coins are likely to be deposited against a particular bank by the action of the current. (4) Areas downstream of old drainage pipes or upstream of projections such as wooded piers, or other obstructions. (5) Old fords or bridges. (6) Areas exposed at low tide where eddy action has been taking place.

Tidal rivers are particularly interesting, as once you have found a good site or spot where coins have collected due to the currents, you can search the area well one day and still return at a later date for more rewarding finds. Rivers tend to sort out their load and distribute it according to weight along the bank in places like those itemised above.

Beaches Beaches are, without a doubt, the favourite haunt of the average British treasure hunter. At one time or another, almost everybody has made the journey to the coast. The beaches are the only place where people undress publicly; anyone who has attempted to change into a bathing costume discreetly and then store their coins on the open sand knows the chances of losing not only coins, but jewellery and wristwatches, too.

Once an object has been mislaid on the beach, it is maddeningly difficult to find it again.

There is also a high incidence of wrecks along our coasts, the contents of which are deposited at intervals on our beaches.

These factors contribute to make our beaches probably the richest site for the amateur treasure hunter. The best times to explore beaches are after heavy storms when the sand has been thoroughly stirred up and shifted. A good place to concentrate on is along or just below the tide marks, which are easily identified by the lines of debris that are left. Under piers or alongside breakwaters also usually pay dividends.

Other good sites are:-

- Fairgrounds
- Children's playgrounds.
- Toboggan runs,
- Demolition sites.

TREASURE HUNTING AND THE LAW

RIGHTS OF THE FINDER

The rights of the finder fall into two distinct classes. The first relates to objects that have recently been lost, and the second to items of gold or silver which are subject, or might be subject, to the laws of the Treasure Trove.

In the first place, where the object has been recently lost and found and is valuable, it should be handed to the Police as soon after it has been found as possible. The Police will then attempt to locate the owner. If they succeed in locating the owner, he has the legal right to the object and is not legally bound to reward the finder. That is a matter for the owner's conscience.

In the event of the Police failing to locate the owner they will probably return the object to the finder. If, however, the owner makes a claim for the object at a later date, the finder must return the item to the owner.

If the owner is not located the finder has the best rights to ownership, provided that the object was not found on private property, in which case the owner of the land often has a better right than the finder. The solution here, of course, is to obtain permission beforehand and to come to some agreement with the landowner with regard to the division of any finds.

If on the other hand, the find of gold or silver can be proved to have been deliberately concealed, with a view to recovery at a later date, the find comes under the laws of the Treasure Trove. If the objects cannot be proved to have been deliberately concealed, the find cannot be declared Treasure Trove. Usually this point centres around the quantity of coins in a hoard, or whether the find is in a container. Obviously, if there are a hundred or so coins in a pot, they were almost certainly deliberately concealed. If, however, there are only one or two coins, it is more likely that they were lost accidentally.

If the objects are declared Treasure Trove, the finder has no need to worry, for he is rewarded with a cash settlement to the full market value of the find.

When the objects are not declared Treasure Trove, the owner of the land on which the find was made usually has a better claim to ownership than the finder.

CODE OF CONDUCT

Without doubt, one of the most important things a treasure hunter has to realise is that he is responsible for the future of treasure hunting. Treasure hunting has been criticised partly because of the lack of care that some treasure hunters take. Every man and woman has the right to pursue his or her chosen pastime but in our overcrowded island it is obviously important to enjoy one's hobby without causing irritation or annoyance.

The most important aspect to be remembered is that one should leave a site as one found it. The biggest single mistake that people make is to dig large unsightly holes, and then forget to fill them in, in their hurry to move on to the next signal from their detector. The most successful treasure hunters move slowly and carefully and dig small holes, and they leave a site as they found it, but they also find more coins and other objects of interest. Already the rash and inconsiderate amongst the treasure hunting fraternity have caused the G.L.C. to ban detectors on London commons; and yet the keepers were once immensely helpful to treasure hunters. Unsightly and dangerous holes have been left, detracting from the beauty of the parks, and at the same time, causing a hazard to unwary walkers.

Another important point is to remember that archaeological sites are strictly taboo; treasure hunters should on no account attempt to explore scheduled sites as these, quite rightly, are the province of the archaeologist, and they should be left to these skilled men to explore in their own way. They are not only interested in metal objects. Detector activity can ruin the value of such a site. Detectors are widely used by archaeologists, but not as their main line of approach. Rather, they are a useful tool to be used in conjunction with their more traditional methods of excavation. If in the course of detecting, you discover a site that may be of archaeological interest or importance, you should contact your local museum. Similarly, if anything is found which may be of interest to your local museum, report the find to the museum as soon as possible. Remember the laws of Treasure Trove are favourable to the finder. You will find a more detailed report on these laws in the article "Treasure Hunting and the Law", see opposite page.

When you are considering detecting on private land, or property, it is obviously essential that you should ask the permission of the owner. Most people are more than willing to give permission if they know that you are a responsible person. The best way to show that you are a responsible person is to respect their ownership and ask permission, and to explain to them the reason why you wish to search their land in particular. You can suggest an agreement whereby the finds, if any, would be split.

Other considerations to bear in mind are largely a matter of common sense. Always respect the Country Code; do not leave gates open or trample crops. Help to Keep Britain Tidy and remember that those empty cans and cigarette packets will be next year's frustrating finds! Above all, remember that you are an ambassador for the whole of the amateur treasure hunting fraternity. Do not give them a bad name.

SUMMARY

1. Dig carefully and fill in all holes.
2. Do not interfere with Archaeological Sites.
3. Respect the Country Code.
4. Keep Britain Tidy.
5. Do not trespass.

C.SCOPE

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