Military medical care during the Great War: the forward role of the R.A.M.C. in sustaining the manpower of the British Army on the Western Front, 1914-1918

HI993 First World War Studies 2019

The Burden of the R.A.M.C., drawn by Author

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Acknowledgements

I would like to give my utmost thanks to Mark Connelly, who through the modules of my masters as well as through individual support and feedback has helped shape this dissertation. I am also indebted to Mario Draper for all the support and advice he has given me over the past few years. This dissertation would also not have been possible without the support and encouragement of my close friends and family, my parents in particular who have read through countless drafts and provided greatly needed proof-reading services. For allowing me a room when making long visits to archives I would like to thank Alex Fuller, as without the hospitality provided the endeavour would have been far more expensive and time-consuming. To everyone else whom I do not have the space to thank personally, I would like to say that I am grateful for everything that has been done to aid the process of researching and writing.

Abbreviations

R.A.M.C.	Royal Army Medical Corps
A.D.M.S.	Assistant Director of Medical Services
D.A.D.M.S.	Deputy Assistant Director of Medical Services
R.M.O.	Regimental Medical Officer
M.O.	Medical Officer
S.B.	Stretcher-Bearer
O.R.	Other Ranks
F.A.	Field Ambulance
W.W.C.P.	Walking Wounded Collection Point

Introduction.

The 'militarisation of medicine', as coined by Mark Harrison, has received a great deal of focus in recent historiography.[1] Interest in the history of casualty treatment seems to have cultivated largely from works such as that of Lyn Macdonald in which the voices and experiences of the ordinary soldiers were brought into the popular literature of the Great War. There naturally became an interest in those who provided medical care, hitherto a topic that had remained largely exclusive to the medical profession.[2] This dissertation will examine discussions within the medical spheres, though journals such as the *Lancet,* the *British Medical Journal,* and the *Journal of the Royal Army Medical Corps* as they can provide a wealth of medical perspective contemporary to the war, and highlight the issues at the forefront of the minds of M.O.s serving on the front lines. Diaries, both of units and personnel, will complement these, and make the basis of this thesis. They are able to provide a deeper perspective into the individual struggles that were faced along the different sectors of the Western Front and the changes and experiments in procedure that occurred within individual situations. Personal diaries and memoirs can also provide the experiences of the O.R.s, whereas the published journals are almost exclusively written by the medically trained officer corps. Furthermore, diaries and letters can disclose the realities that were not to be published during the war. These accounts revealed a different perspective in which the patients' experiences of the line of evacuation were exposed: The overcrowding of forward medical units, due to unforeseen massed casualties, and consequent lack of personal attentiveness of many caregivers, gave rise to criticisms of the R.A.M.C. Accounts such as that of A. L. Tomlinson dominated perception of care available to the wounded: 'In the next bed to me, the man had obviously been hit in the head with a bullet or shrapnel. I tried to attract the attention of the men's orderly to tell him that blood was squirting from the poor man's head at the back and onto the tent itself. I just watched him die.'[3] While accounts such as this do not represent the norm, they are all too common, and made even more frequent in the public sphere as they reinforced the popular narrative of the 1960s, that the authorities, both military and consequently medical, were the villains of the war; the military for enforcing and perhaps even prolonging the fight, and the medical for then failing to provide the care Jeffry Reznick wrote was felt to be owed to the wounded.[4] Concurrently however, a juxtaposed view existed as the men of the R.A.M.C. operating at the front, both officers and O.R.s, were largely seen as heroic, many having earned military decorations. It is perhaps odd, then, that the actions of the

[1] Mark Harrison, 'The Medicalisation of War – the Militarisation of Medicine' *The Society of the Social History of Medicine* Vol.9 No.2 (1996)
[2] Lyn Macdonald, *The Roses of No Man's Land*, (Michael Joseph Limited, Basingstoke; 1980)
[3] A. L. Tomlinson, cited in Philip Warner, *The Battle of Loos* (London: William Kimbar & CO. Limited; 1976) 150
[4] Jeffry Reznick**,** *Healing the Nation: Soldiers and the culture of caregiving in Britain during the Great War* (Manchester University Press; 2004)

R.A.M.C. within the military situation at the front has largely been omitted from earlier historiography, the focus of works such as that of Ian Whitehead largely rested upon the operations of the Corps from a 'top-down' perspective.[5] Jessica Meyer's recent work on the men of the R.A.M.C. approaches the work of the Corps from an internal point of view, examining the difficulties of providing treatment that were experienced by the caregivers.[6] The impact of the R.A.M.C. on the immediate war effort through the health of the soldiers is consequently side-lined in her argument.

There have been many excellent histories of the R.A.M.C. and medicine of the war, such as Blair's *In Arduis Fidelis* and Ana Carden-Coyne's *Politics of Wounds* however the focus of many of these remains largely internal to the R.A.M.C. and the patients, there is little scope to discuss the wider war effort. It is interesting that while the majority of histories of medical care during the Great War begin with the assertion that the purpose of military medicine is to return soldiers to duty, very few then continue to evaluate the value of the R.A.M.C. by this.[7] Instead they tend to focus upon the attentiveness to individual patient care, something that may be an expectation of a peacetime 21st century medical organisation, and yet was both an impractical and impossible ask of a medical corps operating within the range of enemy fire, and with the massed casualties that were brought through the evacuation system of the Western Front. 1,242,000 wounded were evacuated to England from the Western Front throughout the course of the war, an average of 23,420 casualties a month by April 1918, with a total of 139,024 men and officers serving in the R.A.M.C., across all fronts, by 1918.[8] The disparity between the numbers requiring aid and the number available to provide care is indicative of the stresses that were placed upon the R.A.M.C. throughout the war, especially as only the officers of the corps had professional medical training. Considering this, then, it will be discussed that the senior authorities were fraught with fears of the mis-use of medical manpower: Sir Thomas Garrod M.P. stated concerns that wounded were massed in England, while the surgeons were massed in France where they could be of limited use.[9] Furthermore, as Kevin Brown stated, the health of the civilian population was as vital as that of the fighting force during a war such as the

[5] Ian Whitehead, *Doctors in the Great War*, (Barnsley: Leo Cooper; 1999) and Mark Harrison, *The Medical War* (Oxford: Oxford University Press; 2010)
[6] Jessica Meyer, *An Equal Burden: The Men of the Royal Army Medical Corps in the First World War* (Oxford: Oxford University Press; 2019)
[7] John Blair, *In Arduis Fidelis Centenary History of the Royal Army Medical Corps*, 1918-1998, (Edinburgh: Scottish Academic Press; 1998); and Anna Carden-Coyne, *The Politics of Wounds: Military Patients and Medical Power in the First World War* (Oxford: Oxford University Press; 2014)
[8] R. L. Atenstaedt 'The Organisation of the R.A.M.C. during the Great War' *The Journal of the Royal Army Medical Corps* Vol.152 No.2 (2006) 81; and The War Office, *Statistics of the Military Effort of the British Empire during the Great War 1914-1920* (London: HMSO, 1922) 231, 246
[9] IWM, Docs. 20829 Private papers of Sir Thomas Garrod, Robert P. Roulands, letter to Garrod, 13 August 1917

'total wars' of the twentieth century.[10] The focus of this dissertation will remain the necessity of the actions of the R.A.M.C. at the front, yet the wider context strongly influenced attitudes in forward position: The misuse of medical manpower, Garrod maintained, was leading to boredom and for this reason many of the medical officers were resigning their temporary commissions. Captain Noel Chavasse's comments counter this assertion however; he mentioned in a letter that he believed the majority of M.O.s to be resigning because they had lost so many friends in the combatant corps, and as Captain Esler maintained it was difficult to build any meaningful rapport with the officers of an infantry regiment as they were replaced so frequently.[11] This lack of rapport consequently meant that the role of the M.O. was far more difficult as without co-operation, it will be argued, the medical services were somewhat neglected by men whose sole priority was felt to be that of battle.[12] One of the strongest arguments against the surgeons operating in the forward areas that will be touched upon later was the danger: Bowlby wrote of the war, 'At the present day there is no such thing as absolute safety anywhere near a battle front… The consequence is that, while surgeons supply skilled help, at much risk, at the regimental aid-post or the advanced dressing-station, within a very short distance from the line, the patients have to be removed quickly to considerable distances, and the casualty clearing stations have to be placed some eight miles or more in the rear.'[13] Thus is succinctly explained the difficulties of the R.A.M.C. in the evacuation process; first-aid had to be received as quickly as possible, yet it was in the interest of the patients, as well as the doctors themselves, to remove the casualty from under the range of enemy shells without delay. Furthermore, it was vital for the military situation that casualties did not impede forward movement of the fighting troops, both for the fight and for morale. It is the importance of the R.A.M.C. within the range of enemy fire that will be the emphasis of this thesis.

The focus of this dissertation will therefore be upon the 'grass-roots' of medical care, directly examining the importance of the R.A.M.C. operating within the Divisional Areas, in conjunction with the fighting units – primarily infantry. Although they were by no means the sole responsibility of the R.A.M.C., a great proportion of casualties came from infantry units, and due to their proximity to the firing-lines, evacuation was a far more complicated process than for wounded artillerymen, who were often wounded far behind the lines. Following the structure outlined by W. G. Macpherson the thesis will examine the actions and responsibilities of the R.A.M.C. officers and men from the front-

[10] Kevin Brown, *Fighting Fit: Health, Medicine and War in the Twentieth Century* (Gloucestershire, the History Press; 2008)
[11] IWM, Docs. 17596 Private papers of Noel Chavasse, Chavasse, letter to parents, 22 August 1915; and IWM, Docs. 407 Private Papers of Captain Esler, Typescript Memoir, 60
[12] Major A. C. Osburn, 'Correspondence: The Tactical Handling of Field Ambulances' *Journal of the Royal Army Medical Corps* Vol.36 No.5 (1921) 397
[13] A. Bowlby, *The Hunterian Oration on British Military Surgery in the Time of Hunter and in the Great War*, (1919) 38

line to the Field Ambulance units.[14] It will be discussed how the positions held were multifaceted, relying upon the dedication of the individuals to maintain the health of their units responsible to them. It will be stressed that the position of the R.M.O. was a pivot on whom the majority of medical success lay: *The R.A.M.C. and its Work* stated in 1917; 'Everything that can in any way affect the health of his unit comes within [the R.M.O.'s] purview': from duties of orchestrating the casualty extraction and evacuation, and of their short-term care while awaiting transport further to the rear, and of ensuring that food storage and preparation was adequate to prevent illness as was the provision of latrines and the sanitation maintenance of billets and dug-outs.[15] This dissertation will be split into two parts according to this in order to best discuss these actions of the R.A.M.C. at the front and each part will be introduced in greater detail subsequently. The first will discuss the work of the men on the ground providing aid and evacuation to battle casualties during a prolonged engagement with the enemy. With this focus, the discussion will follow the movement of the wounded from the actions of the regimental stretcher-bearers until they reached the field ambulances. The second part of the dissertation will examine the value of the R.A.M.C. on the health of the fighting army: it will be discussed how measures were taken to ensure correct sanitation procedure. This has been far less trodden into the historiography than the previous role of the R.A.M.C., largely because the act of carrying a wounded man from the battlefield is considered heroic, that of building and cleaning a sanitary latrine is not. As established in almost every mind, the conditions of the trenches were almost unliveable, and yet live in them the soldiers did; Dominiek Dendooven has written on the aptly named topic of 'Trench Crap', discussing the preferences and fears of the soldiers regarding their living conditions.[16] Most notably, the fear of dying while on the latrine caused an almost unanimous agreement that the official latrines were not to be used, and one really need not stress the result that this created. It will be demonstrated through the following discussion that the work of the R.A.M.C. at the frontlines was vital, both to the military situation and the continuation of the war effort, as well as to the progression of the medical line of evacuation. Actions directly following wounding could dictate the survival of the patient, and it was almost entirely upon the shoulders of the R.M.O. to ensure that early care was provided to ensure, not only the recovery of as many casualties as possible, but the speed with which they recovered and ultimately could then be re-posted to the good of the war effort.

[14] Diagram of 'The Organisation of the R.A.M.C. in France' in W. G. Macpherson, *History of the Great War, Medical Services, Hygiene of the War. Vol.2* (London: HSMO, 1923) 17 (See Appendix I)
[15] Anon., 'The R.A.M.C. and its Work' *The British Medical Journal*, (18 August 1917) 217
[16] Dominiek Dendooven, 'Trench Crap: Excremental aspects of the First World War' Chapter in Nicholas J. Saunders and Paul Cornish, *Modern Conflict and the Senses*, (Routledge; 2017)

Part One: Battle

The work of the men and officers of the R.A.M.C. in treating casualties from the battlefields of the Western Front is often the focus of the medical narrative; the impact of the R.A.M.C. here is perhaps the most evident in accounts of the war, largely because of the numbers of men who experienced the evacuation chain, and, as Emily Mayhew wrote, the important part that images of the wounded and evacuation have played in literature and media present in modern society.[17] The relationship between the military and medicine, many historians have cited to 'make strange bedfellows.'[18] Medical intent is to heal and protect, while the military necessity required men – that medicine would deem fit for discharge – to be returned to duty. This was, in many ways, a new system for the British Army; historically battles had not lasted long enough, nor had required such a wealth of manpower, that returning an injured soldier to the fight seldom need have occurred. Militarily then, evacuation and medical care during an engagement were not an immediate priority. Furthermore, Sir Anthony Bowlby stated that in previous wars, 'the range of the musket was two or three hundred yards and that of a cannon less than a mile; beyond this distance surgeons could work in safety. It was consequently not at all difficult to carry the wounded man to some place where a barn, or shed, or stone wall offered sufficient protection, for there were no shells.'[19] The dire need for manpower that the massed warfare of the twentieth century created meant that it was suddenly un-sustainable to evacuate unless completely necessary.[20] The Military Tribunals reveal this changing manpower policy; soldiers, injured and discharged in the early stages of the war were recalled under conscription, such as Edward Oliver Baristow who had previously been invalided from the R.A.M.C. before being conscripted in 1917.[21] Not only were injured men re-enlisted, and many suffered multiple wounds,[22] it will be discussed how men were sent to the front with illnesses that in peace-time would have prevented them from undertaking military service, the latter will be examined further in Part II.

In 1914, the recent experiences of warfare had taught much regarding medicine however it was not all to prove applicable on the battlefields of the Western Front: The American Civil War had taught the necessity of forward medical aid, and the South African War had created the 'clearing hospital',

[17] Emily Mayhew, *Wounded: A New History of the Western Front in World War I*, (Oxford: Oxford University Press, 2014) 1
[18] Brown, *Fighting Fit*, 8
[19] Bowlby, *Hunterian Oration*, 37
[20] Harrison, *The Medical War* 22
[21] TNA Middlesex Military Tribunal Records, V420, Edward Oliver Baristow (1917)
[22] The War Office, *Statistics of the Military Effort of the British Empire during the Great War 1914-1920* (London: HMSO, 1922) 245

the forerunner of the casualty clearing station. The focus here was on lessening the distance over which a casualty had to be transported before medical care could be received, all experience revealed that moving the wounded unnecessarily could complicate matters; the speed with which medical care should be administered was not yet determined. While it had been understood that long journeys were detrimental to recovery, as was a concern of Almroth Wright, it was to be viewed as a necessary evil; as Bowlby stated, the incomparable environment of South Africa had taught incorrect lessons in surgery that were brought to the Western Front in 1914.[23] Experience previously suggested that bullet wounds would make up the majority of surgical cases, and of these, seldom would lesions become infected due to the dry ground in which few anaerobic organisms could live.[24] The personal weapon system of the Boer soldier was the 7-mm Mauser rifle, and this large-calibre bullet travelled slowly. [25] The rounds generally left a clean wound that, on examining the work of surgical specialist Major Frederick Porter, Edward Benton wrote, was 'easy to treat and healed well'.[26] It is unsurprising then, that there was a greater focus upon self-help, the 'conservative treatment' of gunshot wounds remaining preferable. Published for reference during the South African War, a cavalry training manual stated: 'IF THE WOUND DOES NOT BLEED AT ALL, OR NOT MUCH, DO NOT TOUCH IT'.[27] There was little opportunity for contamination unless one were to be unlucky enough to be struck by a bullet that had already passed through another soldier, recorded cases of which occurring were very few indeed. Thus, there was little requirement for professional medical aid to be sought with any desperate speed, and so the process of evacuation was not designed for expediency.

The responsibilities and impact of the forward positions of the R.A.M.C. were convoluted and overlapping, often with officers and men moving backwards and forwards throughout the line of evacuation. Thus, although the general thread of this section will follow treatment of casualties from the battlefields towards the rear, there is an unavoidable level of overlap and repetition, as was the nature of the medical situation.

Medical Care at the Firing Line: the regimental stretcher-bearers.

Casualty collection and searching for living among the dead following a battle has always been an inevitable aspect of warfare throughout history. Yet as the nature of warfare changed, and so too

[23] Bowlby, *Hunterian Oration*, 33
[24] A. Bowlby, 'Treatment of Wounds in War' *Lancet*, (19 December 1914)
[25] J.C. de Villiers, 'The Medical Aspect of the Anglo-Boer War, 1899-1902: Part I', *The Military History Journal* Vol.6 No.2 (Dec., 1983)
[26] Edward H. Benton, 'British surgery in the South African War: the work of Major Frederick Porter' *The Journal of Medical History* vol.21, (1977)
[27] T. F. S. Caverre, *Self-Aid in War* (London; William & Norcate, 1900) 5

did the societal expectations of provided care, the nature of casualty clearance and evacuation was thus also forced to change.[28] Previously, little public interest had been placed upon the ranking soldiers of a British Expeditionary Force as they were often filled by those whom society had all but outcast. Concerns highlighted by William Burdett-Coutts, MP, during the conflict in South Africa regarding the treatment of the army spread, and anxieties were surmounted by the influx of civilians enlisted and conscripted into the armies of the Great War.[29] All of a sudden, not only was the treatment and wellbeing of an overseas army important in sustaining the requirements for an army to equate to the massed European armies, it was now directly linked to the morale and fighting spirit of the Home Front, and although this will not be a focus of this thesis it was a vital consideration of commanders throughout the war.[30] This was not immediately obvious in August 1914 however: Without an expectation of the vital role casualty evacuation from the battlefield would play in the maintenance of fighting manpower, the men responsible for this were frequently drafted from a regiment, often the bandsmen who had a lesser importance during combat. They were however, responsible to the R.M.O., thus bringing the collection of the wounded under the purview of the R.A.M.C., although the regimental stretcher-bearers themselves were not.[31] This will become an important factor as it will be shown that the diligence of the R.M.O. under whom the regimental stretcher-bearers operated, was almost entirely responsible for their value in casualty extraction. In an article written for the *Journal of the R.A.M.C.* only a few months prior to the outbreak of war, Captain K. H. Reed, R.A.M.C. discussed the expected duties and organisation of the regimental stretcher-bearers in a modern conflict.[32] As has already been discussed, the initial expectation that expedience would not be important would adversely impact the ability of the medical services in casualty treatment: the military implications of this during the battle of, and consequent retreat from, Mons are evident, but medically there were a great many more implications; in their efforts to provide succour to the wounded, many M.O.s, such as Captain Hamilton were taken prisoner. Hamilton was captured when he went out to aid a wounded major, and with the speed of the German advance he soon found himself surrounded by enemy soldiers.[33] Thus, as well as losing a great number of fighting men, there was an initial loss of medical manpower, who were replaced with far less ease than the ranks of the army, and thus fears of too few medical professionals would continue throughout the war and will be discussed at length later in this thesis. In his pre-war

[28] Harrison, *The Medical War* 11
[29] William Burdett-Coutts, *The Sick and Wounded in South Africa: What I saw and said of them and of the Army Medical System*, (London: Cassell and Company; 1909)
[30] Brown, *Fighting Fit* 4
[31] Meyer, *An Equal Burden* 92
[32] Captain K. H. Reed 'Tactical Formations Applicable to Field Ambulance Work, with some Medical Field Training' *Journal of the Royal Army Medical Corps* Vol.22 No.5 (1914)
[33] IWM, Docs. 1501 Private papers of E. S. B. Hamilton, 51

lecture, Reed stated: 'It is probable that under the conditions of modern war little can be done in the way of collecting the wounded while an action is in progress in the vicinity'. From his speech it was clear that the anticipation was for the stretcher-bearers to search a battlefield once the immediate enemy threat had lessened, believing, as was still taught in medical spheres, the wounds would be easily treatable following exposure.[34] Unlike the dry ground of South Africa, the fertilised mud of the farmland over which the battles of the Western Front were fought proved incredibly hostile to the healing of exposed wounds: Georges Duhamel conducted a study in which he proved that the mud was the primary cause of gangrenous infections sustained from the battlefields, even after minimal exposure.[35] The ease with which contamination could occur is seen through the diary of surgical specialist Harold Upcott, who detailed an instance in which a patient was hit in both the face and shoulder by the same bullet. He wrote: 'Interest lies in the fact that face wound is clean, shoulder wound (after bullet had penetrated clothes) is infected.'[36] The events on the battlefield could directly influence the ease with which surgery was later conducted. The avoidance of infection was as vital militarily as it was medically; a man without infection could be returned to duty without unnecessary delay however once infection had set in, regardless of the severity of the wound, the casualty would be unable to return to duty without prolonged treatment, usurping vital resources of both man and material. A small study conducted by Alexander Fleming demonstrated that of 127 patients, 27 were still suffering from infection after 20 days of laborious treatment.[37] With military and medical resources stretched, the avoidance of infection was so often reliant upon the initial actions of the wounded man, and the regimental stretcher-bearers.

The nature of the static battles of the Great War however created a dilemma hitherto not experienced by the British Army; it was ill-advised to leave a casualty untreated on the battlefield, the importance of a fast evacuation already stressed, and yet the risk of collecting during an engagement was equally ill-considered.[38] Furthermore, the nature of the war meant that orders were often given to the fighting men that they were under no circumstances to stop their advance to aid a fallen comrade.[39] Thus the sole onus of care fell on the wounded soldier, or the regimental stretcher-bearers, neither of whom would initially have had any extensive medical training. It was

[34] Reed, 'Tactical Formations' *JRAMC* (1914) 543; and General Sir Thomas Longmore, *Gunshot Injuries: Their History, Characteristic Features, Complications, and General Treatment; with statistics concerning them as they have been met with in warfare* (London: Longmans, Green and Co., 1895)
[35] Georges Duhamel, *Vie des Martyres: 1914-1916* (Paris: Mercure de France, 1917)
[36] Wellcome Library, R.A.M.C./1101 Harold Upcott, 'Typescript diary of Captain Harold Upcott**,** surgical specialist with 37th Casualty Clearing Station, Western Front,' 27 February 1916
[37] Alexander Fleming, Cited in Bowlby, *Wounds in War*, 918
[38] Bowlby, *Hunterian Oration* 33
[39] Leo van Bergen, *Before My Helpless Sight: Suffering, Dying and Military Medicine on the Western Front, 1914-1918* (Ashgate: Ashgate Publishing Limited; 2009) Translated by Liz Waters 292

also incredibly dangerous during an ongoing fire-fight for the stretcher-bearers to reach a wounded man, let alone tend to his injuries and carry him back. Private Clark's experiences of stretcher-bearing at Passchendaele written in his diary show a completely different war to the one anticipated in Reed's lecture.[40] Here the conditions of 'artillery fire and long-range unaimed rifle fire' under which Reed anticipated bearers only needing to operate occasionally were the norm; Clark's words reveal that during that conflict the bearers of the R.A.M.C. were in no less danger than the infantry whom they were there to support, represented through the high casualty rates of the medical services operating at the front. The specificity of Reed's comments in reference to the Battle of Omdurman – fought 2 September 1898 – however suggests that this was anticipated to be an occasional occurrence if something had happened contrary to the proposed military plan, yet during the Great War it would have been near impossible to leave casualties for the duration of a battle, although it was customary to leave the majority until dark where it was possible to have some level of security while collecting the wounded.[41] Thus, contrary to the pre-war anticipation, it was the duty of the regimental stretcher-bearers to bring what aid they could to the wounded while the battle was still ongoing.

There was little that could be done about the battle situation, so the practice of the regimental stretcher-bearers had to change: one means to achieve this was through teaching from the R.M.O. until the Bearer Companies were formed in 1916 and first deployed at the Somme, and thus given official, although still limited, training.[42] The second method and the focus here, is the improvisation in treatment, equipment, and procedure. Without extensive medical training, the former could prove as fatal to the war effort as negligence. M.O. Harold Dearden wrote in his diary of an improvised splint and tourniquet that, despite the best intentions of the stretcher-bearers, caused more harm than good.[43] Similarly, iodine was issued to soldiers, and to regimental stretcher-bearers to be used in an instance of wounding to help prevent the onset of infection; however if the knowledge was not there on how to use this, it would be of little aid. Medical training often had to teach men to act against instinct. The growing knowledge of the regimental stretcher-bearers created a disparity between them and the men they were treating: their medical understanding, while it undoubtedly saved lives, subjected them to hostility from those who did not understand. Perhaps more importantly, it thus threatened the morale of the fighting men as they questioned the

[40] IWM Docs. 16466 Private papers of Clark, Diary, 4 October 1917
[41] For instance: Wellcome Library RAMC/2010 Walter Bentham 'Diary of Walter Bentham. No 8 Company R.A.M.C.' September 1915
[42] Emily Mayhew, *Wounded: A New History of the Western Front in World War I*, (Oxford: Oxford University Press, 2014) 6
[43] Harold Dearden, *Medicine and Duty: The First World War Diary of Dr Harold Dearden*, (London: Richard Dennis; 2014) 55

care given following wounding.[44] Private W. Walker wrote in his memoirs: 'One old man who used to play the pipes in my company was shot just above the belt and was sobbing hysterically for water. A stretcher-bearer forbade anyone to give it to him.'[45] This 'brutality' was medical necessity, although it was seldom understood by those not attached to the medical units: Private George Swindell, serving with 77 F.A. described the difficulty of this. While bringing in a soldier with a severe abdominal wound he 'was warned [by the M.O.] not to jolt the patient and in no circumstances was he to be given water.' Yet, a sergeant from the artillery 'before the bearers could stop him, thrust a water bottle in the patients mouth. In seconds the patient had drunk the water… and shortly afterwards the patient died.'[46] Thus, it can be seen that a misunderstanding of medicine, and a desire to right the immediate injury often led the combatants, and by nature untrained regimental stretcher-bearers, to act without knowledge of the severity of the situation they were creating. While improvisation and fast action was vital, it had to be cultivated through training and experience.

There were two principle ways to improve the value of the regimental stretcher-bearers: through improvements to their medical knowledge, and through approved innovations in carrying the wounded. The former was largely the prerogative of the R.M.O. until 1916 when, as mentioned, Bearer Companies were created and the men thus trained for the role however the R.M.O. continued to be vital in further training and in organising the stretcher-bearers in their searches. The latter however, was far harder to achieve as there was very little uniformity of environment across the Western Front, and thus what could be used to great effect in one sector, was of little use, or even impractical to achieve, elsewhere. Reed said in 1914 that: 'Stretchers cannot be taken into the firing line', and consequently it can be assumed there was never an intention of taking them onto the battlefields.[47] This is reinforced through the numerous 'improvised carries' described and illustrated in many a training manual of both the R.A.M.C. and fighting units.[48] After all, a fast evacuation was not an anticipated necessity, and thus the awkward handling of stretchers was not a priority to correct, yet this quickly changed. One thing that was agreed unanimously was that the issue stretcher was suitable for almost nothing further forwards than an A.D.S. Even more profound are the extensive improvisations of the 'trench-stretcher' and other means by which to move the

[44] Alexander Watson, *Enduring the Great War: combat, morale and collapse in the German and British armies, 1914-1918* (Cambridge University Press; 2008)
[45] Diary of Private W. Walker, published in C. B. Purdom, (Ed.) *Everyman at war: sixty personal narratives of the war* (London: J. M. Dent & Sons; 1930) 36-41
[46] Wellcome Library RAMC/1861: Box 392 Corporal C. Edmonds, 'A History of the care of the sick and wounded in the Land Armed Forces (2500 B.C. to Suez), ms. By Corporal C. Edmonds, R.A.M.C.' 195-6
[47] Reed, 'Tactical Formations' (1914) 543
[48] Anon., *Manual for the Royal Army Medical Corps* (War Office, London: His Majesty's Stationary Office; 1904); and Caverre, *Self-Aid in War* 42

wounded from the range of direct enemy fire. Mark Harrison wrote that there were over 150 types of improvised stretcher created throughout the course of the war; almost every single unit recognised the impracticality of the issue stretcher and responded with improvisation and determination.[49] There are several notable features that the majority share: the flexibility to manoeuvre around the traverses of the firing-line trenches; lessened weight of the carry, be it through reducing the load or fixing wheels; and, where possible, providing more comfort to the casualty.[50]

The scrapbook kept by Major Colt regarding the development of trench stretchers makes most interesting reading; it details the difficulties of manoeuvring a casualty through the trenches, the difficulty of creating a stretcher suitable for its purposes, and the difficulty – even if one could be designed – of having it produced in enough quantity to impact casualty clearance. This was especially the case of the stretchers designed and invented by the men of a regiment as they had very few supplies with which to work, and so a few stretchers at most were all they could achieve without support from authorities. Captain J. Ellis Milne, wrote to Colt in November 1915 regarding his designs for a more suitable stretcher: 'Why I am writing you really is to advise you about your trench stretcher. I think you should push it all you can. The trenches are so narrow, and the corners give so little room, that in many places an ordinary stretcher is out of the question, and even the regulation trench stretcher is clumsy thing.'[51] The continued improvisations can be seen as an article, written by Colt, was published in the *Lancet* on 22nd January 1916 in which the patterns were collated in order to allow development of a single trench-stretcher to avoid efforts wasted on parallel projects.[52] Although the Rogers trench-stretcher had become the primary replacement for the issue stretcher in this manner, it was not always widely issued or available and improvisations continued.[53] The terrain of the battlefields of the Western Front was incredibly diverse. Quality - and presence - of roads, shelter and cover available, the nature of the ground, and the weather conditions were all factors in casualty evacuation even before enemy activity had been considered. If these were not optimal, as was so often the case, Captain Neil Cantlie, D.A.D.M.S. 6th Division,

[49] Harrison, *The Medical War* 253
[50] Such as Chavasse, letter to father 'sketch of trench stretcher' August 22 1915 (see Appendix II)
[51] Wellcome Library, RAMC/276:O/S 10 Captain G. H. Colt 'Scrap-book by Captain G. H. Colt, R.A.M.C. re development of the joined-pole trench stretcher, including correspondence, 1915, with Captain D'Arry Power and with Captain J. Ellis Milne, re the development for a stretcher use in the trenches on the Western Front', J. Ellis Milne, letter to Colt 23 November 1915
[52] G. H. Colt, 'Stretchers for the Wounded in the Trenches' *The Lancet*, Vol.187 No.4821 (22 January 1916) 202-227
[53] Colonel W. W. Pike, 'Regimental Medical Aid in Trench Warfare' *Journal of the Royal Army Medical Corps* 10.1136 (August 1915) 236

considered fatigue of the stretcher-bearers would be immense and reserves would be vital.[54] However, 'There was a certain amount of difficulty experienced in meeting demands for extra S.B.s, without some delay. It was found that it was usually 3 hours before the S.B.s demanded were able to get to work in removing cases.'[55] The reason for the delay was the priority of battle. Even in modern warfare it is taught procedure to win the firefight before tending to the wounded, yet the combat medic or reserve section – depending on the formation and purpose of the fighting unit – will provide the care possible on the battlefield and evacuate before the firefight has been concluded. As Clark's account shows, the bearers were willing to risk limb and life to provide aid. Enemy activity, as stated above, was not the only problem that the regimental stretcher-bearers had to face, the mud was an incredibly difficult obstacle: during the battle of Passchendaele it took one bearer team 10 hours to move a wounded soldier 400 metres due to the state of the ground, no doubt a harrowing experience for all involved. The official history of the 44th F.A. records that 'continuous rain made the evacuation of wounded very trying.' Their bearers had to wear 'thigh high gum boots, which, while they kept some mud and wet out, were a hindrance when stretcher-bearing – as most of our men testified.'[56] Here, the S.B.s were forced to sacrifice their own wellbeing in order to provide necessary care, and Jessica Meyer has discussed in great detail the personal difficulties of 'carrying' through testimonies of men in the role. The impact of their hardship went beyond the personal toll inflicted upon the bearers, as the speed with which they were able to bring casualties to medical care has been demonstrated to be vital to the military effort. Any delay could be costly to recovery, consequently weakening the available manpower pool.[57] The diary of surgical specialist Harold Upcott outlined how vital the fast actions on the battlefield could be to surgical success when passed down the line of evacuation: he noticed that men left for more than twenty-four hours without surgical treatment were all beginning to show signs of infection, while all who were operated upon within that period were healing well.[58] It is evident that the authorities both of the army proper and the R.A.M.C. had not foreseen the need for fast casualty clearance and initially this was therefore to be placed solely upon the initiative of the un-trained regimental stretcher-bearers. Although they would be influenced by the R.M.O. as will be discussed in greater detail next.

[54] Wellcome Library, RAMC/242 Neil Cantlie 'War Diary of Captain Neil Cantlie, with the 6th Division', 5
[55] Cantlie, 'War Diary of Captain Neil Cantlie', 6
[56] F. T. Barrett, *With the Forty-Fourths: Being a Record of the Doings of the 44th Field Ambulance (14th Division)* (London: Spottiswoode, Ballantyne & Co. Ltd, 1922) 27
[57] Meyer, *An Equal Burdon* 99
[58] Upcott, 'Ts Diary' 15th October 1916

The purpose of the regimental stretcher-bearers was to bring the wounded to the R.A.P. from where, Meyer wrote, the 'R.A.M.C. took over responsibility for the wounded man' under the care of the R.M.O.[59] Yet, as has already been discussed, the influence of the M.O.s stretched beyond this point through their responsibility for the regimental stretcher-bearers and there were no few R.M.O.s who ventured into No Man's Land to aid with the casualty searches and evacuation. Noel Chavasse is one such example. Although the risk to medical manpower will be discussed shortly, the importance of the personality of the R.M.O. was vital in this, although there were many arguments put forwards that the position of the R.M.O. was an ineffective use of medical manpower: Sir Thomas Garrod, MP commented that there was an imbalance of medical distribution; surgeons were massed idly in France, leaving hospitals in England incredibly short staffed.[60] While the latter point itself is not pertinent to this thesis, the concern of failing medical care available for civilians was, as Kevin Brown stressed, vital to the war effort, especially during a conflict such as the Great War where the civilian industry was as vital as the military, and thus the concerns regarding medical manpower were fully grounded in the war effort.[61] It was not simply a governmental worry that there were surgeons serving on the Western Front who had little medical duty to do: Captain Esler wrote in his memoirs that he believes he would have learned far more regarding medicine had he stayed in his pre-war surgical employment in England. His views are supported by a Lieutenant Garrod, who wrote: 'I should not advise anyone with any desire to practice their surgical or medical skill to take on the job of the medical officer to a battalion'.[62] Meyer asserted that this was due to the location of the R.A.P.: they were situated only 100 yards on average from the firing line, and thus were subject to direct fire and enemy shelling, leaving them ill-suited for proper medical care or evaluation.[63] In treating wounded, therefore, the role of the R.M.O. was minimal. From the perspective of morale and efficiency however, the position was almost invaluable: Phillip Gosse, R.A.M.C., wrote: 'Often I noticed that a battalion with a first-class M.O. was always a first-class battalion'.[64] As is becoming a thread in this discussion, an R.M.O. willing to venture into No Man's Land in order to search for and treat the wounded of his unit may have been instrumental to the morale and cohesion of the unit, and yet was a constant stress to his superiors. Harold Dearden, for instance, wrote in his diary of frequent castigation for his insistence on being in the forward lines

[59] Meyer, *An Equal Burdon* 98
[60] Private papers of Sir Garrod Thomas, Extract from *Hansard*, No.112 (1917) 35269
[61] Brown, *Fighting Fit* 8
[62] Lieutenant A. Noel Garrod R.A.M.C. 'Notes on the Existence of a Regimental M.O. – At the Front' cited at https://www.ramc-ww1.com/chain_of_evacuation.php
[63] Meyer, *An Equal Burdon* 92
[64] Phillip Gosse, *Memoirs of a Camp-Follower* (London: Longmans, Green and Co., 1934) xiv

with his battalion.[65] In his War Diary, Captain Neil Cantlie, D.A.D.M.S., wrote that a circular was received from the D.D.M.S. XIV Corps forbidding M.O.s to go over the top because '14 M.O.s were lost… in this last attack. M.O.s can't be replaced like this.'[66] Once again, a dilemma was present; where R.M.O.s could do good they were putting themselves in unsustainable danger. It was understood by many that the position of R.M.O. was the most dangerous role an officer of the R.A.M.C. could take on; Esler wrote in his memoirs that he was posted to take over the position of R.M.O. with the 2/6 Suffolks from a married man, purely because of the threat to life.[67]

Through the diaries of men such as Esler and Chavasse however, it proves the importance of the R.M.O., if only for morale – although there was a far greater importance to the position that will be discussed in Part II. The impact that Chavasse had on his men was clearly profound; in a letter to his father he drew out the location of the R.A.P., showing the setting of the small hospital in relation to the firing trench and commented that it had been nicknamed by the unit the 'Chavasse Memorial Hospital', a name which he did not entirely appreciate, although was unable to deny the humour.[68] Following his death, Maathieson Furson, a family friend, wrote to his father and made the comment: 'It was good to see how these men loved their Captain. In chat with a number of them they all spoke so highly of him as a man and as a leader.'[69] There is certainly no doubting that Chavasse gave everything to his unit; refusing to be sent down following a head injury, and ultimately giving his life in dedication to his service as medical care-giver to the unit.[70] There is not the breadth available here to discuss the nuances of morale within a fighting unit of the Great War, yet it needs to be stated that the positive effect on morale that a strong R.M.O. could create was drastically important to the fighting spirit of a unit: Jessica Meyer and Tony Ashworth have studied the experiences of the Great War from the standpoint of the psychology of the men serving, both concluding that fear was almost a constant.[71] Those that showed no fear, Esler wrote, were often something of a wonder to the other men: he commented upon an O.C. of his nicknamed 'Nutty Page' because he 'never knew what fear was.'[72] Meyer noted one particular officer who wrote of constantly imagining the point of injury: 'I have too vivid an imagination for a solider… it's so hard to keep one's mind off the "feel" of

[65] Harold Dearden, *Medicine and Duty: The First World War Diary of Dr Harold Dearden*, (London: Richard Dennis; 2014) 71
[66] Cantlie, 'War Diary of Captain Neil Cantlie', 24 September 1916
[67] IWM, Esler, Typescript Memoir, 63,68
[68] Chavasse, letter to father 'hospital plan sketch' 22 August 1915 (see Appendix III)
[69] Chavasse, letter from Maathieson Furson to the Bishop. 11 August 1917
[70] Chavasse, letter from his brother Bernard Chavasse to his parents, August 1917 and account of Edith Chavasse (see Appendix IV)
[71] Meyer, *An Equal Burdon* 95, 101; and Ashworth, *Trench Warfare* 104
[72] IWM, Esler, Typescript Memoir, 68

bullets entering various parts of one's anatomy & things like that'.[73] No doubt, although the presence of a medical unit could serve as a reminder as to what could occur on the battlefield, an R.M.O. who a man knew would go above and beyond to bring him aid if wounded would almost definitely bring some level of comfort. Interestingly, in a set of orders given today, among the vital points to be stressed by the platoon sergeant is the course of action on sustaining a casualty at any point throughout the operation; it is natural for men to want to know that if they were to be injured they would receive care however limited that care may be.

One of the greatest criticisms of the R.A.M.C. during the Great War came from the accumulation of patients with no transport available to move them, and this was to occur during almost every engagement, especially in the early battles of the war, because of the strain the massed casualties placed upon the medical system. Although the situation undoubtedly improved in general throughout the war, the casualties often grew heavier and the terrain worse and the diaries of many F.A. units demonstrate that the first day of any battle would almost inevitably result in the overwhelming of the medical services.[74] This did not only have medical implications; Chavasse wrote during the Neuve Chapelle offensive: 'we found the top end of the communication trench blocked by wounded men.'[75] The blocking of trenches was adverse to the military intent as vital supplies could not be brought forwards to maintain the fight and was one of the imposed fears of the senior staff: it was because of this fear that the R.A.M.C. were initially provided only horse-drawn waggons for the evacuation of wounded as it was feared that motor-ambulances would compound the situation of the roads. In reality, the streams of walking wounded experienced at Mons created far more traffic than would have the motor cars and thus the general staff conceded to the requests of the medical services, and Motor Ambulance Convoys were deployed for use rear of the field ambulances by the end of 1914. While officially this resolved issues, it remained that the majority of initial evacuation still relied upon men and stretchers as motor-vehicles, and even horse-drawn waggons, often could not get far enough forwards and this early congestion still remained. There were specified 'up' and 'down' trenches by which the problem of blocking supplies was supposed to be corrected however once again it relied upon the diligence of the men to abide by this. Even once casualties had been removed from the trench systems however, there was frequently a 'stacking up' of patients at the R.A.P.s, such as was seen *en masse* at the Battle of Loos.[76] Cousins wrote of the battle: 'oh the need

[73] Papers of C. S. Rawlins, Rawlins, letter to Mother, 11 July 1915 cited in Jessica Meyer, *Men of War: Masculinity and the First World War in Britain* (Hampshire: Palgrave Macmillan; 2009) 42
[74] For instance TNA WO/95/1931/1 'War Diary No 45 Field Ambulance' 25 September 1915
[75] Chavasse, letter, 20 June 1915
[76] J. Ewing, *The History of the 9th (Scottish) Division* (London: John Murray, 1921) (see Appendix V)

of the R.A.M.C. and S.B.s! The R.A.M.C. were conspicuous by their absence!'[77] It was in instances such as this, when there was no transport available between the R.A.P.s and the field ambulance units, that the R.M.O. became of value as a medical man: 'On getting back to the dump we found that the R.A.M.C. had failed us and had not carried any of our wounded back. I had about 25 on my hands', Chavasse wrote, 'The battalion had been relieved the night before but I had of course to stay with the wounded.'[78] Here, Chavasse alone had charge of the temporary care of all casualties; with the difficulties of transporting the stretcher cases to the dressing stations of the field ambulance, the R.M.O. was their only aid.

Movement to the F.A. Units

Ideally, of course, to avoid the aforementioned 'stacking up' of casualties without shelter, there would be a smooth evacuation from the front line to the dressing-stations established by the F.A. units that were often 3-5 miles to the rear of enemy engagement.[79] This transport, Macpherson illustrated, was the responsibility of the stretcher-bearers attached to the Field Ambulance units.[80] This process was often still within the enemy ranges, and in certain situations still within direct fire and so much of the evacuation could occur only under cover of dark. As the regimental stretcher-bearers had difficulty in bringing the patients to the R.A.P.s, Captain Neil Cantlie demonstrated that there was a constant difficulty in bringing the motor-ambulance cars close enough to the front to be of any use, and as such it was often necessary for the stretcher cases to be carried up to 5000 yards through the communication trenches – the difficulties of which have already been covered.[81] Although the communication trenches were often wider than the firing trenches, they were just as windy, and many of the F.A. diaries tell of the difficulty in moving wounded through these from the R.A.P. and to the respective dressing stations.

In the aforementioned scrapbook kept by Colt, the discussion around the development of a trench stretcher is preserved. D'Arcy Power highlights the 'obvious disadvantages' of the developing stretchers. – the primary being that they gave little support for a man badly hit in the body or with broken legs. [82] On a callous point however, it must be mentioned that neither of these types of injury were likely to see a man returned to duty with any great speed, and thus militarily he was of little

[77] IWM Docs. 7410 Cousins 'Diary of Private Cousins, DCM', 25 September 1915
[78] Chavasse, letter, 20 June 1915
[79] Brevet Colonel H. Ensor, C.B., C.M.G., D.S.O., R.A.M.C., 'The R.A.M.C. Services of a Division on Active Service' J RAMC Vol. XLII. (April 1924) 242
[80] 'The Organisation of the R.A.M.C. in France' from Macpherson, *History of the Great War, Medical Services, Hygiene of the War. Vol.2* 17 (see Appendix I)
[81] Cantlie, 'War Diary of Captain Neil Cantlie', 10 September 1916
[82] Colt, 'Scrapbook re the development of the joined-pole trench stretcher' D'Arry Power, letter to Colt 26 November 1915

immediate potential. Medically however, the improvements, both to stretchers and to other casualty transports were vital. J. S. Haller Jr. details the improvements to motor-ambulances, and stressed the importance of a fast, yet comfortable journey to avoid further complications. As mentioned, it was not always possible to bring the motor cars far enough forwards however, and stretchers still had to be carried from the R.A.P. to the rearward units.[83] To reach the R.A.P. men had to rely almost exclusively on improvised stretchers because of the proximity to the enemy, such as that designed by Chavasse's men which was 'very light and [was] thought well of', further to the rear it was possible to establish a slightly more sophisticated means of casualty extraction.[84]

Permanent structures, with collaboration with the Royal Engineers, could in a few situations be constructed, indicative of the time spent in static positions:

> 'A wooden railway line has been constructed from my dug out and from Quality Street on our left, down along the sides of the communication trench to Philosophe, where a branch goes to the brewery which 46th field ambulance are to have on the great day. The rest goes practically to a dressing station at mass ... Trucks (wooden) are being made … which will take 5 stretcher cases. The idea is we have these trucks (about a dozen) at the Foss and put our stretcher cases on them and run them down to the brewery under cover of darkness. The idea is good - but it seems to me a dangerous job.'[85]

Another popular method of speeding evacuation was the advent of 'specialist' dressing stations and hospitals – Colonel David Rorie mentions in his memoirs that it became habit in his R.A.P. to have a drawing of a man pinned to the doorway, with the appropriate destination for specifically located wounds placed over the anatomy.[86] All abdominal wounds, for instance, would thus be taken to the same location, instantly increasing ease of surgical focus, as Upcott wrote to be vital regarding the speed of operations without needlessly sacrificing patient care.[87] This created something of a Fordian mechanism; the medical men were not dealing with the patients but with the injuries alone, resulting in an efficient, yet impersonal process. Many complained of the doctors being rough, uncaring and having little time for the patients, and while these criticisms are certainly justified, they were in fact one of the values of the medical system of the Great War; because of the mechanical method of casualty evacuation and treatment more men were able to pass through a system that was already overwhelmed with casualties. The divisional history of the 47th told that during the first

[83] J. S. Haller Jr., *Battlefield Medicine: A History of the Military Ambulance from the Napoleonic Wars through World War I* (Illinos: Southern Illinois University; 2011) 152
[84] Chavasse, letter 22 August 1915 (see Appendix II)
[85] IWM Docs. 1731 R. C. Ozanne 'War Diary of R. C. Ozanne' 2-20 September 1915
[86] David Rorie, *A Medico's Luck in the War*, (Eastbourne: Antony Rowe Limited; 1929) 83
[87] Upcott, 'Ts Diary', March-April 1916

twenty-four hours of the battle of Cambrai, the division's dressing station saw 4,700 casualties pass through, a figure even more significant as the history told that those able to walk were sent through to other dressing stations further in the rear.[88]

Returning to Reed's pre-war lecture, it was suggested that walking wounded who were not severely injured should be directed to the W.W.C.P.s.[89] A location, Brevet Colonel Ensor maintained, that should be obvious to allies and not to enemy forces.[90] Any walking wounded that were severely injured should accompany a stretcher case, presumably so that aid could be provided if they were to suddenly require it.[91] Official estimations predicted that the great majority of wounded would be 'walking'.[92] However, with the advent of chemical warfare there was suddenly a far greater number of 'walking wounded' that were not able to walk unaided as they were blinded by gas. The official history of the 47th Division demonstrated further difficulties that gas presented to the medical contingent during the battle of Cambrai: 'Throughout November 30th there was, therefore, a steady stream of gassed and wounded men coming to the regimental aid posts. Their clothes were full of gas, and as the medical officer could not dress wounds without removing his respirator, he, too, felt the effects. No fewer than seven medical officers went to hospital gassed as the result of this dilemma.'[93] Once again, there were several aspects to be considered: the mention here that the use of gas was debilitating to the medical officers as well as those already subject to the gas, the consequent necessity to isolate gas patients, and the sheer demand upon the medical services.[94] As a side point, the diligence of doctors in treating gas patients was vital throughout the chain of evacuation: one of the best means to determine the severity of exposure was through the account of the man himself, and many of the medical case sheets, such as those completed by Captain Osmund H. Chapman, show pencil shorthand beneath the written report suggesting that Chapman took careful note of the experience of gas in order to influence given treatment.[95] This was undoubtedly a lengthy process, especially considering the great numbers of patients, Chapman signing off on more than 200 reports in a single week of 1915.

[88] Alan H. Maude (Ed.) *The 47th (London) Division: 1914-1919* (London: Amalgamated Press, 1922) 136
[89] Reed, 'Tactical Formations' *JRAMC* (1914)
[90] Ensor, 'The R.A.M.C. Services of a Division' 248
[91] Reed, 'Tactical Formations' *JRAMC* (1914)
[92] Thomas Scotland and Steven Heys, *War Surgery 1914-18* (Helion & Co.; 2012) 52
[93] Maude (Ed.) *The 47th (London) Division* 135
[94] Charles W. Campion, 'Ms. "My résumé' of the 1914-1918 war in the First Casualty Clearing Station, attached to the First Army in France", by Mr. Charles W. Campion, former private, No. 1 Casualty Clearing Station' RAMC/1285 Army Medical Services Museum, Keogh Barracks (1914-1918) 6
[95] TNA, MH 106/2087 'Medical Cases (wounded)'

The medical work of these units has been discussed at great length in previous works and thus will not be reiterated in great detail here however there has been little historiographical focus upon the ability of the F.A.s to work in close co-operation with the combatant units to whom they were attached. As vital as this co-operation was, and this will be expanded on in Part II, it was a co-operation entirely reliant upon the individuals involved. Ensor wrote that 'A copy of [divisional] orders should be sent to all O.sC. [Officers Commanding] units to which R.A.M.C. officers are attached'.[96] A template of a set of orders from the A.D.M.S. demonstrates that the field ambulances were supposed to be informed of the military situation, their intended movements, and important medical locations.[97] Field Service Regulations Part II stated however, that 'The work of removing the wounded during actual fighting must be left to the initiative of officers commanding field ambulances' and that 'the A.D.M.S. is mainly concerned in issuing orders relative to the opening and closing of field ambulances, and in maintaining connexion between them and casualty clearing stations.' Thus, the direct control of the A.D.M.S. over the dressing stations during enemy contact would be incredibly limited. In this case, a published discussion over a series of articles in the *J R.A.M.C.*, begun in 1920, demonstrates that there were those who believed the command of the F.A. units should, in times of combat or advance, become the duty of the O.C. of the battalion. The opening article discusses the two schools of thought here: The 'divisional school' and the 'brigade school'. The former believing the field ambulance unit should always be under the command of the A.D.M.S., the latter arguing the units should be in the charge of the brigadier. The divisional school of thought, Reed wrote, was usually supported by officers in the more senior ranks of the R.A.M.C. who have, 'had long experience of administrative work,' but, he continued, 'do not always realise the numerous difficulties which beset the officer commanding field ambulance', primarily that of inter-communication with units who are frequently moving position, especially when such changes cannot easily be foreseen.[98] As Ensor wrote, the A.D.M.S. would be unlikely to be aware of the movements once battle had begun, and would not therefore be able to control placement of the advanced dressing-stations effectively.[99] Thus it was not unreasonable that the O.sC. at F.A. level and below would turn to the brigade for the necessary information concerning movement however medically, the A.D.M.S., Fowler argued, is the man

[96] Ensor, 'The R.A.M.C. Services of a Division' 247
[97] IWM Docs. 10942 Private papers of Lieutenant-Colonel K. Henderson, 'Routine Orders'.
[98] Major G. A. K. H. Reed, 'Some Notes on the Tactical Handling of Field Ambulances in Mobile Warfare' *Journal Royal Army Medical Corps* Vol.35 No.4 (1920) 300-301
[99] Ensor, 'The R.A.M.C. Services of a Division' 147-8

'who above all is responsible for the welfare of the sick and wounded. It is his duty to be acquainted with the conditions and the medical arrangements of the lines of communications, and to know precisely in what manner the sick will have to be evacuated. No other than a medical officer could be expected to take the same interest in the perfecting of arrangements for the care and transference of the sick. How often has it happened that one has had to insist on certain arrangements being made, highly important from a medical standpoint, but which to the executive officer may have appeared altogether trifling.'[100]

Thus, as will be discussed in greater detail later in Part II, the onus lay upon the A.D.M.S. to keep himself informed of the military situation so as best to command the F.A. units without relinquishing control to the brigade commander who, as many stressed, had neither the time nor the direct inclination to focus upon the medical services. Once again, therefore, the importance of the diligence of the Medical O.C. was vital in the efficiency of a unit: Major Wood, O.C. 46th Field ambulance wrote that the A.D.M.S. 15th Division was incredibly attentive and aware of the necessities of modern warfare: he states that prior to an engagement 'The A.D.M.S. warned me to lay in a large supply of dressings and indent for 50 stretchers.'[101] Something for which Wood was incredibly grateful as all were of vital use in the subsequent evacuations. Almost a direct contrast was the situation Major R. C. Ozanne found himself in, who during the Battle of Loos was constantly requesting for extra supplies once the evacuation process had commenced, and thus there was very little hope of them arriving with any speed as all focus was on the fighting, although the stretchers finally arrived three days later.[102] While demonstrating the importance of a diligent A.D.M.S. in preparing and commanding the field ambulances, this concurrently demonstrates the priority for the brigade commander. As Osburn shrewdly noted: 'certainly a unit looking after the sick and wounded will not always get much consideration from the healthy.'[103] This is certainly true; by the nature of the war medical care had to take a secondary priority to that of winning an engagement however ultimately any negligence would eventually impact the military situation.

As has hopefully been demonstrated in the thesis so far, the evacuation of the wounded could not be left until the fight had been concluded. There were those, such as Fowler who believed that when a brigade was engaged in combat or an advance, the F.A. should be commanded by the brigadier to

[100] C. E. P. Fowler, 'The Tactical Handling of Field Ambulances' *Journal of the Royal Army Medical Corps* Vo.37 No.1 (1921) 78
[101] TNA WO/95/1931/2 War Diary of No 46 Field Ambulance. 3rd September 1915
[102] IWM, Ozanne 'War Diary', 28th September 1915
[103] A. C. Osburn, 'The Tactical Handling of Field Ambulances' *Journal of the Royal Army Medical Corps* Vol.36 No.5 (1921)

better allow inter-communication.[104] Reed noted that the majority who supported this school of thought were often field ambulance and sections commanders who were 'dissatisfied with the paucity of orders and information received from the A.D.M.S.,' and who had little concern with what happened to the rear of their location.[105] In complete agreement, Captain Franklin, himself having acted as a field ambulance commander stated: 'An A.D.M.S. thinks of his field ambulance by day and dreams of them by night; he has not ten thousand other matters which interest him more and about which he knows more, to attend to.'[106] While Reed and Franklin seem to be in agreement in largely dismissing the divisional school of thought, it should be acknowledged that there were many M.O.s left unable to fulfil their expected duty because they were not kept abreast of the military situation, although this will be discussed in greater length later in Part II the argument will be made that this was a matter of liaison, rather than command.[107] Mackenzie, for instance, stated that in his experience there were 'undoubtedly occasions when a field ambulance [could] perform its duties more efficiently, sometimes as a "brigade unit" and at other times a "divisional unit."' The switching of command undoubtedly would lead to greater confusion and it will be argued that better communication between military and medical units would have ensured command could stay with the A.D.M.S., and M.O.s would still receive the necessary information.[108]

Summary.

This discussion of the forward actions of the R.A.M.C. during battle has demonstrated several points of interest. The argument has followed the path of evacuation from the front lines where the only source of medical care was the relatively untrained regimental stretcher-bearers to the field ambulances where, as the organisation developed, medical professionals were able to provide necessary surgery.[109] One of the most important things to be taken from the above discussion was the ability of the R.A.M.C. units to adapt and improvise to the situation on the ground. Robert P. Roulands, a surgeon at Guys, argued that 'elasticity' was vital, and the actions of the men prove that it was achieved, as concluded by the Howard Commission of 1917 that praised the medical services in France for their flexibility.[110] Individual R.M.O.s had the ability to impact both the actions of the

[104] Fowler, 'The Tactical Handling of Field Ambulances' *JRAMC* (1921) 78
[105] Reed 'Some Notes on the Tactical Handling of Field Ambulances' *JRAMC* (1920) 301
[106] C. L. Franklin, 'Tactical Handling of Field Ambulances' *Journal of the Royal Army Medical Corps* Vol.36 No.2 (1921) 157-8
[107] Reed 'Some Notes on the Tactical Handling of Field Ambulances' *JRAMC* (1920) no 301; and Franklin, 'Tactical Handling of Field Ambulances' *JRAMC* (1921) 157-158
[108] D. F. Mackenzie, 'Tactical Handling of Field Ambulances' *Journal of the Royal Army Medical Corps* Vol.36 No.4 (1921) 318
[109] Blair, *Centenary History of the Royal Army Medical Corps* 151
[110] Private papers of Sir Thomas Garrod, letter from Robert P. Roulands to Garrod 13 August 1917. 3; and Harrison, *The Medical War* 49

regimental stretcher-bearers, and the men and officers of the unit to whom they were attached, the accounts of Esler and Chavasse proving the worth of an R.M.O.'s devotion.[111] Owing to the necessitated conservation of medical manpower however, the courageous R.M.O. willing to risk his life for his unit was beneficial to morale, yet created opposing views from the senior staff as demonstrated through the papers of Sir Thomas Garrod.[112] Regardless of the risk to life however, the dedication of the R.M.O. was vital in both orchestrating evacuation, and encouraging the same dedication from the stretcher-bearers, and he became vital when transport from the front lines failed, which under the conditions of enemy activity was often fraught with danger and possible only under cover of darkness. The O.C. of individual F.A.s was instrumental in allowing development to this early evacuation, and again the innovation of M.O.s, often in collaboration with the Royal Engineers, proved invaluable in facilitating a hastened evacuation. This, of course, was the primary value of the R.A.M.C. during periods of enemy engagement.

[111] IWM, Esler, Typescript Memoir, 73; and Chavasse, letter to father, 20 June 1915; and Chavasse, letter from Maathieson Furson to the Bishop. 11 August 1917

[112] Private papers of Sir Thomas Garrod, letter from Roulands to Garrod 13 August 1917. 6

Part Two: Health

John Laffin wrote that 'so many servicemen are not even granted the luxury of death on the battlefield at the hands of the enemy – the 'perfect soldier's death' … few ballads or poets have sung the praises of heroes who have died of illness far from home'.[113] It is perhaps for this reason that the actions of those who were responsible for reducing sickness has been somewhat neglected within the history of the Great War. Despite the usual omission from the pages of history, the work of the R.A.M.C. externally to the line of evacuation was vital in maintaining the manpower of the fighting force on the Western Front. Statistics demonstrate that on average fewer than fifteen per cent of the fighting force became battle casualties, and of these an average of only forty per cent were 'permanent' meaning killed, taken prisoner, or discharged from duty. Thus the greatest weight of R.A.M.C. responsibility lay in keeping wastage of the remaining manpower to a minimum, primarily though ensuring minimal sickness.[114] This second part of the dissertation will deal with the ground work of the R.A.M.C. in this endeavour, and the requirements for sanitation, food and drink preparation, and once again the importance of the R.M.O. in maintaining the health of his unit will be discussed. Experiences prior to the Great War had taught the importance of sanitation, the prevalence of disease in the American Civil War and the South African War led to a 'fetish' of sanitation training, clearly seen through the priority given to this over wound-treatment in the R.A.M.C. training manuals.[115] Of course a part of this was the perceived ease with which wounds would be treated, as has already been discussed however the focus on sanitation was to prove invaluable on the Western Front; Macpherson demonstrated that the instances of outbreaks of disease were drastically lower than they had ever been for an army in the field for a prolonged period of time, and despite the conditions on the Western Front providing almost a perfect environment for contamination and disease, cases were relatively few.[116] It has been maintained by the majority that when such illness was present, it was because sanitary measures were either made impossible by the military or enemy situation, else they had been neglected.[117] An important point that will be examined is again that of co-operation between the military and medical officers; tensions from the creation of the R.A.M.C. as a military corps were still persisting and it was not uncommon for combatant officers to resent the felt ease with which the M.O.s served – although as

[113] John Laffin, *Surgeons in the Field* (London: J. M. Dent & Sons Limited, 1970) 3
[114] The exact statistic given is 47.37% in The War Office, *Statistics of the Military Effort of the British Empire during the Great War 1914-1920* (London: HMSO, 1922) 246
[115] *Royal Army Medical Corps Training, 1911* (War Office, London: His Majesty's Stationary Office; 1911)
[116] W. G. Macpherson, *History of the Great War, Medical Services, Hygiene of the War. Vol.1* (London: HSMO, 1923) vi
[117] Ensor, 'The R.A.M.C. Services of a Division' 257

discussed in Part I, this was unfounded criticism.[118] Mark Harrison wrote that the Army School of Sanitation was opened in 1906, both resembling the priority that was placed upon sanitation, and Harrison stated, it was the intent of R. H. Firth – the chief instructor – to 'bridge the gap of understanding… between medical and combatant officers' by making it compulsory for all Junior Officers wishing to be promoted to attend.[119] This co-operation, while remaining uneasy, was to prove vital in maintaining the health of the soldiers and ensuring that there was minimal wastage through sickness.

The mud of the Western Front has become synonymous with the experience of the soldier. As discussed, it was responsible for infecting numerous wounds and caused havoc with the anticipated surgical procedures. It was beyond this however, that the mud sculpted the medical experience of the war. So often is the 'mud and blood' of the trenches a requisite of conditions of the Great War that modern audiences have almost become desensitised to the abnormality, and yet by necessity normality had to coexist within the abnormal; soldiers had to eat, drink and sleep while in the firing line as much as they had to be physically and mentally prepared for the fight. The mental preparation for battle cannot be covered to do it justice here, and so the focus shall remain purely on the physical, namely the maintenance of the health of the soldiers while living in the rotation of front-line service. This was almost entirely the responsibility of the R.A.M.C., yet as it will be shown, was a factor in authority struggles: medical officers seldom had the authority alone to direct behaviour of the fighting men, and thus were reliant upon the co-operation of the combatant officers in order to initiate changes for health benefits. The difficulties of co-operation have already been discussed briefly regarding the command of the F.A. units however they will be further stressed here.

By and large, the conditions on the Western Front were manageable from a medical perspective; Macpherson stated that if there was an outbreak it was usually – and almost exclusively – because some important sanitary measure had been neglected. While this was evidently undesirable, the cases where M.O.'s advice was ignored to negative consequences show the value of medical knowledge, and thus these instances are consequently of value to the study of the importance of sanitation on the Western Front. Of course there were elements introduced by the nature of the fighting that contested with the M.O. for control over sanitation however it will be shown, as Macpherson writes, that the actions of the individual, induced by training and good personal administration, were vital to the maintenance of good health in the trenches. This will be discussed here in terms of the influence of the R.A.M.C., be it directly through medical intervention, or

[118] IWM, Esler, Typescript Memoir, 50
[119] Harrison, *The Medical War* 7-8

indirectly through the teaching of best practice. This will be, by necessity, a brief study into the importance of the R.A.M.C. in maintaining the health of the fighting soldiers; it should be stressed that seldom were M.O.s able to enforce procedure and were therefore often reliant on the co-operation of the battalion or regimental officers, something that has already been established as a cause for complaint regarding battle procedure.

Trench sanitation.

The mud of the battlefields has already been discussed to have been an issue regarding casualty collection and wound contamination. The presence of it in certain sectors was persistent: Noel Chavasse wrote during the Neuve Chapelle offensive: 'my little dressing station was filled and all night by the light of two candles I dressed some big wounds made awful by the putty mud. We had to cut off the muddy clothes and I see the mud in and around the wounds'.[120] The surgical consequences of this have already been discussed however it should be stressed that infection, of course, was not exclusive to the lacerated flesh of the battle wounds that Harrison wrote to be a prime environment for contamination.[121] Georges Duhamel demonstrated in his study that lacerating injuries sustained far from the battlefields would be unlikely to pick up the same infection, whereas a mere scratch suffered among the contaminated mud – if untreated – could lead to severe illness, and even necessitate amputation. Historically, a static army has always shown higher levels of wastage through sickness, and the soldiers of the Western Front were dug into the earth, living in their own waste.[122] Harold Upcott, for instance, was incapacitated as a surgeon for a fortnight due to an infected finger sustained from the mud.[123] Furthermore, the environment of the forward lines, and the trenches especially, was such that even the un-wounded could become casualties through illness. No shortage of diaries and memoirs discuss the 'open latrines' and 'half buried graveyards' that littered the firing lines.[124] Captain John Hare wrote in his diary: 'To our astonishment [we] found that the belt of trees immediately at [the] rear of the trenches [was] a perfect grave yard. None properly buried. Scottish Borderers fatigue party and self dug up dead horses, Germans, guardsmen – all black and maggoty.'[125] Within the British system, regulations existed for graveyards as well as for latrines regarding their location in proximity to living and cooking quarters, and similarly there were regulations as to the correct disposal of excreta however once in the firing line seldom was this

[120] Chavasse, letter to Dot, 12 June 1915
[121] Harrison, *The Medical War*, 27
[122] Georges Duhamel, *Vie des Martyres: 1914-1916* (Paris: Mercure de France, 1917)
[123] Upcott, 'Ts Diary' 2 July 1916
[124] WO.95/1541/3 War Diary of No 6 Sanitary Section, 5th Division 29 July 1916
[125] Captain John Hare 'War Diary of Captain John Hare, R.A.M.C.' RAMC/1327, Army Medical Services Museum, Keogh Barracks 3

possible.[126] Incineration was ideal, Macpherson asserted, yet only where it would not draw enemy attention.[127] Beyond this, the static trenches presented dangers that were outside the control of the R.A.M.C.; Dominiek Dendooven commented upon the likelihood of enemy artillery locating and targeting the latrine pits, and states that 'all sanitary regulations were only theory and were only practical as such behind the front line.' Dendooven wrote on the subject of 'Trench Crap', an article in which he discussed the lavatorial habits and preferences of the soldiers. Even behind the firing lines, there was a danger of using latrines. One War Diary told that on establishing a dressing station in the cellars of a Chateau, latrines were dug as per regulations, yet the first user fell victim to a shell and consequently the latrines remained un-used for the duration of the dressing station's use and the man's death became something of a morbid joke.[128] Dendooven acknowledged the persistence of this attitude as he wrote of an American serviceman who made the comment in 2004: 'The biggest fear was getting killed by a shell while sitting on the shitter. 'I'm sorry to inform you Ma'am, but your husband died honourably for his country… sitting on the shitter!'[129] Playing off this fear, as Dendooven stated, there were sections of front-line trenches where latrines were built in an advanced position 'presumably to discourage any inclination to linger.'[130] It was not uncommon, therefore, for men to make arrangements for themselves: where digging was not practical buckets or similar could be used, and shell holes could become *de facto* toilets. Dendooven continued that 'because of the smell, many officers and some soldiers chose to go out into No Man's Land with a spade after dark.' As well as the implications of fouling the ground in which the soldiers lived, the contamination of the battlefields increased the likelihood of wound-contamination. For these reasons, it was officially encouraged that men used sanitary conveniences, even be it a bucket that could be disposed of correctly and hygienically. When buckets were utilised, they would be emptied daily. Typically, a company assigned two men to these sanitary duties, and it would be their responsibility to maintain the latrines – of all types – in good order. This was an unpleasant job and was often used as a punishment. This in itself is important as it implies that, militarily, the sanitary measures were thought of as fatigues, and thus as inconsequential as whitewashing.

Through the memoirs and diaries of those serving at the front, and those engaged in the sanitary duties, one of the greatest difficulties to be overcome was that of instilling the importance of sanitation into the minds of men faced daily with the dangers of warfare. No few diaries and accounts demonstrate a complacency with their situation as soldiers grew accustomed to the life,

[126] General Staff, The War Office, *Field Service Regulations 1909, reprinted with amendments 1912* (London: HMSO, 1912) 68-9
[127] Macpherson, *Hygiene of the War Vol.1* Vii
[128] '1/6th Field Ambulance, 47 Division' September 1915
[129] Dendooven, 'Trench Crap' 188
[130] Dendooven, 'Trench Crap' 189

Chavasse having commented upon this after only a few months in France.[131] The soldiers were living among the dead; J. H. Fordham described a trench in which he served as 'a perfect cemetery every few y[ar]ds either a pair of boots, the remains of hands or a skull… showing'.[132] Even to this day it is a struggle to ensure proper sanitary behaviour; there are no few soldiers and officers who will simply lick 'clean' the issue spork and replace it in their smock pocket for days on end. In October 1914 J. W. Barnett noted that he 'saw a sepoy sitting on a dead German and eating food, his ration tin resting on the dead man's back.'[133] Complacency was common, Major Basil Sanderson spoke in an essay written in May 1917 that it was a response to the living conditions, and yet it could in itself prove fatal, both in battle as well as daily life.[134] Thus once again it was necessary for those with the medical knowledge to gain as much control of the situation as possible. Chavasse wrote from an R.A.P. on the firing line that he 'managed to give hot baths to about 100 men in the last 2 days. At the same [he] washed their underclothes and whenever [he] spotted [a louse] had the garment soaked in petrol.'[135] It was only in 1918 that the louse was proven to be the source of Trench Fever, yet the discomfort that they instilled meant that even before this discovery there were no shortage of efforts to remove them from men and clothing.[136]

One of the most common consequences of the trench mud was that of 'trench foot', an incredibly painful condition where the feet would begin to rot. Macpherson stated in his history that this condition was entirely preventable, yet often the conditions of the trenches did not allow for the necessary precautions.[137] Chavasse wrote in a letter to his parents of his dismay on arriving back in France after leave to find that the battalion 'had marched 70 miles on socks that had been issued to them a month previously. So nearly all their feet were galled.' Following this march, he wrote, the men spent four days 'up to their knees in water and … they could not lie down in their dugouts at night they were too wet.'[138] To make matters worse, no gum boots had been issued until the men were leaving the lines and despite the attempts to bail out the trenches with latrine buckets the lack of possible health measures can be understood. The pains that Chavasse went to in order to correct the situation demonstrate once again the importance of the R.M.O. however this will be discussed in greater detail later. Macpherson stated: 'There was always a zone of shell fire where sanitary measures were almost impossible, but immediately behind this zone sanitary measures were

[131] Chavasse, letter to father from a dressing station, 21 February 1915
[132] IWM Docs. 8331 J. H. Fordham, Diary, 7 July 1915
[133] IWM Docs. 666 J. W. Barnett, Typescript Diary, 25 October, 1914
[134] Major Basil Sanderson, 'Fear' Unpublished Essay: University of Oxford, Trinity College (May 1917)
[135] Chavasse, letter to Dot from an R.A.P. on the firing line, 12 June 1914
[136] Wellcome Library, RAMC/1590 W. C. F. Harland, 'Typescript memoirs of Captain W. C. F. Harland', 7-8
[137] Macpherson, *Hygiene of the War Vol.1* 3
[138] Chavasse, letter to father and mother, undated, but presumably November 1915

imperative, and there the resources and energy of the sanitary personnel were applied to the utmost degree in the prevention of ground pollution.'[139] Despite being 'almost impossible', sanitary measures in the trenches were vital to maintain as healthy an environment as possible, and while there was little chance of improving matters, it was imperative that the actions of the soldiers did not make the environment worse. Most importantly, as Field Service Regulations stated, was the placement and cleaning of latrines.[140]

Trench Food and Drink.

Beyond simply surviving on the front line, men had to live; Rachel Duffett has demonstrated that a great deal of focus for the soldiers was food and drink, and this has always been a vital aspect of morale: Napoleon was once attributed to have stated 'an army marches on its stomach' and during the American Civil War, Colonel G. F. R. Henderson noted that even the most devoted soldiers will become inefficient in combat if they are tired and un-fed.[141] Duffett wrote that 'The British Army had long acknowledged the importance of food to its soldiers' with consistent rations attempted since the latter years of the sixteenth century.[142] Macpherson recognised the importance of medical advice in establishing appropriate rations: 'The energy value of the ration consequently received much and anxious consideration, especially during the difficult period of food shortage.'[143] The senior medical staff were heavily involved in establishing the correct rations for the soldiers: 'A complete research on the work of the soldier was carried out by Professor E. P. Cathcart… which enabled an estimate to be made to the minimum food requirements of the solider'.[144] The papers of Lieutenant-Colonel K. Henderson demonstrate that there were significant improvements to many recruits at the Royal Military College:

Wight (lbs)	Chest (nor)	Chest (exp)	Physical efficiency
4 3/4	15/16 "	1 1/8 "	6.62
6	1/4 "	7/16 "	13.66
1 1/4	5/8 "	1 3/8 "	14.76
6 1/8	3/8 "	1 "	9.84
5 9/16	3/4 "	1 "	13.94
10 5/8	1 1/8 "	13/16 "	11.94

Table showing increases in measurements from Private Papers of Lieutenant-Colonel K. Henderson[145]

[139] Macpherson, *Hygiene of the War Vol.1*
[140] General Staff, *Field Service Regulations 1912* 68-9
[141] Colonel G. F. R. Henderson, *The Science of War*, (London: Green and C.O., 1912) 2
[142] Rachel Duffett, *The Stomach for Fighting: Food and the Soldiers of the Great War* (Manchester: Manchester University press; 2012) 4
[143] Macpherson, *Hygiene of the War Vol.1* Vii
[144] Macpherson, *Hygiene of the War Vol.1* Viii
[145] IWM Lieutenant-Colonel Henderson papers 'from Royal Military College' 1

As almost all soldiers throughout history can attest however, nutritional value does not always correlate to quality of taste, Duffett commenting upon the commonplace of complaints regarding food in the lives of the Tommies.[146] Food quips were a constant fuel of entertainment: Lieutenant-Colonel William Macdonald recorded a staged photo of the 'execution of the cook', in protest to the quality of the cooking, and Alfred Henderson detailed his experience of food while training in England, noting an amusing anecdote in which, as protest to the quality of sausages they were served, his unit placed the offending foodstuffs on the foot of their beds and refused to fall in when the order was given. Henderson writes that following this the quality of the food improved somewhat.[147] Of course the majority of the responsibility of the food was laid upon the catering corps however there are no few recorded instances in which the M.O. had to ensure quality of the food – especially that of meat. Army cook, Stuart Dolden, described a meat delivery that smelled sufficiently bad for him to call for an inspection from the M.O. Part of the order was immediately condemned, and the rest ordered to be washed before cooking.[148] Importantly, the War Diary of No 6 Sanitary Section, 5th Division demonstrates that it was the responsibility of these Sections to provide fly-proof food storage for the kitchens.[149] As Captain Harland writes: 'The meat was supplied to us chilled in half-carcases. A special fly-proof store was erected and put in charge of a private, who had been a butcher in civilian life.'[150] In this instance the private responsible had expertise, although Duffett wrote that often, the men of the catering corps had no more training in food than the regimental stretcher-bearers had in medicine.[151] Thus much of the hygiene regarding food preparation and storage had to rely upon the diligence of the M.O.s.

Similarly, the R.A.M.C. was vital in the process of water purification, often in strong co-operation with the Royal Engineers. The R.A.M.C. training manual dedicates a large section to the different ways in which water could be made safe for drinking.[152] Macpherson demonstrated the sophistication of the water filtration systems that were established during the war, and with these it was quite possible for even the most polluted rivers of France and Belgium to provide drinkable water.[153] The difficulty on the Western Front however, lay in transporting the drinkable water to the firing lines. Mark Harrison wrote that 'In forward areas… it was seldom possible to supply water

[146] Duffett, *The Stomach for Fighting* 6
[147] Photographs of the record of service of Lieutenant Colonel William Macdonald, R.A.M.C., with the 2nd West Lancashire Field Ambulance in the First World War, Aug 1914-Feb 1917; and IWM Docs. 11045 Alfred Henderson, 'The First World War Memoirs of A. E. Henderson' microfilm 8
[148] A. Stuart Dolden, *Cannon Fodder. An Infantryman's Life on the Western Front 1914-18* (Poole, 1980) 79; Duffett, *The Stomach for Fighting* 16
[149] 'War Diary of No 6 Sanitary Section' 17 July 1916
[150] Harland, 'Typescript memoirs of Captain W. C. F. Harland', 4
[151] Duffett, *The Stomach for Fighting* 106
[152] *Royal Army Medical Corps Training, 1911* (War Office, London: His Majesty's Stationary Office; 1911) 72
[153] Macpherson, *Hygiene of the War Vol.1* Vii

through pipes and it had often to be taken up to the trenches in carts or empty petrol cans, where it was purified with such substances as bleaching powder and chlorine gas.'[154] Sometimes however, enemy activity was a hindrance to this, and it was not always possible to move water to many sections of the British line. Thomas McCall wrote that on several conservative days during the offensive at Loos in 1915, water rations did not arrive:

'Drinking-water was sometimes very difficult to get, and we had to bring it up in petrol tins. One day the water did not arrive. An officer's servant came to me and asked if he could get some to make the officer's tea. The only water, I told him, was that gathered in a waterproof sheet which was stretched above our heads in the dug-out to keep us dry. It was the colour of stout, and I was not very sure whether there were any dead Germans buried above us or not. "Never mind; it will do fine. The officers will never know, as I will put plenty of tinned milk and sugar in it," and off he went with his kettle filled.'[155]

From this account it can be seen that sometimes there was little option: men needed to drink however when the only source of water available was unclean it could prove detrimental to the health of a unit, and thus severely weaken the manpower of the unit holding the line. At Arras in 1917, for instance, water could only be moved under cover of darkness and thus supplies were strictly rationed, and Mark Harrison maintained that 'the shortage of pure water also led men to drink from puddles and other unsuitable sources, and this was reckoned to have contributed to the spread of dysentery among British troops at the beginning of 1917.'[156]

Personal Hygiene and Sanitation.

Men, therefore, had to be trained not to drink muddied water, regardless of their desperation. As has already been shown however, men did not always have much choice, nor the inclination to take necessary precautions. The boiling of drinking water, and addition of the necessary chemicals, such as chlorine gas, many complained, left a foul taste.[157] Discipline therefore was vital. Macpherson wrote that 'The sanitary organization of the Expeditionary Force which landed in France in August 1914 was the outcome of experience gained in former wars, and was considered then to be sufficient in all respects to meet the requirements of an army in the field.[158] For the highly trained and well-disciplined men of the B.E.F., sanitary discipline was no serious issue. As the war became

[154] Harrison, *The Medical War* 131
[155] Account of CSM Thomas McCall, published in C. B. Purdom, (Ed.) *Everyman at war: sixty personal narratives of the war* (London: J. M. Dent & Sons; 1930) 44-45
[156] A.D.M.S. 18th Division, Monthly Report, 25 February 1915, cited in Harrison, *The Medical War* 131
[157] Harrison, *The Medical War* 131
[158] Macpherson, *Hygiene of the War Vol.1* 1

static however, and all ranks of the army swelled with 'uniformed civilians' the matter of sanitary discipline became far more troublesome. The impact on sanitation of the static army in the trenches has already been covered, but as noted by Macpherson, the health of the fighting unit ultimately hinged on the actions of the individual men.[159] Regardless of the efforts of the medical O.C., if his advice was not taken aboard, or his orders not enforced, many men would resort to un-sanitary behaviour simply because it was easier. A memo on 'Points to note for inspection' regarding sanitary conditions of a permanent camp stated that the personal hygiene of each man should be inspected, and stressed that disciplinary measures should be taken if it is not found to be satisfactory, one of the common lapses being that of eating or keeping food in places of accommodation.[160] There were of course efforts to enforce sanitary discipline: the Sanitary Police were given the same powers of arrest as the Military Police, and thus it was their responsibility to discipline the men according to the sanitary requirements established by the M.O.s.[161] R.A.M.C. training, and Field Service Regulations dictated the correct sanitary measures to be taken, both on the move and in accommodation, the main focus lying on an avoidance of fouling the ground.[162] Although this point has been made as a focus in the trenches, it was far easier to ensure behind the lines away from the volatility of enemy activity; unlike life in the trenches, permanent and even semi-permanent camps established messes where all food was to be consumed. Field Service Regulations stressed heavily that no food should be consumed in bivouacs or billets, and this was another of the values Henderson wrote should be carefully inspected.[163] While this was certainly facilitated behind the front lines, as Macpherson wrote however:

'There was always a tendency after an action for units to relax sanitary discipline, with the result that the fouling of the ground was to a large extent inevitable. In warm weather this readily attracted flies, and outbreaks of diarrhoea or dysentery were then to be expected.'[164]

It can be seen here that concerns of sanitation and personal admin were to pale in comparison to the fear and excitement of battle; while the psychology of trench warfare cannot be covered here in any length, Ashworth's study has demonstrated that men grew accustomed to facing death, and it was not uncommon for a 'what will be will be' attitude to be adopted.[165] Many diaries and memoirs reveal similar attitudes, Sanderson succinctly stating 'bit by bit, I got used to the sight that met my

[159] Macpherson, *Hygiene of the War Vol.1* ix
[160] Papers of Colonel Henderson 'Points to note for Inspection' 1
[161] Harrison, *The Medical War* 142
[162] *Royal Army Medical Corps Training, 1911* (War Office, London: His Majesty's Stationary Office; 1911); and General Staff, *Field Service Regulations 1912* 84-86
[163] Papers of Colonel Henderson 'Points to note for Inspection' 2
[164] Macpherson, *Hygiene of the War Vol.1* 2
[165] Tony Ashworth, *Trench Warfare 1914-1918: The Live and let live system* (London: Macmillan Press Ltd, 1980)

eyes and learned the ground … and I regained confidence.'[166] This 'confidence' could lead to a belief that one was resilient to the conditions of the front-line, and thus a disregard for precautions. Colonel Ensor wrote in 1924 that a 'Neglect of sanitation is invariably followed by outbreaks of preventable disease, and the loss of highly trained soldiers who may not be easily replaced.'[167] When this did occur it was often the officers of the R.A.M.C. who were blamed, although it should be stressed that their role was purely advisory; Ensor continued that 'in local sanitary questions, the R.A.M.C. officers attached to units can only propose as to what should be done.' If these suggestions were not heeded, other than report the officer to the A.D.M.S. there was very little that could be done.[168]

The R.M.O.

The main point to be made here is that the R.A.M.C. had only limited direct control of the actions of the individuals. Yet again, as was a principal theme of Part I, the individual R.M.O. of a unit could have a great impact on sustaining the fighting manpower. The criticisms stated earlier of the unimportance of the role of the R.M.O., while not ungrounded regarding treatment of battle wounds, were entirely false when the day-to-day welfare of the men under his charge was considered.[169] It has already been mentioned that the role of the R.M.O. regarding sanitation was largely an advisory one however Ensor maintained that it was in the interest of the combatant officers to listen and follow advice. He stressed that for a smooth co-operation, an R.M.O. 'should be very careful only to recommend such sanitary measures as are practical, having regard to the military situation.'[170] Considering the earlier discussion of Part I that military-medical communication was not always facilitated with tension between the officers corps, the caution here can be understood. There was undoubtedly a lack of understanding between the front-line officers and those further back: F. P Crozier stated that 'the details of the front-line life remained a closed book to all except the regular tenants'.[171] Despite this, M.O.s were eager to learn: One F.A. diary wrote: 'Hope to be able to send sections up to learn something of trench warfare.'[172] The position of the R.M.O. however, as A. N. Garrod wrote, was 'from the point of view of seeing the war, understanding military methods and the spirit of the men … the best post open to a medical man.'[173] The value of a diligent R.M.O. in treating battle casualties has already been discussed however the

[166] Sanderson 'Fear' 2
[167] Ensor, 'The R.A.M.C. Services of a Division' 256
[168] Ensor, 'The R.A.M.C. Services of a Division' 257
[169] Anon, 'The Royal Army Medical Corps and its Work' *BMJ* (August 1917) 219
[170] Ensor, 'The R.A.M.C. Services of a Division' 257
[171] F. P. Crozier, *The Men I Killed* (London: Michael Joseph, 1937) 45
[172] TNA WO/95/2147/1 War Diary of No 64 Field Ambulance, 9 October 1915
[173] Lieutenant A. Noel Garrod R.A.M.C. 'Notes on the Existence of a Regimental M.O. – At the Front' cited in **https://www.ramc-ww1.com/chain_of_evacuation.php**

value was beyond this; the rapport that was cultivated from the comradery of the battlefield allowed greater co-operation when suggestions of the R.M.O. were felt to be an inconvenience. Macpherson cites a case in which the advice of the R.M.O. was heeded to great effect:

> 'Captain B Hughes, writing of his experience as a regimental medical officer in the trenches, pointed out that although the men were provided with the means for preventing trench foot, cases still occurred which he attributed to the common practice the men had of sleeping when off duty in a sitting posture on the fire step of the trench. The sharp edge of the fire step exerted pressure over the popliteal space and in this way produced numbness and coldness of the feet. When men were on duty in pairs, he arranged that the man whose turn it was to rest should lie with his feet up on the fire step, and sleep in his greatcoat and two blankets, his own and that of his comrade. The result of these measures was that during a period of twelve days of inclement weather in the trenches no cases of trench foot occurred in the battalion of which he had medical charge, while the unit which occupied the same trenches previously had several cases.'[174]

The R.M.O. was thus essential in this advisory role, and furthermore he was the first point of call for the sick and injured of the unit; 'Each [R.M.O.] is at it were the family medical attendant of the men of the unit, the medical officer of health of the locality in which it may for the moment find itself'.[175] Phillip Gosse's comment upon the value of the R.M.O. has already been cited however it should be said here that his words continue to say that the 'first-class M.O. … had the smallest sick parade, fewer men falling out on a long march and the lowest quota of casualties from trench foot.'[176] Militarily, this was critical. Through his memoirs, Captain Esler wrote of his role in this, describing himself as 'a sort of wet nurse to the column on the move', implying that he felt the well-being of the men to rest almost solely in his hands.[177] For the R.M.O., the job of ensuring the health of the troops was not only dependant on their discipline and personal admin once enlisted, but their health prior to military service. T. E. Jordan has studied at length the health of the British civilian population, and David Silby speaks of the rather lax medical examinations in which doctors were paid per enlisted recruit, and thus many were allowed to France who under normal circumstances would never have been permitted into the ranks.[178] Jordan wrote of the poor health of the British working classes, from whom a great majority of recruits were found.[179] Private John French, for instance, was a trained territorial soldier declared to be 'fit excepting [his] teeth' and yet was

[174] Macpherson, *Hygiene of the War Vol.1* 297
[175] Anon, 'The Royal Army Medical Corps and its Work' *BMJ* (August 1917) 217
[176] Phillip Gosse, *Memoirs of a Camp-Follower* (London: Longmans, Green and Co., 1934) xiv
[177] IWM, Esler, Typescript Memoir, 51
[178] David Silby, Bodies and Cultures Collide: Enlistment, the Medical Exam, and the British Working Class, 1914-1916' *Social History of Medicine* vol. 17 no. 1 (2004)
[179] T. E. Jordan, *The Degeneracy Crisis and Victorian Youth*, (London: SUNY Press; 1993)

retained in England for nine months, undergoing training and dental operations before he was permitted to leave for France.[180] This however, seems to be less common than simply sending the men on overseas service without ensuring they were fit enough; Macpherson stated a considerable number of men arrived in France 'incubating diseases' and consequently there arose outbreaks, simply because of the urgent demand for manpower.[181]

On arrival in France, it would then fall under the charge of the R.M.O. to ensure that the men were fit for duty, and would stay as such. Perhaps the most important aspect of this was the daily 'sick parade'; not only was this the opportunity to quickly treat slight injuries and illness before they grew severe, as well as spotting the potential for an infectious outbreak, it was here that the R.M.O. was fundamental in deterring malingering. Mark Harrison wrote: R.M.O.s were taught on taking their commissions that 'the *first* duty of a battalion medical officer in war is to discourage the evasion of duty'.[182] Esler commented upon the difficulty in his memoirs, stating that on his first sick parade he received 'six or eight complaints of lumbago pains' and because he had had personal experience of the condition and thus felt sympathy for them, he excused them all duty. He wrote that 'The glad news must have got around, for the next morning about fifteen turned up with lumbago, and the following morning, when there was a route march on with full equipment to be carried, about thirty men presented themselves with lumbago, and were excused duty.' The colonel pulled him up on this matter: "I thought, last week, that I was commanding a regiment of fit and virile men, I find, now, that I am in charge of a regiment of crooks… I see, doctor, that they are taking you for a ride. Tomorrow I want to see all those men complaining of lumbago sent back on full duty unless they are unable to stand or sent in on stretchers." When Esler did this he wrote 'Strange to say the epidemic disappeared like magic.'[183] Harrison acknowledged that, like Esler, 'some newly conscripted MOs felt uneasy about acting as 'policemen', the overriding tendency was to subsume feelings of sympathy in the interests of discipline and 'justice to all the other men'.[184] Yet, as Esler's experience proved, the diligence of the R.M.O. against malingering was vital for the morale, discipline, and combat effectiveness of the unit under his charge, as stressed through training.[185]

[180] J. H. C. French, 'My Memoirs of the Great War' manuscript, Wellcome Institute, RAMC/1938, 1, 67
[181] Macpherson, *Hygiene of War. Vol.1* 20
[182] Mark Harrison, *The Medical War* 124
[183] IWM, Esler, Typescript Memoir, 49
[184] Harrison, *The Medical War* 301
[185] RAMCORPS, *Hints for R.A.M.C. Officers*, (Edinburgh: William Bryce, 1918) 14

The duties that fell upon the R.M.O. thus were numerous, and as Colonel David Rorie wrote, in order to better allow them to act in their medical capacity, much of the responsibility for sanitation was intended to be transferred to the created Sanitary Sections.[186] Originally these were attached to Field Ambulance Units however it was soon recognised that with the frequent rotation, their impact could only be minimal, and so all Sanitary Units were thus allocated to a sector of the front. The exception being those attached to cavalry units as the requirements of the horses altered procedure.[187] Although the problems of sanitation in the trenches were extreme, as has been discussed, they were no less important further back in the lines. The main difference was that without the difficulties of operating within the range of enemy activity, it was with far more success that the problems of sanitation were confronted, although that is not to suggest that this was an easy job; it was often a persistent fight. Ensor wrote on the matter of divisional sanitary inspections, highlighting the importance of the unit: He stated that the 'inspecting N.C.O.s should at the time of inspection call attention to any defects in the sanitation, and give advice as to how they can be remedied.' Once again, all that can be given is 'advice', and Ensor made note that if the report was unfavourable it was the duty of the O.C. sanitary section to 'personally satisfy himself that it is well founded before reporting the unit to the A.D.M.S.'.[188] This implies two things: one, that there were many R.A.M.C. officers who were anxious not to cause further friction between the medical corps and the combatant corps, and secondly, that sanitation still did not have unanimous agreement of its importance within the military environment where surviving a battle was of more immediate concern. One reason for this is likely to have been the success with which the sanitary measures were implemented; no few studies demonstrate that disease prevention and sanitation was the best it had ever been on the Western Front during the Great War. Anthony Bowlby noted statistics that demonstrate that a combination of vaccination, and attentiveness to sanitation led to a drastic decrease of disease.[189] Macpherson wrote that one difficulty in measuring the success of the sanitary measures utilised throughout the war was that, until there was an instance of negligence, the impact could not be proven quantifiably.[190] Thus it is unsurprising that officers concerned with survival from shells and shrapnel would feel that cleanliness was largely futile until the effects of its neglect were seen. The presence of the Sanitary Sections, Harrison wrote, could also lessen the

[186] David Rorie, *A Medico's Luck in the War*, (Eastbourne: Antony Rowe Limited; 1929) **no**
[187] Macpherson, *Hygiene of the War, Vol.1* 8
[188] Ensor, 'The R.A.M.C. Services of a Division on Active Service' 256
[189] Sir Anthony Bowlby, 'Photocopies of the First World War diary, 1 May 1918-3 April 1919' RAMC/2008/7/3/3 Army Medical Services Museum, Keogh Barracks (1918-1919) 12 August 1918
[190] Macpherson, *Hygiene of the War, Vol.1* 3

motivation of the R.M.O. in sanitary measures as he felt it was no longer his responsibility however without his influence, much attentiveness to personal sanitation could be lost.[191]

Even within an environment controlled by the R.A.M.C., sanitation was not 'easy', despite the relative success with which it was implemented across the Western Front. Surgical specialist Harold Upcott spoke of the persistent mud, worsened by the weather, that constantly made the field hospital in which he worked filthy, and seeped into every item of clothing. He spoke of the pains taken to ensure drainage on the paths so that feet would be kept dry.[192] This was established in training manuals to have been vital regarding the prevention of trench foot, important even behind the lines.[193] As well as the necessity to control the environment in which the soldiers were living, there was also a need to control the cleanliness of the soldiers themselves, and this was only possible with any effect when a unit was out of the front lines; trench fever, commonly cited as P.U.O., in 1918 found to be caused by the trench lice, was a constant source of wastage of the fighting man.[194] When in the firing line there was little that could be done, save from passing a flame along the seams to kill the lice, although this was never a solution. Field Service Pocket Book (1914) states that underclothing should be washed at least once a week, a suggestion that likely makes the 21st century mind shudder, yet anything much more frequent than the suggested was often difficult for multiple reasons.[195] Of course, the onus was not purely on the officers of the R.A.M.C.; combatant officers were just as important in encouraging personal hygiene. Lieutenant E. J. Willmer serving with the King's Liverpool Regiment stated that 'It was a continual battle to keep some degree of cleanliness and I always did my best to shave every day, brush my teeth and rub my feet and I encouraged my platoon to do these things.'[196] However it was the Sanitary Sections that established the bathing facilities for the men, and were responsible for the 'Sterilization of infected clothing and the [de]lousing of verminous men, and the organization and supervision of such bathing arrangements as it may be possible to establish for the men.'[197] Macpherson discussed the importance of washing regulations in ensuring maintained health of the units.[198] This is something that was also stated by many M.O.s in their diaries and memoirs, and no doubt a belief readily shared by many of the men.[199] The French invention, the Douche-Bath was an innovative solution to

[191] Harrison, *The Medical War* 126
[192] Upcott, 'Ts Diary' 27 August 1916
[193] *Royal Army Medical Corps Training, 1911* (War Office, London: His Majesty's Stationary Office; 1911) 75
[194] Macpherson, *Hygiene of the War Vol.2* 358-72
[195] General Staff, War Office, *Field Service Pocket Book, 1914* (London: HMSO, reprinted 1916) 52
[196] 2nd Lieutenant E. J. Willmer, typescript of recollections, cited in Harrison, *The Medical War* 132
[197] Ensor, 'The R.A.M.C. Services of a Division on Active Service' 257
[198] Macpherson, *Hygiene of the War Vol.2* 339
[199] Wellcome Library RAMC/2010 Walter Bentham 'Diary of Walter Bentham. No 8 Company R.A.M.C.' 24 December 1915

provide showers almost as far forward as it was safe to shower – if a soldier feared dying while on the latrine, the thought of dying while washing was likely to be almost as unappealing.[200] Walter Bentham speaks of being in charge of the baths, and details the system in which the men would wash, and simultaneously their clothes would be steamed and cleaned for lice, repaired if necessary, and then re-issued.[201] Returning briefly to the discussion of water availability, it was vital that there was a sufficient amount to allow for baths and the cleaning of clothes, as well as cooking and drinking, something that Captain Harland mentioned to have been a great difficulty however in co-operation with the Engineers, he speaks of efforts to increase water efficiency until a local source was found.[202] It was also through the Sanitary Sections that the 'sanitary conveniences' were established.[203] The Diary of No 6 Sanitary Section constantly refers to the construction, maintenance, and improvements of latrines, their seats, and the incinerators responsible for the correct disposal of refuse.[204] Ultimately the work of the sanitary sections can be seen to have been vital for the welfare and continued health of the fighting men, although as Macpherson acknowledged, it is almost impossible to quantitatively assess the impact of such units.

Co-operation with the combatant officers.

Throughout this thesis one of the frequent comments has been regarding the collaboration between the military and the medical forces. Macpherson stated that 'Without this collaboration it would not have been possible to give effect to the sanitary measures which were considered essential for the maintenance of the health of the troops.'[205] As has been frequently highlighted through this dissertation, the effectiveness of this was highly influenced by the personalities of both the combatant and medical officers. The earlier debate of command of the F.A. largely covered the issues of communication, although it should be noted that only the medical side of this issue has been recorded here. There seems to be little comment on the medical practice through diaries and memoirs of the combatant men – other than personal experience of wounding and the chain of evacuation. This in itself is telling of the little regard given for the actions of the R.A.M.C. in matters other than wound treatment and evacuation; this history of sanitation and disease prevention is – to many – neither heroic nor thrilling and thus has little place in popular conceptions of warfare. Many published divisional and regimental histories seldom mention medical aspects: the History of the Lincolnshire Regiment, for instance, only mentioned men of the R.A.M.C. when they became

[200] Macpherson, *Hygiene of the War Vol.2* 340 (See Appendix VI)
[201] Bentham 'Diary of Walter Bentham' March 1916
[202] Harland, 'Typescript memoirs of Captain W. C. F. Harland', 5
[203] Ensor, 'The R.A.M.C. Services of a Division on Active Service' 257
[204] 'War Diary of No 6 Sanitary Section' 15 September 1916
[205] Macpherson, *Hygiene of the War Vol.1* Viii

casualties themselves.[206] The omission of the work of the medical services could be interpreted as, even following the war, a misunderstanding of the importance of the 'background' workings of keeping the fighting men fit and healthy, something that undoubtedly added to the friction of the military-medical co-operation. During the discussion already mentioned in Part I, Captain Franklin raised the question of communications, and stated that in his personal experience he 'found the G.O.C.'s brigades most helpful, and keen to facilitate the work of a field ambulance during operations'.[207] There were others, such as Child however, whose diary reveals that he was commonly left with no orders, from either the brigade commander or the A.D.M.S., and so was simply sat not knowing what to do.[208] It certainly seems however, that this was not the case in the majority of units, and as Child expresses, was likely to be due to the high casualty rate of combatant officers of his unit, and thus it was inexperience that led to his situation.[209] On the matter of inexperience, it was not purely liaison between the medical and military units to whom the medical were attached; 47th Divisional History states that experience shared from the regular units was vital regarding correct sanitation procedure at the front lines:

> 'The men considered themselves fortunate, too, in their trench training in the front line, for they found in the 2nd Division… some of the best battalions in the Service, including the 4th Guards Brigade, with whom many of our battalions double-manned the firing-line, and learnt from their regular comrades to keep their trenches clean, repaired, and strong, and all the various duties of a battalion in the firing-line.'[210]

Furthermore the movement of officers would facilitate shared experience: Harold Upcott wrote on the replacement of the O.C. of his C.C.S.: 'Very annoying as we had all got to like our O.C. though possibly it will be better to have an O.C. with a knowledge of how to run a C.C.S.'[211] It was vital that a commander had the ability to understand the requirements and respond accordingly however in order to do this, it was necessary that he was able to acquire vital information of the military situation.

Captain Cyril Helm's response to the debate in the *Journal of the Royal Army Medical Corps* highlights the necessity of medical-military liaison in achieving co-operation; as a field ambulance commander himself he believed strongly that the unit should not be removed from the jurisdiction

[206] Major-General C. R. Simpson, *The History of the Lincolnshire* Regiment (London: The Medici Society, Ltd., 1931)
[207] Captain C. L. Franklin, 'Correspondence: Tactical Handling of Field Ambulances' *Journal of the Royal Army Medical Corps* Vol.36 No.2 (1921) 157
[208] IWM Docs. 2276 J. F. C. Child 'Diary of Colonel J. F. Child', 2 July 1916
[209] Child, 'Diary of Colonel J. F. Child' 2 July 1916
[210] Maude (Ed.) *The 47th (London) Division* 16-17
[211] Upcott, 'Ts Diary' 25 November 1915

of the A.D.M.S., and that the complaints of uninformed medical services could be corrected if 'the relations of the F.A. to the brigade, when in action, [were] improved.'[212] Here, the importance of liaison between the medical and military units is acknowledged. To strengthen, and ensure this liaison, Mackenzie wrote that 'A field ambulance should closely identify itself with its own brigade in work as well as in sport, and its officers should make a point of knowing personally, not only the brigade staff but also the various battalions' staffs'.[213] In the initial article, Reed stated that 'deficient and defective liaison was at the bottom of most of the 'incidents'', something Franklin acknowledged to be an 'important truth'.[214] Quite simply, it was impossible for a medical unit to operate without knowledge of the military situation, both in the micro aspects of daily life on how best to advise a unit regarding health and sanitation, as well as in the macro organisation of the casualty movement and evacuation so as not to delay forward movement with the rearward passage of wounded. Ensor wrote that the M.O. had to have an awareness of what was possible and practical under the present military situation.[215] The A.D.M.S., Helm wrote, 'was frequently not informed by the division of the details of any operation as early as the brigade and also the information he did receive was not so complete as it should have been.'[216] Thus, Reed's comment that the O.C. of a field ambulance must depend on the military authorities for his information, but importantly he stated that 'the latter should be accustomed and ready to give him all the assistance and information he requires'.[217] This indicates that once again it was the diligence of the individuals and willing co-operation that would tell of the ability of the F.A. to support the combatant unit during the war. The argument posed by Franklin strengthens this as he maintained that brigade staff 'could not be expected to look upon operations from the same point of view as a medical officer' and consequently if relying solely upon them, 'the medical services, in the long run, would suffer.'[218] Ultimately, it must be remembered that the fundamental military and medical intents were entirely different however due to the necessity of warfare the medical were forced to bend to the will of the military requirements: for the medical professionals it was their vocation to provide succour to the sick and wounded, consequently removing them from the battlefields however the military requirement for all able-bodied men demanded the medical service to be judged by its ability to reduce wastage and to hasten the return to duty.

[212] C. Helm, 'Correspondence: Tactical Handling of Field Ambulances in Mobile Warfare' *Journal of the Royal Army Medical Corps* Vol. 36 No.6 (1921) 470
[213] Major D. F. Mackenzie, 'Reviews: Tactical Handling of Field Ambulances' *Journal of the Royal Army Medical Corps* Vol.36 No.4 (1921) 319
[214] Reed, 'Tactical Handling of Field Ambulances' *JRAMC* (1920) 301; and Franklin 'Tactical Handling of Field Ambulances' *JRAMC* (1921) 158
[215] Ensor, 'The R.A.M.C. Services of a Division on Active Service' 256
[216] Helm, 'Tactical Handling of Field Ambulances' *JRAMC* (1921) 470
[217] Reed, 'Tactical Handling of Field Ambulances' *JRAMC* (1920) 303
[218] Franklin, 'Tactical Handling of Field Ambulances' *JRAMC* (1921) 157

Summary.

The importance of the R.A.M.C. can thus be seen regarding sanitation and disease prevention. This has, by necessity, been a brief discussion of the measures taken to lessen the dangers of the soldiers' environment. It has been shown that the knowledge and ability were present, and thus outside of the reach of enemy activity, where sanitation lapsed it was due to neglect. While operating in the firing line there were conditions uncontrollable by even the most diligent R.M.O. Initial actions once out of the firing-line could largely correct any potential problems: This was demonstrated by Chavasse's actions in preparing billets for his unit's return from the firing line after a long spell in deep mud, without the issue of gum boots, and thus cases of trench foot would have been likely. His ability to provide foot massages and initial treatments for the men as soon as they were relieved, he demonstrated, significantly reduced wastage in his unit via trench foot.[219] Thus it can be stated that the greatest opponent to the health of the fighting army, was the actions of the soldiers themselves; their personal hygiene, Macpherson wrote, was the basis on which all sanitary measures relied. The latrines constructed and maintained by the Sanitary Sections and the efforts of the Royal Engineers were of no use if the men did not use them for fear of being shelled, or if they were not filled in and the refuse disposed of correctly.[220] Furthermore the efforts taken to ensure water was drinkable became futile if it could not reach the men and they were forced to resort to drinking from puddles.[221] Enemy activity, Dominiek Dendooven showed, often created difficulties, yet behind the lines it was proved to be possible to keep billets and campsites free from contamination.[222]

[219] Chavasse, letter to father 16 December 1915
[220] 'War Diary of No 6 Sanitary Section' August 1916
[221] Harrison, *The Medical War* 131
[222] Dendooven, 'Trench Crap' 186

Conclusion.

The dual focus of this dissertation was intended to demonstrate the two principal roles of the R.A.M.C. on the Western Front during the Great War. The obvious role of treating the casualties from the battlefields, and the subtle role of reducing wastage through sanitary measures and invoking good personal hygiene among the troops. Although this thesis has separated the roles for ease of discussion, they were largely the imperative of the same forward-positioned medical officers, and the twofold focus of the R.A.M.C. was concurrent. During service in the firing lines, Macpherson stated that hygiene and sanitation were almost impossible to maintain to any effect however Dominiek Dendooven has shown that there were still measures necessary in order to reduce the fouling of the ground, and that often these were a matter of personal discipline such as following Field Service Regulations regarding the placement and use of latrines.[223] Weather conditions undoubtedly confounded efforts however a diligent R.M.O. was still able to improve matters as Chavasse's letters proved in his treatment of the men's feet following a long spell in waterlogged trenches.[224] Of course enemy activity was another variable over which the R.A.M.C. had no control, both through the unpredictability of the battlefield situation, but also through diverting medical focus from matters of sanitation and hygiene to the treatment of the wounded, which by necessity had to take priority. It was instrumental for the progression of any battle that forward movements of both troops and supplies were not delayed by the clogging of roads by casualties and thus the speed and ease with which evacuation occurred was a military necessity, and yet it was one that relied largely on improvisation. The Rogers stretcher that was provided in replacement for the impractical issue stretcher was still largely unusable on the front line as it was 'a clumsy thing' and innovation thus continued.[225] In order for improvisation to be practical however, there needed to be a strong level of communication and co-operation between the military and medical units of the division: Colonel Ensor had a rather negative view of the co-operation between the military and the medical corps, as he stated that it had to fall on the diligence of the medical officers to seek out the required information.[226] It has been discussed that many, such as Captain Franklin, believed that this needed correcting however for the most part the communication remained strained throughout the war.[227] It thus largely lay upon the personalities of individual M.O.s to ensure that the medical

[223] Macpherson, *Hygiene of the War Vol.1* xii; and Dendooven, 'Trench Crap' 186; and General Staff, *Field Service Regulations 1912*
[224] Chavasse, letter to father 16 December 1915
[225] Colt, 'Scrapbook re the development of the joined-pole trench stretcher' Ellis Milne, letter to Colt 23 November 1915
[226] Ensor, 'The R.A.M.C. Services of a Division on Active Service' 248
[227] Franklin, 'Tactical Handling of Field Ambulances' *JRAMC* (1921) 157-8

services were able to support the infantry battalions effectively, as has been demonstrated through the accounts of many M.O.s such as Upcott and Esler.[228]

Both parts of this dissertation have demonstrated that the R.M.O. in particular was vital to the entire line of evacuation. Despite the concerns of some, such as the arguments posited by Sir Thomas Garrod that the R.M.O. was a misuse of medical manpower and that a trained professional would be of greater use elsewhere in the line, as the foremost point of medical care the R.M.O. was invaluable.[229] As Ensor wrote: 'The duties of the R.A.M.C. officer in medical charge of a battalion in action are very responsible ones… Upon his is laid the duty of clearing the line of wounded, and of their temporary care and treatment at the regimental aid post pending their evacuation to the advanced dressing station.'[230] His actions, even before the moment of wounding, were imperative; Part II has discussed his importance in maintaining the health of the troops, Esler's account having shown that he felt entirely responsible for the regiment.[231] It was discussed in Part I how the R.M.O.'s diligence in training the regimental stretcher-bearers under his charge was also vital in ensuring that battle casualties would be provided the best treatment possible. Philip Gosse maintained that a 'first-class M.O.' was often found in a first class regiment, although one has to speculate as to the influence of a first class regiment upon a new M.O. and it is likely that the two were mutually beneficial: a well-disciplined body of men would reduce the workload of the R.M.O., and a devoted company commander would ensure the sanitary advice was adhered to.[232] Simultaneously, a meticulous R.M.O. who, as Esler demonstrated, was able to spot early signs of sickness and injury and treat the men before any serious issues arose, would lessen wastage through avoidable means.[233] It was also vital for the morale of the regiment that the R.M.O. was diligent against malingering.[234] Although it has not been possible to quantify this within the confines of this thesis and the sources available, it would be an area of further study to examine the data of recoveries from two regiments where the attitudes of the R.M.O.s were opposing. The mere fact that the aforementioned belief has been perpetuated through the narratives of both the soldiers and the medical professionals however, demonstrates the value that the R.M.O. had upon the morale of a unit. Men such as Chavasse were loved and respected by their units, and their heroism and dedication certainly impacted the combat effectiveness of the regiments. The respect of the R.M.O. was not only important during battle, but also through the encouraging of self-discipline that

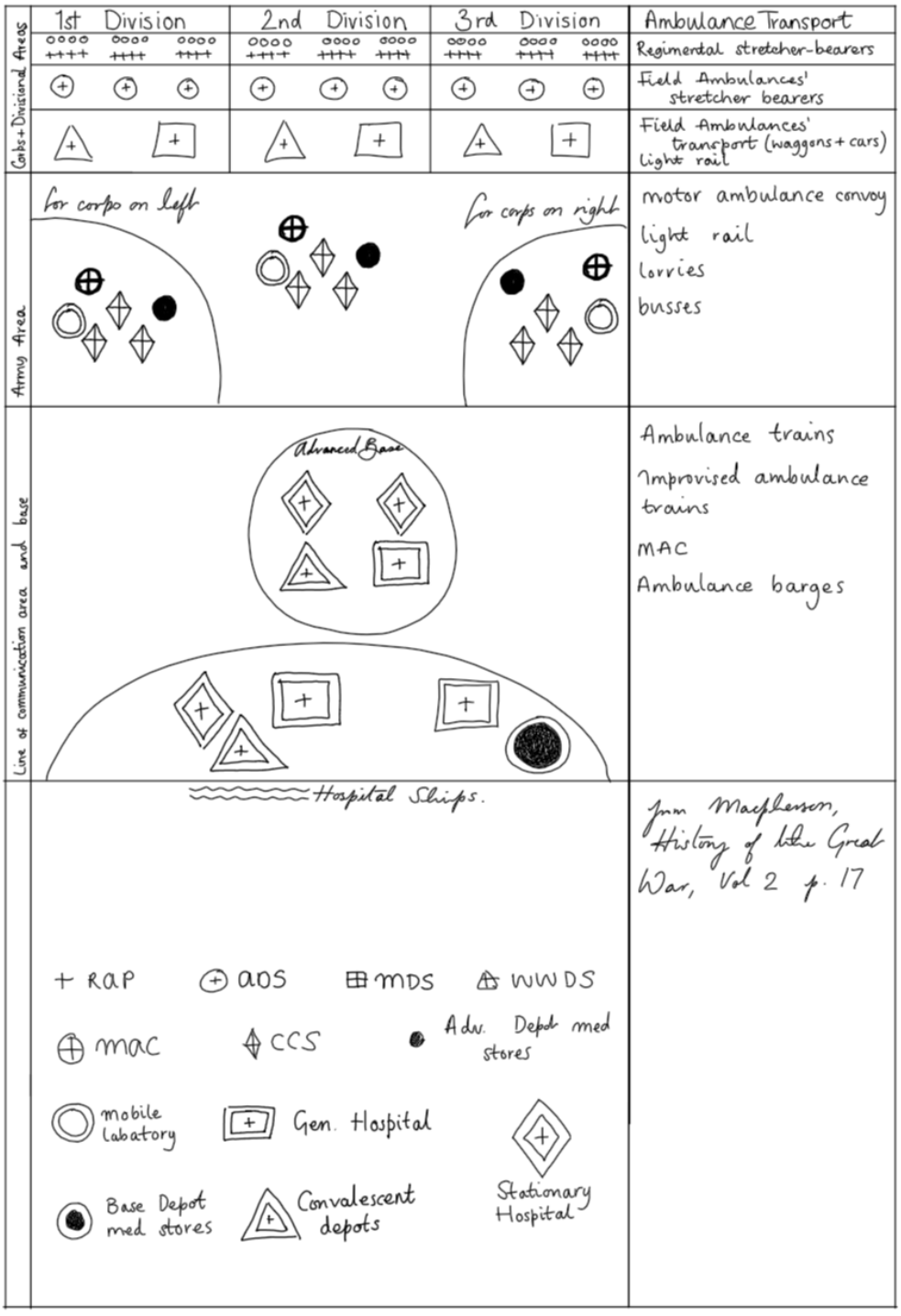
[228] Upcott, 'Ts Diary' 4 September 1916; and IWM, Esler, Typescript Memoir
[229] Papers of Sir Garrod, Extract from Hansard No.112 8th August 1917. 3526
[230] Ensor, 'The R.A.M.C. Services of a Division on Active Service' 253
[231] IWM, Esler, Typescript Memoir, 73
[232] Phillip Gosse, *Memoirs of a Camp-Follower* (London: Longmans, Green and Co., 1934) xiv
[233] IWM, Esler, Typescript Memoir, 51
[234] RAMCORPS, *Hints for R.A.M.C. Officers*, (Edinburgh: William Bryce; 1918) 14

was fundamental to the ability of a military section to maintain its health. The work of the Sanitary Sections was vital in this, as was the dedication of the combatant officers in enforcing the advice of the Sanitary Sections and the M.O.s. Ultimately, the theme that has been most prominent throughout this dissertation is that of the necessity for there to be a military-medical co-operation for the R.A.M.C. to be able to act to the best interests of the army, without sacrificing the quality of care of the patients beyond that which was unavoidable under the circumstances of warfare.

Appendices

Appendix I.

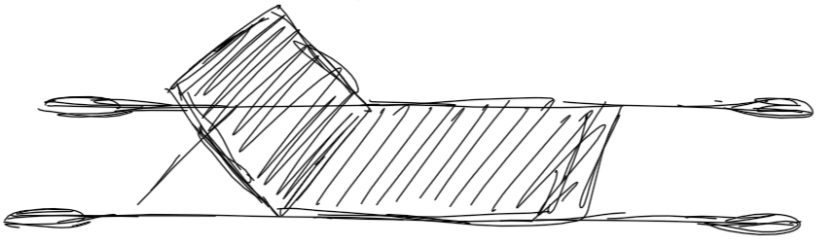
'The Organisation of the R.A.M.C. in France' from W. G. Macpherson, *History of the Great War, Medical Services, Hygiene of the War. Vol.2* (London: HSMO, 1923), 17 *Redrawn by Author*



Appendix II.

IWM Doc.17596 Private Papers of Noel Chavasse. Letter to Father, 25 July 1915 *Redrawn by Author*

Stretcher my men have designed + made for carrying men along communication trenches which wind a lot so that an ordinary stretcher cannot get along.



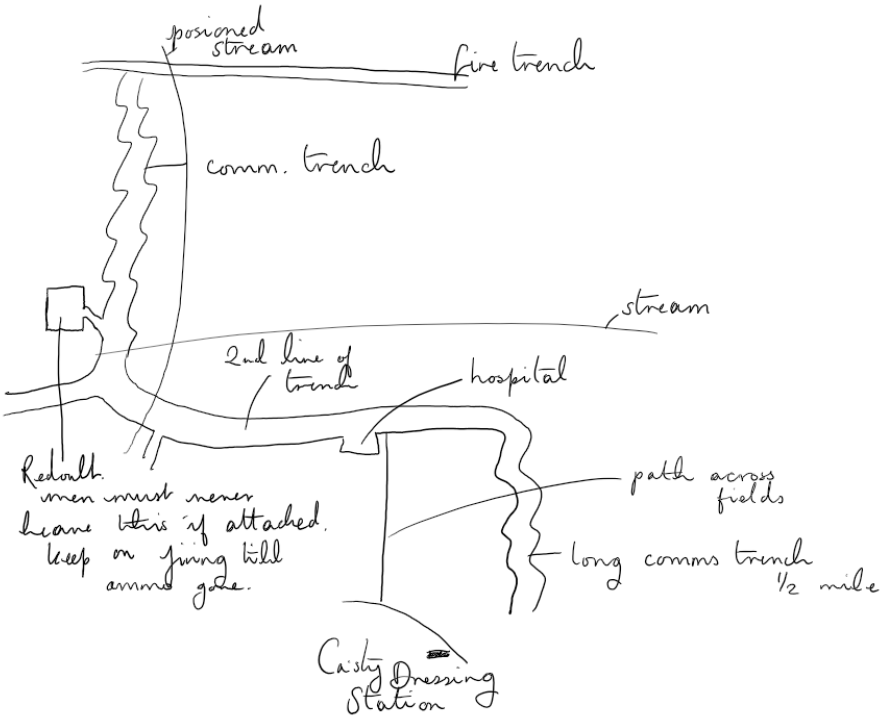
Sits up

It is very light and it is thought well of.

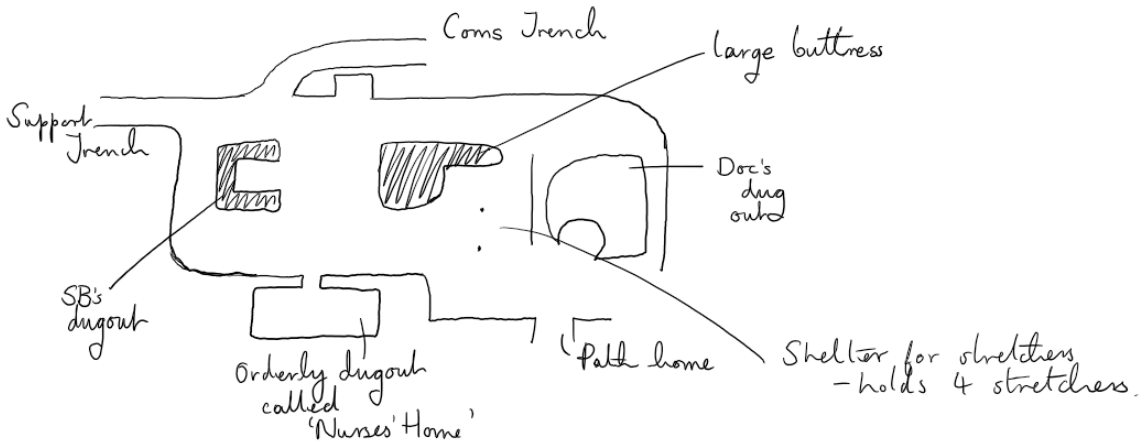
Appendix III.

IWM Doc.17596 Private Papers of Noel Chavasse. Letter to Father, 25 July 1915 *Redrawn as accurately as possible by Author*

The location of the ‘hospital’



The ‘Chavasse Memorial Hospital’



Appendix IV.

IWM Doc.17596 Private Papers of Noel Chavasse. Letter from Bernard Chavasse to his parents. (August 1917)

For [Noel's] funeral 'The whole battalion paraded and all the medical officers of the hospital. The mere presence of the Batt was unprecedented, but when we know that they were on their way out of the line after 4 days of fighting and terrible weather, that probably everyman was smothered in mud from head to foot, and ready to drop from sheer exhaustion, one wonders any such tribute was paid to any man before.'

From the Account of Edith Chavasse regarding her son's death

'On July 31st he was hit on the head early in the attack, the skull being touched. The wound was bound up, and he was strongly urged to go down at once to the rear. He refused and insisted on returning to his battalion that he might minister to those who needed him. He could not remain away from his men … the thought of the men of his battalion, whom he knew and loved lying out in the open bleeding to death was more than he could stand. … He still worked on – fetching in the wounded and ministering to them during the following day and night. On the night of August 2nd he went down into the dug-out … with his orderlies and patients to snatch a little sleep during a pause in the arrival of casualties. While they were resting, about 3 a.m. a shell came in through the window, killing and wounded every one of them. … [He] managed, though severely wounded, to struggle out to obtain assistance … He was taken down to Casualty Clearing Station. He was wounded in five or six places, but the one which mattered most was in the abdomen… All that skilful surgery and devoted nursing could do, was done, and at first he seemed to rally. But he was literally worn out, and he passed away at 2 p.m. on August 4th … He was conscious throughout … His main idea seemed to be a quiet determination to pull through, if possible.'

Appendix V.

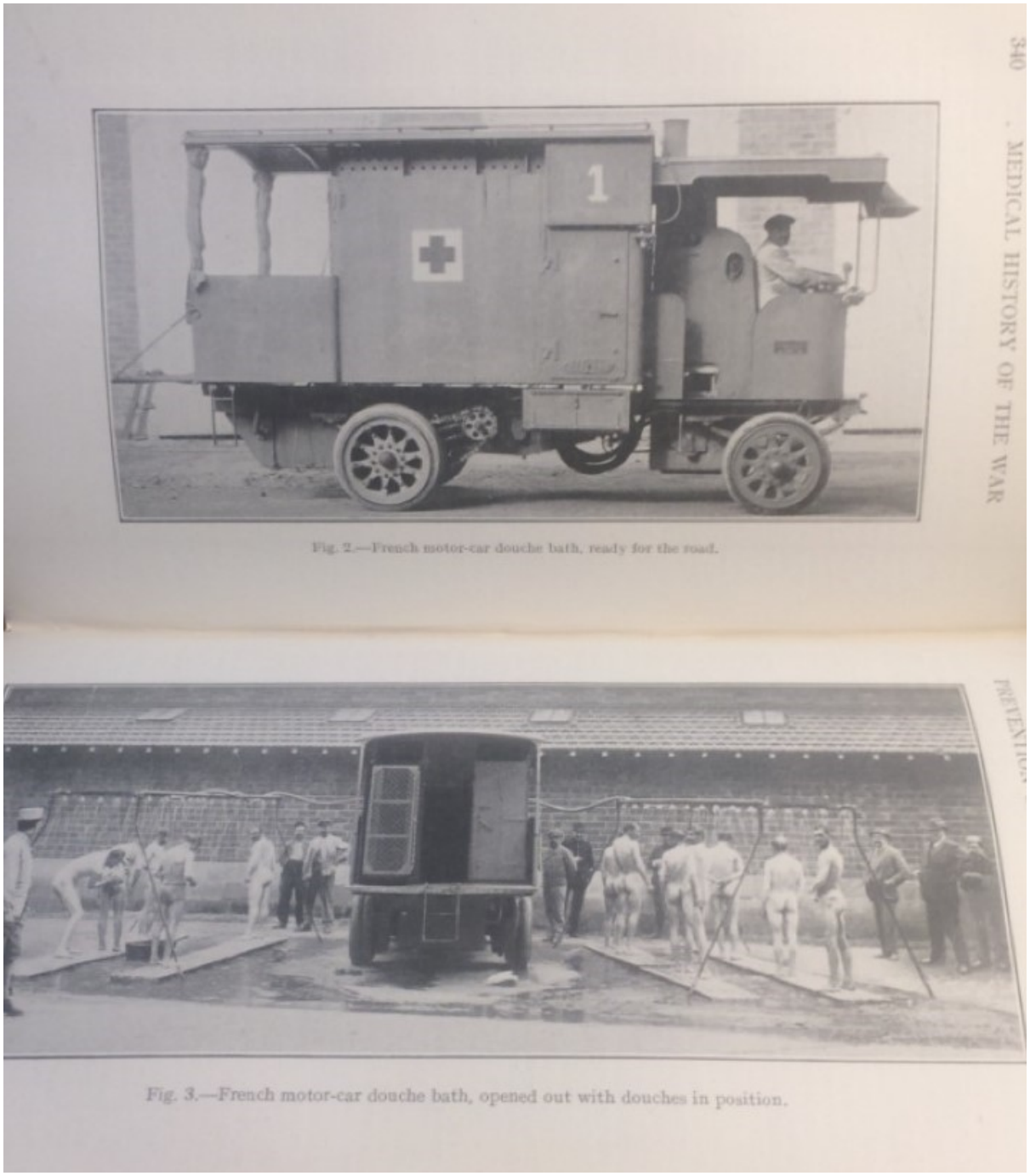
Account of the Battle of Loos in J. Ewing, *The history of the 9th (Scottish) Division* (London: John Murray, 1921) 59

Perhaps the most deplorable feature of the battle was the comparative breakdown of the medical arrangements for the evacuation of the wounded from the forwards [sic] areas. Many of them lay out not for hours but for days, and not a few shocking and pathetic sights were to be seen between Hohenzollern and Pekin Trench. This was entirely due to lack of staff. Doctors and regimental stretcher-bearers worked with the greatest heroism to bring in the wounded, but they were too few, and many of them were shot down. In a big engagement, especially in trench warfare, the staff of stretcher-bearers should be enormously increased if the wounded are to be expediently and satisfactorily evacuated. The importance of this cannot be over-estimated, because nothing so depresses a man as the fear that if injured he will be left out to die. The memory of such scenes as were too common at Loos lingered with the survivors, and remained after other impressions had become faint.

Appendix VI.

'The Douche-bath' in W. G. Macpherson, *History of the Great War, Medical Services, Hygiene of the War. Vol.2* (London: HSMO, 1923) 340-341

(Photo taken by Author)



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