

Resistance

by Philip W Baker

Chapter One

Giovanna Imperioli had one daughter.

When it came to choosing a name for her baby bundle of joy she pondered for a while, thought about it both logically and then rather mischievously, with a grin on her pretty face.

Giovanna, often called Gianna by her friends and family members, had never married.

That was frowned on by some of the other Italians who had also arrived through the Europe route to Ellis Island in New York Harbor.

Gianna thought it interesting that there were so many languages involved. The island was named after Samuel Ellis who was Welsh, "un gallese" as they would say in Italy. Parts of New York such as Brooklyn were derived from Dutch words, she spoke English and Italian, even picked up a few words from the native American indian tongues.

Shortly after arrival she had moved with her parents from New York City, further north, past Buffalo, to Endicott so her Papà could find steady work.

The Endicott-Johnson Shoe Company ("E-J") was a prosperous manufacturer of shoes and army boots.

The firm had factories in the "tri-city areas of Binghamton, Johnson City, and Endicott where her father found employment until retirement.

Perhaps it is not surprising that a manufacturer of army footwear attracted army personnel for research, product testing and so on. That was how Gianna met her baby's father, Henry.

Mutual attraction, fun, dancing, embraces, then she realised she was was incinta as they say in la bella Italia. Her mother told her that in France they would say "enceinte" and since French is regarded as the language of diplomacy it may be a nicer term to use in mixed company.

Henry, or Enrico as Gianna's mother liked to call him, wasn't around for long. He was posted abroad by Uncle Sam and the Imperioli family never saw him again.

Chapter Two

So, the baby's name?

Giovanna thought "My first name starts with 'Gi', Henry is a GI, which everyone knows stands for 'Government Issue'. Why not keep it simple and use those two facts.

Gigi Imperioli was as pretty as her mother. As she grew up she was slim and energetic, picked up languages quickly and had a great appetite for learning.

At school she learned about Guglielmo Marconi and his work on the development of radio.

Another large business which was founded around 1924 and had manufacturing premises at Endicott was International Business Machines (IBM) which was very involved with electrical and electronic devices.



IBM staff at Endicott in 1931

Gigi took an interest in such technical things and became aware of RadioShack, an electronics retailer, which was established in 1921 as an amateur radio mail-order business.

With little money of her own she tried to buy enough components from RadioShack to construct a crystal set. Those devices dated back to the 1920s and could be made using few parts.

The cat whisker crystal radio detector is a semiconductor used to detect radio signals. It is an old technology used in non-powered "crystal radio" sets from the first days of radio. It consists of a lead sulphide (galena) crystal and a spring-loaded wire fondly called the cat whisker.

Gigi learned that radio waves travel through air and have small amounts of energy. Information from the waves can be heard if the right type of listening device is used. The technical term for some listening devices is high impedance headphones.

A cat whisker or crystal set can collect information from the sound waves and sound can be heard through the high impedance headphones by "impeding" their progress but if low impedance headphones are used the energy may just go to ground, or to earth as some may say.

But if necessary a single earpiece can be used instead of a "pair of headphones".

Gigi got involved with these matters whilst at school in addition to being a bright scholar and able to speak several languages with good fluency. She thought of herself as polyglot or multilingual and would often look up the foreign language versions of technical and geographical terms to see if she could guess their origin.

Chapter Three

Eventually the question of career direction arose.

Gigi was born in 1919, around two years after the United States declared war on Germany in 1917.

The country in which she had been born and now resided was no stranger to war in Europe and the USA had lost about a hundred and sixteen thousand of its population during WW1.

Then the European trouble started again in the 1930s.

Gigi was an Italian American who could speak French and picked up a bit of Dutch and German from locals near where she lived.

She had once asked a man named Sid Hobbs why Italians called Germans "Tedeschi" when the Italian name for Germany was Germania.

"It's because they are Teutons", Sid had replied.

Gigi realised that some knowledge of the origin of words, etymology, was helpful in different ways and remembered someone she met named John White said he learned more about English from studying Latin than he would have done from studying English alone.

With a bit of funding from friends Gigi travelled from NY to Europe and spent a short while in Italy, saying hello to some of her parents' old acquaintances. They were, understandably, delighted to meet her especially since she understood their mother tongue and could enter long conversations.

Without going into great detail here about how it transpired, Gigi was given a place at the Sorbonne.

Her major interest was in engineering and science and Gigi started in the department which had been formed in 1808 as the Faculty of Science of the University of Paris.

Quick to catch on and able to make friends easily she was thrilled to be there learning more about the subjects she loved ... until the persecutions began. People left. People were taken away, People were shot. It was the start of World War Two.

Signorina Imperioli knew that she could be targeted if she remained in Paris. So she left and headed for more rural parts.

Neufchatel-en-Bray was a commune situated in the Seine-Maritime department of the Normandy Region in northern France. North West of the French capital it was a few hours away by train.

The location proved to be of benefit in a number of ways.

Although Gigi's stay at the Sorbonne was not long she did get involved in student discussions and listened to the rebellious talk of others.

Students are notorious for attempting to set the world right, sometimes influenced by misguided beliefs, and for centuries spies have been recruited from among student numbers.

The greatest influence on Gigi was her so-far life experience of living in the land of the free and the desire to help others who were oppressed, or at least try to do so.

Among the friends she made in Paris were students who were born and raised in France and whose homeland had been invaded by the 'Les Boche'.

She wanted to be of service to her wronged friends and enquired about the *maquis*.

Gigi knew it was called *macchia* in Italy and *machja* in Corsica. With her interest in etymology, she guessed the term probably came from dense evergreen shrubs which grows around the Mediterranean regions and can provide cover for guerilla fighters.

What could she offer?

Technical know-how, language translation, determination, energy, willingness to learn quickly. At least those things.

It has been said and written that all problems are problems of communication.

That may be a hard concept for some to grasp but when grasped it becomes clear that it is true. If a communication system breaks down it is still a problem of communication.

Resistance warfare depends on communication.

Gigi found from her resistance group contacts that coded broadcasts were sent from London, England.

Radio Londres, (French for "Radio London") was a radio station broadcast from 1940 to 1944 by the BBC in London to Nazi-occupied France. It was entirely in French and was operated by the Free French who had escaped from occupied France.

It opened its transmission with : "*Ici Londres ! Les Français parlent aux Français...*" ("This is London! The French speak to the French...")

Charles De Gaulle made such broadcasts from London.



But other messages from BBC London were coded in such simple statements as "John wants to grow a new beard"; "Sylvia almost missed the bus".

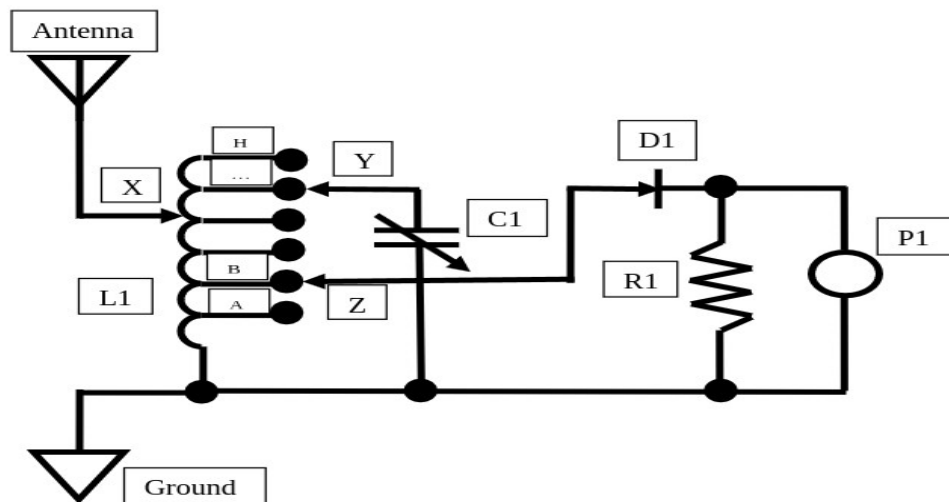
Only trained recipients would know what the statements meant.

Gigi was more interested in how the messages could be received than what the coding was.

Chapter Four

Radio receivers could be bulky and difficult to conceal. Something which could be quickly assembled from innocent looking parts would be better, provided it could pick up the signals. It may only need to be capable of incoming messages, not sending anything.

Gigi knew that early crystal sets date back to the 1920s, some to the 1930s and they were used when the first broadcast stations appeared.



Such sets were insensitive and lacked selectivity. Typically they required a long external wire antenna, and were fine if there was a local broadcast station. As the number of stations increased additional selectivity was required and superheterodyne radios were needed to provide the performance required.

But a crystal set was worth trying in occupied France. The Germans had banned crystal sets so transporting them or parts to build them was very risky.

The most difficult component to hide may be the coil. A long piece of copper wire wound around a former. Easy enough to wind a coil but concealing a very long piece of wire is not so easy.

Not exactly svelte, perhaps due to the pasta she enjoyed, but nowhere near obese, Gigi found she could passably wear the type of corset which was fashionable at the time and could be used to conceal lengths of wire.



The presence of metal was necessary in corsets just as it was necessary for belt buckles, so metal should not be any surprise to someone who decided on a body search.

Some other metal components could be disguised among clothing items and women's accessories.

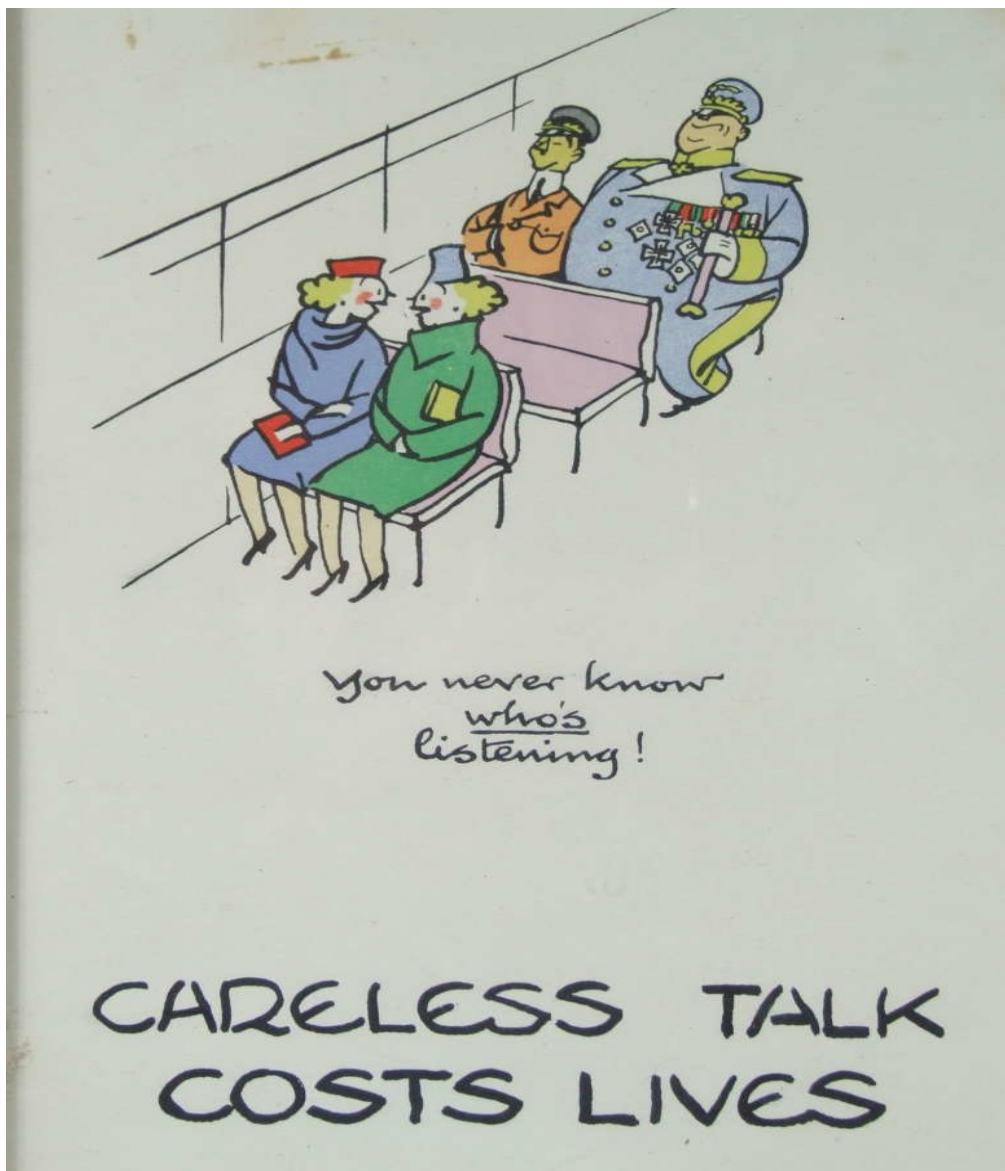


Gigi was fortunate because her skin pigmentation and native Italian language ability would serve her well if questioned by the German invaders.

The "Rome–Berlin Axis" became a military alliance in 1939 under the so-called "Pact of Steel" and her cover story could be that she was aiding the Germans during their invasion of France by assisting with language translation.

She was aware that if someone pretends not to understand a foreign language they may give themselves away by their own reaction if they hear something shocking spoken in that language. But by declaring the fact that they understand some other languages, even if only in "patoise" fashion, they may be acceptable.

She was also aware that anyone could be listening at any time and the warnings of "Careless talk cost lives" should be taken very seriously.



For good measure she ensured she knew the literal translations of the careless talk phrase in French, Italian and German.

Des propos imprudents coûtent des vies
I discorsi imprudenti costano vite umane
Unvorsichtiges Gerede kostet Leben

The furthest North Gigi travelled in France during her mission was to the area of Pourville sur Mer near the Normandy coast.

Transport to the place varied from bicycle, horse-drawn cart, car, bus, goods train, foot, according to the different legs of each journey, time of day or night, and what was available.

In town she dressed well, as one would expect of someone who was supposedly collaborating with the enemy. No point in posing as a friend of the Reich if questioned and looking like a pauper. Show some style and swagger.

That notion fitted with the smart dresses and, of course, the corsets.

Gigi loved research, preferred being dressed casually and doing reconnaissance in the countryside.

Using a crystal set successfully depended on a strong signal. Logically, to pick up broadcasts from London the closer to London the listener was the stronger the signal was likely to be. Part of the reason for travelling North.

The Germans had banned crystal sets after entering France because they knew how useful they could be to spies and resistance groups.

To be caught with a set may mean being shot as a spy, regardless of any cover story. So not being caught was top of the list.

The Normandy cliffs were about as far north as she could get to London on that part of the coast.

Among the questions arising were "Should she hide a crystal set near the coast for repeated use, carry it with her each time, assemble it from parts each time?"

A primitive crystal set needs a good aerial, a good earth, good headphones and quiet surroundings, not least because the incoming sound is very faint.

Gigi had considered finding a place near one of the German airstrips. She was certainly daring enough. But the ambient noise level would be too high and there was likely to be a confusion of radio waves which might interfere with reception, not to mention sea winds and propeller downdraughts.

How about a moored boat? A mast to run the aerial up, an anchor for the earth connection, cover in the cabin or below deck. Maybe even a galley with food.

Getting onto a boat would be very dicey and if she was discovered the only escape route would be overboard. Not such a good option!

One hard fact of undercover operations in wartime is that the operatives don't know what is going on elsewhere. Others may know but the person in the field, especially if working alone, is exactly that, alone.

Following World War One there was plenty of information about what had transpired, all with the benefit of hindsight and access to records, but the squaddie in the trench only had very local knowledge, which was grim.

Between the world wars technology had not changed much as far as radio communications went.

Gigi knew she had serendipity, the faculty for making chance finds and one morning she saw an advert in an old newspaper "The Bystander" which had been left in a magazine rack in a cafe.

"GRAND HOTEL AND CASINO POURVILLE SUR MER POURVILLE

FOR SUMMER WEEK ENDS In beautiful Normandy, only five hours from Victoria, is one of the most delightful of fashionable Continental holiday and sporting hotels - the GRAND HOTEL AND CASINO, POURVILLE.

The paper was marked Published: Wednesday 17 June 1931 in London, England

Gigi had often distinguished London England from London Ontario when she was in Endicott because that town was not too far from the Canadian border and the local North Americans did not always assume in conversation that someone meant London England.



But the advert did mean Victoria Station, London, England.

With the advert there was even an old picture from Victoria station in May 1931.



“A few years earlier that could have been me!” mused Gigi.

Chapter Five

In Pourville was a small private hotel Le Clos des Mûriers. Some referred to it as an Albergo.

As with all other hotels in the area it was occupied by Germans.

The intrepid Gigi tried a "dry run" to see how it felt to be exposed whilst posing as a language expert.

Wearing an evening dress with the corset beneath, court shoes with heels, and a lacy shawl, she entered the bar of the Albergo and asked the barman if her friend had been in because they had arranged to meet there.

The barman, Marcel was a member of the group and had been briefed. She said to him "I'll wait a while and see if she turns up!"

In a lower voice she said "If a German approaches me, when I tap my finger on the bar three times get rid of him." Marcel nodded.

The bar was quiet and it was early evening.

A high ranking German officer saw Gigi at the bar and walked over. He said good evening politely and asked what brought her there.

She explained she had been sent from Paris to do some language translation and was supposed to meet a colleague.

"What would you like to drink?" he asked.

"Mmmm, let me think." Gigi tapped her middle finger on the bar three times then ordered what she thought was the mildest cocktail available, smiled at the barman, then turned and smiled at the German and said "Danke".

Marcel served the cocktail to Gigi, a stronger drink to the German then said "excuse me a moment" and walked away from the bar.

The German said "You translate languages. Can you translate the language of love?"

"I know where this is headed" thought Gigi, not surprised.

She was well aware that some female special operations undercover agents make themselves available as part of the missions they were sent on but that was not why she was there.

She responded with "Liebesleide means Love's sorrow. Liebestraum means Love's dream".

As she said it she thought "In *your* dreams, buddy! Not my kind of undercover operation!"

He smiled at the witty answer but then the concierge walked up quickly and told the German he had a phone call from Paris.

The German nodded to Gigi and gestured to the concierge to show him to the phone.

Meanwhile, Marcel, having discreetly briefed the concierge, returned to the bar.

Gigi took a sip of water from a glass on the bar and left.

Shortly afterwards the German returned, having been told there was a mix-up, a mutual mistake. Two officers of the same rank and with the same name but in different regions had been confused by a German junior clerk in Berlin. Blame it on the Germans the group members had thought. Nobody is likely to go complaining to Herr Hitler about the inefficiency of the Berlin staff.

The bar was now attended by Clothilde, a rather serious looking middle aged woman who also was no Nazi sympathiser.

The German asked where the young woman in the evening dress went and was met with "Nobody like that when I came in, perhaps she went to the toilet, Monsieur".

"Can you go and check" said the German. Clothilde went to the cellar steps, called "Marcel bar, pronto!" and headed to the toilet.

"Nobody there" she said when she returned from la toilette. "Would you like another drink?"

Soon afterwards a rumour started that language interpreters and translators had been called to an urgent briefing because of an occurrence somewhere else in Europe. Details were vague and perhaps only the maquis group knew the rumour mill had been used to provide an unsuspecting escape for Gigi by using a thoroughly plausible explanation.

It showed how things can be achieved when a team works together, each person plays their part and the sum of the parts equals the whole.

It also supports the theory that all problems are problems of communication.

A few days later Gigi checked out the hotel mentioned in the newspaper advert.

It had many rooms with fireplaces.

There was a radiator system piped from a boiler in the depths of the basement and it could reach an acceptably comfortable temperature but some guests, especially older patrons, liked an open hearth. It was an old hotel after all and old traditions can die hard with some people.

The hotel had been taken over by the Germans and the senior officers who occupied the rooms wanted roaring fires whenever they could get them.

The hotel staff had little choice but to conform or suffer the consequences.

Coal did not seem to be a problem.

After Britain declared war on Germany the cross channel ferries stopped running. Ferries usually meant railway stations nearby and steam engines burned coal.

On the French side of the channel, or La Manche as they call it, coal supplies to the coastal railway stations continued, probably because the Germans planned an invasion of Britain and needed transport to and from the coast.

In England it had been the practice to paint piles of coal on stations such that the paint would be a tell-tale in the event of theft.

By the French coast jackbooted storm troopers checked everything that moved and guarded everything that didn't. Not much chance of coal theft there, but supplies for the benefit of generals billeted in hotels was allowed.

The Maquis group was well connected. The hotel Gigi had scouted out sent bedding and other items to a laundry in the town. Items included German uniforms which had to be returned promptly and in immaculate condition.

The laundry service was used because the washload burden was too much for the hotel's antiquated in-house system after the Germans arrived.

The resistance sent a message via the laundry service to the hotel managers suggesting the chimneys should be swept. It was a gamble which depended on a few things.

The management put the idea to the German commander in a very diplomatic way the left it with him for consideration.

To work the plan required the Germans to imagine what would happen if there were a chimney fire because of built-up soot deposits.

The managers had told their uninvited guests that there had been a plan to have the chimneys swept but the troops had arrived before it could be implemented.

The Germans didn't know when chimneys had been swept last and had not even thought about such matters. They then thought that a chimney fire could be misinterpreted by an enemy as a signal of some kind or that a firefight had broken out, or some other odd event had occurred.

Naval binoculars out on the channel could pick up smoke from a hotel chimney and the viewer would think nothing of it, but a fire might send a different message.

Keep it all normal, the Germans decided.

So it was agreed that the chimneys could be swept, one room at a time, in rotation, and the guests would change rooms accordingly.

No more than two persons to do the sweeping and the same two persons on each occasion.

The chosen chimney sweep, or 'ramoneur', was an established local trader named Yann Benet, aged around fifty, and used a rather old single cylinder 350cc Peugeot motorcycle and sidecar outfit to get around the town.

Yann had been vetted and approved by the Germans in the town and issued with a pass to work at the hotel. His young assistant was of less interest and those who did the checking didn't really want any more to do with dusty sweeps than necessary.

The Maquis would have preferred a young lad as the assistant but accepted after deep discussion that someone with intimate knowledge of radios and crystal radio receivers was the best choice.

Gigi wore baggy overalls, a hat, goggles with plain glass lenses, gloves, bulky boots, a soiled scarf around her neck, and sported plenty of soot stains.

The Germans had been told that sometimes chimney brushes became detached when pushed right through the top of old chimneys and it was then necessary to get the assistant to scramble up and retrieve the brush.

It was thanks to that rationale that Gigi was eventually able to get up on the hotel roof and secure her aerial wire.

Getting the brush to detach from the rod was fairly easy through practice before their first hotel visit. A loose brush justified getting up to the chimney pot.

What is the best wire for a crystal radio antenna?

Any type wire will do, but stranded wire works best because it won't break like solid wire does when it gets bent too much. Any size from 18 to 26 gauge works just fine; thicker is better.

At least 20 metres from the ground is preferable. But the hotel was on the cliffs anyway so altitude was not the main issue.

Once up there the aerial could collect signals which were in clear air space across La Manche. The transmitter in London emitted very strong signals. The Germans knew that, which is one reason they banned crystal sets and searched intensely for later types of radio.

It was not unusual for a chimney sweep to work on chimneys from the top, especially if the chimney pot was loose or damaged. Another consideration was bird nests and expired birds, especially near the coast where gulls were abundant.

With those matters to consider the Germans consented to the sweep checking the flue outlets from up high. That allowed the coils of rope to be brought on site in the humble sidecar

Gigi did the climbing and took a rope coil by pulling one end as she climbed a ladder provided by the hotel porter to the first roof level, then pulled up the entire rope length to a section of flat roof behind a parapet.

The soldiers on the ground glanced up occasionally but were more concerned with anyone approaching by land or sea than a sooty urchin who was working in the better interests of their senior officers. Couldn't have a loose chimney pot blow down and strike Herr General on the head, could we!

One of the advantages of twisted sisal rope is that a "thief stripe" can be worked in during manufacture. It was common practice for ship owners and others to have one or more coloured strands to identify the ropes used on board. If ropes were stolen it was sometimes possible to catch the thief by identifying the "thief stripe".

Gigi had heard from an English 'matelot' or ordinary seaman working with the Maquis that the well-tryed rule of thumb for establishing the load bearing capacity of a sisal rope was to double the square of thre circumference and call it hundredweights.

Of course that was all double Dutch to the French resistance workers. Because of the differences between English Imperial units and American units of weight, capacity and so on, Gigi had covered some of that at school in Endicott and at the Sorbonne.

She explained it to the group in overall simple terms but did the calculation in her head, thinking in British English.

One Hundredweight (abbreviated to cwt) is 112 lb avoirdupois or about 50.8 kilogrammes.

A rope of 1 inch diameter would have a circumference of about 3 inches.

The square of 3 is 9, so double that and you have 18 cwts or roughly 914.442 kilogrammes.

The rope Gigi carried was not as thick as an inch in diameter but thick enough to accommodate the aerial wire disguised as a thief stripe.

Once out of sight of the guards below she disengaged the "stripe" and commenced to attach it to the highest chimney, using folded lead clips the Maquis had concealed in the soot bags.

She used similar clips to run the wire along the lower edges of the ridge tiles and drop the end down near the ladder behind a cast iron drain pipe.

Some activity near the chimney pot justified her presence and she ensured the chimney brush stayed attached to the rods so Yann could retrieve it as he lowered the rods.

The process inside the rooms was to fix a large protective blanket screen over the front of the fireplace to prevent soot flooding the room. The sweep would pass the first rod through a hole in the blanket, insert the brush into the chimney by pushing the rod upward, then fix the blanket in place and continue pushing and fixing additional rods until the brush passed through the chimney pot.

Experienced sweeps were adept at estimating chimney heights and the number of rods required.

There would be a lot of soot so collection bags of a manageable size were needed and the soot had to be taken somewhere after removal.

The usual way was to dig a hole and bury it. Yann worked out of a small premises and had no facility for storing tons of soot removed from many chimneys.

The hotel management had agreement from the Germans that all the soot from the hotel could be buried in a wooded area near the hotel grounds. Whilst trundling the bags of soot to the woods it was inevitable that some would be spilt on the ground and that was done "accidentally on purpose" to give Yann and Gigi the excuse to clean it up.

Thus they were able to discreetly make a narrow trench under the grass and earth, run the aerial wire along the trench, then backfill it whilst cleaning any visible traces of soot.

Once in the wooded area a large hole was dug, the aerial wire run to a convenient concealed area and the hole backfilled after the soot was deposited.

One German even applauded them for doing such a tidy job.

After each chimney was swept the room was thoroughly cleaned, so each room was unoccupied for two days. It took a while to do them all and the presence of the sweeps was "business as usual" to the occupying troops.

But the aerial had been placed and nobody detected it.

The task then was to find a suitable earth connection for the crystal set. That was accomplished by inserting an earth rod in a naturally wet area of the woods and running a wire back toward the aerial. Two resistance members did that whilst the soot was being buried so any sudden fluttering of birds or noise could be explained.

The crystal set had been assembled by Gigi earlier. The copper wire for the coil was concealed in her corset and removed later.



To wind the coil she had used a toilet roll purloined from the German camp in the town.

A coil can be wound on a round former or other shape. It is the number of turns that matters most. With a toilet roll paper can be pulled off to whatever diameter is desired and makes a very convenient former.



Coils can be made around pegs or other formers if someone has the facilities. But most coils are round.

Gigi learned that some resistance workers used a bicycle for coil winding. They wrapped a piece of card around a broom handle, walking stick or other convenient circular item to make a core for the coil, joined the ends of the card with something adhesive like a postage stamp. One person then held the stick against the tyre of an upturned bicycle while someone else turned the pedals. One of them or a third helper fed the wire onto the card as it rotated. Working out the number of turns was quite simple and it could all be done very quickly for various sizes of coil.

The cat whisker and other components had been taken in the soot bags, protected by covering and surrounded by a bit of residual soot.

The Maquis knew when to tune in to broadcasts and the timing of the broadcasts set the challenge for someone to be listening at the right time and able to pass on the message.

After coded messages were received the resistance group tried to send an acknowledgement to London. That had to be done by radio and those operators had a very dangerous job.

Those that transmitted successfully used simple phrases also.

After the wires were run at the hotel and the crystal set was used for incoming broadcasts the message "Teddy Bears' Picnic" was sent to London, followed by "Having a lovely time today", telling London that someone had gone down to the woods and the plan worked.

Some continentals have never understood the English sense of humour but it served its purpose well during conflicts.

It is possible to use an aerial wire as a fuse to ignite an incendiary device on a hotel roof.

Even in strong sunlight, rain, wind, snow, ice, sub zero temperatures, even in the 1930s and 1940s materials had been developed to withstand all those atmospheric variations whilst remaining ignitable and combustible.

A fuse lit from a match or other heat source down in the woods today could burn overground, underground, up a wall, along a roof , up a chimney stack if necessary. At any time. Preferably at night!

There may yet be a fire to alert an enemy invasion force that the ground troops had secured a beachhead.

But it wouldn't be soot causing a chimney fire!

Written for Rowena by Philip Baker
November 2024

(In the hope she will forgive his low mentality and awful writing style)