### FRONTLINE SURGEON

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NEW ZEALAND MEDICAL PIONEER DOUGLAS JOLLY

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#### AUTHOR'S NOTE

Proper names are spelled in this book as in the native or local language of the people and places themselves. However, especially during the Spanish Civil War, those names were often written by speakers of other languages and accordingly spelled differently. When quoting directly from archival sources giving such variant spellings, the variants are retained.

FRONTLINE SURGEON

## 1 The Center of Gravity of the World

Crouched in a shallow foxhole, focusing each of her cameras in turn, Gerda Taro blazed with determination to record the debacle that surrounded her. Across the arid Brunete plain, Republican troops were retreating by the thousands, targeted by artillery and pursued by enemy aircraft. As each wave of heavy Heinkel bombers or smaller pursuit planes approached, Taro ducked below the shrapnel-scarred rim of the trench to take cover and could see her young Canadian companion Ted Allan mouthing terrified pleas to leave the battlefield. She ignored him and continued to juggle her compact Leica and more awkward movie camera, seeking images that might capture the despair of the men fleeing in disarray.

Early that Sunday morning in the searing midsummer of 1937, she had collected Allan, who worked with a Canadian blood transfusion service, from his Madrid hotel. She then persuaded a driver to take them twenty kilometers west of the central city, as close to the disintegrating front as he dared to go. From there they left his car and walked toward the explosions. Taro wore her battlefield outfit of khaki overalls, with a dark beret over her cropped and sunbleached hair. *La pequeña rubia*, the twenty-six-year-old "little blonde," was already well known and widely adored by Republican troops, and the much younger Allan was just one of her admirers.

The pair reached a dugout, the command post of the shaven-headed former Red Army officer General Walter. It was not his real name, but then neither was Taro's. She had been Gerta Pohorylle in her hometown of Stuttgart. As a fervent anti-Nazi in Paris in the summer of 1935, she had met Endre Friedmann, like herself Jewish, émigré, youthful, undeniably dashing, and ambitious. He was a photographer, a rising star of the Cartier-Bresson school of urgent realism, and she soon became one, too, barely surviving on the occasional magazine commission. To break into the international market, they created a joint brand name devoid of association with national or ethnic origins. For a time both sold their photos under the name "Robert Capa," until Pohorylle's growing ability and vivid personality demanded a distinct identity, one equally succinct and easily pronounced in many languages.<sup>1</sup>

The civil war that fractured Spain in late 1936, after a military coup attempted to overthrow its progressive Republican government, was an irresistible vortex for this passionately leftist couple. In a testamentary series of sparely beautiful black-and-white images, Capa and Taro recorded the exhilaration of newly enlisted Republican troops on the Aragón front, the homeless residents of bombed apartment buildings in Madrid, and an armored column paused in a pine forest in Segovia.<sup>2</sup>

In early July 1937, Capa had returned to Paris to negotiate the couple's next overseas contract, while Taro remained in Madrid, traveling to the front each day in the pitiless heat and earning the admiration even of toughened veterans like General Walter. On this Sunday, however, Taro and Allan found him gray with fatigue and anxiety—harsh, frantic, and in no mood to deal with two youthful idealists strung with cameras. Over the previous two weeks, the Republican forces had pushed their lines five kilometers into enemy territory and captured the small town of Brunete. Gen. Francisco Franco, commanding the Nationalist rebel forces, then ordered reinforcements from the north, including the latest German and Italian fighter and bomber planes. Field Marshal Wolfram von Richthofen's Condor Legion, whose pilots were still reveling in their destruction of the undefended Basque town of Guernica three months earlier, was among the crack squadrons summoned to drive the Republicans back from Brunete, Franco's maneuver succeeded. As General Walter watched the first of his shattered units stumbling back from their lines, he ordered Taro and her companion to turn back immediately. "In five minutes, this will be hell."<sup>3</sup>

Allan was eager to comply, but Taro dragged him to a small trench nearby and began filming in the shadow of enemy aircraft sweeping over them. As fast as she could reload her cameras, she captured the unprecedented spectacle of thousands of infantry and armored troops fleeing before an aerial onslaught. She ignored the bombs and machine-gun bullets landing lethally close to them and gave in to Allan's desperate pleas to withdraw only once she had shot her last roll of film. Choosing a momentary break between bombing runs, the pair scrambled onto a dusty road already strewn with corpses and wrecked vehicles, and joined the mass of dazed and demoralized men trudging toward the small village of Villanueva de la Cañada. At times, to take cover from successive formations of enemy aircraft, they plunged through head-high fields of ripe grain lining the road.<sup>4</sup>

In the village, they found a badly wounded soldier, his legs shattered. A small and battered Russian-made tank rumbled up behind them, and they managed to halt it, load the wounded man on board, and gain a dangerous perch on its fiercely hot hatch cover. The tank stopped at a first aid post where General Walter's long, black Hispano Suiza staff car, now doing duty as an ambulance, was about to carry three other wounded men to a field hospital. In an exchange of shouts, its harried driver agreed to take two extra passengers on the running boards. Taro, exulted with the results of her frenetic day's work, laid her cameras and precious cans of exposed film on the front passenger seat. She and Allan each hooked an arm around a door pillar as the car lurched back onto the cratered road.

"There was some confusion ahead of us," Allan wrote later. "A tank was approaching. It had been strafed by a Nationalist plane and was driving erratically, weaving across the road. Our car swung to the left to avoid it. 'Hold on,' Gerda laughed. The car went out of control; began to roll."<sup>5</sup> The heavy vehicle lumbered off the road and into a ditch, where it overturned, its tires gradually stilling. Allan was flung clear, crushing his leg as he landed, but Taro, lying unconscious on the roadside, was run over by another Republican tank and critically injured.<sup>6</sup>

An ambulance was somehow summoned, and the two crash victims were transferred to it. A British field hospital had been established nearby in a former seminary beside the vast sixteenth-century monastery of El Escorial. At the height of the Brunete battle, three surgeons had worked there simultaneously, but only one now remained on duty to treat casualties of the retreat—a New Zealander in his early thirties named Doug Jolly. It was early evening when Taro's mangled body was carried into the hospital's ground-floor reception room on a stretcher. She was alive, but barely. Irene Goldin, an operating theater nurse from New York, recalled that "her intestines were hanging out."

After she was given a blood transfusion, Taro regained consciousness and pleaded with Jolly to send telegrams to Capa in Paris and to the French magazine

*Ce Soir*, which commissioned their work. He promised to do this but could see that little more could be done for her, and he instructed nurse Goldin to move the young woman to a room by herself and "maintain her as well as possible without pain." Eviscerated and dying, Taro nevertheless managed to ask Goldin in English, "Are my cameras all right? They're new."<sup>7</sup>

Ted Allan was receiving treatment for his leg on another floor of the hospital when Jolly appeared at his bedside. The two men had already met several times when Allan delivered supplies of preserved blood to the hospital. The young Canadian begged to see his friend, but Jolly told him Taro was in shock and that no visits were possible at that time. Later a nurse brought a message from her, asking whether Allan had managed to save her cameras. He replied that he had not, and a second note was dropped off by Jolly relaying her reaction: "C'est la guerre."<sup>8</sup>

"Doctor Jolly was a very good surgeon," remembered Goldin, "but I don't think he was able to do anything for [Taro] except look at her, put a dressing on her and send her to us. We gave her fluid as much as we could and did all that we could to keep her alive but I doubt very much that anything could have helped her. It was one of those massive wounds that are absolutely lethal, you know. And that night, she died."

By the time he lost this courageous patient, Douglas "Doug" Jolly had been serving with Spain's Republican Army for just six months, and he had no prior experience of battlefield surgery. In that brief period, he had already dealt with so much gushing blood and perforated organs that this particular death is unlikely to have struck him as exceptional. In letters to friends in England, he acknowledged that he had become hardened to seeing patients dying on his operating table and to denying them treatment when their chances of recovery had vanished. Yet he was determined, he wrote, not to fall into the habit of regarding the endless flow of mutilated bodies simply as "cases" whose survival or otherwise might be regarded with clinical detachment.

As nurse Goldin noted, even in the few months Jolly had spent operating close to the front lines, his colleagues had come to regard the New Zealander as an outstandingly skilled surgeon and selected him to carry out the most demanding and critical operations. In addition, he had gained a reputation as a humane and dedicated medical officer, known to treat even captured enemy combatants with the same expertise and compassion he gave to injured women, children, old people, and the troops of his own side. After the Republicans' devastating defeat at Brunete, he remained in the physically and emotionally punishing role of frontline surgeon for a further eighteen months, until the Republican Army ordered all its overseas volunteers to withdraw from Spain. During those two years, he developed a breadth of clinical experience, especially in the intricate work of abdominal surgery, that would later be authoritatively assessed as unmatched in the world.<sup>10</sup>

The Spanish Civil War of 1936–39 continues to provoke a lively and seemingly insatiable interest among both academics and the wider public in many countries. Successive generations derive fresh significance from the conflict's distinctive characteristics, such as the geopolitical shock waves generated by the Spanish people's resistance to a military revolt backed by the forces of an expansionist fascism, and the scale of voluntary participation from abroad. After the attempted coup began, would-be fighters and medical workers arrived from more than fifty countries to support the Republic.

The battles fought between Spain's Republican, or pro-government, and Nationalist, or insurgent, forces constitute modern history's earliest instance of a "total war," one in which the entire population was engaged and that incurred many more civilian than combatant casualties.<sup>11</sup> The vast and ever-expanding historiography tracing the course and consequences of the war includes a number of works on the medical services developed to treat both the combatants and the civil population.<sup>12</sup> These works have established that several globally significant advances in health service organization and trauma medicine were initially developed and trialed in Spain under the chaotic conditions of wartime and of the country's own primitive health system, which reflected a society yet to fully evolve from semi-feudalism. Large Republican-held cities such as Madrid and Barcelona endured prolonged and concentrated air raids on some of their most densely populated neighborhoods. The use of high-explosive and incendiary bombs on multistory dwellings produced thousands of casualties, many with injuries that were largely new to medical science. Residents were forced to improvise strategies and structures to withstand these raids, and the underdeveloped civilian medical service was tasked with treating survivors. The local medical staff members in Republican sectors of Spain who addressed these unaccustomed challenges were eventually supported by hundreds of volunteer medical professionals arriving from other countries. Most had no previous experience of the conditions they encountered, but they generally proved dedicated, resolute, and resourceful. Faced with extreme levels of need, they responded by improvising highly innovative techniques and systems that influenced the later course of medical practice.

Of the medical advances originated or greatly developed during the Spanish Civil War, the most significant include the establishment of blood banks and the widespread use of preserved blood for transfusions. In an era shortly before the introduction of penicillin, the Republican medical services also greatly improved on earlier methods for controlling infection in traumatic orthopedic injuries. Jolly made extensive use of these developments in his field hospitals, but he is credited in particular for his contribution to a more general innovation—organizing and linking the various components of army medical services to reduce, as much as possible, the time delay between the infliction of a wound and its treatment. He played a key role in developing a system for strategically positioning each successive stage of treatment, including his own mobile field hospitals, so that injured troops could be admitted and treated within a few hours—a far shorter time span than had been achieved in all previous wars.

This unprecedented method of battlefield health provision, which Jolly named the "three-points-forward" system, evolved in stages as costly lessons were learned from successive battles in the war, including the battle of Brunete in which Gerda Taro died. Jolly energetically advocated for it at medical conferences held during the civil war, publicized it through Republican propaganda channels, and repeatedly refined it. In doing so, he drew both on the surgical training he had received in New Zealand and British public hospitals, and, just as significantly, on his nonsectarian Christian socialist principles. Since his student days at medical school in New Zealand, he had regarded his chosen profession, in accordance with biblical precepts, as a means of relieving social inequity and hardship. Later, in London in the early 1930s, those Christian imperatives were infused with Marxist ideology, and Jolly became a convinced anti-fascist.

That broad-spectrum political standpoint appeared urgently necessary in a period when countries across Europe were succumbing, one by one, to totalitarian rule. When Spain elected its left-leaning coalition government in 1936, it appeared at first a heartening exception to that dismaying tendency. However, six months after the election, the Republican government was confronted by an armed insurrection backed by the most powerful fascist forces in Europe. Both within Spain and around the world, leftists felt compelled to convert their democratic rhetoric into action. "Madrid is the centre of gravity of the world," concluded the Canadian surgeon Norman Bethune, as he made his way there in November 1936.<sup>13</sup> Capa and Taro did the same, and so did Jolly, although to the lasting cost of his later career.

The rampant Axis powers led by Adolf Hitler and Benito Mussolini regarded Spain, coldly and deliberately, as a testing ground for their newest military equipment and strategies. By contrast, the health services hastily assembled to support pro-government forces and their civilian supporters lacked resources of almost every kind apart from determination and inventiveness. Those qualities, however, ultimately proved capable of delivering a standard of medical organization and treatment that exceeded, in some respects, any achieved elsewhere to that date, including in peacetime. Even as Franco's victory appeared imminent and absolute, Jolly could take pride in the advances he and his colleagues had achieved under the worst circumstances imaginable.

When he was withdrawn from the civil war in late 1938, the vastly experienced yet still not fully qualified surgeon faced a watershed in his career. He might have chosen to embark on a prestigious and rewarding civilian practice, but he foresaw that the defeat of democracy in Spain made the prospect of a worldwide conflict against the Axis powers all but inevitable. Jolly therefore took an active part in the campaign to convince British medical authorities of the urgent need to prepare for a new and terrible form of warfare based on massive assaults from the air. He condensed his recent frontline experience into a handbook of military medicine intended to aid those army surgeons who would be treating casualties of battles similar to those Spain, before any other country, had just endured. His book was published as the Luftwaffe was raining bombs on English coastal towns and cities. Jolly then enlisted with Britain's Royal Army Medical Corps and, with customary stoic dedication, served for five years in North Africa and Italy.

After his demobilization as a decorated commissioned officer, Jolly's subsequent peacetime career in Britain was less action-packed than the decade he had spent in uniform, yet it was intriguing in other respects. While he remained highly regarded by former colleagues, and his wartime patients remembered him with profound gratitude, he retreated within the British medical establishment into obscurity to the point of invisibility, and in his country of birth, he was almost entirely forgotten. This book aims to explain and redress that remarkable historical lacuna and reestablish Jolly as a foremost medical pioneer of the twentieth century: an outstanding surgical practitioner, an internationally significant innovator in the field of trauma medicine, and a figure of exemplary courage and compassion.

Although he was a fluent writer who more than once contemplated abandoning medicine for a literary career, Jolly was a modest and unassuming character, and his many press interviews and journal articles contain only fleeting references to his own wartime and later activities. It has been necessary to supplement those sources with official records and with the recollections of his colleagues and patients. Even so, this book could not have been written without the full cooperation of Jolly's relatives in several countries. With great generosity and goodwill, they have made available his extensive personal papers, including letters, photographs, and unpublished writings, and placed no restrictions or other conditions on their use—a rare gift to a biographer.

Through the medium of one outstanding surgeon's experience, this book aims to recount the haphazard, heroic development of medical services under conditions of total war—a conflict between highly mechanized, air-dominated armies deployed across entire countries and continents and affecting all levels of the civilian population. Jolly chose to enter this conflict with no formal military experience but with a family and educational background that prepared him remarkably well for its extreme demands. In particular, his Christian socialist personal ethos, which he retained throughout his life, equipped him to endure emotional pressures that overwhelmed many of those he worked alongside. His nonaligned anti-fascist politics also guided him through the hypocrisies, internecine struggles, and subsequent disillusionments of a low, dishonest decade and enabled him to resolve the swift ethical transition from antiwar activist to noncombatant serving officer. During nine years of near-continuous service in frontline warfare, there is no record of him using, or even bearing, a weapon.

In the course of my researching and writing this book, Douglas Jolly emerged as much more than the one-dimensionally high-minded and admirable figure

that he may present at first sight. His personality and career encompassed curious contradictions that both complicated and enriched the project of recording his life. Consequently, further layers of significance were added to the project of retracing the path taken by a storekeeper's son from the remotest corner of a small and remote country to the epicenter of world events, where he made distinguished and enduring contributions to trauma medicine and thereby to the relief of human suffering.

# 2 The Storekeeper's Son

Otago University's main campus stands in the center of Dunedin, a small city in the far south of New Zealand. Running through its leafy grounds is a clear and meandering stream that occasionally delivers student anglers a sizable trout. These fish are an introduced species, transported from Europe 150 years ago. In fact, almost everything on the campus—the deciduous trees lining the stream banks, the solemn, gray stone lecture halls, the atmosphere of studious tranquillity—suggests that the university was uplifted in its entirety from nineteenth-century Scotland and faithfully re-created in the far South Pacific.

The very name "Dunedin" is a variant of Edinburgh, Scotland's capital city, which provided the model for the planned settlement on the opposite side of the world. In the late 1840s, the first shiploads of settlers, overwhelmingly Scottish and Presbyterian in origin, arrived here to "found a new Edinburgh at the antipodes that shall one day rival the old."<sup>1</sup> The streets of this raw and muddy little township, on a coast swept periodically by freezing antarctic gales, were laid out to mimic its Scottish parent city. The stream running through it was named the Water of Leith after Edinburgh's central river.

For its first decade of life, the new settlement languished, with a small and static population and flimsy wooden buildings lining unpaved tracks that became impassable after rain. Suddenly, in 1861, gold was discovered far inland in the snow-fed rivers of Central Otago, and Dunedin's fortunes were transformed instantly. Its population doubled, then doubled again within a few years. For some decades while the gold rushes lasted, the earnest, upstart little town became New Zealand's most populous and prosperous city, its industrial and commercial center, and its busiest port.<sup>2</sup>

Alluvial gold and Presbyterian rigor were both foundational to Doug Jolly's upbringing, although by the time of his birth in the first years of the twentieth

century, the fervor of the gold rushes had largely subsided, and only their economic residue remained. Dunedin's sudden wealth and national prominence proved short-lived, yet they bequeathed the little city a core of handsome stone buildings housing its most significant institutions, including the country's first medical school founded in 1875. This was closely modeled on British lines and proved a vigorous transplant. Its curriculum expanded and teaching standards steadily rose until, by the 1920s, it awarded a medical degree after six years of fulltime study, a year more than its British parent schools then considered necessary.

The young Doug Jolly entered Otago University's medical school in 1924 as a resolute nineteen-year-old with no family background in medicine but an upbringing in Otago's stoutly nonconformist values. Every evening after his studies, he would take the tree-lined path that follows the course of the Water of Leith through the town's Botanic Gardens to reach his accommodation, an imposing, red-brick hostel named Knox College after the sixteenth-century founder of the Scottish Presbyterian Church. Jolly and his brothers had also boarded here during their high school years, so for several decades at least one of Knox's sparsely furnished rooms was occupied by a member of the Jolly family.

Knox College provided an austere and socially restrictive environment for its residents, who were predominantly Presbyterian and, until 1983, exclusively male.<sup>3</sup> The head of the college, always known as the Master, was an ordained Presbyterian minister, and other formal terms—"the Beadle," "the Great Hall," "the Buttery"—were deliberately modeled on the traditions of ancient British halls of learning. Hearty outdoor recreation, particularly rugby, was encouraged.<sup>4</sup> The college's physical and spiritual center has always been its chapel, whose bare stone walls are washed with light from a large stained-glass window dedicated to former residents who lost their lives in the Great War. Attending a service here after each evening meal, and a longer one on Sunday mornings, was compulsory for all Knox residents.<sup>5</sup> In the 1950s, a large memorial plaque was installed to honor those "who served King & Country." The long columns of engraved names record twenty-seven college residents who died in the First World War, another twenty-one in the Second World War, and more than two hundred who served in those wars but survived them. In that third category, the name "DW Jolly" appears beside those of two of his brothers.

At the end of every university term, the Jolly brothers returned to their family home in the small Central Otago town of Cromwell. The trip entailed

a 150-mile train journey inland across treeless, tussock-covered uplands; Cromwell lies further from the coast than almost any other New Zealand settlement, in the foothills of the country's highest mountain range and at the junction of two swift-flowing, snow-fed rivers. In this exceptionally remote, physically inhospitable, and formerly uninhabited terrain, an instant shantytown arose in 1862 after two American prospectors sieved a quantity of alluvial gold from the icy waters. Within months, several hundred men and a few women made the arduous trek along rough trails to the diggings, flung up crude dwellings with walls of sod and roofs of calico, and pegged out claims along the banks of the Clutha and Kawarau Rivers. One of them was a lanky seaman from the Scottish port of Arbroath named David Jolly. He had arrived in Dunedin at the height of the gold rush as the first mate of a British immigrant ship and promptly abandoned that calling to take the weeklong hike inland, pausing overnight at such ruefully named way stations as Drybread and Drunken Woman Creek.

An early historian of the central Otago goldfields has written feelingly of

the solemn loneliness of its mountains; the ineffable sadness of its valleys; the utter dreariness of its plains. The weary traveller pursued his lonely way from point to point, always viewing around and before him a continuous and apparently interminable expanse of lofty hills . . . everywhere clothed in a sober livery of pale brown vegetation, relieved only by grim, grey rocks of fantastic form, sharing the desolation to which they contributed—backed by distant mountain peaks, which bounded and encompassed the horizon in every direction, piercing the blue ether, and clad in dazzling snows—an expanse diversified by no pleasant forests; devoid of animal as of human life; where the profound stillness was painful in its prolonged intensity; and the only sound that greeted the ear from dawn to dusk was the melancholy wailing of the wind among the tussocks.<sup>6</sup>

With several partners, the young ex-seaman took up a claim on the banks of the rushing, dangerous Clutha River, some miles downstream from the raw and nascent township.<sup>7</sup> Before they could extract any signs of color from the shingle bed, they were obliged to wait until subzero temperatures froze the headwaters of the river sufficiently to lower its flow. Finally, in the southern winter of June 1863, "each partner took his turn to fish for the precious metal in four feet of water with a long-handled shovel, and the wash dirt was deposited on the beach and cradled [i.e., sieved for gold dust]. The cold being very intense, fifteen minutes was the limit for each man to remain in the water. In this manner we obtained per week about two ounces, enough to keep us in food."<sup>8</sup>

David Jolly eked out a bare living in this way for several years before deciding to reinvent himself once again, this time as a storekeeper, supplying the Cromwell miners with bacon, boots, and the other essentials of their harsh existence. He proved a shrewd and popular merchant, and by 1870 his initial canvas-walled premises had grown to become a spacious, stone-built store on a prominent corner of Cromwell's muddy main street.<sup>9</sup> This building, which still stands, became one of the central institutions of a small town struggling toward respectability. Its stock grew to include wine, furnishings, and fashionable fabrics, and ladies from the neighboring town of Alexandra would make a thirteen-mile journey by horse and gig along the narrow and steep-sided Cromwell Gorge to refresh their wardrobes. The expansive, bearded proprietor was one of Cromwell's leading citizens and served several terms as its mayor. He was known for his tuneful singing voice and played an active part in local theatricals and sporting events, but his greatest enthusiasm was for the town's volunteer militia, the Cromwell Rifles, whose participants paraded resplendent in scarlet tunics and blue serge trousers, and with immense busbies for the officers. They never numbered more than sixty men, but under David Jolly's vigilant command, they developed a ferocious esprit de corps.<sup>10</sup>

Like most South Island towns, Cromwell was far removed from the battles that erupted periodically during the nineteenth century between intransigent Māori and the forces of the Crown, but in 1882 the threat of a new uprising became so acute that the Cromwell Rifles were mustered to face it. Te Whiti, a charismatic chief and pacifist prophet, had attracted thousands of followers from many tribes to his model community of Parihaka in the North Island province of Taranaki. Although his religious teachings and tactics were resolutely nonviolent, tension between the opposing parties grew fierce, and the government declared open warfare was imminent. In far-off Cromwell, the Rifles were summoned to an emergency parade and, one of them later recalled, ordered to hold themselves in readiness to go to the Taranaki front. "Then came the order, 'All those willing to go, take two paces to the front. Quick march!' We all moved forward like one man. Tears of joy ran down the cheeks of fire-eater Captain Jolly."<sup>11</sup> By the close of the nineteenth century, this bellicose but aging patriot had largely transferred control of his business to his three sons, who jointly operated outpost stores in several small mining settlements around the Central Otago plateau. None of those establishments proved as well patronized and long-lasting as the first in Cromwell, managed by the eldest son, William. He was a steady and reflective character who, in 1901, married Elizabeth Waddell, a teacher at the town's only school. She left that job to raise a family that eventually numbered seven children—a daughter followed by five sons, plus an unofficially adopted niece.<sup>12</sup> The second son, born in 1904, was named Douglas and given both his parents' surnames.

The family home must have been a cramped place in which to raise this sizable family. It was single-storied, built of local stone sealed with mud plaster, and, like its neighbors, had no electricity, town water supply, or flushing toilet. The Jollys were stalwarts of the local Presbyterian church. Doug Jolly's grandfather, father, and mother all gave their time to teach in the church's Sunday school, and the family lived by its sturdy tenets of social service, egalitarianism, and moral rectitude.<sup>13</sup> They abstained from alcohol, and even later in life, when Doug had outgrown his religious upbringing, he drank only occasionally.

The Jolly children were expected to help in the family store almost as soon as they could reach the counter, and they grew up in an aromatic atmosphere compounded of cheese "of prime quality," soaps both utilitarian and scented, tea in foil-lined chests, and three kinds of oil: "salad, castor and kerosene."<sup>14</sup> The store now served a larger and more discerning clientele, prepared to pay for spirits, straw boater hats, and phonograph records. Gold was still extracted from the town's twin rivers but now by giant steam-powered dredges whose crews could work in relative comfort. Many more locals made their living from the orchards spreading over the river flats, where the soil and climate especially favored apricots.<sup>15</sup>

All seven Jolly children received a primary education at the two-roomed, stone-walled school where their mother had taught. Awkwardly sited on a southfacing slope, it was "almost devoid of sunshine and was cool in summer and freezing in winter."<sup>16</sup> When young Doug Jolly began his first lessons there, the building was already more than thirty years old and greatly overcrowded, and its pupils were transferred to a new, larger, and sunnier school nearby in 1915.<sup>17</sup>

Soon afterward the Jollys experienced a devastating dislocation, with unknowable but profound consequences for each of them. Their quiet, goodnatured father enlisted for the Great War and embarked in October 1915 with the Otago Infantry Battalion. As a forty-five-year-old pillar of the community with a young family (the youngest son, Ralph, was just four years old), William Jolly would almost certainly have been classified as ineligible for compulsory conscription, and his decision to enlist can best be understood in the light of long service with his father's pride and joy, the Cromwell Rifles. In 1904, the year of his son Douglas's birth, William was appointed the company's commander, and in 1913 he was decorated for "long and distinguished service in the New Zealand Territorial Force," ensuring that when he entered the regular army, he did so with an officer's rank.<sup>18</sup>

In July 1916, Capt. William Jolly headed an infantry company of fellow Otago men who were mostly half his age and inclined to regard him with bemused admiration. They had been posted to the town of Armentières on the western front, considered a "nursery" sector by comparison with the Somme and other charnel houses farther south, and therefore suitable for untested troops such as these. Yet within a month of arrival, they began reinforcing their morale with nighttime raids across the two miles of barbed wire that separated their trenches from the enemy's. Night raids were highly dangerous, but the untried and eager Otago men welcomed the opportunity to take part in them. In preparation for an exceptionally large raid that aimed "to harass and mystify the enemy" and to "do him as much harm as possible," they spent a succession of warm July evenings training in the old town of Armentières under conditions of strict secrecy.<sup>19</sup> The town, however, was buzzing with spies.<sup>20</sup>

At 10:00 p.m. on 13 July, two small scouting companies moved out of their trenches to provide support for the main raiding party. They crouched in shell craters as their artillery sent over a heavy barrage to crush the wire defenses and dishearten the German troops in the trenches beyond them. At precisely midnight, another 150 men and officers led by Captain Jolly, with faces blackened and bayonets sharpened, began their dash across no-man's-land.<sup>21</sup> At the same moment, the night sky exploded with flares from the German side, exposing the Otagos to a storm of fire from machine guns and shrapnel. The raid had been anticipated by the Germans, who had withheld their counterattack until

it would prove most devastating. Calling on his long years of military training, Jolly made the snap decision to abort the raid and fired off a green flare, the signal to his men to withdraw. Soon afterward he was wounded by the hail of fire but is said to have left his stretcher to help other injured troops and later suffered a second and fatal shell wound.<sup>22</sup> The barrage continued without pause for two hours, and very few of the main raiding party were able to return to their trenches. Alex Aitken, a sergeant major with one of the flanking parties, spent the entire night crouched in a shell hole with three of his men. When they returned to their base at dawn, he found that 163 of the 180-man company were killed, wounded, or missing, and in a later memoir, he concluded that "the 4th Company might be regarded as extinguished."<sup>23</sup>

Late in his life, Doug Jolly speculated that his father may have opted to leave his family and go to war out of a sense of obligation to all the young men he had trained, first in the Cromwell Rifles and later in the New Zealand (NZ) Territorial Army. "He had 'played soldiers' with all the lads of the country district in a valley of New Zealand's Southern Alps where we lived. . . . Now that war meant killing and maiming and worse, he at the age of 46 could not bear to see them go fatherless, innocent babes to the storming of the bloody beaches of Gallipoli." Doug's mother had consented to her husband's publicspiritedness, and after his death, she felt consumed with guilt that by doing so she had deprived their children of a father.<sup>24</sup> For decades afterward, the family spent each anniversary of Captain Jolly's death in mourning.<sup>25</sup>

The British Army kept a tight lid on reports of this disastrous action, and the patriotic community of Cromwell presumably learned nothing at all of the ill-fated raid except that their punctilious storekeeper had died heroically in action. William's younger brother Lesley assumed control of the family business, and Elizabeth Jolly was left to care for seven dependent children on a war widow's pension of six pounds a week (today approximately \$US600) plus a one-eighth interest in the general store that amounted, according to her son, to no more than "pin money." She was nevertheless determined that each of her children would receive a better education than that of their parents, and all seven eventually graduated with a university degree or diploma—an extraordinary record of academic achievement for that time and place.<sup>26</sup>

At the end of 1918, young Doug graduated from Cromwell School as its "dux," or top scholar, and was chosen to ring the school bell loudly and long

for the peace celebrations on Armistice Day.<sup>27</sup> At the start of the following year, he left his high-plains hamlet for Dunedin to enroll at Otago Boys' High School, an ornament of the country's public education system. For the previous sixty years, its stone spires, gowned faculty, and solemn traditions had emulated both the English public school and the Scottish academy and produced a large proportion of the young nation's leadership.<sup>28</sup> His elder brother, Leslie, was already a pupil there, and fourteen-year-old Doug, who had inherited his father's level gaze and application to duty, thrived on the school's amalgam of a canonical curriculum, stringent discipline (the cane was readily deployed), and regard for sporting prowess. For the next five years, Doug and at least one of his brothers would board in the school's dormitories, maintain high grades in its classrooms, and distinguish its sports fields. On every holiday, they returned to a devoted mother and resumed familiar duties in the family business or took on casual work in the hayfields and orchards that now surrounded their town.

Several of the Otago Boys' High teaching staff were Great War veterans for whom the surname "Jolly" invoked immediate recognition and hushed respect. One in particular, a young mathematics teacher named Alexander Aitken, had served alongside Captain Jolly at Armentières and commanded one of the flanking units on the night of the fatefully botched raid. Aitken's formidable mathematical gifts and powers of memory made him a legend in the school. It was well known that on the sorrowful day after the July 1916 raid, he learned from his devastated company commander that their casualties could not be fully accounted for since a platoon roll book had been lost. Aitken unhesitatingly recited the names, serial numbers, and next of kin of every member of his platoon.<sup>29</sup> A mind of such capacity could not find its full expression in a school at the far end of the world, and in 1923 Aitken took up a scholarship to Edinburgh University. There he was awarded a PhD in mathematics after a barely believable two years and spent the remainder of a glittering academic career at the university.<sup>30</sup>

Doug gained creditable marks at high school, especially in science subjects, but distinguished himself chiefly as an athlete. He stood a modest five feet six inches (1.7 meters) tall but proved fast, agile, and tireless on the field. For his final three years at the school, he was the fullback of its all-conquering first fifteen rugby team, and he left as its athletics and tennis champion.<sup>31</sup> At least as formative as these achievements was his contribution to the school's military

cadet corps. In this postwar period, Otago Boys' High maintained a tradition of martial patriotism upheld by the memory of almost two hundred Old Boys who had died in the conflict overseas and by the staff who had returned from it. The cadets were commanded during Doug's time by a former student and survivor of the Somme, where the cadet had been wounded, attained the rank of major and won the Military Cross.<sup>32</sup> His zealous young troops were drilled in the use of military-style Lee-Enfield rifles, while the artillery section was equipped with a six-pounder field gun. The officers, including platoon commander Doug Jolly, were given further training at regular army base camps.<sup>33</sup>

Doug graduated in 1923, wreathed in formal tributes. In addition to his sporting triumphs, he had passed the university entrance examination with merit, was a prefect for his final two years, and won a trophy for "most efficient Regimental Sergeant-Major."<sup>34</sup> Most significantly of all for his future, he won the Gen. Harry Fulton Bursary, founded to commemorate an Old Boy who had been mortally wounded on the Somme in 1918.<sup>35</sup> Like a Rhodes scholarship in miniature, this bursary recognized both scholastic and sporting ability and was therefore among the most highly prized awards offered by the school.<sup>36</sup>

The bursary provided a sum of money toward study fees, and it must have come as a boon to the financially hard-pressed Jolly household and may have decided Doug on the expensive option of medicine as a course of study. His keen scientific mind and practical bent are also likely to have helped form this decision, but perhaps above all, he was driven by the example of his father's ultimate sacrifice for his country. Brigadier General Fulton's widow wrote from her home in London to congratulate the inaugural scholarship winner. "I am especially interested in the career of a doctor," she told Doug. "It is one of the finest professions with such wonderful possibilities for helping others."<sup>37</sup> A medical qualification offered the prospect of military service of a particularly admirable kind, although other possibilities also presented themselves. Jolly apparently considered carrying out medical mission work for New Zealand's Presbyterian Church, which at that time supported missions in China, India, and the New Hebrides (the South Pacific country later renamed Vanuatu).<sup>38</sup>

As he left his high school, Doug Jolly gave every indication that he had largely overcome the early loss of his father by applying himself with unrelenting determination to both athletic and scholastic goals. The school itself, with its solemn traditions, masculine energy, and elevated expectations of its students, supplied the male parenting he otherwise lacked. It had its own haka, the thunderous Māori war dance performed on occasions such as the interschool rugby matches in which Doug played an adroit game in the backs. This haka ends with the words "Homai te aroha, te pouri kia wete wetea, wete wetea" (Show me love, that sorrow may be released).<sup>39</sup>

## **3** Attributes Every Battle Surgeon Should Possess

The medical school Jolly entered the following year, 1924, was a prestigious faculty within Otago University and, at that time, its largest. It drew students from around the country, so he was likely to find several of his fellow boarders at Knox College studying alongside him.<sup>1</sup> Unlike the college, however, the medical school had always admitted women, and about one in eight of Jolly's fellow first-year medical students were female, a piquant novelty for a devout young man accustomed to all-male surroundings.<sup>2</sup> He very probably enjoyed their presence, but that attitude was not universally shared. Women students were excluded from many of the medical school's regular events such as the fifth-year dinner, and a Misogynists Society flourished at Knox College throughout this period.<sup>3</sup>

Otago Medical School was, by the 1920s, a pragmatically vocational institution, producing competent, broadly trained physicians for a country comprising mainly rural communities and small towns.<sup>4</sup> The relatively small number of students in each year meant that teaching staff came to know them as individuals. These aspiring doctors spent a first, or intermediate, year taking classes in general physics, chemistry, and biology; then they spent two preclinical years studying anatomy, physiology, biochemistry, and pharmacology. They were followed by two "professional" years of clinical practice, with students moving successively through the hospital departments of medicine, surgery, and obstetrics. This curriculum remained almost unchanged for the next half century.<sup>5</sup>

In parallel with the clinical work were related lectures.<sup>6</sup> Overseas visitors sometimes enlivened the lecture program, and in 1924 they included the American surgeon William Mayo, whose nonprofit clinic and research center in Minnesota was renowned for employing a wide range of specialist physicians.<sup>7</sup>

Classes were initially held in overcrowded and outdated facilities dating from the school's founding years, but a spacious new building named for the medical school's "urbane and resolute" dean, Lindo Ferguson, a graduate of Ireland's Royal College of Surgeons, opened in 1927.<sup>8</sup> Students eager to practice their theoretical knowledge on live patients may have chafed under a hidebound regimen of lectures and demonstrations, but the quality of instruction, especially in anatomy, was high, and Jolly excelled in this field. The school's professor of anatomy, Percy Gowland, had been successively a Lancashire general practitioner (GP), a ship's doctor, and a lecturer at Liverpool Medical School. By the time he began teaching at Otago, he had abandoned the established British system under which a class dissected different parts of a body at the same time, and his students all dissected the same part at once—a novel teaching approach in this period and one that proved far more effective. He also merged the teaching of histology (microscopic anatomy) with conventional anatomy, making Otago one of the first schools in the British Commonwealth to teach in this way.<sup>9</sup> According to one former student, later a professor of neurology at Harvard University, Gowland's highly functional anatomical teaching produced excellent all-purpose surgeons who later proved equally capable of treating severe injuries in peacetime or of repairing facial wounds during the Battle of Britain.<sup>10</sup>

A decade earlier many Otago medical students had volunteered to serve in the First World War at the earliest opportunity, and the war's legacy still hung heavily over the school.<sup>11</sup> Of Jolly's lecturers, a large proportion were veterans whose teaching was greatly influenced by their experiences during the war.<sup>12</sup> Doug Jolly seems to have decided early in his medical studies to become a surgeon, embarking on that masked and gowned branch of medicine that is practiced in a theater and has been described as godlike for its capability to restore patients from otherwise imminent and certain death. The term "surgeon" itself, however, derives from the archaic term "chirurgeon," from the Greek *cheir*, meaning "hand." A surgeon is therefore simply one who works with one's hands, and the storekeeper's son soon displayed a rare gift for doing so.

Otago Medical School's professor of surgery, Gordon Bell, was a New Zealander who had spent four years with Britain's Royal Army Medical Corps (RAMC), much of that time as a surgical specialist at casualty clearing stations near the front line. He received the Military Cross in 1916 for his treatment of the wounded at the Somme and left the British Army with the rank of major.

At times, during the heat of battle, he was obliged to operate for up to twentyfour hours on end and observed:

As fatigue increases the niceties of judgment and handicraft diminish, but fortunately the relatively crude surgery of war lends itself to automatic surgery. The surgeon scarcely able to stand on his feet can still patch up a lacerated intestine and save a man from inevitable peritonitis: can still excise, and open widely, deep and dark muscular wounds and ward off gas gangrene; and can still find his way to the torn artery temporarily controlled by a tourniquet....

On the credit side, battle surgery provides an immensely valuable exercise in those attributes which every surgeon should possess: prompt decision and prompt action, self-reliance from working with little assistance, and the capacity to get out of difficulties, which stems from imperturbability and resolution.<sup>13</sup>

Those experiences and impressions closely foreshadow the later career of Bell's attentive student from Cromwell.

At Otago Gordon Bell developed his department into several specialist schools, including orthopedics and anesthesia.<sup>14</sup> His assistant lecturer and tutor in surgery, Renfrew White, was yet another World War I veteran who had gained valuable experience in orthopedic surgery as a major with the RAMC in France and later treated injuries to bones, joints, nerves, and muscles at the Royal National Orthopaedic Hospital in London.<sup>15</sup> At Otago White proved a gifted teacher and a memorably colorful personality. In addition to his teaching load, Major White, as he was universally known, built a busy orthopedic practice at Dunedin's main public hospital, where his students were able to develop their experience, especially by treating wounded ex-servicemen.<sup>16</sup>

Another war veteran who had attained the rank of major was Charles Hercus, who enlisted in the New Zealand Medical Corps soon after graduating from Otago in 1914. He was sent to the disastrous invasion at Gallipoli, in the present-day Republic of Türkiye, where thousands of New Zealand, Australian, and British troops toiled in vain to capture a barely accessible stretch of steep coastline from far stronger Turkish positions. He was awarded a Distinguished Service Order (DSO) and the Most Excellent Order of the British Empire (OBE) during his wartime service. Over four years of fighting, Hercus also pursued an enthusiasm for public health. He is said to have gone ashore at Gallipoli carrying a microscope and later succeeded in controlling malaria among New Zealand troops in Palestine.<sup>17</sup> In 1921 he was appointed the professor of public health at Otago and instituted a compulsory fifth-year course of study in preventive medicine and public health. His students undertook a research project of their own choosing, carrying out the main investigation over the summer vacation at the end of their fourth-year studies. They then submitted the results as a dissertation. Hundreds of them are still held by the university, although Jolly's, regrettably, does not appear to have survived.<sup>18</sup>

Hercus was a sterling compound of soldier and scientist, and perhaps no one in the country better understood the specialist training required of armed forces medical officers. In 1927, several years after he joined the medical school's teaching staff, the New Zealand Defence Force appointed him assistant director of medical services for the army's Southern Command. In that role, he began to revitalize a university institution that had long fallen out of favor. In 1909, just a year after the first Officers' Training Corps was set up in Britain, a similar corps, consisting of an infantry company and the Otago University Medical Company (OUMC), was established in Dunedin.<sup>19</sup> The young Charles Hercus served as a corporal in the OUMC, which trained a large majority of the medical and dental officers who served overseas during World War I. The carnage and bungling leadership of that war, however, generated disdain for martial matters among the student body for the next decade until Hercus was called upon to reform this once-hallowed training unit.<sup>20</sup> Subsequently, the OUMC's training took place mainly during a fortnight-long annual camp before the start of the autumn term and was held in an isolated rural area such as Waitati on the Otago coast. Basic military training was combined with instruction in medical and dental military requirements, including lectures on hygiene, sanitation, and field ambulance work.<sup>21</sup> Certificates and trophies were keenly competed for, and Jolly's high school Officers' Training Corps experience and family background must have provided him with a distinct advantage. He is likely to have found the summer military camp an invigorating change from arduous study.<sup>22</sup>

This natural athlete also maintained at least some of the sporting activities at which he had excelled in high school. He played for the university rugby team, turning out for practice on frosty winter mornings, and in his final year was selected for a combined New Zealand Universities team to challenge the Australian Universities team in Auckland. However, another feature of extracurricular university life proved more important to his future than any other. The Student Christian Movement (SCM) had been active on all the country's university campuses since the late nineteenth century, although Otago was always its stronghold. Nonsectarian but mostly Protestant, the SCM encouraged active engagement with the world beyond the university gates and, in the late 1920s, raised money for causes such as the Austrian (later European) Student Relief Fund, the unemployed, earthquake victims, and crippled children.<sup>23</sup> This boldly progressive organization transformed the social outlook of the unsophisticated medical student from an isolated community and a devout and conservative upbringing, and his early ambition to become a medical missionary quickly evaporated. Jolly's unexamined and inward-looking Presbyterianism gave way to an ecumenical, internationalist, and non-doctrinal practice of Christian socialism that remained the lodestone for his life.

Both at Otago and nationally, the SCM surged in numbers and influence after a new general secretary arrived from Europe in late 1925. Rev. Donald Grant was a dynamic leader of manifest sincerity, with traces of his Highland Scots upbringing in his accent. He and his similarly magnetic wife, Irene (her name was pronounced as three syllables: I-reen-ee), and their two children came to Dunedin from Geneva. There Reverend Grant had founded the Austrian Student Relief Fund and spent five years carrying out relief work among "distressed and destitute" students in Europe. Those experiences were reported in stirring terms in Dunedin's daily paper. In famine-struck Russia in 1922, Grant said, "I have seen scores of people in one street after another lying sick with disease and starving and ultimately dying there. . . . I was in one agricultural village where they used to have 117 horses. When I was there, there were seven and the men were pulling the ploughs." He had helped students in Germany to found a self-help organization that ran its own "butchers and dining rooms, loan banks for students, boot and shoe factories and repair shops, laundries.... The fact that students are working with their hands alongside ordinary workers and labourers means that they understand in a way never before possible the conditions and the outlook of the ordinary man."<sup>24</sup>

Those words sound more like those of a socialist orator than a preacher, and Grant made no apology for favoring political action over piety. He had spent the final months of World War I in Dartmoor Prison as a conscientious objector, and his religious training was thereafter directed toward international relations in the interests of world peace.<sup>25</sup> "Loyalty to Jesus Christ," he wrote in the SCM's magazine, "has nothing much to do with words, statements, creeds or confessions: but it has everything to do with our character, our spirit, our attitudes, our standards."<sup>26</sup> This unusual and inspiring figure swiftly revived New Zealand's lackluster SCM, traveling the country to visit each of its campuses and breathing "fresh confidence and resolution into jaded spirits . . . the history of the Movement during the next four years is embodied in the person of its general secretary who was to inspire a veritable renaissance among young students."<sup>27</sup> Grant's charismatic leadership soon drew large numbers of students previously uninterested in the SCM into its ranks. He interpreted Christian faith and ethics in the form of practical service to society and placed special emphasis on the importance of an awareness of international issues.

Reverend Grant also served as Otago University's chaplain, encouraging its student body and numbers of academic staff and local political leaders to share an uplifting version of Christian socialism that incorporated Marxist, pacifist, and unorthodox economic ideas.<sup>28</sup> One of those so inspired was Professor Horace Belshaw, perhaps the country's leading economist of that period, who was moved to describe the Christian ethic as "the same as the ideal of communism. . . . Christianity does not, in my opinion, justify itself unless it recognises that the improvement of welfare in general on this earth should be its main objective."<sup>29</sup> These heady opinions were freely offered around the Grants' hospitable dinner table, along with companionship and counsel for any Otago students who happened to call. The young Doug Jolly became a regular visitor and eventually a surrogate member of the family. His close and consequential friendship with the Grants would last for all their lifetimes.

During his fourth and fifth years of study, Jolly and his fellow medical students began to combine the theoretical instruction delivered through lectures and demonstrations with practical skills acquired from dissection and bedside clinical teaching in Dunedin hospitals.<sup>30</sup> Space, staff, and laboratories remained in short supply, and the hospital wards therefore served as clinical workshops.<sup>31</sup> Despite these limitations, the students developed a working familiarity with the principles of surgery and medicine, including an introduction to anesthetics, radiology, and what were then called "mental diseases." The most evident shortfall in their training was in the field of obstetrics and gynecology, where the teaching was described as "chaotic and outdated."<sup>32</sup> Since most women still gave birth at home under the care of midwives in this period, opportunities for practical obstetrics were limited.

The sixth and final year was devoted entirely to clinical work, and a shortage of patients in Dunedin sent many students to work in the central hospitals of other major New Zealand cities.<sup>33</sup> Some found this period the most rewarding of their training. Jolly's contemporary, Russell Chisholm, later a distinguished neuropath, was among six students who spent their final year at Auckland Hospital, where, he said, "we educated ourselves."<sup>34</sup> Jolly appears to have spent part of his final year's training in the small North Island city of Palmerston North. His marks had improved year by year, especially in surgery at which he evidently excelled. He graduated in December 1929, fifth in his class of thirty-seven.

His sense of satisfaction at this achievement may have been muted by the departure from New Zealand earlier that year of the Grant family, now numbering five after the birth of a third child, a boy named after his father. Four years after their arrival in Dunedin, the family returned to Europe so that Reverend Grant could take the post of secretary of the International Fellowship of Reconciliation, an international anti-war body based in Vienna.<sup>35</sup> Jolly likely remained in touch with the family by mail as he gained further clinical experience toward his joint degrees in medicine and surgery.

For three years after graduating, this newly qualified doctor worked in short-term public hospital postings around the country, at first in central Otago, including in his hometown of Cromwell. There his family name remained prominent since two of his uncles had served as mayor, with Ernest Jolly governing during World War I and David Jolly in the 1920s. In this way, and through their continued ownership and operation of the family store, the Jolly family remained leading members of the small and isolated community.

The early 1930s saw intense political pressure for change in the New Zealand health service, as people began seeking inpatient treatment for conditions such as appendicitis that were formerly treated in their homes. Public hospitals faced greater patient numbers and requirements for new medical technologies without a corresponding increase in their funding. The growing demand for a state-funded health-care system soon became a fierce political issue. When the young Dr. Jolly moved in early 1930 to his country's compact, windswept capital of Wellington, he found that its six-hundred-bed, main public hospital was greatly in need of new buildings to accommodate its patients. Plans for additional wards had been drawn up some years earlier, but the sharply deteriorating economic conditions saw those plans shelved; his year at Wellington Hospital was spent in overcrowded and outdated buildings from the previous century.<sup>36</sup> These disadvantages were offset by the hospital's acquisition of the latest X-ray equipment and sophisticated laboratory facilities.<sup>37</sup> It boasted the most advanced surgical department in the country, employing new techniques in the treatment of fractures and nerve regeneration that were increasingly called upon to deal with injuries sustained in motor vehicle accidents.<sup>38</sup>

A large and growing proportion of patients were unemployed men, deserted wives, and other indigent and needy people treated without charge as charity cases.<sup>39</sup> When a deputation from the city's Trades and Labour Council informed the hospital board in early 1930 that a recent rise in patient fees from nine to seventeen shillings a day would entail "considerable hardship for necessitous patients," the board chair replied that the truly destitute would continue to be treated at no charge.<sup>40</sup> Late that year the hospital's Social Welfare Committee drew the government's attention to "the appalling conditions of distress at present existing through prevailing unemployment. Both single and married men now find it impossible to secure work of any kind, with the result that many families are experiencing need."<sup>41</sup>

Jolly worked at this hospital as a house physician and resident surgeon, gaining wide experience in the medical; surgical; eye, ear, nose, and throat; infectious diseases; children's; casualty; and general outpatient departments.<sup>42</sup> Anesthesia did not become a recognized medical speciality until the following decade, and hospital records show him acting as anesthetist for more senior surgeons several times daily during late 1930, administering general anesthetic in the form of ethyl chloride and ether, and nitrous oxide ("laughing gas") and oxygen—all of which he would later administer in wartime.<sup>43</sup>

This period appears to have been a productive and happy one of his early career. His senior colleagues noted his kindness to patients, his conscientious attitude, and his pleasant working manner. Louis Cohen, head of the hospital's eye, ear, nose, and throat department, acknowledged his temporary house surgeon's "sterling qualities as a medical man and a colleague to be associated with." He found Jolly to be "an excellent anaesthetist" and thoroughly reliable.<sup>44</sup> The hospital's pathologist was equally impressed: "I formed the highest opinion of his professional work: he has in addition a personality and qualities of mind which in my opinion are just as important as academic attainments."<sup>45</sup>

After fifteen months of wide-ranging training in this politically charged seat of government, Jolly transferred in 1931 to the much smaller town of Palmerston North, the provincial center for a large rural area. Its two-hundred-bed public hospital had just dealt with an influx of severely injured casualties from a massive earthquake in the port city of Napier, housing them in a marquee and tents, but after this unprecedented emergency was managed, its workload offered few opportunities for clinical experience to match those in Wellington.<sup>46</sup>

While his daily round of cases may have seemed routine, Jolly's social life in Palmerston North was turbulent. At age twenty-seven, he became engaged to marry a "pretty and attractive" woman named Joan King who lived in the rural settlement of Hastings, to the north of his place of work.<sup>47</sup> The only information about this short-lived romance comes from letters he received, including one from Joan herself: "Feeling rather triste because you are not here but are speeding back to Palmerston in a hot, crowded service car." In her fiance's absence, Joan was evidently delighting in assembling the rudiments of a shared household "against that time when you will have qualified [as a surgeon] and we will have each other for ever, ever and ever."<sup>48</sup>

"Aren't we all lucky young things," wrote another friend named Kitty, who was also evidently either engaged or married. "Do you remember how you and I used to talk about the wonderful love that we knew was just waiting around the corner for both of us—and now we have both found it. . . . It would be perfect if we could all meet in London."<sup>49</sup>

That happy reunion did not take place, since Jolly's engagement was evidently broken off within a few months. Details are lacking, but Joan and Jolly apparently remained on friendly terms. Three years later he received a letter from his former fiancée, written from the ocean liner on which she had recently sailed to Bombay. Joan described the voyage in high-spirited terms and ended by wishing him "happy hunting," presumably a reference to his future marital prospects.<sup>50</sup>

By the time that letter arrived, Jolly had left New Zealand to pursue postgraduate studies in surgery, at that time a necessary prerequisite to gaining a specialist's qualifications. As at Wellington Hospital, his senior colleagues at Palmerston North bade him farewell with glowing testimonials. David Wylie, the hospital's honorary visiting surgeon and a veteran of both the Boer and Great Wars, could "only speak of his work in the highest terms. He has discharged the usual duties of a house surgeon with conspicuous ability and has been a most agreeable colleague to work with. He has proved himself to be a most careful and excellent assistant at operations, assiduous in his care of patients afterwards and thorough in everything he does. He is much liked by his patients, and I can most cordially recommend him for a resident position at any hospital."<sup>51</sup>

To add to this encomium, Jolly carried a letter by one of his country's leading statesmen, Minister of Finance Downie Stewart, addressed to the New Zealand high commissioner in London. "The bearer of this letter," it said, "is a son of my old friend, the late Captain Jolly, with whom I served in France and who was killed in action." Stewart asked that every possible courtesy be extended to the young colonial doctor, "both for his own sake and for the memory of his father."<sup>52</sup>

In January 1932, Doug Jolly left New Zealand for London on board the liner and former British troopship *Herminius*, paying his passage by working as the ship's doctor. He would never return permanently to his country of birth.