

HELEN FRY

MI9

*A History of the Secret
Service for Escape and
Evasion in World War Two*

"A masterful page-turner you won't be able to put down."
ALEX KERSHAW, author of *Avenue of Spies*

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PROLOGUE

RED CARNATION



London: March 1941

Jimmy Langley crossed the foyer of London's exclusive Savoy Hotel. At a glance it was evident that he had been wounded in action. The amputation of his left arm had marked the end of his military service. For this wounded soldier, who had been taken prisoner by the Germans in France and recently escaped, there was still an important role to play in the war working for British intelligence. Langley was to attend a meeting scheduled for 12.30 p.m. He had been given clear instructions from the War Office to approach a man wearing a red carnation in his jacket buttonhole and with a folded copy of *The Times* newspaper upside down on the table in front of him. Langley approached an older man seated in a wing-back chair, a red carnation slipped through his buttonhole. His first impression was of 'a benign uncle, with white hair, blue eyes and general air of benevolence'. But this was quickly erased as the man abruptly looked him up and down and grunted: 'Hmm – F.O.L's son [Frederick Oswald Langley] and wounded. What a bit of luck.'¹

Frederick Langley had worked in espionage for this man in Switzerland in the First World War in 1917/18.² Now Jimmy Langley came face to face with his father's former boss, Claude Dansey – deputy head of MI6 – and arguably one of the most powerful characters in an organisation that officially did not exist. Dansey had a formidable reputation as a difficult and controversial figure, with an intelligence career that stretched back to the Boer War.³ He always operated by his own dictum: 'Every man has his price, and every woman is seducible.' It was said that Stewart Menzies (the new 'C', head of MI6) deferred

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to Dansey on decisions, giving Dansey the real power within MI6. Langley recalled: 'Dansey was one of those powerful men who prefer to keep their power hidden . . . What Dansey wanted done was done, and what he wanted undone was undone.'⁴

This was another war, and Dansey was given the task of overseeing covert escape lines out of Nazi-occupied Europe for MI9 – a branch of intelligence as secret as MI5 and MI6. Within MI9 few had the comprehensive knowledge to see how its influence and work extended to every corner of Europe occupied by the Third Reich. The main concern for MI6 was not to blur the demarcation lines between MI9's escape lines and its own. As Dansey worked for both MI6 and MI9, he could maintain overall control of the escape lines and enable MI6 to keep a tight rein on MI9's operations in France, the Low Countries, Denmark and the Iberian Peninsula. Dansey believed that the young man standing in front of him would serve him well in that task, but their casual chat revealed nothing as they enjoyed two dry martinis and lunch. 'Uncle Claude', as Dansey was affectionately known in close circles, preferred not to talk about clandestine matters in public. At the end of lunch, Langley was no wiser about the real purpose of their meeting. Dansey instructed him to report to Broadway Buildings near St James's Park on Monday morning.

Broadway Buildings was in fact the secret headquarters of MI6. A plaque at the main entrance indicated the offices of the Minimax Fire Extinguisher Company, but this masked its real identity. Little did Langley realise when he met Dansey that day in March 1941 that it marked the beginning of his wartime career with two branches of military intelligence – MI9 and MI6 – and his entry into the world of espionage. It was a recruitment move perhaps typical of the unorthodox methods used then by the intelligence services to take on new officers. Langley would soon become head of a new and even more secret section of MI9, known as Room 900.

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On 23 December 1939 a special meeting of the Joint Intelligence Committee was convened to discuss the fate of British servicemen in hiding in enemy-occupied countries or in prisoner of war camps.¹ Present at that meeting were the chiefs of MI5, MI6 and the Naval Intelligence Division.² It resulted in the issuing of a memo for the creation of MI9.³ The objectives for this new organisation were clear: to facilitate the escape of British prisoners of war (known as escapers) from enemy territory and the return of those who had evaded capture behind enemy lines (evaders).⁴ Within MI9's role was the collection and distribution of information to British prisoners and the denying of information to the enemy. MI9's modus operandi was divided into the following categories: preliminary training of personnel, issuing of information via a news bulletin, production and issue of escape aids (known as Q), the issue of 'Blood Chits' (to aid the helpers by promising them financial compensation) and preparation of maps and plans for escape and evasion in enemy territory.⁵

Underpinning MI9's philosophy was the belief that prisoners of war constituted one of the most valuable sources of intelligence.⁶ They would have information that could prove useful for the Allies across a broad spectrum; for example: the enemy's military strategy, new technology and secret weapons, position of troops on the ground, battle plans, U-boat tactics and warfare, and new aircraft.

MI9 was divided into two branches. MI9(a) dealt with enemy prisoners of war being held in British prisoner of war (POW) camps,⁷ and MI9(b) oversaw escape and evasion of British and Commonwealth prisoners of war from Germany and Nazi-occupied countries. By 1942, MI9 had become so large

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that it would be divided into two separate branches of military intelligence: MI9(a) became MI19 and MI9(b) remained simply MI9. The focus of this book is the history of the latter; for ease of narrative, the term MI9 will be used throughout the book.

MI9's role was clearly set out from the beginning as facilitating the escape from enemy territory of British prisoners of war and assisting the return of those who had evaded capture behind enemy lines.⁸ The organisation's task included the collection and distribution of information to British and Allied prisoners in Axis POW camps via clandestine means such as coded messages, and smuggling escape and evasion devices into the camps.

The idea of a branch of military intelligence to deal with prisoners of war was not new. A rudimentary unit called MI1(a) had existed during the First World War and was responsible for the interrogation of enemy prisoners of war for intelligence purposes and matters relating to the escape and evasion of British prisoners. Much of its work had been carried out in France and involved devising secret codes to communicate with British officers held in German POW camps.⁹ With the threat of another world war, British intelligence prepared to revive MI1(a).¹⁰ Lieutenant Colonel Gerald Templar (later Field Marshal and a veteran of the First World War) was posted to the Directorate of Military Intelligence for the establishment of the Intelligence Corps to carry out this task. He appointed Major Arthur Richard (Dick) Rawlinson, who had served in MI1(a) in France from 1917 to 1918, to restore the operation. Rawlinson understood prisoners of war from an intelligence perspective.¹¹ In 1939, he was called up to an emergency commission by the War Office and within six months was appointed Deputy Director of Military Intelligence (Prisoners of War).¹² Rawlinson had barely had opportunity to explain the basic outline of a revived MI1(a) before Templar was despatched to France with the British Expeditionary Force.¹³

Rawlinson had a ready amount of research material to draw upon from the writings of escapers from the First World War. A number of them had published their memoirs, such as E.H. Jones who had written *The Road to Endor* recounting the escape of two British POWs at Yozgad in Turkey, and Johnny Evans' *The*

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Escaping Club. These memoirs provided a basic grounding in the challenges that POWs faced when trying to escape from a prison camp, or hiding in enemy territory, and importantly the same routes out of those countries might be used again in the present war. The experiences of escape in the First World War were the closest parameters for the next generation to understand the spirit of escaping, what might be achievable and the correct mind-set, in other words the importance of believing that they really could escape. These elements could be built into an MI9 training programme for airmen and personnel prior to going into action to prepare them in case of capture.

The new MI9 originally operated from Room 424 of the Metropole Building in Northumberland Avenue, London. Its head was forty-five-year-old Brigadier Norman Crockatt of the Royal Scots, chosen because of his 'drive and initiative as a good judge of character and no respecter of red tape'.¹⁴ He was unconventional and just the kind of man to lead MI9, as described by one colleague: 'His bonnet and tartan trews, and the panache with which he wore them, enhanced the originality, almost eccentricity, of his approach to war.'¹⁵

In the First World War, Crockatt had served as an infantry officer on the frontline in France, was wounded twice during the retreat from Mons, and awarded the DSO and MC. In 1927, he left the army to become a stockbroker. With the threat of another war, he was recalled to army service in 1939. Crockatt believed that 'A fighting man remains a fighting man, whether in enemy hands or not, and his duty to continue fighting overrides everything else'.¹⁶

This philosophy defined MI9's existence and was to be at the core of what Crockatt termed 'escape-mindedness'. Crockatt was the mastermind behind pushing the idea that all personnel had a mandate to escape or evade capture. Escape-mindedness was emphasised in all MI9 training lectures before airmen and soldiers went into action. It was a practical approach because if a pilot was lost in action, he could not be quickly replaced. It cost £15,000 to train a fighter pilot, £10,000 for a bomber pilot and took up to three months.¹⁷ Britain could ill afford any reduction in the air force when it needed air supremacy over the Luftwaffe.

Crockatt knew that after capture a prisoner could feel quite desperate and demoralised. MI9 would therefore be tasked with communicating with

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prisoners in the camps to keep up their morale and encourage them to escape. Communication was achieved in a number of ways, primarily through coded messages, news bulletins, clandestine wireless contact and items hidden in objects that were smuggled into the camps. Crockatt recognised that escape and evasion may not come naturally to service personnel and they would benefit from special training before going into action. An active training programme was undertaken by MI9 throughout the war, later under the umbrella of its unit IS9 (Intelligence School 9). As directing chief of MI9, Crockatt 'attracted an immediate loyalty and devotion of all who served under him'.¹⁸ He was assisted by his personal secretary Susan Broomhall.¹⁹

On 5 January 1940, preliminary lectures on escape and evasion were given by former escaper Johnny Evans to MI9's own staff.²⁰ The first lectures to airmen were given on 19 January 1940, and quickly expanded beyond RAF personnel to include the British Expeditionary Force, Fleet Air Arm and other officer Training Units.²¹ Crockatt contacted the British Museum and asked for fifty books on escape stories of the First World War. These were despatched to his old school in Rugby where pupils were asked to summarise them and their synopses were used to create the escape and evasion training material.²² The training was practical, providing tools for a better chance of survival in enemy territory. An airman could be disorientated after baling out of a plane or after capture and not think in a security conscious way. He was advised to hide his parachute and move as far away as possible from the landing place, lie low and wait for an opportunity to find help. If injured, and with no option but to give himself up, he was advised not to surrender to SS troops, but to hide until regular German army troops moved into the area as they were more likely to treat Allied personnel better. Training included advice on how to blend into enemy territory; so, not to march in a military fashion or use a cane or walking stick because these were distinctly British customs, but to acquire a beret as an effective disguise as a Frenchman.

Rawlinson, who had a background as a professional scriptwriter, was asked to produce a training film at studios in Walton-On-Thames in Surrey. Called 'Rank, Name and Number', the film was shown to airmen and soldiers to warn them

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about ruses the Germans might employ to gain intelligence.²³ It could include befriending a prisoner by offering him whisky, or hiding microphones in the prisoners' rooms to record their conversations. A stool-pigeon could be placed in his cell – masking as another prisoner – to gain his confidence, lead the conversations in a certain direction and extract information. Ironically, these same tricks were being used by MI9 on its German prisoners of war at Trent Park.²⁴

Lieutenant H. de Bruyne interrogated returning escapers and evaders in one of the larger rooms on the second floor of the Grand Central Hotel, near Marylebone Station.²⁵ MI9 soon used female interrogators as the roles of women within MI9 began to expand beyond typing and translation work.²⁶ MI9 officers E. Hughes and M.S. Jackson were amongst a handful of women who interrogated returning escapers and evaders.²⁷ The only other women engaged as interrogators were in the Naval Intelligence team recruited by Ian Fleming and attached to MI9(a), interrogating German POWs at MI9's other sites.²⁸ They were the first and only known unit to use female interrogators in the Second World War. The use of women as interrogators underlined a principle within British intelligence of using the right person for the job, irrespective of gender in a role traditionally undertaken by men.²⁹

Q Gadgets

Although MI9 might not appear to be as well known as MI5 or MI6, it has permeated our consciousness through the ingenious gadgets and spyware in Fleming's post-war novels. Exploding pens, fast cars adapted to fire weapons, poisonous hairpins and exotic cocktails – James Bond inhabits a fictional world that continues to fascinate the public. But many of Fleming's inventions originated from MI9 to which he was connected through his role as the personal assistant to the director of Naval Intelligence and head of the section for German prisoners of war within that department. He recruited the men and women of the Naval Intelligence section who were attached to MI9.³⁰ But he was not the brains behind the wartime gadgets. For this, two men stand out in the history of MI9 for inventing imaginative ways of hiding escape aids inside ordinary

household objects. They were Christopher Clayton Hutton (affectionately known as Clutty) and Charles Fraser-Smith.³¹ The wartime escape and evasion gadgets were called 'Q'. In the films based on Fleming's novels, Q has become the endearing eccentric English inventor of spy gadgets which were often bizarre, clever yet often funny.³² It is widely believed that Charles Fraser-Smith was the inspiration behind the character of 'Q', though³³ in reality, it probably came from a combination of Clayton Hutton and Fraser-Smith.³⁴

At the outset, the challenge facing MI9 was to find a suitable character to devise ways of smuggling escape devices into prisoner of war camps. Crockatt knew that it required someone who had a creative and unconventional approach to solving problems. At this time, Christopher Clayton Hutton had answered a call for an interview in Whitehall for unspecified war work. During the First World War he had served as an officer in the Yeomanry and Yorkshire Regiment and then the Royal Flying Corps. In the inter-war years he was a broadcaster and film producer. Aged forty-five in February 1940, he arrived for an interview with Major Russell, sitting opposite him in a smoke-filled office, not knowing that Russell worked for a branch of military intelligence.³⁵

The major simply said: 'Tell me about yourself.'³⁶

The open question gave Clayton Hutton opportunity to reply in whatever way he wished. He told Russell that he had wanted a career on the stage but his mother had opposed it. He had turned to journalism, then the film industry.

'Have you always been interested in show business?' Russell asked.

'All my life,' he replied. 'Magicians, illusionists, escapologists in particular. I expect it goes back to the night I tried to outwit Houdini.'

Now he had Russell's serious attention. Harry Houdini was the famous escapologist who had not yet failed to escape from a closed box. Clayton Hutton explained how he had challenged Houdini to escape from a wooden box built on stage in front of an audience so that no interference could occur. Houdini agreed. Clayton Hutton did not realise that Houdini had visited the carpenter and bribed him to modify the box. Houdini successfully escaped.³⁷ After the show, in what appeared to be a generous gesture, Houdini had given Clayton Hutton a silver watch, but even the watch turned out to be fake.

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Clayton Hutton had been duped, but it did not lessen his fascination with Houdini or escapology.

Russell suddenly pushed back his chair, stood up and said: 'Come with me! I know just the person you should meet.'

As a result of this bizarre encounter with Houdini years earlier, Clayton Hutton found himself in front of Crockatt in the Metropole Building. Crockatt made an impression on him as being 'suave, well groomed and shrewd'.³⁸

Crockatt explained how British prisoners during the Great War had been content to stay in the camps, but this was a very different war and prisoners were now given a directive to escape, even if they had made attempts before. Crockatt explained that he needed escape devices; however the difficulty was not the supply of escape gadgets but their size. Most items were too big to smuggle into POW camps. Crockatt needed tiny escape aids that could be concealed inside ordinary everyday items, like shaving kits and tubes of toothpaste. Clayton Hutton was ready for the challenge. As the interview drew to a close, Crockatt asked him if he had any questions.

'Just one question, sir,' said Clayton Hutton. 'Have you any suggestions as to how I set about my job?'³⁹

'It's entirely up to you,' said Crockatt. 'There are no previous plans to work from and no official records . . . Put on your thinking cap, do as you like.'

Crockatt impressed upon him the need to work quietly out of sight of the Metropole Building and deliver items which MI9 could use. He had accurately assessed Clayton Hutton as being perfect for the job and, after meeting him, he commented to his colleagues: 'This officer is eccentric. He cannot be expected to comply with ordinary service discipline, but he is far too valuable for his services to be lost to this Department.'⁴⁰

Clayton Hutton arrived that day as a civilian and left as an intelligence officer. The recruitment seemed odd to him because there were no British prisoners of war in early 1940 for escape and evasion, as he reflected:

I had to provide escape gadgets for non-existent prisoners. I was expected to keep away from the concern that was employing me. I had to buy a

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uniform that I was not expected to wear. And my passport to the whole curious business had been a casual reference to my thwarted efforts to get the better of Harry Houdini.⁴¹

Clayton Hutton took his role seriously and developed ingenious and weird gadgets for MI9. He was a man of 'tempestuous brilliance' who became the centre of 'a contemporary mythology'.⁴² This was an accurate assessment of Clayton Hutton who preferred to be left alone, yet was determined that if he needed particular items, nothing would prevent him from acquiring them. As a result of this single-mindedness, he occasionally came into confrontation with bureaucracy; for example, when he needed to acquire a large quantity of an item urgently, it could take weeks for the relevant government department to authorise the funds. In these cases, Clayton Hutton used his own money and was often not compensated. Catherine Townshend, who worked for MI9, recalled:

He was a maverick. In defiance of military procedures, he seized supplies (and sought permission afterwards) for the production of tiny maps and compasses to be used by servicemen for escape if captured . . . For those already in enemy prison camps, he devised ways to send wire cutters, spades, knives, flashlights, cameras and gadgets of all kinds. His infectious enthusiasm sparked the imagination of his helpers.⁴³

The other person closely associated with Q gadgets was Charles Fraser-Smith. At the age of twenty-one, he had left England for life as a Christian missionary in Morocco where he bought land to farm. At the outbreak of war in September 1939, the Foreign Office advised him and his family to leave Morocco. They left Casablanca for England where Fraser-Smith found work for a while at the Avro aircraft factory in Leeds. His recruitment to MI9 was as unconventional as Clayton Hutton's. Fraser-Smith was delivering a sermon in church one Sunday evening and describing his recent work as a missionary. He mentioned how unorthodox and innovative methods were often required to keep various projects from collapsing. In the congregation listening to this were Ritchie

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Rice (director of the Ministry of Supply in Leeds) and Sir George Oliver (director general of the Ministry of Supply in London).⁴⁴ They saw in Fraser-Smith a mind-set that they had been looking for.

The following day, Fraser-Smith was in Rice's office where he was asked about his background and whether he would be interested in doing something special and top secret as an assistant in the Ministry of Supply. For the next three weeks whilst background security checks were made, Fraser-Smith worked on supplies of clothes and textiles. He was then asked to sign the Official Secrets Act, although he still had no understanding of what the exact nature of his secret work would be. He was instructed to report to a head office in London, near St James's Park, which had become the main supplier of secret gadgets to MI5, MI6, MI9, SOE, the SAS and Naval Intelligence Division.⁴⁵ Fraser-Smith moved into an office on the first floor, furnished sparsely with a large oak desk and three telephones: one for local calls, one for long-distance, and the third red one for priority. His job in the Ministry of Supply was 'a cover to shield far less innocent activities', he later wrote, and he took orders from MI6 and MI9 as their 'floating production and procurement man'.⁴⁶

Fraser-Smith rarely met the people behind the orders, they were just voices on the end of a telephone line, but he became the important interface to the military industrial complex, arranging manufacture, despatch and delivery of escape and evasion aids. His task was to despatch parcels to British POWs, mainly in camps in Germany. His range of procurements was vast, from shaving brushes to miniature cameras, gigli saws, compasses, radios and cigarette lighters. Popular items for escape and evasion included tiny compasses hidden in the back of buttons on uniforms or inside shaving brushes, silk maps, tissue maps hidden inside pencils, and foreign currency rolled in paper in a tube of toothpaste.⁴⁷

Sending items into the POW camps relied on organisation at the other end too. The training lectures had underlined that if captured and in a POW camp, the senior British officer was to assume command of a secret Escape Committee. That committee was responsible for authorising escape plans and directed all activity connected to it. It liaised via coded messages with MI9 to inform them what escape and evasion devices were needed in that particular camp. MI9

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despatched the devices, indicating by coded message which escape and evasion items to expect in the special parcels.

Care had to be taken not to supply items, particularly clothing for an escape, which could be betrayed by the way they were made. In Germany, the lining for clothes was sewn in a particular way, as was the stitching of buttonholes and the way buttons were sewn on a jacket. An escaper could be given away by simply having the wrong label in his shirt or buttons not sewn in the way of German manufacture. MI9 realised that German-Jewish refugees living in Britain could help such as Freddy Steiner, originally Fritz Steiner a Jew who had fled the Nazis, survived Dachau and been given refuge in England.⁴⁸ He received a visit from two plain-clothes men in the autumn of 1940 at his house in north-west London. He thought they were police officers in civilian clothes but later discovered it was a call from MI9 when, on occasional visits to the Grand Hotel in Marylebone Road, he seems to have assisted them. The men collected a number of items from him: shoes, laces, shirts, trousers, jackets – anything with German manufactured labels in them, and a German typewriter with dots and dashes on it.⁴⁹ The latter was used by MI9 to create authentic documents and was returned to the family at the end of the war. The items of clothing were taken away and replaced, so that MI9 could study how certain items were made or duplicate the labels to put in escape garments. Moreover, Steiner had been involved in menswear before his marriage in Germany and was able to show MI9 how items were made in Germany – vests, trousers, belts and shirts. Throughout the war, Steiner traded in wholesale fur in Upper Thames Street, City of London, selling furs to the military for lining for jackets and coats. He was therefore able to provide useful knowledge of the trade and relevant contacts to MI9. Steiner had a brilliant memory and could remember train timetables from his business travel in pre-war Germany. He was questioned by MI9 on German railways, routes and timetables that could be useful to escapers and a number of German trade magazines, books and encyclopaedias that he had brought to England with him were also taken for the information in them. Whether MI9 ever copied the trade magazines for evaders to read on a train in enemy territory to authenticate their appearance is not known. Today, the family still has the typewriter and a single MI9 button compass.

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Design and Despatch

Generally, it was Clayton Hutton who invented or designed escape and evasion gadgets and Fraser-Smith who procured them and despatched them. Small compasses were essential for escapers and evaders but the problem was to make them small enough to conceal. Clayton Hutton visited the unassuming shabby offices of Blunt's in Old Kent Road, behind which was a highly equipped scientific instrument laboratory with spacious workshops and around 1,000 employees.⁵⁰ He supplied them with 305 metres of trip steel (high strength steel), and within just a week it had been turned into 5,000 magnetised bars for use in miniature compasses. Blunt's experimented with making small compass cases that were as tiny as a quarter of an inch and soon succeeded in perfecting a miniature compass. Clayton Hutton was delighted with the results. It gave him the idea for the famous button compass which could be hidden inside the top button of a uniform. If the button was turned to the left, against the usual way of turning something (so it could not be discovered), the two halves separated and one part contained the compass. Clayton Hutton commented on the significance of this: 'Every soldier and every airman in future will carry his own passport to freedom on his uniform, in the shape of a compass button.'⁵¹

Operation Compass quickly expanded. Clayton Hutton developed various models and types and the tiny instruments were hidden inside a cap badge, pen, pipe or behind a button, and inside sweets.⁵² Prisoners could carry a piece of magnetised bar metal, which could be hung on a piece of thread and would swing due north. This was known as the pendulum compass.⁵³ The pipe compass was inserted into the mouthpiece of a pipe and was protected by rubber so that the pipe could still be used for smoking. Later in the war, a bar compass was placed inside a wooden pencil. The pencil had to be broken in a particular spot, indicated by a certain letter in the maker's name. Razor blades in shaving kits were magnetised and 'north' indicated by the position of the name of the maker stamped on it; this meant that every British prisoner had a makeshift compass as long as he was allowed to keep his shaving kit. Another trick was to magnetise a paperclip that could be balanced on the lead of a pencil to become a compass. The

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Royal Artillery, for example, was issued with a covert escape button and a replacement pen nib, magnetised, then dot punched at its point of balance, to allow it to be balanced on a pencil tip as an escape compass.⁵⁴ Another clever way of hiding a compass was in the hollow compartment of a fountain pen which contained a smaller cartridge of ink. This compartment could also contain a rolled up tiny tissue map. The achievements in miniature compasses were unprecedented:

Ordinary bar compasses, tunic button compasses, fly compasses, collar stud compasses, 'three-penny-bit' compasses, every conceivable kind of miniature compass, first in thousands and later in millions, came in a steadily increasing stream from the Old Kent Road factory as the war progressed.⁵⁵

During the war, MI9 was supplied with over 2 million of these essential items.⁵⁶

Other improvised gadgets for MI9 included a saw that was edged on only one side, with a hole to thread string so they could be hung inside a trouser leg and hidden. 'Gigli' saws could cut through 1-inch steel bars and be hidden inside shoelaces. It was possible to hide a 9-centimetre double-edged saw, silk map and compass inside a brush, its contents revealed by removing the centre block of bristles.⁵⁷ Many shapes of ordinary-looking hairbrushes could be adapted by having a well-designed panel that could be removed to reveal a cavity containing tiny escape items. Saws and compasses were routinely disguised in uniforms with the help of Gieves Ltd in Bond Street who made uniforms for officers of the Royal Navy.⁵⁸ If it was known that the enemy had discovered a particular escape gadget, MI9 discarded its use in the particular POW camp and sent out items concealed in different ways.

One of the most ingenious conversions was the adaptation of an RAF boot that became known as an escape boot. Concealed in a cloth loop on the boot was a small knife which an airman could use to cut away the legging to leave only black shoes, thereby converting to civilian footwear. The boots would otherwise have given him away if he was on the run or travelling in a train incognito. The heel of the boot contained silk maps, a compass and a small file. The escape boot was one of the few gadgets that had to be abandoned by MI9 because they

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were not warm enough during winter flights and became waterlogged in heavy rain.⁵⁹ Prisoners were entitled to receive new uniforms in the camps, providing another opportunity for Clayton Hutton to find ways of hiding escape items. The uniforms could also be modified such that when the lining was removed it became a civilian suit – necessary if escaping through enemy territory.

MI9 arranged for grey woollen blankets to be sent to prisoners. These could be modified before despatch by printing the complete pattern of an item of clothing onto them with invisible ink.⁶⁰ To see the pattern, a prisoner had to put certain chemicals into a bucket of warm water and then dip the blanket in it. These special chemicals were smuggled into POW camps inside jam pots or dried milk tins. Depending on the chemical used, the blanket turned from grey to dark blue, field grey or brown and could be used to make a perfect copy of a German uniform.⁶¹

No escape items were ever sent by MI9 in Red Cross food parcels because discovery would jeopardise extra commodities being sent to prisoners.⁶² A series of fictitious charities was therefore created to send parcels into the camps, including The Prisoners' Leisure House Fund, Brewers' Society of Great Britain, The Licensed Victuallers Sports Association and Welsh Provident Society.⁶³ Some parcels were genuine; others had escape and evasion devices in them. Board games were particularly useful for this: chess sets, Monopoly, Snakes and Ladders and Ludo.⁶⁴ The games could be sent into camps by the fake charities as 'innocent' leisure activities for the prisoners, but many were modified to hide Q items. A chess piece was adapted with a watertight compartment to hold special ink for forging documents and papers. A knight was the chosen chess piece for this; its head could be unscrewed in a counter-intuitive clockwise direction to reveal the ink. Dominoes could be hollowed out but this was considered too obvious to be used frequently.⁶⁵ Waddingtons, the manufacturer of games, was recruited to make special Monopoly sets with escape and evasion devices hidden inside, while maps were cleverly hidden inside their playing cards: 'The map would be made from a material impervious to water and sandwiched between the back and the pip side of the cards by water soluble glue. When dropped into a bucket of water the cards would come into three parts',⁶⁶

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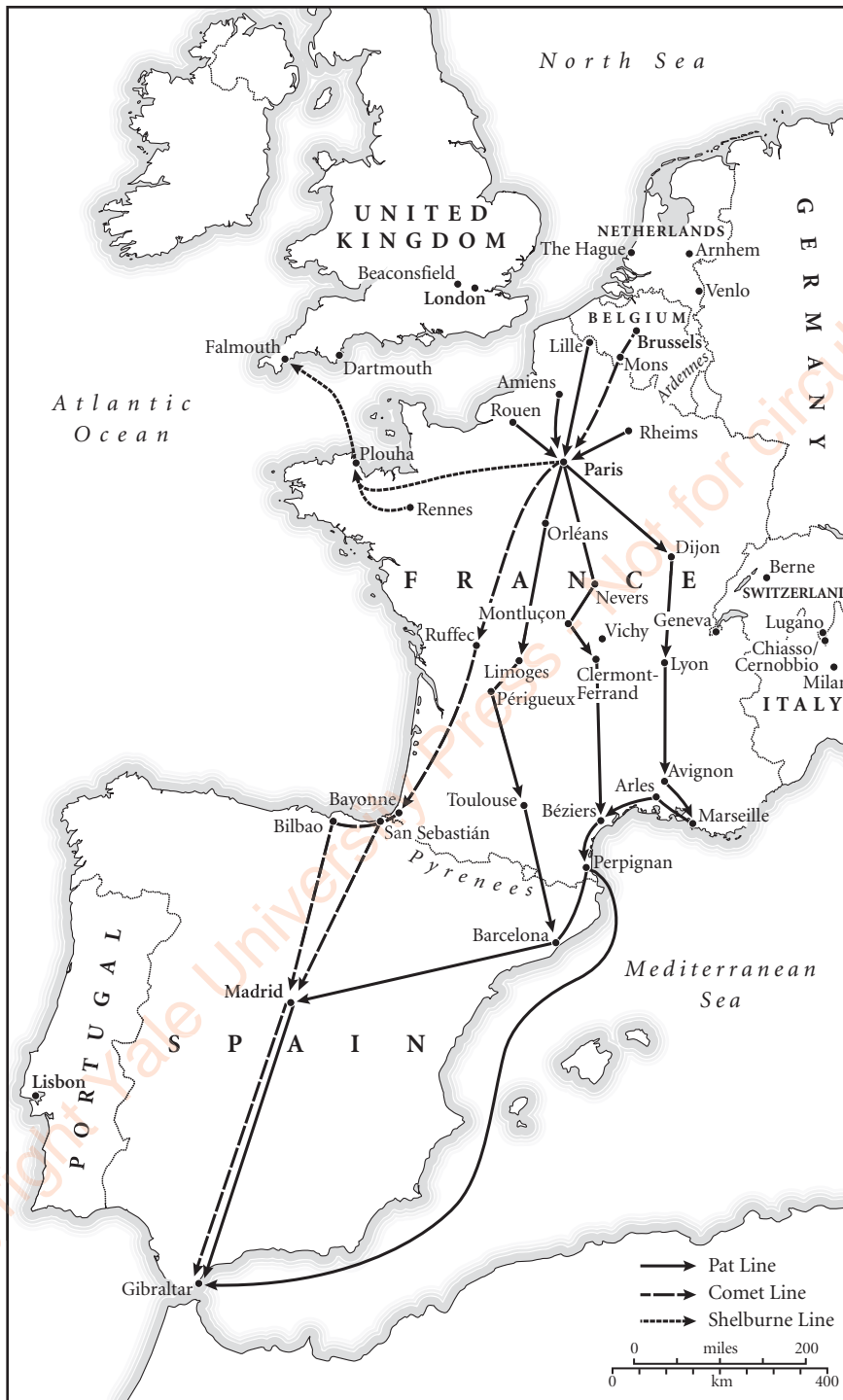
thus revealing the map. In May 1942, the Ministry of Supply ordered 224 packs of playing cards for use by MI9.⁶⁷

MI9 Maps

Maps were essential in escape and evasion. Clayton Hutton arranged to meet the Managing Director of Bartholomew's, the famous mapmakers in Edinburgh, to secure all the designs of maps needed. Bartholomew's offered these free of copyright fees, thereby saving a fortune for the War Office. The company also gave Clayton Hutton the printing plates to enable the ongoing printing of maps. Over 300,000 copies of Bartholomew's maps would be reproduced for MI9.⁶⁸

The range of different maps available to MI9 represented one of the most important escape aids of the war. It meant that wherever a prisoner was stranded in a Nazi-occupied country, or had just escaped from a POW camp, he had a better chance of crossing unknown territory to a border or a town or city where he could be hidden until smuggled out down an escape line.⁶⁹ MI9 escape maps were soon issued not only to airmen but to Special Forces and other units going into action. The difficulty was how to conceal them because the traditional paper maps rustled on movement and risked discovery by the enemy. Clayton Hutton needed to find a silent alternative and one that could be printed in small detail yet as clear as any Ordnance Survey map. His answer was to print silk maps because these would be durable and lightweight.⁷⁰ He contacted a friend in the textile world to supply the silk and also accessed it from a factory that made parachutes for the British forces.

MI9's silk maps were believed to have been printed by C.E. Layton of London.⁷¹ Initial attempts at printing with ink were a disaster. The fine lines for the roads and railways were smudged and illegible. Clayton Hutton decided to experiment by adding pectin to the ink. Pectin was a naturally occurring gelatin obtained from seaweed and various fruits, and was already used in the food industry to thicken jam. By using pectin he discovered that it was possible to print a miniature map onto silk in clear, perfect detail. The maps could be printed single or double-sided, at a scale of 1:1,000,000 on a white background.



Major escape lines in Western Europe

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Three colours were used: red for roads, green for frontiers and black for all other details.⁷² Silk maps of Italy and North Africa were printed as early as the summer of 1940 and were issued to all airmen on operational duties.⁷³

Maps could include useful intelligence on them, a prime example being an MI9 map of the port of Danzig.⁷⁴ Three versions of this map were produced with slightly different detail, showing for example where POWs could locate Swedish ships on which they could be smuggled aboard to reach neutral Sweden, or the position and extent of the arc of the port searchlights to avoid them. Maps of frontiers were especially useful: some prisoners, for example, tried to cross via the Schaffhausen Salient on the German-Swiss border where Switzerland protrudes into Germany.⁷⁵ Johnny Evans had used that crossing in the First World War and knew it could be used again. He took a holiday along the border to photograph the crossing points, noting key landmarks, and these photographs were used by MI9 to refine the escape maps. A special inset in the map of the Schaffhausen Salient indicated how to cross the border and where. Prisoners would already be familiar with Evans's photographs because they were printed in the MI9 bulletin with other relevant information. In 1942, this crossing point was used by Airey Neave, the first British officer to successfully escape from Colditz.⁷⁶

Perhaps the least known and referenced MI9 maps were the tissue maps. With the threat of a German invasion of Britain in 1940, MI9 was concerned that Britain would be blockaded and the supply of silk would be impossible, leading to a cessation of the production of MI9's silk maps. Clayton Hutton contacted a friend at the RAF Club in Piccadilly to discuss the problem.⁷⁷ His friend alerted him to the possible use of Japanese mulberry leaves to make a type of 'wood' pulp; this could be used to produce incredibly durable and resilient tissue paper. Mulberry leaves had long been used in Japan for art and interior design in homes and, in many ways, argues historian Phil Froom, the tissue maps developed by Clayton Hutton were a bigger success than the silk maps:⁷⁸

The tissue maps were gossamer thin. The new paper, if held up to the sky, was all but transparent, yet even when wet it proved to be incredibly strong. It could be soaked in water, screwed up and smoothed out to look almost

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new. A silk map the same size as a tissue map could be screwed up into the palm of a hand. But a tissue map could be folded to fit inside a gaming dice, domino or travelling chess set. The concealment value for MI9 shipping tissue maps into POW camps was invaluable.⁷⁹

Tissue maps were even concealed inside imitation sweets and small fruit like dates.

The silk and tissue maps had slightly different advantages: silk maps were an excellent pre-capture item as they were much easier to handle in the field when evading. The tissue maps were an ideal post-capture escape aid that could be hidden inside different tiny, but seemingly innocent-looking, daily items and despatched to the Escape Committee of a POW camp.

In 1942, the Ministry of Supply in Leeds procured for MI9 the printing of maps by Waddingtons who had already proved their ability to print on silk. Contact with Waddingtons on this subject appears to have been as early as 1941⁸⁰ and now the company printed the maps as well as hiding them inside board games. However, the main sources of silk – China and Japan – became inaccessible once Japan entered the war with its bombing of Pearl Harbour on 7 December 1941. The other main sources, Italy and France, were under German occupation. The man tasked with procuring silk for MI9 from 1941 was Peter William Gaddum who worked for his family's silk business in Macclesfield. He was employed by the Ministry of Supply as chief assistant to source and control supplies of silk, travelling to Baghdad, Cairo, Tehran and India to secure silk for the war effort. With silk in increasingly short supply and not guaranteed from Gaddum's travels, any stock in England needed to be prioritised for the production of parachutes. Clayton Hutton sought an alternative material and found his source after the bombing of Pearl Harbour and America's entry into the war, following which MI9 was able to acquire a new synthetic material called rayon (nylon) that had been developed and manufactured in America, and on which the maps could be printed. Over a million of these were produced for MI9.⁸¹ Barbara Bond, a former cartographer in the Ministry of Defence, commented in her study of MI9 maps that these man-made maps were 'multi-coloured and are

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layered, demonstrating a high level of technical competence in printing so many colours on fabric and maintaining the colour register . . . none appear to be printed on silk. All are irregular in size and coverage.⁸²

Maps were later produced on handkerchiefs to show escape routes and exits by land and sea.⁸³ By autumn 1942, aircrews were finding some maps too small for use and MI9 approved a series of new escape maps,⁸⁴ the printing plates being produced by the Kodak company. For the duration of the war, new designs of escape and evasion maps continued to be made. They were generally numbered and those with a prefix 43 were believed to have been made in 1943, all at a scale of 1:1,000,000 but with larger inserts at a scale between 1:250,000 to 1: 500,000.⁸⁵ These maps covered Europe from Spain to Holland and Portugal to Turkey. A new series of maps was produced for MI9 in 1943 and 1944 and in such large quantities to be issued routinely to operational personnel, especially ahead of D-Day.⁸⁶ Maps were essential for survival especially during the intense battles that would follow in Normandy after D-Day when fighting forces became trapped behind the lines, disorientated and tired from fierce fighting and probably unable to locate themselves accurately. With an escape map they could find their way back to their unit or to a safer area, hoping to be hidden.

Codes and Communication

Regular contact with the POW camps was essential for MI9's work in supporting the Escape Committee. The Geneva Convention allowed for prisoners of war to receive up to two letters and four postcards a month.⁸⁷ MI9 exploited this opportunity to the full and used code correspondence which became the principal means of communication between MI9 and the camps until radio sets could be smuggled in. Leslie Winterbottom devised secret codes and communication for MI9.⁸⁸ Prior to the war, he had been personal assistant to Gordon Selfridge, son of the founder of the London store.⁸⁹ A number of codes were eventually developed and examples of these and how they worked can be found in MI9 files.⁹⁰ The coded message was hidden inside an ordinary 'innocent'

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letter, as noted by Barbara Bond: ‘This was a distinctly alternative way of employing cipher alphabets. In essence it did not matter if the general encryption method or algorithm was known; rather it was the specific key which identified the particular encryption which needed to remain secret.’⁹¹ It was also the ‘sheer cleverness of the codes’ which were ‘strikingly impressive’.⁹² Essentially, a coded letter was identified by the date it was written.⁹³ If the date was written 22/3/42, rather than 22 March 1942, it was known to contain a coded message and MI9 knew to set to work on it. A signature at the end of the letter could also be underlined as an indication that it was coded. Even if intercepted by the Germans, the hidden message could only be read if the key was known: ‘Since each code comprised three elements, two Arabic numbers and a letter of the alphabet, there were 2,600 possible permutations. This allowed for the existence of 2,600 coded letter writers, if each was to use a unique code. By December 1941 there were already 928 coded correspondents in operation.’⁹⁴

Coded letters and cards became an important conduit for prisoners of war to request certain escape and evasion devices from MI9, which did its best to assist quickly, indicating in a return letter how POWs would recognise the parcels that were being despatched with escape aids. Winterbottom liaised with the families of British POWs, asking them to communicate occasionally with their relative in the camp to write a coded or fictitious letter for MI9. In order to recognise the letters, some personnel were trained in the use of codes before they went into action, and many prisoners undertook a considerable risk for MI9, especially in sending intelligence back in their coded messages. It is important not to underestimate their role as, if caught by the Germans, they would have been handed over to the Gestapo for espionage, whereas the penalty for a failed attempt to escape was thirty days in solitary confinement.⁹⁵

As early as the end of April 1940 – within four months of its establishment – MI9 had already distributed 405 silk maps of Germany, 404 thin paper maps, 90 magnetised razor blades and 4,968 special compass needles to the British Expeditionary Force (BEF), RAF, Bomber Command, army formations in Rome, and the Advanced Air Striking Force (AASF).⁹⁶ The following month MI9 distributed 850 silk maps of Germany, 1,048 maps of frontier regions,

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552 pencil points (magnetised), 5,160 needle compasses and 632 hacksaw blades. The continued volume of output, as listed each month in the official war diary, was surprising for an organisation that was still relatively small. But it demonstrates the foresight of MI9 to prepare Britain's fighting forces at a time when the situation in Europe was rapidly changing as the war progressed.

The story of Q gadgets and operations is one of 'breath-taking ingenuity and inventiveness engendered by necessity, initially by MI9, but the more so by the prisoners of war themselves'.⁹⁷ Although still a relatively small department of Military Intelligence in 1940, MI9 swiftly developed into a highly efficient organisation from necessity. Hitler had mobilised his armies and was heading for the occupation of Western Europe and after that, Britain was next on the invasion list.

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